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# General Session: <br> Structuring and Financial Aspects of a Municipal Bond Transaction 

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This session provides an overview of the basic structuring and financial aspects of municipal finance transactions. It covers concepts that are relevant to the structure of a deal, such as the decision to borrow, the source of payment, the scope, timing, and marketing of the borrowing and various aspects of the municipal bond market. It also covers basic financial concepts relevant to gaining an understanding of such transactions. In doing so, this session will address the following questions:
A. What are the basic "structures" of most typical municipal finance transactions?
B. What are the basic documents required for typical municipal finance transactions? In addition, what are the more important parts of these documents?
C. What are the primary economic terms of a municipal finance transaction?
D. What are the financial aspects of a transaction and how do these factors impact the structure of a transaction?

## PART I: BASIC STRUCTURING \& DOCUMENTATION

## I. WHAT IS A MUNICIPAL BOND AND WHY ISSUE IT?

A. At its most basic level, a municipal bond is a debt instrument issued by a governmental body.
B. Debt Instrument. A public entity issues a bond, note, warrant, or other instrument of indebtedness (which this outline refers to generally as a "bond") as a means to generate funds to support a governmental purpose (e.g., finance a project, refinance existing debt, finance operational costs). A bond is simply the evidence of the debt, in the same way that a homebuyer will sign a promissory note to its lender as evidence of its obligation to repay a home loan. A bond typically specifies:

1. an obligation to pay,
2. a stated amount (the "principal"),
3. at a given time (the "maturity"), and
4. with interest at a stated rate.

There are many variations on the structure and security pledged for the payment of the bonds, including bonds payable from all lawfully available funds of the issuer and those payable from a limited tax or revenue source, bonds that have one maturity date or those with multiple maturity dates, and bonds with fixed interest rates and those with variable interest rates.
C. Municipal bonds are issued by, or on behalf of, a political subdivision. The issuer can be nearly any governmental entity, such as a state, county, city or an authority created by any of these pursuant to applicable law. There are two primary types of bonds issued:

1. Governmental Bonds - issued to provide funding for governmental projects. For example, water and sewer bonds or general obligation bonds.
2. Conduit Bonds - issued in order to loan the bond proceeds to a third party authorized by law to use municipal bond proceeds for a publicly beneficial purpose. For example, municipal bonds issued to provide funds for a taxexempt hospital to build a new cancer wing.
D. Why Issue Municipal Bonds?
3. The most common reason a governmental entity issues municipal bonds is to finance costs associated with capital projects (or to refinance bonds previously issued to finance capital projects). In most states, governmental issuers must follow specific statutory procedures for the authorization and issuance of their bonds.
4. Traditional tax-exempt municipal bonds benefit from a federal income taxexemption on the interest earned on the bond. Investors will buy tax-exempt municipal bonds at a lower interest rate than a taxable bond because they will not have to pay federal income tax on the interest earned. The issuer will, therefore, have a lower interest rate to pay on the bond.

For example, if the taxable rate on bonds is $7 \%$ and an investor has a $33 \%$ marginal tax rate, then the investor will earn an equivalent amount of interest from a $7 \%$ taxable bond as with a $4.69 \%$ tax-exempt bond. The calculation is $7 \%$ multiplied by 0.67 ( 1 minus the marginal tax rate), which equals $4.69 \%$. Clearly, a municipal issuer would prefer to pay $4.69 \%$ rather than $7 \%$ interest on $\$ 10,000,000$ principal amount of bonds. In the first year alone, the issuer would save $\$ 231,000$ in this example.
E. Certain risks inherent to bonds in general:

1. Interest Rate Risk
2. Default Risk (Credit Risk)
3. Reinvestment Rate Risk
4. Inflation Risk
5. Call Risk
6. Maturity Risk
7. Liquidity Risk
8. Tax Risks
9. Change in Law Risks
10. Other Risks

## II. LOCAL GOVERNMENTS AND BORROWINGS

## A. The Decision to Finance/Borrow

1. Every municipal bond transaction involves a public issuer's need to borrow money to finance "something." Conceptually, the process of issuing bonds is the process of borrowing money (a loan from the bondholders to the public issuer or a private borrower borrowing "through" the governmental entity). The buyers of bonds are, thus, investors, both individual and institutional, who loan money to the governmental issuer (or through the governmental issuer to conduit borrowers) by means of their purchase of the bonds.

Strategic planning for debt issuance, in light of the issuer's capital outlay/improvement needs, should be addressed with a view to giving the issuer the ability to access the market when it expects to need funds, while avoiding an unnecessarily high number of transactions (resulting high issuance costs) over a short period of time. The key here is when the issuer receives money vs. when the issuer needs money (capital/debt markets allow entities to "smooth out" their production and consumption of "excess" cash over time).

Interest rates, terms and costs of issuance often influence an issuer's decision to finance, or at least how much the issuer will borrower. In deciding how to proceed, the issuer/borrower will weigh all financing costs
(including interest costs and costs of issuance) against the benefit to be gained from the financing. Further, consideration should be given to the relevant public support for the project and related factors, such as political controversies, litigation, or public criticism, that can arise from the financing.
2. Types of Municipal Borrowings
a. to finance new projects - often building projects, new roads, new/expanded utilities, new/expanded schools, new/expanded hospitals, etc.;
b. to finance cash flow needs - "working capital" financings are subject to both state and federal tax law limitations; and
c. to refinance outstanding debt ("refundings"). Usually done because the issuer can receive lower interest rates and save money; e.g., by paying off outstanding $5 \%$ debt with new $3 \%$ debt. This is commonly referred to as a "high-to-low" refunding. An issuer may also do a "low-to-high" refunding when non-economic reasons merit a refunding (such as eliminating burdensome covenants or removing reserve fund requirements to make use of idle cash or to restructure debt service). Prior to January 1, 2018 issuers had a single opportunity to "advance refund" tax-exempt indebtedness with proceeds of tax-exempt debt. This meant an issuer could issue tax-exempt bonds and use those funds to refinance outstanding taxexempt debt more than 90 calendar days before the scheduled redemption (or call) date. As a result of federal tax reform (commonly known as the Tax Cuts and Jobs Act), issuers are now prohibited from issuing tax-exempt refunding bonds more than 90 calendar days prior to the redemption date of the outstanding taxexempt debt. Issuers may issue tax-exempt refunding bonds within the 90 days period before the call date (commonly referred to as a "current refunding") or use other methods (such as issue taxable refunding debt) as alternatives.
B. Debt Affordability Standards and Debt Policies

1. General. Debt financing through the issuance of bonds should not be considered an additional source of operating revenue. Debt is merely a way of spreading out the cost of a capital improvement or public program over time. In some cases, the state statute permitting the issuance of debt will allow taxes or assessments to be levied to cover debt service. Similarly, state statutes may limit the maturity date for a bond based upon the useful life of the project/improvement for which it is being used. Issuers should be careful to gauge the effect of ongoing debt service on their budgets and fiscal priorities over time. Capital decisions are essentially long-term in
nature and, once made, often "set in stone" an issuer's strategy or financing plan.
2. Debt affordability standards. Debt affordability standards (sometimes referred to in the sense of "debt capacity") help evaluate when, why and how much debt should be issued. These standards can lead to a debt affordability plan that keeps debt levels within acceptable ranges. A debt affordability plan will typically include a set of target ratios, which might be based upon assessed valuation of property, revenues, population, system users, or other factors relevant to specific types of bonds. These ratios may be varied depending on factors such as volatility of revenue streams, concentration of tax or revenue base, community policies and preferences regarding debt and the overall need for capital investment. Due to these factors, as well as the public policy issues that are inherent in the decision to borrow, there is no "one size fits all" model.
3. Debt issuance policy. In addition to debt affordability standards, some issuers maintain a formal debt policy. A debt policy (1) establishes parameters for issuing and managing debt, (2) provides guidance to help decision makers not exceed debt affordability standards, (3) directs staff on objectives to be achieved both pre- and post-issuance, (4) promotes objectivity in decision-making and limits the role of political influence, and (5) facilitates the process by considering and making important policy decisions in advance of an actual financing. A debt policy should address issues such as (1) the types of debt that will be issued, (2) structural features with respect to the debt (e.g., maximum term, criteria for use of credit enhancement), (3) method(s) of sale of debt (i.e., circumstances under which negotiated or competitive sales will be used), (4) criteria for refundings (e.g., minimum percentage of savings to be realized), (5) selection of professionals and consultants, (6) disclosure practices, (7) arbitrage rebate and continuing disclosure compliance, and (8) investment of bond proceeds.

Debt policies are important and can help an issuer maintain or improve its credit rating. The elements of a debt policy will vary by issuer and should reflect the scope of activities the issuer is likely to undertake in the debt market. In addition, it is important that the debt policy reflect community standards and attitudes about debt.
C. The Role of Investors

1. General - investors are important! The principal concerns of a lender (here, think investor) are whether the loan will be repaid and how much it will earn from the transaction. Issuers must consider the needs of investors for different structural features of a bond issue. To be successful, a bond financing program must not only meet the financial needs and limitations of the issuer but also those of the investor -- by providing an attractive
opportunity to potential investors, who have many choices of investment vehicles. Thus, the ultimate investor not only provides the money but can influence (particularly for low-rated credits) salient features of a financing (such as collateral pledged, the interest rate and debt covenants).

The relative demand by investors for bonds having different characteristics may influence the structure of a financing. For example, in a market where short-term, high credit quality bonds are in high demand, it may be to an issuer's advantage to issue variable rate put bonds rather than long-term, fixed rate bonds. As another example, in periods of relatively high interest rates, investors may demand that bonds not be redeemable prior to maturity (or be redeemable only after an extended period of time) to assure investors that they will enjoy the benefit of the high interest rate and not risk having to reinvest at a time when market rates may be lower.
2. Institutional and Retail Investors. Municipal bond investors are of two general types. Some sales of bonds are made to large investors (such as mutual funds and insurance companies) commonly known as institutional investors. Other sales are made to individual investors, commonly known as retail investors (a.k.a., "Mom and Pop"). Generally, bond investors in traditional tax-exempt bonds have the ability to take advantage of the exemption from federal (or state) income taxes customarily available for interest on tax-exempt municipal bonds. Changes in the composition of the municipal bond market have often resulted from changes in federal tax law that have made tax-exempt interest more or less attractive to certain segments of the market.

Historically, banks have been major purchasers of tax-exempt municipal bonds. While changes in the tax code in the 1980s restricted banks' ability to deduct all or some of the interest paid on their own obligations (such as deposits) attributable to the "carrying cost" of tax-exempt bonds, banks are still attracted to the relative safety of municipal bonds. As mentioned above, changes in law can be a risk to municipal bonds. By reducing the corporate income tax rate, the 2018 federal tax act reduced some of the demand by financial institutions for tax-exempt bonds (since the value of the tax-exemption is reduced if the tax bracket of the investor is lower).
3. Suitability. In addition to tax status, determinants of the attractiveness of a particular bond include the credit quality of the bond (credit rating), its term to maturity, its risk of redemption, and its potential for sale in the secondary market. Broker-dealers offering bonds to investors must match up the sophistication, risk tolerance and economic situation of a potential investor with the structural features, liquidity and credit quality of the bonds being offered. Securities laws require that broker-dealers take these factors into account when offering and selling bonds. Issuers should also know what suitability considerations a broker-dealer will use in selling the issuer's bonds. See, e.g., MSRB Rules G-17 and G-19.
D. Structural Issues and Considerations

The issuer's principal concerns are the long and short-term "cost" of the borrowed money -e.g., what is its "all in" interest cost. The debt service structure, term and security pledge of the issue are perhaps the most important of the determinants as to the cost of the borrowing. The issuer is also concerned about the limitations a transaction may impose in the form of covenants and legal constraints on the issuer's future activities.

1. Debt Service Structure - "Debt service" is the term given to the principal and interest payments due on the bonds. The schedule upon which a series of bonds will pay principal and interest to the investors is typically called a "debt service schedule" or "amortization schedule." The debt service structure is important to both the issuer and the investors. The issuer wants to make sure that it owes principal and interest payments on a schedule that will allow it to make the payments. The investor wants to know when and how much it will get paid in determining whether an investment is appropriate.
a. In a New Money Issue - Short-term operating needs generally are financed with cash or short-term borrowings (e.g., "tax anticipation notes"), while a capital asset, such as a sewage treatment facility or a fire station, generally is financed with longer maturity debt. A primary consideration in any financing plan is the relationship between the term of the financing and the life of the asset being financed. Most public buildings and large infrastructure improvements are financed over 20-30 years ( $c f$. residential mortgages -- 15-30 years) versus equipment purchases (a fire truck), which generally haves a much shorter useful economic life and would generally be financed over an intermediate term of 3-15 years. In a new money construction financing, an issuer may be able to issue additional bonds to pay the costs of interest on the bonds in the first few years. For example, if a tax-exempt organization was constructing a water plant and wanted revenues from that plant to cover debt service, the issuer may elect to borrow funds to cover its interest cost during construction (known as "capitalized interest").
b. In a Refunding Issue - Debt service will be influenced by whether the issuer wants to realize its savings "up front", at the end, or on a level basis. If an issuer refunds $\$ 10,000,000$ in bonds that had $\$ 1,000,000$ in principal coming due each year for 10 years, the issuer could use the same debt service structure on the new bonds and have some savings each year (commonly called a "mirror refunding"). Or the issuer could have no principal due until year 5 and then pay $\$ 2,000,000$ a year for the last 5 years. By paying interest only in the first 5 years, the issuer dramatically lowers payments in the early years. It is somewhat common across the country, but in no way a
bright-line rule or legal requirement, that issuers generally seek to realize not less than a $3 \%$ net present value savings on the interest cost of a refunding issue as a threshold savings rate, unless the refunding is being undertaken for reasons beyond interest rate savings (e.g., covenant relief, release of a debt service reserve fund).
c. Wrap Around of Existing Debt - When planning debt service payments on a bond issue, the issuer has to consider the debt it already has outstanding. Many issuers prefer level debt service and thereby owe approximately the same amount of principal and interest each year. This helps with budgeting and overall fiscal stability compared to dramatic shifts in annual debt service. In order to achieve level debt service, an issuer might structure debt service on the new issue based on the debt service schedule of its existing debt to arrive at substantially even annual payments overall.
2. Security for the bonds - in any issue, a number of factors will affect the final structure of the bonds. In most cases, however, the source of revenue pledged by the issuer to the repayment of the debt is the most significant feature. For a further discussion of the various types of bonds common today, see Section IV of this outline ("BOND STRUCTURES, ROLES AND RESPONSIBILITIES OF PRINCIPAL PARTICIPANTS; BASIC DOCUMENTS").
3. Other structuring (covenant) considerations. These are most often seen in revenue bond financings and generally stem from or relate to the security for the transaction and the type of project/asset that is financed:
a. limitations on additional debt borrowings;
b. rate covenants;
c. flow of funds;
d. maintenance covenants;
e. limitation on asset dispositions;
f. tax restrictions on use of project;
g. default / remedy provisions (e.g., acceleration); and
h. rating requirements for liquidity and credit enhancement or sureties (including downgrade requirements).
4. Methods of Sale - municipal bonds can be sold in one of three ways:
a. Competitive Sale - The issuer sets the general terms and maturities for the bonds and asks that underwriters and banks/sophisticated investors submit their best interest cost on the bonds. The issuer selects the best submission, generally based on the lowest overall interest cost. Hence, the underwriter or bank/sophisticated investor is picked at the time of sale and other working group members (bond counsel, financial advisor, issuer finance staff) help set the structure.
b. Negotiated Sale - The issuer selects an underwriter or small group of underwriters based on their skills and negotiates the terms and conditions of the relationship with one or more of such underwriters. A request for proposals process may be used. The underwriter is selected at the beginning of the issuance process and assists in structuring and marketing decisions.
c. Private Sale/Bank Placement - The issuer sells the bond(s) directly to a bank or a small group of sophisticated investors, usually financial institutions that do not have a present intention to resell the bonds.

## III. LEGAL CONTEXT AND CONTRACT LAW

A. An issue's structure and the associated transaction documents are a function of (1) the basic bond/loan/debt terms, plus (2) tax law requirements, plus (3) securities law requirements, plus (4) state law requirements. The four basic components that determine the legal documents and agreements of a bond transaction and their contents are:

1. the economic terms and the rights and obligations of the parties in the transaction, as set forth in agreements between the parties -- primarily a matter of contract law (Who are the parties? What are the economic/legal relationships between them?);
2. tax law requirements relating to the eligibility of the debt for tax-exempt status;
3. securities law requirements governing disclosure, and the offering/sale/purchase of the debt; and
4. state law doctrines and requirements pertaining to the authorization/issuance of the debt.

The common law of contract is the starting point. Tax, securities and state laws are doctrines that limit the basic contract points between the parties or otherwise must be embodied in the contracts among the parties.
B. Contracts

1. The basic premise of a contract is that it is an enforceable promise.
2. Common law is the traditional source of contract law, although statutes have become increasingly important (e.g., the Uniform Commercial Code, the Statute of Frauds).
3. The general order of documents is as it has always been - purpose, agreements, signatures. A well-crafted document can be diagrammed like a sentence - "We (the parties) agree to do X upon conditions Y."

The function of a contract is to set forth the parties' obligations and to establish the conditions under which such obligations must be performed. The important elements include:
a. Parties (clearly identified);
b. Promises (clearly stated mutual obligations); and
c. Consideration (mutual benefits).
(Some definitions of a contract specify: offer, acceptance and consideration. Note the importance of your state's contract law).
4. Contracts also are the means to allocate risks among the parties. Important risk allocation provisions include:
a. conditions;
b. insurance;
c. indemnification;
d. limitations on liability;
e. continuing obligations; and
f. representations and warranties.
5. Lawyerly attention to detail has added, over centuries, an initial listing of the parties, the use of defined terms and separation of text into articles and sections.
6. Still, the essence of every good legal document is the same.
7. Remember, also, the uniqueness of governmental contracts (in general) and of governmental debt in particular.
C. How to decide what is needed for a municipal finance transaction.

1. Identify all parties and their relationships.
2. Identify how the money flows and the security for the transaction.
3. Diagram the transaction. For example, a basic corporate debt transaction has two boxes. One box for the lender who loans proceeds to the borrower - the second box. In exchange for the proceeds, the borrower promises to repay the money and usually evidences the promise with a note. In a basic municipal bond transaction, there are also two boxes. One for the bondholders who buy the bonds and thereby pay money to the issuer - the second box. In exchange for the money, the issuer promises to repay the money and evidences this promise to pay debt service with a bond.

## IV. BOND STRUCTURES, ROLES AND RESPONSIBILITIES OF PRINCIPAL PARTICIPANTS; BASIC DOCUMENTS

A. General Obligation Bonds

1. Characteristics (vary greatly state to state):
a. generally backed by the issuer's full faith and credit;
b. may be supported by the issuer's ability to levy and collect taxes (particularly property/ad valorem taxes);

- limited tax pledge vs. unlimited tax pledge vs. general revenue pledge;
c. generally, requires voter approval; and
d. concerns regarding treatment as general unsecured debt in municipal bankruptcy proceedings.

2. Participants:
a. The Issuer as the "Central Actor." The issuer is the legal entity that is borrowing the money by issuing bonds and is customarily the central actor in the process. The financing is being accomplished by, and for, the issuer and, even in the case of a financing for a nongovernmental/conduit borrower, should be designed to serve the objectives of the issuer.
b. Investors (the "Lenders"); Underwriters (the "Market-Makers"):
3. Investor. The ultimate investor in a bond financing not only provides the money being lent, but also determines in many
ways the features of the financing. A bond financing structure must meet not only the needs of the issuer, but also the needs of the investor/market.
4. Underwriter. An underwriter purchases bonds from an issuer with the intent to resell the bonds to third parties. In effect, the underwriter acts to match those that need money/capital (the issuers) with those seeking to invest their money in municipal debt. Underwriters are the financial middlemen; but, crucially, commit under contract (often through a bond purchase agreement) with the issuer to purchase the bonds on a set date, in a set amount and for a set price or prices. If the underwriter's investors elect not to close on their purchases then, absent unusual conditions set forth in the bond purchase agreement, the underwriter is still on the hook to buy all the bonds as agreed. This is why underwriters are sometimes called "market-makers."
c. Paying Agent. An issuer customarily selects one or more commercial banks or trust companies to perform one or more of several administrative duties relating to a bond issue. Although historically an issuer may have received, held and disbursed the bond proceeds itself, and collected, held and paid debt service on the bonds with the revenues pledged as security for the bonds, today, relatively few issuers have the banking capabilities and relationships necessary to perform those services themselves. Recently, the longstanding exclusion of tax-exempt interest from the information reporting requirements of Section 6049 was eliminated, and thus issuers, as payors of tax-exempt interest, must file information returns with the Internal Revenue Service and furnish similar statements to the payees. Most issuers do not have the operating systems to perform these tasks.

Most general obligation transactions use a paying agent. A paying agent (or fiscal agent) is not a trustee, but merely acts as agent of the issuer to perform functions necessary to comply with the requirements of the documents - in this case, to pay debt service to the bondholders.

In some cases, particularly with book-entry only bonds held through The Depository Trust Company ("DTC"), the issuer (or a financial officer of the issuer) will serve as paying agent in lieu of a commercial bank or trust company, because only a single debt service payment needs to be made to DTC, and DTC distributes the debt service payments electronically to the ultimate beneficial owners of the bonds.
d. Municipal/Financial Advisor. Acts as an advisor to the issuer in connection with the financing, including matters relating to structuring, security, manner of sale, procurement of bond ratings and other financial matters. Serves in a fiduciary capacity to the issuer/conduit borrower. Recent regulations now require any one who acts as a Municipal Advisor to meet certain professional qualification standards.
e. Trustee, Escrow Agent, Rating Agencies, Borrowers, DTC.
f. Counsel to all of the various parties described above.

## 3. Principal Documents and Contents

a. Bond Order/Ordinance/Resolution - This is the basic document authorizing the borrowing through the sale and issuance of bonds, establishing the terms of the bonds (payment dates, maturities, redemption provisions, securities depository, registration, transfer and exchange, etc.) and the security for the transaction - such as the pledge of the issuer's full faith and credit and/or taxing power. It might also:

1. approve the manner of sale of the bonds and the disclosure document;
2. set forth continuing disclosure undertakings;
3. describe the investment of proceeds/deposit and use of funds;
4. provide some general tax-related (arbitrage and private activity bond) covenants;
5. approve related financing agreements (e.g. indenture, line of credit agreement, credit enhancement); and
6. set out delegation authority and parameters for accepting bids or otherwise conducting the sale of bonds.

## 4. Bond Sale Documents

a. Bond Purchase Agreement - in a negotiated sale, this document provides for the sale of the bonds to the underwriter (or their placement by the placement agent for private placements, when it is referred to as a Placement Agreement) and specifies discount, interest rates, terms for payment of purchase price. The agreement also contains representations and warranties, conditions precedent to underwriter's obligation to purchase bonds at closing as well as
requirements of any applicable bond insurance or liquidity providers; (and the "outs" allowing the underwriter to terminate the purchase); specifies documents to be delivered at closing; states who will pay what expenses/costs. etc.

## Parties: Issuer, Underwriter, Nongovernmental/conduit borrower (in such financings).

b. Notice of Sale/Bid Form - in a competitive sale, provides for the sale of the bonds to the ultimate winning bidder (typically a brokerdealer or financial institution). Sets out the terms for conducting the sale and award of the bonds in a competitive bid process. Not a negotiated document. When accepted by the issuer, this forms the purchase contract for the sale of the bonds.
5. Offering or Disclosure Document

The Official Statement/(Limited) Offering Memorandum is the document that provides disclosure to investors and potential investors. Most financings (other than private sale/bank placements) are required to have Official Statements under SEC Rule 15c2-12. This document discloses to prospective investors the material terms of bonds, security, risk factors and financial and operating information concerning the issuer and/or conduit borrower and background information. The offering document must comply with "anti-fraud" provisions of Section 17(a) of the Securities Act of 1933, Section 10 of the Securities Exchange Act of 1934, and Rule 10(b)(5) under the said 1934 Act. It is critical that the issuer/borrower read the entire offering document, since it bears responsibility and has liability for material misstatements and omissions (and, unlike the underwriter, the issuer does not have a "due diligence" defense). Crucial sections of the offering document are: description of the securities (e.g., redemption provisions), security and sources of payment for the bonds, information about the issuer and the specific revenue source for payment of the bonds, risk factors, financial and operating data and litigation.
6. Continuing Disclosure Agreement

Continuing Disclosure Agreement - The continuing disclosure agreement contains the undertakings of the issuer (and/or any obligated persons) to provide ongoing disclosure in the form of annual financial information (financial statements and operating data) and notices of listed events (such as unscheduled draws on reserve funds, ratings changes, bankruptcy, and failures to timely pay debt service), pursuant to SEC Rule 15c2-12. The undertakings are made for the benefit of, and are enforceable by, the bondholders and remain in place for the life of the issue. The continuing disclosure undertaking may be contained in a separate agreement or certificate or may be incorporated into other financing documents to which
the issuer/borrower may be bound. SEC Rule 15c2-12 is only applicable in transactions in which an underwriter participates; however, due to new rules of the SEC that went into effect on February 27, 2019, issuers are now required to report when they enter or incur a "financial obligation"), whether issued through the public debt market (for which a continuing disclosure agreement is required) or not (such as a direct placement through a bank, for which a continuing disclosure agreement is not required) as well as events of default, acceleration, modification of terms, and other similar events for any type of financial obligation (whether incurred before or after February 27, 2019).
B. Revenue Bonds

1. Characteristics:
a. backed by a pledge of the gross or net revenues of the facility/system/enterprise that is being financed; and
b. generally, not a tax pledge (unless "double-barrel" pledge).
2. Participants:
a. Issuer.
b. Sometimes a conduit borrower (i.e., user or operator of facility) see "Conduit Revenue Bonds" below.
c. Trustee - An issuer customarily selects one or more commercial banks or trust companies to perform one or more of several administrative duties relating to a bond issue. Although historically an issuer may have received, held and disbursed the bond proceeds itself, and collected, held and paid debt service on the bonds with the revenues pledged as security for the bonds, today, relatively few issuers have the banking capabilities and relationships necessary to perform those services. In addition, investors are "comforted" by the involvement of a fiduciary acting on their behalf and holding the funds and accounts relating to the bond issue.

As a result, many bond resolutions and indentures appoint a trustee or fiscal agent to perform a number of different duties relating to the bond issue.

The duties of a trustee in a revenue bond transaction include the following:

1. establishes and holds funds and accounts, including accounts for bond proceeds and revenues, determining that the conditions for disbursement of proceeds and revenues have
been met and sometimes collecting revenues and executing investments;
2. acts as bond registrar - maintains list of names and addresses of bondholders; records transfers and exchanges of bonds;
3. acts as paying agent; and
4. as trustee, protects interests of bondholders by monitoring compliance with "promises" (covenants) and acting on behalf of bondholders in an event of default (key role of trustee in a workout).
d. Underwriter; Municipal/Financial Advisor; Counsel to Various Parties (same as general obligation bonds above).

## 3. Principal Documents and Contents

a. Trust Indenture or Trust Agreement - (cf. Bond Order/Ordinance/Resolution). Two parties: issuer and trustee. The basic security document of a bond transaction, providing the terms of the bonds, including payment dates, maturities, redemption provisions, registration, transfer and exchange, etc. The Indenture (or Trust Agreement) sets forth the legal structure for the security for the bonds, including:

1. creation/granting of the "trust estate" (the security for the bond issue);
2. pledge of revenues and other collateral;
3. flow of funds (establishing the priority for uses of pledged revenues);
4. affirmative covenants (i.e., to maintain certain debt service coverage ratios or "rate covenant", to maintain facilities or provide insurance) and negative covenants (covenant not to pledge facilities/revenues to other debt; covenant not to incur additional parity debt without meeting certain financial tests);
5. parity bonds/additional debt provisions;
6. default and remedy provisions;
7. defeasance provisions (to allow for refundings); and
8. trustee-related provisions.
9. Characteristics - generally, financing of a facility for lease, use or operation by a "private" borrower, such as a small issue manufacturing facility, a 501(c)(3) entity or a solid waste disposal facility. Sometimes governmental facilities financed through conduit issuer that might have "pooled" finance authority or to take advantage of broader finance powers.
10. Participants:
a. Issuer.
b. Trustee.
c. Conduit Borrower -- Non-governmental conduit borrower: Various governmental issuers are authorized to issue bonds and lend the proceeds to one or more non-governmental borrowers to finance facilities the development of which is deemed to be a public purpose. Such facilities include, among others, 501(c)(3) entities, single family housing, multifamily housing, student loan programs, nonprofit hospitals and other health care facilities, nonprofit educational facilities, pollution control facilities, solid waste facilities, power facilities, airports, seaports, marinas, certain kinds of sports facilities, and certain other types of industrial or commercial facilities. In each case, the criteria for qualification as a borrower are derived from state constitutional and statutory criteria, the issuer's own policy requirements and, in the case of federally tax-exempt bonds, federal tax requirements. Such financings are often called conduit financings and the nongovernmental borrowers are often called "conduit borrowers." Generally, the conduit borrower and any credit enhancement provided by or on behalf of the conduit borrower are the only sources of revenues for repayment of the bonds.

In some cases, the conduit borrower will take a very active role in designing and negotiating the terms of the bonds. In others, for example in the case of single family housing lending programs, the conduit borrowers are not directly represented, but establish a market in which the lending program must operate. However, in all cases, the issuer is still a central actor in the financing.
d. Underwriter; Bank/Purchaser; Municipal/Financial Advisor; Counsel to Various Parties (same as above).
3. Principal Documents and Contents:
a. Trust Indenture/Trust Agreement;
b. Loan/Financing Agreement (substitutes: Installment Sale Agreement; Facilities or Project Lease). Parties: Issuer, Nongovernmental/conduit borrower (i.e., the obligor). The document under which the bond proceeds are lent or otherwise provided for the financed project, and the conduit borrower promises to repay the loan in amount sufficient to pay the principal of and interest on the bonds. Generally used in financings where the issuer is not the source of repayment of the debt.

Important provisions for review and negotiation: representations and warranties; covenants (operation and maintenance of facilities type covenants; financial covenants/additional-parity debt tests and insurance covenants); prepayment or redemption provisions; collateral/pledge/security interest provisions; title provisions; default and remedies provisions, etc.
c. Mortgage/Deed of Trust/Security Agreement - Conduit borrowers often pledge real or personal property as collateral to secure its repayment obligation. Similar to a security instrument in a bank or other secured lending transaction, so need to focus on the covenants, representations and warranties (especially as to environmental matters), and especially on the default and remedies sections, which is the basic purpose of the document, as well as how this document interacts with the other finance documents.

Also, determine whether this document benefits the issuer (need to get it assigned to the trustee) or benefits the trustee directly.

## V. VARIABLE RATE DEMAND BONDS ("VRDBs")

## A. Basic Concept.

Variable rate demand bonds take advantage of the yield curve and the notion that debt with a shorter maturity "costs" less than debt with a lengthier maturity. Because the yield curve generally slopes upward, borrowers prefer to borrow at the lower yields usually required to be paid for shorter maturities. However, if the borrower has a long-term borrowing need, it would constantly re-enter the debt market with fixed rate bonds, which could be an expensive proposition. Thus, "variable rate demand bonds" or "lower floaters" structures were adopted in which a bond bears a nominal long-term maturity date, but the holder has the right to put the bond to the borrower at a specified interval. That put option (or tender option), from the perspective of the borrower, is the same as a maturity date, and so the borrower is willing to treat the bond as a short-term bond. For example, if the bond purchaser has the right to put the bond every 7 days, and that put right is properly secured, even if the nominal maturity of the bond is 30 years, the bond purchaser will price the bond as if it has a maturity of 7 days and not 30 years.

Often an issuer will need to purchase credit or liquidity support from a credit enhancement/liquidity provider to stand behind the liquidity requirements for the put. This is usually in the form of a letter of credit or stand-by bond purchase agreement (a "liquidity facility"). From an economic perspective, the cost of such credit or liquidity enhancement is generally viewed as additional interest and added to the actual interest amount to determine an all-in interest cost. (The cost of credit or liquidity enhancement may be treated as a "qualified guarantee" and counted as additional interest for arbitrage and rebate purposes.) Also, the issuer or conduit borrower will need to hire a remarketing agent to remarket the bonds in the event they are put, and the cost of such remarketing agent is also calculated as part of the all-in interest cost from an economic perspective (but not for tax purposes).

The typical VRDB structure provides for the interest rate on the bonds to be reset on each put date to a market rate for the reset put period. Thus, if the put option can be exercised weekly, the interest rate on the bonds typically will be reset weekly to a market 7-day rate. Usually a remarketing agent (often the underwriter) will determine the periodic rate based on current market conditions. When the rate is reset, the current bondholders can either retain their bonds or tender them for repurchase at par. The remarketing agent remarkets to new purchasers any bonds tendered.

Contrast this structure with a dutch auction remarketing, where there is no guaranteed put, instead the bonds are only purchased if there is a willing purchaser.
B. Risks of Variable Rate Demand Bonds.

From the perspective of the borrower, VRDBs can offer significant savings. Historically, over the life of the deal, debt service payments on VRDBs are lower than payments on fixed rate debt. So why aren't all bonds VRDB's? Many states do not authorize political subdivisions to issue variable rate debt (especially general obligations). But even if the issuer has the authorization, there is always the (potentially large) risk of rising short-term interest rates. Example: suppose the VRDB rate is initially $2.5 \%$ (with the long-term rate $5 \%$ ), but rates start moving upward. As long as the short-term rate remains at or below $5 \%$ (including costs) for the borrower, it is still a good deal. But what happens if short-term rates plus other costs move above $5 \%$ ? At that point, short-term rates might be at $8 \%$ or higher and the issuer could be locked into the higher rate for the long-term. This explains why some issuers (especially public bodies) prefer fixed rate bonds (the "sleep at night" factor). Also, if the yield curve inverts, the issuer could end up paying more for short-term bonds than for long-term bonds. VRDB's generally can be converted (or refunded) with long-term debt instruments, so the issuer could "go long" if interest rates start to rise - but when is the right time?
C. Variable Rate Bonds Without Put Options.

Variable rate bonds do not have to have a put feature; rather, their rate can simply "float" with market rates. This is attractive to the purchaser if the purchaser fears
rising rates and attractive to the borrower if the borrower thinks rates will decline. This type of bond is common in the taxable area (bonds backed by variable rate single family mortgages) but uncommon in the municipal area.
D. "Multi-Modal" VRDBs.

Some VRDBs permit interest rates to be set on the basis of more than one interest rate period (e.g., daily, weekly, monthly, commercial paper). The issuer or conduit borrower has the option to switch or convert among these periods or "modes" depending upon market outlook at the time of the adjustment.
E. Secondary Market VRDBs.

VRDBs also can be created in the secondary market by taking a fixed rate bond and selling it together with an attached put option. This is not an uncommon technique used by underwriters with respect to many types of municipal fixed rate bonds. The resulting VRDB is typically sold to a tax-exempt money market fund; the remaining "spread" (between the fixed interest rate and the variable rate plus costs) is retained by the underwriter or sold as an "inverse floater."
F. Reissuance.

Tender rights and changing interest rate modes raise the question of whether under federal tax laws a "reissuance" of the bond has occurred. These rules must be carefully considered in structuring a VRDB. "Qualified tender bonds" generally avoid reissuance - basically the terms have to be set up in advance for tenders and conversions. See IRS Notice 2008-41 and Treasury Regulations Section 1.1001-3 (the "reissuance regulations").

## VI. BRIEF OVERVIEW OF CREDIT ENHANCEMENT

A. In essence, investors rely on the higher rating of the credit enhancement provider instead of the underlying rating of the issuer or conduit borrower, so that the investors will accept a lower interest rate, more than compensating for the cost of the credit enhancement. Usually, credit enhancement only makes sense where the savings from the credit enhancement exceed the cost of the credit enhancement or where the credit enhancement facilitates the sale of a bond issue that would not otherwise be possible. Generally, the issuer or conduit borrower selects the credit enhancement provider with advice from the underwriter or financial advisor.
B. Credit Enhancement Provider. Credit enhancement provider and credit provider are terms describing any entity that supplements, guarantees or insures in one form or another the payment of debt service on the bonds. A credit enhancement provider may be a bank providing a letter of credit or a bond insurer providing a bond insurance policy, a debt service reserve fund surety policy, or, in the case of certain types of bonds to finance lending programs, the credit enhancement provider may be a savings and loan association, a mortgage insurer, a federal agency or a private guarantor. In each case, the purpose of the credit enhancement
is to provide, for a fee, additional security for the bonds that improves the credit rating of the bonds and thereby lowers the borrowing costs to the issuer or conduit borrower.
C. Types of Credit Enhancement Documents.

1. Letter of Credit. The letter of credit is issued by a letter of credit bank to the trustee or the bondholders guaranteeing the payment on the bonds. If the letter of credit bank pays the principal and interest due on the bonds, the letter of credit bank seeks reimbursement for such payment from the issuer or the conduit borrower, as applicable. It is fairly typical for the letter of credit to be a direct pay letter of credit meaning that the letter of credit is drawn upon any time that principal or interest is due on the bonds. However, sometimes the transaction involves a stand-by letter of credit in which the letter of credit is drawn upon only after the issuer or conduit borrower fails to make a scheduled payment on the bonds. The document that creates the contractual obligation of the issuer or the conduit borrower to repay the letter of credit bank for the letter of credit bank's payment on the bonds is referred to as a reimbursement agreement. Terms and conditions vary depending upon the type of transaction involved. Important provisions include representations and warranties, fees payable to the bank (including "increased costs" provisions), ability of bank to "participate" the credit facility to other banks, renewals and extensions of the credit facility, default and remedy provisions, including any "term-out" provisions, collateral provisions and choice of law provisions.
2. Bond Insurance Policy. For a premium (generally paid upfront from the proceeds of the bond issue), a bond insurer will insure timely payment of principal of and interest on the bonds when due. Bond insurance is typically a contingent obligation of the bond insurer - meaning that the bond insurer only pays under the policy in the event that the issuer or conduit obligor/borrower defaults in its payment obligation. In the event of a payment by the bond insurer, the bond insurer becomes subrogated to the rights of the bondholder that was paid from the bond insurance proceeds. The bond documents generally contain additional covenants specifically required by the bond insurer and enforceable by the bond insurer as a thirdparty beneficiary.
3. Debt Service Reserve Fund Surety Bonds or Reserve Policies - Typically issued by bond insurers for an upfront premium as an alternative to funding a debt service reserve fund with cash and/or other permitted investments. If, under the bond documents, a draw is required to be made on the debt service reserve fund, such payment will be made by the bond insurer. Typically there is a reimbursement agreement between the bond insurer and the issuer or conduit borrower that would require the bond insurer to be reimbursed in much the same manner as the issuer or conduit borrower
would be required to replenish a draw on a cash-funded debt service reserve fund.

## VII. BRIEF OVERVIEW OF DIRECT BANK PLACEMENTS ("DPs")

A. In recent years, new banking regulatory requirements and other market conditions have resulted in a shift from the use of VRDBs - in many cases replaced by the use of direct bank placements or DPs.
B. In a DP transaction, instead of a bank charging a fee to put up a credit facility to support a publicly offered VRDB issue, the bank will simply purchase the bond as an investment for its own portfolio.
C. In doing so, the letter of credit fees (which is taxable income to the bank) is replaced by interest payments (which is tax-exempt interest assuming that the bank has purchased a tax-exempt bond).
D. DPs may be structured as fixed rate or variable rate bonds with interest based on a tax-exempt index interest rate, such as the SIFMA Index, or a percentage of a taxable index interest rate, plus a credit spread (which is somewhat akin to the letter of credit fee in a VRDB transaction). It is also typical to provide the bank with the right to put the bonds back to the issuer for mandatory purchase at the end of some negotiated terms (e.g. 5 years).
E. In addition to the standard bond documentation, there is generally a separate credit agreement or continuing covenants agreement between the bank purchaser and the issuer or conduit borrower setting forth additional representations and warranties, additional payment obligations and other covenants for the benefit of the bank (similar to the terms of a reimbursement agreement in a VRDB transaction).

## VIII. INTEREST RATE SWAPS (AND OTHER DERIVATIVES)

A. In General.

The term "derivative" generally refers to a financial product in the form of a contract (e.g., an interest rate swap) that "derives" its economic characteristics from something else (e.g., the level of an interest rate index). Depending on the context, the definition of the term can be very broad, and would include many alternative debt instruments, such as strips, synthetic floaters and tax-exempt municipal bond funds.
B. Interest Rate Swaps.

In its usual form, an interest rate swap is a contractual arrangement in which each of the two contracting parties (the swap "counterparties") agrees to pay to the other an amount equal to the interest on a specified dollar amount (the swap "notional
amount"), which may or may not equal the amount of debt incurred by one of the counterparties. These arrangements are typically implemented concurrently with a debt transaction in order to hedge interest rate risk or to produce lower overall borrowing costs. Below is an example of how two issuers might accomplish their investment objectives by entering into an interest rate swap:

1. Counterparty A is about to issue $\$ 1,000,000$ of tax-exempt debt with a floating rate of interest, initially set at $3 \%$. Counterparty B is the obligor on $\$ 1,000,000$ of tax-exempt debt with a fixed $6 \%$ coupon.
2. A wishes to limit its risk that interest rates will rise to a level that would be uncomfortable, while B wishes to take advantage of the current low interest rate environment by "converting" part of its fixed rate debt to floating rate debt.
3. A's investment banker (or some other swap broker) arranges to have B pay to A an amount equal to interest due on $\$ 500,000$ of A's debt. In return, A agrees to pay B an amount equal to the interest on $\$ 500,000$ of B's $6 \%$ fixed rate debt. For convenience, the payments are netted. From a cash flow standpoint, both A and B are now in the position of having \$500,000 of $6 \%$ fixed rate debt and $\$ 500,000$ of floating rate debt. The notional principal for the swap is $\$ 500,000$.
4. In the arrangement described above, it is not necessary that either party actually be obligated on a debt instrument. Indeed, the swap is a separate contractual relationship between the counterparties, and even if executed concurrently with a bond issue, the swap does not in any way affect the contractual relationship between the issuer and the bondholders.
5. Risks inherent in a swap transaction include:
a. Basis Risk. Risk that the floating rate debt payments may not match the swapped floating rate receipts.
b. Tax Risk. Risk that the transaction becomes taxable and the rate increases dramatically.
c. Termination Risk. Risk that the issuer may have to pay a substantial fee to terminate the swap if necessary. Often triggered by a change in the credit quality of the bonds referred to in the swap transaction or as a result of a refunding of the bonds referred to in the swap transaction.
d. Counterparty Risk. Risk that the counterparty fails to pay or defaults.
C. Other Interest Rate Hedges.

Interest rate swaps generally are used to hedge interest rate risk. In addition to swaps, as described above, floating rate transactions often are accompanied by interest rate caps, floors or collars obtained from an unrelated third party. For example, an issuer familiar with interest rate hedges may, based on then existing market conditions, compare the all-in borrowing costs of a fixed rate bond issue with the all-in borrowing costs of a variable rate bond issue accompanied by an interest rate cap, floor or collar. The basic functions of a cap, floor and collar are described below:

1. Interest Rate Caps. This is a notional principal contract in which an issuer of floating rate debt pays a cap premium (either up front or in annual installments) to purchase the cap. In return, the issuer receives a payment from the counterparty if the floating rate on the issue exceeds a specified rate (the "strike rate").
2. Interest Rate Floors. This is conceptually the opposite of an interest rate cap. Here an issuer of floating rate debt sells the floor at a specified floor or strike rate. The issuer receives an upfront payment from the counterparty, in exchange for which the issuer agrees to pay an amount equal to the excess, if any, of the strike rate over the floating rate on the bonds.
3. Interest Rate Collar. This is essentially a combination of an interest rate cap and an interest rate floor. It can be structured at no cost to the issuer in certain cases.

Like swaps, interest rate caps, floors and collars are separate agreements between the counterparties that do not alter the underlying contract between the issuer and bondholders.

## D. Other Derivative Products.

1. Forwards. A contract in which one party agrees to purchase something (e.g., a security) in the future for a specified amount. For example, an issuer could use a forward purchase agreement to "sell" a current refunding issue significantly before its actual issuance, thus locking in a favorable interest rate.
2. Options. This is a contract in which one party pays for the right--but not the obligation--to purchase (a call option) or sell (a put option) a security in the future for a specified price.
3. Sale of Call Right. This is a contract in which the issuer receives an upfront payment from the existing bondholders in exchange for a waiver of the call feature. The payment is an amount equal to the difference between the current price of the bond priced to the call date and the current price of
the bond priced to maturity. For arbitrage rebate purposes, payment of the call waiver causes a recomputation of bond yield as if the bond were reissued.

## IX. THE DEPOSITORY TRUST COMPANY

A. DTC ("Cede \& Co.") is typically the only registered bondholder to the trustee.
B. DTC Participants are registered and typically are underwriting and investment firms.

## X. REFUNDING BONDS

A. What is a Refunding?

1. A refunding involves the issuance of new bonds, the proceeds of which are used to pay debt service (principal, interest and call premium, if any) on outstanding bonds. If the refunded bonds are not immediately retired upon issuance of the refunding bonds, the refunding bond proceeds usually are placed in a defeasance escrow to provide for the payment of the refunded bonds.
2. If a defeasance escrow is established, the proceeds of the refunding bonds must be deposited into an escrow fund and invested at a yield sufficient for the escrowed amounts, plus investment earnings thereon, to pay all debt service on the refunded bonds through their call or retirement date. When a defeasance escrow is established, the refunded bonds are defeased (provided the issuer/obligor complies with the other terms and requirements of the applicable documents and state law). This means that bondholders no longer have the right to seek payment from the issuer or from the original security for the bonds and must look solely to the escrow for repayment.
B. Defeasance.
3. With the 2018 federal tax law changes that eliminated advanced refundings, defeasances are not used as often.
4. What is a Defeasance?
a. A defeasance involves (i) a formal release of all security pledged under a resolution or indenture (for the benefit of the bondholder) as security for particular bonds in exchange for (ii) a pledge of cash or securities sufficient to repay those bonds. A defeasance can be accomplished with an issuer's cash, with refunding bond proceeds, with proceeds of other indebtedness or any combination of the foregoing.
b. The specific procedures required to defease bonds are established by State law and by terms contained in the resolution or indenture.
c. An issuer sometimes must enter into a separate escrow agreement in order to establish a defeasance escrow, rather than doing so under the terms of the resolution or indenture.
d. Most resolutions and indentures require, as a condition to defeasance, that the issuer obtain a legal opinion to the effect that (i) the tax-exemption on the bonds being refunded will not be adversely affected by the defeasance, and (i) all requirements for defeasance established under the resolution or indenture have been satisfied.
e. If the refunded bonds (or prior issue) cannot be legally defeased or if the defeasance requirements in the resolution or indenture cannot be fully satisfied, the prior issue may nonetheless be defeased on an economic basis if sufficient securities or cash are deposited in an escrow to retire the bond. An economic defeasance enables the issuer or borrower to remove the debt from its balance sheet as it is fully collateralized, but will not release the lien of the resolution or indenture on the security pledged to the payment of the bonds.
f. The cash flow generated by a defeasance escrow must be verified (usually by a certified public accountant) as to mathematical accuracy and sufficiency to defease the prior bonds.
g. State law, the authorizing resolution or indenture, or both, typically limit the types of investments that can be used in a defeasance escrow. Permitted investments typically include cash, U.S. Treasuries, or SLGS (State and Local Government Series of Treasury Obligations created specifically for issues of tax-exempt bonds). Regulations for the purchase of SLGS are found at 31 CFR Part 34, Department of the Treasury Circular, Public Debt Series 372.
5. Types of Defeasance.
a. Net Defeasance - The net cash defeasance is the most common type of defeasance. The proceeds of refunding bonds, if any, and cash are placed into an escrow and invested at a yield not in excess of the yield on the refunding bonds. The initial deposit, plus earnings thereon, are sufficient to pay the principal, interest and call premium, if any, on the outstanding prior issue as and when due. Issuance costs and administrative costs must be paid from refunding bond proceeds, from
the escrow's cash flow, or from separate funds of the issuer or borrower.
b. Full Cash Defeasance - This type of defeasance is also known as a gross defeasance or gross refunding. A full cash defeasance generally is undertaken only if a defeasance of the refunded bonds is required and the prior bond resolution or indenture requires an initial deposit to the escrow in an amount equal to the full amount of the principal, interest and call premium on the prior bonds, disregarding any interest that may be earned on the refunding escrow. This method is not used frequently anymore because complex investment and issuance rules limit the benefits of such a transaction. Typically used only if required by applicable documents or local law or in a current refunding context and SLGS are not available to be purchased.
6. Verification of Amounts. An independent verification report or letter from a third party is usually required to be delivered in order to accomplish a legal defeasance. Such report will state that an initial deposit of funds or permitted investments, plus earnings thereon, are sufficient to pay the principal of and interest and call premium, if any, on the refunded bonds when due and payable, and will also reflect the yields on the refunding bonds, if any, the refunded bonds and the yield on the escrow investments.
7. Variable Rate Bonds. If the refunded bonds bear interest at a floating interest rate, the bond documents will most likely require that the amount set aside in the escrow be funded at an amount necessary to pay principal, premium and interest at the maximum interest rate.
C. Tax Law Considerations
8. Current Refundings - refunding bonds issued within 90 days prior to the date the refunded bonds are retired.
9. Proceeds of current refunding bonds may be invested at an unlimited yield for 90 days.
10. Issuers are now prohibited from borrowing funds on a tax-exempt basis more than 90 days before the refunded tax-exempt debt may be paid-off.
D. Other Considerations
11. Refundings for Debt Service Savings - New bonds are issued at lower interest rates than the refunded issue, thereby reducing debt service and providing savings to the issuer.
12. Refundings for Other Reasons - New bonds may be issued to refund an outstanding issue for reasons other than debt service savings (e.g., in order to restructure an issue, to pay off an issue that contains overly restrictive covenants, or to extend or restructure debt service).
13. Mechanics - It is important to review the requirements of the resolution or indenture for the bonds being refunded to determine the applicable restrictions, if any, upon redemption (e.g., notice requirements, conditions to redemption, redemption date restrictions, etc.).

For additional information regarding refunding bonds, see "Refunding \& Reissuance" outline.

## XI. ECONOMIC CONSIDERATIONS IN A REFUNDING

A. Debt Service Savings.

1. Usually, the higher the interest rate on the refunded bonds relative to current market rates, the greater the savings.
2. The earlier the call date on the refunded bonds, the greater the potential savings.
B. Redemption Provisions
3. Following federal tax reform, effective January 1, 2018, optional call provisions with respect to the bonds can only be used if refunded taxexempt bonds can be called for redemption within 90 days after the issuance of the refunding tax-exempt bonds. An example of a call provision is set forth below.

Optional Redemption. The Bonds maturing on April 1, 2024, or thereafter, will be callable for redemption in full on or after April 1, 2023, at the redemption prices, expressed as a percentage of the principal amount of the Bonds redeemed, as set forth below, together with accrued interest to the date fixed for redemption:

## Redemption Period

## Redemption Price

April 1, 2023, to March 31, 2024 100.50\%
April 1, 2024 and thereafter $100.00 \%$
Based on this language, for example, refunding bonds issued on April 1, 2024 or later could be used to currently refund these bonds at $100.00 \%$; or, refunding bonds issued between April 1, 2023 and March 31, 2024, or earlier could be used to currently refund these bonds with a redemption price of $100.50 \%$.
2. The longer the period between the call date of the refunded bonds and the maturity date of the refunded bonds, the greater the interest savings generated for the issuer or borrower. The $0.50 \%$ redemption price, or call premium, serves as a benefit to bondholders for investing in bonds which provides the issuer with a redemption right prior to a market accepted call period, typically ten years.
C. Escrow Investment Yield and Other Factors

1. Escrow investment yield is determined by the market.
2. Escrows are typically invested in (i) SLGS ordered from the Bureau of Public Debt or (ii) U.S. Treasury Obligations, but only if they are purchased at fair market value at or below the refunding bond yield and have a better yield than SLGS.
3. Under federal arbitrage rules, an issuer may invest proceeds of current refunding bonds at an unlimited yield for 90 days and any positive arbitrage may be retained by the issuer if the 6 -month spending exception to the rebate requirement is met.
4. Costs of issuance and the amount of call premium, if any, will affect the savings.
5. Federal tax laws (e.g., rebate) may impose economic costs on refundings.
6. Many issuers establish target savings levels that they use to determine whether to refund outstanding bonds, and different issuers may use different criteria to define target savings. These criteria may include the absolute
dollar amount of interest rate savings; the percentage level of debt service savings (expressed as a percentage of refunded or refunding bonds), or both. Percentage savings tests vary widely. In addition, notwithstanding the level of potential savings that may be derived from refunding a particular bond, the absolute dollar level of savings may not make it worthwhile for an issuer to undertake the time, expense, and effort of issuing the refunding bonds.

## XII. CLOSING DOCUMENTS, TAX CERTIFICATES AND AGREEMENTS

A. Various parties.
B. Transcripts.

1. Recall the history of bond counsel opinions stating "based on the transcript we have reviewed ..."
a. Thus, the transcript should contain documents supporting the opinions delivered.
b. Some publicly available documents may be left out or incorporated by reference in other documents - statutes and IRS regulations, for example - but a good transcript contains all documents that would be necessary for a layman to review and understand the bond opinion or a trial judge to rule on a summary judgment motion as to the validity of the bonds.
2. The transcript will also contain the basic documents that contain the terms of the transaction -- the primary agreements and instruments that set forth the bond transaction's covenants and terms. The transcript will also contain those documents necessary to comply with the state law, tax and securities requirements pertaining to the issuance of the debt.
3. Typical groupings:
a. Basic Financing Documents
b. Documents and Proceedings of the Issuer
c. Documents and Proceedings of any Approving Agency
d. Documents and Proceedings of the Borrower
e. Documents and Proceedings of the Bank
f. Documents and Proceedings of the Underwriter
g. Closing Documents

## h. Documents of the Trustee

i. Legal Opinions
j. Miscellaneous
C. Tax Regulatory/Compliance Agreement or Arbitrage Certificate - Contains certifications required to be made by the issuer and the borrower (in most cases) to satisfy the Tax Code provisions and regulations. It often contains elections required under the Tax Code to be made at the time of bond issuance. Often, the certificate will describe the rules applicable to investment of the bond proceeds, as well as the issuer's and borrower's obligations as to rebate compliance and use of the bond proceeds.
D. Closing documents - Those certificates, receipts, directions, requests, and requisitions that are delivered at closing. These generally (i) document the factual representations required by the purchase contract and the accuracy and completeness of "expertized" portions of the disclosure (feasibility reports and appraisals), (ii) document compliance with legal requirements (statutory, local resolution and contractual) for the issuance of the bonds (including effectiveness of resolutions, due execution of documents); (iii) document the flow of funds at closing - the deposit and receipt of bond proceeds, investments of funds, payment of costs, defeasance of prior bonds (for refundings), and (iv) instruct parties to take certain actions upon closing - deposit funds into accounts, record documents, file reports, release security (for refundings). Often, these certificates provide the factual basis for bond counsel's opinion. Important provisions in these documents specify amounts for receipt and deposit of funds, accuracy of representations, warranties, certifications, elections, and requisitions (to determine correctness of payments, deposits and transfers), as well as allocation of proceeds, useful life calculations and good cost/bad cost issues.

## E. Deciding on Necessary Documents

All of this is from the "ground up" and ignores the reality that new attorneys or legal assistants are typically provided with a "go by" or previous transaction to use as precedent. But the hope is that an understanding of the precepts here will allow a better analysis of what is required for each new transaction.

1. Identify each substantive action, task or duty that has to be completed in the transaction - e.g., paying the purchase price, holding the proceeds prior to use, investing the proceeds, paying out the proceeds, collecting the receipts, revenues or debt service payments, holding such payments, paying out such payments, holding a lien on real property as security, maintaining the project, etc. (the list could be quite long if detailed - possibly over one hundred tasks in a single transaction).
2. Determine which party has to perform each task.
3. Identify parties that are required to be an assignee or beneficiary of the promise to do a task.
4. Organize the tasks by responsible party - that is, if you imagine all the tasks are written on separate pieces of paper, put each slip in a pile for each party that has to agree to it. If multiple parties have to do a task, prepare multiple slips. Each party must be a signatory to all the documents which cover any task in its pile.
5. Then group the tasks by who has to be able to rely on those tasks being completed. The pile now in front of a party means it has to be a signatory to, an assignee of, or a third party beneficiary of each document which covers a task in its pile. If this is not true, that party will not be able to enforce all the duties owed to it.
6. Next group the tasks required to be discussed in the same document because of federal or state law - for example, state property recordation laws will mandate some tasks be on the public record and they should be grouped that way.
7. Now go back and look at all the groupings to decide how many major documents you need. Usually this means one to deal with the money with the rights therein being for the benefit of the creditors - an indenture or trust agreement, etc.; at least one dealing with property security (whether there is more than one usually depends on the level and number of assignments and the state law); probably one dealing with the obligations of the borrower to maintain the facility financed or pledged as security; one to be used as an offering document if required; and one talking about the sale of the debt.
8. Once through this exercise you will be very close to a familiar document structure and will have a greater understanding of the necessary documents and the responsibilities of the parties in the transaction.

## XIII. OTHER OBSERVATIONS ON DOCUMENTATION

A. Plain English and related matters: a "top ten" of good drafting techniques:

1. Use plain English, not jargon (SEC on plain English);
2. Use the active voice;
3. Avoid inconsistencies (if a phrase works, use it);
4. Avoid legal gobbledygook ("heretofore," etc.);
5. Make efficient use of defined terms (neither over nor under use);
6. Avoid weak verbs;
7. Avoid abstractions;
8. Use shorter sentences;
9. Avoid unnecessary details; and
10. Use modern tools - multiple fonts, different type styles, color, etc. If not taken to an extreme, these can be very effective.
B. Other good document practices
11. Keeping drafts through the closing.
12. Having a good document retention program in place for after the closing.

## PART II: FINANCIAL ASPECTS OF MUNICIPAL BONDS

## I. BASIC FINANCIAL CONCEPTS AND TERMS

A. Yield vs. Interest Rate.

Interest rate and yield are different concepts. Interest rate (sometimes called the "coupon rate") is the amount of interest paid or accrued on bond principal. Yield is the "true" economic return of the bond that takes into account the amount paid for a bond, when paid, and the amounts received from the initial investment in the bond, based on a designated compounding interval. For a typical fixed rate bond, the compounding interval is semiannual, because the typical current interest fixed rate bond pays interest on a semiannual basis. Mathematically, yield is the rate of interest, or the "discount rate," equal to that rate which, if used to present value all interest and principal payments on the bond, would equal the purchase price of the bond, using the designated compounding interval.

Alternatively, using a future value approach, yield is the rate which, if applied to the purchase price and compounded at the designated interval, would equal the aggregate payments of principal and interest with respect to the bond.

The above describes the actuarial approach to computing yield.
In pricing a bond, and in arbitrage and rebate tax calculations, the concept of yield is used with a number of special tax adjustments (e.g., adjustments for credit enhancement). Another term for yield is "true interest cost" or "TIC," which is not to be confused with "net interest cost" or "NIC" (which excludes adjustments).

The yield on a debt instrument will vary according to the perspective of the person doing the calculation. Thus, to the borrower (the issuer or conduit borrower) the true yield or cost will reflect costs of issuance and costs paid to third parties (e.g., bond trustee, credit enhancer) as well as the interest rate on the bonds (also sometimes called the all-in true interest cost or effective interest cost). For the bond purchaser (the lender), however, the yield is a function only of what it receives relative to what it paid for the debt instrument. Thus, from the issuer's perspective, the yield (cost) generally will be higher than the yield viewed from the perspective of the bond purchaser.

Yield is quoted as a percentage - say $5.00 \%$ - but because one percentage point of yield each year can equate to a large number ( $1 \%$ of $\$ 10$ million is $\$ 100,000$ ), yield movements are often referred to in "basis points," there being 100 basis points for each percentage point of yield. "The market moved 10 basis points today" means the market moved one-tenth of one percent.

Distinguish "points" that generally refer to a percentage of principal amount of the bonds (as in the issuer paid 2 points ( $2 \%$ of bond principal) to the underwriters for underwriting the issue, or each lender in the pool will be charged "one point" to participate, or the points you may pay on your mortgage).

Distinguish payments in "dollars per bond," which refer to payments per $\$ 1,000$ of bond principal (as in, the underwriter may suggest underwriter's compensation of $\$ 7$ a bond, and the financial advisor/issuer may propose compensation of $\$ 5$ a bond ... this really means $0.70 \%$ and $0.50 \%$ of the principal amount, respectively).
B. Yield vs. Price.

REMEMBER THIS BASIC CONCEPT - When interest rates are fixed, bond yields and prices move in opposite directions. For any existing bond, if market interest rates rise, the price of the bond goes down. That's because if a bond pays $6 \%$ and market rates rise to $7 \%$, a buyer will pay less to buy that bond in order to achieve a $7 \%$ market return. One general rule of thumb for 30 -year bonds is that for every increase or decrease of $0.125 \%$ or 12.5 basis points in market yield, the price will decrease or increase by $1 \%$ of principal. When you hear, "bonds are cheap," that means (at least to the buyer) that yields are relatively high and prices are relatively low.

Bond prices are quoted in different ways. For example, United States Treasury Bonds are quoted in 32nds (hence, a quote of 98.25 is $9825 / 32$ ). Municipal and corporate bonds are traded in decimals so that a 98.25 quote is $9825 / 100$.
C. Spreads.

1. Municipal/Treasury Spread. Because municipal interest is generally taxexempt, it would make sense that if U.S. Treasury Bond rates were at $6 \%$,
and the effective marginal tax rate of a taxpayer is $40 \%$, that a municipal bond would trade at roughly $60 \%$ of $6 \%$ plus a bit more (say $0.75 \%$, because U.S. Treasury Bonds are perceived as better credits), for a total yield of $4.35 \%$. But, in general, municipal bonds trade at yields much higher than seems logical. Probably, this is due to the lack of liquidity in the municipal market (much lower volume compared to the Treasury or corporate bond markets) and investors' fear of loss or diminution of tax exemption (e.g., flat tax leading to lower marginal rates).
2. Credit Spread. The credit characteristics (usually determined by ratings) will also affect the yield of a bond. In general, the lower a bond is rated the higher its yield. This is generally expressed in terms of credit spread (i.e., the additional yield over the yield applicable to a broad index of AAA rated tax-exempt bonds).
3. Bid/Ask Spread. As with any security, a dealer in that security is compensated by a bid/ask spread. In other words, the amount that the dealer will pay for a security (the bid) is something less than the price at which the dealer will sell that security (the ask). Credit quality and type of bond can affect the bid/ask spread.
D. Par, Discount and Premium Bonds.
4. "Par" Bonds. A bond has a stated par amount or principal amount and represents the issuer's promise to repay such amount plus interest at a specified interest rate until maturity. Thus, if a $\$ 1,000$ bond bears interest at $5 \%$ per year, the holder is entitled to receive $\$ 50$ in interest per year until maturity. Interest is usually paid semiannually, but can also be paid annually, quarterly, monthly, weekly or even daily. If a $5 \%$ bond were purchased at par (i.e., for $\$ 1000$ ), its yield would be $5 \%$.
5. "Discount" Bonds. If the same bond is purchased for less than its par amount, i.e., at a "discount" to par, its interest rate is still $5 \%$ but its yield exceeds $5 \%$ because the bond principal is repaid at the par amount--the return on the bond reflects not only the interest paid but also the "discount" amount. Thus, the discount, when repaid, is a "yield kicker" and will increase the yield on the bond to something in excess of $5 \%$.

Bonds originally issued at a discount are said to be issued with "original issue discount" or "OID." Bonds bought in the secondary market at a discount are said to have a "market discount." These terms have specialized meanings under the federal tax code. OID is treated as tax-exempt interest; market discount is taxable income. Gain or loss on sale of tax-exempts is taxable income, usually capital gain or loss.
3. "Premium" Bonds. For the same $5 \%$ bond, if it is purchased at a price above par, i.e. a "premium," the bond yield would be less than $5 \%$ because interest
is paid only on the par amount. As discussed regarding discount, bonds can be issued with "original issue premium" (or "OIP") or bought in the secondary market with a "market premium." The premium is amortized over time as a deduction from the interest received. As with discount, there are special federal tax rules for the treatment of premium.
E. "Yield Curve" and Duration.

Yield is usually a function of the "term" or "duration" of the bond, that is, the time it takes to repay the principal of the bond.

Typically, long-term interest rates are higher than short-term interest rates. This is because lenders require a higher rate of return as an incentive to commit to a longer term investment and its attendant market and credit risks. When interest rates are charted on a graph as a function of term to maturity, the normal resulting curve ("yield curve") generally moves upward with the term to maturity of the bonds. Generally, the curve begins to "flatten" at some point (e.g., around 10 years) and thereafter the yield pretty much stays the same. Thus, most structuring matters that involve the yield curve occur in the first 10 years. That is why serial bonds (usually with maturities of 1 to 10 years), which require lower interest rates than bonds with longer maturities, are used, as opposed to term bonds (with sinking funds or mandatory redemption of principal before their stated maturity) or bullet bonds (with no sinking funds).

To ensure that bondholders will get expected return, bondholders usually receive call protection (i.e., no redemption) for a number of years. Because yield curve starts to flatten out at ten years, most bonds are callable by that time.

On occasion, the yield curve flattens out; that is, short-term rates become as high as or higher than some longer-term rates, usually due to excess supply of short-term obligations or uncertainty of investors during the short-term. If short-term rates actually exceed some longer-term rates, there is said to be an "inverted" yield curve.

Duration refers to the time it takes to pay back principal. If a bond with a 10-year maturity pays all principal in 10 years then its duration is 10 years. But if principal is paid over time, then the terms weighted average life and weighted average maturity are used. The terms refer to the average time it takes for a bond to repay its principal, taking into account (i.e., "weighting") differing levels of principal paid in each year. For bonds secured by prepayable collateral (student loan and single family bonds), these concepts are particularly important because a wise buyer will price the bond based on its expected life derived from expected prepayments on the underlying collateral.
F. Yield to Maturity (YTM) vs. Yield to Call (YTC).

YTM is the yield of an issue calculated from the issue date or purchase date to the maturity date (taking into account mandatory redemptions and expected redemptions (e.g., from prepayable collateral)). YTC is the yield to a particular call
date, usually the optional call date that produces the lowest yield. Typically, bonds are sold (or "priced") at a price equal to the lower of the YTM or the YTC.

