Government Finance Officers Association of Texas



Certified Government Finance Officer Program Study Guide for Debt Administration

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DEBT ADMINISTRATION

INTRODUCTION

This Debt Administration guide gives fundamental information related to the issuance of debt by governmental entities. While much of the information is general in nature, the focus is specific to Texas governmental entities.

A BRIEF HISTORY OF TAX EXEMPTION

The tax-exempt status of state and municipal bonds means that investors do not pay federal income tax and in some cases no state or local income tax, on the earnings derived from the bond. This status derives from the immunity of any level of government from taxation by another, known as reciprocal immunity. The celebrated national bank case, McCulloch v Maryland, of 1819 in which U.S. Supreme Court Chief Justice John Marshall declared that "the power to tax involves the power to destroy," granted immunity to the national government from state taxation. The doctrine of reciprocal immunity granted tax-exempt status to instruments (bonds) of lower levels of government when the current federal income tax was implemented in 1913. In South Carolina v Baker the U.S. Supreme Court declared the doctrine of reciprocal immunity unconstitutional, leaving Congress the option of continuing the exemption or placing a tax on municipal bonds. Although restrictions have been put on issuers, particularly by the Tax Reform Act of 1986, income derived from issues of state and local governments, remain largely exempt from federal income tax.

The relative security of municipal debt and its tax-exempt status mean that municipal governments can issue bonds at lower interest rates than comparable corporate bonds and still attract investors. In 1936, the state of Mississippi first issued industrial development bonds (IDB) to finance a project that was repaid with revenue from the project. In effect, the federal government provided a subsidy (that it neither consented to nor endorsed) to the state of Mississippi, since the project otherwise would have been financed with taxable bonds issued by corporations. This method of economic development was quickly adopted by so many states and municipal governments that in 1968 Congress passed legislation that differentiated between municipal debt for public and private purposes. This legislation (Revenue and Expenditure Control Act) however, provided an extensive list of substantially private purposes that would be excluded from the distinction due to their public benefits.

The 1986 Tax Reform Act (TRA) severely limited state and local government's use of IDBs. It removed the tax exemption on municipal bonds used for purposes that are primarily private in nature, with a few exceptions including debt used for multi-family rental housing, publicly owned airports, and docks, and transportation and waste disposal facilities among others.

Private-activity and taxable bonds must pass the private business-use and private loan tests. The bond issue is in this category if (a) more than the smaller of 5 percent or \$5 million of bond proceeds are used for loans to non-government entities (the private loan test) or (b) more than 10 percent of the bond proceeds are used by a nongovernment entity in a trade or business and more than 10 percent of the debt service is secured by or derived from payments from property used in a trade or business (private business-use test). A 5 percent threshold is used for unrelated and disproportional use. Furthermore, State volume cap is required when private use exceeds \$15 million. Additional limitations apply to output facilities. Public-purpose and tax-exempt bonds are issued by a state or its political subdivision in registered form (unless privately placed) and do not pass the above tests.

The 1986 TRA imposed a cost of issuance limitation and a limitation on the number of private activity bonds that can be issued in any given calendar year. That latter limitation is referred to as State Volume Cap that is provided to each state pursuant to a formula based on a per capita annual computation. The TRA severely reduced the amount of federal subsidy provided to local economic development financed with municipal bonds. Finally, the TRA added additional arbitrage restrictions. Arbitrage is a practice focused on borrowing money with tax-exempt proceeds and investing them, directly or indirectly, at higher interest rates in the taxable market. The most significant exception (which is heavily regulated) is the short-term investment of bond proceeds while awaiting disbursement. The TRA requires issuers that fail to meet the small issuer exemption to rebate arbitrage earnings to the federal treasury. Bond counsel should be consulted to determine if an issuer is subject to the rebate requirement and, if so, the proper steps

to ensure compliance.

WHAT IS TAX-EXEMPT DEBT?

Public debt is used primarily to fund an issuer's capital budget. An issuer may also borrow to meet emergency needs, such as funds needed to meet short-term cash flow deficiencies. The benefits of using debt to fund the capital budget are discussed in the review package on budgeting in the section on the capital budget. One important benefit is that each generation of taxpayers pays for its use of capital facilities. If funds had to be accumulated, or tax rates raised for a year or two, in order to build a facility with a useful life of thirty years, taxpayers in the future would benefit without contributing to the cost of that facility. Other advantages are that tax rates can be maintained at consistent levels and projects can be built as they are needed rather than delayed until sufficient funds for their construction are accumulated.

State and federal laws dictate many aspects of municipal debt. Most home rule and general law cities issue debt within state-imposed limitations. States limit the amount of debt cities can acquire usually as a percent of assessed value by specifying a maximum tax rate that can be used for debt service or, as in Texas, for all city purposes. Limiting the tax rate for "all city purposes" forces local decision makers to balance debt service with resources dedicated to operating costs; however, cities typically do not approve a tax rate near the maximum. Further constraints have been placed on governments by voter-imposed tax limitations that will be discussed later.

Federal regulation of brokers, dealers, and municipal advisors in the bond market is coordinated by the Municipal Securities Rulemaking Board (MSRB). This body made up of representatives from banks, securities firms and officials from the public, write and adopt the rules that govern the municipal securities market. Congress created the MSRB in 1975 following a number of actions brought by the Securities and Exchange Commission (SEC) against securities dealers for unethical trading and selling practices. Congress has since passed more regulations, the latest coming from Dodd-Frank legislation, discussed later in this document.

State and local governments issue two types of debt: 1) secured debt consists of general obligation (GO) bonds, certificates of obligation, and tax notes that are backed by the full faith and credit of the jurisdiction, meaning that the full power to tax will be used to meet the obligation; and 2) unsecured debt, which is usually backed by revenue from a designated source such as water and/or sewer fees or the fees from a parking garage or toll road. Bonds backed by specific revenue sources, rather than the taxing power, are called revenue bonds. Jurisdictions may issue bonds backed by a combination of designated revenue sources and the general taxing power, so-called double-barreled bonds (certificates of obligation for Texas cities and counties). The tax pledge has the effect of lowering otherwise higher interest costs.

TYPES OF MUNICIPAL DEBT

Secured Debt

Municipal debt is either secured by an unconditional (unlimited) or conditional (limited) credit guarantee, typically from the issuing entity. An unconditionally secured, or general obligation (GO), bond carries the full faith and credit of the issuing government. GO bonds in Texas require voter approval through a referendum held on uniform election dates in May or November. Items on a bond referendum authorize a specific amount of bonded debt for particular purposes. In Texas, projects put to a vote by the public must generally be related or similar projects. For example, a referendum might have one proposition covering \$50 million for street improvements in a downtown area, another proposition for \$25 million for a new city hall, and a third proposition for \$15 million for park improvements. Because the projects are varied in nature and not necessarily directly related to one another, they could not be grouped into one proposition. Voters could approve any, all, or none of the individual items. Each one either passes or fails. Once authorized, the city can sell bonds up to the amount approved at any time for the purposes approved by the voters in the referendum. In some cases, specific projects are listed on the referendum ballot, while others generically categorize spending as street improvements or park improvements. Bond authorizations normally do not expire; however, the Texas Attorney General typically likes to see the voted authority exhausted in 10 years.

Also in the category of unconditionally backed credit are certificates of obligation (CO). COs can be issued without voter approval, usually by a vote of the city council upon recommendation by the finance department or city manager.

In order to issue COs, the city council must pass a Notice of Intent that has three key items in it: 1) a not-to-exceed dollar amount of the COs, 2) a general description of the projects anticipated to be financed with the proceeds from the CO sale and 3) the date in which council will meet to consider approval of the sale of the COs. COs can be petitioned by 5 percent of the issuing entity's registered voters. If the petition is successful, the COs are then forced to a public vote similar to GOs.

COs were originally designed to provide funds for smaller projects and emergency needs that could not have been foreseen in a bond election. While COs are now most commonly issued to fund projects required to keep a city operating efficiently on a daily basis such as street improvements or utility improvements, they can also fund quality of life projects. In Texas, COs secured solely by a tax pledge can only be issued for limited purposes, such as land acquisition, or to fund a legal judgment. COs that are backed by a revenue pledge, as well as the full faith and credit of the issuing government, can be issued for any lawful purpose.

A number of short-term instruments are used primarily to meet the cash flow needs of local government. Revenue anticipation notes (RAN) and bond anticipation notes (BAN) provide governments with cash to meet short-term cash needs while waiting for revenue from these sources. In Texas, cities may issue tax notes. Tax notes are not subject to a public vote like GOs and do not require the approval of a Notice of Intent like COs. The only approval required is that from the city council. In Texas, the maturity cannot extend beyond seven years for capital improvements or one year for cash flow purposes. Tax notes are most commonly used to finance short-lived equipment, smaller projects, and/or emergency projects.

Conditionally Secured Debt

Revenue bonds are conditionally secured in that the full taxing power of the jurisdiction is not pledged for repayment. Debt service repayment comes from the revenue generated by the system or facility (parking garage, water system, toll road, etc.) financed with the bond proceeds and is the source of credit backing. Revenue debt typically does not count against constitutional or statutory debt limitations faced by city governments.

Revenue bonds are issued with the approval of the city council. No other action is needed. Revenue bonds generally sell at interest rates slightly higher (anywhere from 5 to 25 basis points) than general obligation debt depending upon the financial quality of the revenue pledged. For reference, a basis point is one-hundredth of a percent, so that 100 basis points is one percent (1.00%); for example, the difference between 5.00% and 6.00% is 100 basis points.

THE BOND TEAM

The episodic nature of issuing debt and the specialized knowledge required make it impractical for even the most sophisticated municipalities to perform many tasks themselves. In order to structure an issue that will sell quickly and efficiently in the bond market, and to meet the legal requirements under federal and state law, local finance officials typically enlist the services of a financial advisor and a bond counsel. The city may request a credit rating from one or more rating agencies for their assessment of the risk to investors. Finally, an underwriter (or syndicate of underwriters) purchases the bonds and resells them to individual investors.

Financial Advisor

The financial advisor (FA) serves as the liaison between the municipal government and the securities market and helps structure the issue to meet the demands of the market. The FA typically interfaces with the rating agencies and is involved in preparing the bond offering documents. Bond banks and underwriting firms often provide these services, but some firms specialize in advisory services only. Many cities will not allow their financial advisor to serve as underwriter (see the discussion of sale types below) believing such a practice to be a conflict of interest.

Dodd-Frank legislation further refined the duty of a financial advisor as having a fiduciary responsibility to the governmental entity that he or she represents. Underwriters are required to notify the issuer in writing that they are acting strictly in their own interests, and not that of the issuer. There are strict limitations and recordkeeping requirements.

Bond Counsel

Bond counsels are highly specialized attorneys who provide legal services associated with a bond offering. Two major tasks are 1) passing judgment on the legality and tax-exempt status of the issue and 2) preparing disclosure statements that meet all federal and state laws. The bond counsel will also ensure that the bonds are registered properly. In Texas, municipal issues must also be registered with the Attorney General who passes judgment on compliance with Texas law. Bond counsel will also work with the issuer and the jurisdiction's general counsel to make sure that officials follow proper procedures as outlined under state and federal law.

Disclosure

Municipal bond issuers disclose information to potential underwriters and investors through an official statement. The preliminary official statement called a "red herring" due to the red ink print on the front that alerts the reader to the fact that the statement is only preliminary and should not be used to make investment decisions. It provides information that underwriters need to prepare bids in a competitive sale or market the bonds in a negotiated sale. The final official statement cannot be substantially different since the underwriters bidding for the bonds have used the preliminary information to gauge investor interest in the issue. In Texas, the financial advisor typically has the primary responsibility to create the official statement. Bond counsel will typically review the document for legal compliance.

The official statement contains information on the legal basis for the issue and the purpose of the debt including a detailed description of the project(s) or item(s) financed. For instance, the debt may be used to purchase equipment, build infrastructure, purchase land or make improvements. The type of bond and the security that is pledged to service the debt are described in detail. If issuing a revenue bond, the rationale behind the revenue estimate is discussed, and assumptions used in the calculations are justified. Prior obligations of the revenues must also be disclosed. If the new debt consists of parity bonds, an additional bonds test must be included showing that the pledged revenue source can support the additional debt. Often, a covenant in the prior debt (referred to as senior lien bonds) requires such a test before issuing new debt.

A section detailing bondholder's risk may discuss general economic concerns and actions of other levels of government that might impede the issuer's ability to service the debt. The possibility of tax base erosion through property devaluation and other factors beyond the control of the issuer are typically included. The tax-exempt status of the bonds is determined and disclosed in the official statement as well as foreseeable changes that might alter such status. Finally, the ratings assigned by the major rating agencies are included, although these may not be available at the time of the circulation of the preliminary official statement.

It should be noted that the Preliminary Official Statement and Final Official Statement are the issuer's documents. It is in the issuer's best interest to thoroughly review for any errors, misstatements, or material omission.

Underwriter

The third member of the bond team is the underwriter, a bank or investment bank that purchases the bonds and resells them to individual investors or institutions. When an issue is too large for a single underwriter to manage, several may combine to form a bond syndicate with one serving as the senior-managing underwriter and the other members serving as co-managing underwriters.

Underwriters earn their income by reselling bonds at a profit. In a competitive sale, the bonds are either sold to the underwriter at a premium or discount from their par value, or the underwriter may buy them at par and reoffer them at a premium.

In a negotiated offering, the underwriters receive their compensation as a "gross spread," which is a percentage of the issue amount. This is usually expressed as dollars per \$1000 bond. The gross spread consists of the four components listed below; the amount of each will vary based on the complexity, size, and term of the issue, as well as other market factors.

It should be noted that risk is higher for an underwriter in a competitive transaction than in a negotiated transaction. With a competitive transaction, it is more difficult to solicit pre-sale interest in the bonds because interest rates and reoffering prices are not known until the underwriter has purchased the bonds.

Gross Spread Components

- *1. Takedown* the sales commission for selling the bonds and largest component of the gross spread.
- 2. *Management fee* the fee paid for financial advice and planning, document preparation and for handling the affairs of the syndicate.
- *3. Underwriter's risk* compensation to members of the syndicate based on the number of bonds each must sell.
- 4. *Expenses* compensation for reimbursable expenses usually associated with operating the syndicate.

Some of these components may not be present in each instance.

MSRB

Underwriters are regulated by the Municipal Securities Rulemaking Board (MSRB). The MSRB was established in 1975 by Amendment to the Securities and Exchange Act. Its fifteen initial members were appointed by the SEC. Five members come from each of three areas: securities firms, bank dealers, and the public. Board members sit for two-year terms and may not succeed themselves. The SEC approves the appointment of the five public representatives, one of whom must be a representative from a local or state government.

The MSRB has a website covering a broad range of topics. This site is recommended reading. http://www.msrb.org/EducationCenter.aspx

TYPES OF SALES

Municipal bond issues may be sold through a competitive bid process, a direct sale (negotiated sale) to an underwriter, or a private placement. The choice of one type over another will depend on a number of factors, including the type of issue, the particular structure of the issue (size, term, etc.), the demands of the market, and state and local laws, regulations and policies.

Highly rated, "plain vanilla" bonds are more likely to be sold by competitive bid. Underwriters bid to purchase the bonds from the issuer, then resell them to individual investors. The winning bid is the lowest interest cost to the issuer from a qualified underwriter. Bids are made in the form of true interest cost (TIC), the calculation of which takes into account the time value of money. (See the section below on calculating interest expense for a discussion of the NIC.)

Under certain circumstances, it may be advantageous for the issuer to agree to sell the issue to an underwriter and then negotiate the interest cost and expenses. This is called a negotiated sale. Since the underwriter knows that they will be buying the issue, they can devote more resources to the tasks of determining individual investor interest and gauging the market for the most opportune time to sell the bonds. In general, a negotiated sale has more flexibility in terms of market timing than a competitive sale.

A private placement is placed directly with an investor (typically a bank or other financial institution) or may be sold

competitively to a select group of banks or investors. While its general use is limited, under certain circumstances, private placements can be advantageous. Banks have increasingly become investors in municipal bonds, treating them as loans as opposed to investments. A bank's typical investment horizon is generally around 10 to 15 years. Under certain circumstances, a bank may require a rate adjustment if the bonds extend for a longer period of time. Each bank has a unique method by which they determine their cost of capital. These differences can be substantial. A competitive bank bid structure is recommended.

STRUCTURING AND MARKETING THE BOND ISSUE

The task of structuring the bond issue falls largely on the financial advisor. That is the professional with direct knowledge of the client's needs and of the market from day to day and week to week. There are a number of major considerations where finance officials rely on the FA to make recommendations. Not all will be needed in a transaction.

- 1. Bond denomination. The face or par value of a bond that the issuer promises to pay on the maturity date. Most municipal bonds are issued in the minimum denomination of \$5,000. Riskier securities may require \$25,000 or \$100,000 denominations. The larger denominations are typically used to ensure that an investor has a higher level of sophistication and are better equipped to identify risks associated with the particular transaction.
- 2. Bond maturity. The date when payment of principal and accrued interest are due to the bondholder.
- 3. Serial bonds. Bonds of an issue in which some bonds mature in each year over a period of years.
- 4. *Term bonds.* Bonds coming due in a single maturity. The issuer usually agrees to make periodic payments into a sinking fund for the mandatory redemption of term bonds before maturity or for payment at maturity. Mandatory redemptions are typically structured to mirror serial bonds.
- 5. *Call provisions*. The terms of the bond contract giving the <u>issuer</u> the right to redeem or call all or a portion of an outstanding issue of bonds prior to their stated dates of maturity at a specified price, usually at or above par.
- 6. *Put provisions.* The terms of the bond contract giving the <u>bondholder</u> the right to require the issuer or a specified third party to purchase the bonds, usually at par, either periodically, or at a certain time prior to maturity or upon the occurrence of specified events or conditions.

Interest Expense Calculation

Calculation of interest costs determines which underwriter or syndicate wins the competitive bid and purchases the bond issue. Generally, there are two methods of calculating interest costs. Net interest cost (NIC) was a common way to calculate and award bonds in the 1970's and prior years. Today true interest cost (TIC) is generally used. TIC applies a present value calculation to the cash flows generated by the bids. It is a more accurate determination of the cost of borrowing.

One term should be defined before proceeding to a discussion of interest cost calculation. The number of bond year dollars is the amount borrowed multiplied by the time for which it is borrowed. For example, a \$1 million 10-year term bond constitutes 10 million bond year dollars. A similar serial bond, with \$100,000 of principal maturing each year over the 10-year life, would constitute 5.5 million bond year dollars. This is calculated by multiplying the principal by the average maturity. In this case, it is five and one-half years.

The structure of the issue concerns whether bonds are term or serial, the denominations of individual bonds and, for serial bonds, how much of the principal matures each year. The structure is determined by the issuer in consultation with the financial advisor. It is designed to meet the issuer's needs and the demands of the market. In bidding for a

bond issue, the underwriter submits the interest cost for each maturity over the life of the issue. Consider two examples.

For a \$5 million term bond that matures in five years, the bidder would submit an interest cost for the single fiveyear maturity. For a \$5 million serial bond with \$1 million maturing each year, the bidder would submit interest costs for each maturity. The interest costs bid for each maturity may, or may not, be the same.

The NIC is simply the total interest cost paid over the life of the issue. The example in Box 1 shows the interest costs for a \$10 million bond issued in January 2016 that matures over the years 2020 to 2025 with payments due at the beginning of each year. The interest cost is a flat five percent over the life of the bond, so the NIC and TIC are both exactly five percent.

Maturity Dates	Maturity Amount	Interest Rate	Annual Interest	Total Payment
2017	\$0		\$500,000	\$500,000
2018	0		500,000	500,000
2019	0		500,000	500,000
2020	1,000,000	5.00%	500,000	1,500,000
2021	1,000,000	5.00%	450,000	1,450,000
2022	2,000,000	5.00%	400,000	2,400,000
2023	2,000,000	5.00%	300,000	2,300,000
2024	2,000,000	5.00%	200,000	2,200,000
2025	2,000,000	5.00%	100,000	2,100,000
TOTAL	\$10,000,000	5.00%	\$3,450,000	\$13,450,000

Box 1 - Payment schedule for a \$10 million bond issued in 2016.

The TIC formula takes into consideration the time value of money; a dollar paid tomorrow or next year has a lower present value than a dollar paid today. Interest payments made in the future also have a lower present value. Therefore, if interest payments are high on the early maturities, the net present value of the interest cost is higher. On the other hand, if the interest costs on the later maturities are higher, the net present value is lower. Box 2 illustrates the effect of front-loaded interest costs on the same bond issue illustrated in Box 1. Because the high-interest costs on the early maturities (8.9% and 8.8%) are offset somewhat by the lower rates on, the longer maturities, the NIC of 4.99% is nearly the same as the NIC from Box 1, 5.00%.

However, the TIC for the example in Box 2 is 5.07%, or 7 basis points higher. The variation in interest costs in this example is a bit extreme but serves to illustrate the effect that front-loading has on the TIC. The effect can be even greater on larger issues with longer maturities. This example also illustrates the limitation of the NIC. When comparing bids from underwriters, the one with the lowest NIC may not have the lowest TIC.

Maturity Dates	Maturity Amount	Interest Rate	Annual Interest	Total Payment
2017	\$0		\$557,000	\$557,000
2018	0		557,000	557,000
2019	0		557,000	557,000
2020	1,000,000	8.90%	557,000	1,557,000
2021	1,000,000	8.80%	468,000	1,468,000
2022	2,000,000	8.00%	380,000	2,380,000
2023	2,000,000	6.00%	220,000	2,220,000
2024	2,000,000	2.50%	100,000	2,100,000
2025	2,000,000	2.50%	50,000	2,050,000
TOTAL	\$10,000,000	4.99%	\$3,446,000	\$13,446,000

Box 2 Payment schedule for a \$10 million bond issued in 2016 with front-loaded interest costs.

The formula for TIC is

$$B = \sum_{n=e}^{f} \left(\sum_{t=1}^{n} \frac{C_t}{\left(1 + TIC\right)^t} + \frac{M}{\left(1 + TIC\right)^n} \right)$$

where B = the price of the issue;

e = the number of periods to earliest bond maturity; f = the number of periods to the last maturity;

n = the number of years to maturity;

t = index of period; C = coupon;

M = maturity value of the bond; and TIC = the true interest cost.

Solving for TIC uses a computer program that performs repeated iterations of the formula with increasing (or decreasing) values of TIC until the value for B is produced. You will not be tested on the formula.

BOND RATINGS

The bond rating guides investors who do not have the expertise or time to research investment opportunities for themselves. It serves as a generally understood evaluation of the creditworthiness of the issuing government, in the case of general obligation debt, or the revenue-generating project, in the case of a bond backed by a specified revenue source.

Credit Ratings and Descriptions for Standard and Poor's, Fitch and Moody's.

Box 3 - Moody's	Investor's Services
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Aaa	Judged to be of the highest quality, subject to the lowest level of credit risk
Aa	Judged to be of high quality and are subject to very low credit risk
А	Judged to be upper-medium grade and are subject to low credit risk
Baa	Judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics
Ba	Judged to be speculative and are subject to substantial credit risk
В	Considered speculative and subject to high credit risk
Caa	Judged to be speculative of poor standing and are subject to very high credit risk
Ca	Highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest
С	Lowest rated and are typically in default, with little prospect for recovery of principal

Box 4 - Standard & Poor's and Fitch

ААА	Prime: obligation of highest quality and lowest probability of default; quality management and low-debt structure
AA	Higher grade: only slightly less secure than prime; second lowest probability of default
А	Upper-medium grade: safe investment; weakness in local economic base, debt burden, or fiscal imbalance
BBB	Medium grade: lowest investment security rating; may show more than one fundamental weakness; higher default probability
BB	Lower-medium grade: speculative non-investment grade obligation; relatively low risk. Faces major ongoing uncertainties or exposure to adverse conditions.
В	Low grade: investment characteristics virtually nonexistent
CCC	Vulnerability to default: timely payment dependent on favorable business, financial, and economic conditions
CC, C	Debt subordinated to senior debt with CCC rating
CI	Debt on which no interest being paid
D	Payment in default

Rating Agencies

Three primary companies provide the majority of bond ratings in the United States. Standard & Poor's, Moody's Investors Services, and Fitch Investor's Services provide ratings for most of the municipal market. The rating agencies use a system of letters to represent their evaluation of the quality of a bond. A triple-A rating is the highest in each agency's scheme. Box 3 and Box 4 show the rating levels and descriptions of each rating for the three major rating agencies, Fitch, Standard & Poor's, and Moody's.

The interest cost implications of the bond rating can be substantial between a AAA and an A rating. The rating companies are quick to point out, and rightly so that the rating does not determine the interest cost; both the rating and the interest cost is determined by the credit quality of the issue.

Rating Criteria

The rating agencies use similar criteria for establishing ratings although each company emphasizes different elements and may use slightly different variables to measure the same concepts. The criteria are grouped into four categories:

- 1. Economic and demographic
- 2. Financial
- 3. Debt
- 4. Administrative/Management

Below are examples of variables within each category that the agencies consider in assessing the creditworthiness of an issue.

Economic and Demographic

- 1. Per capita effective buying income
- 2. Median family income
- 3. Median house value
- 4. Total taxable value
- 5. Taxable value trend
- 6. Local unemployment rate

Financial

- 1. Use of GAAP
- 2. Proper use of modified accrual accounting procedures for all governmental funds
- 3. Comprehensive Annual Financial Report contains sufficient historical data
- 4. Balanced budget
- 5. Fund balance stability (governmental fund types)
- 6. Percent of revenue from property tax
- 7. Property tax delinquency percent
- 8. Percent of revenue from non-tax sources
- 9. Liquidity of total assets
- 10. Percentage of employees covered by a pension plan
- 11. Pension plan ratio of assets to accrued benefits

Debt

- 1. Ratio of GO debt service to current revenue
- 2. Ratio of GO debt to total assessed property value
- 3. GO debt per capita
- 4. Ratio of short-term debt to long-term debt

- 5. Current percent of debt to total budgeted expenses
- 6. Use of short-term debt to meet debt service payments
- 7. Total debt service liability as a percent of current property tax revenue
- 8. Percent of total debt due in balloon payments
- 9. Percent of total debt with call or put provisions

Administrative/Management

- 1. Form of government
- 2. Budget officer appointed (rather than elected)/qualifications
- 3. Comprehensive debt and cash management policy statement
- 4. Policies that are reviewed and approved annually by the governing body
- 5. Accuracy of previous year's revenue forecast
- 6. Formal budget process
- 7. Formal capital improvement plan
- 8. Coefficient of dispersion for residential property valuation
- 9. Formal property tax assessment cycle
- 10. Tax increase limitations
- 11. Liability from litigation
- 12. Court-ordered liability pending/exposure

Credit Rating Enhancement

Third-party guarantees of municipal debt have lowered the interest costs for many issues. Three types of guarantees are used:

- 1. Backing from state government
- 2. Bank letters of credit
- 3. Bond insurance

State backing involves the explicit pledge of the state to assume the obligation of the issuer in the event that revenues are insufficient to meet debt service payments. A good example of this type of backing is the Texas Education Agency's Permanent School Fund (PSF) that guarantees the debt of local independent school districts. The PSF carries AAA ratings, effectively lending the school districts its rating. This has the effect of lowering the borrowing costs of those districts below that of the average municipal GO bond issue. An implicit obligation to assume the debt of local governments or authorities created by the state is known as a moral obligation; the state, however, has no legal obligation to assume such debt.

A bank letter of credit (LOC) is the promise from a commercial bank that it will meet principal and interest payments if the issuing government is unable. The guarantee may include payment of the debt upon default. A bank LOC is generally renewed annually and covers specified debt payments or issues.

The most common type of credit enhancement is municipal bond insurance. In return for a single payment insurance premium, the insurer pledges its assets and promises to meet principal and interest payments if the issuer is unable. Insurance premiums are based on the credit quality of the issue. A municipality will generally insure its issue if the interest savings exceed the cost of the insurance. Insured issues will carry one or more ratings by one of the three major firms listed above. If insurance is purchased, then the bond issue receives the same rating as that of the insurance company.

BOND REFUNDING

Municipal governments may choose to refund debt for a variety of reasons. The principal reason for a refunding is a significant drop in interest rates making it economically feasible to take on new debt at lower costs to retire higher interest issues. The other major reason to retire debt prior to its maturity is to eliminate restrictive bond covenants, such as the limitation on additional debt secured by a pledged revenue source, or a limitation not to sell a project financed by the debt. Restructuring the maturity schedule of an issuer's outstanding debt is one additional reason for

a refunding. Refunded issues may be retired immediately upon issuance of new debt if a current call feature is present. If a call feature is not available, then an escrow account is funded until the first call date is reached.

ESTABLISHING DEBT POLICIES

Formal debt policies can reduce conflict in the budget process and assist officials' efforts to maintain a favorable bond rating. Debt policies address issues of process, use, and limitations. In assigning bond ratings, the credit rating agencies may take into consideration whether the issuer has adopted proper and comprehensive debt policies. This signifies to the agencies that the issuer is serious about managing its debt and that future decisions will be consistent even if there are new appointed and elected officials. One of the most critical pieces of the policy for issuers to adopt is that debt should not be issued with a maturity longer than the useful life of the project or item financed.

The process by which debt is issued must conform to state and local laws. Often local officials' preferences and tradition guide the process in the absence of specific legal requirements. Finance officials should draft policies for council adoption in order to provide a framework for future debt management. Even smaller issuers that have good economic conditions and sound financial management should adopt such a policy.

Policies specifying allowable uses of debt usually indicate that the issuer will not issue debt to fund operating expenses, and that funded projects or items meet the requirements of the capital budget or capital improvement plan. The requirements typically set a floor amount and specify that the item's useful life must meet some minimum. Repair and replacement of existing facilities may qualify as a capital expenditure if the project extends the useful life of the facility or equipment beyond the time needed to retire the debt.

By far the most comprehensive provisions of any debt policy are those dealing with limitations to the amount of GO debt the jurisdiction may incur. The most common limitations are expressed as a percentage of assessed property value or general fund revenue. Debt may be limited to a percentage of total assessed property value (often around five percent), or to a percentage (often 10 to 20 percent) of locally levied operating revenue. It is a good idea for the city to adopt policies establishing guidelines for the use of certificates of obligation and short-term debt. COs can be issued without voter approval although the city must advertise that it intends to issue such obligations and give voters the opportunity to petition for a referendum.

Short-term debt should be limited to meeting cash flow needs and smaller emergency projects. State law often limits the maturity of short-term debt to less than that allowed for regular GO bonds.

CREATIVE FINANCING TECHNIQUES

Tax-Increment Financing

Tax-increment financing (TIF) of infrastructure and other municipal improvements has become a popular method of revitalization, especially in urban areas. The process uses the increased tax revenue from escalating property values in the area where improvements are made to service the debt incurred. One of the chief criticisms of TIFs has been their use in areas that would have developed even without the increased effort.

The first step is to identify an area that is in need of revitalization. The city establishes a TIF authority to oversee improvements made to the district. Within the set boundaries of the district, the property value of each parcel is "frozen" for purposes of general revenue. The city continues to receive this amount in general fund revenue. The authority sells tax-increment bonds to finance the planned improvements that may include street and street lighting improvements, parks and green areas and utility upgrades. The effort may also include improvements to the abandoned property or the sale of such property to developers at less than market value in order to stimulate development. If all goes well, the assessed value of the property rises, and the incremental property tax revenue is used to service the debt.

One of the major difficulties of TIFs is the need for all taxing jurisdictions to participate including community college districts, county governments, and special districts. Their participation may be necessary to generate sufficient revenue to service the debt. This poses a problem, however, if the changes result in a burden on those

jurisdictions' infrastructure. For example, if the renewal of an area brings new families with children, the school's system may find its facilities crowded. Alternatively, a municipal utility district may need new capacity if there are major new industrial users. It may be necessary to include improvements or partial funding of improvements needed by other taxing jurisdictions to make the project viable. Otherwise, the overlapping jurisdictions would, in effect, subsidize the infrastructure and improvements that the city ultimately will own.

Public Improvement Districts

Public Improvement Districts (PIDs) issue bonds secured by real property assessments. They are utilized to upgrade infrastructure on the underutilized property. These assessments can be on any type of property. In addition, the government may also assess themselves in some limited instances.

Typical examples of uses in today's environment: (a) renovation of properties to upgrade amenities and attract new business to an area; and, (b) provide incentives to developers to upgrade new or existing housing developments within city limits.

Each state has different authorizing law behind PIDs. These are highly complicated transactions that can be manipulated against an issuer in a number of areas if not properly represented by competent bond counsel, general counsel, and financial advisor. It is also an area where issuer mistakes can be made by relinquishing what should be an issuer responsibility in the transaction. Many times underwriters, developer lawyers, service and assessment plan consultants can be heavily influenced by a developer.

Issuers should always maintain absolute control over all consultants and legal documents in a PID transaction. Not doing so is a frequent mistake and can be costly. There is no such thing as "no liability." PID bonds are issued by the creator of the PID. The issuer is accessing the public markets just as they do with any revenue bond, such as water and sewer. Proper disclosure, both primary and continuing, is an issuer responsibility. Any mistakes reflect directly on an issuer's disclosure for its normal bond offerings, such as general obligation and utility system revenue bonds.

All that being said, a PID is the single most powerful development tool that an issuer has to offer. As such, it should demand proper controls and representation by its own consultants in any financing.

Development Impact Fees

Development impact fees paid by builders and developers help pay for water and sewer systems, streets and street lighting, drainage systems and parks or green space transferring part of the cost of infrastructure or services normally provided by the government to the private sector. Fees have been upheld in court challenges in the absence of specific authorizing legislation. There is no set schedule for applying fees once a city decides to use them, although this is the recommended procedure. In some cases, cities negotiate fees on a case-by-case basis, especially with regard to parks and green space requirements.

Local governments adopt fees by ordinance and must comply with any enabling legislation passed by the state. Often a set schedule is used for on-site exactions, while off-site exactions are negotiated. On-site exactions are those paid per unit developed, such as a certain amount per water connection in a residential development. Off-site exactions may be charged when a developer's project creates additional demand or uses existing capacity, such as for water and sewer service and streets.

Texas law requires that cities adopt fee structures in conjunction with a comprehensive development plan or capital improvement plan (CIP) in order to avoid arbitrariness and so that fee revenue can be justified as serving a designed purpose. The law also requires consistency and fairness so that one developer or builder does not pay a higher amount than another. The law allows cities to set up districts with separate fee schedules that reflect actual differences in the cost of development. For instance, if a particular area, because of its geography, needs more sewer lift stations than another area, its fees structure may call for higher sewer connection fees. The law stipulates that the districts be well defined and consistent with the overall development plan.

Most impact development fee structures have been subjected to legal challenges, primarily in state courts. The legal

doctrine that courts have developed is the rational nexus standard that requires a logical link between the fee charged and the infrastructure provided. In addition to the logical link between the fee and infrastructure provided, cities must determine that each development project is charged an amount that is in proportion to the demand it creates; that the facilities financed are part of a comprehensive plan for development; that occupants are not double-billed by paying first a fee and then property taxes later (the fee must be net of property tax contributions used to finance infrastructure); and that the planned facilities be built in a timely manner.

Fees should be understandable to the practitioner and layman and elastic with respect to changes in fiscal contingencies so that, as conditions change, fee revenue remains sufficient for its purpose. Equity and adequacy should be of paramount concern to city officials and employees who administer the fees.

Two general methods of fee calculation have been devised to comply with the rational nexus standard. Inductive and deductive calculations determine the cost of a project's impact. The inductive method involves determining the cost and capacity of a particular facility (i.e., a water treatment plant) that serves as a model for future construction. The major limitation of this method is the failure to consider special needs that a community might have. In many cases, however, benchmarks and national averages can provide reasonable levels of revenue and the benefits of more complex analysis may not be worth its costs.

Deductive calculations are based on the demand a development places on public infrastructure in a specific locale rather than relying on national benchmarks. This method is preferable in some cases since it is based on specific community needs and locally defined levels of service. For many basic services, however, the inductive method may be simpler and has the added advantage of being readily available.

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