October 5, 2016

Fundamentals of a Bond Sale & Current Market Impacts

William Blair

Theory of Public Finance and Capital Projects

Why Do Governments or Political Subdivisions Issue Debt?

- Cost are too high for cash payment of a project
- Spread the cost of a project over current and future generations
  - ✓ Benefits are spread over several generations ---cost should be as well
  - ✓ One generation should not subsidize the next
- Payments should equate to the useful life of assets or less

Examples of Public Purposes of Which Debt is Issued

- Building schools – both for K-12 and higher educational institutions
- Road projects – new roads and highways as well as maintenance on existing roads
- Public power projects
- Sewer & Water and other utilities
- Economic Development

Types of Bond Issues

General Obligation (GO) Bonds	Revenue Bonds	Certificates of Participation (COPs)	Double Barreled Bonds
✓ Backed by property taxes of community ▪ Income taxes may pay for debt service and thus the millage is not levied ✓ Subject to constitutional / statutory limitations	✓ Completely self-supporting ✓ Backed by a particular source of revenue **Types of Revenue Bonds**: ✓ Income Tax Bonds ✓ Sales Tax Bonds ✓ Income Tax Financing Bonds ✓ Enterprise Bonds ✓ Conduit Bonds	✓ Secured by the revenue stream of the lease payments that are typically subject to annual appropriation ✓ The certificate generally entitles the hold to receive a share, or participation, in the payments	✓ Secured by both a defined source of revenue (other than property taxes) and the full faith and credit or taxing power of an issuer that has taxing powers

Ohio Constitutional Debt Limitations

Indirect Debt Limitation

Ten-Mill Limitation Based on Total Outstanding Debt Service	Limited Tax General Obligation (LT GO) – UNVOTED	Unlimited Tax General Obligation (UT GO) – VOTED	Exclusions
▪ Maximum aggregate millage for all purposes that may be levied on any single piece of property by all overlapping taxing subdivisions without a vote of the electors ▪ "Inside" millage allocated to each overlapping taxing subdivision is required to first be used for the payment of debt service on unvoted GO debt of the subdivision	▪ Allows for the raising of property taxes up to a certain percentage which is outlined in the Bond issue's authorizing legislation	▪ Allows community to levy taxes on property sufficient to support debt service	▪ Revenue bonds and notes

Ten Mill Collected vs Ten Mill Borrowed

Government Entity	Ten Mills Collected	Ten Mills Unvoted Debt	Government Entity
Fairfield County	2.60	1.79	Fairfield County
Lancaster CSD	4.00	2.05	Lancaster City
Lancaster Fireman's	0.30	0.46	Lancaster City SD
Lancaster GF	2.80	0.00	
Joint Vocational SD	0.30	0.00	
Total Levied	10.00	4.29	Total Borrowed
Total Allowed	10.000	10.00	Total Allowed
Balance Remaining	**0.00**	**5.71**	**Balance Remaining**

Ohio Constitutional Debt Limitations cont'd

Direct Debt Limitation

Based upon the value of all property in the community as listed and assessed for taxation

- Unvoted GO debt – may not exceed 5½%
- Voted AND unvoted GO debt – may not exceed 10½%

Exempt Debt – debt not included in the direct debt limit calculation

- Self-supporting GO debt, i.e. revenues from the facilities financed are sufficient to pay applicable operating and maintenance expenses and related debt service and other requirements
- Bonds issued in anticipation of the collection of special assessments
- Revenue bonds
- Note issues in anticipation of the collection of current revenues or in anticipation of the proceeds of a specific tax levy
- Notes issued for certain emergency purposes
- Bonds issued to pay final judgments

Financing Team Roles and Responsibilities

ISSUER

Approve authorizing legislation
Preparation of Official Statement
Develop financing plan
Presentations to rating agencies/insurance cos.

BOND COUNSEL

Prepared authorizing legislation
Assist with preparation of the Official Statement
Prepare Bond Issuance documents
Provide legal opinion

FINANCIAL ADVISOR

Develop financing timeline
Assist with preparation of Official Statement
Assist with developing the financing plan
Assist with rating/insurance presentations
Provide pricing recommendations

UNDERWRITER

Due diligence on disclosure
Assist with developing financing plan
Assist with rating/insurance presentations
Provide pricing guidance
Market the bonds
Assist with preparation of Official Statement

RATING AGENCIES/BOND INSURERS

Assess creditworthiness of issuer
Issue bond rating (rating agencies)
Insure Bonds (if beneficial to issuer)

INVESTORS

Purchase bonds
Collect interest and principal payments

PAYING AGENT/REGISTRAR

Authenticate bonds
Receive interest and principal payments
Make interest and principal payments

Bond Issuance Timeline

Phases	Participant
Weeks 1-6 Determine Issue Structure & Timing	▪ Issuer ▪ Municipal Advisor ▪ Underwriter ▪ Bond Counsel
Weeks 5-7 Prepare Official Statement Bond Rating/Insurance Review	▪ Issuer ▪ Municipal Advisor ▪ Underwriter ▪ Bond Counsel
Week 8 Market and Price Bonds	▪ Issuer ▪ Municipal Advisor ▪ Underwriter ▪ Bond Counsel
Week 10 Close Bonds (Proceeds are wired)	▪ Issuer ▪ Paying Agent/Registrar ▪ Underwriter ▪ Bond Counsel

Bond Issuance Timing

Weeks 1-6
Determine Issue Structure & Timing

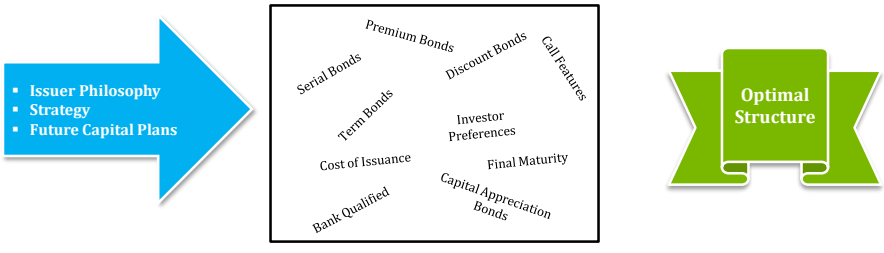
There are two components of structuring your bond issue:

Component	Objectives
1. Plan of Issuance	➢ Ensure availability of funds when needed ➢ Maximize construction period investment earnings ➢ Minimize/avoid arbitrage rebate
2. Plan of Repayment	➢ Manage impact of tax increase ➢ Optimize benefits of structuring features ▪ (calls, discounts, premiums, etc.) ➢ Consider future capital plans

Structuring Impacts Interest Cost & Capital Plans

Weeks 1-6
Determine Issue Structure & Timing

Inputs | Variables | Output



Bond Issuance Structuring

Weeks 1-6
Determine Issue Structure & Timing

Bond Structures

- **Bank Qualified Bonds -**
  - Any issuer that is planning to issue less than $10 million of tax-exempt securities in a calendar year should consider designating the issue as bank qualified in order to obtain the associated interest cost savings.
  - Designation given to a public purpose bond offering by the issuer if it reasonably expects to issue in the calendar year of such offering no more than $10 million ($30 million for bonds issued in 2009-2010) of bonds of the type required to be included in making such calculation under the Internal Revenue Code. When purchased by a commercial bank for its portfolio, the bank may deduct a portion of the interest cost of carry for the position. A bond that is bank qualified is also known as a "qualified tax-exempt obligation."
  - Interest Rate Differential

Source: Municipal Securities Rulemaking Board

Bank Qualification

Under the Internal Revenue Code of 1986, banks may not deduct the carrying cost (the interest expense incurred to purchase or carry an inventory of securities) of tax-exempt municipal bonds. For banks, this provision has the effect of eliminating the tax-exempt benefit of municipal bonds. An exception is included in the Code that allows banks to deduct 80% of the carrying cost of a "qualified tax-exempt obligation."

In order for bonds to be qualified tax-exempt obligations the bonds must be

(i) issued by a "qualified small issuer,"

(ii) issued for public purposes, and

(iii) designated as qualified tax-exempt obligations.

A "qualified small issuer" is (with respect to bonds issued during any calendar year) an issuer that issues no more than $10 million of tax-exempt bonds during the calendar year. Qualified tax-exempt obligations are commonly referred to as "bank qualified bonds."

2015 Note Issue	
2015 BQ Limitation	$ 10,000,000.00
2015 Notes	$ 4,000,000.00
2015 Unused Balance	**$ 6,000,000.00**
2016 EXAMPLE 1	
2016 BQ Limitation	$ 10,000,000.00
2015 Notes Renewed in 2016	$ 4,000,000.00
2016 Unused Balance	**$ 10,000,000.00**
2016 EXAMPLE 2	
2016 BQ Limitation	$ 10,000,000.00
2015 Notes Renewed	$ 4,000,000.00
2015 Refunding BQ 2006 Bond	$ 6,000,000.00
2016 Unused Balance	**$ 10,000,000.00**

Bond Issuance Structuring

Weeks 1-6

Determine Issue Structure & Timing

Bond Structures

- **Serial Bonds** – Bonds of an issue that mature in consecutive years.
- **Term Bonds** – Bonds comprising a large part or all of a particular issue that come due in a single maturity, typically due more than one year after the final amortization of the serial bonds. The issuer agrees to make periodic payments into a sinking fund for mandatory redemption of term bonds before maturity or for payment at maturity.
- **Capital Appreciation Bonds (CAB)** – A municipal security on which the investment return on an initial principal amount is reinvested at a stated compounded rate until maturity, at which time the investor receives a single payment (the "maturity value") representing both the initial principal amount and the total investment return. CABs typically are sold at a deeply discounted price with maturity values in multiples of $5,000.
  - CABs are distinct from traditional zero coupon bonds because the investment return is considered to be in the form of compounded interest rather than accreted original issue discount. For this reason only the initial principal amount of a CAB would be counted against a municipal issuer's statutory debt limit, rather than the total par value, as in the case of a traditional zero coupon bond.

Source: Municipal Securities Rulemaking Board
http://www.msrb.org/msrb1/glossary/default.asp

Bond Issuance Structuring

Weeks 1-6

Determine Issue Structure & Timing

Bond Structures

- **Callable Bonds** – A bond that the issuer is permitted to redeem before the stated maturity at a specified price, sometimes at or above par, by giving notice of redemption in a manner specified in the bond contract.
  - **Redemption** – A transaction in which the issuer repays to the holder of an outstanding security the principal amount thereof (plus, in certain cases, an additional amount representing a redemption premium).
  - Redemption can be made under several different circumstances: at maturity of the security, as a result of the issuer exercising a right under the bond contract to repay the security prior to its scheduled maturity date (often referred to as a "call"), or as a result of the security holder's election to exercise a put or tender option privilege.
- **Non-Callable Bonds** – A bond that cannot be redeemed at the issuer's option before its stated maturity date.

Source: Municipal Securities Rulemaking Board
http://www.msrb.org/msrb1/glossary/default.asp

Bond Issuance Structuring

Weeks 1-6

Determine Issue Structure & Timing

SAMPLE ISSUER

SAMPE UTGO Public Library Renovationan and Construction Bonds, Series 2014

Dated: November 6, 2014

$3,499,998

Pricing Summary

Maturity	Type of Bond	Coupon	Yield	Issuance Value	Par	Maturity Value	Price	Dollar Price
12/01/2015	Serial Coupon	3.000%	3.000%	10,000.00	100.000%	10,000.00	100.000%	10,000.00
12/01/2016	Serial Coupon	4.000%	3.600%	15,000.00	100.000%	15,000.00	100.788%	15,118.20
12/01/2017	Serial Coupon	4.000%	4.000%	20,000.00	100.000%	20,000.00	100.000%	20,000.00
12/01/2018	Serial Coupon	4.250%	4.400%	25,000.00	100.000%	25,000.00	99.443%	24,860.75
12/01/2019	Serial P-CAB	-	5.000%	13,690.00	34.225%	40,000.00	77.852%	31,140.80
12/01/2020	Serial P-CAB	-	5.100%	12,465.00	27.700%	45,000.00	73.663%	33,148.35
12/01/2021	Serial P-CAB	-	5.300%	10,089.00	22.420%	45,000.00	69.087%	31,089.15
12/01/2022	Serial P-CAB	-	5.500%	10,887.60	18.146%	60,000.00	64.543%	38,725.80
12/01/2023	Serial P-CAB	-	5.700%	9,545.90	14.686%	65,000.00	60.065%	39,042.25
12/01/2024	Serial P-CAB	-	5.900%	8,320.90	11.887%	70,000.00	55.682%	38,977.40
12/01/2026	Term 1 Coupon	5.400%	5.500%	415,000.00	100.000%	415,000.00	99.024%	410,949.60
12/01/2028	Term 2 Coupon	5.600%	5.700%	620,000.00	100.000%	620,000.00	98.876%	613,031.20
12/01/2036	Term 3 Coupon	6.000%	6.100%	2,330,000.00	100.000%	2,330,000.00	98.658%	2,298,731.40
Total		-	-	**$3,499,998.40**	-	**$3,760,000.00**	-	**$3,604,814.90**

Serial Bonds

CABs

Term Bonds

Bid Information

Par Amount of Bonds	$3,499,998.40
Reoffering Premium or (Discount)	104,816.50
Gross Production	$3,604,814.90
Bid (102.995%)	3,604,814.90
Total Purchase Price	$3,604,814.90
Bond Year Dollars	$73,476.45
Average Life	20.146 Years
Average Coupon	5.9151112%
Net Interest Cost (NIC)	5.9726927%
True Interest Cost (TIC)	5.9599895%
Premium CAB "Stated Yield"	22.3094440%

Coupon Analysis – Investor Preferences

Historically, individual investors have disliked paying higher premiums in exchange for higher coupon payments on bonds. However, in today's LOW interest rate environment, this paradigm has shifted as investors expect that historically low interest rates will eventually rise. With that in mind, investors are increasingly willing to pay premiums at 120% or higher in favor of 5% coupons bonds rather than paying 105% for a 3% coupon.

As investors recognize that we are at the bottom of the interest rate cycle, the only direction for interest rates to go in the future is up. Investors want to be in a position to liquidate their bonds, if necessary, once interest rates begin to rise, and the belief is that higher coupons will be easier to sell in a volatile market.

The shift toward premium bonds is actually helping issuers. The net effect of this change does not change the amount of debt service that issuers pay. When a premium is received for selling bonds, the amount of bonds needed to be issued will be less. Issuers should not be afraid to see higher-coupon because the strong investor demand will be rewarded with competitive yields.

Impact of Rising Interest Rates on Premium Bonds

Bond	Coupon	Maturity	Yield to Maturity	Price
A	4.00%	10 years	3.00%	108.584
B	5.00%	10 years	3.00%	117.168

(If market rates were to rise by 100 basis points (1.00%) immediately...

Bond	Coupon	Maturity	Yield to Maturity	Price	% Price Change
A	4.00%	10 years	4.00%	100.000	-7.91%
B	5.00%	10 years	4.00%	108.175	-7.68%

This hypothetical example is for illustrative purposes only. The value of an investment in debt securities will fluctuate in response to market movements. When interest rates rise, the prices of debt securities are likely to decline, and when rates fall, prices tend to rise.

Recent Variable Rate Market Conditions

SIFMA Index

- The SIFMA Index is a 7-day high-grade market index comprised of tax-exempt Variable Rate Demand Obligation (VRDOs) and is calculated and published by Bloomberg. The Index was created in response to industry participants' demand for a short-term index which accurately reflected activity in the VRDO market. The following are considered in the Index calculation:
  - *The standard deviation of the rates, screened for compliance with the criteria, is calculated. All issues falling outside +/- 1.0 standard deviation is dropped.*
  - *Each participating remarketing agent is limited to no greater than 15 percent of the number of securities in the Index by a random exclusion method.*
  - *The Index value is the average of the reset rates after all screened and dropped rated are excluded.*
- In recent weeks, the SIFMA index has climbed from all-time lows in early 2016 of 1 basis point (0.01%) to 41 basis points (0.41%) on April 20, 2016, a level it had not reached since July 2009. Currently SIFMA is trading at (0.84%).
- Historically, the SIFMA Index has typically ranged around 65% to 70% of the taxable equivalent 1 Month LIBOR (the London Interbank Offered Rate). However, at current levels, SIFMA is approximately 158% of 1-Month LIBOR.

Money Market (2a-7) Reform

- Adding to the recent rise in short-term rates, the upcoming implementation of Money Market (Rule 2a-7) Reform is also having an impact on VRDO obligations held in Money Market Funds, a primary buyer of short term Bonds and Notes.
- After several years of debate, the Securities and Exchange Commission ("SEC") adopted amendments to Rule 2a-7 under the Investment Company Act of 1940, which governs the operation of U.S. Money Market Funds, to implement provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act. The changes are designed to improve the resiliency of the funds during times of stress, and include fundamental changes to the product.
- Since the financial crisis events of September 2008, The amendments include provisions for government, non-government retail and institutional money market funds; requiring that certain money funds adopt market-based, floating net asset values (FNAV); and imposing liquidity fees and redemption gates, new and increased portfolio diversification requirements, increased stress-testing requirements, and new and increased regulatory reporting requirements.

Money Market Reform

Liquidity Fees: For investors who require access to their cash in times of stress, a fee may be levied in order to pay for that liquidity (i.e. investors might be required to pay a fee if they redeem shares during this time). This may be applied at the discretion of the board of directors in the best interest of shareholders of the fund.

Redemption Gate: A redemption gate is a temporary measure that may be implemented by a fund's board of directors that limits redemptions in a fund for a short period of time (up to 10 business days in a 90 day period). Its purpose is to prevent a run on a fund in times of market stress.

Money Market (2a-7) Reform

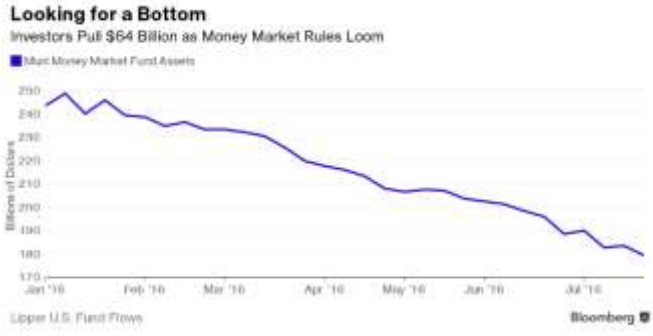
SEC changes to Rule 2a-7 in 2010 introduced heightened controls for Money Market Funds around credit risk, interest rate risk and liquidity, as well as increased levels of transparency and reporting. Additional changes were proposed in 2013, and the recent amendments became law in July 2014. With a required implementation date of October 14, 2016 for structural changes, the SEC has given industry participants time to digest the new rules and operationally adapt to the new Money Market Fund structures.

- Building on the extensive research, analysis and debate over the last several years following the 2008-2009 credit crisis, the SEC's new amendments combine floating net asset value (FNAV) per share pricing for institutional prime and institutional municipal funds, and discretionary *liquidity fees* and *redemption gates* for all non-government money market funds. In introducing these new regulations the SEC has sought to achieve its stated goals in money market reform.
- **The Money Market Fund rule 2a-7 currently requires Money Market Funds to invest only in securities that have received one of the two, highest short-term credit ratings or if they are not rated, securities that are of comparable quality. The current rule also requires a Money Market Fund to invest at least 97 percent of its assets in securities that have received the highest short-term credit rating.**
- **The amendments will eliminate these requirements. Instead, a Money Market Fund is limited to investing in a security only if the fund determines that the security presents minimal credit risks after analyzing certain prescribed factors.**
- The Wall Street Journal – "New Rules and Fresh Headaches for Short-Term Borrowers"
- Bloomberg – "Muni Money Market Funds Decimated by Rules Intended to Save Them"
- 2014 SEC adopted new money-market rules aimed at preventing a repeat of the run on money market funds during the 2008 credit crisis
- Lehman Brothers Holdings, taxable Reserve Primary fund "broke the buck" and investors pulled $310 billion from money funds in a single week.

Money Market Reform (continued)

- It will take some time for Money Market Fund holders to adjust to the more realistic economics that strike a balance between "instant liquidity" and "planned liquidity". Before the implementation date, and for some number of decades, both of these objectives could be met with one and the same investment vehicle in the product suites of many an investment brokerage or commercial bank.
- "Instant liquidity", will return to being the sole purview of the demand deposit checking account, as a result of 2a-7 reform. The cost of instant liquidity, to the investing customer, will be receiving virtually zero yield. This was always the case before floating rate product was developed as a safe and marketable demand deposit alternative in the early 1980's (bypassing, for example, maximum FDIC coverage limits).
- "Planned Liquidity", or the willingness to accept 10-day advance notice of a draw-down will be rewarded with a natural higher rate of return, as there will be (at least initially) fewer depositors willing or able to accommodate this attribute, whether by practical need or by mandated investment criteria, as with for example, the custody of public funds held by a municipality.
- Slowing of liquidation timing (so-called gating) or imposing redemption fees in times of stress (think of it as congestion pricing on a tollway), is an intentional component of 2a-7 reform that is designed to give financial institutions the time they need to manage the significant dislocations more efficiently, when and as such might arise with a spate of liquidity draws and margin calls in moments of market stress. Absent this protective slowing, they could be forced to recognize possibly significant losses in the exigent selling of municipal floating rate paper. Much of these losses would be passed down to the individual money market holder, should the NAV of the money market fund fall below $1.00 per share.

2-A7 Rule Impacts



October 3, 2016 Short Term Markets

William Blair

Official Statement Preparation

Weeks 5-7

Prepare Official Statement
Bond Rating/ Insurance Review

Issuer

- Issuer overview
- Projections
- Facilities data
- Financial outlook
- Financial Statements

Bond Counsel

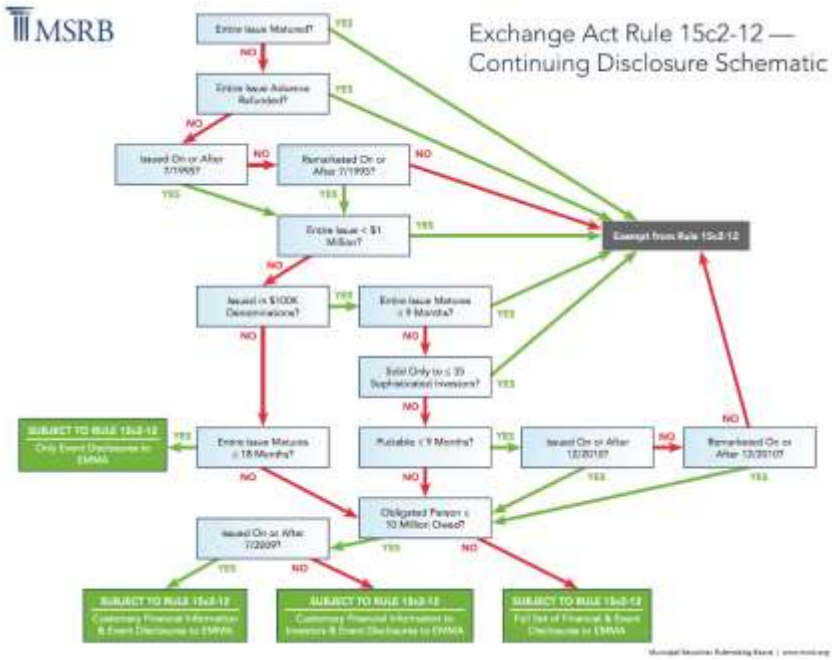
- Demographic info from Census & other sources
- Description of tax base and other sources of revenue
- Debt limitation tables
- Debt tables
- Financial appendices
- Bond counsel opinion
- Interface with County Auditor
- Actual production of document

Underwriter

- Structuring information
- Continuing disclosure agreement
- Interface with County Auditor

County Auditor

- Assessed Valuation data
- Building Permits info
- Tax tables
- Largest taxpayer list



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Credit Rating Scale

Weeks 5-7
Prepare Official Statement
Bond Rating/ Insurance Review

Bond Rating Services

(Lower Interest Rates)

	Moody's Investors Service	STANDARD & POOR'S	FitchRatings
Best Quality	Aaa	AAA	AAA
High Quality	Aa1 Aa2 Aa3	AA+ AA AA-	AA+ AA AA-
Upper Medium Grade	A1 A2 A3	A+ A A-	A+ A A-
Medium Grade	Baa1 Baa2 Baa3	BBB+ BBB BBB-	BBB+ BBB BBB-

Rating Criteria

Weeks 5-7
Prepare Official Statement
Bond Rating/ Insurance Review

1. Demonstrate your ability to manage District finances
   - Show non-traditional sources of liquidity, if any
   - Establish Board policy for end-of-year carryover balance
2. Describe the ongoing efforts to maintain voter support for levies
   - Emphasize the quality of the educational "product" provided
3. Demonstrate your ability to manage through demographic changes
   - Provide examples of enrollment projection and tracking systems, including examples of projections from previous years compared with actual results
   - Provide copies of capital facilities planning materials, and describe planning process
   - Describe communications with major developers, commercial taxpayers and County Auditor
4. Maintain an ongoing and consistent relationship with the rating analysts

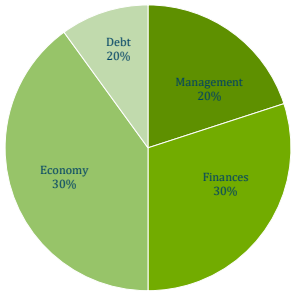
Rating Factors

Weeks 5-7
Prepare Official Statement
Bond Rating/ Insurance Review

Four Primary Credit Factors [1]

Debt
- Amount outstanding as % of full valuation
- Structure and composition
- Other long-term commitments

Management
- Financial planning and budgeting
- Realistic assumptions
- Policies and historical performance
- Timely disclosure



Economy
- A.V. and historic growth
- Diversity of economy, taxpayer concentration
- Unemployment rates, median income

Finances
- Multiyear financial trends
- Available cash on hand
- Operating flexibility to raise revenue or cut expenditures
- Budget predictability

[1] Moody's Investors Service

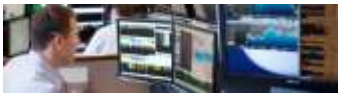
Marketing the Bonds

Week 8

Market and Price Bonds

Active Pre-marketing

- Investment Broker Prospecting
- Branch manager memorandum
- Sales force conference calls
- Investor presentations

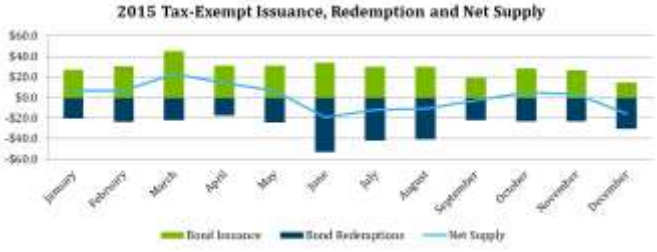


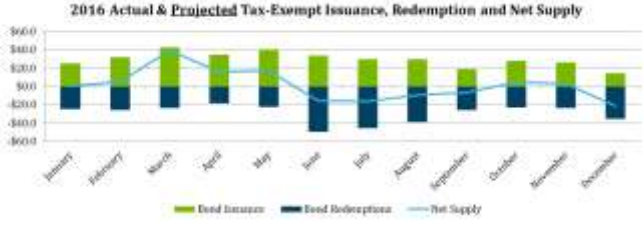
Distribution

- Institutions
- Banks
- Individual Investors

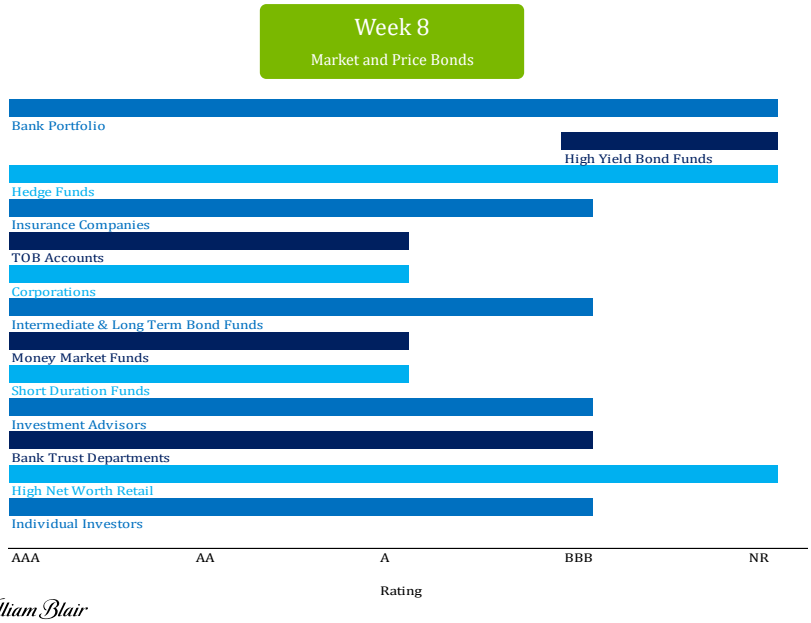
Municipal Tax-Exempt Supply History and Projections

- According to the SIFMA Municipal Survey, total tax-exempt issuance is expected to remain relatively flat to slightly down in 2016
- One major driver of supply will be the interest rate environment and how it effects potential refunding opportunities
- If the Fed believes that the economy is continuing to improve at a pace that warrants future rate hikes, refunding's and overall issuance could be further depressed
- The Fed's next rate hike may not occur until 4th quarter and as a result, volume may decline in the latter part of the year





Investor Preference



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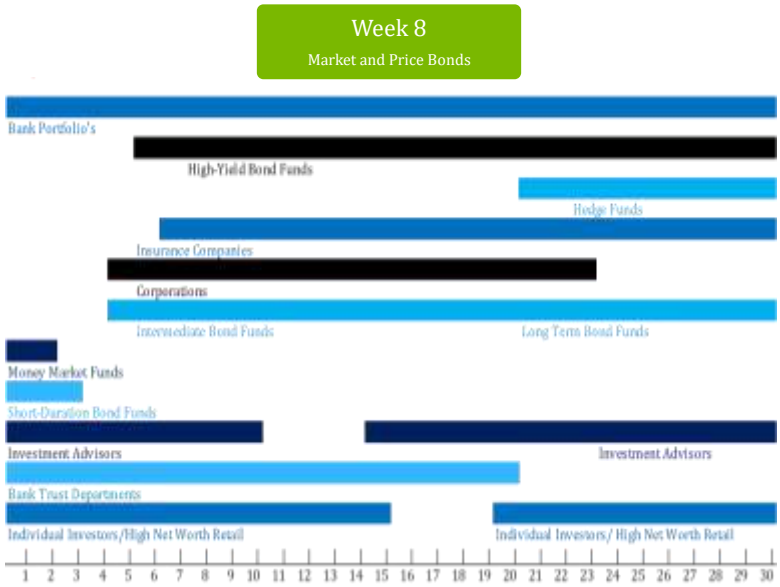
Buyer Universe



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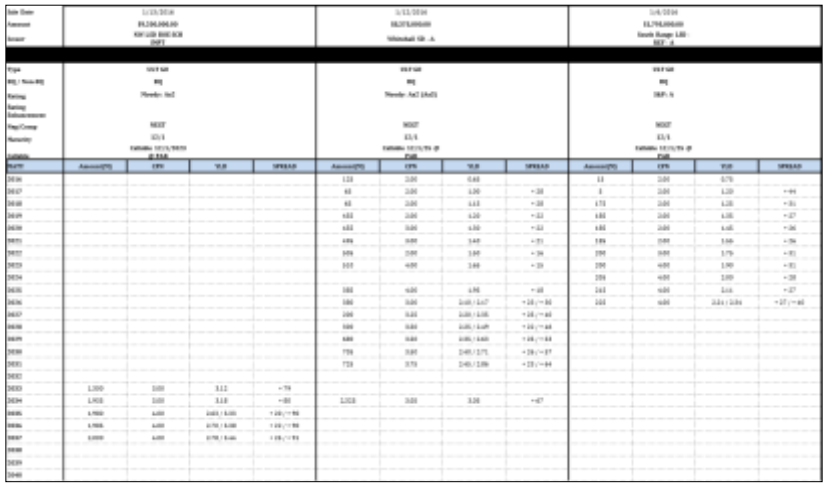
Pricing Comparisons

Week 8

Market and Price Bonds



Pricing the Bonds

Week 8

Market and Price Bonds

Pricing Summary

Maturity	Type of Bond	Coupon	Yield	Issuance Value	Par	Maturity Value	Price	Dollar Price
12/01/2015	Serial Coupon	3.000%	3.000%	10,000.00	100.000%	10,000.00	100.000%	10,000.00
12/01/2016	Serial Coupon	4.000%	3.600%	15,000.00	100.000%	15,000.00	100.788%	15,118.20
12/01/2017	Serial Coupon	4.000%	4.000%	20,000.00	100.000%	20,000.00	100.000%	20,000.00
12/01/2018	Serial Coupon	4.250%	4.400%	25,000.00	100.000%	25,000.00	99.443%	24,860.75
12/01/2019	Serial P-CAB	-	5.000%	13,690.00	34.225%	40,000.00	77.852%	31,140.80
12/01/2020	Serial P-CAB	-	5.100%	12,465.00	27.700%	45,000.00	73.663%	33,148.35
12/01/2021	Serial P-CAB	-	5.300%	10,089.00	22.420%	45,000.00	69.087%	31,089.15
12/01/2022	Serial P-CAB	-	5.500%	10,887.60	18.146%	60,000.00	64.543%	38,725.80
12/01/2023	Serial P-CAB	-	5.700%	9,545.90	14.686%	65,000.00	60.065%	39,042.25
12/01/2024	Serial P-CAB	-	5.900%	8,320.90	11.887%	70,000.00	55.682%	38,977.40
12/01/2026	Term 1 Coupon	5.400%	5.500%	415,000.00	100.000%	415,000.00	99.024%	410,949.60
12/01/2028	Term 2 Coupon	5.600%	5.700%	620,000.00	100.000%	620,000.00	98.876%	613,031.20
12/01/2036	Term 3 Coupon	6.000%	6.100%	2,330,000.00	100.000%	2,330,000.00	98.658%	2,298,731.40
Total		-	-	**$3,499,998.40**	-	**$3,760,000.00**	-	**$3,604,814.90**

Bid Information

Par Amount of Bonds	$3,499,998.40
Reoffering Premium or (Discount)	104,816.50
Gross Production	$3,604,814.90
Bid (102.995%)	3,604,814.90
Total Purchase Price	$3,604,814.90
Bond Year Dollars	$73,476.45
Average Life	20.146 Years
Average Coupon	5.9151111%
Net Interest Cost (NIC)	5.9726927%
True Interest Cost (TIC)	5.9599895%
Premium CAB "Stated Yield"	22.3094440%

Closing the Bond Issue

Week 10
Close Bonds
(Proceeds are wired)

Closing Activities:

- Underwriter wires funds to issuer
- Issuer confirms to the underwriter that all wires are received
- Bond counsel confirms all legal documents have been received and in place for closing
- Underwriter and Paying Agent call DTC (Depository Trust Company) to release the bonds to investors

Looking to GFOA's Best Practices

In the article *"Ensuring a Successful Bond Sale"* published in GFOA's *Government Finance Review*, Eric H. Johansen debt manager for the City of Portland, Oregon, suggested that The GFOA's best practices on the sale of bonds contain several common themes and recommendations that finance officers should bear in mind when preparing to sell bonds:

- The roles of financial advisor and underwriter are separate and distinct.
- The same firm cannot serve both roles on the same bond issue.
- A key difference between the financial advisor and the underwriter is that the financial advisor has a fiduciary responsibility to the issuer.
- The underwriter's responsibility is to bond investors.
- Early in the bond sale process, issuers should hire an outside financial advisor to advise them on selecting the appropriate method of sale for the bonds.
- The method of sale decision should be based on an analysis of the relevant characteristics of the proposed bonds and should not be influenced by parties with a vested interest in the outcome of the decision.
- Issuers should not permit their financial advisor to resign in order to serve as underwriter of a negotiated sale.
- Financial advisors and negotiated sale underwriters should be selected primarily on the basis of relevant experience with the bonds proposed by the issuer.
- When bonds are sold through negotiation, issuers and their financial advisor should be actively involved in the negotiation and not be reliant solely upon information provided by the underwriter.

Looking to GFOA's Best Practices

Additional Information Links

GFOA Debt Management Policy Best Practices http://www.gfoa.org/debt-management-policy

GFOA Debt Issuance Checklist: Considerations When Issuing Bonds
http://www.gfoa.org/sites/defalt/files/u2/GFOADebtIssuanceChecklistConsiderationsWhenIssuingBonds.pdf

GFOA Government Finance Review Articles:

- Ensuring a Successful Bond Sale http://www.gfoa.org/sites/default/files/GFR_FEB_10_16.pdf
- Back to Basics: What Every Government Should Check Each Time It Issues Debt http://www.gfoa.org/sites/default/files/GFR_FEB_10_30.pdf
- Best Practices Optimize Debt Management http://www.gfoa.org/sites/default/files/GFR_FEB_13_8.pdf

National Bond Lawyers/GFOA Post Issuance Compliance Checklist
http://www.gfoa.org/sites/default/files/u2/PostIssuanceCompliance.pdf

Municipal Securities Rulemaking Board www.msrb.org

MSRB's Electronic Municipal Market Access System (EMMA) http://emma.msrb.org

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The material has been prepared solely for informational purposes and is not a solicitation of an offer to buy or sell any security or instrument or to participate in any trading strategy. Historical data is not an indication of future results. The opinions expressed are our own unless otherwise stated.

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