INVESTING IN THE HIGH YIELD MUNICIPAL MARKET

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INVESTING IN THE HIGH YIELD MUNICIPAL MARKET

How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income

Triet Nguyen

BLOOMBERG PRESS
An Imprint of
WILEY

Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
Published simultaneously in Canada.

Library of Congress Cataloging-in-Publication Data:

Nguyen, Triet, 1956-
Investing in the high yield municipal market [electronic resource] : how to profit from the current municipal credit crisis and earn attractive tax-exempt interest income / Triet Nguyen.
1 online resource. — (Bloomberg financial series)
Includes index.
ISBN 978-1-118-17547-7 (cloth); ISBN 978-1-118-22699-5 (ebk);
ISBN 978-1-118-24011-3 (ebk); ISBN 978-1-118-26475-1 (ebk)
1. Municipal bonds—United States. 2. Government securities—United States. I. Title.
HG4952
332.63′2330973—dc23

2012008442

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

To my wife Phuong-Anh and my children Kevin, Jonathan, and Olivia for their unwavering support and good humor.

To all the unsung high yield warriors I've had the privilege to work with over the past 30 years. Ours is not a large community, but we sure have had a ball, haven't we?

Contents

Foreword

Municipal bonds have generated considerable attention in the securities marketplace in recent years with heightened worries about potential default and bankruptcy risk. Much of that concern was directed to economically stressed governmental bodies that have an overhang of pension and benefit liabilities. The verdict is still out as to whether governmental distressed situations turn into occasional or widespread defaults or bankruptcies. In either case, the potential for a squeeze on preserving operations at the expense of covering liabilities in a slow-growing economy will tempt more discussion about worst-case outcomes—pushing up yields on the relatively more troubled municipal bond credits. If that happens, the universe of higher-yielding bonds is likely to expand, even if the number of actual cases of default or bankruptcy grows only modestly. For much of the past three decades, this higher-risk, higher-yield segment of the municipal bond market has encompassed a narrower list of credits, comprised largely of nonrated and mostly nongovernmental-type securities.

While the spotlight of this book is on the smaller, weaker tier of municipal bonds, it should be noted that most municipal bonds are still considered sound credits. Their historically low default rate has been largely attributed to the strength of their security provisions tied to taxes or user fees derived from municipal enterprises, from water and sewer authorities to transit agencies. Risk-averse investors have been willing to accept lower interest rates in exchange for the tax-exemption and capital preservation this class of security generally offers. Given the possibility of an increasing number of "fallen angel" investment opportunities or the temptation to "stretch for yield" in a low-interest-rate environment, it behooves investors to better understand the high yield municipal market.

Many books focus on the subject of municipal bonds; however, this is the only book I am aware of that deals exclusively with unique elements of the often arcane high-yield tax-free market. Triet Nguyen, whose career in municipal bonds spans over 30 years, makes a valuable contribution to the

municipal marketplace with this book, shedding much-needed light on this lesser understood segment of the tax-exempt bond market.

Since his early days as a credit analyst at a major Chicago bank in the early 1980s, I have always known Nguyen to be fascinated by and attracted to discovering municipal "diamonds in the rough"; and the world of high yield municipal bonds has been his favorite place to mine. My first association with Nguyen came in 1980 when he was enticed to the municipal credit field after working on the Municipal Fiscal Strain Project in conjunction with Professor Terry N. Clark at the University of Chicago. From those early days as a municipal analyst at a major bank's trust department, Nguyen has progressively deepened his experience in municipal bonds and, in particular, municipal high yield bonds. In the 1980s, he served as one of the mutual fund industry's first municipal bond high yield portfolio managers at two major Boston institutions and later at several more entrepreneurial organizations dealing with municipal credit, including a stint as manager of a municipal hedge fund.

Drawing upon his own professional experience in institutional credit analysis and portfolio management, as well as the perspectives he collected from a number of other well-regarded experts in the field, Nguyen provides a compilation of materials covering the essential issues of municipal high-yield investing.

The world of municipal high yield covers an eclectic territory of creative financing, security types, credit issues, and legal ramifications. The diversity of factors involved in this evolving market makes troubled situations often more uncertain and complicated. For example, as this book is being published, important issues and interpretations related to Chapter 9 bankruptcies for governmental credits have moved to front and center stage due to recent filings for Jefferson County, Alabama, and Harrisburg, Pennsylvania. With so few historical examples of municipal bankruptcies applying to cities, counties, or school districts, there is little case law experience to use as precedent. The recent bankruptcy cases are bound to test presumed, controversial, and sometimes opposing viewpoints and interpretations of Chapter 9 rules as to the protections afforded bondholders. "Private activity" municipal obligations, which have seen more active filings, do operate under the more widely used Chapter 11 bankruptcy rules.

High yield municipal bonds can offer higher returns, as well as greater opportunities for diversification within an investment portfolio. However, like most investments that offer potentially higher rewards, they also carry an increased level of risk. Becoming familiar with the terrain can help investors

avoid being ambushed by surprises along the way. Professionals and investors alike will find this insightful, educational book to be a valuable tool in navigating the high yield tax-exempt municipal bond market.

RICHARD A. CICCARONE
President and CEO
Merritt Research Services, LLC

Preface

According to a recent Pew Center study, the 65 and older population cohort in the United States will grow by 33.61 percent from 2010 to 2020, compared to a rise of only 13.06 percent in the preceding decade. Furthermore, 70 million baby boomers are poised to enter retirement and live off unearned income. From an investment standpoint, this well-documented aging of the American population implies an ever-increasing need for stable fixed income and a gradual shift away from the potential volatility of the equity markets. Yet, securing an adequate level of interest income has never been a more daunting task than in the current market environment.

In the aftermath of the greatest financial crisis since the Great Depression and the ensuing economic slowdown, the Federal Reserve Bank has embarked on an unprecedented monetary-easing strategy intent on rekindling the economy and encouraging risk-taking. By keeping short-term rates artificially low for "an extended period of time" (in its own words), the Fed has pushed interest rates down to record low levels: At this writing, the yield on 10-year Treasury notes is hovering around 2.00 percent (below the historical low of 2.48 percent reached in December 2008, at the very depth of the financial crisis).

The search for adequate income has also become more challenging in the municipal market, long a refuge for higher-income-bracket investors seeking a combination of perceived "safety" and attractive tax-exempt income. The same economic problems that brought about the secular decline in rates have also undermined some of the fundamental tenets of modern municipal finance.

Traditionally, the municipal market has been bifurcated into two very distinct segments: (1) a "high-grade" segment, prized for its perceived "safety" by investors concerned with preservation of capital, and (2) a "high yield" segment (really a catch-all category for any muni instrument whose performance is primarily driven by credit), which appeals to investors willing to take on greater credit risk in exchange for higher income and potential capital appreciation.

For close to three decades, the bond insurers helped "commoditize" the high-grade market by lending their own credit rating to more than 60 percent of the estimated 55,000 individual issuers. This allowed municipals to be sold and marketed for their relative safety and without regard to credit exposure. High-grade tax-exempt bonds became the ultimate capital preservation sector. This homogenizing trend unfortunately came to a screeching halt in the aftermath of the financial meltdown of 2008. With the demise of the bond insurance industry, municipal creditworthiness has been thrust back to the forefront, and the timing could not have been worse: The very same economic slowdown that brought rates down has also created a sea of budgetary red ink across the nation's state capitals and town halls, in the process shining a most unwelcome light onto their structural deficits and poorly funded retirement obligations. With the solvency of some major state and local issuers in question, at least in the eye of the financial media, the distinction between high grade and high yield is starting to blur.

Ironically, credit risk is something that the "high yield" municipal sector has, by definition, always dealt with. In recent months, with Eurozone problems threatening to become a drag on the world economy, lower-grade credit spreads have widened significantly to the most attractive levels in years. Yet, the astute investor who would like to investigate this opportunity would be hard-pressed to find accurate and, perhaps more importantly, objective information on the subject. Regrettably, much of what is available out there amounts to nothing more than self-serving marketing literature from either the fund industry or the brokerage industry.

This first ever (and long overdue, I am told) guide to the high yield municipal bond market is an attempt to lift the veil of mystery from this arcane industry and shed some light into its inner workings. It is meant to fill the gap between the superficial introductory guides for retail investors and the overly complex reference handbooks on municipal bonds (themselves a rather scarce commodity when compared to the prolific literature on most other financial products). Throughout, the accent will be on explaining all investment ideas and concepts in plain English, yet without "dumbing down" the conversation and glossing over any significant nuances. As a unique feature throughout the book, the reader will benefit from insights into not only the credit aspects, but also the trading and liquidity characteristics of the various high yield sectors. Fixed-income theoretical purity will be forsaken in favor of more practical rules of thumb. Although we will cover some of the basics, readers with a solid understanding of how municipal bonds work would stand to gain the most from our discussions.

And now, I'd like to say a word on the book's structure. Having had the privilege to witness the beginning of the modern high yield institutional market some 30 years ago, I will first attempt to put the sector in the proper historical context. We will then assess the historical return profile of the high yield tax-exempt asset class. Along the way, a conceptual approach to high yield portfolio management will be offered, one that we believe should take into account both the interest rate and the credit cycles. On the risk side of the equation, we will revisit the historical muni default record, including a rare look at the unrated part of the market. For the majority of investors out there, we will discuss in detail the pros and cons of investing in prepackaged high yield vehicles, from mutual funds to hedge funds to exchange traded funds, with frank and objective insider tips on how these slickly marketed products really work. For the truly committed investor who wants to do his or her own homework, a truly excellent cast of industry experts will go over the key investment considerations for several major classes of high yield tax-exempt bonds. Two in-depth case studies will be presented, both colorful illustrations of the unique challenges seen in this market. From there, we will examine current opportunities in the distressed arena, without a doubt one of the hottest topics of the day. With municipal bankruptcy in the headlines, Chapter 9 will focus on the subject of . . . Chapter 9 bankruptcy (!), including a review of bondholders' rights and remedies in workouts and related accounting issues. Last but certainly not least, we will discuss the outlook for high yield municipal investing in the post–bond insurance environment. (Note: Ongoing updates to some of the topics addressed in the book will be provided on our web site: www.highyieldmunicipals.com)

At the end of the day, this handbook represents a first step in helping serious individual investors gain a quick understanding of the risk and return characteristics of this admittedly arcane sector. Even if they ultimately decide to leave the investing to industry professionals, this book will arm them with the knowledge to select the right mutual fund for their investment needs and ask the right questions of their investment advisors. By extension, financial advisors and high-net-worth money managers should also benefit from a greater insight into the potential role of high yield municipals in a well-diversified portfolio, especially given the increased due diligence burden put upon them by recent legislation. So-called "crossover investors" who have not traditionally dabbled in municipals may use this as a good primer on how to access this esoteric asset class. Finally, even muni industry professionals may find our high yield investing framework worthwhile material for further discussion, whether or not they agree with our approach.

Now that the entire municipal market has turned into a credit play, we believe it is time to revisit the tremendous opportunities and potential pitfalls offered by this unique asset class. Does it really deserve its unspoken reputation as a demimonde of shady deals and questionable risk-taking? Or is it time we give high yield municipals their due as a potential source of attractive income and wealth creation, as opposed to mere capital preservation?

Acknowledgments

About two days into this project, I realized why no one has attempted to cover this particular area of the muni market before: This is an asset class that defies conventional treatment due to the sheer scope and diversity of the sectors that it encompasses. Much of the existing literature on the subject treats high yield municipals as just an extension of the regular tax-exempt market. Nothing could be more unfair. Just like its taxable counterpart, the high yield municipal asset class deserves recognition as a stand-alone global asset class, with its own internal dynamics, whose investment potential is made more topical by the current state and local government fiscal crisis. The challenge, clearly, is how to give it a fair and balanced treatment within the limitations of a 300-page book, and to make it comprehensive but still readable. I was fortunate that my endeavor was met with great support and interest, both from inside and outside the municipal bond community.

My first thanks go out to an outstanding group of contributors: Jon Barasch, Richard Daskin, Patrick Flanagan, Ed Krauss, Richard Larkin, Jim Lyman, Kenji Mochizuki, Keith Rochelli, Ken Rogozinski, the team at Sovereign Finance LLC (Jeff Lamb, Matt Eden, and Melissa Robertson), and Shannan Wilson.

I am also deeply grateful to the following industry professionals who went beyond the call of duty or friendship to provide valuable guidance and assistance: Scott Bradley, Cindy Brown, Daniel Carter, Andrew Chan, David Chang, Richard Ciccarone, James Colby, Peter DeGroot, Thomas Doe, James Erickson, Matt Fabian, Dana Fusaris, Daniel Garrett, Stuart Graydon Jr., Alexandra Lebenthal, Richard Lehmann, James Mitchell, Howard Manning, Mike Mezier, Bart Mosley, Gabriel Petek, Marie Pisecki, Karl Propst, Ian Rasmussen, James ("J.R.") Rieger, Andrew Sanford, Mitchell Savader, Jon Schotz, Miriam Sjoblom, Terry Smith, Jeff Tjornehoj, Brian Willinsky, and Nadine Youssef.

Last but not least, I'd like to thank Stephen Isaacs at Bloomberg Press and Bill Falloon and Meg Freeborn at John Wiley & Sons for making this project a reality.

All errors and shortcomings are, of course, mine and mine alone.

Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

CHAPTER 1

The Basics of High Yield Municipal Bonds

For most investors, the mere mention of high yield recalls the high-risk, speculative "junk bonds" of the Michael Milken era and its well-documented excesses. In the municipal arena, high yield also means higher risk, but the term encompasses a much broader class of securities with an astonishing variety of security structures and risk characteristics.

What Is a High Yield Municipal Bond?

Let's start with the traditional definition: A high yield municipal bond is a bond issued by a state or local governmental entity (including conduit entities created just for the purpose of issuing tax-exempt bonds), which is either nonrated or rated below investment grade (i.e., below BBB). The coupon income for these securities is generally tax-exempt, although it may also be taxable or subject to the alternative minimum tax (AMT) in the case of so-called private activity bonds. Because of their lower or nonexistent ratings, high yield municipals are priced with an additional yield premium to compensate investors for the perceived higher credit risk.

In some cases, the term *municipal* may actually be something of a misnomer: While traditional high-grade munis are issued to finance public-purpose projects such as schools, utilities, and the like, most high yield munis are actually issued to finance private-purpose projects. Because the tax code allows private projects access to tax-free financing to achieve such goals as economic development or pollution control, governmental entities sometimes act as merely a conduit to issue bonds on behalf of such projects.

The municipal issuers have no obligation to repay the bonds, and the private obligors are the real credits securing debt service.

Away from the private-activity bonds, other tax-exempt entities such as acute care hospitals (rated A or below), nursing homes, and retirement facilities also have access to tax-free financing, and their bonds are also included in the high yield muni universe. We should also throw into the mix the so-called "fallen angels," formerly investment-grade issues that have been downgraded or have suffered adverse credit developments and are being penalized with higher yields in the marketplace. The affordable housing sector is an exception to the rating rule: While housing bonds are often higher-rated due to various credit enhancement arrangements, they usually offer higher yields to boot, as compensation for structural (rather than credit-related) issues (with the exception of non-rated multi-family housing projects).

Last but not least, with the collapse of the bond insurers over the past two years, there is a whole new category of formerly insured bonds that now potentially belong to the high yield category, simply because they were never traded based on their own credit. At the end of the day, the broadest definition of a high yield municipal opportunity is *any issue whose investment performance is driven primarily by the underlying credit, and not as much by general moves in interest rates.*

What might the size be of this high yield municipal sector? For an estimate, one can look at the market value of bonds that are included in Barclays Capital's various municipal indexes, although such an estimate will likely be conservative due to the various rules used by Barclays to define their indexable universe. With that caveat, as of August 30, 2011, the market value of outstanding noninvestment-grade bonds included in the Barclays high yield index was $60.64 billion.[1] If you add to that number about $91.75 billion in A1/A2–rated hospital bonds, $19.60 billion in housing bonds, and $36.23 billion in industrial revenue/pollution control bonds rated A3 to Baa1, you will come up with about $211 billion in outstanding bonds that potentially fall within the purview of a high yield municipal investing strategy, not including defaulted and distressed issues. From a supply standpoint, according to Thomson Reuters,[2] a total of $11.74 billion in nonrated and below-investment-grade new issues supply was brought to market in 2010, spread over 2,173 issues. During the first half of 2011, another 676 issues came to market, totaling $7.17 billion.

Common Yield Measurements

There are several different ways to measure the yield on a municipal bond investment, or any bond, for that matter. One should always be clear about

which yield metric is being used to transact, as each metric reflects very different assumptions about the potential return on your investment. In the fixed-income sector, the most common yield measurements are: (1) current yield; (2) yield-to-worst (YTW); and, less frequently, (3) yield-to-average-life. Instead of rehashing the mathematical yield formulas (for which numerous reference works are available), let's focus instead on how you should interpret these yield calculations for everyday trading.

Current Yield

Current yield is computed by dividing the coupon rate by the dollar price of the bond. For instance, a 6.00 percent coupon bond purchased at a price of 98 ($980 per $1,000 of face value) will have a current yield of 6.12 percent (6.00/.98 = 6.12). Current yield is a rather crude measure that allows you to quickly gauge how much tax-exempt income you can buy per dollar invested. It is potentially misleading since it does not take into account the time value of your money or any other technical features of the bond that may affect the actual return (e.g., call or put provisions).

Yield-to-Worst

Yield-to-worst, as its name implies, is the most conservative yield measurement you can use. It tells you what you're likely to earn in a worst-case scenario, taking into account all the technical features of the bond. It takes into account the time value of money and is, in effect, a rate-of-return measure that incorporates both the coupon and the dollar price on the bonds. Yield-to-worst is defined as the lower of two measurements: (1) the yield-to-call and (2) the yield-to-maturity.

Yield-to-call is the most conservative yield calculation for bonds that are subject to early redemption (or "call") and are trading at a premium to face value (the higher the premium, the higher the likelihood that the bonds will be called early). Most municipal bonds have early call provisions (usually exercisable within the first five to 10 years from the date of issuance), which allow the issuer to redeem the bonds ahead of their stated maturity date and refinance into a lower rate environment. As discussed below, bond callability gives the issuer financing flexibility but creates potential reinvestment risk for bondholders. In some cases, instead of an early call provision, the issue may offer a so-called "put" option, which allows you to tender the bonds back to the issuer at par ahead of the maturity date. In this instance, the "worst case" would be the put date.

Yield-to-maturity is self-explanatory. It assumes that you will be able to earn your coupon income for the full stated term of the bonds. As such, it is most applicable to bonds trading at par or at a discount. Why? Because bonds currently trading at a discount have coupons that are lower than prevailing interest rates and, therefore, are unlikely to be called or prepaid by the issuer. Thus, they should logically be priced to maturity.

As you can see, yield-to worst will always give you the most conservative yield measurement in any interest rate environment.

Yield-to-Average-Life

Some municipal bonds, such as housing bonds, also benefit from a fixed-principal amortization feature (above and beyond the regular call provisions), called a sinking fund schedule. This allows the issuer to use excess revenues to retire a fixed amount of principal ahead of the stated maturity date. As a result, the actual projected life of the bonds will be much shorter than the nominal maturity and is usually referred to as the average life. Bonds that have sinking funds should most appropriately be evaluated based on their yield-to-average life. Instead of pricing to the "worst" date (either call date or maturity date), one should price to the projected average life.

Taxable Equivalent Yield

In case you want to compare the yield on a tax-exempt bond with other taxable securities, you can convert the tax-free yield to a taxable equivalent yield with this simple formula:

$$\text{Taxable equivalent yield} = \frac{\text{Tax-exempt yield}}{1 - \text{Federal tax bracket}}$$

Unless you know precisely what your effective tax rate is (always preferable), the current market convention is to use the top 35 percent tax bracket. Thus, a tax-exempt yield of 6.00 percent would translate into a 9.23 percent taxable equivalent yield [6.00/(1 − .35)].

The formula above assumes exemption from federal taxes only. Some municipal bonds are exempt from both federal and state income taxes (and even local income taxes in the case of New York City). Since state income taxes are deductible from federal income taxes, you cannot just add up the two tax rates. The overlapping deductibility must be eliminated. The following

formula should be used to compute your combined federal and state marginal tax rate:

$$\text{Federal tax bracket} + (1 - \text{Federal tax bracket}) \times \text{State tax bracket} = \text{Combined tax bracket}$$

For example, if the federal bracket is 35 percent and the state bracket is 5 percent, the combined bracket will be $.35 + (1 - .35) \times .05 = .35 + .0325 = .3825$, or 38.25 percent.

Then, the taxable equivalent yield formula becomes:

$$\text{Taxable equivalent yield} = \frac{\text{Tax-exempt yield}}{1 - \text{Combined tax bracket}}$$

For simplicity's sake, throughout the rest of the book, only a single federal tax bracket will be assumed whenever taxable equivalent yield is mentioned.

Key Risk Factors

Getting down to brass tacks, what are the key risks involved in a high yield tax-free investment?

Interest Rate Risk

Before all else, a high yield municipal bond is still a fixed-income instrument and, as such, is affected by changes in the general level of interest rates. Bond fundamentals dictate that as rates go up, the value of a fixed coupon bond must go down, and vice versa. Most investors tend to think of their interest rate exposure in terms of maturity, that is, how long the exposure will last. It makes sense that the longer the maturity of your bond holdings, the more exposed you are to interest rate fluctuations and the more extra yield you need to be paid for the additional risk (that's why the yield curve is normally positively sloped, except under exceptional economic circumstances). If you are bullish on rates (i.e., you expect rates to *decline*), you would want to extend out on the curve and, conversely, if you're bearish you should aim for shorter-term maturities.

Fixed-income professionals have found maturity to be too crude a yardstick since it fails to take into account the time value of the coupon

income and other cash flows you may receive before the final maturity. As a result, they have devised a couple of more sophisticated ways to gauge the potential interest rate volatility of a single bond or a bond portfolio, namely *duration* and *convexity*.

Duration, or more precisely Macaulay duration, is expressed in years and can be thought of as the length of time it takes to recoup the price of a bond. As such, it is a better measure of your exposure to interest rate risk than just plain time-to-maturity.

One of the neat side effects of Macaulay duration is that it can be mathematically manipulated to become modified duration, defined as the price sensitivity of a financial instrument with fixed cash flows to a small change in yield. You can use modified duration to estimate how much the market value of your bonds will move given a finite change in yield levels. For example, the price of a 15-year bond may have a modified duration of only eight years. Its price would fall roughly by 8 percent if rates rise by 1 percent (100 basis points). Notice that, even though the nominal maturity is 15 years, the actual duration of the bonds may be shorter due to the heavier weight assigned to coupon payments.

The longer the nominal maturity, the longer the duration. This should make intuitive sense. However, the higher the coupon, the shorter the duration. Why? Because the formula for duration takes into account the time value of the bond's cash flows. Think of it this way: The more money you get back through the coupon payments and the sooner you get it back, the less exposure you have to future rate volatility, hence you assume less risk. When you compare two bonds with identical maturity and call features, the bond with the lower coupon will always have a longer duration than the bond with a higher coupon. At the extreme, a noncallable zero coupon bond—which does not return any income until its final maturity—should have the longest duration for the same stated maturity, and its duration is in fact equal to its maturity. Conversely, bonds with high coupons will tend to have durations that are much shorter than their nominal maturities. This is an important point to remember when thinking about the volatility characteristics of high yield municipals.

Last but not least, keep in mind that duration assumes a small and parallel shift in the yield curve, that is, yields for all maturities change by the same amount. If the curve changes its shape (e.g., flattens, steepens, or gets twisted) as it moves up or down, duration may not necessarily capture all your interest rate exposure. Nevertheless, it is still a much better gauge of your potential rate exposure than plain old bond maturity.

Another measure of interest rate volatility used by fixed-income professionals is convexity. Bond convexity is defined formally as the degree to

which the duration changes when the yield to maturity changes. Positive convexity is preferred to negative convexity (or, to be precise, concavity). To see why this property should matter to you as the investor, think about a bond that goes up faster in price when the market rallies (i.e., when yields drop) but goes down more slowly when the market declines. Wouldn't that be the ideal bond to own? Well, that's how a positively convex bond acts. For technical reasons that we will not go into here, noncallable bonds (i.e., bonds that cannot be redeemed early) are usually positively convex. Callable bonds, on the other hand, are not. Bonds that are trading at a deep discount are more convex than bonds trading near par (fixed-income purists will lament our oversimplification here, but it is still a useful rule of thumb). As a result, noncallable zero coupon bonds are the most convex instruments you can ever find. One caveat to keep in mind: A bond's convexity properties only hold over a particular range of interest rate change. Instead of asking "What is the convexity of this bond?" one should really ask, "What is the convexity of this bond over the next *x* basis point move in rates in either direction?"

Positive convexity is a highly desirable trait, yet very few municipal bonds have it. Most municipal issues come to market with only five to 10 years of call protection, particularly lower-rated debt. Municipal issuers like to issue long-term debt, but they are loath to lock in their financing costs for 20 or 30 years. High yield issuers who have to pay a credit premium fancy the notion that they may be able to refinance their debt at more advantageous terms when their credit profile improves. Almost by definition, *most high yield issues are quite negatively convex*, as they tend to come to market as callable par bonds. In other words, they tend to depreciate faster in a rising rate environment than they appreciate in a declining rate scenario, assuming no significant change in credit quality.

Before you get too intimidated by these fancy volatility concepts, note that nowadays there are plenty of free analytical tools online that will compute duration and convexity for you. If you are a retail investor, you should ask for one, and your broker should be able to provide you with the duration on the bond offering.

Credit Risk

Credit risk is the first thing that comes to mind when one thinks about high yield. However, one needs to make a distinction between spread risk and actual default risk.

For buy-and-hold investors, default risk matters most. Default risk is defined as the risk that the borrower will not be able to repay interest and

principal as scheduled. A creditor may be deemed in technical default before an actual monetary default occurs, that is, before bond interest payments are missed. The term *technical default* covers a wide range of credit events from the benign (e.g., a short-term covenant violation, which may be promptly remedied by the issuer) to the more serious (e.g., an unscheduled draw on the debt service reserve fund, a standard security feature on most—but not all—high yield issues). Because it signals a shortfall in the regular revenue stream that secures the bonds, an unscheduled draw on the debt service reserve fund or an unscheduled draw on any credit enhancement feature acts as an early warning device for investors. It triggers certain reporting and disclosure requirements to the Municipal Securities Rulemaking Board (MSRB) well before an actual monetary default occurs, if it ever does. While covenant violations don't usually bother market participants, at least not initially, an invasion of the reserve fund will have a definite negative impact on the market value of your high yield holding. Of course, any event of technical default ultimately has to be judged in the context of the individual credit situations.

For active investors, including institutional holders who manage competitive money, spread risk matters just as much as default risk because it impacts their portfolio's *relative performance* versus either an index or their competitive universe. The credit spread is the difference in yield between the yield on your bond and the benchmark yield for the highest grade (usually AAA-rated) security with the same maturity. You can think of it as the *credit risk premium* on your bond. This yield premium will increase or decrease depending on two factors: (1) whether the market perceives that the credit is improving or worsening and (2) the relative desirability of credit products in general, which is a function of investors' appetite for risk at any particular time.

When it comes to credit spreads, the trading rule is "buy wide, sell tight." Professional money managers look for bonds that trade at spreads that they deem too wide relative to where they think the credit is heading. Their presumption is that future credit improvement will translate into tighter spreads, thus allowing their holdings to outperform. Thus, spread tightening is a highly desirable objective for a high yield holding, all other factors equal. Conversely, spread widening negatively affects relative performance, particularly when it occurs during a market sell-off. For example, let's assume you purchased a BBB-rated bond at a yield of 6.25 percent versus a AAA-rated muni at 5.00 percent for a spread of +125 basis points (6.25 − 5.00). If the AAA scale remains at 5.00 and the spread tightens to +100, your bond will be worth 6.00 percent, which translates to a higher

price than what you paid for it (6 percent versus your original 6.25 percent cost). On the other hand, again assuming no change in the AAA scale, if spreads widen to +150, then your bonds will now trade at 6.50 percent for a 25 basis point paper loss (higher yield, lower price). If AAA yields go up by 25 basis points and the spread tightens by another 25 basis points, your bond will yield 6.25 percent, the same as the original yield, resulting in no loss. In the worst-case scenario, if AAA yields rise *and* spreads widen, you will be hit with a double whammy. The upshot: When it comes to credit-sensitive investment, tighter spreads are always the desired outcome. So, tighter spread equals relative outperformance.

Liquidity Risk

A financial instrument's liquidity is normally defined as its ability to be converted into cash in the shortest amount of time and at the smallest transaction cost. Note that there are two elements to this concept: a *time* element and a *transaction cost* element. U.S. Treasury bonds are regarded as the most liquid securities in the world because they literally can be sold electronically in a fraction of a second and at a very minimal bid-to-ask spread.

In the over-the-counter world of municipals, liquidity is a more relative notion. Only the highest-rated bonds (i.e., AA or above) in the most stable sectors (e.g., state general obligations or utilities) may be viewed as really liquid to the extent that they can be sold within a few hours for a modest transaction cost, say, less than 1/8 of a point, under normal market conditions. Anything else is just more or less illiquid. Selling a lower-rated or nonrated municipal bond usually requires the holder to communicate the credit story, establish some kind of offering level (i.e., a price where he or she would sell the bonds), ask a broker-dealer to show the bond to prospective buyers, and then negotiate in response to a bid, if any. It is a time-consuming process that may stretch over a period of days, even longer if the potential buyer needs to do research on the bonds or make a site visit to the underlying project. The bid/ask spread may also be quite wide, as much as several points instead of a few basis points. The more complicated the credit story gets, the less liquid the bond is. This is what is meant by liquidity risk. It shouldn't necessarily deter one from considering high yield municipals, but it should be built into return expectations. As a trader, I have what I call the "two-minute rule": If you cannot tell the basic credit story on a bond in less than two minutes, that bond should be deemed illiquid.

Reinvestment Risk

Most municipal bond issues come to market with typically 10 years of call protection. As we discussed above, callable bonds usually display poor convexity characteristics. Callability also exposes the investor to reinvestment risk: The issuer is most likely to call the bonds for early redemption when things are going well and rates have declined significantly below the original coupon level—in other words, at the worst possible time for the investor. Not only does the call provision put a cap on the upside potential, the investor finds him- or herself having to reinvest in a lower yield environment.

Legal Risk

All municipal bond transactions rest on a foundation of legal opinions, because they are public financings, subject to the approval of voters or their representatives. Any technical defect in the bond authorization process could be used by the borrower at a later date to invalidate the bonds and relieve the borrower of the obligation to pay. That's why all muni issues come with a bond counsel's legal opinion. Bond counsel must opine that the bond issue has been legally authorized, is a valid and enforceable obligation of the borrower, and, where appropriate, does provide tax-exempt interest income. In a negotiated underwriting, underwriter's counsel may also be hired to help and opine on the deal structure, conduct due diligence, and draft disclosure documents, among other things.

For a nonrated high yield issue, the legal stakes are even higher, as there may be esoteric financial arrangements (such as a lock-box mechanism designed to capture revenue dollars for the benefit of the bondholders, etc.) that may help support the transaction in the event of credit problems, but that may or may not be legally enforceable. In that case, potential bondholders may ask for an additional opinion from special counsel to confirm that certain legal remedies they have negotiated into the deal are in fact valid and enforceable when needed.

However, even the best of intentions can get derailed by an unforeseen legal loophole. The bondholders of a recent private placement to finance a Native American tribe's casino in Wisconsin had successfully negotiated what they thought was a water-tight security package giving them solid control over casino operations in the event of default, with the tribe agreeing to waive its sovereign immunity in that event. A special opinion from the tribe's own counsel had confirmed the legal enforceability of this arrangement. Yet, when

the project ran into financial trouble and the tribe defaulted on the debt, the bondholders bumped into an unexpected obstacle: A district judge ruled that the tribe was not required to repay the debt because the trust indenture gave bondholders significant control over casino operations, rendering it a management contract. That management contract was then declared invalid because it was never approved by the National Indian Gaming Commission (under the 1988 Indian Gaming Regulatory Act, all managerial contracts must be approved by the commission). By the same logic, the judge's decision also invalidated the tribe's waiver of sovereign immunity.

It's fair to say that, once the investor starts to get away from tried-and-true security structures that have historically been upheld in court, the legal risk becomes exponentially more significant.

Political Risk

Political risk is a fact of life in the municipal arena. Bond issues are approved through a political process; the people who ensure that revenues will be available to pay municipal debt are either politicians or politically motivated individuals. When financial crunch time comes and local politicians are faced with the choice between raising taxes, cutting services to their constituents, or paying debt service, more often than not political expediency will prevail. Even public support for a previously popular project may wax and wane over the years, particularly during hard economic times. Normally, the potential loss of future market access may deter politicians from sticking it to the bondholders, but this may be cold comfort for investors who have agreed to purchase bonds with maturities as long as 30 years. Because of this political dimension, ability to pay is sometimes less of an issue than willingness to pay in the tax-exempt market.

As of this writing, the case of Harrisburg, the state capital of Pennsylvania, provides one of the best illustrations of the political risk inherent in public finance. This city of 49,000 had been struggling under the weight of a $300 million, financially troubled waste incinerator project that bears the city's guarantee (although in this case, bond insurers are on the hook for much of that debt). Political infighting had been an obstacle to any reasonable solution, and the fractious city council had previously rejected a proposed financial recovery plan under the Act 47 program for distressed Pennsylvania communities. Concerned about the potential ripple effect of a Harrisburg bankruptcy filing, Pennsylvania Governor Tom Corbett pushed to put the city under state receivership. Needless to say, Harrisburg fought tooth-and-nail to preserve its independence and, in the end, the

City Council voted to file for Chapter 9 bankruptcy on October 11, 2011, by a mere 4 to 3 margin. Thankfully, a federal judge ruled on November 23, 2011, that the city had no legal right to file Chapter 9. On the back of that ruling, Governor Corbett declared a state of fiscal emergency in Harrisburg and appointed a receiver. At this writing, the political wrangling continues, as various local groups have filed suit to stop the state-appointed receiver from implementing a financial recovery plan.

Another aspect of political risk is politicians' propensity to change the rules of the game after the facts. One recent glaring example is the California legislature's decision in July 2011 to force the state's redevelopment agencies (RDAs) to either shut down or divert some of their revenues to the state as a partial solution to the state's budget crisis. Never mind that many agencies have already pledged their tax-increment revenues to prior bond issues. While the agencies can still keep enough revenues to meet debt service, their bondholders must now contend with reduced coverage on their debt, which will leave them more vulnerable to future declines in assessed valuation. No wonder the redevelopment agencies brought suit to stop enforcement of the new law. Ultimately, in January 2012, the state supreme court upheld the state's authority to abolish all RDAs, but struck down the provision allowing the RDAs to survive in exchange for shared revenues.

It has been said that many municipal financings are only a legislative pen stroke away from becoming credit problems.

Taxability Risk

Being tax-exempt instruments, all municipals are potentially vulnerable to any revision in the tax code that might affect the tax exemption. Certain sectors of the high yield muni market may have more specific taxability issues. Since the Tax Reform Act of 1986, issuers of private-activity bonds can only gain access to tax-exempt financing by complying with a fairly stringent set of rules from the IRS. For instance, there are restrictions on the types of projects that are financeable, arbitrage rules, and so on. A violation by the issuer of any of these restrictions may trigger an IRS audit and lead to the coupon income on the bonds being declared taxable instead of tax-exempt. In that case, the investors will be subject to a double hit: Not only will they have to pay taxes on their interest income, but the market value of their bonds will also decline because the market will price those bonds using a taxable yield instead of a tax-exempt yield.

This is what could have happened to the holders of 11 tax-exempt solid waste bonds sold by various municipal entities from 1995 to 2004 on behalf

of Georgia-Pacific Corp. (GP). In 2006, the IRS determined that about $81 million in bonds issued by the Effingham County Development Authority in Georgia on behalf of GP violated the so-called "no value rule" for solid waste facilities. The federal tax code allows tax-exempt financing for solid waste projects that process materials with no market value at the place they are processed and at the time bonds are issued. Upon audit, the IRS found that the materials coming into the Effingham facility did have economic value because the company paid some nominal amount for them. As a result, the bonds were declared taxable.[3] Although GP promptly appealed the ruling on behalf of the bondholders, the dispute between the company and the IRS went on for about four years and cast a pall on the value of the tax-exempt bonds during that period. GP did ultimately prevail in early 2010, but mainly because the "no value rule" was abandoned by the IRS the previous year.[4]

In all fairness, taxability issues such as the one that dogged GP have been relatively rare, but investors should always be aware of the potential risk. Many private activity bonds do have a "taxability call" provision, which forces the issuer to redeem the entire issue at par if it was ever found taxable. This has provided a powerful incentive for conduit borrowers to do their best to protect the tax-exempt status of their bonds. Many have opted to settle any tax liability with the federal government outside of the bond indenture just to preserve the tax exemption on their bond issues.

Notes

1. Barclays Capital Municipal Credit Research, "August 2011 Municipal Index Performance," September 7, 2011.
2. Securities Industry & Financial Market Association (SIFMA), "Municipal Bond Credit Report," 4Q and Full Year 2010, 1Q2011, 2Q2011, www.sifma.org.
3. *The Bond Buyer*, "Disclosure IRS, Georgia-Pacific Battle Ongoing," December 8, 2006.
4. *The Bond Buyer*, "IRS Takes a New Look at Waste," March 17, 2010.

Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

CHAPTER 2

A Brief History of the High Yield Muni Market

As long as the municipal market has been around, financings of a speculative nature have been brought to market, most underwritten by early market pioneers such as The John Nuveen Co. and Herbert J. Sims. Because municipals have long been considered the backwaters of the fixed-income world, the sector has been thriving for decades with very little coverage from the financial media, at least until very recently. Given the scarcity of written records, this is more or less an oral history of the high yield municipal sector, based on my personal recollections from some 30 years of market experience and on interviews with some of my contemporaries who, like me, were lucky enough to witness the dawn of this fascinating asset class.

The Early Years

The first institutional high yield municipal issue, according to James Erickson (former chief investment officer of the Putnam Funds), dates back to the year 1960. This was the year a relatively innocuous muni boutique named B. J. Van Ingen underwrote a $13 million construction deal for the Marina Del Rey area in metropolitan Los Angeles. The issue had all the attributes of a typical high yield issue, including construction risk, real estate development risk, and so on. Although the project had its share of delays and contingencies, it ultimately opened in 1965 and has become a major attraction on the Los Angeles metropolitan area waterfront.

The early 1960s also saw the very first financings in sectors that have now become core components of any high yield tax-exempt strategy. Herbert J. Sims, for instance, claims to have issued the first municipal bond

to finance a long-term care community in 1965. The growth of tax-free health care debt financing was kickstarted by Congress's 1966 decision to allow the Medicare program to reimburse nonprofit hospitals for their capital improvement costs. Tax-free hospital revenue bonds went on to become the fastest growing tax-exempt sector during the 1980s and have remained a significant component of the high yield supply to this day.

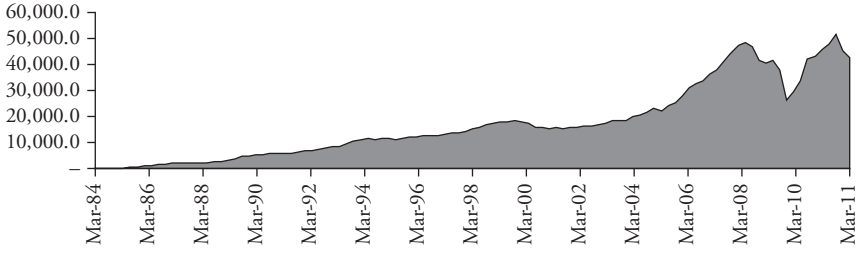
The Rise of the High Yield Mutual Funds

While the supply of higher-yielding, more speculative financings has always been there, it took a few more years before that supply was met with consistent, institutionalized investor demand. The true beginning of the modern high yield municipal market can be traced back to the early 1980s with the advent of the first open-end tax-exempt high yield mutual funds. Any investment product that could generate maximum interest income free of federal—and sometimes state—taxes had a visceral appeal. By the early 1980s, the top U.S. income tax rate stood at a lofty 50 percent, after spending most of the 1970s at an even more punitive 70 percent. Mathematically, an investor in the 50 percent tax bracket had to earn twice as much in a competing taxable product just to be indifferent to munis! With many high yield issues offering double-digit coupons in those days, gross pretax income often exceeded 20 percent. The higher absolute yield levels also meant the fund management companies could extract larger fees for their services. Thus, for both fund investors and managers alike, the economics of tax-free high yield investing was extremely compelling.

In February 1984, under the leadership of John Jameson and Robin Huntley, Boston-based Massachusetts Financial Services (MFS) launched the very first tax-free high yield fund: the MFS Municipal High Income Fund (symbol: MMHYX), whose place in municipal history was further cemented when it also became the first organized underwriting ever for an open-end fund. Even though the fund was open-ended in nature, MFS was able to raise a stunning $100 million or so during the initial subscription period. As another measure of its success, the fund had to be closed to new investors for a while the following year as cash inflows well exceeded the available investment opportunities.

MFS's competitors across town and elsewhere around the country soon took notice. In early 1985, I joined Putnam Investments in Boston, Massachusetts, to start a new municipal research team for the firm, ostensibly to provide analytical support for the management of the then-new Putnam Tax Free High Yield Fund (symbol: PTHYX). Not long thereafter, other Boston

FIGURE 2.1 High Yield Muni Fund Assets from March 1984 to March 2011 ($ million)



Source: Lipper Analytics

mutual fund powerhouses such as Fidelity Investments and Colonial Investments joined the fray, along with the Franklin Funds from San Mateo, California, and all the names now familiar to retail muni investors: John Nuveen, Van Kampen, and Eaton Vance, among others. Together, these early industry leaders sowed the seeds for an unprecedented boom in high yield muni investing (see Figure 2.1). The assets of the high yield muni funds, as defined by Lipper Analytics, went from a mere $23 million at the end of the first quarter of 1984 to top $1 billion only two years later. Moreover, except for a slight dip in 1999 (for reasons to be discussed below), this growth trend continued virtually unbroken for more than two decades, before peaking at $48 billion in the summer of 2007. Unsurprisingly, the 2008 credit crisis took a big bite out of the high yield muni funds' assets. By March 2009, the aggregate assets of the industry had declined by a staggering 45 percent from the peak achieved in June 2007 to stand at $29.2 billion, virtually wiping out all the gains since June 30, 2005. Fortunately, as the world financial markets rebounded, the high yield municipal sector steadily regained ground throughout 2009 and 2010, ultimately reaching a new record high in assets (just under $52 billion) by the end of the third quarter of 2010. Between September 2010 and April 2011, as a result of growing investor concern about the credit outlook for state and local entities, the high yield universe intermittently experienced net redemptions, but nothing quite as severe as in 2008. However, through the end of 2011, as investor fears receded, the industry has recovered much of the lost ground.

While the open-end mutual funds did foster the explosive growth of the high yield sector in the early years, they were certainly not the only game in town. Property and casualty insurance companies had also been in the municipal market for decades, depending on their profitability cycle. Later in the decade, closed-end funds devoted to high yield strategies were

introduced by the same fund complexes that dominated the open-end space, but they have largely remained a niche product to this day (see Chapter 5).

The "Wild West" Period

Returning to the inception of the high yield tax-exempt sector, the late 1980s are best remembered as the "Wild West" period for this asset class. Prior to 1986, without any statutory limitation on the type of project that could be financed by tax-free bonds, high yield issues came out of the woodwork to meet the exploding appetite of the mutual funds. Many of those came as nonrated private placements backed by rather minimal underwriter due diligence. The field was wide open to abuses, since just about anything could be funded by tax-free bonds, from hotels to racetracks to chicken-processing facilities. Cindy Brown, former portfolio manager for MFS, recalls a project in Wyoming that was designed to "use the excess steam from a coal-fired plant to grow hydroponic lettuce, the sale of which was projected to be sufficient to pay debt service on the bonds." Another high yield gem from the same period included a 24-hour summer golf course in Alaska. From my Putnam days, one of the most egregious (and colorful) examples was an industrial development issue floated to finance the Trails Inn, a newly remodeled motel in the city of Norman, Oklahoma. (Yes, you read that right: tax-exempt financing for a motel.) On the surface, the owners (a husband and wife team) appeared to be experienced hoteliers, and their business plan seemed plausible, at least to any analyst whose only experience up to that point had been with relatively staid state and local government credits. At the end of the day, the bonds came with a nice, fat tax-exempt yield (well in the double-digit range, as I recall) and that was perceived to be sufficient to compensate us for the perceived risks. Unfortunately, after the bonds were purchased by the fund, it only took a matter of months before credit problems and ultimately a default occurred. Fraud, rather than project economics, ended up being the major culprit: It was discovered that the borrowers diverted some of the proceeds of the bond issue for various personal uses, which included installing a new mirror on their bedroom ceiling. With hindsight, Trails Inn should have been more properly named Trail's End.

On the buy side, the relentless cash inflows from investors, sometimes as much as $10 million a day in a single fund, created a constant pressure on the portfolio managers to seek out the highest-yielding issues in the marketplace. In-house research teams were quickly put together to handle the escalating credit research needs. Without a prior body of knowledge to rely on, many of the analysts assigned to review these nonrated deals learned how to analyze them on the fly. Yet, despite the fierce competition in terms of

fund performance, the relationship among the analysts from various fund groups was surprisingly courteous and collegial. Everyone was coming up the learning curve at the same time, so information-sharing was critical, and ultimately beneficial to all.

The high yield boom from roughly 1985 to 1995 featured many of the now legendary personalities of the municipal business, both famous and infamous. The buy side had its share of brilliant, but sometimes quirky, portfolio managers, including Guy Wickwire from Fidelity Investments, Robin Huntley from MFS, Michael Hardy from Colonial, Peter Allegrini from Prudential, and Steve Wolf from T. Rowe Price, among others. On the sell side, you had a real cottage industry of high yield boutiques such as L. F. Rothschild (underwriter of the Trails Inn issue mentioned above), Miller & Schroeder, Arch Roberts, and so forth. Only a few firms have survived and thrived to this day, most notably Herbert J. Sims, with a long, mostly successful track record in nursing home and retirement center financings.

Maturation of the Secondary Market

Not all the action was in the new issue market. Secondary trading in high yield and distressed securities was also quite brisk, if somewhat volatile. Price discovery and transparency were sorely missing in those days, which certainly helped the profitability of broker-dealer trading desks. Truthfully, it was a market of "anything goes." Buyers had to rely on so-called trade "posts" from broker-dealers in order to stay on top of trading levels. Street traders had no qualms about marking bonds up by as much as 10 points (points, not basis points) before re-offering them to customers. It was treacherous waters for anyone who did not have a solid sense of relative value and reliable sources of market intelligence. That said, the funds wielded so much purchasing power that they became in effect "the market" in whatever issue they chose to traffic. It was not until real-time trade reporting was mandated by the Municipal Securities Rulemaking Board (MSRB) that high yield investors finally got any kind of price transparency. Ironically, improved price discovery, certainly a worthwhile goal from the buyer's standpoint, may have undercut the profitability of street trading desks, arguably leading to a steady decline in liquidity in the high yield sector over the last few years.

Although Wall Street wirehouses dominated the investment-grade new issue market, their presence in the high yield secondary market was relatively muted. Market stalwarts such as Goldman Sachs, Merrill Lynch (now part of Bank of America), Morgan Stanley, and J. P. Morgan did make sporadic forays into high yield, but in rather half-hearted fashion and mostly to

support their own deals. The same could be said of Citigroup, which at the time did not have the dominant market position that it does now. A clear exception to the rule: the now defunct Lehman Brothers, which benefited from the aggressive (if not always customer-friendly) market-making efforts of its high yield trading desk.

Without much competition from the wirehouses, a small number of specialized boutiques sprang up to fill the void in the secondary market. Early on, there was Mabon Nugent, which was succeeded by one of the most effective secondary shops ever, Greenwich Partners. Without much capital to devote to new issue underwriting, Greenwich Partners was nevertheless extremely successful in matching high yield buyers and sellers. This was accomplished by providing credit research input to customers who needed it, but also by truly understanding the intricacies of each high yield sector. Even though the firm subsequently disbanded and its principals have scattered all over Wall Street, Greenwich remains to this day a model for a high yield secondary market effort.

Historical High Yield Opportunities

Over the years, the funds have successfully exploited many high yield/distressed opportunities, spanning a wide range of sectors. In the mid-1980s, the first oil bust (the same one that took down the infamous Penn Square Bank) led to a buying opportunity in Texas single-family housing bonds. At the time, the Lone Star State was still very dependent on the oil industry, and thus suffered a severe economic downturn when oil prices crashed from $30 to around $10 a barrel. In a situation rather reminiscent of the current housing crash, foreclosure rates shot up among many of the affordable housing developments financed by bonds issued by local housing agencies. Many homeowners opted to walk away from their homes and their mortgages. The threat of default led to panic selling on the part of then-current housing bond holders, with bonds trading as low as 25 cents on the dollar. Yet, upon closer examination, many of these issues turned out to be worth much more than their current trading level, as most of the underlying mortgages carried several layers of mortgage insurance. Many of the high yield muni funds saw the value, scooped up the bonds, and the rest is muni history.

Other large-scale high yield opportunities came from the corporate-backed tax-exempt sector, which allowed the muni funds to play distressed corporate names (see Chapter 7 for a more detailed look at this sector). For instance, when the U.S. steel industry went through the first of its many

cyclical downturns, investors with fundamental conviction could readily purchase names such as LTV, Bethlehem Steel, and Inland Steel on the muni side. The same was true of the ever-volatile airline industry: At one point or another, credits such as American Airlines, United Airlines, Delta Airlines, Northwest Air, Continental Air, and so on were all available for purchase as tax-exempt instruments. More recently, you would have had an opportunity to take a position in the survival of the American auto industry with the typical cast of characters: GM, Ford, and to a lesser extent, Chrysler. They all have issued bonds in the municipal market. For deeper cyclical plays, investors had their choice of paper and container credits, such as International Paper, Stone Container, Georgia-Pacific, and so on. In fact, one of the most reliable tools in the high yield muni manager's toolbox has been the ability to play the corporate credit cycle, but with a tax-exempt twist.

Another subset of the corporate-backed sector that became a core holding for many high yield tax-exempt funds is the investor-owned utilities sector. Here again, investors could gain exposure to credits such as Detroit Edison, San Diego Electric & Gas, Connecticut Light & Power, and so forth. Once the nuclear energy controversy of the 1970s had dissipated, this sector had become a very reliable source of additional tax-free yield. In contrast to the cyclical names, where the timing of your investment was critical, the utilities offered a much more stable credit profile, and the only real risk to watch out for was the occasional curveball thrown at them by state regulatory commissions.

Also included in the high yield muni playbook were bonds issued to finance co-generation and resource recovery projects. The track record there was much more mixed: Facilities that were affiliated with existing investor-owned utilities tended to be more creditworthy than stand-alone projects.

For obvious reasons, most high yield opportunities have historically come from the revenue bond category, but there have been notable exceptions. Long before the states of California and Illinois became the market's whipping boys, there was the Commonwealth of Massachusetts. In early 1990, the Bay State was still reeling from a severe recession and dealing with what was a significant budget deficit at the time, when a grassroots organization known as the Citizens for Limited Taxation (CLT) successfully put on the ballot a sweeping initiative to roll back many of the Commonwealth's prior tax and fee increases. This initiative and the resulting political turmoil sparked a huge sell-off in Massachusetts General Obligations (GO) and agency bonds, and the Commonwealth became yet another tax-backed distressed opportunity, a worthy successor to the New York City fiscal debacle some 15 years earlier.

Credit Setbacks

Unfortunately, next to the credit success stories, the high yield funds also suffered some very significant credit debacles. The first wave of defaults could be traced back to the Tax Reform Act of 1986, which sought, among other things, to curtail many of the abusive municipal conduit financings mentioned above. The act restricted the use of tax-exempt financing to public-purpose activities and specific private activities. The latter became subject to volume caps and to alternative minimum taxation. Predictably, many issuers rushed to issue bonds before the act took effect and the market was flooded with many questionable high yield deals. A great number of these pre-1986 Tax Reform Act issues, including an infamous racetrack issue for Polk County, Iowa, ultimately ended up in default two or three years later. Ironically, even though the Tax Reform Act of 1986 did reduce the marginal tax bracket for high-income earners to 31 percent, it did eliminate many other tax shelters and further cemented the status of municipal bonds as the only "liquid," tax-advantaged vehicle available to the average investor.

As mentioned earlier, the relentless pressure to generate tax-exempt income had forced many of the funds to invest in illiquid, nonrated, stand-alone project financings. In hindsight, the two major areas where the funds stumbled badly were real estate risk and commodity risk. No wonder the biggest credit setbacks (in dollar terms) suffered by the high yield funds in the 1990s occurred in two key sectors: multifamily housing projects and so-called "de-inking" facilities.

By the standards of municipal issuance, the de-inking sector was rather modest. Only about a billion dollars' worth of bonds were issued around the country in 1994 and 1995 to finance the construction of paper mills designed to produce de-inked, recycled pulp. This fledgling sector was born in response to the Clinton administration's requirement that all federal agencies use paper with at least 30 percent recycled content by the end of 1998. More importantly, tax-exempt bonds could be issued to finance these paper recycling mills. With coupons as high as 12 percent, and with a healthy marketing push from Wall Street, de-inking issues proved irresistible to most high yield funds and even quite a few nominally high grade funds. At the time, the commodity risk aspect was all but overlooked: The paper cycle was in full swing, with regular pulp prices skirting $1,000 a ton in late 1995, so recycled pulp looked favorable in comparison. It was only a matter of time before high paper prices attracted a massive influx of new supply, mainly from Asia, leading to a market crash. By the time many of the new recycling mills overcame their technological difficulties (and there were

many) and started operations, the price of regular pulp had been cut by almost a half, and buyer interest in recycled pulp simply vanished. Virtually the entire de-inked sector went into default in the late 1990s, with ultimate recovery rates in the range of 40 to 50 cents on the dollar.[1]

The de-inking fiasco was the first major black mark on the tax-free high yield fund industry, and it's fair to say it negatively impacted the careers of many fund managers, as well as Wall Street traders, who were unfortunate enough to have been involved at the time. Within the span of a few years, it also led to a major overhaul in the senior management ranks of several municipal fund complexes. Most importantly, it ushered in a new era of more conservative investment strategies built primarily around performance benchmarking and staying away from large credit bets.

The Advent of Leverage

In the late 1990s, as a result of weak relative performance and the public's growing fascination with the Internet, the high yield funds did experience a period of declining assets. However, asset growth soon resumed once the Internet bubble burst, and interest rate levels started their secular decline. During the first six years of the new century, the only notable source of credit volatility came from a relatively new structured financing sector: tobacco settlement bonds, which will be discussed in Chapter 11 (no pun intended). More importantly, over the same period, a new driving factor came to the fore in the muni market: That new factor was leverage.

With the proliferation of Tender Option Bond programs, or TOBs (described in more detail in Chapter 5), which allowed both broker-dealers and institutional buyers to leverage their purchases (i.e., buy on margin) without jeopardizing the tax-exempt status of the bonds, the muni industry discovered it could juice up tax-exempt income and total return without much of a stretch in credit quality. In fact, between 2002 and 2007, the widespread availability of leverage, combined with the record penetration by the bond insurers, had the effect of drawing into the muni market a whole generation of buyers who either ignored or were ill-equipped to handle credit nuances. Those buyers relied solely on official credit ratings, and as long as the ratings were sufficient to give them access to leverage, that was all they cared about. For example, little distinction was drawn between an A-rated utility bond, one of the most stable tax-exempt issues you can buy, and an A-rated hospital bond, a significantly more volatile type of credit. As the muni market became more commoditized, credit spreads compressed to

unrealistic levels. In the end, the leverage trade resulted in a massive shift from fundamental credit risk to counterparty risk, with the largest counterparties being the bond insurers.

The Credit Crisis of 2008 and Its Aftermath

By the summer of 2007, the market was set up for a financial "perfect storm." The same financial counterparties that supplied liquidity to the TOB trade were the primary victims of the subprime mortgage crisis that shook the entire world financial market to its core during the summer of 2008.

While the entire municipal market suffered along with every other asset class, the high yield sector experienced a complete meltdown in liquidity. High yield spreads gapped out to more than 600 basis points, a new historical wide. As usual, the market stress showed up in mutual fund redemptions: A couple of major muni fund complexes were forced to raise cash and liquidate bonds at levels that were 20 to 30 points below precrisis levels. At one point, this was further compounded by selling pressure from closed-end funds trying to unwind leveraged positions. Many of these distressed sales ended up benefiting a handful of major dealers who were able to act as liquidity providers of last resort. (Ironically, one suspects the main reason these dealers could step up to the plate was because they had access to U.S. taxpayer–funded bailout funds!)

Thankfully, just as quickly as it went down, the market rebounded strongly during much of 2009 and early 2010 on the back of the massive bailout effort from the Federal Reserve and the Treasury. Although high yield spreads did snap back from the outlier levels seen during 2008, they remained relatively wide by normal historical standards throughout much of 2010. The memories of 2008 were still too fresh in investors' minds.

The fourth quarter of 2010 brought with it another credit crisis, this one more specific to the municipal bond market. The financial media suddenly woke up to the fiscal difficulties experienced by state and local governments. Their relentlessly negative coverage was stoked by bold predictions of widespread municipal bankruptcies from market pundits with, curiously enough, little prior experience in public finance. While there were certainly legitimate concerns about the financial status of many state and local entities, particularly in light of their woeful pension funding efforts, nothing warranted the doom-and-gloom reporting and the massive fund redemptions that ensued. As we have seen many times before in the history of the tax-exempt market, where mutual fund flows go, the market follows.

The stage was set for another muni market debacle, this one lasting from roughly October 2010 through March 2011. Like other bouts of market hysteria before it, this one also turned out to be a buying opportunity. As 2011 unfolded and the predicted wave of bankruptcies failed to materialize, the market gradually regained its footing and ended the year with a powerful rally, buoyed by a lack of new issue supply.

During this latest period of market volatility, corporate-backed municipals turned out to be, once again, an interesting relative value opportunity. Because the corporate bond market was still rallying while munis suffered, by February 2011, corporate-backed munis yielded more, on a tax-exempt basis, than their taxable corporate counterparts, after adjusting for differences in bond structure. Astoundingly, this situation lasted for at least two months before corporate bond investors realized the cross-market arbitrage opportunity and swooped in to take advantage of it. This was yet another instance when short-term divergences in technical conditions between the tax-exempt and the taxable sectors could give rise to very profitable arbitrage opportunities.

In the aftermath of the 2008 crisis, credit fundamentals have reasserted themselves once again. Without the commoditizing influence of the bond insurers, muni investors must learn to assess credit fundamentals instead of blindly relying on credit enhancement. This is particularly critical at this juncture since the U.S. economy is still struggling to come out of recession.

As we get into the second decade of this century, one clear lesson can be drawn from the credit successes and failures of the past. *The high yield tax-exempt investor must be wary of taking on equity-like risk in exchange for bond-like return*. Time and time again, muni investors have let themselves become the lenders of last resort for a variety of enterprises that were not found to be economically viable anywhere else. Given the industry's checkered history when dealing with real estate risk, will land-based financings and retirement facilities become the de-inking sector of the twenty-first century? With the mutual funds' historical dominance on the wane and the recent inroads made by crossover buyers, who will be the key high yield players of the future? Only time will tell and, if history is any indication, it will be another fascinating ride.

Note

1. *Forbes*, "Sue the White House?" (September 8, 1997), reprinted at www.forbes.com/forbes/1997/0908/6005152a.html.

Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

CHAPTER 3

The Investment Case for High Yield Municipals

Given the explosive growth of the high yield tax-exempt universe over the past three decades, have high yield municipals been a worthwhile investment? The answer is a resounding "yes," but with some major caveats. Over the last 10 years, high yield municipals have exhibited attractive risk/return characteristics and have held their own against other competing asset classes, including corporates and equities. This is quite a remarkable record, achieved in spite of the unprecedented market volatility of the last three years. For many fixed-income buyers, the prospect of earning upwards of 6 percent on a tax-exempt basis (the equivalent of an eye-popping 9.23 percent taxable yield for someone in the 35 percent tax bracket) would be reason enough to consider high yield munis. However, because of the potential risks involved (as discussed in Chapter 1), investors need to actively manage their investment for after-tax total return, instead of passively investing for income. Managing for liquidity is especially important, as shown by the classic cautionary tale of the Heartland high yield funds.

With those important caveats in mind, the best time to have maximum exposure to high yield is when the economy is coming out of recession and credit spreads are at their widest. As the business cycle gets in full swing and rates start to rise, credit spreads will tend to narrow to a point where higher quality paper becomes a better relative value. At that point, the recommended approach would be to gradually reduce credit exposure and improve the average quality of the portfolio, until one ends up with very high quality holdings before the economy starts to slow down again. In a way, *managing a high yield portfolio very much revolves around managing the mix of duration risk and credit risk*. With the appropriate investment

discipline, the high yield municipal sector can be an attractive source of portfolio income generation, and even wealth creation.

High Yield Municipals versus Other Asset Classes

Before we dive into some of the basic principles of a successful tax-exempt high yield strategy, let us review how high yield municipals have performed as an asset class over the past decade or so.

Ignoring the risk side of the equation for now, the lower-grade sector of the municipal market has clearly fulfilled its yield mandate over the last few years. Figure 3.1 compares the monthly yield for Standard & Poor's High Yield Municipal Index to its Investment Grade Index from January 1999 through July 2011.

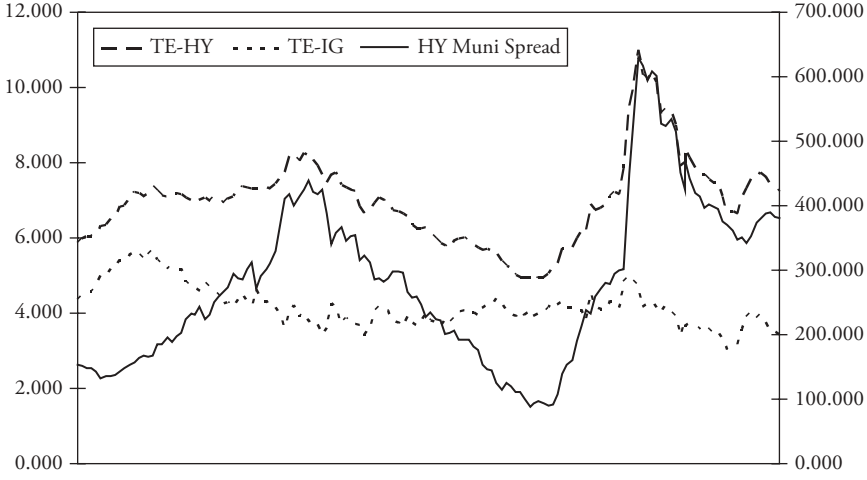
A few salient points to take away from Figure 3.1: (1) Since January 1999, the Standard & Poor's/Investortools High Yield Index has yielded about 7.00 percent on average, ranging from a low of 4.87 percent in February 2007 to a high of 11.00 percent in December 2008 (no surprise there); (2) this translated to taxable equivalent yields ranging from 7.49 percent to 16.92 percent for an investor in the 35 percent tax bracket; and (3) the "spread" or incremental yield from lower-rated paper (the bold line in the chart) averaged about 282 basis points during the period, reaching a low of just 89 basis points in January 2007 and a peak of 630 basis points in . . . what else? December 2008.

With the full benefit of hindsight, Figure 3.1 clearly shows that *the first quarter of 2007 was the high yield selling opportunity of the decade*: Absolute yield levels and quality spreads both hit their lows during that period. You certainly could not justify purchasing lower-rated paper, either on an absolute yield basis or on a spread basis. This fact was apparently lost on investors and Wall Street trading desks at the time. You can blame it on the widespread use (and abuse) of leverage by all market participants between 2004 and 2007, which helped drive quality spreads to their historically tightest level. Leverage was so readily available, even marginal high yield names such as airline-backed private activity bonds (some with a CCC rating by one of the agencies) could get financed. By late summer 2007, the seeds had been sown for the spectacular market blowup the following year (with some help from a national recession and housing market meltdown).

December 2008 turned out to be the mirror image of February 2007. As shown in Figure 3.1, the high yield muni market hit its highest yield levels and its widest spreads to the general market as that fateful year drew to a

close. What was the end result? You guessed it: That was the buying opportunity of the decade. If you bought anything at all in December 2008, you only needed one of two factors to work out for you: either absolute yields declined or spreads tightened again. As it turned out, the market came through on both counts. From December 2008 through December 2010, the high yield tax-exempt sector, along with the rest of the financial markets, went on a tear with a spectacular rally that sliced credit spreads by almost a half. The rally persisted into 2011 as the municipal market as whole completed its recovery. However, as can be expected, high yield paper had

FIGURE 3.1 Monthly Yield and Spread for S&P/Investortools High Yield and Investment Grade Indexes (January 1999 to July 2011)



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The Standard & Poor's/Investortools Municipal Bond Indices are composed of bonds held by managed municipal bond fund customers of Standard & Poor's Securities Pricing, Inc. that are priced daily. Index calculations are provided by Investortools, Inc. Only bonds with total outstanding amounts of $2,000,000 or more qualify for inclusion. The S&P/Investortools High Yield Index contains all bonds in the Main Index that are nonrated or whose ratings are BB+ S&P and/or BA-1 Moody's or lower (this index does not contain bonds that are prerefunded or are escrowed to maturity). The Investment Grade Index contains all bonds in the Main Index rated BBB S&P and/or Baa Moody's or higher. The HY Muni spread is the yield difference between the two Indexes.

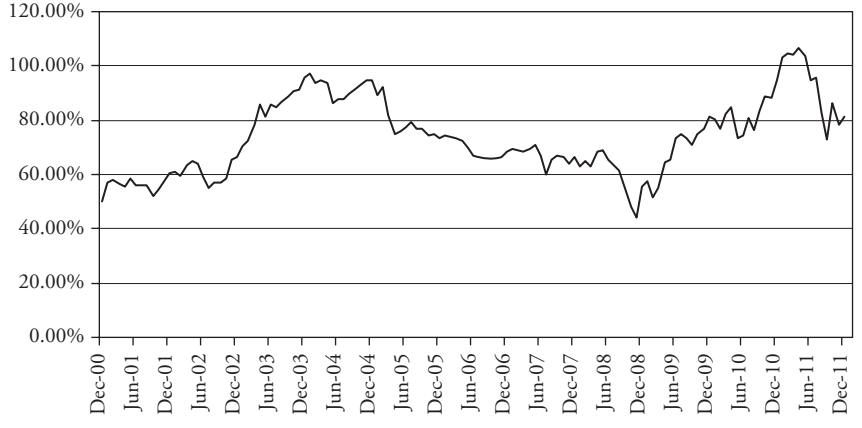
Note: Yield scale on the left, spread scale in basis points on the right.

difficulty keeping up with the powerful move in high-grade instruments, and quality spreads widened slightly going into 2012.

Lastly, one may also wonder how high yield municipals would stack up to high yield corporate bonds. Here, the comparison is even more startling: Even without tax adjustment, the yield on lower-rated municipals has been very competitive with high yield corporates over the years. There have even been times when *tax-exempt* municipals have traded on top of *taxable* corporates, a tremendous opportunity for crossover buyers who can navigate between these two asset classes. Figure 3.2 displays the yield ratio between the Barclays High Muni Index (which is tax-exempt) and the Barclays (taxable) Corporate Index since December 2000. Due primarily to the divergent supply-demand dynamics between the two sectors, there have been times when that ratio has exceeded 100 percent, most recently in the first quarter of 2011.

Some market observers have pointed out that high yield municipals should always trade at a high ratio to corporates in order to compensate for differences in liquidity characteristics and disclosure practices. While there is some truth to that claim, one can also argue that most high yield tax-exempt names do not have the refinancing/liquidity risk that tends to bring down lower-rated corporates during economic contractions; and speculative-grade munis have historically defaulted at a rate far below that of high yield corporates. (According to a Moody's study published in February 2010,

FIGURE 3.2 Yield Ratio of High Yield Municipals to High Yield Corporates (12/31/2000 to 12/31/2011)



Source: Barclays Fixed-Income Research Group

between 1970 and 2009, the default rate on below-investment-grade munis was 10.45 percent, compared to 32.21 percent for global corporates.)

Historically, muni-to-corporate high yield ratios in excess of 80 percent have been a good entry point for crossover buyers. As discussed in Chapter 7, some private-activity bond sectors within the high yield tax-exempt market are actually guaranteed by major industrial corporations. In those instances, investors can make a direct comparison (after adjusting for differences in bond structure) between where a bond is trading in the corporate market and where its tax-exempt counterpart is trading. Needless to say, when the same credit trades at a tax-free yield that's higher than 65 percent of the taxable yield (assuming a 35 percent marginal tax rate), the investor will be better off owning the munis, all other things equal.

Yield is, of course, only part of the picture. At the end of the day, it is the total return on the investment that should matter. Here, the picture is rather mixed. Standard & Poor's High Yield Municipal Index has returned 5.23 percent on an annualized basis over the 10-year period ending October 30, 2011, almost identical to the 4.95 percent return for the Investment Grade Index. In other words, the investor has not been rewarded, from a total return standpoint, for the additional credit risk. A closer examination reveals that the high yield sector did significantly outperform the high-grade sector before 2006, but the increasingly volatile credit environment of the last five years has done much to erase that lead. To wit, over the last five years (through October 2011), High Yield only returned 2.17 percent annually, compared to 4.63 percent for Investment Grade. The lesson for investors is clear: *Timing matters*. If you added high yield exposure around 2002 to 2003, when rates were relatively high and spreads were relatively wide, you would have come out whole, even after the 2008 crisis. However, if you got involved in the 2006 to 2007 time frame, you probably underperformed severely. Never buy high yield in a vacuum, without being aware of the interest rate and credit market context. Is all this Monday morning quarterbacking? We think not. While the future path of interest rates was anyone's guess back in 2007, the abnormally tight credit spreads at that time were readily observable and would have raised a red flag to anyone with a modicum of historical perspective.

How has the high yield municipal sector performed against other major asset classes on a total return basis? It turned out quite well, as shown in Table 3.1.

Over the 10-year period ending December 31, 2011, on a tax-adjusted basis, the high yield municipal sector has outperformed all other major asset classes, including equities. According to Barclays, its annualized pretax

TABLE 3.1 Ten-Year Annualized Returns for High Yield Munis vs. Other Major Asset Classes (1/1/2002 to 12/31/2011)

	Annualized Return	Annualized Standard Deviation
Tax Equiv HY Muni**	9.86%	7.63
U.S. High Yield	8.85%	11.18
Tax Equiv Muni**	8.48%	4.67
Global Treasury	7.80%	7.42
Corporates	6.35%	5.85
Tax Equiv U.S. Treasury*	5.87%	4.98
Eurodollar	5.78%	4.44
Aggregate	5.78%	3.70
U.S. Treasury	5.71%	1.44
Mortgage-Backed	5.69%	2.72
Russell 2000	5.64%	21.07
HY Muni	5.51%	7.61
Muni	5.38%	4.66
U.S. Agency	5.11%	3.48
DJIA	4.56%	15.07
Asset-Backed	4.41%	4.32
Nasdaq	3.74%	20.19
S&P 500	2.92%	15.93

Source: Fixed Income Indexes = Barclays, Equity Indexes = Bloomberg (COMP function, using annualized total returns)

STD for equity indexes are based on monthly index price returns.

STD for fixed-income indexes are based on monthly index total returns.

*U.S. Treasury income returns are exempt from state income taxes and adjusted (3.78 percent in 2010, 3.48 percent in 2009, 3.45 percent for 2003 to 2008, 3.25 percent in 2002, 3.23 percent in 2001, and 3.18 percent in 2000) using a national state average (top bracket), net of federal income tax.

**Based on an equally weighted national average federal and state (top bracket) income tax rate (38.78 percent in 2010, 38.48 percent in 2009, 38.45 percent for 2003 to 2008, 41.85 percent for 2002, 42.33 percent for 2001, and 42.78 percent for 2000).

Local taxes have not been considered in the analysis.

return of 9.86 percent was more than double the return on the Dow Jones Industrials Index.

Such competitive return also came with much less risk, as measured by return volatility. To drive the point home, Barclays' municipal research group computed the sector's Sharpe ratio and compared it once again to other competing asset classes (see Table 3.2). (The Sharpe ratio is a measure of risk-adjusted performance designed by Nobel laureate William Sharpe. It basically tells you how much excess return over the risk-free rate the investment has garnered per unit of risk or volatility.) Barclays' analysis shows that, over a 10-year time frame, high yield municipals have delivered a

TABLE 3.2 Sharpe Ratios for High Yield Munis versus Other Asset Classes (Through 12/31/2011)

Sharpe Ratios	Last 3 Years	Sharpe Ratios	Last 5 Years	Sharpe Ratios	Last 10 Years
MBS	0.77	MBS	0.50	Muni**	0.39
Muni HY**	0.70	Aggregate	0.39	MBS	0.38
Muni**	0.69	U.S. Agency	0.37	Muni HY**	0.29
Aggregate	0.66	Muni**	0.36	Aggregate	0.29
Corporate	0.63	U.S. Treasury*	0.31	U.S. Agency	0.26
ABS	0.62	Eurodollar	0.28	Eurodollar	0.24
Eurodollar	0.61	Corporate	0.23	Global Tsy	0.23
High Yield	0.57	Global Tsy	0.21	U.S Treasury*	0.22
U.S. Agency	0.45	ABS	0.15	Corporate	0.22
U.S Treasury*	0.24	Muni HY**	0.15	High Yield	0.19
Global Tsy	0.19	High Yield	0.14	ABS	0.16

Source: Barclays Fixed-Income Research Group

*U.S. Treasury income returns are exempt from state income taxes and adjusted (3.78 percent in 2010, 3.48 percent in 2009, 3.45 percent for 2003 to 2008, 3.25 percent in 2002, 3.23 percent in 2001, and 3.18 percent in 2000) using a national state average (top bracket), net of federal income tax.

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Local taxes have not been considered in the analysis.

modestly positive Sharpe ratio of 0.29, the third highest among all asset classes, behind only high-grade municipals and mortgage-backed securities. In all fairness, the comparison is much less favorable for the most recent five-year period, due to the historically unprecedented muni market volatility in 2008 and again in the fourth quarter of 2010 (the last five years also encompasses, of course, the "frothy" period of 2006 to 2007).

The Impact of Bond Evaluations

One can make a solid investment case for high yield municipals from an index performance standpoint. Capturing that performance in the real world may not be quite so simple. One of the "dirty little secrets" of the municipal market is how dependent market participants are to bond evaluations provided by third-party pricing services such as J.J. Kenny (a subsidiary of Standard & Poor's); Interactive Data; and, more recently, Thomson Reuters and Bloomberg. Because of its relatively infrequent trading flows and sensitivity to even the slightest change in creditworthiness, the high yield sector is particularly vulnerable to potential mispricing.

This phenomenon is not all that surprising when one considers the following characteristics of the municipal sector:

- It is, after all, an over-the-counter market with limited liquidity, where only a fraction of the two million or so distinct CUSIPs trade on any given day. Because of the relative scarcity of daily trade posts, market participants are forced to use third-party evaluations as a starting point for price discovery.
- It is dominated by retail investors and their proxies, the mutual funds. The latter promise their shareholders daily liquidity and, as a result, have to price all their holdings at the end of every trading day in order to determine their net asset value. With very little trading data to go by, daily pricing on any particular security is effectively based on the evaluators' best guess until an actual transaction is recorded in the marketplace.

When it comes to investment grade municipals, bond evaluators used to rely on a so-called "matrix pricing" methodology, which relies on fixed yield spreads relative to a daily high grade or "risk-free" yield scale published by data providers such as Municipal Market Data (MMD) and Municipal Market Advisors (MMA). Over time, the spreads are adjusted to reflect actual trade data on the actual or comparable securities. In recent years, the

availability of near-instant trade data, as reported by the Municipal Securities Rulemaking Board (MSRB), has allowed for more refined pricing algorithms. Before the events of 2008, the relative homogeneity of the high-grade universe due to the preponderance of bond insurance also facilitated daily marking-to-market.

Unfortunately, when it comes to the highly fractured high yield sector, the evaluator's task is considerably more daunting. Any attempt to matrix-price off the rating scale is doomed from the start, as trading values can vary significantly, even within the same rating category and across different sectors. In other words, a BB-rated hospital credit may trade substantially differently from a BB-rated toll road credit, and so on. Even two BBB-rated hospital issues may not trade similarly due to perceived intrinsic credit differences. High yield evaluators have to be in constant communication with market participants in order to understand subtle differences in credit perceptions that may influence trading levels. Knowing the key market makers is also critical in determining the bid/ask for any individual security. Illiquid, private placement issues with only a handful of holders are also notoriously difficult to price.

Since the large majority of high yield issues trade infrequently, the nominal investment performance of the sector is the result of a perverse feedback loop: In the absence of ongoing trading activity, traders have no choice but to use the marks as a starting point for price discovery. Because the institutional holder's investment performance is already based on the evaluations, there is a tendency to trade around the marks, that is, to buy at levels below the marks and to sell above them. The potential is always there for short-term market manipulation: A trader may quote an aggressive bid side on an issue he or she knows will never trade in order to support a high offering. Not surprisingly, until a sufficiently large transaction takes place to disprove or confirm trading values, daily evaluations tend to become self-fulfilling prophecies.

What happens when a credit event occurs and the value of the affected bonds changes materially? Should the evaluation be adjusted immediately or should the change be phased in gradually? On the one hand, an immediate adjustment would put the entire burden on the shareholders who buy or sell fund shares at that day's net asset value (NAV). On the other hand, "smoothing out" the change over several days would smack of NAV manipulation. There has never been an easy answer to these questions.

Because mutual funds dominate the municipal market, their pricing cycle has an inordinate influence on trading levels. In theory, a fund (through its evaluator) has to accurately mark every one of its holdings

nightly to come up with an end-of-day net asset value. In reality, because it is physically impossible for evaluators to look at every CUSIP daily, wholesale pricing adjustments tend to occur in the last few days leading up to month-end or quarter-end. Potential mutual fund investors need to be aware of this phenomenon and the temporary NAV distortion that may ensue.

Nowhere is the importance of accurate and timely evaluation procedures more evident than in the seminal case of the Heartland high yield funds back in 2000, one of the most egregious pricing mishaps in mutual fund history.

On Friday, the 13th of October, in 2000 (quite a fateful day in hindsight), the net asset values of the Heartland High Yield Municipal Bond Fund and the Heartland Short Duration High Yield Municipal Fund declined by 70 percent and 44 percent, respectively, due to pricing adjustments. This came as quite a shock to the funds' shareholders as well as to most market observers. Single-day moves of this sort rarely occur for equity funds, let alone for two funds that carried five-star ratings from Morningstar, the mutual fund research firm. By the close of business on that fateful day, the funds' year-to-date total returns clocked in at a stunning −72.54 percent and −46.57 percent, respectively.

So what happened? Heartland management attributed the NAV declines to a change in the funds' pricing policy, not a one-day actual decline in the market value of the funds' holdings. In other words, most of the bonds held in the funds had been severely mismarked for an extended period of time, and their evaluations bore very little resemblance to actual market-clearing levels. How could this have happened when the funds' pricings were provided by Interactive Data (IDC), one of the two major independent pricing services at the time? As it turned out, the funds' portfolio manager achieved his lofty Morningstar rating by investing mostly in small, illiquid, and unrated issues. As of June 30, 2000, according to Morningstar, at least 96 percent of the High Yield Municipal Bond Fund's assets and 82 percent of the Short Duration Municipal Bond Fund's were invested in nonrated issues. Many of these issues were wholly owned by Heartland, which means there was no independent market-based pricing mechanism for the bonds. In the absence of corroborating trading activity, it may have been tempting for the funds' manager to maintain pricing at "stale" (i.e., outdated) levels for extended periods. IDC, as the pricing service, was probably faced with the same information void in its attempt to accurately evaluate the funds' holdings.

For the hapless shareholders of the two Heartland funds, the story got even worse. The *Wall Street Journal* hired J.J. Kenny, a competing pricing service, to review the High Yield Municipal Bond Fund's holdings as of June 30, 2000. Not surprisingly, J.J. Kenny also found evidence that the funds' holdings were significantly overvalued, compared to Kenny's own

evaluations of some of the same CUSIPs. To add insult to injury, as shareholders realized what was happening to their funds, they all rushed to redeem their shares, which in turn forced the funds to liquidate bonds on a "fire sale" basis into an unfriendly market. Litigation after litigation ensued, the Securities and Exchange Commission (SEC) brought suit against both the Fund's advisor and IDC, and as they say, the rest is mutual fund history.

In its settlement order with FT Interactive Data (formerly Interactive Data Corp.) in connection with the Heartland funds' collapse, the SEC came down hard on the Heartland funds' practice of "smoothing out" large price changes over an extended period of time. The commission also rejected the long-standing argument by institutional investors that pricing should not reflect a so-called "lowball" or distressed bid in the absence of actual trading. If there is a real, verifiable bid side out there, the commission seemed to argue, it should be reflected in the pricing, regardless of the bidder's intent. Last but not least, the SEC raised the bar on the pricing service in terms of obtaining credit information and pricing data from more objective third parties.

How did this infamous episode affect IDC's pricing procedures going forward? In response to our inquiry, a spokesman for Interactive Data offered the following prepared statement: "Interactive Data Pricing and Reference Data settled with the SEC a number of years ago (without admitting or denying allegations). Since that time, Interactive Data has ensured it has a well-developed set of policies and compliance procedures, along with oversight and controls, designed to ensure adherence relative to the preparation of evaluations."

At first blush, the SEC's order had the potential to introduce more volatility into mutual fund daily pricing. This may not be such a good thing, as shareholders who are unlucky enough to redeem on the day of a large pricing adjustment may get unfairly penalized. On the positive side, however, a more responsive pricing scheme would free investors to trade their bonds based on fundamental economic value without the artificial hindrance of stale pricing. That can only enhance market liquidity.

For those of us who have been in the tax-exempt market for a while, valuation has always been a thorny issue with muni investors, particularly with regard to illiquid private placements and "distressed" issues. Valuation levels that are out-of-sync with actual trading levels in the marketplace detract from market liquidity: Human nature being what it is, institutional bondholders are usually reluctant to hit a bid that is substantially lower than current valuation, regardless of how attractive that bid is in real economic terms. This, of course, puts the burden on the pricing services to make sure their appraisals track market realities.

In the end, the Heartland fiasco has proven to be an isolated, extreme case and is in no way representative of the high yield fund industry as a whole. In fact, it may well be remembered as a case study of how *not* to invest in high yield municipals. That said, the Heartland case did shake the mutual fund industry out of its complacency and invited much-needed scrutiny into the critical issues of pricing and price discovery.

For the high yield muni investor, some useful lessons can be drawn from the Heartland drama: (1) When it comes to infrequently traded securities, price discovery is critical, and conservatism is often the most prudent course of action; (2) the relentless pursuit of income at the expense of liquidity more often than not will end badly; and (3) if a high yield fund displays unusually low NAV volatility combined with unusually high dividend yield compared to its peers, that is usually a red flag to further investigate the sources of return and to really dig into the fund's composition, as well as its pricing policy.

We will revisit these issues in Chapter 5, where we discuss high yield mutual funds.

Six Basic Tenets of High Yield Municipal Investing

A profitable high yield strategy goes well beyond clipping the high tax-exempt coupon. When done properly, it can result in total return performance that, as we have seen above, can rival equities. In this section, we will go over the six basic tenets of a successful tax-free high yield strategy, namely: invest for after-tax total return, not just yield; respect the credit and interest rate cycles; always own the best relative values in the marketplace; implement true portfolio diversification; manage for liquidity; and pay attention to dollar price.

Invest for After-Tax Total Return, Not Just Yield

With respect to high yield investing, fixed-income professionals tend to be split between two major schools of thought: the income compounding approach and the total return approach.

The *income compounding* approach argues that the investor should always focus on earning the maximum yield while managing credit risk. After all, a dollar of tax-free interest income is worth much more than a dollar of capital gain. Over time, assuming one can steer clear of serious credit problems, the compounding effect of earning the additional yield premium should allow the bondholder to realize an above-average rate of return on his or her investment. The objective is to assemble a portfolio of

the highest yielding tax-free securities, within the constraint of your investment guidelines; monitor the portfolio for credit changes and adjust the credit profile accordingly; and minimize portfolio turnover to allow the tax-free income to compound over time. You can see this argument made quite frequently in the sales literature for many of the major high yield mutual fund groups (the interest compounding chart in the fund prospectus is usually a dead giveaway).

On its face, the argument for income compounding holds some appeal since there is a very natural bias toward the attractive tax-free yield afforded by high yield municipals. In practice, however, a relentless focus on yield alone may lead one to forsake a critical element in fixed-income investing, namely, *liquidity*. Many high-flying institutional investors have stumbled badly by investing in illiquid issues that have turned out to be credit disasters. Typically, the highest yielding deals are also the most illiquid, and even more so once the credit encounters any kind of hiccup. At that point, the bondholders' only recourse would be to go through a time- and labor-consuming workout process. I suspect if one takes into account all the legal fees and time commitment required by a credit workout, the original high yield would not look nearly as attractive, if at all.

Here's another observation to further illustrate the absurdity of a yield-driven strategy when pushed to its extreme. How many times have you heard a municipal bond underwriter offer substantially more yield on a deal that's having trouble getting done due to credit concerns? Think about it. If you're concerned about the probability of a creditor being able to pay an 8 percent coupon on his debt, do you really believe he'll be able to repay 9 percent? The fact that a project is having difficulty getting financed at market-clearing levels should indicate that the economics of such project is marginal at best, and no amount of additional yield will make it work any better. Instead of reaching for more yield, the investor's time would be better spent improving the security structure of the bonds and the economic viability of the underlying project.

The same argument would apply to mutual fund investors who use dividend yield as their main criterion for fund selection. Usually, the highest-yielding funds are the ones with either the highest risk profile or the least liquid and least diversified portfolios. Remember that dividend yield is computed by dividing the fund's current dividend payout by the fund's net asset value. Ironically, if net asset value declines faster than the fund's income stream, the dividend yield may rise and look extremely attractive, at least in the short term! When shown a fund offering that yields significantly higher than its peers, one needs to look at the fund's composition for evidence of overconcentration in particular sectors and/or in illiquid securities.

The *after-tax total return* approach is, in our opinion, the soundest. Proponents of this approach argue that a high yield municipal portfolio should be managed for total return, just like any other municipal portfolio. By "total "return" we mean the sum of the coupon income on the bonds and any market value change. The goal would be to maximize *after-tax* total return, not just yield. Attention would be given to managing duration and volatility, as well as credit risk, in contrast to the more passive income-oriented approach. For instance, back in 2007, mutual fund managers who focused exclusively on high tax-exempt yield generation were forced to ignore credit spreads that stood at historically tight levels in order to stay fully invested. Of course, they ended up paying a big price in terms of performance when the credit shocks of 2008 arrived. A disciplined total return manager would have recognized that credit was getting priced too richly in the marketplace and would have upgraded the credit profile of his or her holdings going into the 2008 credit debacle, even if it meant giving up some attractive coupon income.

Note that this strategy does not ignore the contribution of the tax-exempt income stream. After all, after-tax return is what we're shooting for. A balanced focus on both yield and total return would ensure that the investor or portfolio manager does not engage in behavior that sacrifices long-term total return objectives for short-term income targets. When the bond market is in a relatively narrow trading range, an emphasis on income is indeed warranted. However, when market volatility increases and credit risk is mispriced, the mix between duration risk and credit risk should be dynamically and aggressively managed. The "after-tax" mandate should also keep portfolio turnover to a necessary minimum, as excessive short-term capital gain generation would not be deemed tax-efficient. At the end of the day, a high yield portfolio is nothing more than a regular muni portfolio with a stronger income mandate and should be managed accordingly.

Respect the Credit and Interest Rate Cycles

As demonstrated earlier, any high yield investment should be considered in the context of the overall credit and interest rate environment. Conceptually, it may also be useful to think of an ideal "life cycle" for a high yield investment, consisting of the following three stages.

Stage One

A high yield bond issue may come to market with a significant yield premium to other rated credits due to any combination of risk factors,

including: (1) startup or construction risk; (2) the lack of a public rating; and/or (3) a recent adverse credit development or downgrade, among other things. By "going long" (i.e., by purchasing) this credit, you are betting that any one of those risk factors will dissipate over the time, resulting in an improved credit profile and a higher market price for the bonds (or more accurately, tighter spreads to the "risk-free" scale). The same reasoning would apply to the purchase in the secondary market of a bond that, for various reasons, has been trading at cheaper levels. There too, you are implicitly betting that the bonds are trading at a level that is commensurate with its current risk profile and that said risk profile will improve going forward.

Clearly, it's just not enough to arrive at an accurate credit assessment. The *relative value* case should also be compelling. You need to determine if the bonds are trading "rich" or "cheap" relative to similar credits in the marketplace. For instance, if your research shows that the underlying credit is of B quality, the bonds should be available at yield levels that are equal or higher than for other B-rated credits, all other factors the same.

Stage Two

If your initial credit assessment proves accurate, this is the stage in which one or more of the negative credit factors start to dissipate and the market recognizes the improvement. A below-investment-grade credit may benefit from an upgrade to investment-grade status (i.e., BBB– or above). A non-rated bond may become eligible for a rating, thus improving its liquidity. In that event, your high yield holdings should outperform other equivalent bonds, either in relative terms or in absolute terms. If the general level of interest rates has risen since your original purchase, the outperformance will only be relative (as expressed by tighter spreads versus the AAA benchmark), and you may still lose money. If, on the contrary, rates have declined, you will enjoy both relative and absolute outperformance: Not only will your bonds appreciate in price due to the overall drop in rates, they will also appreciate more than other similarly rated bonds thanks to tighter spreads. This is an important point, which we will revisit later.

Stage Three

For most successful high yield investments, the cycle usually ends at Stage Two. However, given the right combination of market conditions and credit fundamentals, your high yield investments may reach the ultimate payoff

stage, where they become highly secured holdings, with a shortened maturity as an added bonus. Consider the following: If the underlying credit improves to the point where it can earn an investment-grade rating (either on its own or by becoming eligible for bond insurance), the bond may get *prerefunded*. In the municipal market, the term "prerefunding" refers to the process whereby an issuer whose cost of capital has declined significantly can refinance an existing obligation in order to achieve interest cost savings.

Mechanically, the prerefunding (sometimes just called "refunding") process works roughly as follows: Assume a BB-rated issuer floated bonds in 2011 at an interest rate of 8 percent with a final maturity of 2041 and an early call date of 2021 (10-year call protection). At the time, AAA-rated munis yielded 5 percent, so the credit spread was 3 percent or 300 basis points (8 percent − 5 percent). By 2016, the credit has improved enough to earn an upgrade to BBB, and AAA yields have dropped by .25 percent or 25 basis points to 4.75 percent. Because of its new BBB status, the high yield bond now trades at a tighter spread of 150 basis points off the AAA scale. Depending on the relationship of municipals to Treasury securities at the time, the issuer may be able to issue new bonds at the lower yield of 6.25 percent (the AAA yield of 4.75 percent + the new spread of 1.50 percent = 6.25 percent). Furthermore, because the old bonds still had call protection for another five years (through 2021), the issuer has to use the proceeds of the new bonds to establish an escrow account to guarantee repayment of the old bonds when they are called in 2021 (this process is called "defeasance"). When the first call date comes around, the escrow will be liquidated to retire all the "refunded bonds" at par plus the applicable call premium. Upon defeasance of the old bonds, only the new refunding bonds with a lower coupon will be outstanding, and the prerefunding process will be complete. (Note that there are many variants on this prerefunding process, however, they are beyond the scope of this book).

As you can see, the original BB-rated high yield debt have turned into prerefunded bonds ("pre-res" in muni parlance) that are now secured by an escrow composed of either U.S. Treasuries or other highly rated federal agency obligations. On top of that, their original maturity of 2041 has now been shortened to 2021 (the call date), and the bonds are now trading as five-year bonds instead of 25-year bonds! Such is the potential upside of a successful high yield tax-exempt investment. This quasi-alchemy of turning a junk bond into AAA gold is rather unique in the fixed-income universe (for a real-life example, see our case study for Denver Airport in Chapter 8).

What is the key takeaway from the previous discussion? In order to maximize the potential upside on a high yield investment, one should take into account where the market is in terms of the overall interest rate cycle.

After all, this is still a bond investment, and bonds do move with the overall interest rate environment. You can be absolutely correct on your credit call and still lose money if you get involved at the wrong time in the rate cycle.

At this point, whether you are buying an individual bond or managing a portfolio of fixed-income securities, it may be helpful to review some of the basic premises of fixed-income portfolio management. Any standard fixed-income textbook will tell you that fixed-income performance comes from four major components: curve positioning, credit selection, sector selection, and duration. In the tax-free high yield arena, curve positioning is usually not a viable tool because there is very little supply in the short-to-intermediate part of a curve. Most high yield issuers tend to finance at the long end of the curve. Thus, I can attest that tax-exempt fixed-income management really boils down to two simple goals: Manage your income stream and manage the market value volatility of your portfolio. And you essentially only have a couple of tools at your disposal to accomplish these two goals: one is duration, the other is credit (I'm lumping credit selection and sector selection together for simplicity's sake). The art of managing a high yield portfolio is essentially the art of managing the relative mix between duration risk and credit risk to match the anticipated market scenario.

First, how should one manage the coupon income stream? It sounds simple enough. Assuming the credit passes muster, why not just go for the maximum yield you can get, particularly when that yield is tax-advantaged? When interest rates are in a tight trading range and credit conditions are stable, a yield-maximizing strategy indeed would make sense. However, when market conditions turn volatile, managing purely for income may actually jeopardize your total return objectives (recall our discussion on the trade-off between income and total return). When rates are declining rapidly and credit conditions are deteriorating, buying the highest-yielding paper will raise your portfolio's credit exposure to undesirable levels and prevent your asset valuation from fully participating in the bond rally. As credit concerns mount in the marketplace, your high yield holdings will undoubtedly underperform their high-grade counterparts.

How does one add either duration risk or credit risk to one's portfolio? You can increase the duration of your portfolio by adding highly rated, low-coupon, long-maturity paper. At one extreme, a noncallable zero-coupon bond with a 30-year or longer maturity would give you the most duration for your money. Conversely, a high-coupon bond with a short call date would generally exhibit a much shorter duration (a short-to-intermediate maturity would accomplish the same goal, of course, but with some sacrifice in yield-to-maturity).

Adding credit risk is relatively straightforward: You only need to increase the lower-rated portion of your fund to add more credit exposure. Note that duration and credit are not mutually exclusive, and any individual bond that you contemplate for purchase will give you a blend of both. The trick is to find the best combination of duration and credit risk within the context of the whole portfolio.

The best time to start increasing credit exposure is when the economy is just starting to come out of a recessionary period. Because confidence in the economic recovery is low, investors remain cautious and credit spreads continue to be wide and volatile. However, since the absolute level of rates is also likely to be relatively low, a more defensive (i.e., shorter) duration profile (perhaps using hedging tools) is advisable (a shorter duration will provide less exposure to any eventual rise in rates). Ideally, one would favor credits that are highly leveraged to the economic recovery, such as cyclically sensitive industries and municipal credits that are driven mainly by sales and income taxes.

At this writing, a slow recovery seems to be an apt description for the U.S. economy going into the first half of 2012. Because of external shock factors such as the Eurozone problems, unrest in the Middle East, and the natural disaster in Japan, the economic rebound throughout 2011 has been subdued at best, keeping credit spreads relatively wide. As shown previously in Figure 3.1, save for the extraordinary credit meltdown in 2008 and the equally extraordinary recovery in 2009, credit spreads are currently skirting the upper end of their 10-year range. A portfolio mix of 70 percent credit and 30 percent duration would probably be ideal at this stage.

As the recovery gathers steam, one should expect interest rates to start rising, all other things equal. Credit spreads should theoretically continue to tighten as the credit outlook improves. That should help insulate high yield bonds to some extent. A simple example will illustrate the point: Say a high yield bond has been trading at 6.25 percent or 125 basis points off a AAA-muni (at 5.00 percent). Should AAA yields rise by 50 basis points, the yield on the lower-rated investment may only rise by 25 basis points if credit spreads contracted by 25 basis points. This is why high yield munis are said to have a lower *market beta* than high-grade bonds. They are simply not as sensitive to changes in overall interest rates and thus have a beta of less than 1.0 (a beta of 1.0 or above implies full or above-market sensitivity).

In the real world, there may be practical reasons why higher-yielding bonds tend to outperform in a rising rate environment, at least in the short run. For one, high yield municipals tend to have a shorter duration than higher quality paper with a similar maturity because of their higher coupon

structure (as discussed in Chapter 1). Moreover, bond managers who need to raise cash in anticipation of more bearish market conditions will tend to sell their lower-coupon high-grade paper first and hang on to their higher-yielding holdings. This makes common sense: High-grade paper is just more liquid and easier to replace at a later date.

During the economic expansion stage, credit spreads continue to compress even as the absolute level of rates starts to rise, and they will soon reach a level that no longer compensates investors for the additional credit risk. This will make higher-rated, safer investments a better relative value. In addition, the higher absolute yield level means you don't need to reach as far down the rating scale to achieve your income objectives. As a result, the recommended structural mix at this juncture would be closer to 50 percent duration/50 percent credit.

Eventually, by the time the economy peaks and conditions set in for the next slowdown (not as easy a call in the real world as it may sound), the mix should ideally be tilted toward duration as opposed to credit, say 70 percent to 30 percent. This will accomplish a couple of things: Your portfolio's duration will be long enough to allow it to appreciate quickly once rates start to drop again, and your credit risk profile will be improved in anticipation of deteriorating credit conditions.

Always Own the Best Relative Values in the Marketplace

Successful yield investing requires an awareness of the cyclical context. It also requires, we believe, a very solid relative value mind-set. For your entertainment and amusement, we have formulated the First Rule of Relative Value Investing, which goes something like this: "Always buy (or hold) the best relative value in the market at any point in time and sell (or at least avoid) the worst relative value, regardless of how you might feel about the individual securities' prospects."

What does this mean exactly? It means you should continuously swap out of the "richest" security in your portfolio and buy back the "cheapest" one available in the marketplace. Of course, "rich" or "cheap" is a subjective notion, much like your spouse's charms. The definition of "rich" and "cheap" will depend on the performance target you've set for each security and an accurate assessment of its inherent creditworthiness. You may end up selling something a bit too early, but do remember that the only way to really capture performance is to sell. Truthfully, the hardest investment decision one can make is to sell something that has been performing well. However, by trying to squeeze out those last few basis points of performance, you

could end up jeopardizing your entire unrealized gain. Note that I am not advocating short-term trading just to gain a few basis points, either.

If you stay with this disciplined approach, you should be able to sidestep the main pitfall of income investing: focusing only on yield and not on the total return potential. Having a solid relative value approach also turns you into a natural contrarian investor. Chances are you would have sold or at least avoided buying anything that was heavily hyped by the broker-dealers. Chances are you would have considered a few opportunities that have been overlooked or temporarily undervalued by the market.

In more concrete terms, the relative value determination process should go roughly as follows: Reach as accurate an assessment of the credit as possible, incorporating any potential trend; assign it an internal rating; and determine where credits of comparable quality are trading in the marketplace, making all necessary adjustments for differences in sector, structure, and so on. At the end of the process, it should be clear which credits are trading "rich" or "cheap" versus their fundamental values. Outliers on the "rich" side should be sold and, conversely, outliers on the "cheap" side should be purchased or added to.

Now bear in mind this relative value approach has to be a disciplined, continuous process. Today's best value can easily turn into tomorrow's sell candidate. The reverse is, of course, also true. If you keep cycling out of fully priced securities and into inexpensive securities, you should be able to both maintain your income stream and maximize your total return potential (the only constraints being your tolerance for risk and any tax considerations). Again, the trick is determining which are the best and worst relative values in the marketplace, a process that involves relating a bond's fundamental creditworthiness to its current trading levels.

Implement True Portfolio Diversification

Risk diversification is fundamental to high yield investing, yet many market participants treat it like a mere bureaucratic exercise. They think portfolio diversification can be achieved by spreading their exposure among different issuers and different sectors, some of which are arbitrarily defined. For instance, retirement facilities are customarily classified under health care, yet their economic survival currently depends more on the housing market than on Medicare reimbursement. Theoretically, true diversification requires that the risk characteristics of your major holdings be uncorrelated. We all know that is hard to achieve in the real world, especially in the fixed-income arena, where systematic risk tends to dominate. What the prudent high yield

investor can do, at a minimum, is to honestly assess the degree of correlation among his or her holdings and, more importantly, what the key credit drivers are across his or her portfolio. This should also facilitate risk-testing for various market scenarios.

Manage for Liquidity

In the tax-exempt market, liquidity is said to be quite a relative notion. This truism is more valid now than ever, as the 2008 debacle has decimated the ranks of broker-dealers who can provide liquidity. Managing high yield assets in the post-bond insurance era will be quite a challenge, and much of it will revolve around maintaining some degree of liquidity in one's portfolio.

You may recall from Chapter 1 that, except for paper rated AA or higher, most municipals are just more or less illiquid, at least by the standards of other major fixed-income asset classes. The more complicated the credit story gets, the less liquid the bond is. Poor or infrequent financial disclosure also detracts from liquidity, as do exotic security structures or covenants. Investing in smaller issues or smaller maturities of large issues usually comes with a significant liquidity cost. In the case of a declining credit situation, a lack of liquidity will compound any potential loss. Even if you hit a credit home run, you may not fully realize the upside for your investment unless you paid attention to its liquidity characteristics. Liquidity is one of the major drivers of a high yield portfolio's performance, but its impact is not always fully appreciated by investors.

There are various ways to improve the potential liquidity of your holdings, particularly if you own issues that were narrowly distributed (such as private placements):

- Make the effort to disseminate credit information about your holdings in good times as well as bad. Keep the evaluators fully informed, as their marks will most likely be the starting point for any future bid you may seek. Encourage your creditors to improve their disclosure practices. A potential bidder can always work with bad news, but no news at all is a liquidity killer.
- Try to create an active two-sided market if you can, even if it means trading some odd lots every once in a while. The more you can populate the trade reports issued by the Municipal Securities Rulemaking Board (MSRB), the better the chance you will see a bid when you really need to liquidate your position. Why? Because any potential bidder is likely to check where the same or similar bonds last traded and at what spreads. A well-documented spread history will go a long way in enhancing the liquidity of your holdings.

These are admittedly small steps, but ones that will pay off handsomely down the line. Take advantage of liquidity when you don't need it, because it won't be there when you do.

Pay Attention to Dollar Price

Over the years, I have heard many institutional investors make blanket statements about "never buying" either a discount bond or a premium bond. While such broad generalizations always make me cringe, dollar price *is* in fact a critical factor in the high yield municipal sector. One can make the case that, all other things equal, high yield bonds trading at a discount generally have less downside than premium bonds, mainly because the dollar price of those bonds is closer to the underlying asset value of the credit.

When a high yield credit gets into trouble, the market's first reaction is to start trading it on a dollar price basis, not on yield. Coupon rates no longer matter as traders struggle to estimate liquidation or terminal value. As it so happens, most high yield deals are by nature undercollateralized, or to put it another way, overleveraged. When you buy a speculative credit at or above par, you usually don't get 100 cents' worth of underlying asset value. With costs of issuance netted out, investors often start out with, at best, 95 cents' worth of asset value for every dollar of face amount. To make matters worse, the underlying asset value is hardly a static number and will keep eroding as the overall credit situation deteriorates.

As a case in point, one need only look at a perennially distressed sector such as the airline industry. Back in September 2002, tax-exempt airport bonds guaranteed by United Airlines (UAL) were trading at around 35 cents on the dollar, reflecting market expectations that the airline could soon file for bankruptcy. As can be expected, the coupons on the bonds quickly became irrelevant. Estimating the underlying asset value became the only game in town. In the case of UAL, street estimates of recovery value ranged anywhere between 10 cents and 50 cents.

Before the shocking events of 9/11 in the United States and around the world, UAL paper was trading at par to a slight premium, based on yield. After the terrorist attacks, the bid side initially fell into the 80s (cents on the dollar). At the time, many institutional holders balked at selling their high-coupon holdings in an attempt to preserve their income stream. In fact, the high-coupon paper turned out to be the better sell candidates. Even if you thought the credit was oversold and could bounce back, the appropriate strategy would have been to swap out of the high-coupon issues into deeper discounts, at approximately the same yield. This would have allowed

you to: (1) book the tax loss; (2) preserve your upside in case things did rebound; (3) reduce your dollar price downside; and (4) in some cases, pick up a better security structure. Dollar price very much mattered in that case! Assuming you have done your credit research homework, buying high yield bonds at a discount usually provides you with better yield, and less downside risk to boot (ignoring any tax effect).

Lest we disappoint our more technically minded readers, deeper discount bonds have the additional benefit of positive convexity, a fact well known to most distressed credit traders. In a low-interest-rate environment, high yield buyers, especially institutional investors, tend to favor par or premium bonds (aside from providing higher current income, premium bonds also hold their value better than par bonds when rates start to rise). The downside to this practice, of course, is a potentially much greater capital loss in the event of credit trouble. The fact of the matter is that most high yield new issues tend to be negatively convex (due to pricing at par and callability): Their downside is unlimited while their upside is capped by the early call provision.

There may also be tax reasons pushing mutual funds toward bonds issued at an original issue premium: They get an above-market tax-exempt coupon, which helps their distribution yield, and the amount of premium amortized each year just goes to reduce the tax basis on their bonds (I do not purport to be a tax advisor, so please check with your tax experts on this matter).

To summarize, the high yield municipal sector can be a very profitable investment choice, providing both attractive current income as well as capital appreciation potential. However, potential investors must pick their entry and exit points very carefully with full awareness of the interest rate environment and of credit market conditions. Once they have committed to the sector, they must bring a disciplined, relative value–based approach to managing their exposure in order to avoid problems down the line. Index returns for this asset class may look attractive on paper, but realizing those returns requires good execution.

Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

CHAPTER 4

High Yield Credit Risk Revisited: The Default Record

Having reviewed the return potential of the high yield municipal sector in the last chapter, we now turn our attention to the flip side of the equation: credit risk. The mutual fund industry routinely makes the case for high yield investing by quoting the low default rates experienced by the tax-exempt asset class *as a whole*. This is, of course, a bit misleading. High yield muni investors, by definition, deal primarily with the lower-rated or nonrated part of the tax-exempt market, a market segment that displays extremely different risk characteristics. So how risky are high yield municipals, really? As it turns out, riskier than commonly believed, but still largely commensurate with the historical returns, as long as investors can manage to steer clear of certain sectors with chronically high default rates.

Definitions of Default

One of the most thoughtful discussions to date on municipal default analysis comes from a surprising source: the National Association of Insurance Commissioners (NAIC), charged with determining a risk rating scheme for the insurance industry's investment holdings, including municipals. In a recent white paper entitled "Issues in Municipal Default Analysis," the NAIC observes:

> If we assign all municipal finance activity sectors to one of three groups based on common default characteristics, we find that only those municipal

> finance sectors that are backed by tax or tax like authority default at a lower rate than corporate or structured securities. A second group of municipal finance sectors, which provides for corporate or structured like repayment mechanisms but is associated with essential government activity, default at a rate only slightly lower than corporate securities. The third group, which provides for corporate or structured like repayment mechanisms but is associated more with traditionally private than government activity, defaults at rates almost identical to that of corporate securities.[1]

It certainly makes sense that the further the project strays from an essential municipal function, the higher its likelihood of default. This is due to the fact that public entities will go out of their way to protect one of their essential services from default, and they usually have access to taxing and fee-raising capability to support those services. At the other end of the spectrum, projects that are undertaken for private purposes will not get the same degree of political support since they are expected to be self-supporting in the first place. Their default rate should then be driven by purely economic factors. Thus it stands to reason that revenue bonds have a higher default rate than general obligation bonds and that private activity bonds have default rates similar to corporate bonds.

It may not come as much of a surprise that the word *default* means different things to different people. In analyzing historical default statistics, one must first be clear about two things: (1) what bond population the statistics are drawn from and (2) the definition of what constitutes a default when applied to such population. When default *rates* are quoted, one should question what *denominator* was used in the computation. A default rate computed based on a static pool of issues will be very different from one based on current year new issue supply or total outstanding supply.

As seen in Chapter 1, what constitutes a default may vary between data sources. Market observers such as Municipal Market Advisors (MMA) define default strictly as "monetary default": Either interest or principal payments must be missed before the issuer can be classified as "in default." However, MMA also tracks separately what they call credit impairments, situations where bondholders' repayment could be in jeopardy but an actual default has not yet occurred. Other default data gatherers, such as Income Securities Advisors (ISA, publisher of the *Distressed Debt Securities Newsletter*), use a slightly more expansive definition, as follows:

> We count as a default an instance where the obligor fails to make payment to the trustee of the money due. Therefore, if an interest payment requires a

> draw on reserve funds, we count such a draw as a default because the obligor failed to make timely payment. If the payment is quickly made up and reserve funds replenished, we remove the default from the database. The default is removed from all default statistics and is not counted as a recovery. On the other hand, if an obligor is in default because a certain debt ratio is breached, it is never counted as a default.[2]

When it comes to aggregate default statistics for the entire municipal sector, one of the most widely quoted sources is Standard & Poor's "Public Finance Defaults and Rating Transition Data," which was recently updated through calendar year 2010 and covers the period from 1986 through 2010. What does S&P consider to be a default? "A default is recorded upon the first occurrence of monetary payment default on the relevant obligation. Technical defaults, such as covenant violations, are not by themselves payment defaults."[3]

Fitch Ratings also released its "U.S. Public Finance 2010 Transition and Default Study" in early 2011.[4] Here again, only issues rated by Fitch are included. Fitch's definition of default goes as follows: "Default on a U.S. Public Finance security is defined as one of the following: (1) failure to make a payment of principal and/or interest under the contractual terms of the rated obligation; (2) the bankruptcy filings, administration, receivership, liquidation, or other winding-up or cessation of the business of an issuer/obligor and (3) the coercive exchange of an obligation, where creditors were offered securities with diminished structural or economic terms compared with the existing obligation." Compared to S&P's, Fitch's definition is broader, as it appears to include so-called "cramdown restructurings," even if no actual monetary default occurs.

Default Record for Rated Bonds

Since the fourth quarter of 2010, there has been intense interest in the default and bankruptcy record of the tax-exempt market, thanks to the predictions of widespread defaults from a few market pundits with little prior experience in municipals. Historically, the largest and best-known municipal defaults occurred in the 1970s and 1980s: New York City in 1975, Cleveland in 1978, and the Washington Public Power Supply System (WPPSS) in 1982. There is one notable exception: Orange County, California, in late 1994. Each was a seminal event in its own right, although the factors leading up to each default were quite different. At the risk of oversimplification, one could

say New York and Cleveland were victims of structural budget deficits and socioeconomic factors, WPPSS of nuclear construction risk, and Orange County of financial mismanagement.

Since the mid-1980s, with the notable exception of Orange County, the municipal credit landscape has remained remarkably calm. Between 1986 and 2010, the default rate on bonds rated investment grade by S&P was virtually nil, averaging literally 0.00 percent. The worst year for the credit markets to date, 2008, still showed a default rate of only 0.03 percent. In contrast, over the same period, the default rate on what S&P calls "speculative grade" (i.e., below investment grade) averaged 1.55 percent, with a peak of 5.26 percent in 1992, still very modest by corporate bond standards.

For the period from 1999 to 2010, Fitch found that the average annual default rate on Fitch-rated non–investment grade was 1.99 percent, compared to only 0.01 percent at the investment-grade level. However, in contrast to S&P's experience, once you get into the non–investment grade area, default rates on Fitch-rated names increase geometrically, as shown in Table 4.1.

Fitch further reports that 8 out of the 11 defaults recorded from 1999 to 2010 on its rated issues occurred in the below-investment grade hospital sector. One was a continuing care retirement community (CCRC) and the remaining two came from the tax-backed and education sectors.

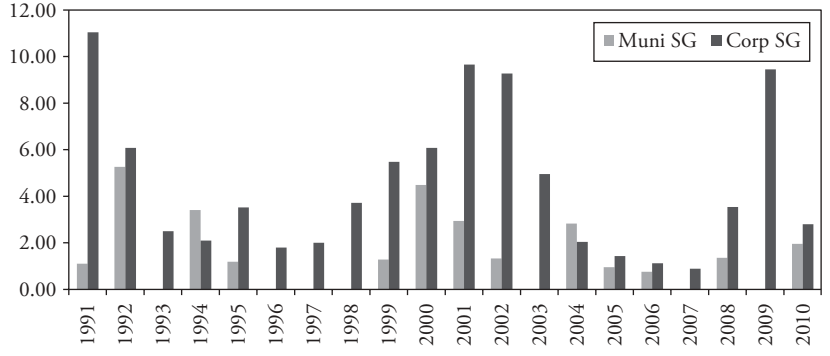
Since many high yield tax-exempt credits are just corporate credits in disguise, how do rated high yield municipals stack up to high yield corporates? Figure 4.1 compares the annual default rates for what S&P calls "speculative grade" munis to "speculative grade" global corporates. Clearly,

TABLE 4.1 Fitch U.S. Public Finance Average Cumulative Default Rates: 1999 to 2010

	One Year	Three Years	Five Years	Ten Years
All U.S. Public Finance	0.04	0.13	0.21	0.57
Investment Grade	0.01	0.04	0.09	0.32
Non–Investment Grade	1.99	5.29	8.02	17.86
BBB	0.06	0.26	0.59	1.90
BB	0.34	3.29	5.63	5.56
B	2.70	3.26	3.08	20.00
CCC to C	11.11	22.86	30.00	46.67

Source: Fitch Ratings

FIGURE 4.1 Annual Default Rates (%): Speculative-Grade Munis vs. Speculative-Grade Corporates (1986 to 2010)



Source: Standard & Poor's

the historical default record on lower-rated municipals is dwarfed by that of their corporate counterparts.

Overall, default studies from the rating agencies share a simple, fundamental problem: The sample population is fundamentally skewed, since it is, by definition, limited to the rated universe. The S&P study itself points out: "Over the years in question, the municipal market has tended to be self-selecting—municipal issuers of lower credit quality have tended not to request ratings. Correspondingly, the universe of rated municipalities was, as a general proposition, more creditworthy and, of course, less likely to default. When the entirety of public finance issuers and issues is evaluated, as opposed to simply the rated universe, however, more defaults appear." In other words, the default rate drawn from the S&P study (or any other rating agency, for that matter) is likely to significantly understate the true credit risk of the total universe of municipal bonds. The "self-selection" phenomenon mentioned by S&P does much to limit the usefulness of their default data.

Default Record for Unrated Bonds

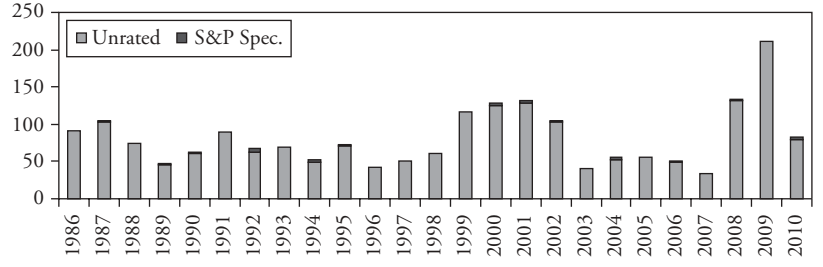
Since the default experience for rated municipals has limited relevance to the high yield universe, the record for unrated issues must now be examined. An older study, which was done by Standard & Poor's/J.J. Kenny in June 2000,[5] did take into account unrated issues. Unfortunately, the data only covered the 1990s and no recent update has been published, to our knowledge. Nevertheless, some useful historical perspective may be gleaned from the distribution of defaults by sector during the 1990s, as shown in Table 4.2.

TABLE 4.2 Monetary Defaults in the 1990s by Sector

Sector	# of Defaults	Defaulted $ Amounts	Average Time to Default	# Rated	# Nonrated
Industrial Dev.	288	$2,839,915,892	88	33	255
Health Care	239	1,994,158,951	58	24	215
Multifam. Housing	153	2,050,092,293	63	51	102
Land-Backed	141	1,037,790,699	72	2	139
Cert. of Part./Lease	30	146,505,781	57	2	28
Other Revenues	25	826,992,000	47	7	18
Single-Fam. Housing	16	36,877,076	137	13	3
Gen. Obligations	14	827,550,000	10	5	9
Utilities	8	39,450,000	70	0	8
Education	3	10,530,000	44	0	3
TOTAL	**917**	**$9,809,862,692**	**71 Months**	**137**	**780**

Source: Standard & Poor's/J.J. Kenny

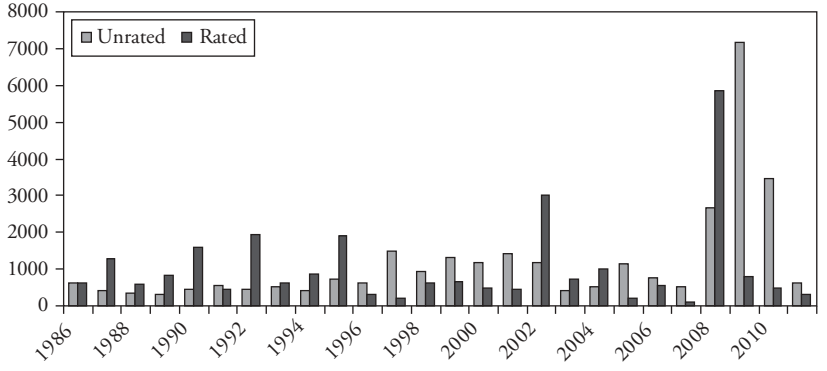
FIGURE 4.2 Combined Defaults on Unrated and S&P Speculative-Grade Municipal Issues (1986 to 2010)



Source: Standard & Poor's and Income Securities Advisors

One of the few sources of current default data that does include unrated paper is Richard Lehmann's Income Securities Advisors (ISA) group. According to ISA, the top four sectors with the highest default rates for the last 3, 5, and 10 years (through 9/30/11) have been taxing districts, housing, health/congregate care, and retirement housing. ISA's findings are summarized in Figures 4.2, and 4.3 and Table 4.3. The reader is reminded that technical defaults are counted by ISA as defaults, which may overstate the numbers. In Figure 4.2, we combine the number on nonrated defaults,

FIGURE 4.3 Dollar Amount Defaults for Rated vs. Unrated Municipals (1986 to 2010) ($ millions)



Source: Income Securities Advisors

as compiled by ISA, and the rated speculative-grade defaults, as reported by S&P. This composite picture shows once again that the overwhelming number of defaults since 1986 have occurred in the nonrated arena. However, in terms of dollar amounts, defaults in the rated names can and have exceeded those related to unrated issues, as shown in Figure 4.3. This is because rated issues tend to be much larger in size.

The default data described above suggests that "vintage," or year of issuance, may be in itself an important credit factor. As discussed in Chapter 3, issues that were brought to market at relatively "frothy" points in the market (most recently during the 2006 to 2007 period) are likely to show relatively weak security covenants and unattractive coupon rates. Weak security covenants hurt workout recoveries and low coupon rates increase the probability of the bonds trading at a discount, leading to principal losses (for instance, it's highly unlikely that the original buyers of high yield debt with a coupon in the low 4 percents will ever see their bonds trade at par, let alone at a premium). Indeed, indiscriminate buying from investors flush with cash is usually a setup for a wave of credit problems four to five years down the road (ISA's Richard Lehmann estimates that over 50 percent of defaults occur within the first five years of initial issuance).

Recent Default and Impairment Statistics

For a glimpse at the most current default picture as of this writing, we turn first to data collected by Municipal Market Advisors.[6] MMA's numbers include all outstanding, uncured default situations that have been disclosed

TABLE 4.3 Sectors with Highest Default Rates, Including Nonrated (as of 9/30/11)

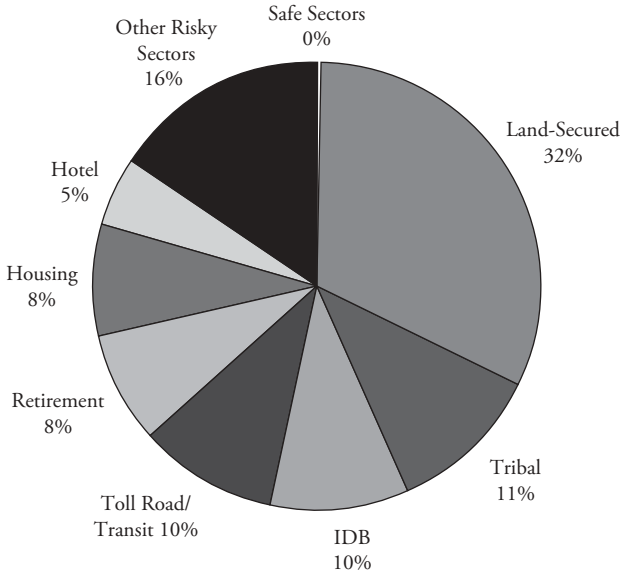
		$(Millions)		
Last 3 Years	Issues	Total $	*Average size*	
Rated Issues	73	7,466	*102*	
Unrated Issues	456	13,921	*31*	
Housing Issues	240	6,266	*26*	Taxing Districts
	41	817	*20*	Housing including FHA, HUD
	38	1,696	*45*	Hospital and Congregate Care
	16	381	*24*	Retirement Housing
Last 5 Years				
Rated Issue	106	8,153	*77*	
Unrated Issues	539	15,186	*28*	
Housing Issues	254	6,465	*25*	Taxing Districts
	78	1,253	*16*	Housing including FHA, HUD
	60	2,094	*35*	Hospital and Congregate Care
	22	516	*23*	Retirement Housing
Last 10 Years				
Rated Issue	294	15,346	*52*	
Unrated Issues	919	19,908	*22*	
Housing Issues	284	6,841	*24*	Taxing Districts
	210	2,633	*13*	Housing including FHA, HUD
	141	3,523	*25*	Hospital and Congregate Care
	48	816	*17*	Retirement Housing

Source: Income Securities Advisors

since at least July 2009 (any default situation with no posted notice in the last two years would not be included).

As of 9/30/2011, according to MMA, an estimated $8.8 billion of muni debt was in monetary default, with the land-based category accounting for 32 percent of the total. Native American tribal debt was the next largest default contributor at about 11 percent, followed by industrial development bonds (IDB) at 10.4 percent. See Figure 4.4.

FIGURE 4.4 Outstanding Municipal Defaults as of 9/30/2011



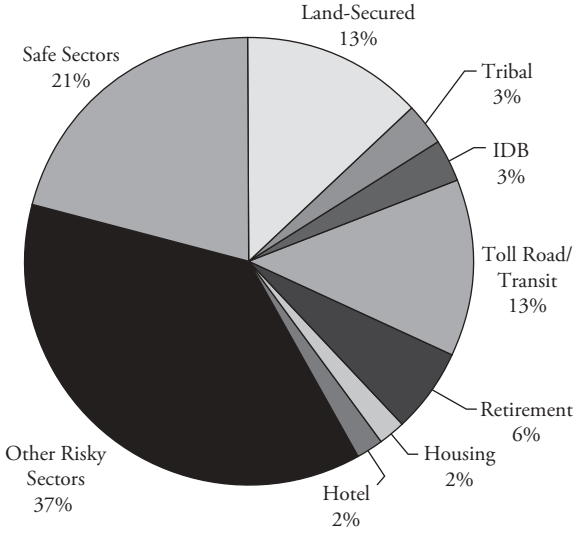
Source: Municipal Market Advisors

As mentioned above, MMA also maintains a record of credit impairment notices other than monetary defaults, such as notices of "support" (where bondholders are being paid through emergency means, e.g., reserve fund, bond insurance, LOC draw, etc.) and a catch-all "other" category (where debt service is being paid in the regular way, but there is trouble afoot through covenant violation, bankruptcy, developer problems, etc.). Combining all credit impairments, including monetary defaults, produces a somewhat different picture. Again as of 9/30/2011, a total of $36.26 billion in municipal bonds were subject to some kind of impairment notice. While land-secured continues to dominate all credit impairment notices at 13 percent, the toll road and transit sector now comes in at a close second with 12.8 percent, followed by retirement housing at 6.1 percent. See Figure 4.5.

As mentioned above, MMA's data only date back to July 2009. ISA estimates the number of unsettled muni defaults at a much higher $30.1 billion, spread over 1,224 different issues, as of 9/30/2011.

Although not captured in the data displayed above, 2011 did end with a significant jump in defaulted issues, primarily as a result of the AMR bankruptcy filing in December. About $3.5 billion in AMR-secured special facility bonds were affected by the filing. Once again, the airline industry

FIGURE 4.5 Outstanding Municipal Defaults and Other Impairment Notices as of 9/30/2011



Source: Municipal Market Advisors

fulfilled its mission of supplying distressed paper to the high yield municipal market, as it has done for the last three decades.

Thus, in spite of the now infamous prediction of "hundreds of billions of dollars" of municipal defaults in late 2010 by an uninformed but media-savvy analyst, the final default tally for 2011 ended up around $6 billion, with AMR-related paper accounting for more than half of the total. It was certainly a significant increase from the $3.1 billion recorded for 2010, but nowhere near cataclysmic proportions when compared against an estimated $3.8 trillion in outstanding municipals.

Recovery Rates

Aside from the probability of default, potential high yield investors may also want to know how much of their money they may eventually recover from a default/bankruptcy situation. So far, we have been able to find only one study specifically addressing recovery rates on municipal bonds, a report published by Fitch in January 2007, titled "Default Risk and Recovery Rates on U.S. Municipal Bonds."[7] As a general comment, Fitch states that "because of the

dearth of municipal bond defaults, recovery data are far from robust. However, available data demonstrate that *most municipal sectors have superior recovery prospects to corporate bonds*, which have an average recovery rate of about 40 percent" (our emphasis). In terms of recovery prospect, the Fitch study further divides the tax-exempt universe into six broad classes, as follows:

Class 1: State general obligation debt, state sales tax.
Class 2: Local general obligation, tax-backed debt, insured health care, public college tuition/revenue, housing (insured and single-family), transit, and water/sewer/gas.
Class 3: Lease/appropriation-backed, airports, marine ports, public power distribution.
Class 4: CCRCs, nursing homes, private colleges/secondary schools, state/local multifamily, tax-increment/tax allocation bonds, museums/stadiums, parking, established bridges/toll roads, public power generation, and waste disposal.
Class 5: Military housing, startup bridges/toll roads.
Class 6: Hospitals, private prisons, stadiums, student housing, and tribal gaming bonds.

Recovery classes 1, 2, and 3, which include the "safest" sectors of the tax-exempt market, are assumed by Fitch to recover 100 percent of par, although some interest payments may be missed or delayed. The last three classes (4 through 6) are more relevant to the high yield investor. According to Fitch, "recovery class 4 and 5 bonds are assumed to recover 90 percent and 70 percent of par, respectively" and "class 6 bonds are treated the same as corporate bonds, with average recovery rates of 40 percent."

ISA's database also tracks recovery values over the past 10 years, and it shows an average recovery value of 88 cents on the dollar for rated muni issues (based on 100 rated defaulted issues) and 79 cents on the dollar for unrated issues (based on 159 unrated bond defaults). These figures compare favorably with the average recovery value of 58 cents for corporate bonds tracked by ISA over the same period.

Lessons from Historical Default Records

The extremely low aggregate default numbers often quoted in the press, while generally accurate for the tax-exempt market as a whole, may provide cold comfort to the high yield investor. First of all, the aggregate numbers

benefited greatly from the virtual absence of default in the tax-backed sector, at least until the advent of the last recession. Yet the preponderance of high yield issues come from the revenue bond sector, particularly the private activity issues, which resemble corporate debt more than traditional municipal debt. (In fact, in contrast to most corporate borrowers, many of the small industrial development bond borrowers do not even have any capital structure: The bondholders represent the entire capital structure and thus function more like equity providers than creditors.) Furthermore, even within the high yield asset class, historical defaults are concentrated in only a handful of the riskiest sectors. The default record for those sectors should be of greatest relevance to high yield market participants. What conclusions can we draw from the historical default data presented above?

First, one can make the case that there is not one but *two* separate tax-exempt markets. On the one hand, there is the traditional municipal market with its extremely low default rate, buttressed by strong, time-tested legal protections (at least for now). On the other, there is the tax-exempt high yield market, which is municipal in name only and which displays the much higher risk and default characteristics of private entity or corporate borrowers. The default data truly tell a tale of two markets.

As a further observation, most of the problem credits have historically occurred in two broad categories of risk: real estate and health care. Sectors such as taxing districts, below-investment-grade housing projects, and retirement facilities have generally not displayed positive risk-return characteristics, especially when purchased in the new issue market (although of course there are always exceptions). Arguably, they may become more attractive as distressed opportunities in the secondary market. Start-up retirement facilities, in particular, combine risk elements from both health care and real estate: Their performance in recent years has been more affected by the housing crash than the health care environment. Bear in mind also that our comments do not apply to corporate-backed municipals (see Chapter 7), simply because they are in effect corporate credits and should be treated as such.

Based on the above, a high yield investing strategy would have the best chance of success simply by avoiding two broadly defined market segments: development districts (including all land-secured, special assessment, and tax-increment financings) and senior care (including assisted living, continuing care, and nursing).

It should be pointed out that sectors with the highest incidence of default are not necessarily the riskiest. This is because the default rate does not take into account time-to-workout or any underlying collateral. For

instance, land-based deals have a relatively high default rate, but they are generally backed by real assets (e.g., raw land) and thus have tangible recovery value. Toll roads, on the other hand, appear to have a lower default rate, but they may limp along in various states of distress for years before their financial condition is addressed, and bondholders have no pledged collateral to look forward to.

Taken at face value, according to Richard Lehmann, the default record also seems to suggest the following rule of thumb: (1) Either wait for at least five years before buying into the riskiest projects (as more than half of them default between their four- and five-year anniversary) or (2) buy into the initial new issue but sell out after year 3. Like any other rule of thumb, this one is noteworthy but should be taken with a rather large grain of salt!

Last but not least, rated issues with a speculative grade rating are far, far less likely to default than nonrated issues. However, those rated names that do default are usually much larger in size. This reflects the self-selection process that is involved in seeking a rating. It also suggests that a relatively more conservative high yield strategy targeting mostly *rated* high yield issues may actually produce better risk-return characteristics than one that relies primarily on the nonrated sector. In fact, tax-exempt mutual funds that have inordinate exposure to nonrated credits (say, 30 percent or more of assets) have generally not done well from a total return perspective over the past 10 years, as we will see in Chapter 5.

Going forward, the recent amendments to SEC Rule 15c2-12 may lead to a sharp rise in *reported* technical defaults. The amendments, approved in May 2010, removed the materiality standards for disclosure of the following events:

- Principal and interest payment delinquencies.
- Unscheduled draws on debt service reserves reflecting financial difficulties.
- Unscheduled draws on credit enhancement reflecting financial difficulties.
- Substitution of credit or liquidity providers or their failure to perform.
- Adverse tax opinions or the issuance by the IRS of a proposed or final determination of taxability.
- Defeasances.
- Rating changes.
- Bankruptcy.
- Tender offers.

In the past, the above events had to be reported to the MSRB only if deemed material. Going forward, *all* occurrences must be reported, without exception.

In summary, as many of you may already suspect, collecting high tax-free income without risking loss of principal is no walk in the park. Certainly, the potential for attractive return is there (in some cases exceeding that of high yield corporates), as long as exposure to the riskiest sectors is managed effectively. In the end, high yield buyers should ensure that they are adequately compensated for default and recovery prospects when dabbling in those sectors that most closely resemble corporate and private equity financings. Ironically, one of the reasons many unrated municipals default—their weak capital structure—is also the main reason recovery values are relatively high: Bondholders are usually the only stakeholders at the table.

Notes

1. The National Association of Insurance Commissioners, "Issues in Municipal Default Analysis," November 19, 2010.
2. "A Note on Default Methodology," *Distressed Debt Securities Newsletter*, September 2011.
3. Standard & Poor's, "U.S, Public Finance Defaults and Rating Transition Data: 2010 Update," March 2, 2011; "2010 Annual Global Corporate Default Study and Rating Transitions," March 30, 2011.
4. Fitch Ratings, "Fitch Ratings U.S. Public Finance 2010 Transition and Default Study," March 25, 2011.
5. Standard & Poor's/J.J. Kenny, "A Complete Look at Monetary Defaults in the 1990s," June 2000.
6. Municipal Market Advisors, *Weekly Advisor*, October 3, 2011.
7. Fitch Ratings, "Default Risk and Recovery Rates on U.S. Municipal Bonds," January 9, 2007.

Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

CHAPTER 5

Professionally Managed High Yield Municipal Products

Now that we understand in detail the risk/return characteristics of high yield municipals as an asset class, how can an investor get access to this sector? Packaged fund products come to mind first, as they can provide the kind of portfolio diversification that is a key requirement for successful high yield tax-exempt investing. Before proceeding, we should note that "diversification" does not mean just slapping together a bunch of different issues in different sectors. You need to think about what the major credit drivers are for each of your bond holdings and ensure those drivers overlap as little as possible. For instance, it is customary to classify the senior retirement and multifamily housing sectors as separate and distinct sectors, whereas they in fact share a fundamental dependence on local real estate factors. Proper diversification should occur along geographical and sectoral lines as well as by security types (e.g., tax-backed bonds versus utility bonds, etc.). The beauty of the high yield market lies in the fact that most of the time, micro—not macro—factors drive the credit, a feature that you should optimize in constructing your portfolio.

Unfortunately, for the majority of investors out there, assembling a truly diversified portfolio is not an easy feat if you have less than, say, $10,000 to devote to this strategy. After all, the minimum face value of a muni bond is already $5,000. In that case, professionally managed bond funds can provide you access to a diversified portfolio for a minimum initial investment of as low as $1,000 (even less for subsequent investments). If the size of your portfolio exceeds $250,000, you may be able to open a so-called separately

managed account (SMA) and still have access to professional management. If you are fortunate enough to belong to the high net worth investor category, you may be eligible to participate in hedge funds, that is, private investment partnerships devoted to municipal credit opportunities.

Yield-oriented municipal bond funds can be grouped into two general categories, depending on how they are managed by the fund sponsor: *actively managed products* such as open-end funds, closed-end funds (CEFs), hedge funds, and separately managed accounts (SMAs); and *passively managed products* such as unit investment trusts (UITs) and exchange-traded funds (ETFs). Ironically, in recent years, the mutual funds have shown a propensity to benchmark performance to a market index, resulting in a more passive approach, even as bond ETFs appear to be trending toward a more actively managed style!

Actively Managed Products

Due to their very nature, high yield investments generally require constant monitoring (hence an active management style) and considerable credit research resources. No wonder the sector has historically been dominated by active professional managers at large mutual fund complexes with sizeable research staffs. Through these fund groups, the average investor can access the sector through a variety of open-end and closed-end fund products. Until recently, separately managed account platforms have largely steered clear of credit exposure, as their primary high net worth clientele is more concerned with capital preservation than wealth creation.

There are signs this may be changing, however, as the persistently low interest rate environment and proliferation of credit opportunities in the municipal market may spur greater interest in income-oriented SMA strategies. More aggressive investors who can afford a minimum starting investment of $1 million may also participate in a new breed of private limited partnerships or hedge funds devoted to municipal credit opportunities, including distressed debt. Let us take a look at each type of actively managed vehicle in greater detail.

Open-End High Yield Municipal Funds

The overwhelming majority of high yield municipal bonds are held in open-end mutual funds. As we saw in Chapter 2, the mutual fund industry provided the initial impetus for the growth of the high yield tax-exempt

investment style some 30 years ago. Today, it still dominates this sector as the primary vehicle for retail investors. Lipper, the fund-ranking service, defines a high yield municipal fund as "a fund which invests at least 50 percent of its assets in lower-grade securities."

The most often cited reasons for investing in a high yield open-end fund include the following:

1. Diversification: As we discussed at length before, risk diversification is crucial to successful high yield investing. All mutual funds are subject to the Investment Company Act of 1940, which mandates certain minimum standards of portfolio diversification and fund governance, among other things.
2. Daily liquidity: Mutual fund investors can redeem their shares at the closing net asset value every day, subject to certain fees.
3. Professional management and research: Mutual funds are usually managed by individual portfolio managers or portfolio management teams, with support from a large staff of professional credit analysts.
4. Low historical default rates: The low historical default rate for municipal bonds in general is often used as an argument in favor of high yield investments. However, this may potentially be misleading, as we discussed at some length in Chapter 4.
5. High tax-exempt dividends: This is clearly the main selling pitch for high yield products. However, a relentless focus on income generation at the expense of overall return could be detrimental to long-term performance results, as discussed in the previous chapter.

So much for the well-worn fund marketing pitch. Investors should also keep the following factors in mind when evaluating a high yield muni fund:

1. The high yield muni fund category actually spans quite a wide variety of funds with vastly different risk profiles. In fact, many so-called high yield funds actually have an average rating of at least BBB, which is still considered investment grade. Many of the larger funds have a significant portion of their holdings in high grade paper for liquidity purposes. At the opposite end of the spectrum, several funds may show a large concentrated exposure to nonrated, illiquid securities or to a few highly volatile, high yield sectors. In fact, there is no such thing as a typical high yield fund, and potential investors will be well advised to study very carefully the risk profile of each fund candidate. Looking at their top 10 holdings, largest sector concentrations, largest single name exposure, and so on will give

you a sense of where the fund's historical performance came from and whether or not that will be sustainable going forward, particularly in the event of a market credit event or liquidity squeeze. A tax-exempt dividend rate that stands out from the rest of the competitive field may indicate that the fund is taking above-market risks, and this should be investigated to your satisfaction.

2. Investment objectives also vary widely. It's not a bad idea to ask the portfolio manager what performance benchmark is used to determine his or her compensation. Is it just yield? Is it total return? Or a combination of the two? The answer will give you an insight into how the manager is incentivized. It may not come as a real shock that portfolio managers will manage in accordance with how they get compensated, regardless of what the fund marketing literature may tell you.
3. Even if the fund claims to be managed on a total return basis, the reality of the marketplace is that most high yield funds are sold on the basis of yield alone. For the retail brokers who sell these products to the general public, it is so much easier to entice investors with a simple dividend yield quote. Because open-end funds constantly compete for asset growth, there is unspoken but definite pressure on the portfolio manager to maximize yield, first and foremost. As we have seen in the Heartland funds case (Chapter 3), the relentless pursuit of yield objectives above all else could ultimately lead to undesirable long-term investment performance.
4. Pricing policy is another important element, given the huge impact that third-party evaluators have in the municipal market in general and particularly in the high yield arena. What are the rules for marking hard-to-price issues such as private placements and nonrated issues, particularly those that are wholly owned by one fund? Can fund management override the marks provided by third-party pricing services? Are there internal cash flow models used to price illiquid holdings? How about defaulted or distressed paper still held by the fund? Who's really responsible for marking them? These are all questions that must be answered to your satisfaction if you want to avoid running into mark-to-market surprises down the line. While most mutual fund groups have instituted fairly stringent pricing guidelines, there is still a fair amount of judgment involved on the part of fund management, and you should always be cognizant of that fact. Last but not least, be cautious about buying mutual fund shares around quarter-end as there may be a tendency to play catch-up on pricing at the end of key performance periods.
5. During periods of high interest rate volatility, the net asset value (NAV) of a high yield fund may appear more stable than that of a high-grade fund.

If rates were to drop precipitously as a result of a flight-to-quality or a slowdown in the economy, high yield bonds might not participate in the rally due to credit concerns. On the other hand, if rates were to spike up in response to strengthening economic conditions, the high-grade universe would suffer greater losses in terms of price, as lower-rated paper may be cushioned by tighter spreads.

There are other practical reasons why high yield bonds would hold up better in a market sell-off (i.e., in a rising rate scenario): (1) When portfolio managers get concerned about the rate outlook and look to raise cash, they tend to sell their most liquid, lower-yielding, high-grade items and retain their higher coupon holdings to preserve their tax-free income stream; (2) many of the tax-exempt high yield paper may be hard to find and hard to replace at a later date; and (3) third-party evaluators tend to wait a while to see if credit spreads adjust before marking down high yield paper. If the rate move proves modest and contained, the high yield sector may indeed outperform. However, if rates move decisively higher, there is a chance that lower grade bond yields will eventually gap up, resulting in lower market value.

6. At the end of the day, high yield funds suffer from the same drawback as most open-end mutual funds, that is, the fund shareholder does not control his or her own fate. You are affected by what your fellow shareholders do. When the market rallies and your fund grows, your investment's attractive tax-free income stream will most likely be diluted by an influx of new shareholders. Conversely, when the market turns south, forced selling by the fund to meet redemptions may compound your losses.

   This fact of life was made abundantly clear as recently as the fourth quarter of 2010: When the municipal market went into a tailspin as a result of increasing concerns about state and local government finances (among other factors), open-end muni funds suffered massive redemptions and had to liquidate some of their holdings, compounding the market sell-off in the process. Even if you were convinced that the market was overreacting and wanted to stay put, the value of your fund shares would have been dramatically impacted by panic selling from the other shareholders.

   Because of their very nature, open-end funds are almost always the first casualty of flow-of-fund excesses, in both directions. Mind you, most fund sponsors do have the option of closing down their funds to new investors if they cannot find enough investment opportunities. However, given the marketing pressure most of them operate under, this is an option that has been rarely exercised in recent times.

7. Given the future prospects for rising rates, if and when the economy comes out of its current catatonic state, it is worth noting that open-end funds are usually constrained in their interest risk hedging capability. This is due to the 1940 Act limitations on security short-selling, even if done for hedging purposes.
8. Last but not least, tax transparency—or rather, the lack thereof—is another inherent drawback of the mutual fund format. Capital gains are recognized and managed at the fund level without regard to your individual tax situation. You may have heard about the "October effect": At the end of their fiscal year (usually October 30), mutual funds with significant realized capital gains must distribute those taxable gains to shareholders. The problem is, if you're an investor who just bought into the funds, you inherited a tax liability that you did not even have time to earn! Similarly, capital losses, if any, are not passed through to the individual shareholder to offset his or her other tax liabilities, but managed at the fund level.

Setting aside all the above issues, has it been worthwhile to invest in the high yield municipal funds? Regrettably, the recent track record of open-end funds on average has been lackluster, as shown in Table 5.1. With a few notable exceptions, the high yield muni fund universe (as reported by Morningstar) has

TABLE 5.1a The Top-Performing High Yield Muni Funds (Last Five Years)

Fund Name	Five-Year Total Return
Ivy Municipal High Income I	5.75%
Delaware National HY Muni Bd A	4.73
Franklin HY Tax Free Inc A	4.58
Waddell & Reed Muni Hi-Inc A	4.51
DWS Strategic HY Tax Free A	4.50
Legg Mason Muni High Inc A	4.41
MFS Municipal High-Inc A	4.11
Putnam Tax Free HY A	3.99
Prudential Muni High-Inc A	3.93
J Hancock HY Muni Bond A	3.92

Data through 1/13/2012. A-share performance used when available.

TABLE 5.1b The Worst-Performing High Yield Muni Funds (Last Five Years)

Fund Name	Five Year Total Return
Oppenheimer Rochester Ntl Muni A	−4.00%
Oppenheimer AMT-Free Muni A	−1.76
Lord Abbett HY Muni Bond A	−1.12
Nuveen HY Muni Bond A	−0.83
Goldman Sachs HY Muni A	−0.19
Pioneer High-Inc Muni A	+0.09
Eaton Vance HY Muni Inc A	+0.58
PIMCO HY Muni Bond A	+0.64
Northern HY Muni	+1.74
American Century HY Muni A	+1.93

Data source: Morningstar

Data through 1/13/2012. A-share performance used when available.

Total Return: Total return measures the increase in an investment in this fund as a percentage of that initial investment. Total return includes both income (in the form of dividends or interest payments) and capital gains or losses (the increase or decrease in the value of a security). Morningstar calculates total return by taking the change in a fund's NAV, assuming the reinvestment of all income and capital gains distributions (on the actual reinvestment date used by the fund) during the period, and then dividing by the initial NAV.

Total returns for periods of longer than one year are annualized. Total return data are updated daily, except 10-year trailing return, which is updated monthly.

returned, on average, only a paltry 2.00 percent on an annualized basis over the last five years (data through 1/13/2012). This average return masks an extremely wide dispersion of returns within this fund category. Among the funds with a full five-year track record, five-year annualized returns ranged from a low of −4.83 percent (for the Oppenheimer Rochester National Muni Fund B-shares) to a high of +5.75 percent (for the Ivy Municipal Income Fund I-shares). In my opinion, the most recent five-year record is particularly informative, as it covers one of the most—if not the most—volatile market environments in history. A strong showing over this period should be viewed as an impressive feat. Conversely, a fund that still underperforms after the strong municipal market recovery in 2011 can no longer blame market conditions. For most funds, the math is simple: If the income component exceeds the total return, it means you've lost principal.

For consistency reasons, we only chose to report in Tables 5.1a and 5.1b the performance of the A-share class, with a front-end load, when available. The investor's ability to accurately gauge a municipal bond fund's performance is usually hindered by the proliferation of share classes (A, B, C, and others). Although each class represents a similar ownership share in the fund's portfolio, each has its own fee and expense structure, which may result in very different net returns to the shareholder.

In conclusion, except for a handful of standout performers, open-end funds are best viewed as yield vehicles, not total return vehicles. By their very nature, they have to be long credit risk and long interest rate risk (i.e., duration) at all times, regardless of market conditions. This is fine as long as the interest rate environment remains benign, as it has been over the past few years (even the 2008 crisis led to lower rates). However, investors who are concerned about the prospect of rising rates over the next leg of this economic cycle may be better off doing their own market timing or else move to other tax-exempt products with better hedging capabilities.

Closed-End High Yield Municipal Funds

In contrast to open-end funds, which are open to new investors every day, closed-end funds (or CEFs) are investment trusts that are funded in a single lump sum by selling a fixed amount of shares to investors. The shares are then listed on stock exchanges and, like ETFs, are traded publicly. Since the original investment pool is closed, there is no potential dilution from new investors. *The key distinguishing feature of all municipal closed-end funds is their ability to enhance returns through leverage*, that is, by issuing preferred shares. If managed properly, the combination of leverage and high yield credits can produce a tax-free income stream to investors that is hard for any other fixed-income asset class to beat.

The amount of leverage that any mutual fund (including a CEF) can incur is, in fact, regulated under the Investment Company Act of 1940. The act requires the fund to have an investment policy regarding borrowing and the issuance of senior securities and imposes certain maximums on the amount of investment leverage the fund may allow under its policy. The purpose of these limitations is generally to protect the investments of long-term common shareholders.

Under the 1940 Act, a closed-end fund may generally borrow (from a bank or otherwise) if, immediately thereafter, the aggregate amount of all borrowings does not exceed 33 1/3 percent of its total assets. This restriction is often referred to as the asset coverage requirement for borrowing.

A closed-end fund may not issue a dividend or make certain distributions unless the fund would meet this same asset coverage requirement with respect to its borrowings after giving effect to such dividend or distribution.

The 1940 Act generally prohibits a closed-end fund from issuing preferred shares unless the liquidation value of the preferred shares (plus the fund's aggregate indebtedness) immediately after such issuance would not exceed 50 percent of the fund's total assets. This restriction is referred to as the asset coverage requirement for equity senior securities. As in the case of debt asset coverage, a fund is restricted from issuing dividends and distributions until the applicable asset coverage requirements are met.

What was just described is generally referred to as "1940 Act leverage." Besides issuing preferred shares, closed-end funds also have other ways to achieve leverage at the individual security level. To start, remember that the tax code forbids borrowing to finance the purchase of tax-advantaged instruments like municipals. However, over the past two decades, the municipal industry has come up with a creative way to leverage the purchase of munis without jeopardizing the tax-exempt status of the coupon income. In the 1980s, Lehman Brothers pioneered the use of so-called "inverse floaters" to achieve leverage within a single tax-exempt instrument. Without going into all the structural details involved, inverse floaters work roughly as follows: The bonds to be financed are deposited into a grantor trust, and two separate classes of participation interests in the trust are created. One is a preferred class of shares that has first claim on the coupon income of the bonds but is paid only a floating rate based on a short-term tax-exempt index, usually a weekly index. The preferred shares are then sold to buyers of short-term tax-exempt paper, such as money market funds. The remainder of the coupon income after payment to the preferred shareholders goes to the second class of shares, called the "residual," which is taken back by the original holder of the municipal bonds.

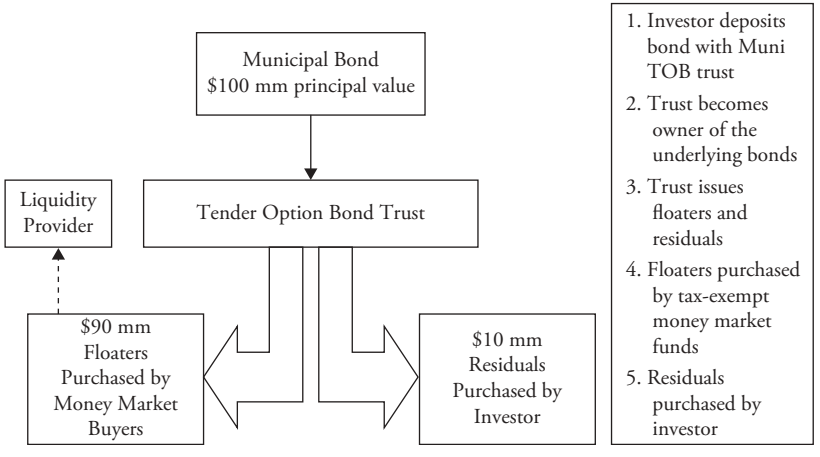
Leverage is achieved by the fact that the original owner of the bonds only has to put up a minimal cash amount to purchase the "residual interest," yet he or she has the right to receive all the coupon income and any capital gain or loss from the original bonds, minus only what is paid to the preferred shareholders (and various fees). Because the coupon on the residual interest moves in the opposite direction to the floating preferred coupon, it is often called an inverse floater. In a sense, this amounts to nothing more than the age-old technique of "borrowing short and investing long." You finance the bond purchase by borrowing money from the preferred shareholders at a short-term rate, receive a higher yield from a long-term instrument (assuming a positively sloped yield curve), and then pocket the difference.

Most importantly, the grantor trust setup also preserves the tax-exempt status of the coupon income.

Over the last decade, the same concept underlying inverse floaters led to the creation of the so-called Tender Option Bond programs, or TOBs, which in turn sparked explosive growth in the use of leverage in all corners of the municipal industry. Broker-dealer desks used them to finance their inventory and enhance trading profits. An entire new class of municipal hedge funds relied on this financing mechanism to effect leveraged strategies designed to capture perceived arbitrage opportunities between the tax-exempt and the taxable yield curves. At its peak in 2007, the volume of TOBs in the municipal marketplace topped $200 billion by some estimates. The use or, in some cases, abuse of leverage by these "muni arb" players contributed to the rather spectacular blowup of most of these muni hedge funds between 2007 and 2008. Figure 5.1 shows the typical flow of funds in a TOB transaction.

As you can see from the figure, a TOB structure relies on the same basic concept as an inverse floater. The mutual fund seeking leverage sells a portfolio of high-grade, fixed-rate, long-term municipals to a TOB trust, typically administered by a large bank. With the long-term bonds serving as collateral, the trust sponsor then creates two classes of shares in the trust: a floater certificate (sized at an amount slightly less than the par value of the collateral) and a residual certificate (sized at a very nominal par amount). The floater certificate, which has a senior claim on the coupon interest of the

FIGURE 5.1 Typical Tender Option Bond Program Flow of Funds



Source: Alprion Capital

collateral (similar to the preferred stock for a CEF), provides a short-term variable rate dividend (usually based on the Securities Industries and Financial Markets Association or SIFMA swap index) with a put option. This put option is also referred to by market traders as a "tender option," hence the name Tender Option Bond or TOB program.

So much for the floater certificate. What about the residual certificate? It is retained by the mutual fund that sold its bonds to the trust initially. In exchange for the very nominal cost of the residual certificate, the fund can now earn all the return from the underlying collateral, minus what is paid to the floater certificate holders and a few structuring fees. This, of course, frees the fund's cash for other purchases, hence the leverage effect. Together, inverse floaters and TOBs are generally referred to as "non-1940 Act leverage" or "portfolio leverage" by mutual fund analysts.

Leverage, of course, can be a double-edged sword. While it can capture much of the potential upside, the residual certificate also has exposure to the full downside risk of the underlying collateral, including exposure to any future rise in interest rates (which reduces the market value of the underlying collateral) and any change in the creditworthiness of the bonds. We will come back to this point a little bit later.

The use of leverage by tax-exempt CEFs has evolved over the last few years, primarily in response to the 2008 financial crisis. Before 2008, the sector had been relying almost exclusively on the auction-rate preferred stock market or ARPS. An ARPS is a preferred stock with a long-term maturity whose dividend rate is reset weekly through a Dutch auction process. In order to qualify for money market fund purchase, the ARPS also has a liquidity feature: The holders can put their paper back to the issuer at any time with settlement on the next reset date. This liquidity feature is usually "guaranteed" by a letter of credit issued by a highly rated (usually AA or above) bank.

Then the financial crisis of 2008 came along, which led to across-the-board downgrades of the banks that provide liquidity guarantees for many of the ARPS. By mid-February 2008, this had resulted in widespread auction failures, as broker-dealers stopped providing support for the securities. The ARPS market froze and many investors were left holding illiquid securities they could not get out of. In the ensuing months, closed-end fund issuers took a variety of approaches to try to provide liquidity—if only partial—to ARPS holders: Some just redeemed them and others sought to replace them with alternative funding vehicles. The steep market value declines forced the CEFs to reduce their overall leverage by 13 percent, from $32.0 billion to $27.8 billion, according to Fitch Ratings. The regulators also got involved

and investigated the sales practices of ARPS market participants, leading to some very significant financial settlements with retail investors.

In the aftermath of the 2008 crisis, tax-exempt CEF sponsors have made a concerted effort to shift their capital structure away from ARPS and toward Tender Option Bonds (TOBs). They have also started using new financing instruments, such as variable-rate demand preferred stock (VRDPs) and a new fixed-rate term preferred stock called MuniFund Term Preferred Stock (MTPs). This has resulted in less overall reliance on 1940 Act leverage and more reliance on portfolio leverage, a trend that Fitch expects will continue for the foreseeable future.[1]

Since leverage is historically more easily obtained for high-grade portfolios, high yield muni CEFs have remained more or less a niche product. According to Lipper Analytics, there were 251 municipal CEFs in the marketplace as of 1/17/2012, with aggregate assets of $58.08 billion. Of those, only 14 funds were classified as high yield muni debt funds, with total assets of only about $3.19 billion. As yield vehicles designed to produce maximum tax-exempt income, high yield muni CEFs have largely fulfilled their mandate, as shown by Table 5.2. As of 1/17/2012, their 12-month distribution yield based on market price ranged from a low of 5.57 percent for the Western Asset Muni High Income Fund (MHF) to a stunning 8.97 percent for the Pioneer High Income Advantage Fund (MAV). For an investor in the 35 percent bracket, that would be equivalent to a range of taxable yield of 8.57 percent to 13.80 percent, at a time when 30-year Treasury yields are hovering in the low 3.00 percent! A note of caution is in order here: When a fund's yield is clearly an outlier (i.e., it looks abnormally high within its competitive universe), a red flag should go up and the fund's performance record should be thoroughly investigated. Don't forget that yield also can go up due to an abnormal decline in net asset value.

Unfortunately, as was the case with open-end high yield muni funds, the attractive yields were garnered at the expense of capital preservation. According to Lipper Analytics, high yield muni CEFs returned an average of +4.08 percent on NAV over the past five years (through 1/17/12), which makes them the worst-performing category among all tax-exempt CEFs. Here also, the average performance masked an extremely wide disparity of returns among the funds, ranging from a low of +1.83 percent for the MFS High Income Muni Fund (CXE) to a high of +8.64 percent for the DWS Strategic Muni Income Trust (KSM). Once again, this goes to show that *you should not invest in high yield municipals, only in competent high yield municipal managers*. Nowhere is the value of a competent portfolio management team more evident than for this complex asset class.

TABLE 5.2 Five-Year Performance of High Yield Muni Closed-End Funds

Fund Name	Total Net Assets ($MM)	5-Yr NAV Return	Income Only Yield (10/31/11)	Distribution Yield (Market) 10/31/11
Black Rock Muni Assets (MUA)	$456.80	5.310%	6.07%	6.01%
DWS Strat Muni Inc (KSM)	141.20	8.645	8.00	N/A
Invesco Muni Inc Opp (OIA)	135.00	3.281	6.28	6.32
Invesco Muni Inc Opp 2 (OIB)	122.80	2.929	6.29	6.26
Invesco Muni Inc Opp 3 (OIC)	69.80	2.868	6.14	6.34
MFS High Inc Muni (CXE)	152.20	1.830	8.580	7.23
MFS High Yield Muni (CMU)	122.30	2.160	8.570	7.54
MFS Muni Income Trust (MFM)	274.80	4.545	7.870	7.09
Nuveen Muni High Inc Opp (NMZ)	330.90	3.292	8.880	7.99
Nuveen Muni High Inc Opp 2 (NMD)	201.80	n/a	7.950	7.44
Pioneer Muni High Income Adv (MAV)	288.40	3.910	9.540	8.97
Pioneer Muni High Income (MHI)	304.60	4.370	8.260	7.92
Putnam Managed Muni Inc (PMM)	429.60	4.950	7.030	7.00
Western Asset Muni High Inc (MHF)	166.00	4.948	5.700	5.57

Source: Lipper Analytics (through the Closed-End Fund Association)

Total return as of 1/17/2012. 12-month yield as of 10/31/2011.

The investment case for high yield muni closed-end funds is similar to that of an open-end fund, but with the potential yield enhancement (and higher risk profile) stemming from the use of leverage. A quick look at Table 5.2 shows that, as of 1/17/2012, the trailing 12-month distribution yield from the 14 listed funds ranged from a low of 5.57 percent (for the Western Asset Municipal High Income Fund) to a high of 8.97 percent (for the Pioneer Municipal High Income Advantage Fund). For an investor in the 35 percent tax bracket, this translates to an eye-popping taxable-equivalent yield range of 8.57 percent to 13.80 percent, quite a premium over long-term Treasury yields in the low 3.00 percent.

Furthermore, because these are exchange-traded stocks, investors may have the opportunity to actively trade these shares at either a discount or premium to net asset value. What drives the discount or premium on these shares has been a matter of heated debate. Some of the potential factors cited

by CEF analysts include the following: (1) a liquidity premium reflecting the fact that the NAV merely reflects the evaluators' best guess at any point in time; (2) the potential sustainability of the dividend payout, taking into account the fund's call profile; and (3) supply and demand for the shares.

Needless to say, with the attractive tax-free yield comes greater risk. Analyst Cara Esser from Morningstar summed it up best in a recent article:

> While CEFs can use leverage to enhance performance (if the cost of leverage is less than the additional return earned), leverage also amplifies volatility, increasing the risk of an already risky asset class. Much of the risk is due to the illiquid nature of municipal bonds, which means they trade at a higher liquidity premium. In addition, CEFs employing leverage must meet certain regulatory coverage ratios and, likely, credit agreements. A CEF might be forced to sell assets at inopportune times to avoid violating these regulations and agreements (typically when the market is already depressed). The combination of this and the illiquidity of the bonds can increase the negative effect on the CEF's value. . . .[2]

Since the tax-free dividend is the key attraction, investors need to be aware of an accounting twist that may affect future payouts: Unlike an open-end fund, which has to distribute everything it earns net of expenses, *a closed-end fund can "manage" its distribution by paying out more or less than its current income stream*. For instance, it can underdistribute and build up a "kitty" of undistributed income to smooth out future dividend rates. This is not necessarily a bad thing and could help dampen volatility in the stock. More troubling is the fact that a CEF can also *overdistribute* its income. How does this happen, you ask? For one, depending on the individual fund's accounting practices, the dividend *may* be based on the portfolio's overall yield-to-maturity, not on the more conservative yield-to-worst measure. If a significant portion of the fund's holdings has poor call protection and is redeemed early, the fund's dividend rate may theoretically overshoot its actual earning capacity.

Unrealized capital gains may be another source of income overdistribution: In this instance, the fund manager wishes to distribute some of those gains without having to sell the actual securities and realize the gains. Whatever the reason, overdistribution may result in what we call a *return-of-capital* issue: In effect, the overdistributed income is merely your own capital that is being returned to you, and you need to consult with your tax advisor about any resulting tax consequences. (Here's a hint: The return-of-capital component is probably not considered tax-free income.)

Return-of-capital is certainly a much more significant issue for holders of muni CEFs, as they have every right to expect a fully tax-exempt dividend

stream. Prospective buyers of this product also need to know if the yield they have been quoted is in fact fully tax-exempt or if it has has been overstated by a return-of-capital component. Fortunately, Morningstar did report that, at least as of August 2010, none of the listed high yield muni CEFs was "using return-of-capital to falsely boost distribution rates."

Since we are on the subject of taxes, investors need to be aware that many high yield funds are allowed to invest in fully or partially taxable municipals up to a certain limit specified in the funds' prospectus (usually between 15–20 percent of market value). As discussed in Chapter 1, many high yield municipal issues belong to the private activity category, and their coupon income may be included as a preference item in your personal alternative minimum tax (AMT) calculations. Fortunately, most fund groups do a very good job of disclosing their AMT exposure, and you just need to be aware of and look for this particular piece of information.

The market disruptions over the last five years have done much to demonstrate the risk/return trade-off of high yield muni closed-end funds. While the tax-exempt distribution rates from this category clearly shine, the total return track record of these vehicles has been unimpressive at best. This may suggest that the investor's principal has not been well protected. CEFs are generally high-cost products with significant built-in marketing and distribution expenses, so investors are normally better off purchasing them in the open market instead of participating in the initial offering. Buying them at a discount may also provide additional returns on top of the NAV performance; however, this has to be considered in the context of the particular fund's trading history. For instance, purchasing a fund that has gone from a 10 percent premium to a 10 percent discount due to temporary market technicals is probably a better investment than, say, a fund that saw its discount go from 10 percent to 30 percent. Some funds may trade perennially at a discount, which may be indicative of more serious underlying issues.

Certainly, the future shape of the tax-exempt yield curve will have a huge impact on the performance of any muni CEF. As long as federal monetary policy remains accommodative and the curve remains steep, the funds will benefit from borrowing short and lending long. However, should a so-called "bear steepener" scenario unfold, whereby the whole curve shifts up *and* steepens, the performance of these leveraged vehicles will be seriously impacted: Higher short-term financing rates will reduce the funds' distributable income while the market value of the funds' holdings will decline. Having said that, at particular junctures in the market, muni CEFs can be excellent trading vehicles for investors looking to take a stance on particular segments of the tax-exempt market.

Separately Managed Accounts

By far, the simplest and most tax-efficient way, in our opinion, to take advantage of muni credit opportunities is through a separately managed account, or SMA. Assuming you can meet the minimum account threshold of around $250,000 (some managers may even lower that limit to $100,000), an SMA will provide the following advantages: (1) Professional management: With a bit of due diligence, you can always hire a money manager with credit expertise and a demonstrated track record in the high yield arena (many of the high yield mutual fund platforms do offer access to an SMA platform); (2) Fully customizable investment policy: Your investment manager will work with you to devise an investment policy that reflects your risk tolerance; (3) No asset commingling: Your portfolio is held in your own name and not pooled with anyone else's; (4) Tax efficiency: Since you're the direct owner of all the securities in your account, all tax effects are fully passed through to you, and you can use any capital gain or loss as part of your overall tax management strategy; (5) Relatively low cost: The typical SMA manager's fee may run between 50 and 100 basis points, but that fee should be inclusive of all transaction costs, whereas a typical retail broker-dealer may charge you a commission on top of the typical one- to two-point retail markup (1 to 2 percent) already applied by the dealer's trading desk.

Depending on the size and reputation of the SMA sponsor, you may be able to participate in high yield issues that are not normally available through retail channels.

There are currently only a handful of SMA managers around the country who offer a true "high yield" or "credit" strategy, and they control a relatively modest amount of assets. This is due to the fact that the SMA format has traditionally targeted wealth preservation, not wealth creation. Truth be told, not many SMA managers have the necessary expertise and experience to deal effectively with credit risk. Achieving the necessary risk diversification within the context of a relatively small portfolio can also be a daunting, though not impossible, task. Unless the manager can buy institutional-size blocks and then allocate them among his or her various accounts, transaction costs for retail size "odd lots" can also quickly eat into returns.

Again, remember what we said regarding your choice of portfolio manager: Don't just invest in high yield munis, invest in a good high yield muni manager.

High Yield Municipal Hedge Funds

A relatively new concept that may get some traction going forward is the high yield municipal hedge fund. As you may know, a hedge fund is a private limited partnership that is open only to high net worth investors who meet certain standards of investment sophistication and investable assets. The minimum initial investment is usually $1 million. For investors who can stomach a little more risk and volatility, the hedge fund format may deliver enhanced returns through the use of a much wider palette of hedging and leverage tools, without the normal constraints of a 1940 Act fund.

As we mentioned in the discussion about leverage, the early part of this young century witnessed a proliferation of muni hedge funds devoted to arbitrage strategies. However, to date, we are aware of only one example of a hedge fund devoted to a credit/high yield strategy, the Saybrook Municipal Relative Value Fund, LP. The fund was launched in July 2004 by Saybrook Capital, an investment advisor based in Santa Monica, California. It largely fulfilled its investment mandate over the first two years of its existence and pioneered the use of leverage (primarily through Tender Option Bond programs) for lower-grade bonds.

The clear advantage of the fund over its muni arbitrage peers was its ability to add value for investors through credit selection, as opposed to trying to exploit apparent arbitrage opportunities between the tax-exempt and taxable curves which, by definition, can be arbitraged away. Unfortunately, municipal credit spreads continued to tighten during this period, reaching their cyclical tight by the summer of 2007, and by the end of that year, the Saybrook Fund had to shut down due to lack of credit opportunities. This proved to be a prescient move as the credit crisis of 2008 would undoubtedly have wreaked havoc with any high yield strategy, let alone one that was leveraged.

Aside from Saybrook's pioneering attempt, we can only identify two other municipal hedge funds in operation at this time that are reportedly devoted to a credit strategy: the Rosemawr Municipal Partners Fund, LP, and a distressed muni fund managed by Vertigo Capital Management. Because hedge fund managers usually refrain from any kind of public advertising to avoid being subject to regulation, there are undoubtedly many more funds out there that are available only through private channels.

It should also be noted that many diversified fixed-income and distressed credit hedge funds have started to incorporate distressed municipals into their regular strategy as they search for fresh investment opportunities.

Maritime Capital LP, for instance, is a diversified fixed-income hedge fund that makes tactical allocations to high yield municipals.

In the aftermath of the 2008 market fiasco, credit spreads in the municipal space have widened out again to their widest level in almost 10 years. The decommoditization of the tax-exempt sector in the postbond insurance world means that credit selection, if done properly, can once again add value. The Build America Bond program, albeit short-lived, has also raised the profile of the municipal asset class for nontraditional and foreign investors. Moreover, state and local governments' ongoing fiscal problems should continue to spawn distressed opportunities for savvy investors. Against that backdrop, we would expect to see renewed interest in leveraged credit muni strategies over the next few years, perhaps with more emphasis on overall total after-tax return as opposed to mere tax-exempt income generation.

Passively Managed Products

Given the relatively disappointing results from the actively managed fund universe over the past decade and the investing public's growing sensitivity to fee levels in a low-rate environment, is it any wonder that investment flows are being diverted more and more to lower cost, "passively managed" alternatives? This phenomenon is occurring across all asset classes and not just in muniland. Investors in search of attractive tax-exempt income currently have two passively managed options: unit investment trusts (or UITs) and exchange-traded funds (or ETFs).

Unit Investment Trusts (UITs)

The simplest pools of municipal securities that investors can buy into are the unit investment trusts (UITs) offered by most major mutual fund groups, most notably Nuveeen Investments and Van Kampen/Invesco. These fund sponsors create a unit investment trust by purchasing a bundle of securities that meet certain criteria into a trust, and then sell you a participation interest (or shares) of that trust. The bonds in the portfolio are not traded (unless there are credit events or other technical matters requiring adjustment) and stay in the trust for a specific period of time, after which the trust is liquidated. (Note: In recent months, the fund industry has introduced a relatively new variation on this theme, namely, UITs comprised entirely of tax-exempt closed-end funds, instead of individual securities.)

The advantages of a UIT structure include security selection and portfolio monitoring (but short of actual management) by investment professionals.

The UIT sponsor also collects and distributes and, most importantly, offers immediate liquidity in the event the investor needs to redeem his or her shares before maturity. In contrast to regular mutual funds, you know from day one the exact composition of the portfolio, the magnitude of the income stream, and the final maturity. All tax effects are also passed through directly to the shareholder. Because you're not paying for active management (or the pretense thereof), the embedded fees and transaction costs are fairly low, which makes UITs one of the most cost-efficient ways to access a diversified bond portfolio.

The major knock against UITs is, paradoxically, their lack of active management. Since they are an inherently conservative structure, one may question if they are appropriate for an asset class such as high yield municipals, which requires active or even aggressive management. The UIT investor is also locked into a fixed basket of securities with no opportunity to enhance value or preserve capital. Admittedly, this product can work quite well in a declining interest rate environment, such as the one we have enjoyed over the past decade. However, one can argue that such benign market conditions are now largely behind us, and future interest rate spikes and more volatile credit conditions could prove problematic for a passively managed high yield portfolio going forward.

As of this writing, we are not aware of any tax-free UITs specifically labeled "high yield" or "high income." However, many of the putative investment-grade UIT offerings out there may have a significant high yield or nonrated component, which may not be obvious at first glance. As an example, the Tax-Exempt Municipal Income Trust Series 265 from a frequent UIT sponsor holds about 9.34 percent of its face amount in two nonrated health care bonds. Not that there's anything specifically wrong with that, particularly if the prospectus allows it, but investors just need to examine the composition of each UIT carefully to have an accurate assessment of the underlying credit risk.

The same observation would also apply to UITs of CEFs, such as the Municipal Income Plus Closed-End Portfolio Series 18. This portfolio counts among its holdings a few CEFs classified by Lipper as high yield, such as the Putnam Managed Municipal Income Trust (PMM).

Exchange-Traded Funds (ETFs)

Another variant on the passive investment theme is the so-called exchange-traded fund, or ETF. Perhaps in response to the disappointing long-term performance of actively managed mutual funds and investors' constant search for lower-cost alternatives, this relatively new sector has seen explosive growth over the last few years.

So what exactly is an ETF? Similar to a UIT, you are buying into a diversified basket of securities. Unlike UITs, however, this basket of securities is designed to closely replicate the behavior of a particular sectoral index (or more precisely, the behavior of the securities that comprise that index). Like closed-end funds (which we will discuss later), ETFs are listed and traded on stock exchanges and can be bought or sold at any time of the day, unlike most mutual funds, which can only be transacted at the day's closing net asset value. Basically, an ETF will behave like any other stock, and its value will fluctuate during the day.

The key benefits most often associated with exchange-traded funds are (1) transparency, (2) cost efficiency, and (3) tax efficiency. Transparency means that investors always know exactly what the composition and value of the portfolio are throughout the day. Even though one does have to trade an ETF through a broker and thus pay a commission, this product boasts very low operating and transaction costs compared to most mutual funds out there, without doubt an important feature in today's low-rate environment. Last but not least, all tax events are fully passed through to the investor as if he or she owns the underlying securities, which greatly promotes tax efficiency.

Although many early ETF offerings were aimed at providing access to specific equity sectors, the traumatizing memory of the most recent bear market has led to increased interest in fixed-income exchange-traded funds. Not surprisingly, muni bond ETFs catering to investors in search of attractive tax-exempt income have also proliferated, covering a wide range of duration, credit quality, and geographic exposures. As of June 30, 2011, within the $18 billion tax-exempt ETF sector, we have found only two funds expressly geared toward high yield municipals: the Van Eck Market Vectors High Yield Municipal Bond ETF (ticker: HYD), which was launched in February 2009, and of more recent vintage, the SPDR Nuveen S&P High Yield Municipal Bond ETF (ticker: HYMB), launched in April 2011.

A quick comparison between the only two high yield muni ETFs is in order: Van Eck's HYD is benchmarked to the Barclays Capital Municipal Custom High Yield Composite Index (comprised of about 5,700 issues) and boasts an expense ratio of 0.35 percent or 35 basis points. Nuveen's HYMB will track the S&P Municipal Yield Index (including more than 21,000 issues) and shows an expense ratio of 0.45 percent or 45 basis points.

For all practical purposes, HYD is the only high yield muni ETF with any kind of a track record as of this writing, so we will use it to illustrate both the benefits and potential pitfalls for a fund of this type.

Like any other ETF, the primary advantages of HYD are transparency, low cost, and an absence of leverage, as compared to closed-end funds.

Furthermore, the "transactional liquidity" of the ETF stock usually exceeds that which investors may come to realize in the cash market for individual high yield bonds. Investors can see all the details of the fund's holdings on Van Eck's web site (investment professionals can access them on their Bloomberg terminal). As of January 17, 2012, the $376 million fund reported a 30-day SEC yield of 5.61 percent, which equals a taxable-equivalent yield of 8.64 percent for an investor in the 35 percent tax bracket. In order to meet potential daily redemptions, if any, the fund has built in some interesting liquidity features. Market makers who wish to redeem their shares on behalf of their investors can be paid either "in kind" or in cash. If they choose in-kind redemptions, they will receive in exchange for their shares a basket of municipals that the fund has posted as deliverable to key market makers. It is important to note that they will not receive a pro rata slice of all the securities in the fund, just the securities that have been posted. The cash redemption option is, of course, self-explanatory: In this case, the fund's manager will come up with the cash by selling some of the more liquid holdings in the portfolio.

If the benefits of an ETF structure are clear, the potential pitfalls are not quite so obvious. First and foremost, one must question the appropriateness of applying the ETF concept to an inherently less liquid asset class such as high yield munis. The much-touted portfolio transparency feature masks the fact that, on any particular day, *net asset value is largely based on third-party evaluations*. As a result, and much more so during volatile markets, the reported net asset value may not necessarily reflect the true executable value of the fund's holdings. In fact, when the municipal market experienced its most recent downdraft in the fourth quarter of 2010, the NAV of the fund would sometimes lag the "real" market, and cash delivered against redemptions was occasionally shy of actual NAV. Still, this feature is no different from managed mutual funds that have generally adopted the same end-of-day pricing methodology. As publicly traded stocks, high yield muni ETFs such as HYD are subject to market forces, and the shares may trade at either a premium or discount to NAV. One may even think of any market premium or discount as reflecting a difference in opinion between the market-makers for the stock and the evaluators.

Given that this is, after all, a high yield product, one may also wonder what might happen should the portfolio experience significant credit defaults. In this instance, a defaulted bond should no longer be eligible for inclusion in the Barclays Index, which in turn should trigger removal from the portfolio. However, the portfolio manager is not forced to sell any issue that is no longer index-eligible if the default is expected to be cured within a

reasonable period (the term "default" does not necessarily mean "nonperforming"). This has the effect of introducing an active management component to the ETF's strategy, which may or may not be apparent to all investors, but may serve the ETF shareholder well from a fiduciary standpoint. For the longer term, the jury's still out in our opinion as to whether the passive high yield muni ETF concept can withstand a prolonged period of credit market dislocation, simply because credit problems do need to be managed. We suspect that future iterations of this concept will lean more toward an active management style.

Notes

1. Ian Rasmussen, Yuriy Layvand, and Nathan Flanders, "Tax-Exempt CEFs Change Leverage," *Fitch Ratings*, June 17, 2011.
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Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

CHAPTER 6

Investing in Individual Bonds

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Are you an investor who would like to buy individual bonds, even after reading about all the pitfalls facing an outsider to the high yield municipal marketplace? Read on, but I would be remiss if I did not include some additional warnings for you to consider.

A Few Preliminary Considerations

The municipal bond market typically is a fragmented over-the-counter marketplace. Disclosure has gotten better in recent years but still leaves a lot to be desired, even for industry professionals. This problem can be more pronounced in the high yield market and in particular for smaller issuers that frequently populate this sector. If you are trading in small lots (less than $500,000 par amount), fragmentation can be even greater. What does this mean for an individual investor?

First, there is no central marketplace to execute secondary market trades. Each trade is executed directly with a dealer, either by phone or through the dealer's electronic platform. If you have not done a great deal of homework on the sector and on the specific bond you want to buy or sell, even if your investment idea is sound, you may be tripped up by poor trade execution due to wide bid/ask spreads, translating into high implied trading costs.

Furthermore, bear in mind that dealer markups may be much higher for retail trades than for institutional trades. Ideally, you should strive to buy bonds at so-called "retail odd lot" prices and, conversely, to sell bonds at "institutional" levels, but that is easier said than done. For this reason, investors buying smaller lots should view these investments as illiquid, to be bought and held to maturity until there is a specific reason to sell (such as a perceived significant deterioration in creditworthiness or any other credit events).

The lack of timely and accurate disclosure leads to an asymmetrical information issue. In this rather specialized market, you may be at a great information disadvantage to market players who have better access to information. Since liquidity is low, there is no safety net provided by many players executing frequent trades, thereby providing a basis for price discovery. As a result, you may well end up overpaying for a bond or failing to get the full intrinsic worth of your position when you sell. Credit ratings from credit rating agencies may be used as a very rough guide to credit risk, but bear in mind that market trading levels usually anticipate rating actions well before those actions are officially announced. Focusing on larger issues and issuers can also reduce disclosure and credit risk and enhance liquidity to a certain degree.

All is not lost, however, and there are some steps you can take to refine your investment process and to protect yourself when investing in this market. My first suggestion to a potential individual bond buyer is to think about who you are and what you are trying to accomplish. Are you an investor with a long-term investment horizon who wants to buy and hold (if possible) several high yield securities to complement a balanced or fixed-income portfolio and increase the portfolio's after-tax cash return? Are you a money manager seeking to generate excess return (alpha) in a fragmented, poorly understood market where you may be able to develop a competitive edge? Do you prefer (and have access to) newly issued high yield bonds through the dealer community or are you focused on the secondary market? (As discussed in Chapter 5, hedge funds or other sophisticated investors may also use the high yield municipal sector to seek excess return using capital market arbitrage or other sophisticated strategies, but that is beyond the scope of this chapter.)

Investing in the Primary or New Issue Market

The new issue market for high yield municipal bonds can be a good way of investing in the sector. There are some pitfalls here, too. Often, you are buying into a good story because things have not had time to go wrong.

Often, a new issue to finance a startup project will have no track record, so you could be paying full price for a concept or business model that may not work out. That said, the advantage is that you will likely be getting fresh and timely disclosure, at least at the time of issuance. You may also have other institutional investors buying the credit, so you will have others looking at and possibly even negotiating improvements in the bond documents. Of course, the cynical flip side to this could be that misery loves company!

When you try to participate in a large, oversubscribed issue, you may not get allotted any bond at all. In order to secure a decent bond allotment, you will likely need to have a strong business relationship with the dealer underwriting the deal. Also, new issues in this sector sometimes come to market when market conditions are most favorable to the issuer, that is, when yield spreads are relatively compressed versus other bonds. You should ask yourself if that is really the time when you want to buy.

Finally, just because a high yield issue is brought to market by a well-known underwriter does not mean the issue was actually underwritten by that firm, with all the presumed due diligence. Sometimes, dealer firms only act as placement agents, in which case they will disclaim away most of their responsibilities. The difference between an actual underwriting and a private placement may become an important factor down the line should the credit get into problems. Many firms do restrict private placements to institutional players or sophisticated individual investors who meet certain high net worth standards.

Investing in the Secondary Market

If you are trying to pick up high yield municipal bonds in the secondary market, the first principle is *caveat emptor* (Latin for "let the buyer beware"). The first step is to figure out what sectors in the high yield marketplace may be of interest to you. For example, you may be interested in airline, tobacco, or certain other industrial corporate type of issuers. In thinking about these sectors, you may want to compare them to somewhat similar corporate credits and see if the yield makes sense. For example, if you are contemplating buying an airline-backed bond and the ultimate security comes from the airline itself, you may want to check current yield levels on the airline's corporate debentures, which are more readily disclosed on many financial web sites. While this isn't a foolproof method by any means, it can give you a rough idea of what a municipal equivalent might be worth, after adjusting for differences in tax treatment and in bond structure (e.g., maturity, since

corporate debentures tend to be shorter in maturity than municipals). If the municipal bond is being offered at a yield that is, say, 500 basis points (5 percent) lower than the corporate debenture current yield level, you should pause to question whether the offering is an attractive one. Once an offering passes this basic test, you can delve deeper into the credit. A good source of information is a web site run by the Municipal Securities Rulemaking Board, the Electronic Municipal Market Access (EMMA for short). Its address is http://emma.msrb.org/. This site has copies of issuers' "official statements" (the offering prospectuses) on file for most recent issues. It also has a disclosure section for updates and a trade history tab where you can see recent secondary trades disclosed literally minutes after they occur. Another resource is http://investinginbonds.com/, which is maintained by the Securities Industry and Financial Markets Association (SIFMA). This site has real-time quotes and yield calculators as well as other useful information on bonds. Do read through the official statement to understand the credit behind the bonds. You could check the recent trade history on the bond to see if the offerings you are seeing make sense in the context of recent trading activity. You should be careful not to overemphasize one or two historical trades, as you may not know the context in which they took place: Perhaps the trade size is very large or very small, and therefore it may be an outlier rather than a typical trade. Note that the "trade type" is usually disclosed also, as it can be a dealer-to-dealer trade (indicative of the wholesale trading level) or a trade to an ultimate customer.

Executing Trades in the Secondary Market

If you are a large market player, you may be able to more easily ascertain who the main secondary market players are in a high yield sector in which you want to invest. In that case, and if you are trading larger blocks of bonds, it will probably make sense for you to talk to several dealers and buy and sell directly through them. The Bloomberg professional system is a good source for bond information if you have access to the system. If you are buying a smaller amount of bonds, you may be trading through a broker that could have offerings listed on their own electronic platform. If not, there are several electronic exchanges you might be able to access. Some of these are The Muni Center, Bond Desk, Knight Bond Point, Tradeweb Retail, and Bonds.com. Never, ever pay the offering price on an electronic platform (investors who may be used to executing stock trades electronically should take note). You may be able to negotiate a better price by showing a dealer a

bid at a lower price (higher yield). This may be especially true if the bond in question has been offered for a long time (i.e., it is a "stale offering"), and the dealer firm is motivated to get out of a position they have been holding for a while. Remember to do your homework on a bond and look at its trade history first before showing a bid! A bid obligates you to buy bonds at that price.

Sometimes dealers or clients ask for bids on a bond, a process that is referred to as a "bid-wanted" situation. Bid-wanteds, as professionals call them, are usually the best and most competitive way to buy bonds, assuming you know what you want to pay. In that event, you are asked to show a bid on individual bonds or whole lists of bonds within a set time frame: first, the time by which all valid bids must be received, and second, a firm time, the period during which the bid remains valid and executable. For instance, the listing broker who announces the bid-wanted would typically say: "Bid wanted by 12:00 noon, firm for a half." The "half" refers to a half hour. This obligates the bidder to show a bid by 12:00 noon and, if he is the high bidder, he must honor the bid for half an hour after that (until 12:30 P.M.). When market conditions are volatile, the firm time becomes very important. Imagine that, for some reason, the fixed-income market takes a nose dive between the time you submit your bid and the time the bids are due. If the seller misses the firm time, you have an opportunity to revise your bid to match the change in market conditions or to pull your bid altogether.

Should you be lucky enough (or unlucky, as the case may be) to be the highest bidder on a bond, you should insist on knowing the following details about the bid-wanted: (1) what was the cover bid (the bid directly behind your winning bid) and (2) how many bids were submitted in total. Ideally, as is true of any bidding situation, you want your cover (the amount by which your high bid exceeds the next highest bid) to be as tight as possible. The amount of bids submitted gives you a sense of how liquid the bonds are in the event you need to sell them at a later date. Needless to say, only investors who have done their price discovery homework should participate in bid-wanted situations as the potential for making mistakes and overpaying for bonds can be quite significant.

Monitoring Your Holdings

Once you have exposure in high yield bonds, you should continually monitor your holdings to make sure there are no material changes that would affect their value. Clearly, the primary concern is credit surveillance. Besides reading the general business press, you can check EMMA for new disclosures

on the particular securities you own. You should also look to any other sources of information you may have such as the *Bond Buyer*® (a muni trade newspaper) and/or the *Distressed Debt Securities* publication at http://www.distresseddebtsecurities.com/. Bondsonline.com is another good web site that specializes in aggregating various sources of information that might be of interest to the retail investor.

In conclusion, an investor needs to understand his or her own capabilities and time constraints very carefully before transacting directly in individual high yield municipal bonds. There is great potential for abuses on the part of dealers. The higher absolute yields may give them more room to mark up bonds. Having said that, the industry's self-regulatory bodies have made great progress in recent years in instituting measures to protect retail investors. In most cases, unless you are a full-time individual investor who is ready to commit the necessary time and resources to the trading sector, it might make more sense to seek the help of a financial advisor who is well versed in the intricacies of this arcane market.

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CHAPTER 7

Investing in Distressed Bonds

Within the high yield municipal market, no strategy holds as much promise of outsize returns as distressed investing. Here, total return is the name of the game, and tax efficiency is only a secondary consideration. Assuming you are armed with the requisite due diligence and valuation tools, the ability to buy bonds at only a fraction of face value (sometimes as low as 10 to 20 cents on the dollar) may limit your downside while allowing for greater potential upside. As we saw in Chapter 3, purchasing bonds at a significant discount is inherently desirable as it allows you to align your cost basis more closely with the potential recovery value in a post-default scenario.

Before the high yield credit crisis of the late 1990s (discussed in Chapter 2), the high yield muni funds themselves were the leading participants in distressed opportunities. With their large credit research staff, the funds acted as the buyers of last resort for many troubled credits. Steady asset growth allowed them to "grow" out of any potential credit problem. However, as growth started to level off and credit losses mounted circa 1998 (even though such losses were concentrated in only a couple of particularly disastrous sectors such as de-inking projects), many of the funds were forced by their respective senior management to retrench and adopt a much more conservative posture. Over time, the funds went from being opportunistic buyers to being net sellers (or at least uncomfortable holders) of defaulted credits, starting in the early 2000s. This opened the door for many new entrants into the distressed arena, from specialty boutiques (such as Saybrook Capital, Fundamental Advisors, and ITG) to Wall Street proprietary trading desks (e.g., Citigroup). Many of these new entrants were able to leverage their existing expertise in corporate bankruptcy into the municipal arena, since many of the distressed tax-exempt

opportunities at the time were actually corporate credits issued through municipal conduit entities: to wit, the tax-exempt special facilities debt issued by such major airports as Denver International, Chicago O'Hare, New York JFK, and so on, which are actually guaranteed by various airlines. Players in the United Airlines bankruptcy proceedings were able to crossover and speculate in the UAL-guaranteed debt issued by Denver International and O'Hare as well. The knowledge gained from those proceedings was once again put to good use when American Airlines' parent company AMR filed for bankruptcy in December 2011.

Municipal distressed investing had the wind to its back in the early to mid-2000s, thanks to a combination of favorable circumstances: First, the mutual funds were net sellers as management turnover and industry consolidation made it relatively easier for incoming fund management teams to get rid of legacy distressed positions; second, potential buyers had access to capital and leverage on reasonable terms; and third, the real estate market was still on the upswing, making it easier to realize value on foreclosed assets. That period produced some notable success stories, including the National Benevolent Association opportunity, featured as a case study in Chapter 8.

The 2008 credit crisis and the significant fiscal stress currently afflicting many municipal issuers have further broadened the potential universe of stressed and distressed credits, although the current scarcity of capital and leverage favors all-cash buyers. This fact has not been lost on many nontraditional investors in search of fresh opportunities. As a result, we have witnessed in recent months increased interest from taxable hedge funds in the distressed muni space. However, a successful foray into distressed municipals requires a significant commitment of time and resources, as well as a host of specialized skills to navigate the very tricky field of municipal bankruptcy, otherwise known as Chapter 9. While the shadow supply of distressed tax-exempt credits is readily quantifiable, the ability to put those credits in play and actually transact in them hinges on the quality of one's *relationships* within the municipal bond community (including broker-dealers, mutual funds, insurance companies, bond counsel, and bond trustees). Many of these critical relationships are built up over decades and are not easily acquired overnight. Disclosure practices in the tax-exempt market also fall short of being standardized and can further complicate the investor's due diligence process. This is a fact of life that is not always appreciated by nontraditional buyers in search of a quick strike opportunity. It then comes as no surprise that many investors prefer to access the distressed sector through a handful of specialized municipal agents.

The Distressed Municipal Universe

For most industry professionals, the distressed universe encompasses all credits that are either in various stages of default or heading toward default. Historically, this may also include so-called "fallen angels" that have experienced multiple notch downgrades, and those that are either trading "flat" (i.e., without accrued interest) or are trading on a dollar price basis only, regardless of yield. Generally speaking, unless an issue came to market at an unusually low coupon rate (say, between 0 and 4 percent), the fact that it is trading at a very low dollar price (less than 60 cents on the dollar) would seem to indicate a potential credit problem. This is why many distressed investors have set up database screens or filters to identify credits that are trading at (or at least evaluated at) an unusually low price. It is worth noting that "distressed" is not synonymous with "defaulted." All defaulted bonds are considered distressed, but not all distressed bonds are necessarily in default.

Many defaulted issues are in fact secured by revenue-producing assets, ranging from hotels to parking facilities to toll roads. Others are secured by real estate or other collateral that can readily be foreclosed on. *The potential for gaining control of real revenue-producing assets through the purchase of tax-exempt bonds is a key attraction of any distressed muni strategy*. In order to fully realize the potential upside, a longer-term investment horizon is required, somewhere between three to five years. This is why many distressed managers look for private equity-style capital commitments from their investors, with multiyear lockups. Investors should be aware of the *potential loss of liquidity* that goes hand-in-hand with any distressed strategy and adjust their expectations accordingly.

So what is the potential size of the opportunity? As of September 30, 2011, according to Income Securities Advisors (ISA), unsettled defaults in the municipal market totaled $30.1 billion, spread over 1,224 different issues. In its July 2011 issue, the *Distressed Debt Securities* newsletter (published by ISA) reported that municipal defaults totaled $746 million in the first six months of 2011, after topping $3 billion and $8 billion in 2010 and 2009, respectively. The average default rate comes out to roughly $1 billion or so a year. Interestingly, the average defaulted issue size was relatively small, ranging from $31 million for 2011 year-to-date to $38 million in 2009, which might present a challenge for larger institutional investors looking for scalable distressed opportunities.

Of course, the averages do not tell the whole story: The two largest unsettled muni defaults as of this writing remain the now infamous Jefferson

County, Alabama, Sewer issue ($3.8 billion) and the Main Street Natural Gas Series 2008A issue ($709.1 million). As distressed credits, the two could not have been more different: One is a traditional municipal issue, the other a mere conduit financing for a corporate credit. The Jefferson County issue was, in the final analysis, a case of local officials dabbling in sophisticated interest rate swaps whose risks they were ill-equipped to understand (after three years of negotiations and after a tentative settlement with stakeholders fell apart, the county's sewer system did file Chapter 9 on November 9, 2011, supplanting Orange County as the largest muni bankruptcy in history). In contrast, the Main Street Natural Gas issue was a conduit issue guaranteed by Lehman Bros. and became a victim of one of the largest corporate bankruptcies in history, one that almost brought down the entire U.S. financial system. Main Street 2008A bonds initially traded down to as low as 15 cents on the dollar, but have since recovered to about 70 cents, reflecting improved recovery prospects as the Lehman case worked its way through the courts.

As we have seen throughout the history of this market (see Chapter 2), in the absence of a major macroeconomic event, municipal sectors tend to take turns getting into credit trouble, following a kind of "rolling distressed" scenario. In the 1980s, it was the oil bust that created opportunities in local Texas single-family issues. The largest distressed trades in the 1990s revolved around the moribund airline industry and, to a lesser extent, the paper de-inking industry. More recently, the collapse of the U.S. housing market has had a particularly severe impact on sectors that have a real estate component. For instance, retirement facilities are crucially dependent on the health of both the real estate market and the financial markets: Retirees need to be able to sell their homes and tap into their savings in order to move into a senior living facility. Not too surprisingly, many newly-constructed senior living facilities that entered the fill-up phase over the past three years are struggling to reach their occupancy target and meet their debt service burden. As a case in point, the Clare Tower, a high-rise senior residential facility, recently defaulted on $229 million of debt, becoming the largest municipal default of 2011 to date. The project's prestigious location on Chicago's Magnificent Mile certainly did nothing to help its solvency.

As of this writing, the single largest concentration of distressed municipal securities in the United States (and by some accounts, the single largest municipal default event in history) resides in the State of Florida, where up to $5 billion of Community Development District (CDD) bonds are in various stages of default. These CDD bonds were issued during the boom years of the housing market to finance infrastructure for vast,

yet-to-be developed tracts of land, hence their nickname, "dirt bonds." Most of these bond-issuing districts were created and controlled by local developers. In theory, these dirt bonds would be paid back by special assessments on the eventual homeowners of these districts. However, once the housing market collapsed, development efforts in many of these districts stalled, leading to a shortfall in revenues collected for debt service. To make matters worse, many of the developers also filed for bankruptcy. Income Securities Advisors, a Florida-based research service, maintains a web site dedicated to the Florida CDD problem (http://www.floridacddreport.com) and summarizes the issue quite succinctly:

> . . . There are 600 Community Development Districts in Florida, 438 of which were begun in 2003 through 2008. They have issued $6.5 billion in municipal bonds to finance their infrastructure. Since the collapse of the housing market, over 120 of these districts are in default on $3 billion of bonds and, in many cases, the project developer is in financial distress as well. Since some 204 of these projects were launched in 2006 through 2008, they have often not yet completed their infrastructure build out, so they have not yet defaulted. However, given the slow turnaround in housing this is often only a matter of time. We estimate that at least another 70 projects could default before a turnaround occurs.

Away from the Sunshine State, there are pockets of other similar tax-increment financings, most notably in California, which may also be heading toward default as a result of falling housing values.

Despite its staggering scope, the CDD default problem has yet to lead to large-scale liquidation efforts on the part of the mutual funds, a few of whom had exposure in excess of 10 percent of their asset base. When faced with the potentially massive capital losses, many of the mutual fund holders have apparently chosen to (1) engage counsel to represent their interests through the workout process; (2) write down the value of their holdings; and (3) extract as much tax-exempt income as possible from the reserve funds initially set up for these issues. This approach is grounded in institutional apathy and in the mistaken belief that housing-related credit problems will somehow resolve themselves in the fullness of time. Of course, this further begs the following questions: (1) What happens when the tax-exempt income runs out? (2) Are the valuation write-offs reflective of the true recovery value of these deals? These are critical pricing issues that may yet come back to haunt the funds in the near future.

In summary, it's fair to say that figuring out a way to dislodge defaulted assets from their original mutual fund holders in a way that satisfies the

funds' fiduciary duties is both the greatest challenge as well as the greatest opportunity facing today's distressed buyer.

The Theory and Practice of Distressed Municipal Investing

Regular municipal analysis deals mainly with estimating the *probability* of default. Distressed investors assume an event of default will occur and are mainly concerned with post-default valuation. They implicitly make the following assumptions: (1) The economic and structural issues affecting the troubled credits are known or discoverable, since distressed bonds can be purchased with the benefit of hindsight; (2) they can restructure the debt to better reflect the actual cash flow value of the underlying assets; and (3) the bonds can be purchased at a dollar price that is meaningfully lower than the value of the underlying assets, even after all workout costs are factored in.

Thus, a successful approach to distressed investing would include the following key ingredients: (1) Accumulate a sufficient ownership interest in the bonds to gain legal and economic control of the workout process; (2) perform due diligence on the underlying assets to identify all risk factors, including project site visits, inspections, and so on; (3) accurately model the value of the underlying assets under various legal outcomes; and, last but not least, (4) formulate an effective exit strategy that maximizes recovery value to the bondholders.

Let's examine each of these factors in more detail.

Gaining a Control Interest in a Defaulted Issue

As any distressed investor (on the corporate as well as the municipal side) will attest to, it is very difficult—if not impossible—to influence the workout process without first gaining a control interest in the issue. This is relatively easier to accomplish in the corporate arena, where all debtor claims under Chapter 11 are readily identifiable and seniority status within the capital structure is well understood. Not so in the tax-exempt sector. Because many of the distressed securities tend to reside in mutual fund portfolios, putting them in play is easier said than done. You may recall our previous discussion about the impact of bond evaluations on muni trading levels. Once a bond has been tagged as defaulted, and until a sizeable trade can be documented, the pricing services tend to freeze the evaluation at a level that reflects their own internal estimates of what the restructured underlying assets may be worth, and not necessarily what the market bid side may be. This is not meant to imply any

kind of deliberate misinformation on the part of the evaluators. It is just in the nature of the beast that there should be disagreement on what the right number should be. The mutual fund manager would argue that his or her fiduciary duty requires that the defaulted holdings be priced at their fair value, not at what the manager might consider a throwaway or "lowball" bid from opportunistic buyers. A truly conservative approach would, of course, argue for pricing on the quoted "bid side" until proven otherwise by an actual trade. As in most things pertaining to pricing, there is still ample room for debate.

The mutual funds' own cash flows are another factor that may impede trading in distressed securities. Unless the funds need to raise cash due to redemptions, they would normally be very content to sit on their defaulted holdings, write down some of the value, and go through the workout process, hoping to extract as much tax-exempt income as they can. Only when debt reserve funds are exhausted would they seriously consider a sale of these troubled securities. In that event, the preferred approach from a fiduciary standpoint would be to try to sell the underlying asset as opposed to getting a bid on the bonds.

In a few instances, a deal that has been widely distributed to retail investors, with few bonds left in institutional hands, would also present difficulties to the distressed player in his or her effort to accumulate a controlling position.

Performing Due Diligence

This is undoubtedly the most labor-intensive part of the process, but one where savvy distressed players can add real value. In the municipal market, where many of the troubled projects tend to be stand-alone facilities, an on-site evaluation and "tire-kicking" of all pledged assets is an absolutely necessary step. Jon Schotz, a co-founding partner of Saybrook Capital, told the colorful story[1] of having to drive to a remote California desert area, past a worm farm, to check out the site of a potential new housing community. Other distressed investors have found themselves crawling around in dark attics or driving around vast tracts of raw land as part of their due diligence inspection for rental housing or development projects.

Away from the physical inspection of the project, the due diligence process also involves sorting through the legal documents and making sure all pledged security interests have actually been perfected. It also involves figuring out the various parties to the transaction. Not surprisingly, many of these stakeholders will have conflicting interests, particularly when one takes into account the political aspect of most municipal transactions. Dealing with elected officials and not-for-profit operators requires unique communication skills, not just

good business acumen. For instance, bondholders of the bankrupt Fiddler's Creek, Florida, Community Development District were recently shocked to find out they were deemed by the bankruptcy judge to be creditors of the district only, with no claim on the underlying assets and no recourse against the developer. Had they been aware of that fact, they would have found a way to work out a compromise with the resident board and/or the developer, instead of blindly sticking to their perceived legal rights.

Modeling the Value of the Underlying Asset

At the end of the day, distressed investing comes down to a valuation game. Thus, it is essential to isolate the key drivers of the underlying project's cash flows and correctly model such cash flows over a wide range of scenarios. Adjustments should be made for any relevant noneconomic factors uncovered during the due diligence process (e.g., regulatory constraints and restrictions on land use), particularly when dealing with nonprofit debtors such as hospitals or senior living facilities.

One of the key variables in any cash flow valuation model is the *capitalization rate* (or "cap rate"), the rate one uses to discount the projected cash flows to arrive at a present value estimate (or range of estimates) for the project. In the muni area, one is faced with an interesting issue: Whereas the initial project feasibility was undoubtedly predicated on providing a *tax-free* rate of return to the investor, the appropriate cap rate for a distressed muni project should be a *taxable* rate, which compensates any investor for the perceived risks, regardless of his or her tax status. Of course, using a taxable cap rate will further depress the projected value of the project, but it is the only realistic way to arrive at a valuation that is both conservative and potentially attractive to a wide range of buyers, regardless of their tax status.

Finally, the potential *alternative use* for the underlying assets will also have a significant impact on terminal value. Dan Carter, president of ITG Holdings, a long-time distressed player, points out the difficulty of converting a foreclosed asset such as a health care facility or a power plant to alternative uses, particularly if the facility is located in a remote location. In the case of a retirement facility, securing the collateral would be difficult, as it might impact the rights and well-being of the elderly residents.

Formulating an Exit Strategy

The restructuring process for a tax-exempt issue involves significantly more human factors and, in some cases, more political factors than a typical corporate issue. The reason for this is obvious: You are dealing with political entities or nonprofit organizations whose primary allegiance is to their respective

constituencies and not to the bondholders. The normal economic incentives to reach a quick and cost-efficient resolution are usually absent. The developers who originally drove many of these financings probably contributed very little upfront cash equity and thus have very little "skin in the game." Any remedy proposed by the investor must stop short of direct involvement into the management of the project, lest he or she run the risk of incurring a whole new set of lender liabilities. Last but certainly not least, there are major differences between Chapter 9 and Chapter 11 bankruptcy proceedings,[2] which we will explore in greater detail in the appropriately numbered Chapter 9. A successful exit strategy will usually require the distressed investor to somehow reconcile the disparate interests of all the stakeholders. A purely legalistic approach can sometimes backfire, as many unwary investors have discovered over the years.

To conclude, these are undoubtedly exciting times for the distressed municipal bond investor. Distressed investing is by definition a morbid undertaking: One tries to profit from other people's mistakes. Uncertain economic times, a moribund housing market, and a decommodization of the tax-exempt sector are all factors that will greatly expand the potential distressed universe for at least the next five years. The obvious lack of market efficiency in this sector makes it all the more compelling. Now that the municipal asset class has gained greater visibility, the recent influx of new players from other disciplines should bring with it additional liquidity (albeit only in a relative sense) and, hopefully, a more rigorous approach to asset valuation. Nonetheless, dealing with the idiosyncrasies of nonprofit entities remains an acquired taste, and, as we've said before, crossover buyers would be well advised to partner with experienced municipal specialists who can help them navigate the state and local political landscape. High net worth investors should only access this opportunity through properly diversified, professionally managed vehicles.

Notes

1. J. Schotz, "The Opaque World of Municipal Bonds," www.FINAlternatives .com, August 24, 2007.
2. J. Spiotto, "Chapter 9 Update: History and Alternatives," presentation at the Northeast Bankruptcy Conference/American Bankruptcy Institute, 2011.

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CHAPTER 8

Case Studies

Now that we have gone over the theoretical underpinnings of high yield investing, it is time to take a look at how these principles may play out under real market conditions. Two fascinating case studies will be used for this purpose. On the distressed side, the bankruptcy of the nonprofit National Benevolent Association will be discussed. The "fallen angel" type of high yield opportunity will be illustrated by the case of Denver International Airport bonds.

Distressed Opportunity: National Benevolent Association

One of the most successful distressed municipal opportunities in recent memory involved tax-exempt bonds issued by the National Benevolent Association (NBA), which filed for bankruptcy in February 2004. It remains to this day one of the largest nonprofit bankruptcies ever. Although the final outcome was unusually favorable to bondholders, and therefore not typical of most distressed situations, the case can still serve as an informative (and colorful) illustration of the potential risk/reward of distressed investing.[1]

The National Benevolent Association was founded in 1887 as the health and social services arm of the Christian Church (Disciples of Christ). As a Missouri-based nonprofit organization, its lofty mission was to provide health and social services to children, disadvantaged families, and others. Until the early 1990s, to fulfill its mission, the NBA operated about a dozen nursing homes, some child care centers, and 76 HUD-financed, low-income housing projects.

In the early 1990s, under the leadership of its president, Cindy Dougherty, the NBA decided to expand into senior living construction and management as a way to augment its cash flows. The ambitious plan involved

the construction and purchase of high-end senior living facilities, including some CCRCs, all financed through the issuance of about $230 million in tax-exempt debt. Since the new senior living facilities would not be cash-flow positive for a few years, the NBA started to rely on investment returns from its substantial endowment portfolio (estimated at about $90 million) to service its debt.

This turned out to be a disastrous move, as it soon became clear that senior living management was not one of NBA's core competencies. On top of this, the stock market started to decline, payments from federal and state programs were cut, and the senior care facilities soon became an enormous cash drain. It became apparent to NBA management that the charity ran the risk of going under within a couple of years.

The NBA retained The Huron Group and Cain Brothers as its financial advisors and the high-profile New York firm of Weil, Gotshal and Manges (WG&M) as legal counsel. The Association then went to the bondholders and, claiming that it was now overleveraged due to structural issues, demanded that its debt be restructured. Such restructuring would result in bondholders taking a haircut of roughly 40 percent.

As it turned out, the bondholders' interests were in good hands with a very competent bond trustee, UMB Bank, N.A. of Kansas City. UMB also hired Mintz Levin (ML) as counsel to the bondholders' credit committee. Herbert J. Sims, a well-known senior living investment banking shop, was retained to independently assess the economic viability of the NBA's senior living facilities. Sims found that most of the facilities were not managed to their full potential and that there was no structural reason the facilities would not be able to service their debt if properly managed. In other words, taking the NBA's $90 million endowment into account, the case could have been made that the tax-exempt bonds were actually overcollateralized.

Armed with that knowledge, UMB and other NBA creditors submitted various proposals to bring in other more experienced outside operators in exchange for some short-term cash flow relief. NBA rejected all the proposals and even elected not to pay debt service on its bonds in order to pressure the bondholders.

Faced with a deliberate default, UMB was left with no choice but to accelerate the debt and demand the appointment of a receiver for NBA's senior care facilities. In response, NBA and 25 of its affiliates, owners/operators of 11 senior living facilities and 3 special care projects located in 12 different states, filed for Chapter 11 bankruptcy on February 16, 2004.

In the weeks leading up to the filing, NBA bonds had taken a nosedive in the secondary market, with some tax-exempt funds selling bonds as low as

47 cents on the dollar, although most trades reportedly occurred in the 60 to 65 cents range. A major taxable hedge fund had come into the picture and begun accumulating a control position in the bonds, sometimes paying as high as 75 cents.

Unlike most workouts, bankruptcy turned out to be a relatively beneficial scenario for the bondholders in this case. While we cannot get into all the legal nuances here, a couple of salient points are worth mentioning.

For one, the NBA had no significant secured debt that ranked senior to the tax-exempt debt. Its total liabilities were reported to be $250 million, of which $230 million were the unsecured tax-exempt debt. In the absence of a senior creditor class, the NBA could not resort to a "cramdown," a technique whereby the debtor would convince a higher ranking creditor class to accept less than it was owed, then use that settlement to force the lower-ranking creditors to accept a reduced settlement as well.

Second, any settlement outside of bankruptcy proceedings would have been handled on a project-by-project basis. Inside of the bankruptcy, any settlement would have to come from a pooling of all available assets, including the NBA's substantial endowment. From the Sims report, the bondholders also knew that the senior living facilities, if managed properly, were worth very close to the amount of the debt.

Other missteps were also committed by the NBA. The association carefully "shopped" for the friendliest venue for its bankruptcy filing (in this case, the Western District Court of Texas in San Antonio). However, its counsel failed to convince Ronald King, the bankruptcy judge, to approve a $50 million debtor-in-possession (DIP) request. WG&M tried to argue that the court must give special deference to a nonprofit charity's "mission," even if that mission conflicted with the requirements of the Bankruptcy Code. The argument was promptly rejected by the judge, who told the NBA it had a new mission: "to pay its creditors." (One can just imagine the scene of a high-powered New York lawyer getting a tongue-lashing from a Southern judge in a small Texas courtroom!)

In fact, the DIP motion could hardly be justified in light of the NBA's $90 million in cash and investments, which the Association claimed were donor-restricted, though it couldn't produce proof to that effect.

Other key motions filed by the debtor through its counsel were also defeated, including a proposed change to the entrance fee model for the senior facilities, which would have impaired their future recovery value.

As the legal team from Mintz Levin would recall later, the bondholders were also able to gain the support of two important constituencies: the residents of the senior facilities, who were unhappy with the original

management, and the attorneys general from the 12 states where NBA had its operations. Both groups became allies of the creditors once they were convinced that a sale of the underlying assets to a more experienced operator would serve the interests of the residents and allow the NBA to survive and continue its mission.

In the end, all the parties agreed to a plan of reorganization that called for an auction of the senior facilities and the use of the proceeds, along with a portion of the NBA's endowment, to pay off the bonds. The facilities were ultimately sold to Fortress Investments for $210 million. This sum, combined with $40 million from the endowment, was sufficient to pay the bondholders *par plus all accrued interest*. On April 15, 2005, NBA successfully emerged from bankruptcy, only 13 months after commencement of the case. No one could have asked for a better outcome, except perhaps for the initial panic sellers of the bonds. The distressed buyer (or buyers) who accumulated bonds in the 60 to 75 cents on the dollar range certainly reaped an attractive return on the investment.

As mentioned at the outset, it was rather unusual for all the stars to line up in favor of the bondholders as they did in this case. Most bankruptcies are characterized by conflicting interest groups, even within the creditor ranks. In this instance, having a strong crossover buyer who was not afraid to pay up in order to gain a controlling interest and had a forceful voice on the bondholders' committee may have helped strengthen the creditors' hand. All in all, the NBA bankruptcy is now widely viewed as a turning point in the muni distressed investing business.

Fallen Angel: Denver International Airport

Denver International Airport (DIA) broke its all-time traffic record in 2010, as 52 million travelers went through the distinctive tentlike terminals of one of the world's most efficient and technologically advanced air travel facilities. It was named the third best airport in North America for 2011. Its bond ratings were reaffirmed by all three rating agencies when it came to market with its latest refunding bond issue in October 2011: A1 by Moody's and A+ by both S&P and Fitch. Who would have thought that this well-established airport used to be one of the most controversial "high yield" issuers in the tax-exempt market and that its very existence was subject to doubt just 16 years ago? In many ways, the investment saga of DIA, dating back to the early 1990s, is the perfect illustration for the concept of the life cycle of a high yield credit, discussed at great length in Chapter 3.

DIA started out in 1989 as just another public mega-project, designed to replace the old Stapleton Airport, which had been open since 1929. It initially benefited from extremely strong political support, led by Federico Peña, Denver's mayor at the time, and a coalition of local business, union, and media leaders, concerned with the city's declining tax base and anxious to create a new catalyst for job creation and economic growth. Stapleton was reportedly plagued by a number of problems, including inadequate separation between runways, leading to extremely long waits in bad weather; little room for expansion; and lawsuits over noise pollution by nearby resident communities. The federal government, looking to ease congestion on the national air transportation system, also threw its weight behind the project, and its support was further strengthened when Peña himself left Denver to head the Department of Transportation under the Clinton administration.

The only parties that had to be dragged kicking and screaming into the project were the airlines themselves: Both United (UAL) and Continental (CAL), the two dominant carriers at Stapleton, voiced concern about passenger costs potentially more than doubling at the new facility. The airline industry had just gone through a bruising period of rising fuel prices in the late 1980s, which had resulted in Continental Airlines filing for bankruptcy for a second time in December 1990 (it emerged from bankruptcy in April 1993). In their weak financial condition, neither United nor Continental could afford any increase in operating costs. In the end, they were left with no choice but to go along as Mayor Peña settled the noise pollution suit by agreeing to close down Stapleton once DIA opened. Determined to avoid a repeat of the Dallas-Fort Worth/Love Field competitive situation, the city even rejected Continental's request to maintain its maintenance base at Stapleton, just to ensure the old airport would be completely shut down.[2] Eventually, Continental abandoned its hub at Denver, leaving United as the only major carrier there.

The first Denver Airport financing came to market in September 1992 and carried ratings of BBB by S&P and Fitch and a "conditional" Baa1 from Moody's (due to the new construction nature of the project). It was easily absorbed by most of the major tax-exempt mutual funds, both high grade and high yield, which were experiencing explosive growth at the time. The original construction cost estimate for the airport was around $3.0 billion, and completion was projected for October 30, 1993.

The first sign of trouble came on March 2, 1993, when Mayor Wellington Webb, who inherited the project from Peña, announced that the airport would open seven weeks late, ostensibly due to changes in construction plans.

The city took comfort in the fact that, as long as the project opened before January 1, 1994, it would avoid exhausting an estimated $34 million in capitalized interest set aside within the original bond deal to cover debt service for 60 days past the original opening. As construction delays were always expected for large public construction projects, the investment community largely shrugged off the news. *The Bond Buyer* reported that the Denver Airport 6 3/4 of 2022 were quoted unchanged that day, at 101 5/8–102, to yield 6.54 percent to the call.[3]

That was only the beginning of a long string of construction delays, which culminated in DIA opening its doors some 16 months later than originally planned. December 1993 came and went and the opening date was pushed back to March 9, 1994, and then to May 15. The second delay announcement on March 4 surprised market participants and brought a more forceful response from one of the rating agencies: S&P placed Denver Airport debt on negative credit watch, stating that the airport needed to make the revised opening date and meet revenue projections for the first few months of operation in order to avoid a downgrade. The bid side on Denver Airport 6 3/4 of 2022 dropped by 1 point to 99 7/8 (6.75 percent yield), with the spread widening by about 10 basis points. Note that tax-exempt yields were generally rising over this period, so the DIA bonds' underperformance came on top of already softening market prices.

A second shockwave hit the DIA market only three days later, when Continental announced it was transferring 2,000 of its Denver crew base to other airports. The market was once again caught by surprise, as the carrier had just agreed to guarantee another $35 million bond issue for Denver. CAL's move, while not wholly unexpected by airline experts, was widely interpreted as the beginning of the carrier's retreat from its hub in Denver. Analysts scrambled to figure out the potential impact on enplanements should DIA become a single-carrier fortress hub for United. The bid side yield on benchmark DIA bonds rose another 15 to 20 basis points to about 6.95 percent, although very few bonds actually changed hands. From February 28 (when the bad news started coming out) through March 15, 1994, DIA bond yields had risen from 6.34 percent to 6.95 percent (or 61 basis points), during a period when Treasury yields only rose 23 basis points.

As mentioned before, even though the bid side, and thus the mark-to-market value, of Denver bonds kept getting eroded, there was relatively little selling relative to the size of the deal. The reality was that no one could get out of the name in size, even if they wanted to. Pretty much all of the large mutual fund complexes had significant exposure to DIA, and all they could really do was hang on for the ride. Some did step in to buy at lower prices,

but without much conviction. When interviewed about their exposure, most institutional investors tried to talk up the credit, expressing confidence that the airport would eventually open.

At the heart of all the Denver construction delays stood the airport's state-of-the-art baggage handling system, designed and built by BAE Automated Systems. It was supposed to be the world's largest and most sophisticated system. As it turned out, the new system experienced numerous problems, primarily because it was never designed for the scale and complexity of DIA, and also because it had to accommodate the larger ski equipment that routinely passes through Denver as a ski destination. Before too long, the baggage handling system became the butt of a national joke. Network television started showing clips of luggage items getting chewed up or scattered by the system. David Letterman made fun of the Denver system on his nightly show.

By the end of April, only two weeks from the May 5 revised opening date, the baggage system was still failing its tests, prompting a representative of UAL to urge airport officials to again delay the opening. S&P went on record to confirm that any further delay would most likely result in a downgrade. Given that S&P's rating at this point was already at BBB–, there was a real possibility that a downgrade would take DIA into below-investment grade or "junk" status. This time, a few nervous retail bondholders reportedly sold out of their holdings, driving the yield on the Denver Air 6 3/4 of 2022 to 7.70 percent, up another 75 basis points from the previous month, for a dollar price of about 89. It was clear to many traders that the next stop would be 8 percent or higher.[4]

Needless to say, the May 5 deadline came and went with city officials at a loss to provide a new completion date. In the face of such uncertainty, S&P did downgrade DIA to BB, squarely in high yield junk territory. In an effort to counter the negative public perception, John Nuveen's research department took the unusual step of releasing a report expressing confidence in the fundamental soundness of the airport's credit.

In a curious side development, the SEC declared that it would step up its monitoring of the high yield municipal bond market as related to 1940 Act funds, no doubt in response to the negative publicity regarding Denver. Around the same time, the then widening SEC investigation of conflicts of interest involving investment banker Mark Ferber also had a Denver connection: While at Lazard Freres, Ferber and his associates served as financial advisers to the city in connection with the issuance of DIA debt.

S&P's downgrade could not have come at a worse time, as the general bond market was also selling off due to a weak Treasury auction. However,

Moody's did maintain Denver at investment grade level ("conditional Baa"), thereby allowing the funds that could not hold below investment grade to avoid forced liquidation.

It must be noted that, throughout this process, certain municipal broker-dealers did their best to instill fear and loathing into the bondholders and put pressure on trading levels. Numerous unfounded rumors were floated, including one that reported "cracks in the runways" at Denver, as if that had anything to do with the bigger financial picture! As investor concerns about the credit reached a paroxysm, the bonds traded down as cheaply as an 8.25 percent yield. The "magic" 8 percent mark turned out to be too enticing for many existing institutional holders to pass up, particularly for a nominal BBB name, and many decided to double down on their exposure at that time.

By the end of August, the city had to go back to the market to raise another $225 million to pay for a backup manual baggage system and replenish liquidity. Moody's and Fitch's decisions to keep DIA at their lowest investment grade rating helped the issue get placed. In rare show of support, UAL stepped up to the plate and agreed to work with the city on two parallel baggage systems to get the airport opened by February 1995, the new target date. By October of that year, a three-way agreement was reached among DIA, UAL, and BAE Automated Systems that virtually ensured the opening of the airport by February (with a manual baggage system in the worst case) and the dismissal of millions of dollars in suits and countersuits.

That became the turning point for the Denver Airport saga. By February 1, Mayor Wellington Webb gained enough confidence to announce that DIA would, at long last, open for operation on February 28, 1995. By the time it was over, the costs of building the first brand-new airport in 20 years had topped $5 billion, a far cry from the original $1.3 billion estimate.

Not too surprisingly, the Denver fiasco generated in its aftermath numerous class action securities fraud suits against the city and its underwriters. The SEC also jumped into the fray to investigate whether the initial offering documents properly disclosed all the risks to the bondholders.

In the secondary market, once it became clear that no further delay would be incurred, DIA bonds soared, with yields dropping by almost 100 basis points. From there on, it was all smooth sailing. On October 29, 1995, S&P restored DIA's investment-grade status with an upgrade from BB to BBB. The story gets better: By February 1996, against the backdrop of a general rally in the fixed-income market, DIA announced it would refund up to $300 million of the bonds and make a premium tender offer for up to another $1.9 billion.

Eventually, in the ensuing years, all the DIA bonds would end up being refunded, providing their owners with significant upside.

It should be noted that, as nerve-wracking an episode as this was, no monetary default was ever incurred. Instead of default risk, what you had was pure "spread risk." As we saw in the previous narrative, spread widening during a bear market can really wreak havoc on the market value of one's investments. The Denver story illustrates how a credit can go from investment grade to "junk," then back to investment grade, and finally AAA-refunded status, a perfect high yield life cycle, in other words.

Interestingly, years after the regular airport revenue bonds had settled down to normal, the so-called Special Facilities bonds issued by the City of Denver on behalf of UAL became the subject of a watershed legal case in the high yield muni market, known as *United Air Lines, Inc. vs. HSBC Bank USA*. In 1992, Denver had issued $261 million in tax-exempt bonds on behalf of United in order to fund the construction of certain of the airline's facilities at the airport. The bonds were secured by an underlying agreement between United and the city called the "Special Facilities and Ground Lease," whereby debt service on the bonds would be paid indirectly by UAL through "facilities rentals" under the lease. When UAL filed for bankruptcy in 2002, the airline sought to have its agreement with the city treated as a loan rather than a lease. Without going into all the legal intricacies here, a loan (but not a lease) can normally be rejected in bankruptcy as a prepetition unsecured claim, thus providing UAL with greater financial relief. The airline made the same claim regarding its special facility "leases" at three other airports: San Francisco, Los Angeles, and New York. In those other instances, UAL prevailed and its lease arrangements at those airports were ruled disguised financings and not true leases. Only in Denver, and through the efforts of a legal team from Mintz Levin representing the bondholders, did the courts rule that the ground lease and the bond financing were inseparable, and therefore the entire arrangement constituted a true lease and could not be rejected by UAL in bankruptcy.

Notes

1. Paul Ricotta and Leonard Weiser-Varon, "When Debt Confronts Charitable Mission: Handling the Non-Profit Workout/Bankruptcy," Parts 1 and 2, *The Bankruptcy Strategist*, August 2005, September 2005.

2. Joseph Szylowicz, "Airports and New Entrants: The Denver Experience," presented at "Tourism and the Airline Industry," colloquium, University of Montreal, March 2002.
3. "Denver Airport to Open Later Than Scheduled; Investors Are Unruffled," *The Bond Buyer*, March 3, 1993.
4. "Denver Airport Debt Dips on Delay Threat; No Large Blocks Sold," *The Bond Buyer*, May 2, 1994.

Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

CHAPTER 9

Managing Bond Defaults and Bankruptcies

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In spite of one's best efforts, occasional defaults and bankruptcies are hard to avoid in high yield and distressed municipal investing. This chapter provides an overview of a bondholder's rights and remedies in the event of a workout or municipal bankruptcy situation under Chapter 9 of Title 11 of the United States Code (U.S.C. Title 11, or the Bankruptcy Code). The historical incidence of Chapter 9 filings is examined in detail, along with some related accounting issues. To assist the municipal bond investor who is already acquainted with corporate bankruptcies, some of the key differences between Chapter 9 and Chapter 11 are also discussed.

Nine Differences between Chapter 9 and Chapter 11

1. Order for Relief

The order for relief is the purpose of filing for bankruptcy and grants the debtor relief from creditors until a Chapter 11 plan of reorganization (POR) or Chapter 9 plan of debt adjustment is approved. Upon a voluntary Chapter 11 filing, there is an automatic order for relief. However, under Chapter 9, the debtor must first fulfill certain requirements before the bankruptcy court enters an order for relief, thus allowing the case to proceed. Months and years can pass by before the order for relief is issued, during

which time the Chapter 9 debtor attempts to fulfill those requirements as outlined in the Bankruptcy Code.

Thus, upon entry into the Chapter 9 bankruptcy process, the initial game plan for the municipality centers upon obtaining that order for relief. But even aside from those requirements, an order for relief is not assured. Section 921(c) permits objections to the petition to be filed, for example, whether negotiations were conducted in good faith or whether the petition was filed in good faith, and the bankruptcy court must hold a hearing on each objection. If the petition is not dismissed upon these objections, Section 921(d) requires the court to order relief, allowing the case to proceed finally under Chapter 9.

2. Eligibility

In Chapter 11, there is no insolvency requirement or eligibility requirement for being a debtor in the bankruptcy process. The corporate debtor enjoys the right to choose from more than one chapter of the Bankruptcy Code, that is, Chapter 7 liquidation or Chapter 11 reorganization. However, in Chapter 9, a municipality that files a petition for relief must satisfy more onerous eligibility criteria such that it is much more difficult for a debtor to get into Chapter 9 than into Chapter 11.

Once a bankruptcy judge is assigned to the case, the municipality must prove that it is eligible to be a debtor under Chapter 9 to obtain that order of relief. This is no small feat; a large portion of case law deals with eligibility issues, and approximately 25 percent of all Chapter 9 filings are dismissed, with a significant number of dismissals occurring because the putative debtor was unable to prove that it met these requirements.

Under Section 109(c), an entity is eligible to be a debtor under Chapter 9 if and only if such entity is a "municipality"; is "specifically authorized" to be a Chapter 9 debtor under state law or by a duly authorized state official; is insolvent based upon cash flow insolvency (not balance sheet insolvency) or is not paying its debts as they become due; and desires to effect a plan to adjust its debts.

In the final requirement, the municipality must prove one of four mandates: that the municipality (1) obtained the agreement from a majority of each class of creditor to be impaired; or (2) negotiated in good faith with creditors but failed to obtain the consent of the creditors; or (3) was unable to negotiate with creditors because such negotiation is "impracticable"; or (4) reasonably believes a creditor is going to get a preference.

None of these requirements are obvious or easy to prove, and there are several recent filings, for example, where an entity presumed to be a

municipality was deemed by the court not to be a municipality after all. Section 101(40) defines a municipality as a "political subdivision or public agency or instrumentality of a State." The legislative history of Chapter 9 reveals that Congress intended the definition of municipality to be interpreted broadly, such that a "political subdivision" generally includes cities, counties, and townships, and "public agency" and "instrumentality of a State" generally include hospital districts, public finance authorities, public improvement districts, school districts, and other revenue-producing bodies that are sponsored or controlled by the state.

3. Case Assignment to Judge

In Chapter 11, the clerk of the court automatically assigns the case by lot to a bankruptcy judge as the petition is filed. Because the debtor typically can choose to file in different states in a variety of districts, there is a kind of gamesmanship involved in filing in a district where the specific judge assignment can be predicted with some certainty. Debtors believe that judge's practice background, case history, and judicial track record might lead to a favorable outcome, for example, a pharmaceutical debtor can hope that a judge with a health care background will be assigned the case who is debtor-friendly and has a good prior rapport with the debtor's attorneys and advisors.

However, in Chapter 9, the chief judge of the circuit in which the Chapter 9 case is filed has the task of assigning a bankruptcy judge because of the rarity and importance of municipal bankruptcies. The chief judge is free to assign any bankruptcy judge in the circuit to hear the case and will consider whether a judge from the district in which the case is filed should be assigned. Section 921(b) was designed to remove politics from the issue of which judge will preside over the Chapter 9 case of a major municipality and to ensure that a municipal case will be handled by a competent and experienced judge. This key difference between Chapter 9 and Chapter 11 is something the high yield investor should consider in the decision to buy, sell, or hold municipal bonds issued by municipalities seeking Chapter 9 bankruptcy protection.

4. Power of the Court

In Chapter 11, the role of the bankruptcy court is practically unlimited since everything outside the ordinary course of business must receive court approval. On the other hand, Chapter 9 is conducted without significant involvement of the bankruptcy court, except to oversee the entry and exit of a municipality from bankruptcy protection. The powers of the bankruptcy

court in a Chapter 9 case are generally limited to (1) approving the bankruptcy petition if the debtor is eligible; (2) approving the debtor's assumption or rejection of executory contracts and unexpired leases; (3) confirming or denying the plan of debt adjustment; (4) ensuring implementation of the plan; and (5) dismissing the bankruptcy case under certain circumstances.

Municipal debtors enjoy a degree of protection over their assets and operations that Chapter 11 debtors do not because of the severe limitations placed upon the power of the bankruptcy court by the Tenth Amendment regarding any federal law that potentially interferes with the right of a state of sovereignty to govern the internal affairs of its municipalities, the Supreme Court's decisions in cases upholding municipal bankruptcy legislation, and the Bankruptcy Code. But as a practical matter, the judge in a Chapter 9 case does exert considerable influence over the parties in interest because of the implicit threat of dismissal of the bankruptcy case (see below). Furthermore, the municipal debtor may consent to have the judge exercise jurisdiction in many of the traditional areas of court oversight in bankruptcy to obtain the protection of court orders and to decide issues in a single forum.

5. Power of the Trustee

In Chapter 11, the U.S. trustee plays a visible role in corporate bankruptcy cases and enjoys a general supervisory authority that includes appointing creditors' committees, enforcing reporting requirements, and organizing the first meeting of creditors. However, the role of the U.S. trustee is typically more limited in Chapter 9 cases, where there is no general supervisory authority other than appointment of creditors' committees. In Chapter 9, the U.S. trustee does not examine the debtor at a first meeting of creditors because there is none, does not have the authority to move for appointment of a trustee or examiner or for conversion of the case, and does not supervise the administration of the case. Because the municipal debtor is not subject to the reporting requirements and other general duties of a Chapter 11 debtor, the U.S. trustee does not monitor the financial operations of the debtor or review the fees of retained professionals and advisors. In six judicial districts in the states of Alabama and North Carolina, bankruptcy administrators serve a similar limited function in Chapter 9 cases.

6. Power of the Creditor

The roles and powers of creditors are more limited in Chapter 9 than in Chapter 11 (see next section below for a full discussion). But unlike in

corporate bankruptcies, the creditors in municipal bankruptcies are often political constituents. Because of the tax-exempt status of most municipal bonds, individual retail investors are often residents of the issuer's locality. Thus despite the limited role and powers of Chapter 9 creditors, the municipality must consider the political ramifications as it delicately proceeds through the debt adjustments. For example, a protracted and painful restructuring should be avoided, especially where essential services and goods might be cut to the anger of the voting public.

7. Power of the Debtor

The Chapter 11 bankruptcy process is driven by the creditor, and the viewpoint shifts from that of the debtor to that of the estate. In Chapter 11, an estate is created where the debtor-in-possession (DIP) shares possession of its property with all of the creditors, and every action must promote the overall interests of both the creditors and the debtor. Chapter 11 debtors require court approval to take any action outside the ordinary course of business. However, in Chapter 9, the debtor enjoys greater power. Because Section 541 is not incorporated into Chapter 9, there is no concept of estate or debtor-in-possession in Chapter 9, and consequently there is no property of the estate for the court to administer. Additionally, because of the statutory limitations of the bankruptcy court discussed above, the Chapter 9 debtor has broad powers to use its property, to raise taxes, to make expenditures, and to incur additional new debt. Sections 364, 901(a) allow a municipality to borrow money as an administrative expense. Thus, a municipality has the same power to obtain credit in Chapter 9 as it does outside of bankruptcy. The bankruptcy court does not have supervisory authority over the amount of debt incurred during operation of the municipal entity. Lastly, the Bankruptcy Code provides the municipal debtor with powerful tools not found in Chapter 11. For example, because Sections 1113 and 1114 do not apply in Chapter 9, municipalities can reject the collective bargaining agreements (CBAs) and other postemployment benefits (OPEB) that are currently so burdensome to distressed municipalities throughout the United States.

8. Plan of Adjustment

In Chapter 11, the debtor enjoys a period of exclusivity during which no other party can propose a competing plan of reorganization. However, in Chapter 9, there is no statutory time constraint for either the filing or

confirmation of a plan of adjustment, and a creditor or other party in interest can never file its own plan. The entry into and exit from Chapter 9 are the two key steps in the bankruptcy process, and the debtor is largely free to create its own plan of debt adjustment. But there are some additional requirements for plan confirmation not found in Chapter 11, particularly that all regulatory and electoral approvals necessary to consummate the plan of adjustment must already have been obtained. Furthermore, the "best interests of creditors" and "fair and equitable" requirements to confirm a plan possess different meanings in Chapter 9 because it is impossible to determine the liquidation value of a municipal debtor, and also because there are no shareholders of a municipality. In Chapter 11, the best interests test provides a floor for payments under a plan of reorganization such that creditors would receive at least as much as they would realize in a Chapter 7 liquidation. In Chapter 9, the plan of adjustment must be better than alternatives, namely, dismissal of the bankruptcy case. In Chapter 11, the fair and equitable requirement is the implementation of the absolute priority rule, where any senior class that rejects the plan of reorganization is paid in full before a junior class may receive or retain property under the plan. However, in Chapter 9 where there are no holders of equity interests in a municipality, a plan of adjustment would provide creditors with the "going concern" value of their claims.

9. Dismissal

In Chapter 11 reorganization, bankruptcy cases can get dismissed and converted to Chapter 7 liquidation cases. Among other reasons, this might occur upon failure to timely file or confirm a plan of reorganization. The possibility of liquidation in corporate bankruptcy motivates all parties to seek a resolution. However, in Chapter 9, there is never a conversion to Chapter 7 because governments cannot be liquidated. Deadlock and paralysis can and does result without the motivation provided by that implicit threat. If the debtor cannot confirm a plan of debt adjustment, the only option available to the court and the creditors is dismissal of the Chapter 9 case. Due to the Tenth Amendment and the Bankruptcy Code, the judge has no ability to craft a plan of adjustment and to compel the municipality to accept it. Thus under Section 930, the new threat in Chapter 9 becomes that of dismissal of the case for cause, even if the debtor is insolvent and the creditors would be better off without the dismissal. Dismissal would put the municipality out of court without the protection of

the bankruptcy process; for example, the automatic stay, where the municipality is still unable to pay debts.

Bondholders' Rights and Remedies in Workouts

The following discussion summarizes the rights and remedies of municipal bondholders in the Chapter 9 municipal bankruptcy setting. In summary, municipal bondholders enjoy significant protection throughout the Chapter 9 bankruptcy process as compared to corporate debt elimination through Chapter 11.

Role of Creditors

As creditors, bondholders generally have a legally stipulated senior right to payment in full of interest and principal over junior creditors. However, as compared to a Chapter 11 case, the role of creditors in a Chapter 9 case is more limited, and many typical creditor remedies are missing. There is no authority to move for appointment of a trustee or examiner. There is no termination of the exclusivity period that permits the debtor alone to file a plan of debt adjustment, so creditors cannot propose competing plans of adjustment. There is no right of conversion to Chapter 7 liquidation, since total liquidation and cessation of business is not possible for a municipality. Nor can creditors file an involuntary Chapter 9 case against a municipality.

Furthermore, there is no first meeting of creditors, where a U.S. trustee questions the debtor about liabilities and assets under oath. However, in each Chapter 9 case, there is a creditors' committee that has powers and duties that are very similar to those in a Chapter 11 case. These powers and duties include selecting and authorizing the employment of attorneys, accountants, or other agents to represent the committee; participating in the formulation of a plan; investigating the acts, conduct, assets, liabilities, and financial condition of the debtor; and consulting with the debtor regarding administration of the case. While the creditors' committee is more limited and less involved during the Chapter 9 case, it still plays an important role for the exit; for example, confirmation of the plan of adjustment. The source of fee payment for attorneys and accountants remains problematic, because the creditors' committee is not entitled to fees from the debtor as in Chapter 11 cases where those committees' professionals are paid from the debtor's estate.

Other provisions of Chapter 9 render certain municipal decisions largely immune from creditor scrutiny (as well as from court review). This is because the Tenth and Eleventh Amendments to the Constitution protect the states' sovereignty over their internal affairs. Thus Section 541 of the Bankruptcy Code is not incorporated in Chapter 9, so there is no concept of estate or debtor-in-possession (DIP) as there is in Chapter 11. In corporate bankruptcy, the workout process is based upon the debtor sharing possession of its property with each and every class of creditors, where everything promotes the overall interests of an estate that includes both the creditors and the debtor.

Treatment of General Obligation versus Revenue Bondholders

General obligation bondholders are treated differently from special revenue bondholders. Representing roughly two-thirds of the average annual municipal debt issuance, revenue bonds might on the surface seem riskier than general obligation bonds (GOs) because the revenue bondholder faces the risk of project failures and lacks recourse to general municipal receipts other than the specific revenue stream dedicated by the issuer. Additionally, the revenue bondholder cannot foreclose on the actual physical asset because it is a public facility. Most states have a statute that prohibits execution on municipal property used for a public purpose.

However, changes to the Bankruptcy Code in 1988 established rights of a revenue bondholder in Chapter 9 that are actually more favorable than those of a general obligation bondholder. GOs are unsecured debt, and thus they are treated as general debt in Chapter 9. These obligations are subject to negotiation and restructuring under the plan of adjustment, and the municipality is not required to make payments of either principal or interest. On the other hand, revenue bonds are secured obligations that receive treatment that is superior and favorable to that afforded to GOs because revenue bonds continue to be secured by the liens established at the outset of the bond transactions.

As defined by section 902(2) of the Bankruptcy Code, special revenues exist in one of five categories: (1) the operation or ownership of transportation or utility projects; (2) special excise taxes; (3) incremental taxes attributable to a special project; (4) certain municipal functions; and (5) taxes levied to finance a specific project.

Section 928 states that the "special revenues" from these projects remain subject to the prepetition liens of the bondholders in the specific projects, such that holders of special revenue bonds will continue to be entitled to

payments that are secured by the project revenue of the municipality. This is an exception to Section 552(a), which exempts postpetition property from prepetition liens. Without this exception, pursuant to Section 552(a), liens on future revenues would generally terminate as of the date of the bankruptcy filing, allowing a debtor to divert these otherwise pledged special revenues for its general purposes and to pay debts that are unrelated to the system or enterprise that generated them. Now, because of Section 928, obligations payable from special revenues are treated as secured obligations in Chapter 9, and these revenues must be used to fund the necessary operating expenses of the special project.

Preference Exception

Section 926(b) of the Bankruptcy Code allows bondholders to continue receiving interest payments in Chapter 9. A transfer of property of the debtor to or for the benefit of a bondholder is not subject to avoidance as a preference pursuant to Section 547. Otherwise, any such transfer within 90 days of the filing date of a Chapter 9 petition would be deemed an unauthorized payment to a creditor made while the debtor was insolvent, and that interest payment to the bondholder would actually have to be returned back to the issuer. Municipal bondholders are generally exempt from the threat of preference liability with respect to prepetition payments on account of GO or revenue bonds or notes.

Preservation of Nonrecourse Status

Section 927 prevents Section 1111(b) from transforming a nonrecourse revenue bond issue into a full recourse general obligation bond issue. Section 927 suspends the operation of Section 1111(b), thereby preventing the creation of a recourse claim by special revenue bondholders, should the dedicated revenues prove to be insufficient. The holder of a claim payable solely from special revenues does not have recourse against the debtor because revenue bonds remain nonrecourse obligations throughout a Chapter 9 case. Thus, special revenue bonds continue to be secured and serviced during Chapter 9. Section 927 avoids conflicts with constitutional, statutory, and charter provisions that might limit the sources for payment of revenue bondholders.

Automatic Stay Exception

Section 928(b) allows special revenue bondholders to continue receiving interest payments in Chapter 9. Because the automatic stay of section

362(a) of the Bankruptcy Code is applicable in Chapter 9 cases, the filing of a Chapter 9 petition would otherwise stay the application of special revenues that are pledged as security. Section 928(b) is a provision for the payment of necessary operating expenses, including bonded debt service. Section 922(d) limits the applicability of the stay so that an indenture trustee or other paying agent may apply pledged funds to payments coming due or distribute the pledged funds to bondholders without violating the automatic stay. In exchange for this automatic stay exception, Section 922(a) prohibits a creditor from bringing a *mandamus* action against an officer of a municipality to enforce a prepetition claim against the debtor that could direct the governmental unit to levy and collect taxes in an amount sufficient to pay the judgment.

At this writing, the ongoing bankruptcy case of Jefferson County, Alabama, has the potential of to undermine a few of the legal precedents mentioned above. Although the bankruptcy judge initially upheld the automatic stay exception, the county continues to push for an alternative definition of net revenues available for debt service. In effect, the county wants to include future maintenance costs in the definition of Operations & Maintenance Expenses, which may potentially lead to a shortfall in revenues available for current debt service. The county is also attacking the definition of allowable rates under state law, seeking to reverse some of the recent rate increases. Should the county's efforts be successful, the rights and remedies of holders of revenue bonds could be dramatically affected going forward.

Next Steps

There are several steps a municipal bond investor should take if caught up in a potential bond default or municipal bankruptcy situation.

Understand the Difference Between Default and Bankruptcy

The first step is to understand the semantic differences between the terms *default* (defined in Chapters 1 and 4) and *bankruptcy*. Just as the term *venture capital* is technically categorized as private equity, most venture capital investors consider private equity to be completely different, and vice versa. Similarly, a broad definition of default could perhaps include bankruptcy as a type of default. However, many bankruptcy practitioners consider themselves to be providers of advisory services rather than of securities and financial products, just as most investment bankers that deal with bond defaults would be shocked to discover that they could be considered

bankruptcy professionals. In this chapter, bond defaults and municipal bankruptcies will be considered distinct credit and legal events.

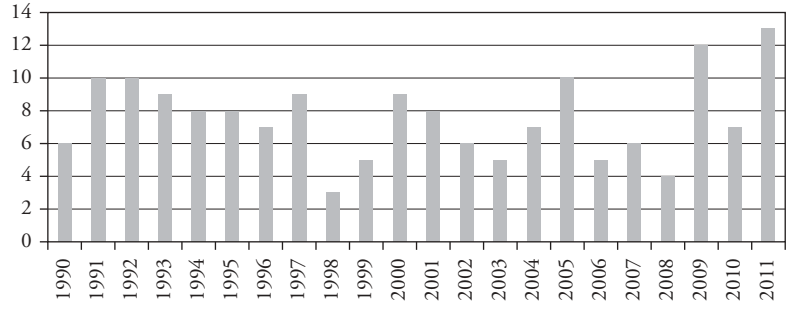
Bond defaults are rarely followed by municipal bankruptcies. In a February 2010 report entitled "U.S. Municipal Bond Default and Recoveries, 1970–2009," Moody's observed only 54 defaults out of approximately 18,400 rated municipal issuers between 1970 and 2009. Chapter 9 municipal bankruptcy was associated with only two of these 54 defaults. In August 1983, Washington Public Power Supply System (WPPSS, now Energy Northwest) defaulted on $2.25 billion of revenue bonds for Nuclear Projects 4 and 5 in the state of Washington. Although this was the largest municipal bond payment default in history, no municipal bankruptcy ensued.

On the other hand, an issuer's bonds go into technical default when it files for Chapter 9 bankruptcy protection. However, according to the above Moody's report, the ultimate recovery is often 100 percent, and the median recovery is 85 cents on the dollar. On December 6, 1994, Orange County, California, filed bankruptcy petitions for both itself and the Orange County Investment Pool (OCIP) to protect against Credit Suisse First Boston, which had refused to extend a loan and had started liquidating the securities that OCIP had pledged as collateral for the loan. Although this was the largest municipal bankruptcy in U.S. history, Orange County did not actually default on the scheduled principal and interest payments of the bonds or any of its other long-term obligations. Only because of the Bankruptcy Code was the OCIP unable to fulfill an obligation to purchase any tendered bonds, which subsequently defaulted.

Chapter 9 municipal bankruptcy filings are relatively rare, compared to Chapter 11 corporate filings. In 2010, seven Chapter 9 cases and 11,774 corporate Chapter 11 cases were filed. Since the original municipal bankruptcy legislation was enacted in 1934, there have been only about 630 Chapter 9 filings, of which 161 were dismissed in court, or roughly 25 percent. More than half of those roughly 630 Chapter 9 filings were before 1972, and most involved utilities or special districts. Only about 50 cities, towns, villages, or counties have filed Chapter 9 since 1980. While 2011 did see an uptick in the number of Chapter 9 filings (13, versus 9 the previous year, as seen in Figure 9.1), the overall count continued to be relatively modest relative to the size of the tax-exempt market.

Even in the case of municipal bankruptcy, bondholders historically have fared quite well. This is because municipalities decrease essential services, scale down staffing, and cut employee benefits in order to maintain access to the financial markets and low cost of capital. In one extreme case, on July 12, 2011, the State of Rhode Island enacted preemptive legislation that ensures

FIGURE 9.1 Number of Chapter 9 Filings (1990 to 2011)



bondholders will be paid in full in the case of any Rhode Island city filing for bankruptcy protection. Furthermore, city officials who intentionally fail to pay bondholders can be removed from office or held personally liable for the payments. In passing the legislation, lawmakers cited the need to avert downgrades and to preserve market access for other Rhode Island municipalities. This becomes especially relevant now in the aftermath of the Chapter 9 petition filed by Central Falls, Rhode Island, on August 1, 2011.

Thoroughly Examine Bond Documents

The next step is to examine the bond documents. The bond resolution, or indenture, describes the issuer's duties to bondholders, the collateral that secures those obligations, the bondholders' rights with respect to the security for the bonds, as well as the powers and remedies afforded to bondholders should the issuer default. Note that in some jurisdictions, these terms and issuer authorization are contained in the bond ordinance rather than in the resolution.

Checking the bond type could be helpful. Revenue bondholders rarely lose the entire principal, and often just lose a few coupon payments. However, revenue bonds are more likely to default due to overoptimistic revenue projections.

Checking the issue date might be useful. Deal "vintage" matters, as discussed in Chapter 4. Cumulative default rates are lower for bonds issued after 1986 because of the Tax Reform Act of 1986, which, among other things, restricted the issuance of poorly performing industrial development bonds. According to Fitch Ratings' first study of municipal defaults, published in 1999, other factors also included better disclosure, better financial management practices by issuers, and greater scrutiny by different stakeholders.

The type of issuer matters in terms of incidence of default, as seen in Chapter 4. In the same report mentioned above, Moody's calculated the average five-year historical cumulative default rate for investment-grade municipal debt as only 0.03 percent, compared to 0.97 percent for corporate issuers. The default rate among larger rated issuers was even lower. Most defaults were those of unrated, project-specific credits, that is, entities lacking in taxing powers, which comprise less than 10 percent of the total municipal market. Of these defaults, 78 percent occurred in the health care and housing project finance sectors. Similarly, municipal utilities, hospitals/health care, and special municipal districts represent roughly 75 percent of all Chapter 9 filings.

Be Aware of Differences among States

The issuer's state is relevant, too. The bulk of Chapter 9 bankruptcy filings were in Alabama, California, Colorado, Missouri, Nebraska, Oklahoma, and Texas. Only 14 states specifically authorize municipal bankruptcies, and only 12 states conditionally authorize municipal bankruptcies. The following 20 states do not permit Chapter 9 filings: Alaska, Delaware, Hawaii, Indiana, Kansas, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Mexico, North Dakota, South Dakota, Tennessee, Utah, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming. Quite simply, if the issuer is located in a state that does not specifically authorize municipal bankruptcies, a Chapter 9 filing is not probable.

Furthermore, the current trend is for states to enact laws designed to limit or restrict localities from even filing for bankruptcy: One example is Assembly Bill no. 506 (AB 506), which was enacted into California law on October 9, 2011, and took effect in January 2012. AB 506 requires municipalities to undergo mediation before declaring bankruptcy with a "neutral evaluator," most likely a retired bankruptcy judge, for at least 60 days. This process can be bypassed if the municipality holds a public hearing and declares a fiscal emergency. The 506 hearing will not only involve the city and the unions, but also additional creditors, such as bondholders and banks.

The City of Stockton will be the first city to test this new California law. The thirteenth largest city in California, with twice the population of Vallejo, Stockton faces a budget gap estimated at between $20 million and $38 million and a $417 million unfunded liability for employee healthcare benefits. To avoid becoming the largest city in American history to declare Chapter 9 bankruptcy, the City Council voted on February 28, 2012, to

enter mediation under AB 506. On that same day, the City Council voted six to one to preserve cash to skip $2 million in payments beginning March 1, 2012, on $320 million in bonds issued by the city and its public finance and redevelopment agencies. Bond investors would still receive some payment, as the debt is largely insured or can be paid from a reserve fund. Most of the debt is covered by insurance by Ambac Assurance Corp., Assured Guaranty Corp., and National Public Finance Guarantee Corp. Those bond insurers agreed to pay bond investors in case the city cannot or will not.

The impact of AB 506 or a potential Chapter 9 filing on Stockton's ability to access the debt market remains to be seen. Standard & Poor's downgraded Stockton from A− to BB to CC to SD, or selective default. Moody's downgraded Stockton to Ba2, below investment grade; Stockton's 2007 pension obligation bonds to Ba3; Stockton's 2006 lease revenue bonds to B1; and Stockton's water enterprise rating to A3. Fitch Ratings does not rate the city, but downgraded all series of the Stockton water revenue bonds from AA− or A+ to BBB−, the lowest investment grade rating.

Check the Issuer's Disclosure History

An examination of the disclosure history of the issuer might provide some insight. Those with late audited financial statements may be more likely to default. Municipalities often file more than two quarters late; however, there is no penalty for late filings. According to a 2010 survey by the National Association of State Auditors, Comptrollers, and Treasurers (NASACT) on the time to complete comprehensive annual financial reports (CAFR), states completed their fiscal year 2009 audited financial statements an average of 206 days, or nearly seven months, from the end of their fiscal year. Reasons cited included the complex and comprehensive nature of generally accepted accounting principles (GAAP), as well as limited staff time and resources.

Do's and Don'ts in a Municipal Workout

The bankruptcy workout process can be summarized briefly. The financially distressed municipality makes various attempts to increase revenues and to decrease cash outflows. As bankruptcy risk increases, out-of-court restructuring is pursued that is politically viable and agreeable to the creditors. Once the government chooses the Chapter 9 option, the municipality tries to meet the Chapter 9 eligibility requirements, especially the prepetition negotiation requirements. Once the municipality files for Chapter 9 protection, the automatic stay halts most actions against the municipality and

its properties, and executory contracts including collective bargaining agreements can be rejected while the municipality continues to operate. Solicitation, voting, and confirmation of the plan of debt adjustment will result in eventual emergence from Chapter 9.

Whether before or during the bankruptcy process, the strategies for the reorganization of the government's debt typically include extending debt maturities, reducing the amount of principal or interest, or refinancing the debt with new borrowing. Chapter 9 contains no provision for the Chapter 7 liquidation of the government's assets and subsequent distribution of the proceeds to creditors. Sometimes the state can provide support to the municipality, as, for example, in Act 47 in Pennsylvania, although again the current political trend is moving against such assistance.

The entry to and exit from Chapter 9 are the two key steps in the workout process that are most sensitive to the actions of the bondholders and creditors' committee. Assuming that the debtor has a desire to effect a plan of adjustment and has negotiated in good faith, bondholders can facilitate the order of relief with a reciprocating attitude in negotiations. But sometimes the friction is within the ranks of the bondholders themselves. Individual retail bondholders generally seek quicker restitution, whereas institutional investors, bond insurers, and banks are more willing to receive payments over a longer time horizon. Thus, in out-of-court restructurings or creditors' committees, the creditors' interests are not necessarily aligned.

Another positive step is taking early action. Quite often, debtors and creditors choose to delay the bankruptcy filing or refuse to exercise a difficult option, which can exacerbate the fundamental problems and increase the bankruptcy costs. The retention of attorneys, accountants, and advisors experienced in bankruptcy and restructuring also contributes to a positive outcome. Trying to save money by hiring an advisor with only general experience instead of a bankruptcy practitioner typically results in greater expenses in the long run, and a municipality should not have an advisor getting up the learning curve about Chapter 9 during its own bankruptcy process.

The exit from Chapter 9 is largely dependent upon a confirmable plan of debt adjustment. Before an effective plan can be developed, the municipality must prepare a realistic strategic or business plan. Until the petition filing date, municipality officials usually devote most of their time to day-to-day problems, and almost no time is spent on analyzing the major financial problems or formulating a strategic direction for the municipality. The bondholders can consult with the municipality during the out-of-court restructuring stage, as well as throughout the Chapter 9 plan development process. Quite often, creditors have more familiarity with distressed situations and bankruptcy proceedings

than municipal officials. Basic mistakes can thus be avoided with frank communication and honest negotiations.

Accounting Issues Related to Chapter 9

A recent accounting change may be of interest to high yield as well as distressed municipal bond investors. In December 31, 2009, the Governmental Accounting Standards Board (GASB) issued accounting and financial reporting guidance for governments that have petitioned for protection from creditors by filing for bankruptcy under Chapter 9 of the United States Bankruptcy Code: GASB Statement (GASBS) No. 58 (Accounting and Financial Reporting for Chapter 9 Bankruptcies) describes the requirements for recognizing and measuring the effects on assets and liabilities of governments filing for Chapter 9 bankruptcy protection.

GASBS No. 58 is effective for periods beginning after June 15, 2009, that is, for the fiscal year that ends on June 30, 2010. For all prior periods during which a government was in bankruptcy, retroactive application is required. The GASBS No. 58 provisions cover governments that are not expected to emerge as a going concern and apply only to governments that have actually filed for protection under Chapter 9, not to governments that are just considering filing. There have not been any subsequent changes to GASBS No. 58, so this statement is the latest authoritative guidance of interest to the municipal bond investor.

Significance of GASBS No. 58

The GASB is the source of GAAP used by U.S. state and local governments, and it is subject to oversight by the same Financial Accounting Foundation (FAF) that oversees the Financial Accounting Standards Board (FASB), which is the source of GAAP used by other business entities. The GASB statements are the most authoritative source for governmental GAAP, but until recently, there was never any authoritative accounting and financial reporting guidance for governments filing for bankruptcy.

For example, the American Institute of Certified Public Accountants (AICPA) Statement of Position (SOP) 90-7 Financial Reporting by Entities in Reorganization Under the Bankruptcy Code that is crucial in corporate bankruptcy under Chapter 11 specifically states in Paragraph 19 that SOP 90-7 does not apply to governmental organizations. SOP 90-7 concerns the adoption of fresh start accounting by entities expected to reorganize as going concerns, where the balance sheet is restated to fair value.

Thus, before GASBS No. 58, there was inconsistent recognition, measurement, display, and disclosure guidance for governments that filed for Chapter 9 bankruptcy.

Municipal bond investors should note that there are two limitations of GASBS No. 58. First, disclosures stop for periods following the fiscal year in which the bankruptcy case is closed or the government has its petition dismissed. Second and most importantly, this statement does not apply to troubled debt restructurings that occur outside of bankruptcy, that is, out-of-court restructurings that might precede an actual Chapter 9 filing. Instead of GASBS No. 58, Statement of Financial Accounting Standards (SFAS) No. 15 Accounting by Debtors and Creditors for Troubled Debt Restructurings (SFAS No. 15, or simply FAS 15) should be followed instead.

Distressed municipal bond investors should already be familiar with SFAS Nos. 15 and 114 from their other distressed investing or bankruptcy/restructuring deals. To summarize briefly, SFAS No. 15 begins with an introduction of troubled debt restructurings (TDR), which occur if a creditor grants a concession to the debtor that it would not otherwise consider for economic or legal reasons related to the debtor's financial difficulties. Accounting by debtors is then discussed, followed by accounting by creditors, much of which was amended by SFAS No. 114 Accounting by Creditors for Impairment of a Loan.

Following is an overview of the key concepts of GASBS No. 58 that are relevant to the high yield municipal bond investor. A basic understanding of GAAP as applied to municipalities should enable a better analysis of distressed or bankruptcy situations.

Disclosure Requirements

The note disclosure requirements take effect immediately upon filing for bankruptcy under Chapter 9. GASBS No. 58 requires disclosure of the pertinent conditions and events giving rise to the bankruptcy petition. This includes expected or known effects of conditions and events including (1) principal categories of claims subject to compromise or that already have been adjusted; (2) principal changes in terms and major features of settlement; (3) aggregate gain expected to occur or realized, or a statement that any gain is not yet reasonably estimable along with the reasons; and (4) contingent claims not subject to reasonable estimation.

Also disclosed will be the significance of the above conditions and events for the levels of service and operations of the government, and any mitigating factors, such as assumption of services by other governments. If there

is a possibility of termination of the government, or if there are any plans to terminate the government, this would be disclosed here. Finally, there would be a disclosure of how to obtain a copy of the government's Plan of Adjustment, or a statement that the plan is not yet available along with an estimate of when the plan will be completed.

Recognition Rules

Governments recognize gains or losses from adjustments to those liabilities and assets as of the confirmation date or later date when resolved are all of the significant conditions existing prior to the plan of adjustment becoming binding. In other words, old debt is discharged and new debt is reported when the plan becomes binding. The plan may call for payments that are contingent on future events. The government should recognize a liability for a contingent future payment if probable.

Adjustments are an extraordinary item. Professional fees and direct costs of bankruptcy are expensed as incurred. The recognition provisions of GASBS No. 58 do not take effect until a court-approved plan of adjustment is in place.

Accounting Treatment

Costs directly related to bankruptcy should be reported as an expense or expenditure as incurred. If there is a reduction of recognized liability, then gains or losses resulting from the remeasurement of assets or liabilities should be reported as an extraordinary item. Unamortized issuance costs are an expense.

If there is an avoidance of future cost due to a change in terms, then there is no effect. If there is a reduction of the amount of debt service payments (without distinction), then the gain is equal to the difference between the carrying value of debt and the present value of adjusted debt service payments. Unamortized issuance costs are an expense.

Measurement

The measurement provisions of GASBS No. 58 do not take effect until a court-approved plan of adjustment is in place. The statement's guidance varies depending on the type of debt: (1) accounts payable, notes, and debt obligations; (2) capital leases; (3) pensions and OPEB; and (4) other liabilities.

Accounts Payable, Notes, and Debt Obligations

The contractual obligation to pay should be remeasured, with a few exceptions. Measurement should be based on payment terms in the

confirmed plan of adjustment. If future interest payments that have not been accrued are reduced, then the government should report lower interest costs in future periods.

If prepetition principal and accrued interest payables are reduced below the carrying amount, then they are reported as gains to the extent that payable amounts are less than carrying amounts of debt, including unamortized premium/discount and accrued interest payable. Unamortized bond issue costs should be expensed; that is, expense any unamortized premium or discount.

If prepetition principal and accrued interest payables are not reduced below the carrying amount—that is, when payable amounts are greater than carrying amounts of debt such as with deep discount debt—then report as adjustment to future interest costs.

If the plan does not specify whether or not it reduces principal or interest payments, then discount the new payments at the old rate; that is, the present value (PV) is computed using the effective interest rate for the original debt. Debt should be adjusted and a gain reported by the amount equal to the difference between the PV of the future payments under the plan and the carrying amount of prepetition debt.

Capital Leases

The GASBS No. 58 treatment of capital leases is the same as the remeasurement of GASB No. 62 or FASB Statement No. 13 Accounting for Leases (SFAS 13). If the capital lease is terminated, then the asset and liability are eliminated, with a gain or loss recognized for the difference. If the capital lease is modified and does not give rise to a new agreement, or if the modification gives rise to a new agreement that also is a capital lease, then present balances of the lease asset and obligation are adjusted by the difference between the present value (using the interest rate used to record the lease initially) of the new agreement and the carrying value of the prepetition obligation.

Pensions and Other Postemployment Benefits (OPEB)

Under GASBS No. 58, the method of measuring changes depends on whether the plan of adjustment results in a rejection or amendment of the pension or OPEB plan. If the pension liability is not rejected, then this statement requires remeasurement based on existing authoritative guidance. Account for the effects as an amendment or modification to the existing

benefit plan, measured as per pension and OPEB standards. In short, a change is treated like any other change in pension benefits or OPEB.

However, if the employer's obligation for unsecured plan benefits is rejected in the plan and becomes unsecured debt, it is accounted for as a termination of benefit plan, and any existing pension-related assets or liabilities are eliminated. Any new approved payment plan is a new liability that is recognized as a judgment, with a gain or loss recognized for the difference.

Other Liabilities

Payment provisions in the plan of adjustment—for pollution remediation liabilities, for example—should be incorporated into the remeasurement of other liabilities that are measured and reported based on payment expectations. In short, incorporate the confirmed plan payment provisions into measurement expectations.

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Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
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CHAPTER 10

Common Types of High Yield Municipal Bonds*

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The universe of high yield municipal investments is truly limited only by investment bankers' imagination (and by the current tax code). Chapters 10 through 12 are designed to give interested investors a feel for the great diversity of opportunities that may be available in the marketplace at any time. Because of this great diversity, some relatively significant sectors are bound to be overlooked (hotel and convention centers come to mind), something we intend to remedy in future editions. Our intention is not to provide a comprehensive how-to-analyze guide to the individual types of high yield instruments. Rather, you should view this as a "primer" into the various sectors, with an emphasis on their historical track record, trading,

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and liquidity characteristics. The contributors to this chapter range from grizzled market veterans to rising analytical stars of the municipal research community, all recognized experts in their respective fields. I am grateful for their kind and insightful contributions. We begin with the most common high yield municipals an investor is likely to encounter in the marketplace.

Corporate-Backed Municipal Bonds

Corporate-backed municipal bonds provide an excellent way to generate higher yield with uncorrelated credit risk to the rest of a tax-exempt portfolio. This is because corporate credit trends do not necessarily have to move in tandem with municipals, and this has been proven recently as we have emerged from the 2008 credit crisis. Going forward, as we enter a period of federal budget austerity, there are many high yield municipal sectors that will suffer because of their reliance on federal transfer payments. Examples include local indigent health care facilities and nursing homes. However, during the same time period, an investor can purchase a corporate-backed tax-exempt bond backed by, for example, a regulated electric utility, which may exhibit a much lower level of credit volatility, assuming it operates in a favorable regulatory jurisdiction.

Municipal bonds secured by a corporate entity have been around for a long time. Issuance was more common prior to the enactment of the Tax Reform Act of 1986, which closed loopholes in the tax code and cut out many abuses of the privileges of tax-exempt financing. The most common sectors include investor-owned utilities, airlines, and basic industry companies like paper or chemical producers.

More recently new issuance has been enabled by special legislation such as the Liberty Bonds Financing Program created after the tragic events of September 11, 2001, or the Economic Development Zone Act following the financial crisis of 2008. The Liberty Bonds Financing Act has been used by Goldman Sachs and Bank of America, while the Economic Development Zone act (or "Go Zone") has been used by a number of companies, including truck maker Navistar and Westlake Chemical. Additionally, new issuance also includes the refinancing of many older bonds.

Note that some corporate-backed issues are private activity bonds whose coupon interest, while federally exempt (and in some cases state-exempt), may be subject to alternative minimum taxation (AMT). The most notable exception would be the Economic Development Zone issues mentioned above, which are not subject to the AMT and are therefore quite sought-after.

How Do Corporations Access the Municipal Market and What Are the Security Features?

Mechanically, a corporation is able to access the market by having a traditional municipal issuer act as a conduit. The bond indenture for the offering will specify in the pledge language that the bonds are secured by a loan agreement or lease. In the case of utilities the bonds may be secured by underlying mortgage-secured bonds issued by the corporation to the bond trustee for the public tax-exempt bond issue. The payment terms are identical between the two bonds, and the trustee will use the debt service payments on the underlying bonds to pay the public bondholders.

If the bonds are secured by a lease on a specific facility, the investor should confirm that the corporation is "wrapping" the bonds with a full corporate guarantee in order to strengthen the security. This is because leases are treated differently from true debt in the bankruptcy process. Once in bankruptcy, a debtor reviews the lease obligations and determines which leases are essential and which ones are not economically viable. The debtor has the option of rejecting those leases that are considered uneconomic. The only way for the creditor to make any kind of recovery is to release the asset, which, if not economic to the debtor, implies that the original lease was at above market rates, and therefore there will be some kind of haircut, which could be in excess of the haircut experienced by senior bondholders. If the debtor accepts the lease, he or she is required to make full payments; therefore, there is no haircut to the bondholder. Because of the lower potential recovery rate relative to senior unsecured debt, Moody's tends to rate the unwrapped lease-secured corporate-backed municipals one notch below the senior unsecured debt of the corporation. Wrapping the lease with a senior unsecured guarantee ensures that there will be a recovery in bankruptcy on par with senior unsecured bondholders. On the bright side, if the asset is essential to the corporation and the lease is accepted, the corporate-backed municipal bondholder will end up better off than the taxable corporate bondholder.

Pollution control bonds issued for investor-owned utilities (IOUs) are another example of tax-exempt corporate bonds that offer strong security. These bonds can be unsecured or have a first mortgage security. Historically, first mortgage bonds have done very well in bankruptcy. In a Moody's default study published in May 2009, only 14 Moody's-rated IOUs defaulted since 1983. Given this low default occurrence, the ultimate loss given default on senior unsecured IOU bonds was 13.29 percent versus 63.94 percent for nonfinancial corporates. Even more notable is that the loss given default on

senior secured IOU bonds was 1.5 percent versus 36.83 percent for nonfinancial corporates. That said, tax-exempt pollution control bonds secured by first mortgages are not that common and certainly hard to find. Most come as unsecured senior debt.

Fundamental Credit Analysis—Corporations versus Municipalities

Observations of the 2008 credit crisis have demonstrated that the shapes of the corporate and municipal credit cycles are quite different. Generally, nonfinancial corporates experienced a fairly dramatic V-shaped cycle, which began the downward portion around the middle of 2007, accelerating in the fourth quarter of 2008. This timing was coincidental to the trend of the macro economy. Depending on the industry, the recovery became very pronounced during the latter portion of 2009, leveling out in the second half of 2010.

On the other hand, the local government credit cycle tends to be a trailing economic indicator. This is because local government, which is generally financed with property tax, and actual real estate market activity could take a year or more to be reflected in tax assessments. State-level credits tend to be a little more coincidental to the economy, because of their reliance on economically sensitive revenues like sales and corporate income tax.

The recovery process for governmental credit is much slower than corporate credit for a number of reasons. For one, corporations have more levers at their disposal. They can cut labor costs, reduce capital expenditures, sell assets, issue equity, and reduce working capital. All these factors were utilized by corporate America to generate cash and reduce debt during the recent crisis. However, municipalities have to engage the political process to reduce costs. Reducing services and laying off employees is very difficult for a number of reasons, such as legal mandates, union agreements, or simply politics.

Corporate Debt Structure

Corporations issue bullet or balloon maturities, whereas municipalities issue serial or sinking fund debt, which allows for smooth amortization without refinancing risk. Typically, investment-grade corporations issue 5-, 10-, and 30-year bullet maturities. These bonds will tend to be unsecured with very little covenant protection. Additionally, these bonds usually do not have a debt incurrence covenant or additional bonds test normally seen in municipal enterprise debt; therefore, there is no legal protection against getting levered-up by the company. The investor's only protection is understanding the management team and their financial policies.

Below-investment-grade or high yield (issuers with ratings below Baa3/BBB–) corporations tend to issue bonds with shorter maturities in the five- or seven-year range. These bonds generally have more covenant protection, such as change of control puts at 101 percent of par and limitations on superior indebtedness. There are exceptions to every rule, however: Around 2005 and 2006, the excessive demand for high yield bonds allowed issuers to sell so-called "covenant lite" deals; that is, ones without many of the traditional protections demanded by buyers in less frothy markets. Likewise, during the same period, the significant amount of leverage buyout activity drove investment-grade bond investors to force issuers to put 101 percent of par change of control puts in new issues to protect them from being levered-up and dropped to the bottom of the capital structure.

Industry Knowledge and the Drivers of Fundamentals

The first step in analyzing a company is understanding the fundamentals of the issuer's sector, its revenue and cost structure drivers, competition, and secular trends. Drivers refer to the economic factors that influence top-line revenues of the company, as well as the input costs that would impact margins. For example, if the obligor is a mining company, the analyst should know the answer to the following questions: (1) What is the supply/demand picture of the metal it produces? (2) How volatile are the forward and spot prices of the metal? (3) How high is the correlation of the price of the metal to the overall economy?

From an input cost or margin perspective, let's look at a chemical company. In this case, the major cost driver is the company's feedstock. In the early 2000s, U.S. chemical companies that used natural gas as a feedstock were at a disadvantage due to the high price of natural gas relative to naphtha (oil-based feed stock). European competitors generally use naptha as their feedstock and, as a result, had a pricing advantage due to the higher margins allowed by the cheaper feedstock. Today, the relationship is exactly the opposite, providing pricing advantage and high margins to U.S. companies due to the low costs of natural gas. A good analyst could have predicted this reversal by staying on top of the technological developments in energy exploration called hydraulic fracturing that has allowed exploration companies to develop new geological formations in the continental United States.

Knowing the competitive environment for the industry is also important. In order to fully understand a company, you must know where it stacks up in the costs curves of the industry. Also, are they a very small player with

little scale and ability to impact pricing? Or are they a big player that is able to use its scale to maintain very strong customer relationships and be able to set marginal pricing?

Volatility of the top line or revenues and where the industry is in the cycle is a factor that requires experience in monitoring the sector. Rating agencies try to rate through the cycle, so it is likely that a company that is at the peak of the cycle heading for the trough will not be downgraded for that factor alone; however, the bond's relative value and its performance is still a factor. When a company is at the peak of the cycle, its credit spreads should be relatively tight compared to bonds issued in other sectors. If you believe that the cycle is turning, a sell recommendation is warranted; likewise, a good analyst tries to find the bottom of the cycle and takes advantage of relatively wide spreads to make buy recommendations.

Finally, secular trends are another factor that needs focus. Secular trends refer to those more permanent trends that ultimately decide the fate of an industry. If there were corporate bonds around during the invention of Ford Model T, a good analyst would have put a sell recommendation on all the manufacturers of buggy whips. A more recent example of secular changes in a long-established industry can be found in the print media sector. Companies like Knight-Ridder and the *New York Times* are far from the strong financial position they had prior to the Internet.

Financial Analysis

Before we jump into the various financial statements and ratios, it's worthwhile to talk about liquidity analysis. Since municipalities tend to issue serial debt that amortizes, municipal credit analysts tend not to have to focus on liquidity, since property taxes or revenue system rates cover both interest and maturing principal. However, in the corporate world, debt maturity schedules are bulleted and not smoothed out, and market access is required to periodically refinance most maturities. For behemoth large-cap companies like General Electric Capital (GE), free cash flow and bank facilities are typically not enough to cover maturing bonds in most years. However, significant high-quality companies like GE are considered to have unlimited market access to refinance their maturing bonds. This assumption does not necessarily hold true in a systemically weak environment like 2008. The market was very concerned about GE's ability to roll over its commercial paper, and various bailout mechanisms were necessary. Lesser quality companies in the high yield space are more vulnerable to refinancing risk, and therefore liquidity analysis becomes more important.

To gain comfort with liquidity for high yield corporates, the analyst sums up cash on the balance sheet, free cash flow generation during the year, and availability of undrawn bank lines. This aggregate amount of liquidity should be enough to cover upcoming maturities. If not, the analyst needs to be comfortable that the company will have market access. It is important to verify that the bank facilities do not have material adverse clauses (MAC), which make their credit lines conditional. If the credit lines have leverage or interest coverage covenants, the analysts should make sure there is plenty of headroom in the calculation of these ratios.

Now we will discuss financial analysis. In order to be able to master financial analysis, an investor needs to understand the rules of accounting. Since a comprehensive discussion would exceed the scope of this chapter, I will only attempt to hit the high points here.

The three main components of corporate financial statements are the balance sheet, income statement, and cash flow statement. The balance sheet provides a snapshot of assets and liabilities on the last day of the fiscal period. The net difference between a company's assets and liabilities is its net worth or equity. Unlike municipal accounting where equity generally represents cash balances or high-quality receivables, equity for corporations can have a large intangible or illiquid component such as goodwill or a collection of physical assets like a production facility. The income statement shows revenues and expenditures incurred during the accounting period. In a general sense, the income statement is supposed to explain the changes that occur in the equity component of the balance sheet between two periods. For example, if a company earns $1 million in a year, the income statement will show a net income of $1 million, and the change in the balance sheet from the end of last period to the end of the current period will be a $1 million increase in the retained earnings portion of the net worth section of the balance sheet. This assumes no dividend is paid.

The income statement provides the investor with information on how the company earned the $1 million and if the earnings are high quality or not. If the earnings were generated by increased revenues from higher unit sales, that would be a high-quality, recurring type of profit. However, if the $1 million profit resulted from a gain on the sale of an asset like an old factory building, that would not be high-quality earnings. The income statement shows the company's various costs. Later we will discuss various ratios that help the analyst determine if the company is able to control its cost structure.

The cash flow statement explains how the cash position of the company changes between periods. It is possible for a company to have positive

earnings and yet have declining cash on its balance sheet. This may occur because the company is spending money on capital expenditures or building up inventory. These items flow through the income statement in a delayed fashion, which I will explain later.

We are starting to see that municipal accounting and corporate accounting are very different. Municipal GAAP accounting uses what is called a modified accrual basis, while corporate accounting uses an accrual basis. Additionally, municipal accounting for governmental funds breaks the statements into separate accounting entities for the operating budget and the capital budget; in corporate accounting, these are combined into one set of statements.

There are two key principles that are the cornerstones of corporate accounting: revenue recognition and the matching principle. The revenue recognition principle states that revenue is recognized when it is realized and realizable and is earned. In other words, is the revenue measurable and has it been earned? For example, some industries receive the full payment of a service upfront even though the service is provided over a period of time, which could be multiple years. This is the case with the municipal bond insurance business where the premium is received when the bond is issued, but the insurance policy continues for the life of the bond, which could be 30 years. The income statement each year will only shows the proportional amount of the premium earned for that year since, although the full 30 years of premium has been received upfront, the company has not completely earned it until the bond has been paid off. There is also the opposite type of situation. Many computer companies enter into a service contract for, say, five years and receive the fee annually from the client. Some of these companies will show the five years of revenue upfront even though the cash has not been received because under the terms of the contract the revenue is earned because of that industry's standards. However, if the contract is cancelled, the company will have to show a one-time loss on the cancellation of the contract. During the period of the loss, the balance sheet will not show a change in cash because the loss is a noncash adjustment to show that cash that was supposed to be received in future years under the contract will not be received now that the contract is cancelled.

The other accounting principle I mentioned, the matching principle, states that operating expenditures of the company are not recognized and run through the income statement until the related revenues are recognized. A good example can be seen in the homebuilding industry. A homebuilder needs to maintain land inventory to ultimately build houses on. So, for example, a homebuilder buys $1 million of land and plans to build on the

land two years from now. Despite the fact that cash has been spent, the expenditure will not be recorded on the income statement until the houses have been built on the land and the property has been sold. This is where the cash flow statement comes in. The balance sheet will show the decline in cash with a corresponding increase in inventory when the land is purchased. An increase of inventory in the operating activities portion of the cash flow statement will match the decline in the cash on the balance sheet. Two years from now when the houses are sold, cash on the balance sheet will increase from the sale proceeds and inventories will be reduced by a corresponding amount. The income statement will show the original cost of the land purchases in cost of goods sold and the revenue received for the house sales. The cash flow statement will show a decline in inventory, and this will be an addition to cash in the operating cash flow portion of the statement.

Analytical Measures of Cash Flow

You might have heard the term *free cash flow*. The generally recognized definition is operating cash minus capital expenditures and preferred dividends. Operating cash flow is essentially the net income of the company adding back noncash expenditures (like depreciation) and changes in net working capital (the net of changes in each of the receivables, payables inventory). These values are taken from the cash flow statement. Although some analysts do not include common dividends because they are paid at the option of the company, I include it because it is a recurring use of cash, which management is usually under pressure to increase. Free cash flow is an indicator of financial flexibility of the company to reduce debt as well as the company's ability to increase internally funded investment.

Another important term related to cash flow generation is *EBITDA*, or earnings before interest, taxes, and depreciation. This is a proxy used by analyst to calculate the pretax and preinterest cost cash generation of a company. The idea is that it removes noncash expenditures like depreciation. Another cash generation termed used is *funds from operations*, which is essentially EBITDA with one-time items like gains on sales eliminated. Some analysts include one-time items like gains and nonoperating income in EBITDA. I calculate EBITDA by simply taking operating income and adding back depreciation.

Ratio Analysis

The types of ratios an analyst should focus on depend on the industry. For example, banks have a whole set of ratios that are completely different from

industrials. The various rating agencies have criteria pieces that can help you gain a better understanding of relevant ratios for a specific industry and what are the appropriate values for a given credit rating. For purposes of this book, I will cover the most common ratios used for industrial credit analysis. It should also be noted that the ratio an analyst chooses depends on the level of disclosure employed by the company.

Profitability is measured at various levels of the income statement. The highest level is the gross margin ratio, which is defined as gross profit (or the difference between net sales and cost of goods sold) divided by net sales, or simply gross profit as a percentage of net sales. Essentially, this ratio gives the analyst a sense of whether the company is able to keep its pricing in line with the cost of its operations, including its capital costs. The operating ratio is another common ratio, which is defined as operating income divided by net sales. The key here is that operating income does not include nonrecurring profits from items like asset sales or interest earnings. It is also a pretax number. As we move to the bottom of the income statement we get to the bottom line or net income and the net margin ratio. I find this ratio is not very meaningful since it includes nonrecurring items from asset sales, discontinued operations, as well as income tax expenses. Additionally, the income tax expense line item in the income statement rarely matches the actual cash paid to the government for a number of timing reasons and other tax management strategies undertaken by management.

The most useful profitability ratio from a credit analysis standpoint is the EBITDA margin, which is EBITDA divided by net sales. From our discussion above you will recall that EBITDA is a proxy for cash generation. It is effectively the operating ratio without the noncash depreciation expenses. Unlike an equity analysis, which tends to focus on bottom-line earnings power, debt analysis is more focused on cash generation; therefore, the EBITDA margin is generally more meaningful from a credit perspective.

Although not a profit margin–related ratio per se, the SG&A margin helps monitor the efficiency of the administration of a company. SG&A stands for selling, general, and administrative expenses. This ratio is defined as SG&A divided by net sales.

From this section you might see a trend that income statement–related ratios generally show a relationship between top-line sales and various costs. The take-away here is that a company's cost structure and profits always relate to its ability to generate revenues. Take, for example, a company that exists in a secularly declining industry such as the newspaper space. As revenues decline due to the falloff of circulation, a once appropriately sized management team will start to be bloated and will need to be right-sized for

the new realities of the industry. The SG&A ratio will increase, that is, become less favorable as the revenues decline.

The most important ratios for credit analysis are the various debt and leverage ratios. To calculate a company's ability to service its debt, a credit analyst calculates the EBITDA coverage ratio, which is EBITDA divided by interest expense. In the municipal market, analysts look at total debt service, both principal and interest, when calculating coverage. However, in the corporate world we only look at interest because of the bulleted nature of the corporate debt discussed earlier in the chapter.

In order to get a sense of a company's debt load, the analyst calculates the debt-to-EBITDA ratio and compares it to the appropriate industry average or benchmark. Each industry has its own averages. A more stable industry like the electric utility space can afford to carry a much higher ratio since there is less cyclicality to the revenue stream. However, a company in a cyclical industry like copper mining must carry a significantly lower ratio in order not to run into trouble if there is a collapse in copper prices. Some analysts look at leverage by calculating debt-to-capital, which is taking debt as a percentage of the sum of debt and equity. This tends not be as useful a measure since equity may include many intangibles that have no real value. Also, the ratio does not tell the analyst much about a cyclical company's ability to service its debt during the trough portion of a business cycle.

Don't Forget Management

Although most would agree on the importance of understanding management and their philosophies, I believe it never gets enough focus. This is particularly curious since any potential credit deterioration in the case of investment-grade bonds is usually related to management actions, the result of either poor decision making or outright actions that benefit shareholders over debt holders.

Understanding quality of management goes hand-in-hand with the analyst developing industry expertise. Once the analyst has gained industry experience and seen other management teams in action, he or she can compare approaches and make educated decisions on which business models work best. However, not all analysts have the time to be industry experts. In this case, I recommend the analyst read as much sell-side equity research as possible. Generally, sell-side equity analysts are industry specialists covering a very small universe of companies and have a high level of granular knowledge of their respective space.

Beyond gauging the quality of management, it is important to get a sense of whether they have a balanced view between shareholders and bondholders. It is not uncommon for management teams to focus on their shareholders over bondholders. This can present itself through aggressive share repurchase funded with debt, acquisitions funded with a disproportionate amount of debt, or a focus on high-risk businesses that have the potential for outsized return on equity, minimal debt protection, and free cash flow.

My favorite example of mismanagement took place in the late 1990s in the electric utility industry. With electric deregulation, the industry saw an opportunity to diversify into riskier unregulated businesses like merchant generation. This trend was driven by management's desire to drive higher returns for their shareholders. However, these capital-intensive businesses were disproportionately funded with debt and generated highly volatile cash flows, a very bad combination. With the fall of Enron and the collapse of electricity spot markets, these companies were very stressed out, forcing an industry-wide restructuring and deleveraging. Needless to say, this was a scary time to be a bondholder (although not as scary as being a shareholder!). Today, the utility industry is back to its old-fashioned steady-as-you-go regulated model.

It is also important for an analyst to gain a sense of whether management is respected by the equity community. A management team under siege is vulnerable to shareholder activism. Well-known shareholder activists like Carl Icahn have been known to force management teams to undertake leverage recapitalizations where significant amounts of debt are issued to retire equity. This might be accompanied by the sale of low-growth free cash flow generative business in favor of riskier high return on equity investments.

Although there are advantages to owning these securities, buying bonds of the right company and focusing on the industry with solid fundamentals is the key to successful investing.

Hospital Revenue Bonds

Tax-exempt hospital revenue bonds have been and continue to be the go-to sector for many institutional investors looking for additional tax-free yield. Since Congress authorized the Medicare program to reimburse nonprofit hospitals for their capital improvement costs back in 1966, tax-free hospital bond financings have been a steady and significant component of high yield municipal supply. Historically, the high yield muni funds would consider for purchase any health care issue rated from A all the way down to below investment grade and nonrated.

The market for tax-exempt not-for-profit hospitals spans a broad spectrum, from large multistate and multihospital systems to small rural and critical access hospitals. The credit quality range is equally broad, as is the sophistication of hospital management. Within the sector, teaching hospitals associated with large university systems tend to have the most stable credit profile and are viewed most positively by the market. At the other end of the spectrum, so-called hospital districts tend to be penalized as small, stand-alone community facilities owned by local governments with marginal financials and unsophisticated management, in spite of having access to ad valorem taxing capacity to fund operating expenses. Within those extremes, critical access hospitals are generally well received by investors since they are certified to receive cost-plus reimbursement from Medicare in order to serve hard-to-reach rural areas. See Table 10.1.

Credit Analysis

While a comprehensive how-to guide is beyond the scope of this section, the credit analysis process for any health care bond should cover the following areas, at a minimum:

Top Down (Macro) Considerations:

Health care cost trends.
Insurance industry trends, including consolidation and mergers and acquisitions (M&A) activities.
Government programs and reimbursement trends.
Legislative and regulatory environment.
Local competitive landscape, including "balance of power" among existing local providers.
Characteristics of local service area, including local economic trends.
Local market-specific factors, such as state's Medicaid funding and reimbursement trends.

Bottom Up (Micro) Considerations:

Market position (patient origin analysis).
Utilization trends.
Payer mix (Medicare, Medicaid, private pay).
Size and quality of medical staff.
Quality of management.
Insurer relationships.
Financial trends: operating margin, reliance on nonoperating revenues, bad debt expense, cash flow margin, average age of plant, capital spending trend, liquidity ratios (e.g., days of cash on hand), leverage ratios (e.g., debt to capital), and debt service ratios (e.g., debt service coverage).

TABLE 10.1 Uninsured Hospital Supply, 2006 to October 2011 ($ million)

	2006	*Percent Total*	2007	*Percent Total*	2008	*Percent Total*	2009	*Percent Total*	2010	*Percent Total*	2011 YTD	*Percent Total*
BB	114	*1.1%*	1,416	*9.7%*	521	*3.5%*	48	*0.2%*	77	*0.6%*	470	*4.7%*
Baa3	339	*3.2%*	924	*6.3%*	412	*2.7%*	110	*0.5%*	523	*3.8%*	382	*3.8%*
Baa2	1,130	*10.7%*	1,400	*9.6%*	529	*3.5%*	1,214	*5.3%*	843	*6.2%*	1,166	*11.6%*
Baa1	1,133	*10.7%*	1,003	*6.9%*	509	*3.4%*	1,378	*6.0%*	1,610	*11.8%*	601	*6.0%*
A3	1,198	*11.3%*	2,878	*19.7%*	2,359	*15.7%*	1,344	*5.8%*	2,395	*17.5%*	829	*8.2%*
A2	1,429	*13.5%*	1,822	*12.5%*	2,453	*16.3%*	4,996	*21.7%*	1,531	*11.2%*	1,678	*16.6%*
A1	2,904	*27.4%*	725	*5.0%*	1,780	*11.8%*	4,725	*20.5%*	2,484	*18.2%*	1,067	*10.6%*
Aa3	250	*2.4%*	3,706	*25.4%*	4,724	*31.4%*	2,743	*11.9%*	2,970	*21.7%*	1,868	*18.5%*
Aa2	2,107	*19.9%*	732	*5.0%*	1,736	*11.6%*	6,476	*28.1%*	1,239	*9.1%*	2,022	*20.1%*
Total	10,604	*100.0%*	14,606	*100.0%*	15,023	*100.0%*	23,034	*100.0%*	13,672	*100.0%*	10,083	*100.0%*

Source: Thomson Financial

Transaction-Specific Factors:

Security: Gross revenue pledge? First mortgage or any other collateral pledge? Fully funded debt service reserve fund? Debt covenants dealing with liquidity, debt service coverage, and so on?
New construction project risk (feasibility study).
Disclosure and reporting requirements.

While the above laundry list of credit factors may look daunting, the bottom line boils down to these questions: Is the hospital really needed in its service area? Does management have a clear strategy and are they executing it? As a nonprofit entity, does the hospital have enough of a financial cushion to get it through hard conditions, both economic and legislative? Since health care is a very capital intensive business, has the hospital kept up with its capital needs? Is the hospital well positioned to deal with whatever change is looming within the health insurance industry?

Under a worst-case scenario, investors should be aware that, under federal bankruptcy law, a nonprofit corporation cannot be forced into bankruptcy by its creditors (an involuntary bankruptcy), per Section 303(a) of Title 11 of the United States Code. It can always, of course, voluntarily file.

The last few years have seen increased standardization of disclosure and reporting practices within the industry, something that has undoubtedly helped improve secondary market liquidity.

The AHERF Bankruptcy

What could go wrong for a hospital credit? For an illustration of the potential pitfalls of investing in hospital bonds, one must turn to the $1.3 billion bankruptcy of the Allegheny Health, Education and Research Foundation (AHERF), the largest nonprofit health care bankruptcy in history. The collapse of this system (chronicled in an exhaustive article published in *Health Affairs*[1]) involved $605 million of bond debt, including $256 million insured by the Municipal Bond Insurance Association (MBIA). This complex case involved all the typical health care risk factors, both internal and external. AHERF started out in 1983 as Allegheny General Hospital (AGH), a AA-rated, 670-bed community hospital in Pittsburgh. In order to compete with rival University of Pittsburgh Medical Center (UPMC), the hospital embarked on a wildly ambitious expansion program designed to turn it into a premier integrated delivery

system, as well as a top-notch medical education and research institution. By 1997, through a series of aggressive acquisitions under the leadership of its megalomaniacal CEO, Sherif Abdelhak, AHERF had become Pennsylvania's largest integrated delivery system, with 14 member hospitals. Its revenues increased tenfold to more than $2 billion and its medical staff grew from 350 to 10,115. As it turned out, this dazzling growth was based largely on smoke-and-mirrors accounting, the expansion program spun wildly out of control, and AHERF filed for bankruptcy on July 21, 1998.

AHERF's demise was caused by many factors, both internal and external. Internal factors included (1) a poorly conceived strategy that did not take into account the peculiarities of the Pennsylvania health care market; (2) the acquisitions of various "distressed" hospitals around the state under the assumption that belonging to a system would bring synergies and economies of scale; (3) excessive prices paid to acquire physician care practices (PCPs) and clinical/research faculty; (4) excessive leverage incurred to finance acquisitions; (5) poor governance (a weak board that failed to hold management accountable for its decisions); and (6) questionable accounting practices, which masked the true financial status of the system, even to the hospital's auditors. The external health care environment was also turning more negative as AHERF embarked on its expansion strategy: Market competition and managed care forces led to reductions in reimbursement rates from commercial insurers, Medicare and Medicaid, at a time when the system was struggling under the weight of its acquisitions.

Amazingly enough, even after AHERF ceased to exist and its various member facilities were parceled out to other local competitors, its troubled legacy still lived on. As part of the bankruptcy proceedings, the flagship AGH and other western hospitals were merged into the West Penn system in 1999. In 2007, West Penn issued the largest speculative-grade health care deal in history: a $750 million issue. It wasn't long before West Penn itself became another distressed health care name in the marketplace, a process that culminated in a downgrade to B2 by Moody's in February 2011. Miraculously, the system was bailed out by Highmark, a Pittsburgh-based insurer, which agreed to affiliate with West Penn in June 2011. As part of the deal, Highmark agreed to inject up to $475 million into West Penn, although it stopped short of assuming West Penn's debt. This affiliation was a rare and unusual combination of insurer and provider, due to the inherent conflict involved, one that will be scrutinized by market participants for years to come.

Investment Strategy

Compared to many other high yield areas, health care is a relatively liquid sector (emphasis on "relative," since we are talking about municipals, after all), with many active market participants at any time. Price discovery is supported, up to a point, by a fairly constant stream of supply in the new issue market. With that in mind, the following investment framework may be of value to investors who are involved or are looking to get involved in the sector.

First, the value of health care relative to other sectors must be determined. Except for brief periods in recent history, health care usually shows up as one of the cheapest sectors in the high yield space: A fairly constant supply of new issues throughout the year tends to keep the sector's yield levels on the attractive side. Unlike corporate-backed names, for example, scarcity is rarely an issue for health care. In this regard, paying attention to the technical picture—that is, any short-term supply and demand imbalance or quarter-by-quarter issuance patterns—may also alert you to potential buying opportunities throughout the year.

Once adding exposure to health care is deemed desirable, you should determine your degree of risk tolerance for the sector, which is known for its volatility (at least as compared to more traditional, essential service sectors). Next, try to buy the best credits within your target rating categories. Note that, more than in any other sector, the yield disparity between rating grades and even within the same rating grade can be quite significant. The BBB category is a notoriously tricky category as it can span the gamut from credits on the cusp of an upgrade to A to those that are on verge of falling out of investment grade.

Investor skepticism regarding agency ratings is one of the reasons there is great variance within rating categories. While the rating services do make their best effort to keep up, a rating is best viewed as a snapshot at a precise point in time (the date of the last rating update) and cannot be taken as a current indicator of creditworthiness. For instance, interim financials for a particular facility may have been released since the last rating update, and they could be showing a dramatic change in financial condition. Relying solely on a "stale" rating can be a sure recipe for trading disaster.

Instead of ratings, one should use historic spread relationships as guideposts for relative value. Table 10.2 is a particularly useful tool as it provides a historical overview of weighted average spreads versus AAA on new issue pricing, from 1998 through October 2011. While this does not capture secondary market activity, secondary market sentiment is clearly one of the factors driving new issue spreads.

TABLE 10.2 New Issue Weighted Average Spreads vs. MMD AAA scale (20 years and longer), 2000 to October 2011

												YTD	5 Yr	3 Yr
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Wtd. Avg.	Wtd. Avg.
B	377.2		357.8	216.3	241.8	171.1	172.5	159.0	223.9		378.2			
Ba2			251.1	219.8	228.6	140.2	67.1	100.0	202.0	272.9	303.2	348.5	165.6	270.8
Baa3		172.1	156.9	184.3	123.2	84.5	77.1	89.3	162.3	323.8	206.4	255.8	159.1	215.7
Baa2	189.0	128.9	146.2	142.1	94.9	74.2	61.2	94.3	166.9	262.5	232.0	230.4	176.1	230.7
Baa1	103.3	91.7	111.6	116.7	78.1	69.5	54.2	85.0	158.4	230.4	194.9	213.6	154.4	206.2
A3	81.8	84.5	82.5	70.9	60.0	37.4	45.8	67.1	117.8	224.2	169.7	170.3	127.6	157.0
A2	91.9	67.4	71.6	69.2	64.1	45.5	46.4	63.1	140.7	195.2	147.5	160.2	144.9	169.2
A1		68.4	58.1	79.0	55.4	44.5	35.0	57.8	117.0	160.1	126.3	161.3	115.2	148.6

Source: Howard Manning, proprietary data

The key to using Table 10.2 is to observe where current spread relationships are, both across and within rating categories, as compared to the longer-term averages. For instance, if the five-year weighted average new issue spread between A3 and Baa1 is about 22 basis points, and that relationship is currently at 43 basis points, this might be a good time to downgrade. Conversely, if current spreads are much tighter than the long-term average, one might consider upgrading without giving up much yield. To put it another way, you are not getting paid to take on the additional credit risk. An upgrade in this context even has a built-in exit strategy: When spreads revert to the mean, you already own the most liquid name within your target rating range, which can then be sold to take advantage of lower-rated credits at wider spreads.

Another interesting strategy is to look for M&A candidates. For-profit systems have been known to target weaker nonprofit providers for acquisition. Ironically, the most attractive acquisition targets are second- and third-tier nonprofit hospitals that lack the scale and strategic orientation to operate efficiently in their local markets. For a variety of reasons, these institutions become locked into a vicious cycle of underinvestment, deteriorating financial performance, and poor management decisions. From the other vantage point, the nonprofit hospitals most likely to consider selling to a for-profit are typically the ones in need of major investments of capital and managerial acumen. They also tend to have the weakest patient and physician loyalty, the oldest physical plants, the highest operating costs, and the least reliable financial disclosure. Normally, all of the above would be great cause for concern, except for the fact that they just might enhance the hospital's M&A potential. Needless to say, no bond should be purchased solely as a gamble on future acquisition potential; however, if the investor is well-compensated for the current credit risks in terms of spreads, then the M&A potential is just icing on the cake.

Current Trends Driving the Hospital Bond Market

Arguably, there have been four distinct crises that have led to current market conditions: (1) the post-Lehman capital market implosion; (2) the collapse of the auction rate market; (3) the collapse of the bond insurers; and (4) the massive unwinding of leveraged Tender Option Bond (TOB) programs. As a result, the post-2008 nonprofit health care market is currently driven by the following factors:

1. Credit enhancement has virtually vanished with the demise of the monocline bond insurers. The market has gone from 54 percent of new issues coming with credit enhancement back in 2005 to a mere 6 percent in 2010.

TABLE 10.3 Composition of Health Care Supply, 2005 to 2010

	2005	2006	2007	2008	2009	2010
Fixed Rate	38%	49%	48%	42%	71%	91%
Variable	35%	23%	26%	58%	29%	9%
Auction Rate	27%	28%	26%	0%	0%	0%

Source: Thomson Financial

2. This has resulted in the decommoditization of health care credits. Shadings of credit quality between and within rating categories matter more than ever. Yet, the official ratings have proven to be lagging indicators of credit quality and credit trends and therefore of limited usefulness to the everyday investor.
3. The hospital sector has gravitated to a primarily fixed-rate structure, as shown in Table 10.3.
4. Health care "Darwinism" is growing, as strong hospitals are getting stronger and weak hospitals are getting weaker. Efficiently managed hospitals and health care systems will be increasingly able to leverage economies of scale and benefit from consolidation, as well as better access to capital.
5. Tax-exempt mutual fund flows continue to have a direct impact on investor interest and market spread levels. Most funds have a 25 percent sector concentration limit, and recent sizeable outflows from tax-exempt high yield bond funds as well as general market funds have left many of these funds at or near their health care concentration limit. Many market participants are saving capacity for the new issue market in the expectation that future deals will come to market on the cheap side—an expectation that has certainly been justified by new issue yield and spread levels over the past few months.
6. There is an expectation that health care reform, combined with budget-cutting efforts at the federal level, will continue to put pressure on the sector.
7. The rating agencies have turned negative on the sector, which may or may not be a lagging indicator.

All these factors are expected to be the key drivers of health care performance over at least the next two years. However, they will all be shaped by the ongoing health care reform debate.

Potential Impact of Health Care Reform

President Obama's health care reform plan—if and when it will be fully implemented—remains a major source of uncertainty weighing on the

sector. The fate of the Patient Protection and Affordable Care Act, otherwise known as ObamaCare, will likely be decided in the courts, so it is impossible to say what form it will ultimately take. As it currently stands, most of its significant provisions impacting health insurers and providers will not take effect until 2014. The dual mandate of providing health insurance for over 30 million uninsured and at the same time extracting cost efficiencies from an even more bureaucratized health care system will undoubtedly prove taxing to providers, patients, and taxpayers alike.

For hospital bond investors, the key consideration will be where health care spreads will be heading from here. Based on the data we presented above, it would appear much bad news is already baked into current spreads. However, current wide spreads may just be a by-product of historically low absolute rates (i.e., there is an absolute yield level threshold that investors will balk at, regardless of spread). They may also reflect some degree of saturation in terms of the mutual funds' exposure to the sector. This may ultimately create an opportunity for nonfund buyers who still have capacity in health care.

Toll Road Bonds

Municipal bonds issued to finance toll roads may be an interesting sector to consider for additional yield. In 1795, the first private paved road was constructed from Lancaster to Philadelphia, Pennsylvania. The Commonweath at the time could not afford construction, so a privately held company built the 62-mile road and charged for passage. This marked the birth of the toll road in the United States. While most roads in the United States are funded by gas taxes, in recent years a series of state budget deficits, lack of additional taxing capacity, and considerable capital expenditures has led to a stalemate in new road construction. Toll roads have once again come to the forefront to provide a steady solution to an aging infrastructure problem required to meet population growth. Toll roads are often constructed by not-for-profit agencies and have therefore increasingly been financed with municipal bonds. As of 2010, over $73 billion in rated municipal bonds have been issued to construct or expand 43 domestic toll roads.[2] Investors should be aware of toll road transaction characteristics, key credit risks, and recent economic and financial trends.

Types of Toll Road Projects

There are three basic toll road projects: existing, start-up, and managed lane toll roads. *Existing* toll roads typically bond for expansion projects or updates

to toll collection facilities. Examples include the Pennsylvania Turnpike and New York State Thruway. These projects are mature, have easily forecasted toll revenues, and have generally stable credit profiles with ratings in the "A" category. Often these tolling entities have multiple assets and therefore risk is somewhat diversified. *Start-up* toll roads typically seen in the municipal high yield arena are greenfield by nature so investors must do proper due diligence when analyzing their potential. These toll roads are built in expanding growth corridors to ease traffic and facilitate growth, but rely on forecasts rather than existing traffic. The bond prospectus will include a "Traffic and Revenue Study" performed by an accredited consultant to aid investors in making the investment decision. The traffic study will use modern day count methodologies, look at competition for the proposed road, analyze local demographic and population growth trends, and include price elasticity analysis for optimum toll rates. These transactions often have low or below investment-grade ratings due to a higher risk profile. In between these two types of toll roads, a new trend has emerged—the use of *managed lanes*. Lacking right of way for new toll road projects, local entities are increasingly implementing managed lanes; that is, "toll lanes" on existing roads to curb burgeoning traffic problems. Tolls are charged based on the number of cars on the particular road at one time. Therefore, rates dynamically change with traffic and provide the commuter with a decision based on his or her time value. Toll rates are dynamically managed to allow cars to travel at least 45 mph on the toll lane, regardless of time of day. These toll roads are typically less risky transactions than a start-up toll road as the road has existing traffic that can be used to forecast tolls. As such, these bonds typically will have investment-grade ratings.

Toll road bonds are structured to provide debt service coverage from an increasing revenue stream and therefore have escalating debt service. Revenues increase through inflation adjustment, population growth, and toll increases. With an escalating bond debt service structure, toll road transactions often contain both current coupon and zero coupon bonds and are back-loaded with large-term bonds in later years. In fact, 40-year maturities are often used due to the long useful life of a toll road.

Security Features

In general, toll road bonds are secured by a revenue pledge, rate covenant, and debt service reserve fund. A gross revenue pledge includes all revenues (tolls, real estate development fees, and concessions) of the respective toll road authority that can be used to pay debt service. However, most toll road

bonds are secured by a net variant of the revenue pledge, which allows operations and maintenance expenses to be paid before bond debt service. As such, tolling entities prepare an annual budget with a capital expenditure forecast that is available to bond holders. A rate covenant requires the tolling authority to raise tolls if revenues don't meet a multiple of anticipated bond debt service or hire a consultant to provide recommendations to improve traffic. A strong rate covenant of 1.5 × debt service or above gives investors a cushion if revenues fall short of estimates due to general economic decline or interruption of service (earthquake, hurricane, etc.). Finally, a debt service reserve fund is funded at bond closing that establishes a liquid pool of investments with the bond trustee in general to cover one year's maximum debt service. Debt service reserve funds must be replenished over time if tapped for revenue shortfalls. It is important to recognize that bondholders do not have a security interest in physical toll road assets.

Credit Risks

Credit risks for toll roads can be classified in four areas: demographics, competition, growth, and financial metrics. Demographics are key components of start-up toll roads and can help cushion revenue declines in poor economic environments. Investors should look at household income as it relates to state and national averages, the average age of the population in the area, and if the road is in a strong growth corridor as evidenced by high population growth rates over the past decade. Roads that are constructed in high-growth corridors with higher than average income medians have populations more susceptible for toll road use. It is also important to recognize diverse industrial growth in the area. For example, one Denver-based toll road was built specifically in a technology corridor, which never fully materialized after the Internet bubble burst.

For toll roads, competition is a critically important credit factor that determines future success. The road should be a future traffic artery for the population and ideally connect two descript areas, as opposed to looking like a "bridge to nowhere." Often this means connecting to larger "free" roads, which lowers the potential competitive risk from the free road itself. Investors should look at multiple paths to see if prospective customers would use alternative routes and how much time can be saved using the toll road. Also, future expansion of the free road itself by state transportation agencies should be considered. One example of a free road expansion that took considerable market share occurred with the Santa Rosa Bay Bridge in the Florida panhandle. The Florida Department of Transportation expanded SR87, which was only 10 miles away

from the bridge. As a result, this rerouted traffic to the free road, and the bridge saw a dramatic decline in revenues. The entity ultimately defaulted in July 2011.

Ultimately, toll roads are designed to reduce traffic problems for growing population areas. As such, investors must believe the growth story surrounding the proposed toll road area. For existing toll roads, disclosure should highlight the number of transactions for each year. A compounded annual growth rate can be calculated from the data to see if transactions have risen in line with increases in domestic GDP. If a toll road has not seen growth matching growth in the local economy, it could signify that rates are too high or that alternatives exist. Recessions typically result in lower growth rates for toll roads, and investors can look to prior recessions to see how traffic was affected for a particular road. In addition, gas prices can impede transaction growth, and municipal toll road entities should disclose the potential impact of a gas price surge. Table 10.4 depicts an example of the reduction in transactions from the gas price surge in 2008.

Investors should require toll road agencies to perform analysis on the historical and pro-forma effects of *sustained* higher gas prices. For instance,

TABLE 10.4 Massachusetts Western Turnpike 2008 versus 2007 Transactions

Month	2007	2008	Percent Change	2008 Fuel Price
January	8,038,715	7,950,068	−1.10%	$3.05
February	7,334,528	7,302,344	−0.44%	$3.03
March	8,491,367	8,473,087	−0.22%	$3.26
April	8,664,016	8,679,779	+0.18%	$3.44
May	9,371,500	9,124,357	−2.64%	$3.76
June	9,214,476	8,831,692	−4.15%	$4.07
July	9,369,957	9,119,889	−2.67%	$4.09
August	9,900,848	9,428,235	−4.77%	$3.79
September	9,074,955	8,667,348	−4.49%	$3.70
October	9,402,975	9,054,055	−3.71%	$3.17
November	8,741,943	8,260,081	−5.51%	$2.15
December	8,057,211	7,960,203	−1.20%	$1.69
TOTAL	105,662,491	102,851,138		

Source: Massachusetts Highway System; Traffic and Revenue Study—Cambridge Systematics Inc. and Vanasse Hange Brustlin, Inc., January 28, 2010

North Texas Tollway Authority's board hired outside consultants during the peak of the 2008 commodities boom to determine traffic elasticity for various gas prices up to $4.50/gallon.

Key Financial Metrics

Investors should be aware of key credit financial metrics when analyzing toll roads. *Debt service coverage*, typically calculated by dividing net revenues by maximum annual debt service, is the primary metric used by analysts as this gives a coincident indicator of toll road performance. Also, debt service coverage relates to toll road entities' capacity to increase debt through an additional bonds test. A strong *additional bonds test* will allow tolling entities to increase debt only if debt service coverage is high. While cash reserves can be a cushion for investors, a weak additional bonds test may dilute bondholders' interest in the toll road and can lead to downgrade risk. In addition, calculating *outstanding debt per mile* is important. As infrastructure ages and costs of construction have increased significantly in the past ten years, toll roads have seen a dramatic increase in debt issuance. Therefore, leverage has increased significantly, which can hamper a toll road's performance in declining revenue environments. Median debt per roadway mile has increased from $4 million in 2001 to $17 million in 2010.[3] Investors should focus on leverage or forecasted leverage of the entity in comparison to other local toll roads. The trend toward higher leverage is expected to continue as infrastructure ages.

The final credit metric investors should carefully observe is *the toll rate itself, how it's collected, and the entity's flexibility in changing toll rate schedules*. This is increasingly important for new roads as tolling most likely will be more expensive due to rising construction costs. Investors should look at the entity's average toll rate in both peak and nonpeak time periods and compare it to that of other regional toll roads. Toll rates that exceed those of comparable roads by 20 percent or more should give investors pause. High toll rates coupled with leverage can prove to be a fatal combination in a poor economic environment. Second, tolls should be collected with a view toward keeping operating expenses low. While cash collection provides convenience to commuters, it is a more expensive method. New, updated toll tag technology in conjunction with video camera collection is now believed to be more cost-effective. Video cameras increase the probability of collection for toll violations and eliminate cash collections entirely on certain new roads. Third, investors should look at the toll road authorities' stated toll rate policy. Good tolling policies give the authority to increase rates at any time and not upon annual review. Autonomous policies are preferred to toll increases that must be approved by other

local government entities. Also, toll increases that are not capped by indexes such as the Consumer Price Index are preferred. It is important for investors to look at management's history of tolling policy changes and determine if they align with bondholder interests. As such, corporate governance is a critical factor in toll road analysis. For instance, the Transportation Corridor Agencies in Orange County, California, which financed both SR241 and SR73 toll roads, has 15-member boards that are nominated by 15 individual cities within Orange County. Accordingly, there have been significant political hurdles to implementing new toll road policy, which may or may not be in the best interest of the bondholders.

Toll roads have seen lower growth rates since the 2008 recession began and continue to present a difficult operating environment, with low transaction growth and high gasoline prices. On the positive side, demand has remained relatively inelastic and returns have been stable. However, there have been several notable toll road defaults, including the Pocahontas Parkway near Richmond, Virginia, and the Southern Connector Parkway near Greenville, South Carolina. Both of these projects were ill-conceived and did not default due to poor economic conditions. Traffic studies did not accurately forecast transaction growth and, in both cases, the actual traffic count turned out to be less than half of initial estimates. Developers were involved to build alongside toll road projects but failed to share in the risk profile with bondholders. In general, investors should be wary of toll roads with significant development fees as a percentage of revenues due to this lack of incentive alignment. There have been three municipal toll road transactions that have defaulted since 2002 totaling $600 million in par,[4] representing less than 1 percent of the $73 million in rated municipal bonds issued as of 2010.

Sector Outlook

Public–private partnerships (PPP) have been a new solution to distressed toll roads as well as new project financing alike. For example, the distressed Pocahontas Parkway and Northwest Parkway in Denver were purchased for lump sum amounts by foreign infrastructure companies and given 99-year operating leases on the roads from the respective local authorities. This innovative structure allowed the roads to stay open and deleveraged the original transactions. New road PPP structures utilize an infrastructure company, not-for-profit local entity, and state highway authority to lease, then build/operate a new toll road. Foreign equity is usually involved looking for long-term steady returns and is typically prevented from selling its interest in the road for 10–15 years. Long-tenor tax-exempt bonds are often issued as a

significant part of the capital structure. As this transaction structure involves both equity and debt, the risk profile to bondholders is often reduced. However, investors should take caution and determine if equity and debt interests are aligned. Returns to equity holders should be subordinate to debt service, and amortization of principal should be at least contiguous with equity distributions.

The federal highway trust fund has been used to support over $500 million in state and local transportation projects annually. The fund includes an 18.4 cent federal excise tax on gasoline, which has not been increased since 1993. There have been both public and private calls for an increase in the excise tax. In June 2011, the CEO of General Motors suggested total gas taxes be increased to as much as $1 to support an increase in demand for fuel-efficient cars and thereby a reduction in foreign oil demand. The National Commission on Surface Transportation Infrastructure Financing has recommended a 10 cent increase in the gas tax for several years. However, attempts to increase this tax have failed as focus on the federal deficit has increased. Currently at the legislative level, there have been two competing plans for future transportation funding, and our political leaders seem far from reaching a compromise. Some are calling for cuts that are equivalent to 30 percent of all state transportation funding. While no final plan has been released, Congress just extended the current excise tax on September 16, 2011, to March 31, 2012, until a more comprehensive one can be developed. This particular issue coupled with continuing state budget woes increases the prospect for rising municipal toll road bond issuance going forward.

Housing Bonds

In a search for yield, the patient and discerning investor may wish to consider a smaller and often overlooked segment of the municipal bond market, housing bonds. In the broadest sense, housing bonds are tax-exempt bonds issued primarily by state and local housing finance agencies to provide funding for mortgage loans. These mortgage loans may be made to low- to moderate-income families and individuals who are first-time homebuyers or to developers who are building or renovating multifamily projects where there is some kind of rent or tenant income restriction. As a general guideline, housing costs that do not exceed 30 percent of a household's gross income is considered affordable. These bonds are used either to promote single-family home ownership among moderate-income families or to increase the supply of affordable rental housing.

In the case of single-family bonds, bond proceeds are used to originate lower interest cost mortgages (compared to the conventional market) for first-time home buyers of moderate means in order to purchase single-family homes and further the public policy goal of homeownership. These bonds are commonly referred to as single-family mortgage revenue bonds, or SFMRBs. In the case of multifamily bonds, proceeds from the bonds are used to make loans that fund for the acquisition, construction, and renovation of a specified number of apartments at rents affordable to lower-income families and individuals. These bonds are usually referred to as multifamily housing bonds. As discussed later, there are significant differences between these two types of bonds. SFMRBs are issued more frequently and have a more straightforward and intuitive credit analysis. Table 10.5 depicts why an investor may want to consider affordable housing bonds. Using yield curve data from October 12, 2011, a AAA-rated single-family housing bond with a maturity of five years offers a pickup of 58 basis points over a comparably rated general obligation bond of the same maturity.

Like student loans, industrial development bonds, and pollution control bonds, housing bonds are generally considered private activity bonds (since the ultimate beneficiary of the financing is either an individual homebuyer or developer), and the issuance of private activity bonds is capped at the state level by Congress. The individual investor should be aware of alternative minimum tax implications before purchasing any type of private activity bond. New issue housing bonds were excluded from the AMT as part of the Housing and Economic Recovery Act of 2008. However, bonds issued before that date or refundings of older vintage AMT bonds still may carry that tax treatment.

TABLE 10.5 Current Yield Spreads for AAA Single-Family Housing

Maturity	Aaa/AAA GO Tax Exempt	Aaa/AAA Revenue Tax Exempt	Revenue Spread to GO	Aaa/AAA Single-Family Housing Tax Exempt	Single-Family Housing Spread to GO
2012	0.25	0.30	0.05	0.47	0.22
2016	1.35	1.45	0.10	1.93	0.58
2021	2.58	2.72	0.14	3.26	0.68
2026	3.17	3.31	0.14	3.97	0.80
2031	3.59	3.73	0.14	4.37	0.78
2041	3.75	3.83	0.12	4.66	0.91

Source: Thomson Reuters, Municipal Market Data-Yields as of October 12, 2011

In addition to issuance caps, the mortgage loans funded by affordable housing bonds are subject to additional federal and state regulations. Typical regulations include project rent limitations, land use restrictions on tenant incomes or ages, subsidized mortgage interest rates, government subsidies, and restrictions on the sale and transfer of homes or properties. While the investor need not be intimately familiar with these regulations to successfully invest in these bonds, the investor must be aware that these bonds operate under a different framework than their taxable market equivalents. The investor must not confuse the subprime mortgage debacle with affordable housing programs. These are separate and distinct mortgage origination models, and most affordable housing bonds have maintained their strong investment-grade ratings throughout the housing crisis.

Issuance

According to data from the Council of Development Finance Agencies, single-family mortgage revenue bond issuance was $4.6 billion in 2010 (up 27 percent from 2009), and multifamily issuance doubled from 2009 to 2010 at $2.4 billion. Keep in mind that at the time of this writing, the nation continues to struggle with a weak economic recovery and an unprecedented housing crisis, both of which resulted in substantial federal government involvement in dealing with the housing market. In 2009, the U.S. Treasury unveiled the Housing Finance Agency Initiative, where the Treasury committed to purchase approximately $15 billion of housing bonds (mortgage revenue bonds and multifamily bonds), which were credit enhanced by the two government-sponsored enterprises, Fannie Mae and Freddie Mac. Issuance of affordable housing bonds tends to track the overall housing market trends with some variation driven by the spread between bond-funded mortgage rates and conventional mortgage rates. Given the current economic situation with rising foreclosures, housing price depreciation, and elevated unemployment levels, this has led to an increase in multifamily bond issuance relative to single-family mortgage revenue bonds. Away from the federal initiatives, issuance of affordable housing bonds is likely to be light for the foreseeable future. Much useful information about future loan origination and development plans can be found on state housing finance agencies' web sites.

Trading and Liquidity

If there is one distinguishing characteristic of affordable housing bonds, it is their illiquidity relative to other segments of the municipal bond market.

TABLE 10.6 Average Daily Par Amount Traded, 2007 to 2010 ($ million)

	2007	2008	2009	2010
Total	26,528.3	21,796.1	15,044.7	15,027.8
Education	5,622.1	3,529.7	2,234.0	2,313.2
Health	3,125.4	2,960.8	1,578.6	1,571.6
Housing	2,089.3	1,299.3	598.6	481.3
Tax Revenue	1,237.7	1,050.5	918.2	968.3
Transportation	2,079.3	1,953.2	1,143.8	1,206.7
Utility	3,131.2	2,251.9	1,556.5	1,608.1
Various Purpose	1,710.4	1,509.0	1,359.8	1,285.1
Other	7,532.9	7,241.6	5,655.2	5,593.6

Source: Municipal Securities Rulemaking Board, *2010 Fact Book*

Table 10.6 shows the average daily par amount ($ million) of housing bonds traded compared to other sectors of the municipal bond market.

As noted earlier, housing is an often overlooked sector of the broader municipal bond market. Smaller, infrequent issuance by unfamiliar issuers, regulatory considerations, prepayment risks, and local housing market conditions all contribute to less coverage by analysts and less familiarity by traders and investors. Bond offerings from local housing authorities or even smaller state housing finance agencies can be even less liquid than those from their larger issuer counterparts. For trading and liquidity insight, all municipal bond investors, regardless of sector focus, should become acquainted with the capabilities of the MSRB's EMMA web site. Here municipal investors can download, without charge, official statements and the latest bond disclosure reports, rating changes, and also track a particular bond's trading history. Scanning the trading history will show how frequently (or infrequently) an individual bond trades, at what price, and in what block size. All of this information is available free of charge to the investor. Keep in mind that what a housing bond investor picks up in terms of increased yield and even its higher credit quality (versus other "on the run" municipal bonds) is often offset by reduced liquidity.

Single-Family Bonds

Housing bonds issued to promote home ownership among low- to moderate-income individuals and families fall into two major categories: (1) bonds

secured by individual or whole mortgage loan programs and (2) bonds secured by mortgage-backed securities (MBS) programs.

In a whole loan single-family bond program, bond debt service payments are backed by the principal and interest payments on a pool of individual mortgages to qualifying first-time homebuyers. In these structures, the bond investor bears the risk of default based on the performance of the underlying quality of the mortgage loans backing the housing bonds. In order to obtain investment-grade ratings and achieve the lowest possible cost of funding for their programs, whole loan issuers usually provide some kind of additional credit support for their bond issues. One approach is to rely on insured or guaranteed mortgage loan programs. Typical forms of mortgage insurance and guarantees include those provided by (1) the federal government, such as those provided by the Federal Housing Administration (FHA insurance), Veteran's Administration's (VA) guarantees, and the U.S. Department of Agriculture's Rural Housing Guarantee program; (2) private mortgage insurance provided by rated, private sector insurance companies; and last, (3) mortgage insurance provided by an affiliated state mortgage insurer. Like any other guarantee or insurance policy, the creditworthiness of the mortgage insurer is the main consideration in determining the credit quality of a single-family whole loan bond indenture. Given the greater financial resources of the federal government, a whole loan program that has the majority of its loans backed by federal programs is usually preferable over a predominately privately insured mortgage or state-insured loan portfolio. One must also understand the type of coverage provided by the mortgage insurer—whether it is individual loan PMI or a pool-wide policy that pays after individual PMI has been hit.

A second approach is to provide some additional form of credit support such as a reserve fund, support from a state moral obligation, or excess asset/liability parity in an indenture. All of these additional supports can be used to cover losses on defaulted loans.

Along with credit quality and type of mortgage insurance, other key considerations include loan-to-value calculation for those loans without mortgage insurance, types of mortgages (fixed rate or adjustable), and property types (single-family detached, townhouses, condominiums, etc.). Single-family detached homes have generally maintained their value better than other single-family housing types. Information on delinquencies, foreclosures, and real estate–owned portfolios can provide insight into underwriting standards and the state of the issuer's particular housing market. The directional trend of these statistics is a key focus.

In the case of a housing bond that also carries the general obligation of the issuer, the agency's ability to profitably manage its loan portfolio

over time is important, so the quality of management is a factor. Over-collateralization, the presence and size of financial reserve accounts, and support from the HFA's other programs are all credit positives. Special care must also be taken to understand the issuer's overall financial health, not just that of your particular bond indenture. Overreliance on interest rate swaps and variable rate debt can introduce an additional level of risks not normally noticed by housing bond investors.

While the list of factors to consider before purchasing a bond backed by a whole loan program may seem lengthy, the concepts are fairly straightforward, and much of the information can be obtained from a recent official statement available through the issuer's web site or EMMA. The major credit rating agencies (Moody's, Standard & Poor's, and Fitch) each have dedicated affordable housing groups that publish a large amount of financial and operating information on the HFA's bond offerings. While investors should not place blind reliance on any rating agency's credit assessment, their publication of this financial and operating data and comparative listings of data attributes of the HFAs is very useful. Investors should utilize the rating agency web sites to seek access to these reports along with their overall rating criteria for the sector.

The alternative bond approach to single-family whole loan bond programs are single-family bonds backed by mortgage-backed securities (MBS). Unlike the whole loan program, where the investor is exposed to default risk on an underlying pool of mortgage loans securing the bonds, with the MBS approach, default risk on the mortgage loans is assumed by the MBS guarantor (Ginnie Mae, NMA, Fannie Mae, or Freddie Mac). Investors are not concerned with mortgage insurance, borrower credit scores, loan types, or other factors associated with a whole loan bond program since they bear no credit risk in the event of an individual borrower's default. In the MBS option, the bond trustee uses bond proceeds to purchase mortgage-backed securities that have been created by a qualified seller/servicer who coordinates the loan origination process with the issuer and their originating lender network. The practical effect is that the mortgage loan underwriting process has been tailored to meet the requirements of the MBS guarantors, and default risk and payment delays have been transferred from the investor to the MBS issuer. As a general statement, SFMRBs collateralized with MBS securities have generally achieved higher credit ratings than whole loan–backed mortgage revenue bonds due to the fact that the MBS guarantors provide full and timely payment guarantees. Other mortgage insurance relied upon by most whole issuers is normally not so expansive.

Although both whole loan and MBS single-family mortgage revenue bonds normally carry high investment-grade ratings, it is critical to

understand that all affordable housing bonds are structured transactions. Most transactions do not carry a general obligation from their issuer, and the source of repayment is limited to the loans and funds held by the bond trustee. Mimicking the rating agency approach, the investor must evaluate the entire bond structure in determining a prospective bond purchase. That analysis goes beyond solely looking at the credit quality of the underlying mortgage loans or the MBS guarantor.

One example of the structured aspect of these bonds involves the timing of cash inflows (receipt of mortgage payments) and cash outflows (interest payments on the bonds) in the normal bond indenture. While mortgage payments are received from borrowers on a monthly basis, bond debt service interest payments are usually made semiannually. This timing difference can present a complication since the outstanding principal balance on the indenture's assets (the loans) amortizes on a different basis than its liabilities (the bonds). Some bond programs are structured so that monthly mortgage payments are invested in guaranteed investment contracts (GICs), provided by third-party financial institutions, that pay a predetermined rate of interest on funds invested. The bond indenture's cash flows are structured such that the mortgage payments and investment earnings are adequate to pay scheduled debt service on the bonds.

During the recent financial crisis, many of the major GIC providers for housing bonds were downgraded by the rating agencies. This left issuers with two unattractive choices: (1) See the ratings on your bonds downgraded to reflect the diminished creditworthiness of your GIC counterparty or (2) move the funds to a new GIC provider where a lower interest rate could potentially harm the integrity of the indenture's cash flows. Even under an MBS structure, where underlying mortgage loan performance was not an issue, these bonds were downgraded based on the diminished assessment of the GIC provider's ability to perform.

A further example of this "reinvestment risk" became apparent in other bond programs that were structured without GICs. In these cases, rating agency criteria permitted mortgage payments to be deposited into money market accounts or other eligible investments and cash flows to be run assuming interest rate earnings of 2 to 3 percent (depending on the year of bond issuance) far into the future. As short-term interest rates fell to nominal levels, the rating agencies changed their criteria to a 0 percent reinvestment assumption, asked issuers for a revised cash flow analysis, and then decided that some bond programs didn't warrant their formerly high credit ratings. Many formerly AAA-rated bonds were significantly downgraded based on their dependence upon investment earnings to pay bond debt service

under all scenarios or had their ratings withdrawn due to the issuer's inability or unwillingness to provide the requested additional analysis.

Another risk that housing bond investors need to be constantly aware of is prepayment risk. Since most every single-family mortgage loan can also be prepaid at any time at par, single-family housing bonds have inherent prepayment risk. When interest rates decline, homeowners may elect to refinance to take advantage of lower rates. This results in the prepayment of their mortgage. Due to the structured nature of housing bond transactions, prepayments are not normally recycled into new loans—instead, they cause an early redemption of the associated bonds. Investors should be aware of this feature when purchasing bonds (particularly at a premium) or when implementing hedging strategies. In addition, investors need to be very cognizant of the redemption features of their individual indenture. Most single-family transactions are structured with multiple maturities of bonds, some of which may offer investors a level of protection from prepayment redemption—so-called PAC or planned amortization class bonds. Investors need to understand where their particular maturity stands in the prepayment redemption waterfall, what bonds have been redeemed to date, as well as the likelihood for future prepayments based on the interest rate of the underlying mortgage loans.

The intention here with these few examples is not to intimidate the affordable housing bond investor but to demonstrate the very structured nature of the bonds and how the overall level of interest rates can impact them and to prevent a sole focus on mortgage loan quality or credit ratings.

Multifamily Bonds

As mentioned earlier, multifamily housing bonds are another subset of the housing bond sector. They are issued by state and local housing finance agencies to provide for the construction or acquisition/rehabilitation of affordable rental housing. One cautionary note involving multifamily bonds is that these bonds are frequently issued on a conduit basis, where the HFA issuer serves only as a vehicle to provide financing on behalf of another entity, often a nonprofit or private developer, and thus has limited obligations to the bondholders. This differs from the single-family market where issuers are usually larger organizations who manage extensive loan origination programs and bond indentures.

Unlike mortgage revenue bonds for single-family housing, multifamily bonds have a variety of structures, some of which are not typically seen for single-family bonds. Often, these bonds incorporate a number of layers of subsidies that serve to reduce the overall financing cost of rental properties

(which translates into reduced rental rates). Examples of these additional subsidies include the use of low-income housing tax credits (LIHTC), which are often used as a source of equity and thereby reduce the overall amount borrowed; tax abatements; grants; and soft second mortgages funded from federal, state, or local sources.

Like their single-family counterparts, multifamily bonds frequently have some form of credit enhancement. This enhancement can occur at the loan level (like FHA insurance or a Ginnie Mae mortgage-backed security) or the bond level (letter of credit, bond insurance, or credit enhancement from Fannie Mae or Freddie Mac). Since multifamily bonds are also structured transactions, investors need to be aware of what credit enhancement they have and at what level it occurs. Bond credit enhancement from a creditable financial guarantor normally ensures timely payment of scheduled bond debt service, while credit enhancement at the mortgage loan level (think FHA or MBS) does not constitute a guarantee of bond debt service payments, only that certain mortgage payments or insurance benefits will be paid in the event of a loan default.

The risks discussed earlier for single-family bonds (reinvestment risk, prepayment risk) are also present in multifamily bonds. However, the dynamic for prepayment risk can be quite different. The first big difference in prepayment risk is that normally, a multifamily bond is secured by a mortgage loan on a single project. While the possibilities of prepayment due to casualty, condemnation, or default can be examined on a portfolio basis for single-family bonds, in the case of multifamily bonds, the results are usually binary (it either happens or it does not). Second, the dynamics of default risk on multifamily bonds are significantly different. Rather than being focused on the ability of individual homeowners to make their mortgage payments and the value of their homes, investors in multifamily bonds must be aware of local rental market conditions (competing projects/amenities, market rent levels), property management capabilities, and funding for capital improvements. All of these items, and others, will determine whether or not the project can generate enough net operating income to service its debt as well as maintain some level of borrower equity.

Unlike single-family bonds, some multifamily bonds are issued without credit support. These transaction range from those with a subsidized income stream (as with a project-based Section 8 contract from HUD) to those with no support or subsidy whose ability to repay their bonds is wholly reliant on the performance of the underlying rental housing project. In the case of these unenhanced bonds, an investor must undertake a significant level of diligence to avoid loss from default or underperformance of the project.

An analysis of an underlying multifamily project on a transaction like this would include such factors as:

Occupancy levels (waiting lists, rent concessions, etc.).
Property location and competing housing alternatives.
Physical condition (age, appearance, etc.).
Local economy (prosperous or stressed).
Loan to value.
Debt service coverage.
Reserves (debt service, repair and replacement).
Property management.
Insurance coverage.
Environmental risks.
Construction risks.
Tax abatements and requirements to maintain.
Developer track record and financial resources.
Project investor/limited partner track record and financial resources.

In some cases, multifamily loans are aggregated and placed in a pool structure. This is an attempt at diversification and seeks to reduce the potential negative impact of any given property on the pool. Ideally, the pool should be geographically diversified and consist of stabilized properties (i.e., where construction is complete and the project is not in a lease-up stage).

Current Market Status

Housing bonds are not immune from the current economic crisis. Overall weakness in the housing market, persistent high levels of unemployment, credit deterioration of financial counterparties (bond insurers, mortgage insurers, GIC providers), and even the downgrade of the U.S. government and its sponsored entities (Fannie Mae and Freddie Mac) have all stressed this sector of the market. While delinquencies and foreclosures for first-time homebuyers have traditionally been lower than state averages in the past, this trend has been reversing as of late. The lack of refinancing alternatives is also having an impact on borrower behavior and traditional prepayment models. New issue supply and secondary market trading levels continue to offer the "additional yield" that the housing bond sector has long been known for. Value remains for those investors with the willingness to delve into the nuances of these structured credits.

Final Thoughts

While the amount of information required to analyze affordable housing bonds seems extensive, much of it is readily available, and the concepts can be quickly absorbed. Potential housing bond investors should definitely utilize issuer web sites, and also make use of the MSRB's EMMA web site and the reports and criteria available from the credit rating agencies. They all can provide a wealth of housing bond information, all of it without charge. The National Federation of Municipal Analysts (www.nfma.org) publishes criteria and checklists for best practices for disclosure for housing revenue bonds and provides templates with data attributes for both single-family and multifamily bonds (see the publications tab). This site also has criteria for other municipal bond segments. As mentioned, the rating agencies produce numerous reports, which contain detailed financial and performance data as well as providing side-by-side comparisons of various HFAs. Finally, purchased at appropriate levels, the addition of affordable housing bonds to investor's municipal bond portfolio can provide an enhanced return without sacrificing credit quality.

Continuing Care Retirement Communities (CCRC) Bonds

The retirement facilities sector holds a special place within the high yield tax-exempt market. Historically, the sector has been one of the riskiest investments for municipal buyers: As seen in Chapter 4, retirement facilities consistently show up among the top four sectors in terms of default rate over the last 3, 5, and 10 years. Yet, the sector has grown to become a significant component of many institutional high yield investors' portfolios, and of quite a few individual investors' as well, thanks to the aggressive sales efforts of several regional broker-dealers specializing in this type of financing. A key part of the sector's appeal has been the undeniable demographic fundamentals: Who can really argue against the obvious and growing senior living needs of an aging America? Combine that with consistently attractive tax-exempt yields (around 300 to 500 basis points above the AAA muni scale, although the frothy 2006 to 2007 period did see spreads inside of 200 basis points), and one can see why investors have been willing to stick with this sector through thick and thin. This section deals with one specific subsector of the senior living space, one that typically offers the most attractive tax-exempt yields, the not-for-profit continuing care retirement communities, or CCRCs.

CCRCs are generally nonprofit organizations that provide various levels of housing and health care services to affluent seniors age 75 or older on a campus-like setting. The services offered cover the entire continuum from independent living to assisted living to nursing care, in different combinations depending on the types of facilities. Compared to other senior living arrangements, CCRCs usually have a greater independent living component: The typical mix for a single-site project might include 65 percent independent living units (ILU), 20 percent assisted living units (ALU), and 15 percent nursing,[5] with independent living accommodations ranging from small studios to large, three-bedroom suites or stand-alone cottages. In some cases, the nursing home component may be contracted out to a third-party facility.

How significant is this sector? According to a Special Committee report from the U.S. Senate,[6] dated July 21, 2010, about 1,861 CCRCs are operating in the United States, and the number of older adults living in CCRCs has more than doubled from 350,000 in 1997 to 745,000 in 2007. Within the tax-exempt market, according to Thomson Financial, the aggregate amount of nonprofit senior living financings rose steadily from $1.5 billion in 1990 to just over $5 billion by 1999. Reflecting a general retrenchment in the high yield municipal market around the turn of the century, issuance dropped off dramatically to the $2–3 billion range for the next five years and it was not until 2005 that senior living new issue supply started climbing again, this time peaking at a historical high of $7.4 billion in 2007. The 2008 global financial crisis brought with it another crash in issuance, and senior living new issue supply has since hovered around the $2 billion mark per year. The relative stability of the financial markets during 2010 allowed the supply to tick up slightly, to about $2.6 billion, but the total for 2011 is not likely to exceed $2 billion due to an overall contraction in municipal bond issuance. Even at $2 billion, the not-for-profit senior living sector still represents less than 1 percent of total annual municipal issuance in 2010, with the majority of issues coming to market as unrated high yield issues.

In exchange for their services, entrance fee CCRCs collect from their residents (1) a large upfront fee (a kind of membership buy-in fee, which may be fully or partially refundable) and (2) a monthly service fee, either full or discounted. CCRC residents enter into a contract that remains in effect as long as they live at the community, which is usually for the rest of their lives. The entrance fee contracts typically fall under three types: A, B, and C (not to be confused with personality types!). Type A, the "Extensive" or "Life Care" contract, includes all housing, amenities, and unlimited health services for the same monthly fee. Type B, the "Modified" contract, also includes housing and amenities, but only covers a specified amount of assisted living and nursing

services. After the allowable amount of care is used, the resident will pay either a discounted or a full market rate for additional care. Type C is a fee-for-service (FFS) agreement, a contract that provides for housing and residential services for a specified fee; residents have access to assisted living and nursing beds and pay the full cost for each level of care as needed.

Because of the all-inclusive nature of its contract, a Type A project is viewed as having an insurance type component, since it is basically providing for all future resident health care costs for a fixed fee. In recognition of this fact, many life care facilities typically charge higher entrance fees, which they amortize (i.e., earn out) over the life of the resident contract, and generally show greater reliance on earned entrance fees than monthly service fees, as compared to the other contact types. Note that all entrance fee communities amortize the entrance fee, not just life care communities; the size of the entrance fee is determined more by the target market than by the contract type (i.e., high end versus middle market). When the same community offers both a life care and a fee-for-service option, the difference may be made up with different monthly fees rather than different entrance fees. For example, Westminster at Lake Ridge in Virginia charges an average of $2,848 for its FFS plan and $3,614 for its life care option. The higher monthly fee while the resident is in an ILU subsidizes later health care needs, so the subsidy for health care does not have to all come from the entrance fee.

Overall, in response to current market conditions, CCRC business models are evolving quickly to allow for greater customization of all fee arrangements to accommodate the timing and financial needs of individual residents, resulting in a blurring of the lines between the different types of contracts.

The collection of the advance entrance fee and its wide range of refundability options has a very unique and significant impact on the CCRC's cash flows, due to the fact that a significant lump sum is received at the time of resident move-in. In order to fairly assess a CCRC's financial condition, one must become familiar with the accounting treatment for entrance fees and how they flow through the balance sheet and income statements. Professional analysts back out amortized entrance fees and add back cash entrance fees, net of refunds. They will also distinguish between entrance fees from the initial move-in (first-generation entrance fees) and subsequent entrance fees received from turnover and resale of the unit.

Moving on to credit considerations, the CCRC sector is subject to a unique combination of real estate risk and health care risk.

A CCRC is, first and foremost, a residential project with a strong hospitality component and some health care component. In this regard, all

the typical housing-related credit issues, such as presale level, projected market penetration, potential competition, and so on, would apply. Presale level, measured by the percentage of projected units that have been reserved through payment of a 10 percent deposit, is considered a critical variable in evaluating a new campus project. A thorough review and validation of presale statistics is essential, as many projects would not be eligible for bond financing until they reach 65 to 70 percent presale levels. As for the projected penetration rate, one must first get comfortable with the definition of the target market area, as detailed in the project feasibility study. Assuming the market area is reasonably defined, a penetration rate between 5 and 10 percent is considered good, while anything in excess of 15 percent may be cause for concern. (Note: Some markets, particularly in Pennsylvania, show a high degree of acceptance for this product and may justify higher penetration rates.) Furthermore, potential investors should assess the local competitive landscape in terms of fee structure as well as level of amenities and services offered. In the end, everything in real estate does come down to location, although a strongly conceived project may overcome a weak location. As a case in point, The Moorings in Naples, Florida, is the highest-rated CCRC issue ever by S&P (A+), this in spite of the disastrous real estate market conditions throughout the state.

New campus CCRC projects are affected by some additional risk factors, including construction risk, fill-up risk, and financing risk. Assessing construction risk involves asking the same questions as for any housing project: One must inquire about the contractor's financial status and experience, the maximum price contract, any cost contingencies, and so forth. That said, the typical CCRC credit is at its most vulnerable during the fill-up phase, not during construction. This is where many projects have run into trouble in recent years. While moving into a CCRC has always been a lifestyle choice, most potential residents need to sell their existing house before they move into a retirement facility. Unfortunately, the recent (and arguably still ongoing) housing market crash has left many seniors unable or unwilling to sell their house at current depressed prices. Many have also seen their investment portfolios decline due to recent volatility in the financial markets. This has resulted in much slower move-in rates at newer CCRC projects, as more potential residents explore alternative options such as home health care or moving in with relatives. The inability to fill up the IL units within a reasonable time frame is the major cause of financial stress (and potentially default) for a new CCRC. (Occupancy is certainly a key driver for established CCRC credits also, and the last few years' unfavorable real estate market conditions have driven average occupancy rates down to only

about 90 percent currently, well short of the ideal 95 percent stabilized occupancy rate.)

As a start-up CCRC moves from the construction phase to the fill-up phase, its financing structure may also pose some degree of risk. The typical CCRC bond issue comes to market with a structure that combines temporary and permanent debt components. The temporary debt is expected to be repaid by the significant upfront cash flow from entrance fee deposits. Prior to the 2008 market crisis, the temporary debt was usually financed with variable rate demand bonds (VRDBs) enhanced by bank letters-of-credit. Banks may provide the short-term piece through a variable rate LOC-backed bond or construction loans, but other structures such as adjustable rate bonds have also been used. The balance of the project's leverage comes from "permanent," long-term debt, structured with level debt service and a final maturity of around 30 years.

Separate from the financing structure for start-ups, many stabilized CCRCs have also kept a portion of their debt in variable rate mode. Because these are cash-rich organizations, for the most part, their investments provide a natural hedge to the variable rate debt. Therefore, keeping a portion of the community's debt in variable rate mode may make sense from a policy perspective, particularly given how low short-term interest rates have been. Since 2008, few start-ups have been financed due to continued uncertainty over demand. Those that are being financed may use taxable construction loans or other structures rather than VRDBs, with more regional banks stepping in to replace the national bank players that have exited the sector.

In spite of the significant real estate risk component, the market convention has been to classify retirement facilities in the health care sector, based on the health care service component of resident contracts. In a way, once a CCRC facility has reached stabilized occupancy, the main credit concern for an investor becomes whether or not the entrance fees collected upfront (and part of the IL monthly fee) will be adequate to meet the actuarial health care liability incurred under the resident contract. The standard risk factors for any health care provider would apply here, such as the payor mix (i.e., private pay versus Medicare) and the outlook for federal reimbursement programs. Even assuming the housing market heals at some point, health care reimbursements and the generally rising costs of health care may become the next area of vulnerability for CCRCs, in light of current budget-cutting efforts at the federal and state levels and the uncertain effect of health care reform, if and when it goes into effect.

The project's ownership structure and its relationship to the developer or operator may also be a source of problems. The 2009 bankruptcy of

Erickson Retirement Communities is an interesting case in point. As a major national developer, with about 19 CCRC projects throughout the United States, Erickson had devised for itself a byzantine corporate structure, with complex interactions among all its various subsidiaries, some of which were involved in developmental activities, others in project management. Without going into all the complexities of the case, the company was overextended financially just as the financial markets and by extension, the housing market, went into a tailspin in 2008. The dependency on bank financing in combination with a weakening economy triggered bond defaults for several of the CCRCs the company had under development, including Monarch Landing and Sedgebrook in Illinois and Linden Ponds in Massachusetts. The Erickson bankruptcy affected more than half a billion dollars of tax-exempt and taxable municipal debt, mostly held by large mutual fund complexes but also by retail investors. Many of the defaulted issues have by now been restructured. In the end, the Erickson situation was unique in many ways and certainly not representative of the rest of the industry.

One additional risk factor seldom mentioned is tax risk. Most CCRCs set up their ownership and corporate structure with a view toward limiting their tax liabilities. Some assume their nonprofit status would automatically grant them exemption from local property taxes, for example. Local taxing authorities have been known to disagree with that interpretation, and in some cases have tried to collect back taxes, creating an unscheduled financial burden on the CCRC. In the same vein, the tax treatment of entrance fees has been the subject of some controversy.

A common issue facing an investor in health care projects, from hospitals to CCRCs, is the implicit legal protection enjoyed by patients and seniors. Our social compact mandates that their needs will always take precedence over investors' rights, regardless of what the legal documents may say. Furthermore, under federal bankruptcy law, a nonprofit corporation cannot be forced into bankruptcy by its creditors (an involuntary bankruptcy), per Section 303(a) of Title 11 of the United States Code. It can always, of course, voluntarily file.

Given all the risk elements mentioned above, CCRCs should be considered pure revenue bonds. Revenues must be collected in a sufficient amount to cover debt service. However, unlike a municipal water and sewer system revenue bond, a CCRC is not an essential service. If the project goes out of business, the infrastructure may have few alternative uses, leading to low recovery value on the bonds.

Needless to say, the last few years have been challenging for the senior living industry. The number of start-up financings has fallen, not due to a lack

of access to bank capital as commonly believed, but due to low demand as a result of the weak real estate market as well as the higher cost of financing in this sector due to widening credit spreads. Nevertheless, recent data from 2010 do show signs of stabilization: The median net operating margin ratio at the facilities tracked by the Continuing Care Accreditation Committee of the Commission on Accreditation of Rehabilitation Facilities (CARF-CCAC) has continued to trend upward over the past decade. This reflects management's efforts to squeeze as much operational efficiency as possible in a difficult market environment, reducing reliance on entrance fee cash flow. The rebound in the capital markets in 2010 also helped, as many CCRC credits do rely significantly on investment income. On the flip side, one might say all the low hanging fruit has already been picked, and further margin improvements will depend on achieving higher occupancy levels in the face of a depressed housing market. Renewed volatility in the financial markets would further adversely impact providers who remain overly dependent on investment income.[7]

At the end of the day, the CCRC sector displays some of the same issues as the nonrated tax-exempt sector as a whole. In a typical single-facility project, once all short-term debt is paid off, the bond financing represents the entire capital structure. (Corporate debt holders, for instance, normally would have some equity cushion underneath them. In some instances, the simplified capital structure may actually work to the benefit of the bondholders during bankruptcy proceedings, as seen in the famous National Benevolent Association case, discussed in Chapter 8). The granting of a first mortgage lien or other hard asset collateral does mitigate this risk, although it also raises the issue of what alternative use is available for such collateral (CCRCs often have too many non-revenue-producing common areas to work efficiently as a stand-alone housing project).

Potential investors must ask themselves whether or not they are adequately compensated for their risk, particularly in the new issue market. Some may choose to participate in this sector only as a distressed buyer looking for asset recovery value. Being aware of the credit cycle would certainly make a difference: It can be argued that today's environment is much more propitious than the one that existed during the real estate bubble years of 2005 to 2007, with spreads on new startup CCRC deals now reportedly back in the 400 to 500 basis points off AAA range. However, no amount of yield can make up for poor fundamentals, and investors are well advised to ensure that future demand adequately reflect the sobering realities of today's housing and financial markets. In the meantime, there is no doubt the senior living industry is doing its best to adapt its business model to the tougher post-2008 market environment.

Notes

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Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

CHAPTER 11

Special Types of High Yield Municipal Bonds*

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The two sectors discussed in this chapter, tobacco settlement bonds and land-secured bonds, are not considered part of the usual arsenal for the typical high yield tax-exempt investor. Rather, they have been used by more aggressive institutional investors with portfolios large enough to provide proper risk diversification. Tobacco settlement bonds could be quite volatile and their liquidity limited. Land-secured bonds are effectively illiquid real estate transactions, which require extremely sophisticated credit research and surveillance efforts, and even some of the largest mutual funds in the country have stumbled badly in this sector.

Tobacco Settlement Bonds

Securitized tobacco settlement bonds originated in 1999, the year after 46 states and several U.S. territories agreed to settle class action suits against

*Richard Larkin of Herbert J. Sims contributed the section on tobacco settlement bonds. Shannan Wilson of Alprion Capital contributed the section on land-secured bonds.

many, but not all, of the companies that manufacture and ship cigarettes within the United States in return for annual payments totaling billions of dollars, as well as other terms that restricted marketing by companies that agreed to the settlement. The settlement is known as the Master Settlement Agreement, or MSA.

Tobacco settlement bonds are not paid from cigarette taxes. The money to pay the bonds comes from the legal settlement. The settlement protects cigarette companies from state lawsuits for medical costs associated with diseases linked to tobacco use.

Does that mean cigarette companies are immune to lawsuits tied to tobacco use? No. Tobacco companies can still be sued by individuals and class actions for health damages from tobacco use; the history of the last 10 years, however, shows that tobacco companies have been very successful in defending against suits brought by individuals and groups in class actions. In 2004, the major cigarette manufacturers lost a suit by the U.S. Department of Justice (DOJ), but successfully avoided over $280 billion of penalties sought by the government. Many individual and nonstate-originated class action lawsuits remain outstanding, which could damage the future profitability of tobacco manufacturers in the United States.

Since 1998, states have been collecting between $5 and $7 billion every year. The funds are divided up among the states based on a formula agreed to in 1998. In addition to annual payments, the states and territories are to receive "strategic" payments from 2008 through 2017; the formula shares for strategic payments are different from the shares calculated for the annual payments. At their original amounts, the settlement called for total annual payments starting at $4.5 billion and eventually rising to $9 billion starting with the first year of strategic settlement payments in 2008.

When will the payments run out? In theory, there is no ending date for payments; the payments could be made in perpetuity. However, there are also several calculations that must be made each year, because payments are affected by the amount of cigarettes shipped within the United States and are automatically increased by an inflation factor based on the consumer price index (CPI), with a minimum inflation factor of at least 3 percent per year.

While the inflation adjustment would automatically guarantee an annual increase of 3 percent or more, the larger adjustment factor remains the change in shipments by U.S. manufacturers. Roughly speaking, if the participating tobacco manufacturers see declines in cigarette shipments because of reduced consumption, their total payments would also be reduced proportionately. So, if tobacco shipments stay the same in a given year, total MSA payments would increase by the CPI factor, but no less than

3 percent. If shipments decline at a rate greater than the CPI, then states and territories will receive lower payments than in the prior year. This has been the case for nearly all years since the settlement was signed in 1998, and it is one of the biggest reasons why total annual MSA payments have only ranged from $5 billion to $7 billion, despite the MSA's original target of $9 billion by 2018 (see Table 11.1).

Table 11.2 shows the continuation of a trend of higher-than-expected shipment declines since the settlement was signed in 1998. The compound annual rate of shipment declines, as measured by the Tobacco Tax Bureau, has been –4.19 percent annually since 1998; projections used by the issuers of these bonds since 1998 have been more optimistic, assuming cigarette shipment declines would be less than 2 percent annually.

Until 2010, the actual shipment numbers used by the states and manufacturers were held confidential; beginning in 2010, the National Association of Attorneys General (NAAG) has been publishing the data in the Tobacco Project section of their web site (www.naag.org). During the course of the year, individual company and summary industry shipments data can be found in the 10Q SEC reports of Philip Morris, Reynolds American, and Lorillard; in addition, the U.S. Tobacco Tax Bureau (TTB), which collects actual franchise taxes on cigarettes shipped within the United States, publishes annual and monthly shipment data in the statistics section of its web site, www.ttb.gov/tobacco/tobacco-stats.shtml.

There are two other factors that can affect the future flow of settlement revenue needed to repay tobacco bonds, besides reduced smoking consumption: shifts of tobacco sales from the participating companies to companies that refuse to sign the agreement (these shifts would be captured in the reduced shipments by participating companies), and the nonparticipating manufacturer adjustment, known as the NPM adjustment, which is written into the MSA's terms. Virtually unused from 1999 to 2004, this adjustment has significantly reduced cash payments to the states by $3.1 billion since 2004.

Since 1998, participating states have passed laws that require companies that do not sign the settlement (nonparticipating manufacturers, or NPMs) to pay substantial sums of money into state-owned escrow accounts. Those payments can be used to mount lawsuits against the nonsigning companies and are comparable to what those companies would have paid if they had signed the agreement. The participating tobacco companies wanted this structure so that they would not be at a competitive disadvantage to companies that could sell cigarettes more cheaply because they were unburdened by MSA payments. Companies that have not signed the MSA have seen their market share increase since 2007, as seen in Table 11.3. Cigarettes sold

TABLE 11.1 Total MSA Payments to States 1999-2011 ($ billion)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Amounts Paid	$3.900	5.962	6.394	7.024	5.863	6.287	6.376	5.832	6.070	6.991	7.647	6.393	6.036
Percent Change	n/a	52.9%	7.2%	9.9%	(16.5%)	7.2%	1.4%	(8.5%)	4.1%	15.2%	9.4%	(16.4%)	(5.6%)

Source: National Association of Attorneys General

TABLE 11.2 U.S. Domestic Cigarette Shipments (billions of cigarettes)

	MSA	Percent Change	TTB	Percent Change	NAAG OPM	Percent Change	NAAG Total
1997	$528.3	N/A	$508.6	N/A	N/A	N/A	N/A
1998	504.0	–4.60%	456.7	−10.22%	N/A	N/A	N/A
1999	458.6	−9.00	434.5	−4.86	409.0	N/A	$441.7
2000	459.1	0.10	422.5	−2.76	402.7	−1.55%	435.9
2001	444.4	−3.20	412.1	−2.46	384.2	−4.58	429.4
2002	427.9	−3.70	395.2	−4.09	365.2	−4.94	417.9
2003	406.1	−5.10	376.7	−4.70	344.7	−5.64	404.1
2004	398.8	−1.80	375.6	−0.29	339.1	−1.61	404.4
2005	385.2	−3.40	363.0	−3.36	332.1	−2.08	390.3
2006	376.0	−2.40	364.6	0.44	327.1	−1.49	391.2
2007	357.2	−5.00	348.3	−4.46	312.4	−4.50	372.6
2008	345.3	−3.33	335.4	−3.71	300.2	−3.92	358.3
2009	315.7	−8.57	397.9	−8.19	269.1	−10.35	325.2
2010	303.7	−3.80	292.8	−4.93	258.4	−3.96	304.3
	Compound Annual Rate of Decline	−4.19%		−4.16%		−4.09	

Sources: Reynolds American 10-K report; Tobacco Tax Bureau; National Association of Attorneys General

outside of the MSA payment structure work to reduce MSA payments needed to repay tobacco bond debt.

The NPM adjustment acts to protect the manufacturers. If it can be determined that more than 2 percent of market share is captured by companies that did not sign the agreement, and an independent arbitrator determines that the lost market share was caused by the terms of the MSA, then manufacturers could be entitled to see their payments reduced by as much as three times the amount of the lost market share (less the 2 percent).

There is a clause in the NPM adjustment that protects states and territories as well. In any year when an arbitrator has ruled that the terms of the MSA did indeed contribute to lost market share, a state can be exempted from paying its share of the adjustment if it can prove that it "diligently

TABLE 11.3 Tobacco Manufacturers' Market Shares (2003 to 2010)

	Sales Year 2003 (payment year 2004)	Sales Year 2004 (payment year 2005)	Sales Year 2005 (payment year 2006)	Sales Year 2006 (payment year 2007)	Sales Year 2007 (payment year 2008)	Sales Year 2008 (payment year 2009)	Sales Year 2009 (payment year 2010)	Sales Year 2010 (payment year 2011)
Original Participants (Altria, Reynolds, and Lorillard)	84.48%	84.83	85.16	84.63	85.66	84.15	83.63	83.95
Post-1998 Participants	9.64%	8.95	9.01	9.82	8.77	9.72	10.13	9.60
Nonparticipating Participants	5.87%	6.21	5.83	5.55	5.57	6.14	6.34	6.45

Source: National Association of Attorneys General

enforced" the other terms of the MSA as it applies to the nonparticipating manufacturers. Simply put, if a state can show that it required all nonparticipating manufacturers to pay into the state medical escrow fund for all cigarettes sold within the state, the refunds due would only be paid by those states that could not prove "diligent enforcement."

Tobacco companies have sought refunds and have withheld $3.5 billion of payments to the states based on the NPM adjustment for every year beginning with the 2003 sales year. Arbitrators have ruled that market share was lost in 2003 and that the MSA contributed to that loss. There have been other arbitrator rulings for years after 2003; however, there have been no arbitrator rulings on whether states "diligently enforced" the other terms of the MSA. It is estimated that from 2004 through 2011, $7.2 billion of payments have been challenged under the NPM adjustment. Through September 2011, it is estimated that $3.5 billion has been held back from the states and territories, sequestered in a disputed escrow fund.

How Are Tobacco Bonds Structured?

One of the challenges in creating a tobacco bond structure is the uncertainty over future settlement revenue because of factors like declining consumption and NPM disputes. Since 2005, the "turbo" structure has been the structure most used by tobacco bond issuers. Typically, bond interest and principal retirements are first established using a base case scenario of future cigarette shipments. The base case scenario most frequently used is an assumption that cigarette shipments will decline at an average rate of about −2 percent per year, based on long-term econometric projections made by nationally known economic forecasting firms. If MSA payments exceed expectations, then surplus funds each year are used to retire debt early on an accelerated basis, leading to the term *turbo* (or supercharged) early debt redemptions.

In actuality, shipments have been declining by more than −2 percent per year for several years now (see Table 11.2). Investors also need some cushion for error, so most first-lien bonds have been structured to be able to withstand a worst-case scenario of −4 percent annual shipment declines and still be able to pay full principal and interest when due. The uncertainty over future consumption declines is mitigated by the turbo feature, where the issuer uses all excess cash flow in a given year to retire bonds early. So, if debt service for Tobacco Bond A is $10 million of interest and a serial maturity or mandatory sinking fund retirement is also $10 million, but this year's annual payment to that state is $20 million, the excess of $10 million is used to redeem bonds early, reducing the risk of revenue shortfalls in later years.

A lack of early redemptions increases the risk that interest-bearing bonds will remain outstanding for too long, increasing future debt service costs at a time when revenues may be declining because of shrinking consumption. Investors who paid up for a shorter average life on the bonds may end up with a longer maturity than they initially assumed. This is usually referred to as extension risk.

As an additional security feature, tobacco bonds usually contain debt reserve funds equal to a full year's debt service. This reserve can help smooth temporary shortfalls caused by revenue fluctuations but is not designed to withstand long-term trends of greater than average shipment declines. The earnings on reserve funds and debt service funds held for the second-half maturity can be significant; many structures created between 2005 and 2007 assumed debt reserve earnings of 4 percent annually or more.

What Has Been the Experience with Tobacco Securitization Bonds?

Prior to 2003, some tobacco bonds had been rated as high as the AA category, because of what were believed to have been conservative projections of consumption declines. Long-term tax-exempt bonds issued in those early years carried interest rates of 6 percent annually or higher. In 2003, a threat of bankruptcy by Philip Morris, which was contesting a $10 billion lawsuit in Illinois, brought tobacco bond issuance to a halt; two issues sold that year by the states of California and New York needed state general fund backing in order to successfully market those bonds. Tobacco bond prices also took a significant hit as a result of the Illinois ruling. Tobacco bond ratings began to drift downward to the A and BBB/Baa rating categories. The market continued to lie dormant in 2004, as the Department of Justice's $280 billion fraud and racketeering suit against the manufacturers came to a head in 2004. By early 2005, however, the tobacco manufacturers had won some crucial battles; large class action suits in Florida and Illinois were overturned on appeal, and the U.S. government was precluded from levying $280 billion in penalties it was seeking in the DOJ case. In fact, the manufacturers were found guilty under the Racketeer Influenced Corrupt Organizations Act (RICO) in 2006, but financial penalties were minimal.

Despite continued pressure on smoking consumption brought on by continual state tax hikes and tougher antismoking legislation, tobacco bond prices recovered and issuance flourished between 2005 and 2007. By that time, relatively low 5 percent coupons could be regularly found on tobacco bond maturities of as long as 40 years. The first disclosures of the nonparticipating manufacturers' (NPM) dispute in 2005 also failed to dampen

investor appetite for this structured security. This represented the tobacco bond market at its peak.

The market began to sour toward the end of 2007 for three reasons: a record-sized issue by Ohio's Buckeye Authority, continued revenue shortfalls because of a second year of the NPM dispute, and a spike in the decline of cigarette consumption from less than −2 percent to −5 percent. By 2008, there was talk of a large federal tax increase of 61 cents/pack, the size of which would certainly reduce consumption; in March 2009, the tax increase became a certainty, and consumption that year declined a near-record −9 percent. Another higher than average shipment decline of about 5 percent in 2010, a sixth consecutive year of NPM withholdings and shortfalls, and a first-time withholding of NPM dispute funds by the largest manufacturer, Philip Morris, created a "perfect storm" that led to revenue reductions of −16.4 percent and −5.6 percent in 2010 and 2011. Through August of 2011, there has been only one sizeable tobacco bond issue (Illinois' Railsplitter issue in late 2010). The Railsplitter issue was structured with a much shorter average maturity, around 10 years, to address investor concerns about the longer-term outlook for cigarette consumption.

Since 2007, bond ratings increasingly came under negative pressure, as rating agencies slowly began to recognize that consumption declines were exceeding expectations and jeopardized cash flow needed to repay tobacco bond debt. S&P began lowering tobacco bond ratings below investment grade in the fall of 2010; Moody's lowered the ratings on many long-term tobacco bonds to as low as B3 and Caa1 in September 2011. (Note: Moody's approach assumes that shorter-term maturities are more likely to be repaid and thus carry higher ratings.)

What Is the Outlook for Tobacco Bonds after 2011?

Analysis by Herbert J. Sims's Dick Larkin in September 2011 indicated that revenue shortfalls caused by higher than expected consumption declines and the ongoing NPM dispute from 2005 through 2011 could lead to debt payment defaults as early as 2024. In 2011, higher than expected consumption declines, NPM disputed withholdings, and reduced investment earnings on reserve funds caused three tobacco bond issuers (California, Ohio, and Virginia) to invade debt reserves just to meet minimum required principal and interest payments that year.

Cigarette consumption declines, which may stabilize for 2011, should be expected to continue at a base rate of at least −4 percent annually, because of continued state cigarette tax hikes that raise prices, as well as the

TABLE 11.4 Selected Tobacco Bond Outlooks, 2011

	Sold Prior to 2005		
Issuer	RI	LA	WA
State	Rhode Island	Louisiana	Washington
Original Par Issuance	$1,591,095,000	$1,202,770,000	$517,905,000
Year Issued	2002	2001	2002
Final Maturity	2042	2039	2032
Predicted Performance			
Continued –4.0% annual shipment declines, no additional NPM reductions	All Maturities Paid By 2042	All Maturities Paid By 2025	All Maturities Paid By 2026

Sold After 2005					
Issuer	GOLDEN STATE Unenhanced	TSASC	NJ	BUCKEYE	VA
State	California	New York (New York City)	New Jersey	Ohio	Virginia
Original Par Issuance	$4,096,322,591	$1,353,510,000	$3,436,225,000	$5,212,146,138	$1,052,185,000
Year Issued	2007	2006	2007	2007	2007
Final Maturity	2047	2042	2041	2047	2047
Predicted Performance					
Continued –4.0% annual shipment declines, no additional NPM reductions	49% of 2033 maturity defaults; 100% of 2037 maturity defaults; $1,574 million of 2047 seniors (80%) and $3,665 million of subordinates unpaid in 2047; debt service reserves drawn starting 2011 & 2016	14% of 2034 maturity defaults; $297 million of 2042 maturity (53%) defaults; debt service reserve drawn starting in 2026	22% of the 2029 maturity defaults; $1,176 million of the seniors and $1,281 million of subordinated remain unpaid by 2041; debt service reserves drawn starting 2023	30% of the 2024 maturity defaults; $2,768 million of seniors (representing 2037s, 2042s, and 2047s) and $3,207 million of subordinates unpaid by 2047; debt service reserves drawn starting 2011 & 2016	91% of the 2046 maturity defaults in 2046; $990 million unpaid by 2047 (representing both 2046 & 2047 maturitites)

continued onslaught of city and state antismoking measures to reduce or eliminate smoking in public places. These measures have spread to laws banning smoking in outdoor venues, such as parks and beaches, and are even threatened to extend to enclosed personal spaces such as a smoker's car or apartment.

The NPM dispute, starting in 2005, has already reduced cash flow for tobacco bonds and may continue for years. A proposal to settle this dispute was floated in mid-2011, but it was rejected when it was apparent that there was insufficient consensus among participating states. Table 11.4 indicates that, unless consumption declines moderate to less than −4 percent per year, and unless the NPM dispute is resolved to free disputed NPM adjustment funds to the states, defaults on tobacco bonds could begin as early as 2024. These projections are fraught with uncertainty. If states have the NPM dispute resolved in their favor, tobacco bond default risk will dramatically improve, because the withheld funds will then be returned to the states. If the tobacco manufacturers prevail, cash flow will deteriorate further, and defaults could accelerate and occur prior to 2024.

Investing in tobacco bonds, at the least, is not for investors who are faint of heart. This sector has historically been characterized by extreme volatility, with yield levels on the longest maturities moving by 30–50 basis points in a matter of days in either direction, depending on the latest news. As such, tobacco bonds with maturities exceeding 10 years may be best suited for sophisticated institutional investors.

Land-Secured Bonds

Land-secured bonds, or "dirt" bonds, are a local infrastructure financing method used to fund real estate improvements and infrastructure projects for both new and existing communities. The proceeds from the bonds fund many types of projects in residential, commercial, or industrial developments, with eligibility varying from state to state. Projects can include but are not limited to water and wastewater systems, irrigation, drainage and flood control, solid waste collection and disposal, utility lines, sidewalks, streets, parks, landscaping, and recreational facilities. The colloquialism "dirt bond" comes from the fact that the bonds are often issued to finance projects to be built on raw land.

Local governments have a broad mandate to provide infrastructure to their citizens. However, most are constrained and do not have sufficient resources to extend services and resources, as new infrastructure requires

large upfront capital costs. Additionally, many states have constitutional or statutory debt limitations and voter approval requirements on tax-supported debt. These restrictions serve to insulate general obligation pledges, but make it difficult to finance the needed infrastructure because, even though new development will likely increase land values and the tax base of the locality, the resulting revenue to pay for the ongoing costs of providing public services to the new development will not be generated until after it is up and running. Dirt bonds provide a solution to this fundamental resource mismatch by providing "off-balance-sheet" financing for infrastructure needs.

Dirt bonds are issued through specifically created taxing districts. The bonds rely on a dedicated stream of assessments or tax revenue levied on the improved properties to pay debt service, thereby deriving revenues from property owners who directly benefit from the improvements. These levies are billed and paid with the property taxes, pari passu with governmental liens and senior to private liens. In the event of nonpayment, enforcement is often in the same manner as the collection of delinquent property taxes—after continued nonpayment of levy and penalties past a certain due date, the property will be subject to the jurisdiction's tax sale procedures; some structures, however, allow districts to foreclose in the manner of a mortgage, pari passu with taxes, but not relying upon tax certificates. The bonds usually only directly obligate taxpayers inside of the improved district and vary between general obligations (tax rates are increased across property evenly to pay debt service) and special obligations (debt service is paid from specific assessments/taxes on specific lands; the burden to pay debt does not ever change).

Financing Structures

Circumstances and the laws for issuing dirt bonds vary from state to state. However, there are three primary types of taxing districts used to support development of infrastructure—special assessment districts, special tax districts, and tax increment financing (TIF) districts:

Special Assessment Districts. Bonds are secured by assessments levied on units in the district. The total size of the assessment is not usually based on the value of the property but on the benefit derived from the improvement. Often, the assessment amount cannot be changed once it is set. Special assessments are not ad valorem taxes, but limited obligations of the district that are pari passu with other governmental liens. Examples of special assessment districts include Florida community development districts and California Act 1915 districts.

Special Tax Districts. Bonds are secured by taxes apportioned to recover the cost of the public improvement, outside of typical ad valorem taxes. The amount of tax is often tied to the value of the property. These taxes have the same priority as other government liens. Examples of special tax districts are Mello-Roos community facility districts, Texas municipal utility districts, and Colorado metro districts.

TIF Districts. The TIF district financing structure is used to capture new tax revenues generated from increased property values expected to result from development. TIFs can be project specific or area-wide and are usually secured by ad valorem taxes. The tax base for the designated area is appraised before development begins; all subsequent increases in appraisal value is attributed to the TIF district; and the difference between the original tax base and the subsequent appraised value is the incremental revenue that secures the bonds. Properties in the TIF district are assessed in the same manner as other properties and taxed at the same rate; any increases in taxes are deemed to be a result of the increase in value derived from the improvements. The security for the TIF bonds comes from this increased tax revenue. The bonds may also be secured by other dedicated tax revenue streams not related to value.

Credit Analysis

Land-secured bonds often begin as unrated, high yield bonds. This is because most dirt bonds are issued to improve raw land and are a gamble on tax base growth where the debt burden is initially held with one or a few developers and eventually transferred to commercial tenants or home buyers. Dirt bonds should be carefully evaluated. While by no means an exhaustive list, following are some key credit factors used to analyze dirt bonds.

The Project and the Developer

The Developer. Until development of the land takes place and units are sold to end users, payments of assessments or taxes that secure the bonds are substantially dependent on the initial landowner, which is in most cases the developer. The financial strength of the developer, ability to finance the project and capital resources, development experience, current and historical litigation, and reputation are all critical variables. More than one developer can reduce some of the

concentration risk, but all developers should be analyzed and concentration risk should be weighed against developer risk. It should be noted that most developers are bankruptcy-remote, special-purpose entities (SPEs) created for the exclusive purpose of developing a specific district. These SPEs are rarely well capitalized and have very little disclosure. Dirt bond liens are typically in rem (against the land) and have no recourse to any landowner, other than seizure of the property.

Level of Development. The credit profile of land-secured bonds increases as the development proceeds; as such, the level of development at the time of issue can reduce some of the risks associated with land-secured bonds. It is crucial to understand the construction plan and how interruptions to the construction plan can affect bond payments. Construction delays and cost overruns can often affect the timing and amount of cash flows expected from the project. Proof of parent guarantees, performance bonds, or other forms of performance surety that ensure the developer is as close to budget and schedule as possible are a plus and can alleviate some of the risk associated with construction. Additionally, as raw land is improved, valuation improves, reducing leverage. Phasing of the development is also important to monitor. In a system-wide improvement program, it is good to know that each acre burdened with debt will receive the same (cash) benefit as the next. It is critical that there is not a large disconnect between your assessment/taxing area and the bond proceeds that go into the ground; the lower the leverage, the less this generally becomes an issue.

Type of Development. Assessment districts can be one of three types: residential, commercial, industrial, or some mix of the three. Industrial and commercial developments tend to have fewer "end users," increasing the concentration risk of the revenue base, whereas residential developments tend to have a much larger, more diversified tax base.

Location of the Development. An understanding of the dynamics of the underlying local economy (such as population growth, employment trends, employer diversity, etc.) and proximity to employment centers and major transportation hubs should be evaluated.

Composition of the Board. In some states, the board is controlled by developers either directly, or by elected members that are highly sympathetic to developer concerns and issues. In the event of default, this can become particularly challenging since it is the district (controlled by the board) that must take action to recoup value in the bonds.

The Levy

Size of Levy. Heavy assessments or property taxes relative to total value of the property can be a discouragement to sales; the levy-to-value ratio should be compared with that of other properties outside the district in the surrounding area.

Levy Flexibility. Some assessments are fixed in size and cannot be adjusted once set. Any flexibility to increase revenue in the event of collections delinquencies is a positive.

Loan-to-Value Ratios. Analysts should analyze the total debt burden (all overlapping government debt, mortgages, etc.) to value ratio to understand the owner's equity in the property; less "skin in the game" encourages property owners to walk away. Foreclosure sales can take up to two years in some districts, which can drastically impact the sale as the property accumulates penalties and fees throughout the process. As those fees climb compared to the value of the land, it becomes more difficult to find buyers. Additionally, market conditions or project-specific issues can depress land values. Loan-to-value ratios should take into account various scenarios and be sized accordingly.

Method of Collection. Some structures do not have provisions for "off-roll" (direct collections). Direct bill and foreclosure (or the option) gives bondholders more flexibility than having to rely on the county tax process. The problem of this inflexibility becomes magnified as leverage rises and a deal goes south.

Structure of the Deal

Reserve Funds. Bond interest is often "capitalized" or funded by bond proceeds to cover debt service during the initial stages of the project when revenue is pending the development of the project and resulting increased property values. Additional reserve funds are also funded to cover potential shortfalls due to longer construction periods or lower than expected revenue postconstruction. Analysts should look for mandatory debt service reserve funds that at least provide for maximum annual debt service to provide a cushion in the event of reduced collections; if you have done your homework, there should be some level of revenue to pay debt service. This will lengthen the workout period before a monetary default

Coverage Ratios. Bonds should be sized so that there is ample room to maintain debt service in the event of increased delinquencies.

Additional Bonds Limit Test. The test would limit the issuance of additional bonds until the required revenues exceed projected debt service requirements for both the outstanding issue and the proposed issue by a certain ratio.

Foreclosure Covenants. The district should covenant to foreclose against delinquent property owners as municipalities often have no legal general obligation to pay bond debt if revenues from respective taxes or assessments are insufficient (due to delay or any other reason); ultimately bondholders may waive this obligation and work out a deal, but it is important to start quickly and out of obligation. Often, foreclosure is a time-consuming process, which varies from state to state and can take up to two years in some cases, as mentioned above; strong foreclosure provisions include a quick remedy to tax delinquency (often a mortgage and a quick take deed are used to enhance the ability to get back land).

Large Land-Secured Bond Markets

California and Florida are the two largest issuers of land-secured bonds and are the two states that have been hardest hit by the real estate market downturn that began in 2008. Foreclosure activity in both states skyrocketed to all-time highs and home prices collapsed, putting pressure on land values and the absorption rate of units. California Mello-Roos bonds have weathered the storm fairly well, while the market has seen a wave of defaults in Florida community development district bonds.

California

California issues several types of land-secured bonds; Mello-Roos consist of the large majority, followed by tax allocation bonds. Although the California housing market has been hit hard by the economic downturn, Mello-Roos bonds have been fairly resilient, primarily attributable to the structure of the bond. Tax allocation bonds have also been resilient with few defaults; however, with California RDAs facing elimination, the future of California TABs remains uncertain. Of additional note, many California financing districts can participate in the state's Teeter program. In the Teeter program, local counties provide taxing districts with all of the "on the roll" taxes outside of delinquencies in exchange for all the penalties and interest on the delinquent parcels when paid. This can be a slight credit positive; however, counties can opt out of the Teeter plan at any time and would likely do so in the event of unusually high delinquencies.

Mello-Roos. Mello-Roos bonds are issued by Mello-Roos community finance districts (CFDs), also known as Mello-Roos districts. Mello-Roos CFDs are special tax districts created under the Mello-Roos Community Facilities Act of 1982 to finance the construction and/or acquisition of facilities and the provision of certain services. Mello-Roos districts are managed by local governments, which have the authority to issue bonds secured by the levy of special taxes upon approval of a two-thirds' vote of the registered voters or landowners in the district. The special taxes are not ad valorem taxes, but they do have the same priority as other government liens. The taxes are not apportioned on the basis of benefit to the property but are instead based on mathematical formulas that take into account characteristics such as use of the property, square footage of the structure, and lot size. The formula is defined at the time of formation and will include a maximum special tax amount and percentage maximum annual increase.

Mello-Roos bonds have held up pretty well in the most recent economic downturn and housing bust, particularly given that California has experienced one of the highest foreclosure rates in the nation. According to Bloomberg, out of the total Mello-Roos bonds amount outstanding, less than 5 percent are under some sort of distress. This can be attributed to several notable features of Mello-Roos bonds, namely, the developer puts up the money and is later reimbursed for what is spent on infrastructure by issuing bonds; there are often multiple developers as opposed to a single developer; the development is often completed in phases; developments are run by a local government entity as opposed to a developer-controlled board; tax flexibility; foreclosure proceedings can be instituted at any any time after delinquency (most districts obligate themselves to six months); appraisals are required; and a statutory minimum of a 3:1 value-to-lien ratio.

Tax Allocation Bonds. Tax allocation bonds (TABs) are issued by redevelopment agencies (RDAs) primarily to cure economic or physical blight. RDAs are established and controlled by a local government. TABs are secured by incremental revenue generated from the area. Redevelopment agencies do not have the power to levy property taxes or increase the property tax rate.

Similar to Mello-Roos, California TABs have performed well. Of the approximately $20.6 billion[1] outstanding, less than 1 percent are experiencing some kind of distress. The larger issue, in regard to California tax allocation bonds, is the bills put forth by Governor Edmund G. "Jerry" Brown, AB1x26 and AB1x27, passed by the state

legislature, which dissolve all California redevelopment agencies and community development agencies in existence, suspending various activities including the ability to incur additional debt (including refundings). At the same time, a voluntary alternative program was put in place whereby the RDAs would be authorized to continue to exist if they allocated requested payments to the state. The California Redevelopment Agency and several individual redevelopment agencies have brought suit against the state challenging the constitutionality of the legislation.

In January 2012, the California State Supreme Court did uphold the state's authority to abolish all RDAs, but struck down the provision allowing the RDAs to survive in exchange for shared revenues. While the original intent of the new law was to keep bondholders whole, the required transfer of the RDAs' obligations to successor agencies has created uncertainty about the future administration and tracking of incremental tax revenues.

Florida

In Florida, land-secured bonds are primarily issued by community development districts (CDDs). CDDs are local, independent, special-purpose taxing (assessment) districts created under Florida law for the explicit purpose of financing infrastructure for community developments. CDDs are administratively separate from county, municipal, or state government and controlled by a five-member Board of Supervisors elected by landowners. Among other rights, CDDs have the authority to issue debt, levy and collect ad valorem taxes and/or non–ad valorem assessments to service debt, and levy and collect operating and maintenance assessments. Non–ad valorem assessments are allocated based on the benefit received from construction of the infrastructure, not based on the value of a lot or completed unit. Once set, the assessment remains fixed for the life of the bond. At the height of the real estate market, Florida CDD bonds came in two varieties, A Bonds and B Bonds; the A/B structure is likely never to be seen again. A Bonds are usually long-term in nature (25 to 30 years) and repaid by the purchasers of lots/parcels/units, amortized over the life of the bond (assessment period). B Bonds were usually interest only and short-term in nature (5 to 10 years) and repaid by the developer as lots/parcels/units are sold.

Florida CDDs have emerged as one of the nation's biggest sources of municipal bond defaults. According to the Florida Department of Community Affairs, as of October 2011, Florida currently has 578 community

development districts. Of those 578 districts, approximately 375 of them have tax-exempt bonds outstanding totaling over $6.5 billion. Of those 375 districts, approximately 175 are in default.[2] The distress in the sector has highlighted structural weaknesses in CDD bonds and bondholders' lack of standing in developer Chapter 11 cases.

When the housing market collapsed, many CDDs were relatively undeveloped, leverage was high, the anticipated increase in property values never materialized, and absorption rates of homes decreased significantly. As a result, builders were saddled with large, unanticipated assessment payments on top of commercial development loans. Developers were not capitalized to support these payments, and market conditions made liquidity to developers unavailable. As the decline in property values left little to no equity in the developments for developers, some have walked away, while others have filed Chapter 11. The end result is that many assessments have gone unpaid, subsequently resulting in bond defaults.

Bondholders have often been placed in a difficult position due to relatively poor deal structures. Many district boards are sympathetic to the developer because by statute, each acre of land has one vote for the Board of Supervisors resulting in developer-controlled boards until at least a significant portion of the development is sold. Developer-controlled boards tend to greatly affect the timing of the foreclosure process, resulting in appraisals being rarely completed (or grossly misvalued) and debt service reserve funds being funded at semiannual debt service. Additionally, bondholders have few legal remedies outside of bond documents. Where bonds are secured by assessments that are collected directly from the developer (i.e., "off the roll"), the developer can effectively restructure CDD bonds in bankruptcy, as was done recently in the Fiddler's Creek bankruptcy case with no say from bondholders. Bondholders were found to have no standing in the bankruptcy as creditors of the developer; rather they were considered creditors of the CDD. Where bonds are secured by assessments that are collected by the tax collector via the normal tax bill (i.e., "on the roll"), bondholders can go through the foreclosure process; however, in many cases, the process is directed by a developer-controlled board.

The Market

Land-secured bonds are issued in every state, although California and Florida comprise over 50 percent of the current amount of land-secured bonds outstanding, followed by Texas and Colorado. Deals vary greatly in size from over $100 million to less than $1 million across all states. Through

September 30, 2011, over 95 percent of the deals that came to the market were under $5 million.

Land-secured bonds tend to trade relatively infrequently in the secondary market, so liquidity is limited. This is because they do require a fair amount of due diligence, and buyers in the primary market generally are purchasing bonds with a longer-term horizon.

Conclusion

While land-secured deals share some common characteristics, each deal is unique and must be carefully analyzed. Bond structures, quality of security, and development teams can vary widely and affect the creditworthiness of issues. The two largest markets for these deals, Florida and California, provide anecdotal evidence of just how important structure can be. The limited liquidity and niche nature of this particular segment of the municipal bond market favors sophisticated buyers with longer-term horizons who can properly determine just how attractive the high yields on these deals are relative to the particular risks involved.

Notes

1. From Bloomberg data, as filtered by the author.
2. In February 2010, Fiddler's Creek, LLC, the developer of a master-planned community in Naples, Florida, filed a voluntary petition for Chapter 11. Upon completion the project was to have 100 communities situated on nearly 4,000 acres. The case was filed in U.S. Federal Bankruptcy Court, Middle District Florida (Fort Meyers), case number 10-03846.

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Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

CHAPTER 12

Up-and-Coming High Yield Sectors*

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Even though charter schools and Native American tribal debt are not exactly new sectors, they are expected to become a more significant source of high yield supply going forward. Until now, they have come to market most often as taxable issues with limited appeal to tax-exempt bond investors. In the case of tribal bonds, the new Tribal Economic Development Bond program (TED), authorized as part of the American Recovery and Reinvestment Act

*Jon Barasch and Edward Krauss of Interactive Data Corp. wrote the section on charter school bonds. (Author disclaimer: The opinions and observations expressed within this chapter are solely those of the author and do not reflect those of Interactive Data Corporation or Interactive Data Pricing and Reference Data, Inc.) Jeffrey Lamb, Matt Eden, and Melissa Robertson of Sovereign Finance LLC contributed the section on Native American gaming bonds.

of 2009, has the potential to unleash a new source of tax-exempt high yield paper over the next few years. Thus, it behooves us at this juncture to get a good grasp of their fundamental credit characteristics.

Charter School Bonds

Charter schools are an important component of educational alternatives for providing better K–12 education. However, the charter school sector has thus far had limited access to capital to fund its facilities and equipment. Given financial stresses faced by the federal and state governments, future capital funding for charter schools by these governments is expected to be limited. To counteract a funding lapse, a number of states have implemented debt financing authority for charter schools. As part of the authorization, adequate security features for the debt were established to allow for market access. Despite this, the operating and financial structures of charter schools make them one of the more risky sectors in the municipal debt market.

According to the Education Commission of the States, 40 states have legislation permitting charter schools. Currently, 26 states provide financing authority. Of these, five states (Arizona, Colorado, Michigan, Texas, and Utah) contain most of the estimated 375 schools with publicly issued debt. Bonds are usually structured as lease revenue debt of the school with the debt sold by an issuer that acts as a conduit.

Some common legal protections for debt holders include the following:

- Direct state aid intercept, usually from the state treasurer to the bond trustee.
- Debt service reserves to cover any temporary interruptions in pledged revenues.
- Mortgage on property and property appraisal to expedite the sale of the school facilities if the charter school closes.

With about 5,000 charter schools nationwide, less than 8 percent have issued bonds for their facilities. Most schools are too small or do not have the legal authority to issue debt. Most schools lease their facilities from the overlapping school district or independently and pay rent as an operating expense. Charter schools are clustered within a relatively small number of states. As shown in Table 12.1, over 60 percent of schools and enrollment are located in nine states.

TABLE 12.1 Charter School Enrollment

	New Charters	Closed Charters	Charter Schools	Charter Students	Average Enrollment
Arizona	48	13	482	95,853	199
Colorado	11	2	159	66,760	420
Michigan	10	2	231	104,527	452
Minnesota	5	3	155	36,404	235
Texas	64	4	480	115,478	241
Utah	7	1	72	32,353	449
California	98	22	809	313,245	387
Florida	48	21	423	128,359	303
Ohio	15	13	332	96,967	292
Nationwide Total Charter Schools	456	109	4,956	1,666,000	336
Percent of Total Public School			5.1%	3.4%	
Waiting List				420,000	

Source: National Alliance for Public Schools, 2009–2010

The charter is usually assigned to a school for a specified number of years but is open to review at any time for performance issues. The charter sponsor varies but can include the local school district, college, university, or state education board. The state department of education usually has oversight responsibility. There are a number of national and state charter advocacy groups that establish education criteria and lobby and support this sector. Table 12.2 displays key charter school metrics.

Financially, what separates charter schools from public school districts are the district's taxing ability. Charter schools have no taxing authority and are almost solely dependent on state education revenues for financial support. With minor exceptions, charters are funded based on the level of per student state funding for all public schools and on average per student enrollment at the charter school. Today's tough economic climate could hasten the closing of weaker charter schools. Those schools that have not reached needed enrollment levels, lost enrollment because of poor academic achievement, or mismanaged their finances are particularly vulnerable to

TABLE 12.2 Charter School Metrics

Percent Elementary Schools	43%	
Percent High Schools	22%	
Average Years Open	6.7	
Academic Proficiency	Charter Schools	Public Schools
4th Grade Math	28%	39%
8th Grade Math	26%	33%

Source: National Alliance for Public Schools, 2009–2010

losing their charters and closing. There are a number of criteria used to assess a school's financial performance:

- School financial performance measures.
- Debt service coverage.
- Days cash on hand.
- Debt level ratio.
- Debt per FTE.

The states where debt issuance is most prevalent provide adequate legal protections for the bonds including a state intercept and pledge of the facilities to bondholders. In the faster growing states, charter schools provide an important alternative funding source for facilities to house the growing student population. In slower growing states, like Michigan, charters can provide education alternatives for parents because charters are smaller and have more flexibility to tailor curriculums.

Charter schools raised more than $5 billion in about 480 bond issues since 1999 (see Table 12.3). Based on internal data from Interactive Data Corp., the bonds typically come at spreads ranging from 200 to 500 basis points off AAA, with BBB-rated charters at the low end of the range and nonrated national names at the upper end. Nationwide, about 1.7 million children attend 5,000 charter schools, according to a report from Local Initiative Support Corporation, a New York–based nonprofit focused on community development. Yet, as mentioned before, fewer than 8 percent have borrowed through the tax-exempt debt market. Of total charter school financing, about $1.9 billion or 40 percent is publicly rated, with 80 percent getting low investment-grade ratings and the remainder receiving speculative grade ratings (Table 12.4). According to the Local Initiatives report, defaults have occurred in about 6 percent of 250

TABLE 12.3 Charter School Issuance—All Issues ($ million)

	# Issues	$ Issued
Arizona	73	$748
Colorado	93	$835
Michigan	96	$603
Texas	37	$596
Utah	30	$290
Subtotal*	329	$3,072
Total portfolio	478	$5,015

Source: Local Initiatives Support Corporation, June 2011

*Represents 69 percent of total issues and 60 percent of amount issued.

TABLE 12.4 Charter School Debt Issuance—Publicly Rated Issues (S&P, Moody's, or Fitch) ($ million)

	# Issues	$ Issued	Average Size
Colorado	39	$508	$13
Florida	10	$218	$22
Michigan	24	$274	$11
California	10	$172	$17
Texas	26	$380	$15
Subtotal*	109	$1,552	$14
Total portfolio	229	$1,940	$9

*Represents approximately 80 percent total rated issues.

unrated debt sales since 1998, much higher than the less than 1 percent average for the total municipal market. Only one of 229 publicly rated charter school debt issues went into default over the period.

Defaults among nonrated charter schools are high, reflecting the risk of losing the charter. Charter loss likely results in a default of its bonds as education funds would no longer be paid for debt service. Many nonrated charter schools are transitioning from leased space. These are single stand-alone facilities with

smaller enrollments and limited financial reserves. Nearly all have highly leveraged debt positions because their facilities are usually all debt financed. Also, 80 to 90 percent of their revenues come from the state based on the per student formula. What most of these charter schools all share is a lack of financial flexibility. Each of them is vulnerable to a loss of enrollment or a failure to grow enrollment to meet projections made for its debt-financed facilities. Also, given the stress many states are under, any cutbacks in education funding can be particularly harmful to charter schools. Since the states usually fund charter schools based on enrollment, these schools can be particularly hurt if enrollments are lower than forecast. Despite these vulnerabilities, 94 percent of the nonrated portfolio is performing, and most of the remaining group are operating and taking remedial steps to improve their operations.

Key credit factors examined for charters are generally categorized as follows:

Years in operation.
Size of school enrollment.
Trend of enrollment.
State funding trend.
Measures of student performance/school ranking.
Length of charter and authorizer.
Teacher requirements.
Use of management companies vs. independent administration.

Among the most active states, Texas and Colorado provide state backing for charter school bond offerings, a program designed to increase market access while reducing borrowing costs.

Colorado Moral Obligation Program

Bonds totaling $429 million have been sold by 31 Colorado charter schools since 2003 through a program that requires the state to cover debt service subject to appropriation by the state legislature. The Moral Obligation program enhances the credit of a qualified charter school that has obtained an investment-grade credit rating on a "stand-alone" basis. The enhancement enables these qualified schools to obtain even more favorable financing terms on their capital construction bonds. The program is funded from a separate source of monies from which the Treasury would make bond payments in the case of a default by a charter school. Legislation created the state charter school interest savings account within the state charter school debt reserve fund. Each qualified charter school allowed into this program annually pays 10 basis points of the principal

amount of bonds outstanding into this fund. On June 30, 2011, the fund had a balance of $2.2 million. In the event that a default occurs that exhausts the balance in the fund, as well as the $1 million appropriated in FY 2002–2003 from the State Education Fund, the statute directs the governor to notify the General Assembly so that it may consider whether or not to appropriate funds to pay off the bonds. This last element is the "moral obligation" aspect of the program. Failure by the state to make such an appropriation would probably have a substantial negative effect on the state's credit and almost certainly interfere with its ability to issue certificates of participation. As of June 30, 2011, the outstanding par value of the bonds issued under the moral obligation program was $397.37 million against a $400 million statutory cap, based on Colorado Department of the Treasury data.

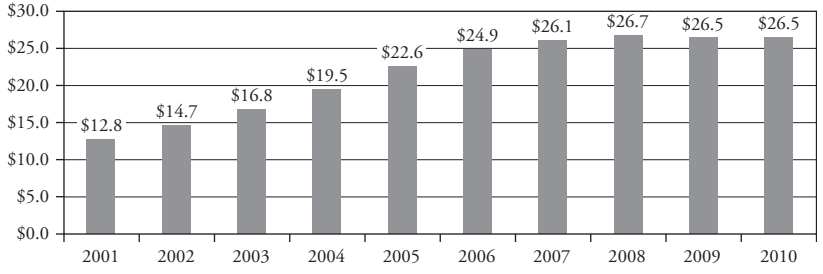
Texas School Enhancement Program

In 2011, Texas joined Colorado in providing state backing for charter school bond offerings, a program designed to increase market access while reducing borrowing costs. Under state legislation, qualifying Texas charter schools can sell debt backed by the state's $25 billion Permanent School Fund (PSF), a AAA endowment. According to the Texas Charter School Association (July 2011), about 120,000 students attended 520 institutions that may benefit this year, and about 56,000 are on waiting lists. Bonds supported by the PSF can only be used for new construction, not to refinance existing debt, and to qualify, schools must obtain investment-grade credit ratings. About 4.8 million students enrolled in Texas schools through the 12th grade last year, with charter schools accounting for about 2.5 percent of the total.

Native American Gaming Bonds

Native American tribes have been one of the most widely underserved communities in the capital markets. Historically, the barriers that affect a tribe's ability to enter this market include IRS regulations, inability of credit markets to grasp and value the risks associated with sovereign immunity, and the lack of consistent revenue-generating enterprises that are required to support a financing transaction. However, recent growth in tribal enterprise developments; a need for access to longer-term, attractively priced debt; and an increased demand from institutional buyers has helped to overcome these barriers and has spurred the growth of tribal bond issues in the capital

FIGURE 12.1 Gross Gaming Revenues (2001 to 2010) ($ billion)



Source: National Indian Gaming Association

markets. Currently, tribal lending represents a multibillion-dollar industry that includes nearly all of the major money-center banks, as well as many of the largest regional banks. From a capital market's perspective, investment in tribal bond issues also represents a multibillion-dollar industry and spans the investor spectrum from high yield mutual funds to insurance companies and hedge funds to municipal money managers.

The growth in lending and investing to tribal entities has closely followed the growth in tribal gaming, which began to flourish after passage of the Indian Gaming Regulatory Act of 1988 (IGRA). IGRA set out the federal guidelines by which federally recognized Indian tribes could develop commercial gaming enterprises on tribal trust lands. IGRA required states to enter into negotiation with tribal governments if the state offered similar classes of gaming within its borders. In many cases, the presence of a state lottery opened the door to tribal gaming, and since the passage of IGRA, Indian gaming has grown to over 460 gaming facilities operated by 240 tribes, with over $26.5 billion in gross gaming revenues reported for 2010. The growth in reported gaming revenues from 2001 to 2010 is shown in Figure 12.1.

Performance Trends

A significant amount of press has been generated by the downturn in commercial gaming over the last five years. However, the individual experience of tribal gaming operators has followed more closely the plight of each tribe's local market economy, rather than the national or global forces that impact Las Vegas. Thus, operators in the Pacific Northwest and certain areas of the Midwest had only minimal reductions in gaming revenue and profitability during the recession. However, operations in states that were hit hard by the housing collapse and construction recession had dramatically worse financial

performance over the last four years. Unfortunately, much of the perception of tribal gaming is invariably tied to the prospects of the two properties in Connecticut, the Foxwoods Casino and Mohegan Sun Casino, both of which have experienced dramatic declines in revenue and profitability as a result of the major increase in competition in the Northeast and the continued weakness in the economy. The high-profile default and restructuring of Foxwoods's over $2 billion debt load has led to a significant amount of unnecessary negative attitude being applied to the whole of tribal debt.

The reality is that, from a debt standpoint, most of the tribes that have issued taxable and tax-exempt debt over the past 10 years continue to exhibit very strong financial characteristics, especially when compared to comparably rated corporate gaming issuers. Based on anecdotal evidence, tribes with existing capital market debt continue to enjoy strong cash flow and have maintained relatively consistent credit metrics, needing only occasional covenant relief as opposed to formal debt restructurings and write-downs. Furthermore, tribal entities have maintained reasonable liquidity in the form of conservatively managed investment accounts, have reduced governmental spending and per capita benefit payments, and have made a push to diversify their asset and revenue base away from their single-site gaming complexes.

Tribal Bonds—Market Perspective

The difficulties that tribal governments have experienced in issuing tax-exempt debt due to recent enforcement activity by the IRS are well known in Indian country. In a number of cases, the fear of an IRS audit has discouraged tribes from accessing the tax-exempt capital markets to fund much-needed infrastructure and governmental development projects that inarguably qualify for tax-exempt financing. Unlike state and municipal governments, Native American tribes may only issue tax-exempt debt for certain "essential governmental functions" as set forth in the federal tax code. The IRS has so narrowly interpreted the essential governmental function standard that any project alleged to be remotely commercial in nature has been subject to challenge. Because of the IRS zeal, tribes have historically taken a very conservative approach to the issuance of tax-exempt debt to fund projects where even the most attenuated of commercial functions may be present. The landscape for tribal tax-exempt debt did undergo a substantial change as a result of the American Recovery and Reinvestment Act of 2009 (ARRA). Contained within ARRA was a new provision that expands tax-exempt bonding authority for tribes and tribal entities. Specifically, the act permits the issuance of an aggregate of up to $2 billion in Tribal Economic Development

bonds (TED bonds), a new type of tax-exempt bond that may be issued by tribes to finance any project that a state government can finance on a tax-exempt basis, subject to the same tax limitations that apply to states. There are three primary restrictions on TED bonds: (1) The project has to be located on an Indian reservation; (2) the bonds cannot be used to fund any property used in gaming or any portion of a building in which gaming occurs; and (3) a tribe must receive volume cap allocation. Subject to review of competent tax counsel, the TED bond program is allowing tribes to finance or refinance a broad range of enterprise projects, including projects that were previously ineligible for tax-exempt financing, such as:

- Hotels.
- Golf courses.
- Event and convention centers.
- Certain retail developments.
- Parking garages that support commercial activity.
- Infrastructure that specifically supports gaming operations.

The most significant consideration with respect to TED bonds is whether a project will fall within the "safe harbor" provided for in the IRS guidelines with respect to whether or not a building meets the gaming exclusion rule. The guidelines issued by the IRS state that "no portion of the proceeds of any bonds issued pursuant to the requested application will be used to finance any portion of a building in which Class II or Class III gaming (as defined in Section 4 of the Indian Gaming Regulatory Act) is conducted or housed, or any other property actually used in the conduct of such gaming."

Although the full $2 billion of TED bonds capacity was distributed through two separate allocations in 2009 and 2010, it is estimated that only about 5 percent of the amount was actually used in debt transactions. The IRS reserves the right to extend the program based on review and a report to be commissioned by the Treasury studying the effects of this program, and in fact issued guidance in late 2011 that they intend to hold subsequent allocations for the unused capacity beginning in 2012. It is anticipated that any further rounds of TED bond allocations permitted by the IRS will lead to additional tax-exempt debt for credit-worthy tribal issuers over the next few years.

Tribes in the Capital Markets Today

The actual balance of tribal debt outstanding, along with statistics concerning the leaders in debt arrangement for tribes, is somewhat unknown

given the confidentiality requirements of most tribal entities and the fact that a very large segment of the debt is done in the bank market or under private placement/144-A bond transactions. By drawing on a number of different sources, it is anticipated that the amount of tax-exempt capital market debt outstanding for tribal issuers is well in excess of $1 billion. Over the last three years, a number of tribes have successfully closed transactions utilizing both bank and capital market structures, though generally at higher rates of interest and with more pronounced covenants. The key for tribes looking to access the capital markets to issue tax-exempt bonds has been to properly structure and price the transaction to meet investor expectations. To appeal to most investors, tax-exempt bond offerings have been structured with certain key features that include the following:

- Senior security interest in the primary revenue stream.
- Debt term limited to the length of the tribe's gaming compact.
- Pro forma debt service coverage ratio of all debt (historic and projected) no less than 2 to 1.
- Maximum leverage ratio no greater than 4 to 1, better at less than 3 to 1.
- Sufficient cash flow traps and a debt service reserve fund if appropriate.
- Strong enterprise management with relevant experience.
- Stable tribal government with a history of fiscal responsibility and management.

Additionally, in the case of successful tribal debt offerings, the debt par amount has included not just the qualifying project-related expenses and costs of issuance, but also a fully funded debt service reserve fund. In addition, tribal borrowers are required to agree to consent to lawsuits and to waive their sovereign immunity with regard to upholding the provisions and terms of debt documents and the ability of the creditors to seek relief of any breach of the agreements in a court of competent jurisdiction. Furthermore, tribes must agree to the choice and adoption of applicable state law, the choice and adoption of a forum, grants of access, subordination of other obligations, rights to cure the borrower's default on other obligations, and nondisturbance agreements.

Documentation of tribal debt is very similar to nontribal revenue-backed transactions in that the only source of security for the credit facility is a first-lien interest in the revenues of the property. This security pledge is normally perfected through a depository agreement, along with a first lien on the gaming machines (the primary revenue generator) and other personal property located at the facility as evidenced through filing of a Uniform Commercial Code (UCC). Owing to the trust status of the land underlying

a casino, along with stringent federal guidelines regarding management agreements, it is unnecessarily cumbersome to attempt securing debt through any type of mortgage or leasehold deed of trust.

Lac du Flambeau

More recently, the tribal gaming bond market has been impacted by the legal uncertainties resulting from a decision issued by the U.S. District Court for the Western District of Wisconsin in January 2010 in the case of *Wells Fargo Bank, N.A. vs. Lake of the Torches Economic Development Corporation* (2010 W.D. Wisconsin). The court found that a trust indenture securing $50,000,000 in bonds issued by the Lake of the Torches Economic Development Corporation (the EDC), a corporate entity chartered by the Lac du Flambeau Band of Lake Superior Chippewa Indians (the tribe), was a management contract within the meaning of the Indian Gaming Regulatory Act and, because the indenture had not been approved by the chair of the National Indian Gaming Commission (the NIGC) as required by IGRA, the indenture and the bonds were declared void.

The tribe had financed the development of its Lake of the Torches Resort Casino and other gaming investments by issuing the bonds through the EDC, and the bonds were secured by, among other things, a pledge of gross gaming revenues with a lien on a collection account into which such revenues were deposited. The casino did not perform as expected, and the tribe defaulted on its repayment obligations and ceased depositing the casino revenues into the collection account. The trustee brought an action in federal district court to enforce the indenture and requested appointment of a receiver to oversee the collateral, which primarily consisted of the casino revenues.

The tribe argued that certain provisions in the indenture constituted "management" of its gaming operations, for example, provisions that (1) gave bondholders discretionary control over capital expenditures; (2) required the tribe to use its best efforts to follow the advice of a management consultant if certain financial ratios were not achieved; (3) prohibited key management changes without bondholder consent; (4) gave bondholders the right to require new management following an event of default; and (5) expressly authorized appointment of a receiver upon an event of default. Under IGRA, contracts that provide for the management of tribal gaming operations must be approved by the chair of the NIGC or they are void *ab initio*. The tribe argued that the provisions cited rendered the indenture a "management contract" within the meaning of IGRA, and because it had not been reviewed and approved by the chair of the NIGC, the indenture

was void. The district court agreed and dismissed the trustee's action. The district court's decision has been affirmed in part by the United States Court of Appeals for the Seventh Circuit; the Seventh Circuit reversed the lower court's decision to block the indenture trustee from seeking recovery on legal and equitable claims under other financing documents related to the indenture, thus this case is still subject to further developments.

However, tribal financing professionals have already adopted strategies to deal with these court decisions. Covenants and bondholder rights and remedies must be carefully crafted to ensure they will not be deemed to constitute management activities under the LDF decision, and it has become standard practice to submit financing documents to the NIGC for a "declination letter" stating that the documents do not, in the view of the NIGC, constitute a "management contract."

Opportunity for High Yield Investors

Under the new TED bond program, a number of stronger, more conservatively managed tribal issuers are planning to access the tax-exempt markets to fund new project developments on the reservation, refinance more expensive project finance debt, or replace bank debt that is maturing in the next year or two. In many of these cases, the tribe would normally access the bank market for this development financing, but the turmoil in the bank market has caused a significant reduction in the availability of bank debt for a large segment of the tribal universe. Unfortunately, although few tribal gaming credits are experiencing the same level of stress and poor future prospects for complete repayment of debt as corporate gaming credits, the tribal gaming industry continues to be painted with the same negative brush. The TED bond program represents an opportunity for capital market participants to take up a portion of the financing slack and extend credit to many of the stronger tribal credits at tax-exempt rates that are significantly higher than prior tribal issues and well in excess of prevailing municipal rates.

The substantial capital creation on the reservation is also providing the engine for other economic and municipal development. A number of new opportunities exist as tribal governments look for ways to provide meaningful, immediate benefits to their membership, especially among tribes with smaller gaming operations and large populations. Gaming revenues are being leveraged to replace federal aid as tribal governments develop roads, sewer systems, water treatment and delivery infrastructure, tribal administration buildings, housing, schools, health clinics, and such other services and infrastructure normally provided by governments. Furthermore, increased economic prosperity among

tribal members is resulting in a greater demand for financial services, including banking, investment, personal lending, and mortgage lending.

It is important to note that, from an investor's point of view, the changes to a tribe's ability to issue tax-exempt debt does not change the fundamental credit analysis that an investor will be required to undertake in order to move forward with any debt transaction. Tribes are becoming more aware that they will need to properly structure and document new transactions if they have any hope of gaining traction in a credit market that has largely been characterized by a flight to quality. It is also clear that tribal issuers must manage their interest rate expectations, because the pricing for noninvestment-grade, tax-exempt paper in the current climate is expected to be higher than in prior years, as investors look to receive greater compensation in return for higher perceived risk and low liquidity. The strong performance of tribal gaming–backed debt during the recession indicates that there remains a strong investment opportunity for institutional buyers to achieve outsized returns on debt with strong credit characteristics, as long as these investors are comfortable with the lack of liquidity. Furthermore, because the market was generally more conservative in the extension of debt to tribal issuers, is seems clear that the tribal debt currently outstanding has much less chance of facing major stress and potential default or work-out situations than comparably rated nontribal, gaming-backed bond offerings.

Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

CHAPTER 13

High Yield Investing in the Post–Bond Insurance Era

We have now come full circle, back to the teaser line on the cover of this book. How does an investor take advantage of the current municipal credit crisis and earn attractive tax-exempt income? For that, we start with a quote from Dr. Carl Sagan, "You have to know the past to understand the present," itself a take-off on George Santayana's famous line, "Those who forget the past are condemned to repeat it."

For an industry as opaque as the high yield municipal market is (at least to the average investor), knowing the past is an all-important first step in understanding both the promises and pitfalls of this important sector. Having the proper historical perspective allows one to put current credit opportunities in the proper context.

Learning from History

So what exactly did we learn from the high yield market's murky past? The first lesson is that we really should stop treating the municipal market as if it were a single, monolithic entity. As the historical default record shows (see Chapter 4), there are actually two distinct market segments. On the one hand, you have what most investors would think of as *the* muni market, comprised of the general obligation and essential service revenue bonds that finance the traditional functions of state and local governments and their agencies. This segment has historically benefited from extremely low cumulative default and

bankruptcy rates. As seen in Chapter 9, even if an essential service municipal entity still ends up filing for bankruptcy, its bondholders still enjoy very strong legal protection in most states and, except for a few missed coupon payments, the prospect for full or near-full recovery are usually quite good.

Existing alongside that traditional tax-exempt market is the so-called high yield muni sector, perceived by many as a demimonde of shady deals and dubious risk-taking, best left to institutional investors with large investment pools who can properly "diversify" risk. While this perception has been correct to a certain extent, as evidenced by the relatively high incidence of default in unrated issues (Chapter 4), high yield munis have been shown to display attractive tax-adjusted risk-return characteristics, as long as credit exposure is actively managed (Chapter 3).

Unfortunately, the high yield muni fund industry itself has not had a sterling record in handling credit risk. While the funds have certainly delivered attractive tax-free income, they have not proven to be the best total return vehicle for investors, at least over the last five years (Chapter 5). At some fund complexes, a passive management approach and a narrow focus on delivering raw yield can produce some unsound investment strategies, such as an overreliance on unrated issues with poor liquidity or an excessive concentration in volatile sectors. Needless to say, it is not our intent to paint the whole industry with the same brush, and most funds have in fact produced very respectable total returns over the years. Hence our advice to the prospective high yield muni fund investor: "Don't just invest in high yield municipals, invest in a good high yield manager." In high yield more than anywhere else in the muni market, it does pay to seek the best professional help. "Best," in our opinion, would be someone with a track record of successfully managing for after-tax total return, not just for yield. A successful track record does not mean shooting the lights out in one year and ending up at the bottom the next year. It usually means maintaining a consistent top-quartile performance year in and year out while delivering a reasonably competitive (but not the highest) tax-exempt yield.

Prospects for Tax Reform

At this writing, tax reform appears to be on its way to becoming one of the leading issues of the 2012 presidential campaign. The flat tax proposal, which caused short-term havoc on the tax-exempt market 15 years ago, is being revived once again under various guises by some Republican candidates. In contrast to the last iteration, the probability of some kind of tax

reform being enacted seems much higher this time around, reflecting heightened concern about the federal budget and deficit outlook. Ironically, the success of the Build America Bond program, however short-lived, did demonstrate that there can be a viable muni market with a direct subsidy mechanism instead of tax exemption. While an outright assault on tax exemption cannot be ruled out, it is reasonable to expect at a minimum some degree of curtailment of the tax exemption benefits enjoyed by high-income earners. That would imply a rise in tax-exempt yields to reach parity with other taxable instruments. While we do not expect any real action to be taken until after the election, the increasing chatter about tax changes is certain to introduce more volatility into the muni market during this election year.

As far as the high yield muni market is concerned, full taxability is always a distinct risk for those sectors that may be viewed as abuses of the tax code; that is, the small private activity and industrial development issues. They have in fact accounted for a disproportionate share of historical defaults, as shown in Chapter 4. While there is no question that traditional muni issuers, along with nonprofit entities in health care, should continue to enjoy access to tax-free financing in order to fulfill their public service mission, the same cannot be said for many of the "high yield, nonrated" issues that are just corporate deals in disguise.

In fact, one can argue that access to tax-free financing has distorted the capital allocation process. In many ways, the high yield muni market has become the lender of last resort. Its history is littered with defaulted private purpose projects that would not pass economic muster in any other market. Most look more like equity deals than bond deals, since the bondholders end up representing the entire capital structure. Yet, many of these marginal ventures found a ready audience with the mutual funds, many of which are starved for tax-free income. From the de-inking project fiasco of the 1990s to the still-ongoing crisis with Florida "dirt deals," the constant pressure to generate maximum tax-exempt yield has arguably produced many credit debacles in the history of this market. Even after a negative credit event has occurred, the tax-free coupon is still mentioned by fund managers as a reason to retain the bonds, regardless of the potential for further capital losses. In a way, the funds end up basically exchanging tax-free coupon income for capital losses. This may make sense for some investors with capital gains to offset the losses, but for the majority of us, capital preservation should still come first.

Repealing the tax-exemption on these abusive sectors of the high yield market may actually have a salutary effect on the quality of the deals. It

should force the latter to compete with other projects on a fully economic basis, as opposed to mere access to cheaper capital. Perhaps high yield buyers can finally expect equity-like returns for equity-like risk, as opposed to bond-like returns?

Full taxability on some high yield sectors may also broaden their appeal to new classes of investors, in the same way that Build America Bonds opened the door to participation from overseas buyers.

The New Compliance Landscape

Away from tax issues, recent developments on the legislative front also bear watching as they may eventually have a far-reaching impact on the tax-exempt market as a whole. In the aftermath of the 2008 financial crisis, the Dodd-Frank Wall Street Reform and Consumer Protection Act (affectionately known as Dodd-Frank) was signed into law by President Obama on July 21, 2010 (some of its key features as of this writing are summarized in the Appendix). Ostensibly, Dodd-Frank aims to promote greater transparency in the municipal bond market and to establish a fiduciary standard for so-called "investment advisors" to municipal issuers, although the practical implementation of these lofty goals remain a moving target at this time. It also ushers in a new era of regulation in the tax-exempt sector. For the first time since the 1930s, the SEC is poised to exert a major regulatory role in the municipal market. Even the Municipal Securities Rulemaking Board (MSRB), until now charged only with protecting individual investors, will have responsibility for protecting the issuers as well.

For the high yield investor, the new regulatory environment holds some interesting promises. Poor and inconsistent disclosure has always been the bane of this market. Thus, the push for improved disclosure practices to match corporate-sector standards can only be beneficial. As disclosure practices become more standardized, investors can concentrate more on assessing economic risk, instead of fretting about disclosure quality. All this does come at a steep cost to the issuers, and one may wonder how many will have the resources to fully comply with the new requirements.

The increased compliance burden from Dodd-Frank may result in higher fees from the rating agencies. This may force more small issuers to come to market as uninsured and unrated, potentially creating more deal flow for credit-savvy investors. Offsetting this, the new "financial advisor" standard, as applied to those kind souls who used to sell public officials financial products that they did not need and were ill-equipped to understand, may

curtail issuance for a while as the industry tries to figure out the new rules of conduct. It's too early to tell how this will all play out.

At this writing, one particular component of the Dodd-Frank legislation is giving market participants many sleepless nights: the Volcker Rule. As detailed in our Appendix, the Volcker Rule is intended to rein in the kind of unbridled risk-taking that banks used to do through their so-called proprietary trading activities. Unfortunately, proprietary trading is often hard to distinguish from legitimate market-making and underwriting activities, particularly in the relatively illiquid tax-exempt market where banks sometimes have to go at risk to provide liquidity. While the Volcker Rule does attempt to carve out exemptions for bonds issued by states and their political subdivisions (such as counties and cities), debt issued by public agencies or authorities would be subject to its restriction. It would also prevent banks from sponsoring Tender Bond Option (TOB) programs, a favorite financing vehicle for mutual funds, as well as for dealer trading desks (see Chapter 5).

Critics of the Volcker Rule believe the proposal will have serious negative implications for market liquidity and price volatility. The most serious effect would be on the high yield universe. While the proposal was not specifically directed at the high yield sectors, it is quite obvious that almost all the financing vehicles used by high yield issuers would be subject to the Rule. Curtailment of TOB programs would also take away one of the key yield-enhancement tools available to high yield closed-end funds.

At this writing, the key battles are taking place over the definition of which municipal sectors will be exempt and over what constitutes market making. Based on the forceful outcry from the municipal bond community to date, it is highly likely that the Volcker Rule will be adjusted to take care of all unintended consequences. There remains the possibility, however, that certain "off-the-run" high yield sectors will fall through the cracks, leading to reduced liquidity and wider credit spreads in those sectors.

New Credit Opportunities

The bond insurance industry's relentless penetration of the municipal bond market from the mid-1970s until its collapse in 2008, which peaked at about 60 percent of all municipal new supply, allowed for an unprecedented commoditization in the tax-exempt market. By taking credit out of the equation, bond insurance and other forms of credit enhancement also helped support the explosive use of leverage in the early 2000s, through the

proliferation of Tender Option Bond programs (TOBs) on dealer desks and in private hedge fund vehicles. The more homogeneous the product, the easier one can margin it up. Of course, as we have since found out, credit risk never went out of the picture. It just morphed from individual credit risk to counterparty risk. Bond insurance was just a massive transfer of risk from the individual municipal issuers to the insurers.

Unrated, Formerly Insured Issues

The collapse of the bonds insurers in 2008 to 2009 has created a new opportunity for the credit investor: an entire class of formerly insured issues who never obtained a rating on their own. Many of these issues were purchased by entities such as community banks and mid-size property and casualty (P&C) companies, based solely on the credit enhancement. Many of these banks and P&C companies are now saddled with the unenviable task of figuring out what risks they actually have on the books. Many may find out they actually own non-investment grade paper, which they may have to liquidate for compliance reasons. The loss of an insurer-based rating also leads to a tremendous loss of liquidity, a fact not always appreciated by passive investors. Sorting through the underlying credit quality of many of these individual issues will surely produce some interesting values for the investors who are willing to put in the time and effort.

New "Fallen Angels"

The continuing fiscal challenges facing state and local governments will also lead to more opportunities in "fallen angels," former investment grade credits which, for various reasons, have fallen from grace and are currently penalized by the marketplace. In other words, who will be this decade's Denver International Airport (Chapter 8)? In the past, most fallen angel opportunities have come from the ranks of revenue bond issuers. Things may be different this time around. Probably for the first time since the Great Depression, we may see more distressed paper emerge from the tax-backed sector as public officials' "willingness to pay" is severely tested by the combination of declining tax revenues and rising fixed expenditures. In spite of the sensational media coverage about Harrisburg and Jefferson County (now infamous as the largest muni bankruptcy in history), bondholders can take comfort in the fact that bonded debt service has always enjoyed significant legal protection. Besides, as we pointed out in Chapter 9, bankruptcies don't necessarily lead to monetary default.

Over the past few months, the outlook for many state credits has stabilized, buoyed by a recent bounce in income and sales taxes. Unfortunately, the same cannot be said of local governments and agencies. Many states have plugged their budget deficits by effectively downstreaming their problems to the local level. Faced with a decline in state aid, many local entities rely more than ever on property taxes, even as the recent decline in property values continues to manifest itself through reduced assessed valuations. Against that backdrop, it is not inconceivable that 2012 will turn out to be "The Year of Local Defaults." To wit: barely two months into the new year, the headlines are already populated by news of financial distress from the likes of Detroit, Michigan, Stockton, California, and Suffolk County, New York, among others.

The persistent credit weakness at the local level has already led to an increase in so-called super-downgrades, credit downgrades of two notches or more by the rating agencies. Such drastic rating actions used to be rare, but not of late. The rating agencies blame this trend on the more rapid deterioration in the fiscal condition of local governments. We suspect they are also having difficulty keeping up with their credit surveillance efforts. Whatever the reason, more rating instability may lead to higher price volatility, and hence potential opportunities for astute investors.

Both state and local governments do share a common headache: increasing pension and post-retirement benefit funding requirements. This issue stands squarely at the confluence of two key political trends. On the one hand, we have the new fiscal conservatism espoused by many state governors who came into office over the last two years. On the other hand, municipal unions are also starting to fight back, as state and local employees see their benefits threatened by budget-cutting efforts. So far, attempts at resolution have varied considerably from state to state, but pension funding as a critical fiscal issue will not disappear any time soon. As a matter-of-fact, the new pension liability recognition rules due out this year from the Governmental Standards Accounting Board will certainly keep the spotlight on the potentially unsavory trade-off between funding pension obligations and funding current governmental services.

Given the difficult political landscape, it is not surprising that many municipalities are resorting to bankruptcy, or the threat thereof, to bring all parties to the negotiating table. In the absence of political compromise, a Chapter 9 filing may turn out to be the only way to restructure a city's crippling pension burden.

In addition to the new fallen angels category, the health care sector will continue to be a good source of credit opportunities as nonprofit hospitals feel the twin pressures of health care reform (if and when it becomes fully

effective) and deficit reduction efforts at the federal level. Longer-term demographic shifts such as the retirement of the Baby Boomer generation and the projected explosion in Medicare enrollments should put increasing pressure on lower-rated hospital names.

Distress Investing

Given the currently weak global economy and benign interest rate environment, distress investing should remain an attractive area for the next few years, although access to capital continues to be a constraining factor. As mentioned in Chapter 4, we expect to see an increase in reported defaults going forward due to the recent amendments to SEC Rule 15c2-12, which removed the materiality standard for credit event disclosure. To the extent that all credit events will now have to be reported, not just "material" ones, market volatility may increase and create potential opportunities.

Within the distressed area, the ultimate disposition of the two largest current pockets of defaulted muni debt, land-secured and health care (primarily senior living), will remain of great interest to market participants. Since many of these distressed names currently reside in the mutual funds, the issue here is one of valuation, or more accurately, of evaluation. The need for a standardized approach to pricing these defaulted issues is more acute now than ever. Unrealistic evaluations detract from market liquidity and may expose all parties to potential litigation. In the case of the infamous Florida "dirt deals," given their geographic concentration, a concerted statewide solution seems unavoidable.

The senior retirement sector will continue to be challenged by a moribund housing market, although it is showing some signs of stabilization as developers and operators adjust to the new market realities.

Advances in Trading and Price Discovery Technology

The MSRB recently embarked on a more aggressive effort to improve transparency and disclosure in the municipal market. It is quite conceivable that over the next few years, individual investors and their financial advisors will have access to much-improved financial disclosure, price transparency, and risk management tools. Whether this will translate into better credit decisions remains to be seen, but the necessary analytical tools will certainly be available for savvy individual investors to dip their toes into the high yield market.

Looking further ahead, the ongoing advances in technology will surely support better price discovery tools as well as more sophisticated trading programs in the municipal market. The unprecedented computing power now available to analyze and parse real-time transaction data from EMMA and other data sources has the potential to revolutionize bond pricing models, which in turn should lead to significant advances in algorithmic trading. It wouldn't be much of a stretch to see some of those tools applied to municipal credit trading as well.

Buy American!

With interest rates coming off record low levels, investors are more tempted than ever to "reach for yield." Short of another massive deflationary event, investment returns in the municipal market over the next leg of the economic cycle will likely be driven by credit selection rather than by a further decline in rates. However, as seen throughout this book, there is a right way and a wrong way to reach for yield. The "right" way is to be aware of historical risk factors and to maintain a solid relative value perspective at all times. The "wrong" way is to always chase the highest yield available and give up all of your liquidity in the process.

At the end of the day, the beauty of the current high yield municipal market lies in the fact that, for the first time in decades, investors can earn attractive tax-exempt income by investing in our own American cities and towns, instead of going out on a limb for some ill-conceived private purpose project. In these days of global political and economic turmoil, the U.S. municipal market still stands out for its relative stability. Yes, state and local governments are still going through a wrenching transition, and yes, local politics is always short-sighted, but all the fiscal issues are now on the table and will have to be addressed, sooner or later. Even if someone could still make the preposterous comparison between Greece and the state of California, wouldn't you still want to invest in California? The answer should be a resounding "Yes!"

Appendix: The Dodd-Frank Act and the Municipal Market*

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As a result of the financial crisis that began in 2007, recent legislation signed into law may forever change the municipal bond market, with both positive and negative consequences for high yield municipal bond investors. The Dodd-Frank Wall Street Reform and Consumer Protection Act, Public Law No. 111-203 (the Dodd-Frank Act, or Dodd-Frank, briefly known as FinReg) was signed into law by President Barack Obama on July 21, 2010.

Among other things, Dodd-Frank promotes greater transparency in the bond market, provides new protections for bond issuers, and adds accountability to the market participants. Municipal bonds and corporate bonds will be impacted differently by Dodd-Frank, because corporate bonds are registered securities, while municipal bonds are not. Both the Securities Act of 1933 and the Securities Exchange Act of 1934 were enacted with broad exemptions for municipal securities. Consequently, the Securities and Exchange Commission (SEC) never focused on the municipal securities market, but suddenly the SEC is now authorized to play the key role in regulating that market.

There are three provisions in Dodd-Frank specifically affecting the municipal securities market, which are outlined in Subtitle H, Municipal Securities; Section 975, Regulation of Municipal Securities and Changes to the Board of the MSRB; as well as Section 979, Commission Office of Municipal

*Author's note: The information in this Appendix is current as of February 2012.

Securities. These municipal securities provisions lay the groundwork for increased regulation and enforcement in the future by the Municipal Securities Rulemaking Board (MSRB), the SEC, and Congress. While these provisions may eventually be positive changes for municipal bond investors, Dodd-Frank is currently a source of anxiety and frustration for the municipal securities market. Dealers and industry groups worry about a complex and burdensome web of regulations, many of which remain unfinished. Issuers lament the market uncertainty caused by the lack of as-yet undefined protections by the establishment of rules of conduct and the elimination of pay to play.

Dodd-Frank also requires the U.S. Government Accountability Office (GAO) to prepare three municipal market studies: (1) Section 976, Government Accountability Office study of increased disclosure to investors; (2) Section 977, Government Accountability Office study on the municipal securities markets; and (3) Section 978, Funding for Governmental Accounting Standards Board. Two studies have been completed and are discussed below along with a summary of the impact of Dodd-Frank on the municipal bond market.

Regulation of Municipal Securities

Effective October 1, 2010, Section 975 of Dodd-Frank amends Section 15B of the Securities Exchange Act of 1934 to require the registration of the municipal advisor (MA) with the SEC and to provide for the regulation of the municipal advisor by the MSRB. The terms *broker, dealer, municipal securities dealer*, and *municipal advisor* are defined in the Securities Exchange Act of 1934 in sections 3(a)(4), 3(a)(5), 3(a)(30), and 15B(e)(4), respectively.

Dodd-Frank defines a municipal advisor as any person who provides advice to or on behalf of a municipal entity or obligated person with respect to municipal financial products or the issuance of municipal securities, including advice with respect to the structure, timing, terms, and other similar matters concerning such financial products or issues, or who undertakes a solicitation of a municipal entity. Dodd-Frank specifically states that financial advisors, guaranteed investment contract brokers, third-party marketers, placement agents, solicitors, finders, and swap advisors qualify as municipal advisors.

The definition of municipal advisor does not include the following individuals: SEC-registered brokers, dealers, or municipal securities dealers serving as underwriters; SEC-registered investment advisors providing investment advice; or U.S. Commodity Futures Trading Commission-registered commodity trading advisors.

Dodd-Frank also creates a fiduciary relationship between municipal advisors and the municipal entities they represent. Municipal advisors will have a fiduciary duty to their clients and must adhere to the highest standard of care when advising municipal issuers. Municipal advisors must put the issuer's interests above their own, disclose all potential conflicts of interest, and evaluate each reasonable financial alternative. In order to enforce this fiduciary duty on municipal advisors, Dodd-Frank requires municipal advisors to register with the SEC.

Since being given regulatory jurisdiction over municipal advisors on October 1, 2010, the MSRB sought to fulfill its congressional mandate by soliciting broad input, issuing draft rules, seeking public comment, and proposing core municipal advisor rules to regulate the individuals who advise municipalities in issuing bonds and investing the proceeds. Like much of Dodd-Frank, professional standards and applicable rules pertaining to municipal bonds are still being written. Municipal advisors will be subject to rules that are developed by the MSRB and approved, then enforced by the SEC. The municipal advisors will be required to hold an individual certification and to be tested to demonstrate their competence in the field of public finance.

Since October 1, 2010, Dodd-Frank makes it unlawful for a municipal advisor to provide advice to or on behalf of a municipal entity or obligated person with respect to municipal financial products or the issuance of municipal securities, or to undertake a solicitation of a municipal entity or obligated person, unless that municipal advisor is registered with the SEC in accordance with Dodd-Frank. Municipal advisors are required to register with both the SEC and MSRB. Registration with just one regulatory organization will not satisfy the registration requirement of the other regulatory organization.

The SEC registration Form MA for municipal advisors is very similar to a traditional Form ADV for advisors. In September 2010, the SEC permitted online temporary registration using Form MA-T to allow municipal advisors to register on a temporary basis, which would be effective through December 31, 2011. Municipal advisors also must register separately with the MSRB on Form G-40. The SEC's registration requirements are in addition to those required by the MSRB.

The MSRB registration can only be completed after the SEC registration is in place and was due to be filed before January 1, 2011. Even if a broker already has an existing registration with the MSRB, an additional registration under Dodd-Frank will be required if that entity is also engaging in activities that would require registration as a municipal advisor under

Dodd-Frank. Merely maintaining an existing registration as a municipal dealer with the MSRB, for example, is not enough.

On July 5, 2011, the MSRB issued a press release highlighting its concern that many firms were still unaware of municipal advisor registration and compliance requirements. Thus, those firms were possibly engaging in activities as municipal advisors, as defined in Dodd-Frank, without having registered as such with both the MSRB and the SEC.

In a surprise move on September 9, 2011, the MSRB withdrew six of its proposed rules covering municipal advisors that were previously filed and pending with the SEC: (1) G-17 on conduct, or the "fair dealing" rule; (2) G-20 on gifts and gratuities; (3) G-36 on fiduciary duty; (4) G-42 on political contributions and prohibitions on municipal advisory activities; (5) G-44 on supervision of municipal advisory activities; and (6) proposed new Rule A-11 and new Form A-11 on municipal advisor assessments. These proposals reflected key initiatives of the outgoing MSRB chairman whose chairmanship coincidentally finished a few weeks later.

The withdrawal came amidst criticism among market participants that the MSRB floated several rule proposals for comment, and then filed some of them with the SEC before the SEC finalized the municipal advisor registration scheme and adopted a final definition of a municipal advisor under the Securities Exchange Act of 1934. Industry groups objected to the futility of commenting on proposals without understanding which parties would be subject to them. Industry groups and market participants had urged the MSRB for months not to move forward with rulemaking until the SEC finalized its municipal advisor registration scheme and definition. Market participants hailed the MSRB's decision to delay the proposed rules because of the need to know who municipal advisors are before they can be regulated.

Municipal advisors are initially defined in Dodd-Frank, but until the SEC adopts a permanent definition, the MSRB's proposals could not be implemented. The MSRB cited a concern that because the definition was not final as to who is a municipal advisor or which types of activities are covered, some firms and individuals could not participate in the SEC comment process on the MSRB proposals.

But the MSRB delay was also triggered by worries about the SEC's proposed definition of a municipal advisor that was published for comment. On December 20, 2010, the SEC issued a 231-page package of proposed rules and forms defining who must register as a municipal advisor under Dodd-Frank. That definition was widely denounced. Critics claimed that the SEC proposal went far beyond Dodd-Frank, for example, covering anyone advising 529

plans or public pensions. By the summer of 2011, political pressure to revamp the proposal grew as senators and congressional representatives urged the SEC to clarify the rule and to restrict its broad impact.

In the original rule filings with the SEC, the MSRB requested that its various proposed rules and rule changes be made effective on the date that SEC rules defining the term municipal advisor first become effective, or on such later date as the proposed rule change is approved. The September 9, 2011, announcement by MSRB fundamentally changed this timing. Now the MSRB rule proposals will be refiled with the SEC for approval upon the SEC's adoption of a permanent definition. However, the exact timing of the final definition falls within the discretion and purview of the SEC. The planned date for the SEC adopting a permanent municipal advisor registration rule, including the definition, was between August 2011 and December 2011. In the fall of 2010, the SEC began a temporary registration program for municipal advisors, as defined in Dodd-Frank. That temporary program expired at the end of 2011, which pressured the SEC to come up with a redefined proposal by the 2011 year end.

Changes to the Board of the MSRB

The Municipal Securities Rulemaking Board (MSRB) was established by Congress in 1975 and has traditionally functioned as a toothless rulemaking body without the powers of either market surveillance or enforcement authority. Dodd-Frank substantially expands the powers of the MSRB by authorizing it to assist the SEC and the Financial Industry Regulatory Authority (FINRA) in examinations and enforcement actions. Moreover, Dodd-Frank allows the MSRB to retain a portion of penalties collected in enforcement actions.

While the previous role of the MSRB was regulating broker dealers to protect investors, now the MSRB also protects state and local issuers, public pension plans, and others whose credit stands behind municipal bonds. Dodd-Frank broadened the mission of the MSRB to include the protection of municipal entities and obligated persons, in addition to the protection of investors and the public interest. Dodd-Frank defines municipal entity to include any state, political subdivision of a state, or municipal corporate instrumentality of a state, including agencies and authorities (whether or not they issue municipal bonds), and defines obligated person to mean any person who is committed to support the payment of the obligations on the municipal securities sold in an offering.

In addition to the authority, the composition of the MSRB was also transformed from a body dominated by broker-dealers to one with a majority-public membership. In other words, a majority of the members of the MSRB must now be independent. Dodd-Frank requires that the board consist of at least 15 members, at least eight of which are unrelated to any municipal securities broker-dealer or municipal advisor. Previously, the board contained only five independent members, with the other 10 members industry representatives from securities firms and municipal bond dealers. The new independent portion of the board must include at least one representative of institutional or retail investors in municipal securities, at least one representative of municipal entities, and at least one member of the public with knowledge of or experience in the municipal securities industry.

The MSRB's newly constituted 21-member board became effective October 1, 2010. The board transitionally increased its number of members from 15 to 21 when the Dodd-Frank Act was passed in July 2010. On September 28, 2011, the SEC gave approval for the MSRB to establish a permanent board structure of 21 board members. The SEC approval was criticized by dealers and municipal advisors on issues ranging from the board's composition and size to its deliberative processes and rulemaking. Since becoming effective, the board began drafting a series of proposals that would bring municipal advisors under its existing regulatory framework. Some of these are listed below:

- SR-MSRB-2011-08 (July 26, 2011) (Proposed New Rule A-11, on Municipal Advisor Assessments, and New Form A-11-Interim).
- SR-MSRB-2011-15 (August 24, 2011) (Proposed Interpretive Notice Concerning the Application of Rule G-17 [the "fair dealing" rule] on Conduct of Municipal Securities and Municipal Advisory Activities, to Municipal Advisors).
- SR-MSRB-2011-10 (August 16, 2011) (Proposed Rule Change Consisting of Amendments to Rule G-20, on Gifts and Gratuities, Rule G-8, on Books and Records, and Rule G-9, on Preservation of Records, and to Clarify That Certain Interpretations by FINRA and NASD Would Be Applicable to Municipal Advisors).
- SR-MSRB-2011-14 (August 23, 2011) (Proposed Rule Change Consisting of Proposed Rule G-36, on Fiduciary Duty of Municipal Advisors, and a Proposed Interpretive Notice Concerning the Application of Proposed Rule G-36 to Municipal Advisors).
- SR-MSRB-2011-12 (August 19, 2011) (Proposed Rule Change Consisting of Proposed New Rule G-42, on Political Contributions and Prohibitions

on Municipal Advisory Activities; Proposed Amendments to Rules G-8, on Books and Records, G-9, on Preservation of Records, and G-37, on Political Contributions and Prohibitions on Municipal Securities Business [i.e., pay-to-play transactions]; Proposed Form G-37/G-42 and Form G-37x/G-42x; and a Proposed Restatement of a Rule G-37 Interpretive Notice).

- SR-MSRB-2011-13 (August 22, 2011) (Proposed Rule Change Consisting of Proposed New Rule G-44, on Supervision of Municipal Advisory Activities, Along with Related Proposed Amendments to Rule G-8, on Books and Records, and Rule G-9, on Preservation of Records).

Commission Office of Municipal Securities

Many of Dodd-Frank's key municipal securities provisions remain unimplemented or partially implemented. Only about 130 words in length, Subtitle H, Municipal Securities, Section 979, Commission Office of Municipal Securities would create a stand-alone municipal securities office within the SEC to administer the rules of the SEC with respect to the practices of municipal securities brokers and dealers, municipal securities advisors, municipal securities investors, and municipal securities issuers. This new office would coordinate with the MSRB for rulemaking and enforcement actions as required by law, and the director would report directly to the SEC chair.

This new Office of Municipal Securities now exists within the SEC Division of Trading and Markets, being created by Dodd-Frank but not yet funded. However, funding for this new office has stalled in Congress, which kept funding for agencies, including the SEC, at fiscal year 2010 levels. Because no additional appropriations have yet been provided for the Office of Municipal Securities, the SEC is seeking permission to reprogram fiscal 2011 funds. However, reprogramming approval by appropriators is still pending. Thus, the office has not yet been made independent.

Currently, the Office of Municipal Securities coordinates the SEC's municipal securities activities, advises the SEC on policy matters relating to the municipal bond market, and provides technical assistance in the development and implementation of major SEC initiatives in the municipal securities area. The office assists the division of enforcement and other offices and divisions on a wide array of municipal securities matters. Additionally, the office reviews and processes rule filings of the MSRB and acts as the SEC's liaison with the MSRB, FINRA, and a variety of industry groups on municipal securities issues.

Creating further uncertainty is the report mandated by Dodd-Frank that was prepared for the SEC by the Boston Consulting Group (BCG) on

March 10, 2011, entitled "U.S. Securities and Exchange Commission—Organizational Study and Reform." Consultants at BCG examined the internal operations, structure, and the need for reform at the SEC. BCG questioned the wisdom of creating an independent municipal office due to additional overhead, increased organizational complexity, further fragmentation of the SEC, and impeded collaboration across offices that perform similar regulatory functions. BCG recommended either relaxing the funding constraints to allow the SEC to better fulfill its current role, or changing the SEC's role to fit available funding.

In June 2011, the SEC's muni chief retired after 12 years in the SEC's municipal securities office. As the muni office's chief since 2001, her retirement decreased the office staff count to three. Although the SEC hired a headhunting firm to conduct a search for a new director, that search was put on hold.

Municipal bond investors will want to follow the future developments of the Office of Municipal Securities, because of its important role in the SEC's current, aggressive push to seek greater control over municipal disclosures, municipal accounting standards, and the regulation of municipal market intermediaries.

Municipal Securities Studies

Often called the "congressional watchdog," the U.S. Government Accountability Office (GAO) is an independent, nonpartisan agency that works for Congress and investigates how the federal government spends taxpayer dollars. That Dodd-Frank requires the GAO to prepare several municipal market studies might be a signal that Congress intends to introduce future reform to municipal securities markets.

The first study, a review of the role and funding of the Governmental Accounting Standards Board (GASB), was delivered to Congress on January 18, 2011. Entitled "Dodd-Frank Wall Street Reform Act: Role of the Governmental Accounting Standards Board in the Municipal Securities Markets and Its Past Funding," this study examined the following four topics: (1) the use of GASB's accounting principles; (2) the benefits and limitations of GAAP reporting; (3) GAAP use after the credit crisis; and (4) GASB's continuing role in the municipal securities markets. Some of the findings relevant to the municipal bond investor follow.

1. All state governments use GAAP for state-level financial reporting. However, the municipal bond market consists primarily of small,

infrequent issuers. Furthermore, because states are sovereign and thus not permitted bankruptcy protection, municipal bond investors are less concerned with state governments.

2. Many municipal issuers use GAAP, although state requirements regarding the use of GAAP by local governments vary. However, the cost of preparing GAAP-basis financial statements frequently outweighs such potential benefits as reduced borrowing costs. This is the most common reason cited by small, infrequent issuers for not using GAAP. With limited staff time and resources, GAAP-basis financial statements are too complex and cost-prohibitive for many small debt issuers, who are unable to hire or outsource accounting professionals with an advanced skill set. Indeed, in states where GAAP use is not required for local governments, local governments preparing GAAP-basis financial statements tend to be larger, more frequent issuers.
3. Bond insurance has decreased since 2007 with the demise of several monoline bond insurers who would guarantee scheduled payments of interest and principal on a municipal bond. Thus, municipal bond investors may be more reliant than ever on GAAP-basis financial statements to determine the quality of municipal securities. However, there is no correlation between the use of GAAP and a good financial position or good credit quality. In other words, GAAP-basis reporting does not necessarily signal a high-quality municipal bond.
4. In 2009, governments required an average of seven months' delay from the end of their fiscal year to complete and issue GAAP-basis audited financial statements. This timeliness issue is a result of the complexity of GAAP and governments. Instead of relying upon outdated information, municipal bond investors can attempt to obtain additional, unaudited information from issuers. Unlike other market participants such as retail investors, rating agencies and bond insurers are able to ask issuers for any additional information they need to conduct a credit assessment. Therefore, the lack of GAAP-basis financial statements does not necessarily lead to a higher credit risk determination.
5. Despite GASB's efforts to educate governments about financial statements and GAAP, GASB-issued standards make government accounting more complex and expensive.
6. The Financial Accounting Foundation (FAF) is the parent organization of GASB and FASB. The foundation currently receives voluntary contributions in support of GASB. Contributions from state governments are the largest single source of voluntary monetary contributions, However, GASB needs a steady, sustainable stream of funding. In the spring of

2011, the SEC directed the Financial Industry Regulatory Authority (FINRA) to establish a reasonable annual accounting support fee (GASB Accounting Support Fee) to adequately fund the annual budget of the GASB. In August 2011, FINRA finished collecting comments on its proposed GASB funding plan to be assessed against FINRA member firms based on municipal securities transactions reported to the MSRB.

A second study requires the GAO to compare municipal and corporate disclosure and to evaluate the costs and benefits of requiring issuers to improve disclosure, including an evaluation to amend or repeal Section 15B(d) of the Securities Exchange Act of 1934. Commonly known as the Tower Amendment, this prohibits the SEC and the Municipal Securities Rulemaking Board (MSRB) from directly or indirectly requiring municipal issuers to file presale disclosure documents. This effectively restricts federal regulation of issuers of municipal securities. Instead, the U.S. government can only directly regulate the market's broker-dealers and underwriters. The Tower Amendment essentially places disclosure requirements and burdens on the underwriters of municipal bonds, rather than issuers. Since municipal bonds rarely default, issuers remain opposed to any changes that would burden issuers with onerous new requirements.

However, the SEC wants municipal disclosure to be more like corporate disclosure in terms of timeliness and quality. Already, the SEC has amended Rule 15c2-12, whose compliance date for the new rules was December 1, 2010. Previously just an underwriter conduct rule, this amended rule greatly expands the original mandate that "prohibits brokers, dealers, and municipal securities dealers from purchasing or selling municipal securities unless they reasonably believe that the state or local government issuing the securities has agreed to disclose such things as annual financial statements and notices of certain events, such as payment defaults, rating changes and prepayments." By removing materiality standards, the amended Rule 15c2-12 might lead to more frequent notices of technical default, which occur when specifically defined events of default occur, for example, failure to maintain covenants. This may lead to an increase in high yield municipal bonds.

Regardless of the Tower Amendment outcome, municipal securities would remain exempt from SEC registration requirements under the Securities Act of 1933. Thus, the SEC may likely seek explicit authority from Congress to regulate the municipal market directly. Despite recent demands by investors for more transparency by municipalities, these issues represent another cost-benefit trade-off in the currently changing municipal bond market.

The Volcker Rule

The so-called Volcker Rule was adopted by Congress in Section 619 of the Dodd-Frank Act, and is scheduled to be implemented on July 21, 2012. First proposed by, and named after, former Federal Reserve Chairman Paul Volcker, the rule was intended to reign in the kind of risk taking and speculative activity on the part of large banks which led the 2008 financial crisis. Although often thought solely as a ban on proprietary trading (prop trading) by commercial banks not done at the behest of its clients, the rule also prohibits banks from sponsorship of hedge funds and private equity funds, and limits the liabilities a large bank can hold. The original rule was an attempt to restore elements of the 1933 Glass-Steagall Act's separation of commercial and investment banking that was scrapped by Congress in 1999.

Prop trading is market making, directional bets for the bank's own accounts with their own resources for their own profits. A strong Volcker Rule would only permit securities market activities intended to serve customers on commission. The current Volcker proposal exempts prop trading in Treasuries, agencies, and about 60 percent of municipal bonds, those issued by states and their political subdivisions such as counties, cities, towns, and villages. Debt issued by public agencies or authorities would be subject to the restriction, as well as bonds issued by foreign governments.

Prop trading is, however, often indistinguishable from trading related to market making, hedging, price discovery, liquidity management, asset-liability matching, underwriting, and the like. In the current Volcker proposal, the presumption is that any possible risk-taking activity in service to clients is prohibited proprietary trading until the financial institution can prove otherwise. Critics note this conflict with Congress's explicit exemption for market making by banks and their affiliates, and recommend instead that the assumption be that customer-facing market making activities are permissible until proven otherwise.

Impact on Muni Markets

In addition to such criticisms as the Volcker Rule actually increasing risk, diminishing price discovery, and being vulnerable to legal challenge, there are three potentially significant manifestations of the Volcker Rule. The first regards decreased market participation by major muni bond dealers, including the trading desks of the nation's largest banks.

Second, muni market liquidity may suffer. In the perennially illiquid muni market, banks and muni bond dealers must put their own capital at

risk just to facilitate trades. However, maintaining an inventory of bonds available for sale is considered proprietary trading under the Volcker Rule. For example, many states require "competitive underwritings" in the muni market, where underwriters bid on a bond issue with the expectation that investors will later buy that debt. The risk of holding significant unsold debt and risking the firm's own capital to do so are both banned under the Volcker proposal. This is already limiting liquidity and widening bid-ask spreads on bond trades, because some major muni bond dealers are holding less inventory in anticipation of the new rule's implementation. Because most banks would be banned from market making activities, there would be reduced liquidity, always one of the securities industry's biggest concerns.

The Volcker Rule may also lead to increased price volatility. In addition to those widening bid-ask spreads mentioned above, some bond issuers may have to pay an additional rate premium to attract investors. Issuers that are not exempt would spend more on underwriting and legal fees to properly structure the bond issues or to go through regulatory language. All of these increased borrowing costs would raise costs for investors, increasing the difficulty for local governments in borrowing money for public projects and operations.

Current Status

In its January 31, 2012, comments, the MSRB openly criticized the Volcker Proposal. Because of this rare objection to a federal proposal addressed to four federal regulators—the Office of the Comptroller of the Currency (OCC), the Federal Reserve Board (the Fed), the Federal Deposit Insurance Corporation (FDIC), and the Securities and Exchange Commission (SEC)—perhaps the final implementation plan of the Volcker Rule will be less stringent.

The MSRB pointed out that exempting market making from the Volcker Rule would be of little benefit to the muni market, where over 99 percent of municipal securities do not trade on a given day. The MSRB recommended that federal regulators adopt the definition of municipal securities appearing in the Securities Exchange Act of 1934, which covers all munis. The MSRB favored an exemption from the Volcker Rule for all municipal securities, citing Thomson Reuters data that about 41.4 percent of the muni securities issued in fiscal year 2011 were issued by non-exempt agencies, authorities, and districts. The current Volcker Proposal would not exempt housing and turnpike authorities, water and sewer districts, school districts, and other such entities.

On February 13, 2012, the comment period closed on the proposed draft of the law, with approximately 17,000 comment letters submitted whose overall theme was that the Volcker Rule will not work in its current version. During his report to Congress on February 29, 2012, Federal Reserve Chairman Ben S. Bernanke told the House Financial Services Committee in Washington that the central bank and other regulators would not meet the July 21, 2012, deadline when the Volcker Rule is set to take effect. Bernanke also disclosed that the "most difficult distinction" in the rule is the difference between proprietary trading and market making.

Controversy over the Volcker proposal centers upon proprietary trading exemptions and market making exemptions. Critics propose that the current rules be amended to expand the prop trading exemption to the entire municipal bond market, and to adopt the muni definition from the Securities Exchange Act of 1934, which covers all munis. This would solve much of the Volcker mess, and there is strong support for this approach. The probability of this outcome is currently difficult to estimate. Many muni market participants feel that adjusting the definition of market making and the proposed limitations on market making would avert a potential crisis for all of the financial markets, not just the muni market. Consequently, even the EU, the U.K., Japan, Canada, and other foreign governments and central banks submitted comments.

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Selected Resources for Investors

Author's Note: The following selected list of vendors and service providers is provided as a courtesy to the reader and should not be construed as an endorsement, implicit or otherwise, of any particular product or service.

Information Aggregators

BondsOnline.com

BondsOnline Group, Inc. is a financial media/data solutions company that provides Income Investor Tools through a network of web sites to financial professionals (brokers, investment advisors, and financial planners serving retail investors, CPAs, attorneys, business valuation services) and retail investors. The BondsOnline Network includes BondsOnline.com, PreferredsOnline (epreferreds.com), BondsOnlineQuotes.com, Ratecurve .com, and YieldandIncome.com.

MuniNetGuide.com

MuniNetGuide.com is a municipal research web site with an orientation to place. Through articles, data, and special features—including a municipal bond calendar and guide to upcoming industry conferences—the web site serves as a hub for research on municipal-related matters, including state and local government, public finance, municipal bonds, and urban affairs, as well as the economic and demographic trends that impact them.

Data Providers

CreditScope®

CreditScope®, using Merritt Research Services data, is a comprehensive credit analysis software system that is used by institutional investors, investment bankers, and credit analysts. CreditScope® Municipal Edition combines delivery of thousands of tax-exempt credits with a strong combination of credit analysis tools. Designed for the tax-exempt market, credits are consistently fielded within their tax-exempt sectors and backed by viewable source documents. CreditScope® combines consistently fielded financial data, credit analytics, and credit monitoring tools into one comprehensive software system. This combination enables users to save time collecting and fielding data, identify trading opportunities, assess credit risk, and organize historical credit reviews and ratings.

DPC DATA, Inc.

DPC DATA, Inc., founded in 1992, is the leading provider of disclosure-related data products and specialized data services to the municipal industry. For nearly 20 years, its content and solutions have promoted transparency, while enabling municipal market participants to fulfill their regulatory and compliance obligations via integrated workflow services. Its customers include more than 600 financial institutions and information intermediaries. DPC DATA is a privately held firm headquartered in Roseland, New Jersey. Among the suppliers of municipal bond disclosure data, DPC DATA is considered the premier source of accurate and well-organized information, used by the top-tier dealers, trading platform providers, and fund managers. The firm is primarily geared to serve the professional community. However, investors can access their MuniFILINGS archive and detailed search capability, including indexing by obligors, with a subscription to munifilings.com. Other products and services helpful to investors are MuniPOINTS, brief abstracts of key descriptive data from final offering statements; MuniGUARD, a surveillance-and-alert services specializing in tracking default-related material events notices; and MuniGUARD News, a service tracking current news from local and regional publications keyed to CUSIP numbers. For more information please visit www.DPCDATA.com or e-mail DPC DATA at sales@dpcdata.com.

Lumesis

DIVER by Lumesis brings its users access to more than 130 data sets from more than 30 distinct sources. Its focus is timely and meaningful demographic and

economic data that impact the fiscal well-being of states, counties, and other municipalities. DIVER includes Data and Portfolio Visualization tools, Data and Portfolio Analytics, and a series of Notification Applications to keep you abreast of continuing disclosure filings as well as data updates keyed to a user's unique interests.

For more information, visit www.lumesis.com or contact them at 203-274-8615 or inquiries@lumesis.com.

Credit Research

Axios Advisors, LLC

Axios Advisors, LLC is an independent research and investment management boutique specializing in municipal bonds. Its analysts average more than 25 years of institutional experience spanning both research and portfolio management. Axios offers municipal research outsourcing solutions for mid-market institutions such as community banks and thrifts. It also sub-advises hedge funds and other institutional investors with regard to high yield and distressed muni strategies. For high-net-worth investors looking for attractive and reliable investment income, Axios offers separately managed account strategies customized to their needs. For more information, please contact Axios at info@axiosadvisors.com or call 508-509-8742. The web site is www.axiosadvisors.com.

Smith's Research & Gradings

From its inception in 1992, Smith's Research & Gradings' raison d'être has been to provide independent research and principles-based credit analytics. Smith's Research & Gradings disseminates its market intelligence via a biweekly four-color magazine. Smith's industry-leading conferences provide unique focus groups for investors and issuers to discuss matters of mutual interest. In addition to Smith's annual housing, health care, and high yield conferences, the company also produces the All-Star Municipal Analysts Program.

In 1994, Smith's Research & Gradings launched the world's first comprehensive credit scale—Smith's Gradings—for the global fixed income markets. Smith's Research conducts research and creates unique credit reports using this proprietary grading system. Smith's Gradings are used by institutional investors, wealth management companies, insurance companies, community banks, mutual funds, and ETFs worldwide.

Bankruptcy and Reorganization Experts

Akemi Capital

Based in New York City, Akemi Capital is a pure advisory firm in turnaround, workouts, restructuring, bankruptcy, and distressed M&A. Team members typically function as the restructuring advisor to distressed entities, both before or during bankruptcy, and can serve as the client's Chief Restructuring Officer (CRO). One team member is a Certified Insolvency & Restructuring Advisor (CIRA) who teaches municipal bankruptcy, heads a team of municipal bond credit analysts, and serves as advisor to a distressed municipal bond hedge fund recently ranked number 1 by BarclayHedge. For additional information, please contact info@akemicapital.net.

Mutual Fund Research

Morningstar

Morningstar, Inc. is a leading provider of independent investment research in North America, Europe, Australia, and Asia. The company offers an extensive line of products and services for individuals, financial advisors, and institutions. Morningstar provides data on approximately 330,000 investment offerings, including stocks, mutual funds, and similar vehicles, along with real-time global market data on more than 5 million equities, indexes, futures, options, commodities, and precious metals, in addition to foreign exchange and Treasury markets. Morningstar also offers investment management services through its registered investment advisor subsidiaries and had more than $167 billion in assets under advisement and management as of September 30, 2011. The company has operations in 26 countries.

Morningstar provides analyst research on about 4,400 funds and ETFs globally; municipal bond mutual funds that it covers are included in this total. The company provides the Morningstar Rating, commonly known as the star rating, for mutual funds in its database that have at least 36 months of consecutive performance data—it is a historical measure of risk-adjusted performance. In November 2011, the company began issuing the Morningstar Analyst Rating for funds, which is a qualitative, forward-looking, analyst-driven rating—the star rating is a quantitative measure.

Default and Bankruptcy Data

The *Distressed Debt Securities Newsletter*

The *Distressed Debt Securities Newsletter* is a monthly report of new municipal and corporate bond defaults and updates on previous defaults. Income Securities Advisor is the publisher of this monthly newsletter and has a database of all such defaults since 1980. It provides research on municipal defaults and maintains status information on its web site at www.incomescurities.com. It also maintains a web site on Florida CDD defaults at www.floridacddreport.com.

Municipal Asset Valuation

Rushton Atlantic, LLC

Rushton Atlantic, LLC is a New York- and Chicago-based valuation consulting firm serving investors, financiers, and insurers in capital-intensive sectors, including conventional and renewable energy, infrastructure, transportation, and manufacturing. The firm's founding principals, Rick Meyer and Ken Kramer, previously managed the leading global structured finance valuation practice for equipment, facilities, and infrastructure assets at American Appraisal Associates and bring over 50 years of combined experience in valuation and banking to the practice of advising financial services professionals on sophisticated valuation issues. Services include financing and lease appraisals, purchase price allocations, portfolio and collateral valuations, cost segregation studies, asset disposition, and other services supporting investment, financing, insurance, taxation, and financial reporting.

Rushton Atlantic is a member of Rushton Partners Group and sister company of Rushton International, Ltd., the United Kingdom's leading insurance appraisal firm with a 150-year history. The Rushton firms are also members of GAVAN, the Global Asset Valuation & Advisory Network, comprising valuation firms on five continents, which provides consistent worldwide services to the clients of its member firms.

About the Author

Triet Nguyen is a veteran of the fixed-income markets and a high yield/distressed municipal bond expert. Over his 32-year career, Nguyen has designed, marketed, and managed every type of buy-side investment product, from mutual funds (open- and closed-end) to managed accounts and hedge funds. He is currently the founder and managing partner of Axios Advisors, LLC, an independent municipal research and investment advisory boutique specializing in high yield and distressed strategies.

Before Axios, Nguyen was a Senior Vice President at B.C. Ziegler, where he traded tax-exempt high yield and taxable municipal bonds (including Build America Bonds). From 2004 to 2008, he was a Managing Director of Saybrook Capital, LLC, managing one of the first ever municipal hedge funds dedicated to a credit strategy. Prior to 2004, he was a Vice President/Portfolio Manager of the John Hancock Funds and a Senior Portfolio Manager of the Putnam Funds.

As Director of Information Services at ebondUSA.com between 2000 and 2001, Nguyen contributed to the development of a pioneering online muni bond evaluation system.

Nguyen received a BA in Economics and an MBA in Finance and Accounting from the University of Chicago.

Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

About the Contributors

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Jon Barasch is a Senior Manager in Interactive Data's Evaluation Services (EVS) Division. Barasch is currently tasked with managing the Quality Assurance Group, which covers municipal evaluations and municipal credit analysis. He recently managed the high-yield evaluation desk for the past eight years. Barasch has a research background and previously worked as a senior credit analyst for Muller Data. He has been with the company for 12 years, having started at Muller Data Corp. Interactive Data acquired Muller Data in 1999. Barasch has been working in the municipal bond industry for the last 17 years, and prior to joining Muller Data Corp., worked as a high yield credit analyst at Rickel Securities, Tucker Anthony, and Gardnyr Michael Capital.

Barasch received his MBA from Rutgers's Graduate School of Management and a BS in Finance from the University of Maryland at College Park. He is an active MAGNY and NFMA member.

Richard Daskin

Richard Daskin has held several different positions during his 30-year fixed-income career, including credit analyst, portfolio manager, trader, bond price evaluator, and institutional salesperson, and he has worked on both the "buy" and "sell" sides of Wall Street. Daskin is currently the President and Chief Investment Officer of RSD Advisors, LLC, a Registered Investment Advisor located in New York City that provides financial planning and investment management to individuals, businesses, and nonprofit institutions. Daskin received his bachelor's degree in Economics from the University at Albany, is a CFA Charter holder, and is a CFP®. He can be contacted at rdaskin@rsdadvisors.net.

Matt Eden

Prior to joining Sovereign Finance LLC, Matt Eden worked for JPMorgan Securities Inc. where he began in September of 2002 as an associate in the newly formed Native American Finance Group. Prior to joining JPMorgan, Eden worked as an investment banker for a boutique broker/dealer exclusively focused on the tribal finance arena. His work in the Native American finance sector has been focused on arranging financing for commercial projects, economic development opportunities, government-related projects, and infrastructure development for tribal clients as well as public finance projects backed by revenues or taxes paid from tribal or commercial gaming operators. He has financed over $7 billion in debt for tribes in his career as an investment banker, including bank and bond financings for the Agua Caliente Band of Cahuilla Indians, Pechanga Band of Luiseno Mission Indians, Morongo Band of Mission Indians, Gila River Indian Community, Navajo Nation, Oneida Nation, Santa Rosa Rancheria Tachi Yokut Tribe, Southern Ute Indian Tribe, Jicarilla Apache Nation, Tuolumne Band of Me-Wuk Indians, Yavapai Apache Nation, and the Laguna Development Corporation. Eden has also spent considerable time working with tribal clients on opportunities to develop water, natural resource, and alternative energy enterprises on the reservation. He has a bachelor's degree in Finance from Gustavus Adolphus College in St. Peter, Minnesota.

Sovereign Finance LLC is a leader in providing financial and investment advisory services to Native American clients, with a focus on assisting tribal governments in modeling, capacity analysis, structural recommendation, negotiation and efficient closing of project and governmental financings. The professionals of Sovereign Finance have arranged nearly $9.0 billion in debt for Native American issuers over the past 15 years.

Patrick Flanagan

Patrick Flanagan is a Washington, DC–based municipal credit analyst. He has over 20 years of experience in public finance. He has worked on a wide variety of municipal transactions involving health care, education, industrial development projects and equipment financing. Transactions have included leases and private placements as well as public offerings. For the past six years he has focused on housing bonds. Flanagan holds both a BA and MA in Economics from the University of Maryland.

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Edward Krauss is a Senior Analyst in Interactive Data's Credit and Research Group where he analyzes high yield municipal debt for the municipal evaluations group. Krauss has been with the company for eight years and was previously a credit officer with Moody's Investors Service for 23 years and JPMorgan Chase. He is a member of MAGNY and NFMA. Krauss received his MBA in Finance and Investments from Hofstra University.

Jeff Lamb

Prior to founding Sovereign Finance, Jeff Lamb was the Executive Director and Sector Captain of JPMorgan Securities' Native American Finance Group. Jeff's tenure at JPMorgan lasted approximately six years and began in 2002 when hired by Bank One Capital Markets. Prior to joining JPMorgan, Lamb worked as an investment banker for several broker/dealers, primarily within the tribal finance arena. He specializes in taxable and tax-exempt transactions including bond transactions and loan syndications for Native American tribes across the country, and also serves as a financial advisor to tribal governments. Lamb has financed over $9 billion in debt for tribes in his career as an investment banker, including bank and bond financings for the Agua Caliente Band of Cahuilla Indians, Pechanga Band of Luiseno Mission Indians, Morongo Band of Mission Indians, Gila River Indian Community, Navajo Nation, Oneida Nation, Santa Rosa Rancheria Tachi Yokut Tribe, Southern Ute Indian Tribe, Jicarilla Apache Nation, Tuolumne Band of Me-Wuk Indians, Yavapai Apache Nation and the Laguna Development Corporation. Lamb is a member of the Native American Finance Officers Association (NAFOA) and has been president and served on the board multiple times since 1993. Lamb is an enrolled member of the Gros Ventre Tribe of Fort Belknap, Montana.

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Richard P. Larkin

Richard Larkin is a Senior Vice President and Director of Credit Analysis, joining Herbert J. Sims in February 2008, where his first assignment was to testify before the House of Representatives on the bond insurance crisis. Dick worked at J.B. Hanauer from 2003 to 2008, where he performed high yield municipal bond analysis for traders and brokers in Hanauer's five offices in New Jersey, Pennsylvania, and Florida. Prior to joining Hanauer, Larkin was a Managing Director in Fitch's public finance group and served as the co-chair of its Public Finance Criteria Committee. He covered high-profile tax-supported and revenue bond credits and had supervisory responsibility for credit surveillance and the training and development of the public finance staff. Prior to joining Fitch in 1998, he was a Managing Director and Chief Municipal Rating Officer at Standard & Poor's, where he was responsible for municipal rating policies, practices, governance, and criteria. Following a 21-year career at S&P, Dick served as a financial advisor to Fairmount Capital Advisors, where he developed credit enhancement programs for public pension funds. Later, he helped found Reliance SRL, a rating agency that performed local credit ratings in Uruguay. From 1995 to 1998, Dick served on the National Advisory Council on State and Local Budgeting (NACSLB). This industry task force, comprising representatives from the private sector and officials from all levels of local government, identified and fostered 60 of the best budgeting practices that have been implemented by the best-run state and local governments.

Larkin earned his BA in Economics from Iona College and a master's degree in Economics from Fordham. In 1999 to 2000, he was a key participant in the implementation of Fitch's Default Study and revision of its criteria and ratings. During the same period, he authored the definitive study on the impact of municipal government's management practices on credit ratings, defining for issuers a rating agency's relative evaluation of best management practices. Larkin has had hands-on rating experience in 42 states, at all levels of state and local government, covering virtually every type of debt structure and security pledge. He has been a frequent speaker at state and national Government Finance Officers' Association (GFOA) conferences, and he has had articles published in national media and public finance textbooks. Larkin has appeared frequently on CNBC, Bloomberg Television, and Fox Business News, and he has been widely quoted in the *Wall Street Journal, BusinessWeek*, *The Bond Buyer*, and Bloomberg reports, as well as many other media outlets. Larkin serves on the Executive Committee for the Securities Industry and Financial Markets Association

(SIFMA). He was also awarded the National Federation of Municipal Analysts' Award for Excellence in 1996, and in 2008, 2009, 2010, and 2011 was elected the First Team Special Revenue Bond Municipal Analyst by Smith's Research and Gradings.

James Lyman

James Lyman has been a fixed-income professional for over 20 years, having worked in a number of different areas of the market. He began his analytical career at Moody's Investors Service, a leading rating agency. While at Moody's, Lyman analyzed, structured, and rated almost all types of municipal bonds from the basic general obligation credits to complex municipal bond derivatives. He then moved to the Financial Guarantee Insurance Company (FGIG), where he was an Assistant Vice President of Public Finance Underwriting.

In 1995, Lyman segued to the institutional investment side of business when he joined Weiss, Peck & Greer Investments, LLC (WPG) as Director of Municipal Bond Research. In this role Jim was responsible for analyzing risk and making buy and sell recommendations on municipal bonds for client portfolios. In 2000, Lyman moved over to the taxable fixed-income unit of WPG to run corporate bond research. From 2006 to 2010, Lyman was employed at Fischer Francis Trees and Watts as a portfolio manager/trader running the U.S. dollar corporate component of the firm's client portfolios. In the fall of 2010, Lyman rejoined his colleagues from Weiss, Peck & Greer, which now manages over $10 billion in fixed-income assets at Neuberger Berman LLC. In his current role he manages the credit research effort, which covers a combination of corporate and municipal issuers.

Additionally, Lyman recently edited and wrote the Preface for *The Complete Guide to Investing in Bonds and Bond Funds—How to Earn High Rates of Return—Safely*, an introductory book on bond investing by Martha Maeda, published by Atlantic Publishing.

Kenji Mochizuki

As a turnaround/workout specialist and bankruptcy professional, Mochizuki currently works in bankruptcy/restructuring/M&A advisory as well as distressed investing. He also heads a team of credit analysts and serves as advisor to a distressed municipal bond hedge fund. Most recently, Mochizuki was the head of bankruptcy/restructuring at a boutique investment bank. Previously, Mochizuki served as a Director of Mergers and Acquisitions at a

middle-market investment bank. His finance career began in principal investing in the distressed hedge fund and venture capital industries. Mochizuki was educated at Columbia University and the University of Pennsylvania. He is a Certified Insolvency & Restructuring Advisor (CIRA) as well as the bankruptcy valuation section editor of the *AIRA Journal*, which publishes Mochizuki's finance column every two months. His professional memberships include the Association of Insolvency & Restructuring Advisors (AIRA) and the American Bankruptcy Institute (ABI). He prefers to be contacted at VCPE_jobs@yahoo.com.

Melissa Robertson

Melissa Robertson is an attorney with 14 years of experience in private law practice in Texas and Oregon. Prior to joining Sovereign Finance, Robertson was a member of the Indian Tribal Finance practice group at Orrick, Herrington & Sutcliffe, where her practice focused on Indian law matters with special emphasis on project finance and commercial transactions in Indian country. She has experience working with tribal governments and business enterprises on a wide variety of projects that include financings, both taxable and tax-exempt, for land acquisitions, governmental administration buildings, recreational facilities, gaming and entertainment facilities, hotels and resorts, golf courses, tribal utilities and other basic infrastructure, working capital borrowings, and debt restructurings. She has also represented commercial banks, bond underwriters, and other financial institutions providing financing for tribal projects. Robertson received a BA from the Plan II Honors program at the University of Texas at Austin and a JD from the University of Texas School of Law. She is a member of the Oregon State Bar and the State Bar of Texas.

Sovereign Finance LLC is a leader in providing financial and investment advisory services to Native American clients, with a focus on assisting tribal governments in modeling, capacity analysis, structural recommendation, negotiation and efficient closing of project and governmental financings. The professionals of Sovereign Finance have arranged nearly $9.0 billion in debt for Native American issuers over the past 15 years.

Keith Rochelli

Keith Rochelli analyzes potential new credit opportunities for Saybrook Capital's Municipal Opportunity Funds and is Portfolio Manager for

Saybrook's Municipal Active Alpha fund. Prior to joining Saybrook in September 2005, he was an Assistant Vice President at Citigroup, where he focused on marketing, structuring, and executing derivative transactions for western region clients. Rochelli worked intimately on financial products transactions for McCarran International Airport, Metropolitan Water District of Southern California, Scripps Health, and Catholic Healthcare West, among other,s with over $6 billion notional executed. Prior to moving to Los Angeles with Citigroup, Rochelli was an analyst/associate in the New York–based quantitative group where he specialized in complex municipal transactions and project finance. Rochelli graduated Magna Cum Laude from the University of Texas at Austin with a bachelor's degree in Business Administration in Finance.

Ken Rogozinski

Ken Rogozinski has 25 years of experience in the municipal bond and structured finance industries. Ken is currently chief executive officer and portfolio manager at Dreadnought Capital Management Corporation, a registered investment advisor specializing in managing investments in municipal bonds. Prior to founding Dreadnought Capital Management Corporation, he was co-head of JPMorgan's municipal structured products group where, among other things, he was responsible for identifying and purchasing high yield municipal bonds (including housing bonds) on a direct basis from municipal issuers.

Rogozinski was an active investor in single-family and multifamily municipal housing bonds for Greystone & Co. During his nine years with Greystone, he managed a municipal housing bond portfolio of over $700 million, the large majority of which were highly rated housing bonds. Rogozinski has also spent time structuring and executing tax-exempt bond transactions to finance single-family, multifamily, and other real estate–related projects or mortgage loans as an investment banker at both Goldman Sachs and Morgan Stanley.

Rogozinski began his finance career in 1987 by rating both taxable and tax-exempt mortgage-backed securities at S&P. He has a BS in Finance from Fordham University and an MBA from the Wharton School.

Shannan Wilson

Shannan Wilson is Head of Credit Research and a founder of Alprion Capital Management LP. She was a Vice President at The Jefferies Buckeye

Fund identifying trade opportunities in stressed and distressed credit situations. Prior to Jefferies, she was a Senior Investment Analyst for Avenue Capital Group—Asia Funds focusing on the purchase and valuation of distressed assets and nonperforming loans. Previously, she was an Analyst in Salomon Smith Barney's Mergers and Acquisitions Group. Prior to beginning her finance career, Wilson was an Aerospace Engineer at NASA Ames Research Center focused on the development of new supersonic technologies. Wilson received her MBA from the Harvard Business School, MS in Aerospace Engineering from Georgia Institute of Technology, and BS in Mechanical Engineering from Florida A&M University. Wilson is also a founder and currently serving as a manager of Trident Municipal Research.

Investing in the High Yield Municipal Market: How to Profit from the Current Municipal Credit Crisis and Earn Attractive Tax-Exempt Interest Income
by Triet Nguyen

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