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CENTER FOR PUBLIC INVESTMENT MANAGEMENT

A PROGRAM BROUGHT TO YOU BY:

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FINANCE 301:

In-Depth Look at Debt Structuring

2012 CPIM Academy

CPIM
Center for Public Investment Management

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Finance 301

In-Depth Look at Debt Structuring

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Review of Bonds & Bond Terms

- Bonds (or notes) are obligations to repay a lender at a predetermined rate or rates of interest on a defined timeline.
- The components of any bond are:
  - Par or Principal (its face value)
  - Rate or Coupon (the stated interest rate)
  - Term or Maturity
- Bonds typically pay interest every 6 months, or semi-annually. One year notes typically pay once, at maturity.
- Any combination of maturities and coupons may be used in a single bond issue.

Common Types of Bonds & Notes

- ***General Obligation Bonds*** – Bonds payable from real property taxes.
- ***Revenue Bonds*** – Bond secured by revenues from a system. New Community Authority
- ***Tax Increment Financing Revenue Bonds (TIF)*** – Bonds secured by payments in lieu of taxes.
- ***Bond Anticipation Notes*** – Short term notes issued in anticipation of a long term bond. Usually issued in anticipation of general obligation bonds.

Type of Sale: Competitive v. Negotiated

- There are two primary forms of sale:
  - ***Competitive Sale***
  - ***Negotiated Sale*** – Most commonly used

Competitive Sale

- Structuring and rating agency work falls to issuer and perhaps financial advisor.
- Issuer prepares a notice of sale and distributes it to the universe of potential bidders.
- Notice of sale sets the bid parameters:
  - Date and time of sale
  - Call provisions
  - Maximum coupon
  - Responsibility for expenses
  - Minimum and maximum price to be bid
  - Serial and term bond constraints
  - Preliminary amortization schedule
  - Flexibility to be maintained by issuer until bids are received.

Competitive Sale

- Bidding takes place through electronic platform.
- Award based upon lowest interest rate (either NIC or TIC)

Negotiated Sale

- Issuer selects an underwriter or team of underwriters to represent them in the market.
- Underwriters work with issuer and advisors in structuring transaction, presenting credit to rating agencies and pre-marketing and marketing transaction.
- Underwriters have an exclusive right to price and sell the securities.

Negotiated Issuance Process

1. The underwriter assists the issuer in the hiring of the other professionals who need to be involved, primarily the bond counsel.
2. Bond counsel and the underwriter will engage in the due diligence process with the issuer. This is the gathering of legally required information that must be furnished to potential investors. It recounts the issuer's financial, economic, and demographic information amongst other data.
3. Using this information, a Preliminary Offering Statement (POS) is prepared. This document will be furnished to potential investors.
4. Most issuers get a credit rating from one of the three major agencies. Investment grade rated bond issues have lower interest rates than those that are not rated.
5. Once all of the components are in place, the underwriter will begin marketing and pricing the bonds to potential investors through the POS.

Negotiated Issuance Process

6. Once the underwriter has found a combination of orders that provides the lowest interest costs to the issuer, the issue will be said to have priced.
   - Bonds sold with Coupons equal to Yield are "Par" bonds with the price equal to 100% of the Principal.
   - Bonds sold with Coupons less than Yields are "Discount" bonds with the price less than 100% of the Principal.
   - Bonds sold with Coupons greater than Yields are "Premium" bonds with the price greater than 100% of the Principal.
7. When the details have been finalized in the Official Statement the issue will close and the underwriter transfers the funds to the accounts of the issuer. The Final OS is posted on EMMA and circulated to investors
8. The issuer is then responsible for meeting the ***continuing disclosure*** requirements outlined in the OS.

Rating Agencies

- There are three major rating agencies: Moody's, Standard & Poor's, and Fitch. All do essentially the same thing; rate the creditworthiness of the borrower and evaluate the structure of an issue itself.
- Bonds are not required to carry a credit rating, however, many investors will not consider buying bonds without an investment grade rating and many are prohibited by law or regulation from doing so. Obtaining a rating expands the pool of potential investors.

Ratings Process

- The ratings process is relatively straightforward.
- Once engaged, the rating agency will request information about the municipality's economy, demographics, financial audits, and other information.
- After the analysts at the rating agency have had a chance to review the information, they will schedule an interview with the issuer's management team.
- **It's important to tell your story!**

Ratings Process

- The major categories that the rating agencies consider when assigning a rating are: economy, management, essentiality of the borrowing, finances, debt and future capital needs.
- Demographics and the economy are actually considered to be more important than the finances of the issuer in many instances. A growing municipality can make up for a temporary decline in revenues, issuing too much debt, etc. much more easily than they can overcome a declining community. Demographics is destiny.

Bond Ratings

- With minor variations, all three rating agencies assign a long term rating from AAA down to C. Except for a AAA rating, S&P and Fitch ratings also come with a plus (+) or a minus (-) to give additional detail. Moody's ratings come with a 1 or a 2 to accomplish the same thing.
- The different levels are, from highest to lowest, AAA, AA, A, BBB, BB, B, CCC, CC, C, and D (in default).
- AAA down to BBB ratings are considered to be "***Investment Grade***". Ratings BB or below are considered to be speculative, or "***high yield***".
- Most municipalities qualify for an investment grade rating because of the taxing authority of the issuer and the historical performance of tax backed bonds relative to bonds issued by private corporations.

Ratings Process

- For appropriation bonds that are being issued for something that is considered to be an essential service, rating agencies will usually assign a rating that is one "notch" below the municipality's general obligation rating (e.g. if the G.O. rating is A+, that issuer would have an A rating on essential appropriation debt).
- If an appropriation bond is being issued for something deemed not essential for government services; a golf course, a recreation center, etc., the rating agency may assign a rating more than one notch below the G.O. rating.
- The cost of a rating depend upon the size and structure of the issue. S&P lists its base range fee for a G.O bond issuance of $5mm or less at $7,500 to $9,000. Fees may be higher for revenue or appropriation bonds.

Rating Process

- Rating agency fees are fees by the bond issuer at the time of the borrowing, and in some instances they are also paid annually for continuing surveillance.
- If a bond issue is very small, it may make more economic sense to not get a rating because the interest savings aren't enough to recoup the cost of obtaining the rating.
- If an issue is very large (greater than $25 million), the issuer will often get a rating from two, or sometimes even all three rating agencies.

Bond Structure

- Issuers generally have competing goals of minimizing interest expense and minimizing impact on current user rate/tax payers.
  - The best debt structure for an issuer depends on many factors, including:
    - Profile of previously issued debt
    - Future capital plans
    - Ability to pay
- Primary Debt Structure Alternatives – Long Term Debt
  - Balloon
  - Level Debt Service
  - Debt Service that is "wrapped" - new debt issued to create a level principal level debt structure when existing debt is taken into account.

Bond Structure

Balloon Debt Service

- Debt structure being used currently by banks.
- Typically has 5 to 10 year maturity.
- Has most, if not all, principal being paid on maturity date.
- Commonly tied to a variable rate of interest.
- Has takeout risk.
- Does not take advantage of the current low interest rate environment.

Bond Structure

Level Debt Service

- Debt structure most typically preferred.
- Total debt service payments (principal and interest) are approximately equal on an annual basis.
- On voted issues, useful in trying to maintain level millage needs on a year to year basis.
- Typical structure for utilities/LTGO if project is not putting too much pressure on current rate/taxpayers.

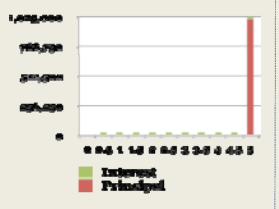
Bond Structure

"Wrapped" Debt Service

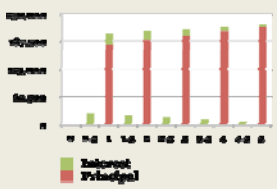
- Debt is structured to "wrap around" existing debt service – often very little amortization in early years.
- Typically used when existing debt portfolio of an issuer is short, and adding more "level debt service" puts undue pressure on user charges or millage rates.
- Has the longest average life of the alternatives and a correspondingly higher interest rate than level debt or level principal structures.
- Best used when interest rates are very low because penalty for longer average life is minimized.
- Often used to help work past a "bubble" in debt service payments.
- For GO new money issues, 3x test under R.C. 133.21 must be considered.

Bond Overview

Simple Cashflow of $1,000,000 borrowed for 5 Years - Balloon



Simple Cashflow of $1,000,000 borrowed for 5 Years with "level debt" payments



Bond Structure – Serial Bonds

- Bonds may be structured with principal retirement at any point over the term of the bond issue.
- Bonds maturing in a single year of an issue are "***Serial Bonds***."
  - Each serial bond pays interest (typically every 6 months) to maturity at which time, the principal is repaid.
  - Increasing the principal amortization early in a bond issue increases total debt service in those years, but reduces the total interest paid over the life of the issue.
  - Shorter, defined maturities appeal to many retail investors who are willing to sacrifice the yield for a shorter maturity date.

Bond Structure – Term Bonds

- ***Term Bonds*** are longer dated maturities. Typically maturing in 10, 20 and 30 years.
- The issuer utilizes a "mandatory call schedule" that is set when the bonds are sold.
  - Each Term Bond pays interest (typically every 6 months) to the redemption date, at which time, a portion of the principal is repaid.
  - The effect is similar to that of a series of Serial Bonds.
  - More appealing to Institutional Investors who prefer a larger block of bonds and may offer more attractive pricing for the opportunity.
  - Term Bonds are priced to the final maturity, so without yield concession from the buyer, may have a slightly higher yield.
  - As investors are uncertain of the precise time when their bonds will be redeemed, term bonds are less appealing to individuals.

Bond Structure – Call Features

- ***Call*** or ***Redemption Provisions*** allow for the borrower to retire bonds early if interest rates decline enough to generate savings or to restructure a debt service schedule.
- Types of ***Calls:***
  - Extraordinary Calls- Par calls that are commonly used with revenue bond deals from unexpended proceeds or damage to the asset.
  - Optional Calls-Typically begin in 5 to 10 years at a premium. Allow for refinancing or restructuring of debt service. For example- 1/1/2022 @ 102% DTP in 2024.
  - Mandatory Calls- Used with a term bond structure to retire portions of principal annually or semi-annually.

Bond Pricing

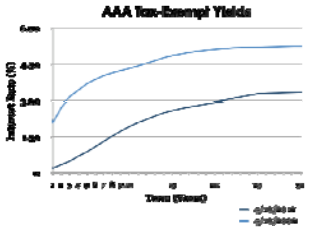
- Bond Prices are based on the yield curve, coupon, and term.
  - Bonds sold with Coupons equal to Yield are "Par" bonds with the price equal to 100% of the Principal.
  - Bonds sold with Coupons less than Yields are "Discount" bonds with the price less than 100% of the Principal.
  - Bonds sold with Coupons greater than Yields are "Premium" bonds with the price greater than 100% of the Principal.
    - Premiums and Discounts are impacted more with greater term.
    - Bonds are always priced at the lower of Yield to Maturity or Yield to Call (if callable).
    - Must evaluate Net Debt Service after factoring in Premium or Discount to determine "best" deal.

The Yield Curve – Over Time

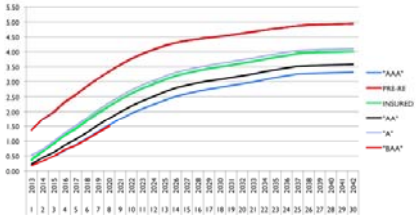
Interest Rates typically change over time based on economic factors, including:

- ***Levels of Inflation*** (During periods of high inflation, interest rates will be higher)
- ***Federal Funds Rate*** (The Federal Reserve sets the Federal Funds Rate. A lower Fed Funds Rate will generally mean lower interest rates; high Fed Funds can make the curve inverted)
- ***Money Supply***
- **World Economic Conditions**

Issuers should consider longer term issuance when rates are low and bond structures that take advantage of an upward sloping yield curve.



The Yield Curve – Credit Spreads



Interest Rates typically increase over the benchmark rates to compensate investors for:

- ***Credit Risk*** (will the issuer be able to make the payments to term)
- ***Future Alternative Rate Risk*** (Higher Rates = lower value for current bondholders)
- ***Tax-Risk*** (is there a chance that the holders will not realize the full value if tax rates decrease)

MMD (The Benchmark)

- ***AAA (MMD)***– A published index of highest quality municipal bonds.
- ***PRE -RE*** **–** Bonds that are escrowed or defeased with high grade collateral.
- ***INSURED*** **–** An index of rates on bonds that are insured by a third party, where interest and principal payments are guaranteed.
- ***AA, A, BAA*** **–** Shows the "spread" of representative higher risk bonds as compared to the AAA MMD.

Municipal Yield Curves as of 04/10/2012

General Obligations

		"AAA"	PRE-RE	INSURED	"AA"	"A"	"BAA"
1	2013	0.18	0.18	0.37	0.23	0.53	1.38
2	2014	0.33	0.33	0.67	0.44	0.72	1.74
3	2015	0.48	0.48	0.94	0.62	0.99	1.99
4	2016	0.69	0.71	1.20	0.86	1.28	2.33
5	2017	0.87	0.86	1.42	1.06	1.52	2.57
6	2018	1.09	1.07	1.69	1.29	1.79	2.85
7	2019	1.32	1.29	1.96	1.54	2.06	3.11
8	2020	1.54	1.50	2.19	1.77	2.30	3.35
9	2021	1.75		2.41	1.99	2.52	3.57
10	2022	1.94		2.61	2.19	2.72	3.77
11	2023	2.10		2.78	2.36	2.89	3.93
12	2024	2.24		2.92	2.51	3.03	4.07
13	2025	2.38		3.07	2.66	3.18	4.20
14	2026	2.51		3.20	2.79	3.31	4.30
15	2027	2.60		3.29	2.88	3.40	4.37
16	2028	2.68		3.37	2.96	3.48	4.42
17	2029	2.75		3.44	3.03	3.55	4.47
18	2030	2.81		3.50	3.08	3.61	4.51
19	2031	2.87		3.56	3.14	3.67	4.56
20	2032	2.93		3.62	3.20	3.73	4.62
21	2033	2.99		3.68	3.26	3.79	4.67
22	2034	3.07		3.75	3.34	3.86	4.73
23	2035	3.14		3.82	3.40	3.92	4.78
24	2036	3.20		3.87	3.46	3.98	4.82
25	2037	3.26		3.94	3.52	4.04	4.87
26	2038	3.28		3.97	3.54	4.06	4.90
27	2039	3.29		3.98	3.55	4.07	4.91
28	2040	3.30		3.99	3.56	4.08	4.92
29	2041	3.31		4.00	3.57	4.09	4.93
30	2042	3.32		4.01	3.58	4.10	4.94

Interest Cost Difference

- Below is the difference in interest rates for General Obligation bonds of similar maturities but with different ratings for May 1, 2012 according to data from Thomson-Reuters.

Maturity	AAA	AA	A	BBB
1	.20	.25	.55	1.38
5	.82	.99	1.44	2.50
10	1.87	2.15	2.68	3.74
20	2.85	3.12	3.64	4.53
30	3.25	3.52	4.00	4.85

Debt Management Policy

- Debt management policies are written guidelines and restrictions that affect the amount and type of debt that can be issued by an issuer. Adherence to a debt management policy signals to rating agencies and capital markets that issuer is well managed and should meet its obligations in a timely manner.
- An issuer should adopt comprehensive written debt management policies, reviewed annually and revised as necessary. Debt management policy should address:
  - Direct Debt – debt payable from general revenues.
  - Debt – debt payable by third parties with no government obligation.
  - State Revolving Loan Funds and Pools – e.g. OWDA or SIB Loans.
  - Other Types of Hybrid Debt – debt payable from special revenues (e.g. TIF).
  - Interfund Borrowing – loans for short term cash flow needs.

Debt Management Policy, cont.

Policy should address:

- ***Debt Limits***
  - ***Legal limits*** – e.g. limits imposed by state law or municipal charter.
  - ***Public Policy limits*** – purposes for which debt may be issued.
  - ***Financial limits*** – limits imposed by need to maintain good credit.
    - Direct debt often measured/limited by following ratios:
      - Debt per capita
      - Debt to personal income
      - Debt to taxable property value
      - Debt service payments as a percentage of general fund revenues or expenditures

Debt Management Policy, cont.

Policy should address:

- ***Use of Derivatives***
  - Specify how derivatives fit within the overall debt management program.
  - State conditions under which derivatives can be utilized.
  - Identify types which are permitted or prohibited.
  - Identify approaches for measuring, evaluating and managing derivative risk.
  - State methods for procuring and selecting derivative products.

Debt Management Policy, cont.

Policy should address:

- ***Debt Structuring practices for each kind of bond, including:***
  - Maximum term (often based upon useful life of assets)
  - Average maturity
  - Debt service pattern
  - Use of optional redemption features
  - Use of variable or fixed rate debt, credit enhancements, derivatives etc.
  - Other structuring practices like capitalized interest, deferral of principal, and other internal credit support, including general obligation pledges

Debt Management Policy, cont.

Policy should address:

- ***Debt Issuance Practices*** (e.g. competitive or negotiated sale, refunding criteria)
- ***Debt Management Practices***
  - Investment of bond proceeds
  - Primary and secondary market disclosure practices
  - Arbitrage rebate monitoring and filing
  - Federal and state law compliance practices
  - Market and investor relations

General Obligation Bonds – OH GO

- Are commonly referred to as G.O. bonds and can be issued by any political subdivision with the power of direct taxation (cities, counties, fire districts, community college districts, etc.).
- G.O. bonds are considered to be among the safest bonds in the market because the borrower pledges their full faith and credit via their ad valorem taxing authority.
- They are the primary borrowing vehicle that cities and counties use to undertake large capital improvement projects (build a new city hall, courthouse).

General Obligation Bonds – OH GO

- If the issuer fails to make a debt service payment, the bondholder can file a lawsuit and obtain a court order called a writ of mandamus; a court order forcing the issuer to raise taxes in order to make debt service payments.
- Because of their history of being very safe investments, they are among the few municipal bonds that don't require a debt service reserve fund. This allows issuers to be able to borrow less money keeping costs down.

Case Study – OH GO Debt

- In 2003, the City of Independence, Ohio borrowed $24.5 million to construct and equip facilities the City shared with the school district; including a field house, community center, and other civic projects. The City elected to include an optional redemption provision in its bonds starting in 2011.
- By 2011 interest rates for a city with the City's credit rating were much lower than they were in 2003 when the bonds were first issued.
- When the bonds began to approach their call date, the City decided to take advantage of the new lower interest rates and call the bonds.
- By paying a slightly higher rate to put a call into the bond structure back in 2003, the City was able to save taxpayers thousands of dollars from 2011 until 2028 and obtain current debt service relief.

GO Debt – Direct Debt Limit

- Like most states, Ohio law dictates the requirements that its political subdivisions must adhere to issue G.O. bonds.
- The direct debt limitation limits a municipality from issuing general obligation bonds and notes in an amount greater than 5.5% of its assessed valuation with respect to unvoted obligations and 10.5% of voted obligations.
- The direct debt limit does not apply to revenue obligations, self-supporting obligations, appropriation obligations and other kinds of debt enumerated by statute.
- Different subdivisions have different direct debt limitations. Schools, for example, have very restrictive direct debt limitations which limit their ability to issue debt on an unvoted basis, and many more requirements to meet to issue debt at all.

GO Debt – The Indirect Debt Limit

- The indirect debt limit (otherwise known as the 10-mill limit) limits the amount of taxes that can be levied for all purposes without a vote of the electors, including debt service, to ten mills per one dollar of valuation.
- The indirect debt limitation does not apply to voted debt, appropriation debt or to revenue debt.
- The indirect debt limitation applies to any debt where the full faith and credit is obligated, even if other revenues (like sales taxes, income taxes or system revenues) are ultimately to be used to pay the debt.
- Unlike the direct debt limitation, the indirect debt limit does not limit principal amount of obligations, it only limits debt service.
- Under the indirect debt limit, the debt incurred by all overlapping subdivisions must be taken into account. These overlapping subdivisions can invade the inside millage if such an invasion is necessary to pay their debt service.

GO Debt – Other Rules

- Under Section 133.21, new money GO Bonds must be issued either with level principal installments, or in such principal installments so that the total principal and interest payments in any fiscal year in which principal is payable are:
  - Substantially equal or
  - Not more than three times the amount of those payments in any other fiscal year.
  - For self supporting bonds, those payments on the bonds and on other obligations, except anticipatory securities, issued for the self-supporting purpose, substantially equal.
- Other rules relating to GO debt include but are not limited to maximum maturity and when amortization of debt must begin.
- Rules differ in cases of refunding, revenue and appropriation bonds.

GO Issuance Considerations

- ***Millage*** – Tax-backed issues must be sensitive to property valuations and "promised" millage limits for future issues.
  - Unvoted or limited tax issues may strain finances if valuations decline. Tax revenues must first be used to pay debt service before being used for other purposes.
  - Voted or Unlimited tax issues are immune to declines in valuation, but open up political risk if taxpayers are required to pay higher millage.
- ***Maximum Maturities*** – Match life of debt to life of asset – Sewer and water facilities may be up to 40 years, while Computer Equipment may be only 5 years.
- ***Capitalized Interest*** – Borrowing additional funds which are used to make interest payments.
  - Generally speaking, interest can be capitalized (or borrowed) for a period of up to 2 years.
  - Capitalized interest should be avoided if possible because it adds to the overall total cost of the transaction.

GO Issuance Process – Arbitrage

- Holding a portfolio of securities where normally taxable interest and principal payments received are used to make debt service payments on a tax exempt bond.
- Used in Pre-refunding transactions to defease non-callable bonds.
  - An Escrow Fund held by a Trustee that is designed to make interest and principal payments.
- Used in the case of Capitalized Interest where bond proceeds are used to make interest payments in advance of revenues for debt service.
- "***Negative Arbitrage***" occurs when the interest to be paid on the bonds (the borrowed moneys) exceeds the interest earned on the proceeds during a construction period. In some cases the issuer can keep this money (if the money is spent quickly enough for example), and sometimes it must be repaid to the federal government.

Revenue Bonds

- NOT an Ad valorem Pledge – Non recourse to general taxing authority.
- Interest/Principal paid from a pledge of specific and definable Revenues.
- Examples Include:
  - Water/Sewer Improvements
  - Municipal Utility
  - Lease – Backed Capital Assets
  - Toll Roads/Bridges
  - Hospital District
  - Parking Lot(s) or Structures
  - Airport
  - Recycling Centers

Revenue Bonds Cont.

Bond Quality is Determined by Revenue Quality.

Quality ↑

"Essential Service" – Revenues from a service that is necessary to a community (Water / Sewer).

Lease Revenue – Long term lease by strong payer pledged to bonds (County Government Building).

Hospital District – Residual cash flow after expenses available to pay debt service.

Tax Increment – New property or sales taxes from development used to make debt service payments.

Revenue Bond Issuance Considerations

- The strength and predictability of the Revenues will determine the level of "coverage" needed (the number of times annual revenues cover annual debt service).
  - Strong, reliable revenues may only require 1.1x or 1.15x coverage.
  - Unpredictable revenues (Sales Tax Increment) might require 1.5x or greater coverage.
- Bond size is a function of the level of revenues pledged to the bonds.
- A Debt Service Reserve Fund is necessary.
  - DSR Funds provide for the continued payment of principal and interest in the event of revenue interruption.
  - It is required by bond holders to buffer uncertainty related to the creation of revenues.
  - Normally required to be an amount equal to the greatest year's total of principal and interest payments (Max Annual Debt Service), but there are other tests.

Case Study-Revenue Bonds New Community Authority

- $500 Million retirement development – 83 acres, 950 units with community center, cafeterias, gyms and classrooms.
- Objective:
  - A developer of retirement communities wants to construct a retirement community in Hilliard, OH.
  - The City wants to attract the developer to the community, but not put it's own balance sheet at risk.

Case Study-Revenue Bonds New Community Authority

- Financing Model
  - City of Hilliard wished to finance infrastructure that would support development.
  - Anticipated private development would generate additional property taxes that if TIF'd could be used to pay costs of bonds used to finance the infrastructure.
  - As property had not been constructed, dollars from the TIF were uncertain, so bondholders required additional security.

Case Study-Revenue Bonds New Community Authority

- Possible Approaches
  - City could issue bonds, GO pledge would backstop TIF Revenues.
    - ***Advantage:*** Low interest rate because of credit and tax exemption, simple transaction.
    - ***Disadvantage:*** City would be assuming risk that Project did not get built out and would have source of revenues to pay bonds. If transaction fails, could adversely affect City's credit rating.
  - Developer guaranty of Bonds issued by port authority.
    - ***Advantage:*** Less risk to City. Could be marketable depending on strength of guaranty.
    - ***Disadvantage:*** Bond transaction would be on the balance sheet of the developer. Bonds would be taxable because of the private guaranty. Bondholders would be secured by a lien on property subject to the TIF.

Case Study-Revenue Bonds New Community Authority

Selected Approach

- ***New Community Authority*** *formed to issue Bonds – approximately $25mm*
  - Would hold area within the TIF District.
  - Would grant proceeds of bond sale to City to construct improvements.
  - Would receive TIF moneys from the City and would use those to pay debt service on the bonds. In the event those TIF moneys were not sufficient, the community development authority would levy charges on the property to pay that debt service.
  - Charges to be levied were fixed, and unlike TIF revenues, not dependent on project completion or value.

Case Study-Revenue Bonds New Community Authority

Selected Approach

- *Advantages:*
  - Removes risk to City – City's only obligation is to turn over community development charges.
  - City not affected by risk of default.
  - Transaction was off balance sheet to Developer as bondholders only recourse was to TIF revenues and community development charges.
  - Community development charges secured by a lien on property within the New Community Authority equivalent to real property taxes; bondholders highly secured.

Case Study-Revenue Bonds New Community Authority

Current Market, Financing Structure, & Investor Needs

- Approach/Things to Consider
  - Uncertainty of tax increment financing revenues
  - Need for supplemental reserve fund
  - Credit issues – investor protection in case of a default
  - Continuing disclosure issues

Case Study-Revenue Bonds New Community Authority

Current Market, Financing Structure, & Investor Needs

- Results
  - Levy by special district of community development charges (assessments) that are to be paid to make up shortfall in TIF revenues.
  - Continuing disclosure agent has worked hard to provide good disclosure to market.
  - Investment banking team communicates regularly with rating agencies to ensure that City's credit is not implicated.
  - Infrastructure funded with bonds has been built and is an important City road.
  - Property-tax based assessments have far less power than ones based on economic activity (sales taxes, for example).

Case Study-Revenue Bonds New Community Authority

Constructing Coverage Chart

- **Step 1** – Consultant prepared report on projected development, and included predicted revenues that would be available for debt service.
  - Projections of property value based on third party appraisal.
  - TIF value is difference between value at start of construction, as determined by County Auditor, and the projected value, taking into account Developer's projected build out.

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Constructing Coverage Chart

- **Step 2 –** Comparing amounts available from TIF Payments and other revenues to debt service, to determine whether and to what extent community development charges need to be levied.
  - Interest on bonds was capitalized (borrowed from bond proceeds) for three years during construction period. This was intended to provide time for project to get built and TIF Revenues to come in.
  - Delayed principal retirement (beginning in 2016) is possible because these are revenue bonds, not GO bonds.

Bond Anticipation Notes

- Under Ohio law, bond anticipation notes can be issued and rolled over for a period of up to 20 years.
- Issuers must begin making payments as if bonds had been issued after the fifth year.
- Bond Anticipation Notes are appropriately used:
  - During the construction period of a project until the project is brought on-line.
  - To provide funding for smaller projects until those projects can be rolled into a larger single bond issue.
  - As "semi-permanent" financing where the issuer wants to maintain flexibility as to how much principal is amortized on an annual basis.

Bond Anticipation Notes

- With bond anticipation notes, the issuer is assuming two types of risk:
  - Interest Rate Risk
  - Takeout Risk (the need to "roll" the entire amount of the note at each maturity date)
- A heavy reliance on notes (or other variable rate instruments) is viewed as a credit negative by the major rating agencies due to the risk factors discussed above.
- Notes should only be relied upon if the issuer has the financial resources to assume the inherent interest rate risk and if market access risk is truly de minimis.

Certificates of Participation

- Certificates of participation are generally interests in leases of property that are sold to investors.
- Lease of property is renewable every year, with the issuer normally covenanting to have the executive include an amount equal to the amount needed for debt service in the annual appropriation measure every year.
- Not debt under Ohio law, as no tax need be levied; if lease is non-renewed, issuer loses right to property.
  - As a practical matter, non-renewal is a serious matter and judged harshly by capital markets.
  - Because it is not debt, COPS are useful for avoiding debt limitations.
  - Used by school districts and townships because of strict debt limits imposed on those bodies.

Continuing Disclosure

- Continuing disclosure consists of important information about a municipal bond and its issuer that arises after the initial issuance of the bond. This information generally reflects the financial or operating condition of the issuer as it changes over time, as well as specific events occurring after issuance that can have an impact on the ability of issuer to make payments on the bond, the value of the bond if it is traded prior to its maturity, the timing of repayment of principal, and other key features of the bond.
- Enforced through SEC regulation of Broker-Dealers.
- Although issuers are exempt from registration, Broker Dealer required under SEC Rule 15c2-12 to obtain continuing disclosure agreement.
- Required in Primary Offering; Aid to Secondary Market.

Continuing Disclosure, cont.

Electronic Municipal Marketing System (EMMA)

- The Electronic Municipal Market Access system, or EMMA, is a comprehensive, centralized online source for free access to municipal disclosures, market transparency data and educational materials about the municipal securities market.
- www.emma.msrb.org
- Centralized repository for all issuers replacing Nationally Recognized Municipal Securities Information Repositories (NRMSIRs).
- All issuers participating in a public offering of bonds will be required to have their information submitted to EMMA, and will be required to submit continuing disclosure information to EMMA.

Continuing Disclosure, cont.

- Continuing disclosure requirements governed by terms of agreement, normally consisting of submission of annual financial statements, certain financial information, and notices of material events affecting bonds.
- ***Importance:***
  - Relied upon for rating agency support; in 2010 DeKalb County, Georgia was dropped by Standard & Poor's from AA- to BBB because Dekalb County insufficiently disclosed a negative fund balance.
  - Failure to meet continuing disclosure obligations must be disclosed in subsequent Official Statements and requires underwriters to evaluate whether they can offer bonds.
  - Reduces risk of IRS compliance audit.
  - Enhances credibility to investors and market.

Credit Considerations - Cities

As of 4/3/2012	OHIO MEDIANS- CITIES*										
Total Entities Rated 208	16	26	75	35	42	7	2	5	-	-	-
	Aaa	**Aa1**	**Aa2**	**Aa3**	**A1**	**A2**	**A3**	**Baa1**	**Baa2**	**Baa3**	**Ba1**
Financial Statistics & Ratios											
Total GF Revenues ($000)	$ 27,377	$ 13,342	$ 11,663	$ 10,147	$ 4,584	$ 3,694	$ 22,743	$ 16,530	N/A	N/A	N/A
GF Balance as % of Revenues	74.1	65.4	42.8	26.1	24.1	14	1.3	2.5	N/A	N/A	N/A
Unreserved GF Balance as % of Rev	70.2	54.2	37	24.3	18.9	12.7	-0.2	-5.5	N/A	N/A	N/A
Unrsvd, Undesig. GFB as % of Rev	53.3	51.1	36.7	22.2	21.4	11.1	-0.2	-5.5	N/A	N/A	N/A
Tax Base Statistics and Ratios											
Total Full Value ($000)	$3,443,695	$1,722,494	$1,442,782	$ 833,050	$ 545,307	$ 457,765	$1,882,084	$1,579,358	N/A	N/A	N/A
Full Value Per Capita ($)	$ 119,111	$ 92,893	$ 68,753	$ 53,525	$ 55,239	$ 50,100	$ 35,882	$ 36,851	N/A	N/A	N/A
Average Annual Increase in FV (%)	1.2	1	1.1	-0.6	0.4	0.9	-0.9	-1	N/A	N/A	N/A
Top Ten TaxPayers as % of Total	8.5	7.9	8.4	10.9	9.2	13.4	9	13.2	N/A	N/A	N/A
Debt Statistics & Ratios											
Direct Net Debt as % of Full Value	0.9	1.1	1	1	0.6	1.5	1.4	1.5	N/A	N/A	N/A
Direct Net Debt Per Capita ($)	$ 1,131	$ 859	$ 707	$ 563	$ 313	$ 724	$ 482	$ 539	N/A	N/A	N/A
Debt Burden (Overall Net Debt as % FV)	2.7	2.9	2.7	2.5	3	3.5	2.8	3.8	N/A	N/A	N/A
Overall Net Debt Per Capita ($)	$ 2,957	$ 2,515	$ 1,882	$ 1,439	$ 1,536	$ 2,108	$ 1,010	$ 1,022	N/A	N/A	N/A
Debt Service as % of OE	7.5	7.4	6.3	5.3	4.3	19.2	6	2.5	N/A	N/A	N/A
Payout, 10 Yrs	75.1	68.2	74.9	76.8	73.1	70.5	60.6	67.1	N/A	N/A	N/A
Demographic Statistics											
Population 2010 Census	30712	17456	19717	15728	11771	9137	50467	32149	N/A	N/A	N/A
PCI as % of U.S. (2000 Census)	175.3	131	111.3	88.4	84.9	86.5	75.5	81.7	N/A	N/A	N/A
MFI as % of U.S. (2000 Census)	173.5	143.3	118.4	91.3	86	97.1	79.4	75	N/A	N/A	N/A
Population Change 2000-2010 (%)	2	1.7	2.2	2.9	0.4	-8.3	-1.2	-3.3	N/A	N/A	N/A
Median Home Value (2000 Census)	$ 215,800	$ 154,650	$ 129,050	$ 92,500	$ 87,100	$ 93,800	$ 76,350	$ 73,000	N/A	N/A	N/A
Poverty Rate (%) (2000 Census)	2.7	3.6	5.2	9.6	10.2	5.9	15.4	16.3	N/A	N/A	N/A

	NATIONAL MEDIANS- CITIES*										
Total Entities Rated 3165	197	280	991	658	729	188	48	49	9	10	6
	Aaa	**Aa1**	**Aa2**	**Aa3**	**A1**	**A2**	**A3**	**Baa1**	**Baa2**	**Baa3**	**Ba1**
Financial Statistics & Ratios											
Total GF Revenues ($000)	$ 47,305	$ 37,598	$ 21,690	$ 13,352	$ 7,457	$ 5,246	$ 10,394	$ 3,679	$ 14,825	$ 20,601	$ 26,041
GF Balance as % of Revenues	33.9	31.8	29.8	29.8	30.3	20.3	12.7	15.5	8.8	(4.8)	(16.0)
Unreserved GF Balance as % of Rev	28.9	24.1	24.5	24.8	24.2	17.1	8.1	14.1	$ 2	(4.8)	(20.2)
Unrsvd, Undesig. GFB as % of Rev	18.1	18.9	20.0	20.8	20.7	14.1	10.1	10.6	1.5	(4.8)	(20.2)
Tax Base Statistics and Ratios											
Total Full Value ($000)	$7,091,842	$4,644,695	$2,563,977	$1,354,431	$ 672,218	$ 464,716	$ 646,905	$ 214,715	$ 763,978	$1,803,391	$1,551,239
Full Value Per Capita ($)	$ 188,892	$ 139,028	$ 113,317	$ 92,304	$ 69,709	$ 53,706	$ 53,591	$ 42,437	$ 50,021	$ 53,655	$ 68,439
Average Annual Increase in FV (%)	2.6	2.8	3.2	3.9	3.6	3.9	2.8	3.6	2.4	4.6	5.8
Top Ten TaxPayers as % of Total	7.4	7.1	7.8	9.0	10.5	11.9	11.5	12.8	5.6	9.9	6.2
Debt Statistics & Ratios											
Direct Net Debt as % of Full Value	0.7	0.8	0.9	1.0	1.2	1.7	1.6	2.4	1.2	1.9	3.5
Direct Net Debt Per Capita ($)	$ 1,305	$ 1,206	$ 1,075	$ 944	$ 986	$ 989	$ 952	$ 871	$ 712	$ 1,139	$ 1,948
Debt Burden (Overall Net Debt as % FV)	2.0	2.4	2.4	2.7	3.0	3.5	4.4	4.4	4.3	4.1	5.4
Overall Net Debt Per Capita ($)	$ 3,912	$ 3,469	$ 2,772	$ 2,506	$ 2,232	$ 2,131	$ 2,356	$ 2,436	$ 1,738	$ 2,421	$ 2,775
Debt Service as % of OE	9.8	9.2	8.8	7.9	9.3	8.6	8.9	7.3	5.8	8.4	7.6
Payout, 10 Yrs	75.9	73.9	77.1	76.3	80.7	75.5	72.1	67.8	60.2	74.5	65.5
Demographic Statistics											
Population 2010 Census	37,099	33,641	22,548	15,133	8,754	8,026	11,795	5,528	15,665	17,331	22,670
PCI as % of U.S. (2000 Census)	184.0	145.2	119.2	101.2	90.1	81.2	80.4	77.0	70.4	84.5	84.3
MFI as % of U.S. (2000 Census)	183.9	152.3	129.0	111.3	100.0	85.5	88.2	75.0	78.0	87.9	89.5
Population Change 2000-2010 (%)	4.0	5.7	5.5	7.3	3.5	1.4	2.2	0.1	0.6	1.7	(0.3)
Median Home Value (2000 Census)	$ 243,950	$ 191,200	$ 154,100	$ 126,400	$ 101,350	$ 83,100	$ 87,600	$ 69,400	$ 67,500	$ 76,600	$ 106,100
Poverty Rate (%) (2000 Census)	3.5	4.0	5.0	6.8	8.1	12.4	16.0	15.9	17.0	14.4	12.6

*Note: The following tax-backed debt was used to determine sample size: issuer LT rating, LT SR GO, LT SR GOLT, LT SR GOREV. Ratios reflect most recent information available

Credit Considerations - Counties

As of 4/9/2012	OHIO MEDIANS- COUNTIES*										
Total Entities Rated 61	1	10	20	12	14	4	-	-	-	-	-
	Aaa	**Aa1**	**Aa2**	**Aa3**	**A1**	**A2**	**A3**	**Baa1**	**Baa2**	**Baa3**	**Ba1**
Financial Statistics & Ratios											
Total GF Revenues ($000)	285,179	63,502	26,679	14,078	11,719	14,484	N/A	N/A	N/A	N/A	N/A
GF Balance as % of Revenues	83	33.3	31	24	22.1	7.5	N/A	N/A	N/A	N/A	N/A
Unreserved GF Balance as % of Rev	77.1	30.1	26.1	21.1	17.9	5.6	N/A	N/A	N/A	N/A	N/A
Unrsvd, Undesig. GFB as % of Rev	67.5	26.1	24.9	21.1	18.9	5.6	N/A	N/A	N/A	N/A	N/A
Tax Base Statistics and Ratios											
Total Full Value ($000)	79,955,229	18,250,901	6,224,992	3,078,194	2,311,417	3,010,876	N/A	N/A	N/A	N/A	N/A
Full Value Per Capita ($)	68,725	70,738	60,343	53,254	51,870	47,347	N/A	N/A	N/A	N/A	N/A
Average Annual Increase in FV (%)	-0.1	0	0.6	-0.1	1.2	0.3	N/A	N/A	N/A	N/A	N/A
Top Ten TaxPayers as % of Total	3.5	3.5	4.9	8.9	6.2	10.2	N/A	N/A	N/A	N/A	N/A
Debt Statistics & Ratios											
Direct Net Debt as % of Full Value	0.6	0.2	0.3	0.3	0.4	0.6	N/A	N/A	N/A	N/A	N/A
Direct Net Debt Per Capita ($)	420	147	156	137	199	245	N/A	N/A	N/A	N/A	N/A
Debt Burden (Overall Net Debt as % FV	5.3	1.8	2	1.4	1.8	1.9	N/A	N/A	N/A	N/A	N/A
Overall Net Debt Per Capita ($)	3,666	1,174	1,343	688	863	848	N/A	N/A	N/A	N/A	N/A
Debt Service as % of OE	18.8	7.6	5.6	1.4	1.6	6.9	N/A	N/A	N/A	N/A	N/A
Payout, 10 Yrs	46	79.4	73.6	70.7	71.5	64.8	N/A	N/A	N/A	N/A	N/A
Demographic Statistics											
Population 2010 Census	1,163,414	221,367	108,513	60,274	43,075	74,604	N/A	N/A	N/A	N/A	N/A
PCI as % of U.S. (2000 Census)	106.8	106.5	95.3	85	80.5	80.5	N/A	N/A	N/A	N/A	N/A
MFI as % of U.S. (2000 Census)	107.7	114.5	103.6	94.4	87.8	83.8	N/A	N/A	N/A	N/A	N/A
Population Change 2000-2010 (%)	8.8	6.7	3.2	0	0	-3.2	N/A	N/A	N/A	N/A	N/A
Median Home Value (2000 Census)	116,200	125,550	109,700	92,800	80,550	70,700	N/A	N/A	N/A	N/A	N/A
Poverty Rate (%) (2000 Census)	11.7	6.1	8.2	9.4	9.8	12.9	N/A	N/A	N/A	N/A	N/A

	NATIONAL MEDIANS- COUNTIES*										
Total Entities Rated 944	86	116	309	197	185	35	11	4	1	-	-
	Aaa	**Aa1**	**Aa2**	**Aa3**	**A1**	**A2**	**A3**	**Baa1**	**Baa2**	**Baa3**	**Ba1**
Financial Statistics & Ratios											
Total GF Revenues ($000)	306,207	124,974	44,416	20,750	12,327	9,032	17,804	5,185	534,195	N/A	12,827
GF Balance as % of Revenues	30.2	32	32.8	31.3	31.8	15.1	1	9.3	-5	N/A	2
Unreserved GF Balance as % of Rev	24.3	24.2	28	25.9	27.1	11.6	1	1.4	-21.7	N/A	1.8
Unrsvd, Undesig. GFB as % of Rev	16.5	20	22.3	20.4	23.2	11.1	2.7	1.4	-21.7	N/A	1.8
Tax Base Statistics and Ratios											
Total Full Value ($000)	60,169,927	22,919,354	8,860,429	4,023,197	2,172,403	1,539,990	1,842,767	919,832	101,296,707	N/A	1,610,367
Full Value Per Capita ($)	110,151	92,554	80,884	79,962	63,706	50,167	52,182	50,649	55,640	N/A	49,861
Average Annual Increase in FV (%)	3.6	4.2	5.1	5.5	5.4	5.3	6.6	7.6	-4.2	N/A	4.7
Top Ten TaxPayers as % of Total	3.9	4.2	6.1	8.2	9	10.6	11.8	12.8	7.9	N/A	19.3
Debt Statistics & Ratios											
Direct Net Debt as % of Full Value	0.6	0.5	0.5	0.4	0.5	0.6	0.9	0.7	0.6	N/A	0.6
Direct Net Debt Per Capita ($)	550	441	422	330	387	309	576	346	394	N/A	276
Debt Burden (Overall Net Debt as % FV	2.3	2.3	2	1.7	1.7	2.2	2.6	0.8	5.3	N/A	0.7
Overall Net Debt Per Capita ($)	2,914	2,248	1,688	1,391	1,067	1,339	2,041	372	3,339	N/A	364
Debt Service as % of OE	9.1	7.1	7.4	5.4	5.2	5.6	7.4	4.5	2.8	N/A	16.3
Payout, 10 Yrs	68.8	68.9	71.5	74	71	65.5	47.9	69.3	61	N/A	100
Demographic Statistics											
Population 2010 Census	523,410	229,363	105,347	52,338	32,334	28,522	45,200	15,724	1,820,584	N/A	32,297
PCI as % of U.S. (2000 Census)	121.8	104	91.7	83.6	76.2	73.4	75.6	72.4	92.9	N/A	73.1
MFI as % of U.S. (2000 Census)	126.8	110.7	97.9	88.6	80.5	74.8	75.4	69.5	97.5	N/A	59.1
Population Change 2000-2010 (%)	18.5	18	16.1	10	6.9	7.9	4.3	13.4	-2.4	N/A	-2.9
Median Home Value (2000 Census)	147,150	127,900	104,950	86,500	74,800	68,800	68,800	68,700	99,400	N/A	60,200
Poverty Rate (%) (2000 Census)	6.7	8	10.1	11.4	13	15.5	11.8	16.8	16.4	N/A	25.9

*Note: The following tax-backed debt was used to determine sample size: issuer LT rating, LT SR GO, LT SR GOLT, LT SR GOREV. Ratios reflect most recent. information available .