

CPIM

CENTER FOR PUBLIC INVESTMENT MANAGEMENT



A PROGRAM BROUGHT TO YOU BY:

JOSH MANDEL

TREASURER OF OHIO

FINANCE 102

Basic Cash and Debt Management

Agenda for Today

- ◉ Cash and Investment Management
 - General Investing Information
 - Permissible Investments
 - Implementing an Investment Program
- ◉ Debt Management
 - Team member roles and responsibilities
 - Components of municipal bonds
 - Understanding the issuance process

Investment Objectives & Goals

Legal

- Remember: Legal may not be suitable

Safety

- Preservation of principal

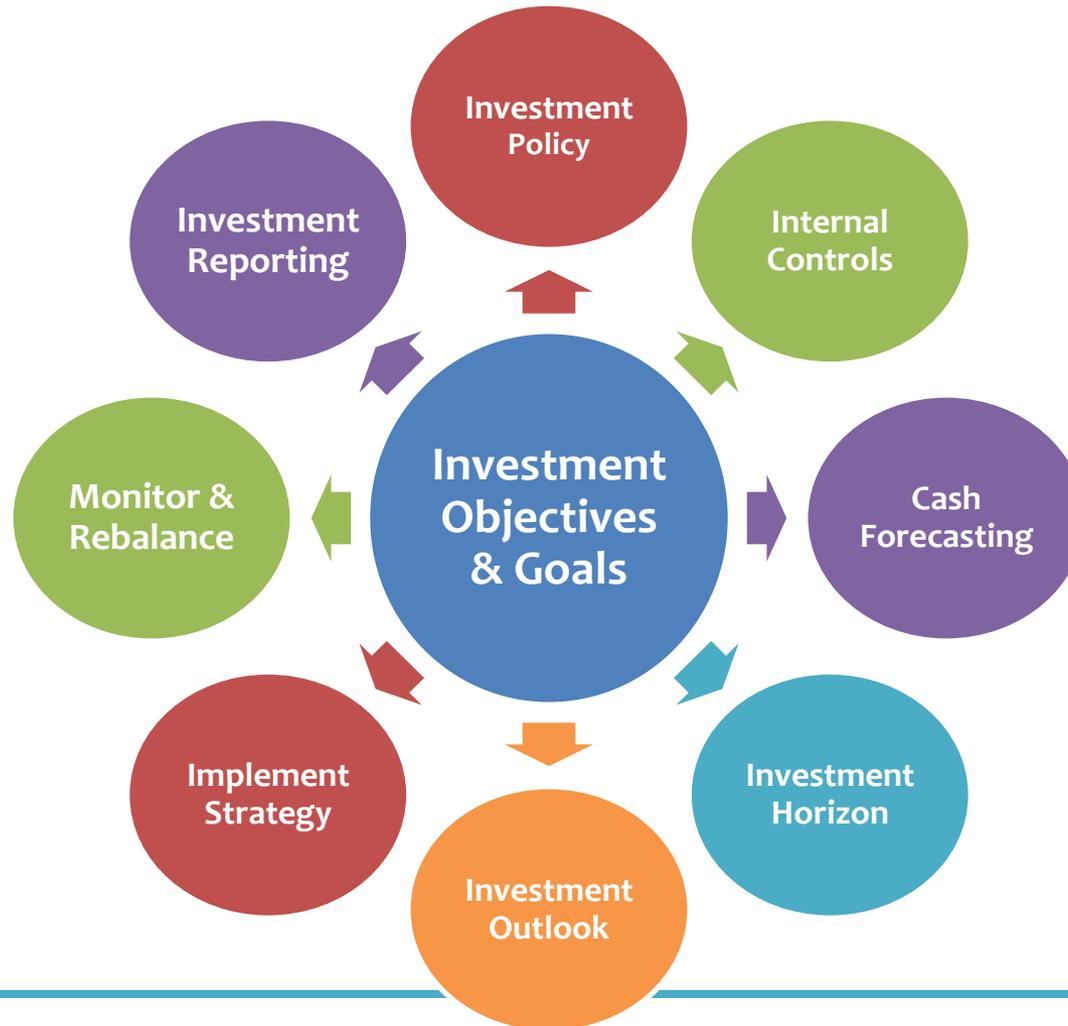
Liquidity

- What are your liquidity needs?

Market Rate of Return

- Does the investment have a market yield?

Making Informed Investment Decisions



Investment Policy

- Scope
- Statement of Objectives
- Identify Investments
- Maximum Maturities
- Diversification
- Authorized Dealers
- Reporting



*The investment policy provides **GUIDELINES** for investing. And **PROTECTION** for you!*

History of Ohio Investment Laws

- **ORC 135.14:** Schools, Townships, Cities, etc.
- **ORC 135.35:** Mainly Counties or other agencies
- **Charter City:** May not follow state guidelines



Senate Bill 287

- Sections 135.14, 135.142, 135.143 and 135.35.
- Introduced in Senate on 2/25/2014 by primary sponsor Senator Jim Hughes
- Unanimously passed by Senate on 5/14/2014
- Unanimously passed by House of Representatives on 5/28/2014
- Signed by the Governor on 6/5/2014
- **Effective on 9/3/2014**

Know the Risks of Investing

Market Risk

- Decline in market value

Credit Risk

- Securities, dealers, banks, CDs

Liquidity Risk

- Ability to sell

Reinvestment Rate Risk

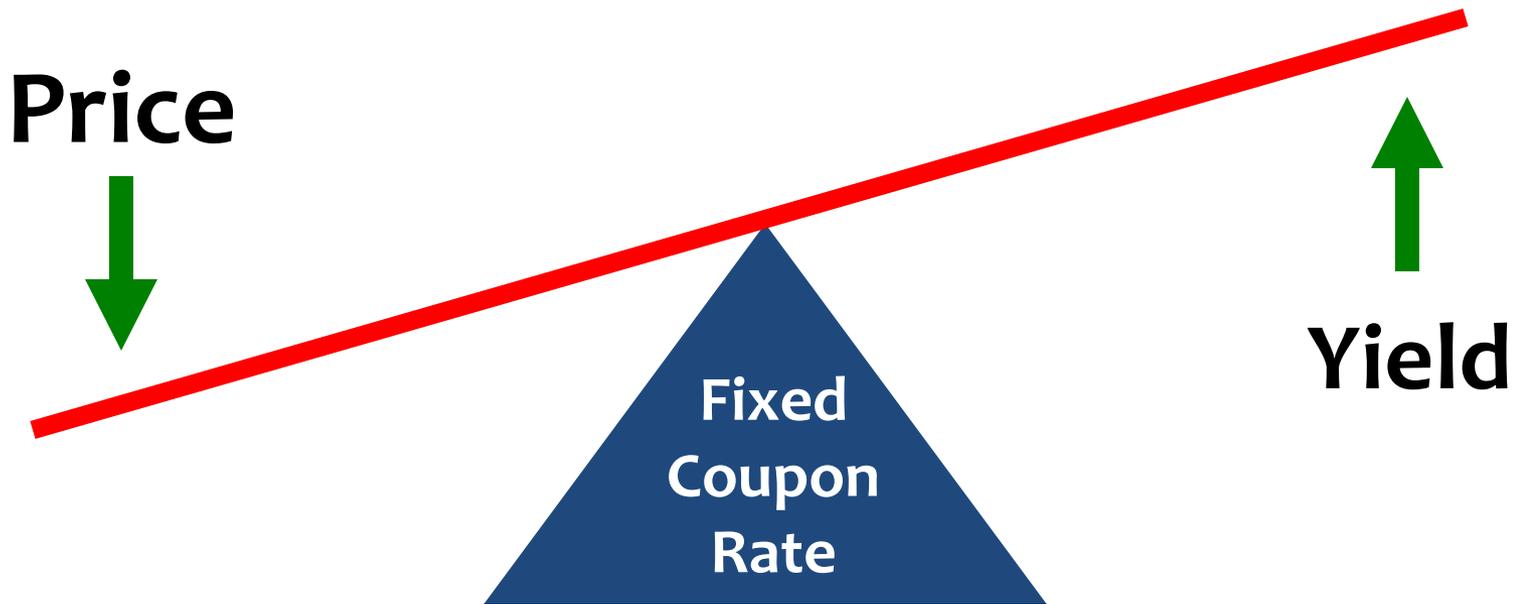
- Reinvesting maturities in lower interest rates

Political Risk

- Risk to your career

A well diversified portfolio will help reduce these risks.

Price Yield Relationship





Treasury Securities

- Full faith and credit of the U.S. government
- Very liquid type of security
- Purchase directly from U.S. Treasury or through a broker/dealer

The screenshot shows the TreasuryDirect website. At the top, there is a navigation bar with links for Home, About, News, Glossary, Forms, Rating Lists, FAQs, Contact Us, Help, and Site Map. Below this is a search bar and a 'GO' button. The main content area is divided into three columns: Individuals, Financial Institutions, and Government. Each column contains a list of links to various resources. On the right side, there is an 'Account Login' section with a dropdown menu for 'Select an Application' and a 'LOGIN' button. Below that is a 'Special Announcements' section with several links. At the bottom right, there is a 'WHAT IS YOUR SAVINGS STORY?' section with icons for a power button, a dollar sign, and a person, and the text 'ready.save.grow.'

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Home Individuals Financial Institutions Government

See below for shortcuts to popular pages

Individuals	Financial Institutions	Government
<ul style="list-style-type: none">• Treasury Bills, Notes, Bonds, and TIPS• How to purchase Treasury Securities• TreasuryDirect payroll savings• EE/E Savings Bonds - fixed interest rate• I Savings Bonds - inflation adjusted bond• Savings Bonds as gifts• Are your Treasury Securities still earning interest?• Treasury Hunt - see if you own matured Savings Bonds• More ...	<ul style="list-style-type: none">• Treasury securities Overview• How Treasury auctions work• Treasury Securities Auctions Calendar• Auction Announcements and Results• Record setting auction data• Historical Auction Results• Data and resources for economic research• Resources for employers• Resources for financial institutions• Statutes and regulations• More ...	<ul style="list-style-type: none">• Public Debt Reports• Monthly Statement of the Public Debt• Federal Investments program• State/local government series (SLGS) securities• Agency borrowings• Liquidate your agency's securities• Interest Rate Data• FAQs on the Debt• How to Make a Contribution to Reduce the Debt• More ...

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Special Announcements

Elimination of Unused or Little Used Web Resources (Dynamic Content)

State and Local Government Securities Sales Resume

Changes to Announcements and Results HTML themes

WHAT IS YOUR SAVINGS STORY?

ready.save.grow.

Government Securities

- Full faith and credit or implied backing by U.S. government
- Customized structures – call types and steps
- Things to Consider
 - Compare bond with other dealers
 - Know the difference between the yield and coupon rate!

Bank Deposits

- Savings and money market savings accounts
- CDs
- Know the requirements for protection
 - FDIC insurance
 - Collateral

Certificates of Deposit

135.144 Investment of interim moneys in federally insured certificates of deposit.

(A) In addition to the authority provided in section 135.14 or 135.143 of the Revised Code, the treasurer of state or the treasurer or governing board of a political subdivision may invest interim moneys in certificates of deposit in accordance with all of the following:

(1) The interim moneys initially are deposited with an eligible public depository described in section 135.03 of the Revised Code and selected, pursuant to section 135.12 of the Revised Code, by the treasurer of state or the treasurer or governing board of a political subdivision, for interim moneys of the state or of the political subdivision.

(2) For the treasurer of state or the treasurer or governing board of the political subdivision depositing the interim moneys pursuant to division (A)(1) of this section, the eligible public depository selected pursuant to that division invests the interim moneys in certificates of deposit of one or more federally insured banks, savings banks, or savings and loan associations, wherever located. The full amount of principal and any accrued interest of each certificate of deposit invested in pursuant to division (A)(2) of this section shall be insured by federal deposit insurance.

(3) For the treasurer of state or the treasurer or governing board of the political subdivision depositing the interim moneys pursuant to division (A)(1) of this section, the eligible public depository selected pursuant to that division acts as custodian of the certificates of deposit described in division (A)(2) of this section.

(4) On the same date the public moneys are redeposited by the public depository, the public depository may, in its sole discretion, choose whether to receive deposits, in any amount, from other banks, savings banks, or savings and loan associations.

(5) The public depository provides to the treasurer of state or the treasurer or governing board of a political subdivision a monthly account statement that includes the amount of its funds deposited and held at each bank, savings bank, or savings and loan association for which the public depository acts as a custodian pursuant to this section.

(B) Interim moneys deposited or invested in accordance with division (A) of this section are not subject to any pledging requirements described in section 135.18 or 135.181 of the Revised Code.

Amended by 129th General Assembly File No.67, HB 209, §1, eff. 3/22/2012.

Effective Date: 07-04-2006

Certificates of Deposit

HOLDINGS > FIXED INCOME *continued*

Description	Symbol/Cusip Account Type	Quantity	Estimated Price on 01/21/15	Estimated Current Market Value	Estimated Annual Income	Total Cost Basis	Unrealized Gain (Loss)
BMW BK NORTH AMER UTAH 0.85000% 03/08/2017 CD FDIC INSURED CPN PMT SEMI-ANNUAL ON SEP 08, MAR 08 Next Interest Payable: 03/08/15 Estimated Yield 0.84% Accrued Interest \$850.00 Adjusted Cost Basis	05568P2V8 CASH	250,000	\$1.001	\$250,250.00	\$2,125.00	\$250,000.00	
CIT BK SALT LAKE CITY UT 0.85000% 03/13/2017 CD FDIC INSURED CPN PMT SEMI-ANNUAL ON SEP 13, MAR 13 Next Interest Payable: 03/13/15 Estimated Yield 0.84% Accrued Interest \$820.89 Adjusted Cost Basis	17284ABY9 CASH	250,000	\$1.00087	\$250,217.50	\$2,125.00	\$250,000.00	\$250.00
ALLY BK MIDVALE UTAH CD 1.15000% 07/17/2017 FDIC INSURED CPN PMT SEMI-ANNUAL ON JAN 16, JUL 16 Next Interest Payable: 07/16/15 Estimated Yield 1.15% Accrued Interest \$126.03 Adjusted Cost Basis	02008LFR9 CASH	250,000	\$0.99351	\$248,377.50	\$2,875.00	\$250,000.00	(\$1,622.50)
GE CAPITAL BANK INC CD 1.80000% 07/11/2018 FDIC INSURED CPN PMT SEMI-ANNUAL ON JAN 11, JUL 11 Next Interest Payable: 07/11/15 Estimated Yield 1.61% Accrued Interest \$230.14 Adjusted Cost Basis	361637140 CASH	250,000	\$0.99279	\$248,197.50	\$4,000.00	\$250,000.00	(\$1,802.50)

Account carried with National Financial Services LLC, Member NYSE, SIPC

Certificates of Deposit

Ohio Compliance Supplement

2014 Ohio Compliance Supplement

Indirect Laws & Statutorily Mandated Tests

Any CD's purchased by a broker must be held in the name of the government. Also, the broker cannot be in possession of cash at any time. If we believe a broker has held cash for any length of time, AOS auditors should refer the matter to the Center for Audit Excellence and AOS Legal division for further evaluation. A way to verify compliance is to request monthly statements provided by the public depository located in Ohio. Ohio Rev. Code §135.144(A)(5) requires the initial public depository to provide public offices with a monthly account statement that includes the amount of its funds deposited and held at each bank, savings bank, or savings and loan association for which the public depository acts as a custodian pursuant to Ohio Rev. Code §135.144. If a public office does not have these statements, it may indicate that the money is being held by a broker-dealer in violation of Ohio Rev. Code §135.144.

Commercial Paper

- Need additional training approved by TOS
- Max of 25% (ORC 135.35) or 40% (ORC 135.14) portfolio allocation
- Max maturity restriction of 270 days
- Highest rating category from two rating agencies (Moody's, S&P, Fitch)
- Maximum of 5% of total portfolio in any issuer at time of purchase (ORC 135.14)

Corporate Securities

- ORC 135.35 permits up to 15% of interim funds in corporate securities
- Must be rated AA or better and have a two year maximum maturity
- Know what you are buying and the risk associated
 - Credit risk
 - Liquidity risk

Municipal Securities

- Permits entities to purchase general obligations of the State or political subdivisions of the State (20% max under ORC 135.14)
- Must be rated in three highest categories (ORC 135.14)
- Cannot be the sole owner of an entire issue (ORC 135.14)
- Charter Cities could have specific language for purchasing municipals
- Must complete training with TOS (ORC 135.14)

Repurchase Agreements

- Term loan with collateral in the form of securities
- Master Repurchase Agreement outlines procedures
- Reverse repo enables investment officer to leverage the portfolio – **PROHIBITED**

Bankers Acceptances

- Need additional training approved by TOS
- Less than 25% portfolio allocation
- Maturity restriction of 180 days

STAR Ohio

- AAAm rated by Standard and Poor's (highest)
- Similar to money market fund
- Daily interest income
- Daily liquidity (within guidelines)
- State administered



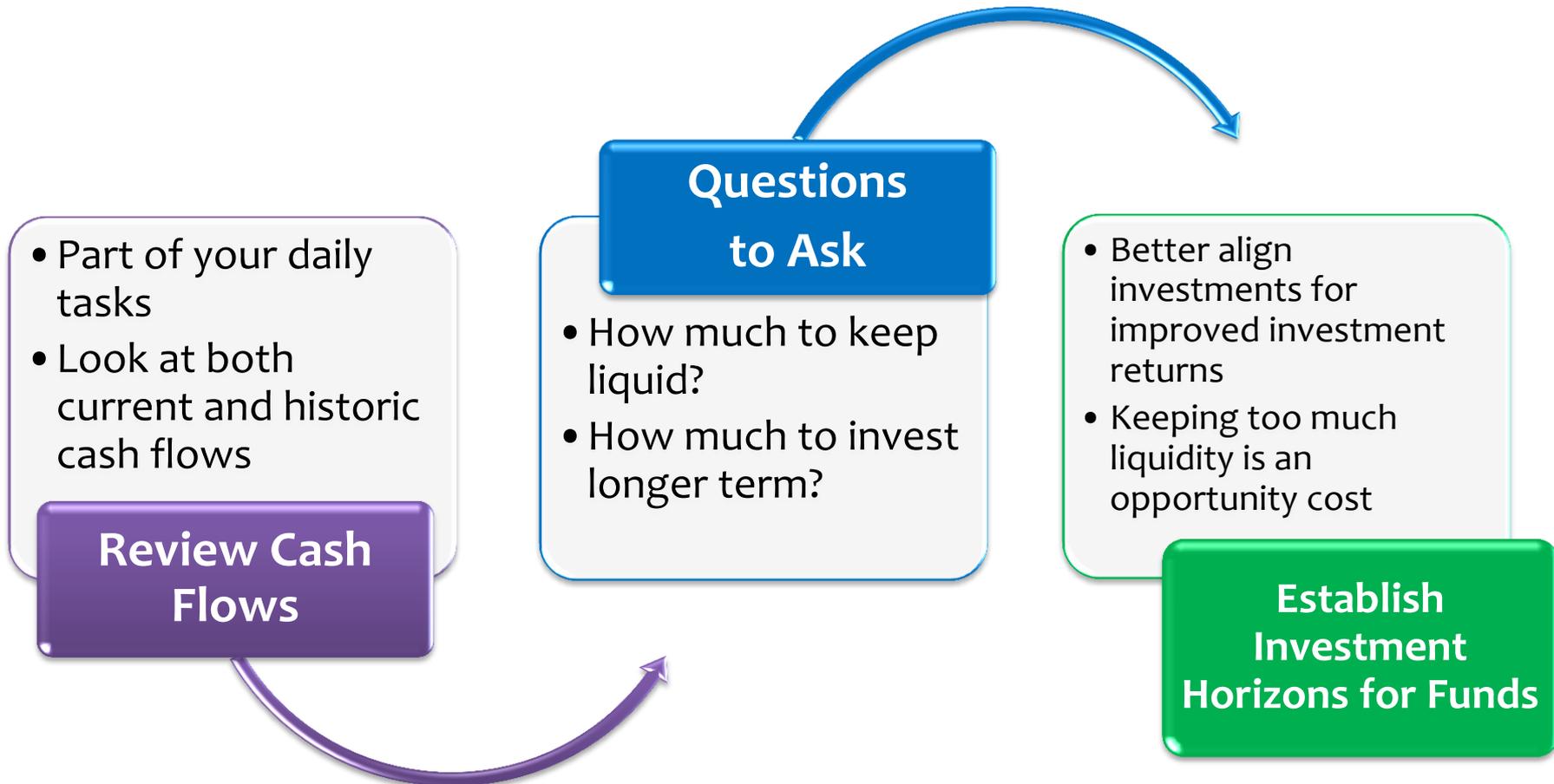
STAR Plus

- Convenience of one account and one statement
- All deposits are demand deposits and are 100% FDIC-insured
- Up to \$25 million in deposits per legal entity
- Twice weekly withdrawal and daily deposit capability
- Daily transparency with 24/7 online access to account information



Implementing Your Investment Program

Cash Forecast & Investment Horizon



Cash vs. Core

- Cash Management – “**Cash**” Portfolio
 - Operating needs for current year
 - Funds with uncertain time horizon
- Investment Management – “**Core**” Portfolio
 - Cash balance with time horizon greater than once a year
 - Apply investment strategy to maximize earnings

Establish Investment Outlook

- ◉ Identify major forces and factors that influence the markets
 - What is the macroeconomic situation?
- ◉ Understand current economic status and trends
 - Economic indicators
 - Market commentaries
- ◉ Identify future scenarios and their investment implications
 - What are the economists saying?
- ◉ Identify factors that signal a change in the current economic environment
 - Become an economist

*Performing
basic economic
analysis will
produce
prudent
investment
results.*

Who Will Help You Invest?

Know the Types of Service Providers

STAR Ohio/Plus

- **STAR Ohio**
 - Know the investments of STAR Ohio
 - Look over the annual report
- **Plus**
 - Understand how program works
 - Monitor deposit Banks

Banks

- Make sure they understand nuances of public entities
- Work with banks you know and trust

Investment Advisors

- Acts as a fiduciary in the client's best interest
- Who do they work with?
- What are their credentials?
- Check them out: www.advisor.sec.gov

Brokers

- Recommends suitable investments
- Who do they work with?
- What do they do and how much do they charge?
- Check them out: www.finra.org

Perform the Due Diligence Before Investing

Monitor Markets & Adjust Investments

- Do all investments comply with state law and investment policy?
- Does the portfolio still have adequate liquidity?
- What does the TOTAL portfolio look like?
 - Average maturity
 - Average yield
- Has the market changed?
 - Do the current investments still make sense?
 - Follow current economic data and analysis

Report & Communicate Results

- Investment Reporting
 - Know what's going on in the portfolio of investments
- Communicate cash flow needs to your investment advisor or broker
 - Make sure all parties know the needs of the entity
- Communicate investment results
 - Keep the governing board informed on changes in the portfolio

***Think in terms of overall portfolio management,
not just a single investment.***

Debt Management

Debt Issuance: Roles and Responsibilities

Underwriter - Investment Bankers

- Perform due diligence on disclosure
- Provide financing plan assistance
- Provide rating agency & bond insurer preparation assistance
- Provide advance refunding services

Sales Force – Market the Bonds

Issuer (Official Statement)

- Approve bond legislation
- Assist with preparation of disclosure data
- Develop financing plan
- Make rating & insurance presentations (if applicable)
- Make bond payments

Bond Counsel (Legal Opinion)

- Prepare bond resolution
- Provide Official Statement/disclosure preparation assistance
- Prepare various deal related legal documents
- Provide legal opinion to investors

Rating Agencies / Bond Insurers (Rating / Insurance Policy)

- Review credit worthiness of the Issuer
- Rating agencies issue bond rating
- Insurance companies insure issue (if economically beneficial)

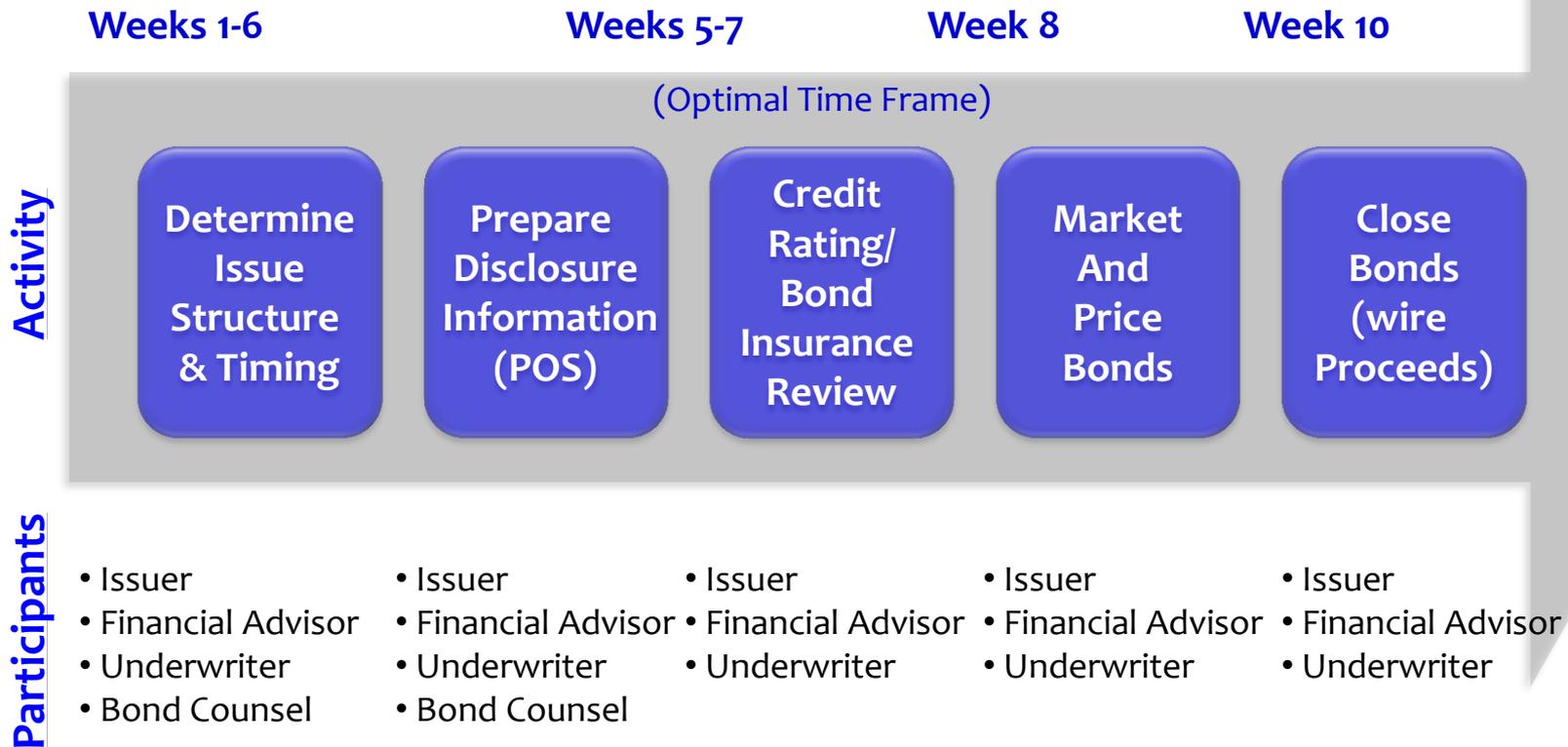
Investors

- Purchase bonds
- Receive interest and principal payments from paying agent

Paying Agent / Registrar (P&I Payments)

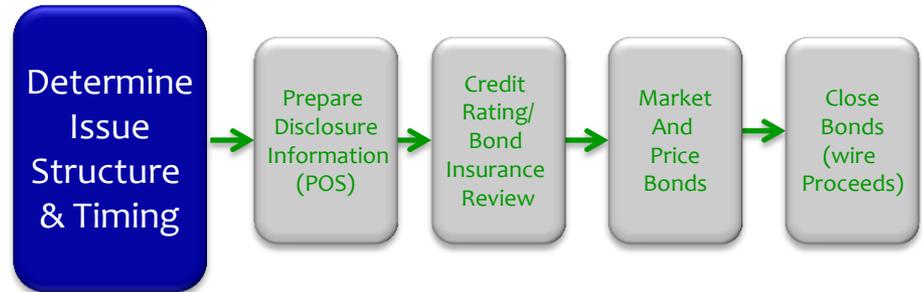
- Authenticate bonds
- Receive interest and principal payments from Issuer
- Make interest and principal payments to investors

Debt Issuance: Activities & Time Frame



Debt Issuance: Determine Structure

There are two components of structuring your bond issue:



Component

1. Plan of Issuance

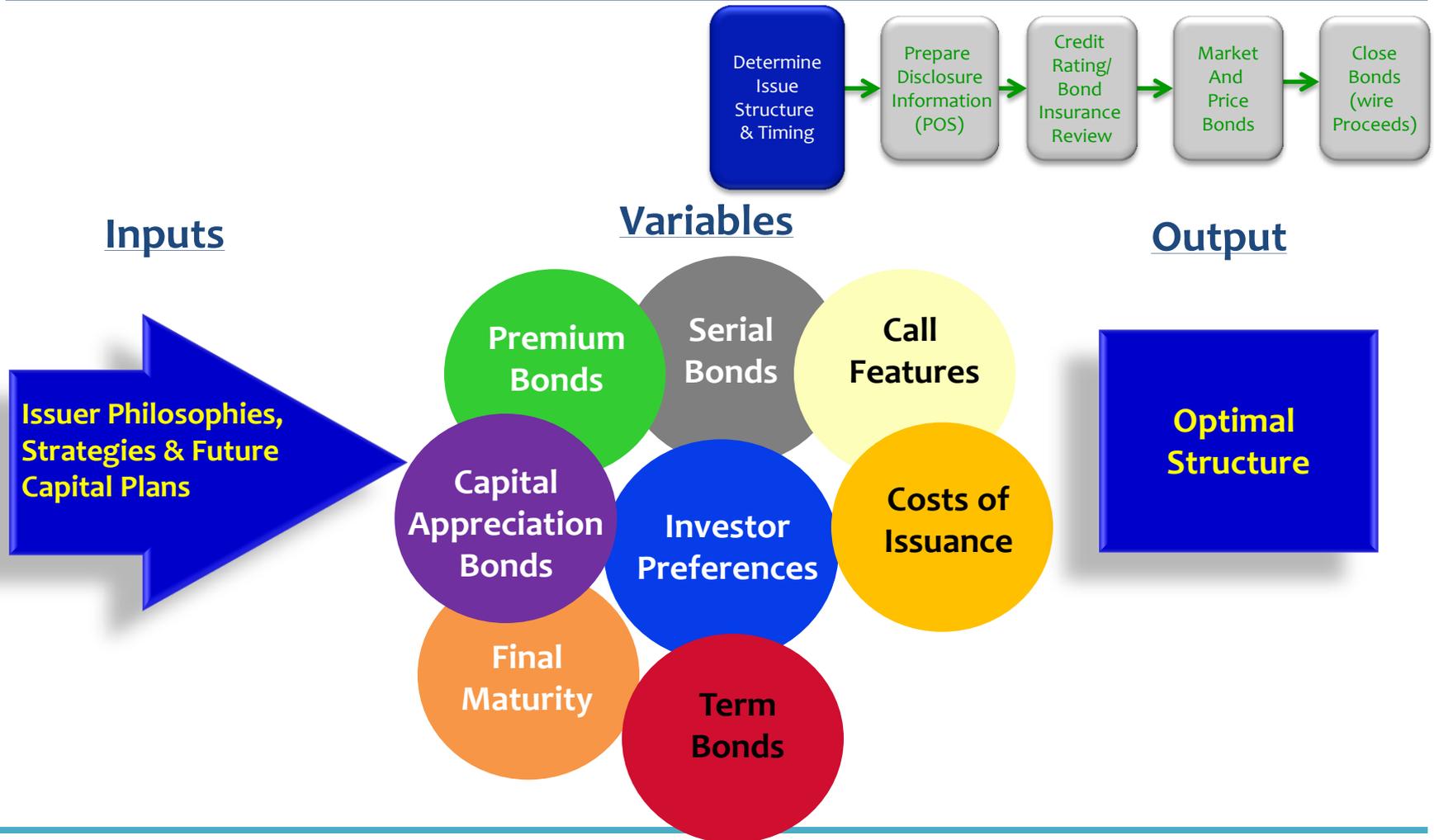
Objectives

- Ensure availability of funds when needed
- Maximize construction period investment earnings
- Minimize/avoid arbitrage rebate

2. Plan of Repayment

- Manage impact of tax increase or revenue capacity
- Optimize benefits of structuring features (calls, discounts, premiums, etc.)
- Consider future capital plans

Debt Issuance: Effective Structuring Impacts Interest Costs & Capital Plans



Debt Issuance:

Typical Types of Bonds Issued

- **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.

Debt Issuance:

Typical Types of Bonds Issued

ADDITIONAL TYPES OF BONDS ISSUED

- **Zero Coupon Bonds** – An original issue discount bond on which no periodic interest payments are made but which is issued at a deep discount from par, accreting (at the rate represented by the offering yield at issuance) to its full value 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.

Sample Debt Schedule: Pricing Report

A Community Near You

\$19,999,988

Capital Improvements Bonds, Series 2015

Rated: Aa2/AA/AA

Pricing Summary

Maturity	Type of Bond	Coupon	Yield	Issuance Value	Price	YTM	Call Date	Dollar Price	
12/01/2015	Serial Coupon	2.000%	0.520%	750,000	101.171%	-	-	758,783	
12/01/2016	Serial Coupon	2.000%	0.600%	655,000	102.494%	-	-	671,336	
12/01/2017	Serial Coupon	2.000%	0.930%	670,000	102.944%	-	-	689,725	
12/01/2018	Serial Coupon	1.220%	1.220%	680,000	100.000%	-	-	680,000	
12/01/2019	Serial Coupon	1.440%	1.440%	690,000	100.000%	-	-	690,000	
12/01/2020	Serial Coupon	1.630%	1.630%	700,000	100.000%	-	-	700,000	
12/01/2021	Serial Coupon	2.050%	1.830%	710,000	101.398%	-	-	719,926	
12/01/2022	Serial P-CAB	-	3.000%	596,298	79.286%	-	-	574,824	
12/01/2023	Serial P-CAB	-	2.650%	581,544	79.332%	-	-	575,157	
12/01/2024	Serial P-CAB	-	2.350%	567,146	79.546%	-	-	576,709	
12/01/2025	Serial Coupon	2.000%	2.420%	725,000	96.029%	-	-	696,210	
12/01/2026	Serial Coupon	2.000%	2.570%	740,000	94.230%	-	-	697,302	
12/01/2027	Serial Coupon	2.000%	2.770%	755,000	91.750%	-	-	692,713	
12/01/2028	Serial Coupon	2.000%	2.980%	770,000	88.979%	-	-	685,138	
12/01/2029	Serial Coupon	3.000%	3.080%	785,000	99.052%	-	-	777,558	
12/01/2030	Serial Coupon	3.500%	3.200%	810,000	102.610%	c	3.287%	06/01/2025	831,141
12/01/2031	Serial Coupon	3.500%	3.310%	835,000	101.642%	c	3.371%	06/01/2025	848,711
12/01/2033	Term 1 Coupon	4.000%	3.450%	1,765,000	104.727%	c	3.650%	06/01/2025	1,848,432
12/01/2035	Term 2 Coupon	4.000%	3.520%	1,910,000	104.110%	c	3.714%	06/01/2025	1,988,501
12/01/2037	Term 3 Coupon	4.000%	3.560%	2,070,000	103.760%	c	3.753%	06/01/2025	2,147,832
12/01/2039	Term 4 Coupon	4.000%	3.590%	2,235,000	103.498%	c	3.781%	06/01/2025	2,313,180
Total	-	-	-	\$19,999,988	-	-	-	-	\$20,163,176

Serial Bonds

CABs

Term Bonds

Debt Issuance: Bond Features

REDEMPTION FEATURES

- **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.
- **Non-Callable Bonds** – A bond that cannot be redeemed at the issuer's option before its stated maturity date.

Debt Issuance: Bond Features

Original Issue Discount (OID) – An amount by which the par value of a security exceeded its public offering price at the time of its original issuance.

- The original issue discount is amortized over the life of the security and, on a municipal security, is generally treated as tax-exempt interest.
- When the investor sells the security before maturity, any profit realized on such a sale is calculated (for tax purposes) on the adjusted book value, which is calculated for each year the security is outstanding by adding the accretion value to the original offering price.
- The amount of the accretion value (and the existence and total amount of original issue discount) is determined in accordance with the provisions of the internal revenue code and the rules and regulations of the Internal Revenue Service.

Debt Issuance: Bond Features

Original Issue Premium – The amount by which the public offering price of a security at the time of this original issuance exceeded its par value.

- The original issue premium is amortized over the life of the security and results in an adjustment to the basis of the security.
- Original issue premium generally is not deductible for federal income tax purposes.
- The amount of original issue premium received by the issuer in a primary offering, also known as the “bond premium,” is generally treated as proceeds of the issue.

Sample Debt Schedule: Pricing Report

A Community Near You

\$19,999,988

Capital Improvements Bonds, Series 2015

Rated: Aa2/AA/AA

Pricing Summary

Maturity	Type of Bond	Coupon	Yield	Issuance Value	Price	YTM	Call Date	Dollar Price
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12/01/2021	Serial Coupon	2.050%	1.830%	710,000	101.398%	-	-	719,926
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Total	-	-	-	\$19,999,988	-	-	-	\$20,163,176

Premium Bond

Par Bonds

Discount Bond

Sample Debt Schedule: Annual Debt Service

A Community Near You

\$19,999,988

Capital Improvements Bonds, Series 2015

Rated: Aa2/AA/AA

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I
12/01/2015	750,000	2.000%	433,625	1,183,625
12/01/2016	655,000	2.000%	530,822	1,185,822
12/01/2017	670,000	2.000%	517,722	1,187,722
12/01/2018	680,000	1.220%	504,322	1,184,322
12/01/2019	690,000	1.440%	496,026	1,186,026
12/01/2020	700,000	1.630%	486,090	1,186,090
12/01/2021	710,000	2.050%	474,680	1,184,680
12/01/2022	596,298	3.000%	588,827	1,185,125
12/01/2023	581,544	2.650%	603,581	1,185,125
12/01/2024	567,146	2.350%	617,979	1,185,125
12/01/2025	725,000	2.000%	460,125	1,185,125
12/01/2026	740,000	2.000%	445,625	1,185,625
12/01/2027	755,000	2.000%	430,825	1,185,825
12/01/2028	770,000	2.000%	415,725	1,185,725
12/01/2029	785,000	3.000%	400,325	1,185,325
12/01/2030	810,000	3.500%	376,775	1,186,775
12/01/2031	835,000	3.500%	348,425	1,183,425
12/01/2032	865,000	4.000%	319,200	1,184,200
12/01/2033	900,000	4.000%	284,600	1,184,600
12/01/2034	935,000	4.000%	248,600	1,183,600
12/01/2035	975,000	4.000%	211,200	1,186,200
12/01/2036	1,015,000	4.000%	172,200	1,187,200
12/01/2037	1,055,000	4.000%	131,600	1,186,600
12/01/2038	1,095,000	4.000%	89,400	1,184,400
12/01/2039	1,140,000	4.000%	45,600	1,185,600
Total	\$19,999,988	-	\$9,633,899	\$29,633,887

Serial Bonds

CABs

Term Bonds

Sample Sources and Uses

A Community Near You	
\$19,999,988	
Capital Improvements Bonds, Series 2015	
Rated: Aa2/AA/AA	
Sources & Uses	
Dated 02/15/2015 Delivered 02/15/2015	
Sources Of Funds	
Par Amount of Bonds	\$19,999,988.00
Reoffering Premium	163,187.60
Total Sources	\$20,163,175.60
Uses Of Funds	
Total Underwriter's Discount (0.450%)	89,917.60
Bond Counsel	35,000.00
Paying Agent	3,000.00
Rating Agency Fee	20,000.00
Travel	2,000.00
POS/Official Statement	2,500.00
OMAC	7,000.00
CUSIPs	800.00
Miscellaneous	1,500.00
Deposit to Project Construction Fund	20,000,000.00
Contingency	1,458.00
Total Uses	\$20,163,175.60

Typical costs of Issuance. Amount dependent upon the size of the bond issue.

Prepare Disclosure



Issuer

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

Underwriter

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

PRELIMINARY OFFICIAL STATEMENT DATED NOVEMBER 8, 2001

NEW ISSUE

Washington Township, Ohio
General Obligation (Unlimited Tax)
Township Facilities Improvement Bonds

November 15, 2001, as to Current Interest Bonds

Official Statement
\$10,150,000
Washington Township, Ohio
General Obligation (Unlimited Tax)
Township Facilities Improvement Bonds

Principal and Interest due on the Current Interest Bonds will be payable on the regular payment dates (12) of the original term of the bonds, commencing on the date of the first interest payment and continuing until the principal amount of the bonds has been paid in full. The bonds are subject to the provisions of the Ohio Revised Code, Chapter 133, and the provisions of the Ohio Revised Code, Chapter 133, relating to the payment of interest on the bonds, and the provisions of the Ohio Revised Code, Chapter 133, relating to the payment of principal on the bonds.

PRINCIPAL MATURITY SCHEDULE
ON DECEMBER 1

\$640,000 CURRENT INTEREST SERIAL BONDS				\$640,000 CAPITAL APPRECIATION BONDS			
Year	Amount	Interest Rate	Price or Yield	Year	Amount	Interest Rate	Price or Yield
2002	80,000	%	%	2008	80,000	%	%
2003	80,000	%	%	2009	80,000	%	%
2004	80,000	%	%	2010	80,000	%	%
2005	80,000	%	%	2011	80,000	%	%

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

County Auditor

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

Debt Issuance Exercise

Bond Pricing Review

Bond Issuance Overview

REFUNDING BONDS

- ◉ ***Current Refunding*** – A refunding transaction where the municipal securities being refunded will all mature or be redeemed within 90 days or less from the date of issuance of the refunding issue.

Bond Issuance Overview

REFUNDING BONDS

- ◉ ***Advance Refunding*** – For purposes of certain tax and securities laws and regulations, a refunding in which the refunded issue remains outstanding for a period of more than 90 days after the issuance of the refunding issue.
 - Escrow Fund
 - Only one opportunity to “Advance Refund”

Bond Issuance Overview

\$13,210,000

A Community Near Year

Refunding of Series 2005 3.31.2015

Outstanding: \$13,210,000

Debt Service Comparison

Date	Total P+I	Existing D/S	Net New D/S	Old Net D/S	Savings
11/15/2015	238,138.47	1,341,300.00	1,579,438.47	1,688,175.00	108,736.53
11/15/2016	770,950.00	-	770,950.00	958,750.00	187,800.00
11/15/2017	773,600.00	-	773,600.00	960,500.00	186,900.00
11/15/2018	508,400.00	-	508,400.00	666,500.00	158,100.00
11/15/2019	508,400.00	-	508,400.00	666,500.00	158,100.00
11/15/2020	508,400.00	-	508,400.00	666,500.00	158,100.00
11/15/2021	508,400.00	-	508,400.00	666,500.00	158,100.00
11/15/2022	508,400.00	-	508,400.00	666,500.00	158,100.00
11/15/2023	508,400.00	-	508,400.00	666,500.00	158,100.00
11/15/2024	2,173,400.00	-	2,173,400.00	2,361,500.00	188,100.00
11/15/2025	2,106,800.00	-	2,106,800.00	2,291,750.00	184,950.00
11/15/2026	2,105,200.00	-	2,105,200.00	2,291,250.00	186,050.00
11/15/2027	2,106,000.00	-	2,106,000.00	2,291,500.00	185,500.00
11/15/2028	2,109,000.00	-	2,109,000.00	2,292,250.00	183,250.00
11/15/2029	2,109,000.00	-	2,109,000.00	2,293,250.00	184,250.00
11/15/2030	2,106,000.00	-	2,106,000.00	2,294,250.00	188,250.00
Total	\$19,648,488.47	\$1,341,300.00	\$20,989,788.47	\$23,722,175.00	\$2,732,386.53

PV Analysis Summary (Net to Net)

Gross PV Debt Service Savings	2,131,657.55
Net PV Cashflow Savings @ 3.228%(AIC)	2,131,657.55
Contingency or Rounding Amount	3,715.93
Net Present Value Benefit	\$2,135,373.48
Net PV Benefit / \$13,875,000 Refunded Principal	15.390%
Net PV Benefit / \$13,210,000 Refunding Principal	16.165%

Per GFOA, the Industry benchmark a refinancing should achieve is at least **3%** Net Present Value Savings or Benefit

Debt Issuance Exercise

Rating Scales

Credit Rating



Bond Rating Services

			
Best Quality	Aaa	AAA	AAA
	Aa1	AA+	AA+
High Quality	Aa2	AA	AA
	Aa3	AA-	AA-
	A1	A+	A+
Upper Medium Grade	A2	A	A
	A3	A-	A-
	Baa1	BBB+	BBB+
Medium Grade	Baa2	BBB	BBB
	Baa3	BBB-	BBB-

(Lower Interest Rates) ↑

Credit Rating Process



- Inform Agency of Upcoming Sale
- Provide Necessary Information
 - Financial Statements, Budgets, Audits, POS
- Analyst Performs Review
- Issuer Financing Team Interaction with Analyst
 - Presentation or Conference Call
 - Follow-up Questions and Clarifications
- Credit Committee Presentation
- Rating Determination & Issuer Credit Report

Rating Factors

- Demonstrate your ability to manage entity finances.
 - Show non-traditional sources of liquidity, if any.
 - Establish a policy for end-of-year carryover balance.
- Describe the ongoing efforts to maintain voter support for levies.
 - Emphasize the quality of the educational “product” provided.
- 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.
- Maintain an ongoing and consistent relationship with the rating analysts.

Rating Factors

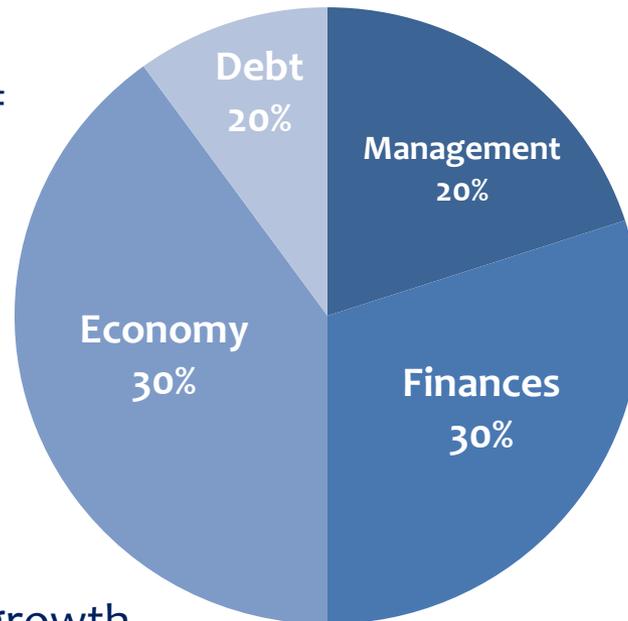
Four Primary Credit Factors¹

Debt

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

Economy

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



Management

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

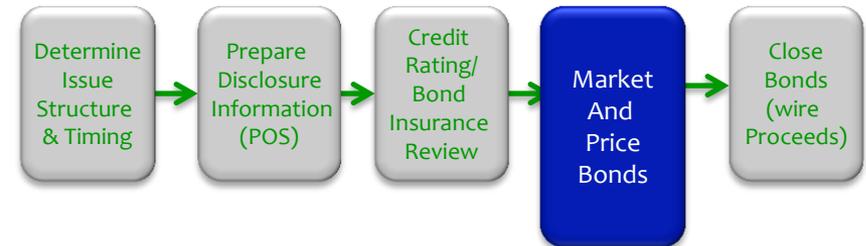
Finances

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

Marketing the Bonds

- Active Pre-Marketing

- Investment Broker Prospecting
- Branch manager memorandum
- Sales force conference call



- Wide Distribution

- Institutions
- Banks
- Individual Investors



Where the Buyers Tend to Concentrate Their Purchases

	Maturity	Type of Bond	Coupon	Yield	Maturity Value	
Trust Depts	12/01/2015	Serial Coupon	2.000%	0.800%	75,000.00	Retail
	12/01/2016	Serial Coupon	2.000%	1.050%	150,000.00	
	12/01/2017	Serial Coupon	2.000%	1.380%	165,000.00	
	12/01/2018	Serial Coupon	2.500%	1.730%	180,000.00	
	12/01/2019	Serial Coupon	3.000%	2.050%	200,000.00	
	12/01/2020	Serial Coupon	3.000%	2.400%	215,000.00	
	12/01/2021	Serial Coupon	4.000%	2.650%	235,000.00	
	12/01/2022	Serial Coupon	4.000%	2.880%	255,000.00	
	12/01/2023	Serial Coupon	4.000%	3.030%	280,000.00	
	12/01/2024	Serial Coupon	4.000%	3.180%	305,000.00	
Bond Funds	12/01/2025	Serial Coupon	4.000%	3.380%	330,000.00	Inv Advisors
	12/01/2026	Serial Coupon	4.000%	3.600%	360,000.00	
	12/01/2027	Serial Coupon	4.000%	3.800%	385,000.00	
	12/01/2028	Serial Coupon	4.000%	3.980%	420,000.00	
	12/01/2029	Serial Coupon	4.250%	4.130%	450,000.00	
	12/01/2030	Serial Coupon	4.375%	4.250%	485,000.00	
	12/01/2032	Term 1 Coupon	5.000%	3.980%	1,020,000.00	
	12/01/2035	Term 2 Coupon	5.000%	4.350%	1,875,000.00	
	12/01/2038	Term 3 Coupon	4.750%	4.930%	2,355,000.00	
		Total	-	-	-	

Holders of the Municipal Bonds

L.211 Municipal Securities and Loans

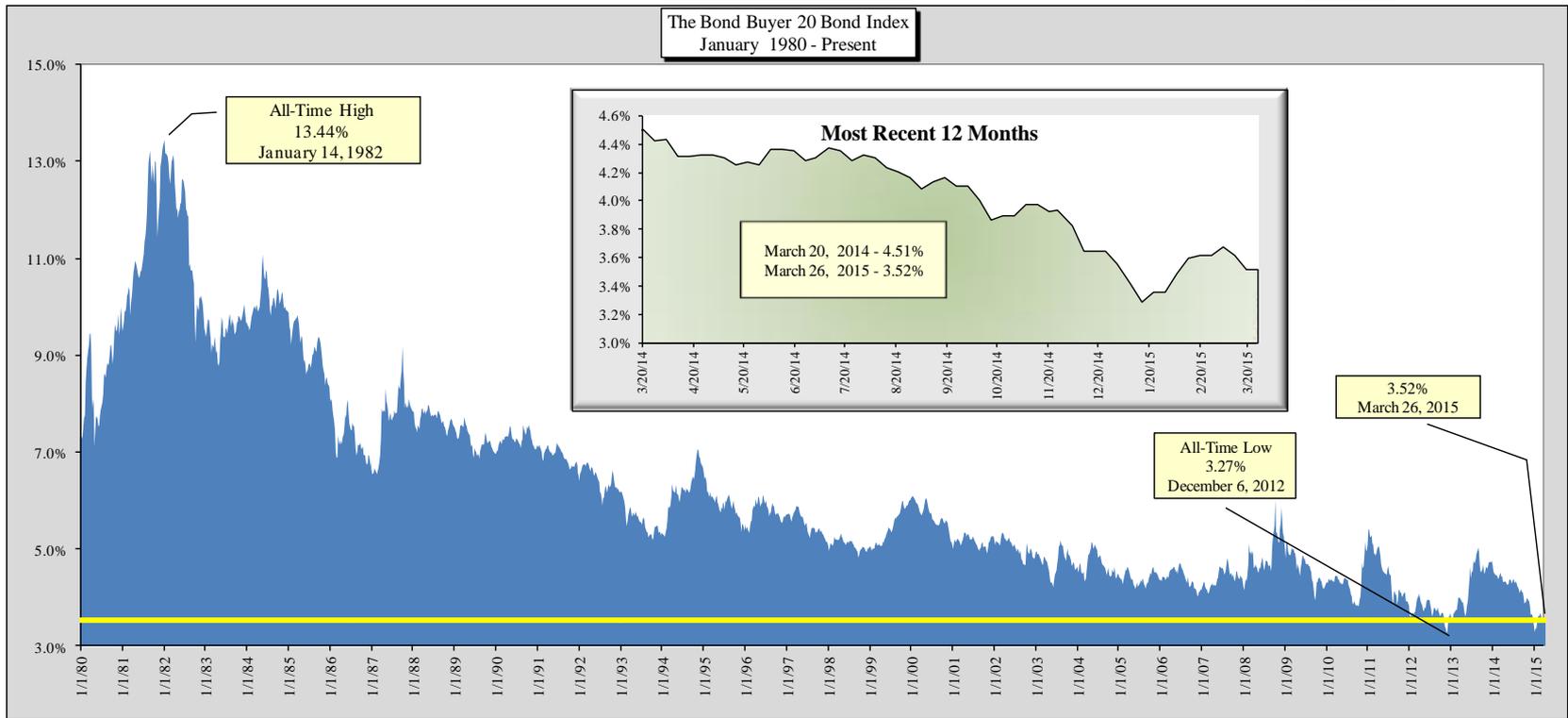
Billions of dollars; amounts outstanding end of period, not seasonally adjusted

	2010	2011	2012	2013	2013				2014			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	
1 Total liabilities	3772.1	3719.4	3714.4	3671.2	3728.6	3721.1	3685.7	3671.2	3660.8	3661.4	3631.1	1
2 State and local governments	3023.6	2970.0	2964.3	2924.9	2978.9	2970.4	2937.0	2924.9	2915.5	2918.0	2891.8	2
3 Short-term (1)	63.0	52.3	56.1	45.3	54.5	39.4	46.0	45.3	43.0	33.6	37.0	3
4 Long-term	2960.6	2917.6	2908.2	2879.6	2924.4	2931.0	2891.0	2879.6	2872.5	2884.4	2854.8	4
5 Nonprofit organizations (2)	263.2	255.5	241.0	227.8	239.4	235.7	232.4	227.8	227.6	227.0	224.6	5
6 Nonfinancial corporate business (industrial revenue bonds)	485.4	493.9	509.1	518.5	510.4	515.0	516.4	518.5	517.7	516.4	514.8	6
7 Total assets	3772.1	3719.4	3714.4	3671.2	3728.6	3721.1	3685.7	3671.2	3660.8	3661.4	3631.1	7
8 Household sector	1871.5	1805.9	1662.1	1618.2	1669.7	1665.4	1640.8	1618.2	1609.1	1604.1	1557.6	8
9 Nonfinancial corporate business	23.9	22.3	22.9	11.5	13.8	13.8	14.0	11.5	9.8	8.7	7.3	9
10 Nonfinancial noncorporate business	5.6	5.7	5.8	5.9	5.8	5.8	5.8	5.9	5.9	6.0	6.0	10
11 State and local governments	12.9	13.2	13.7	13.9	14.0	14.0	13.9	13.9	14.1	13.6	13.3	11
12 Rest of the world	71.7	72.4	71.8	76.1	72.5	73.5	74.9	76.1	76.9	77.4	74.0	12
13 U.S.-chartered depository institutions	254.6	297.3	365.0	418.9	376.2	392.3	406.4	418.9	425.2	429.9	440.4	13
14 Foreign banking offices in U.S.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14
15 Banks in U.S.-affiliated areas	2.5	3.4	2.6	3.6	2.7	2.7	3.5	3.6	3.4	2.7	2.6	15
16 Credit unions	0.0	3.2	4.2	4.6	5.3	5.0	5.4	4.6	4.5	4.9	5.0	16
17 Property-casualty insurance companies	348.4	331.0	328.1	325.8	327.8	327.4	326.8	325.8	325.8	325.8	326.5	17
18 Life insurance companies	112.3	121.8	131.5	141.6	134.1	136.8	138.8	141.6	143.9	146.8	148.0	18
19 State and local govt. retirement funds	2.3	1.6	0.9	1.2	0.8	1.2	1.1	1.2	1.0	1.0	1.0	19
20 Money market mutual funds	386.7	357.3	336.7	308.3	312.6	309.6	305.2	308.3	296.4	281.4	278.7	20
21 Mutual funds	525.5	541.2	627.4	613.9	646.6	641.0	620.7	613.9	618.2	630.4	645.4	21
22 Closed-end funds	81.6	82.5	85.9	84.3	86.4	86.2	84.8	84.3	85.2	85.8	84.2	22
23 Exchange-traded funds	7.6	8.6	12.3	11.4	13.0	12.5	11.5	11.4	11.8	12.6	13.4	23
24 Government-sponsored enterprises	24.9	21.0	17.0	13.4	16.3	14.8	13.8	13.4	12.7	12.2	11.4	24
25 Brokers and dealers	40.0	30.9	26.6	18.6	31.0	19.0	18.3	18.6	16.9	18.2	16.2	25

(1) Debt with original maturity of 13 months or less.

(2) Liability of the households and nonprofit organizations sector (tables F.100 and L.100).

Pricing the Bonds



Bonds: General obligation bonds maturing in 20 years are used to compile this index. The Index has an average rating roughly equivalent to Moody's Aa2 and S&P AA.

Pricing Comparisons/Price Views

City #1					City #2					
Issuer:		City #1			Issuer:		City #2			
Lead Manager:		Underwriter A			Lead Manager:		Underwriter B			
Issuance:		Series 2012, LTGO Capital Improvement and Refunding Bonds			Issuance:		Series 2012C, Hospital Revenue Bonds			
Rating (Moody's/S&P/Fitch):		A2/A-/-			Rating (Moody's/S&P/Fitch):		A2/A-/-			
Dated Date:		10/9/2012			Dated Date:		10/23/2012			
Par Amount:		\$38,705,000			Par Amount:		55,825,000			
Maturity (12/1)	MMD (9/20/2012)	Spread	Coupon	Yield	Maturity (1/15)	MMD (9/13/2012)	Spread	Coupon	Yield	Difference (Spread)
2013	0.20%	40 bps	3.00%	0.60%	2013	0.20%	-	-	-	-
2014	0.29%	58 bps	3.00%	0.87%	2014	0.29%	-	-	-	-
2015	0.36%	73 bps	3.00%	1.09%	2015	0.38%	-	-	-	-
2016	0.46%	87 bps	3.00%	1.33%	2016	0.50%	-	-	-	-
2017	0.69%	97 bps	3.00%	1.66%	2017	0.72%	-	-	-	-
2018	0.93%	104 bps	3.00%	1.97%	2018	0.97%	-	-	-	-
2019	1.21%	109 bps	5.00%	2.30%	2019	1.25%	-	-	-	-
2020	1.45%	113 bps	5.00%	2.58%	2020	1.48%	117 bps	3.00%	2.65%	4 bps
2021	1.67%	120 bps	2.75%	2.87%	2021	1.71%	122 bps	3.50%	2.93%	2 bps
2022	1.81%	120 bps	2.75%	3.01%	2022	1.84%	127 bps	3.00%	3.11%	7 bps
2023	1.94%	123 bps	3.00%	3.17%	2023	1.97%	132 bps	3.25%	3.29%	9 bps
2024	2.02%	125 bps	3.00%	3.27%	2024	2.05%	137 bps	3.38%	3.42%	12 bps
2025	2.08%	125 bps	3.13%	3.33%	2025	2.13%	136 bps	3.38%	3.49%	11 bps
2026	2.15%	124 bps	3.13%	3.39%	2026	2.20%	135 bps	3.50%	3.55%	11 bps
2027	2.21%	123 bps	3.25%	3.44%	2027	2.26%	135 bps	3.50%	3.61%	12 bps
2028	2.27%	126 bps	3.38%	3.53%	2028	2.32%	135 bps	3.63%	3.67%	9 bps

Closing the Bond Issue

Closing Activities



Underwriter wires funds to issuer.

Issuer confirms to the underwriter that all funds are received.

Bond counsel confirms everything is in place for closing.

Underwriter & Paying Agent call Depository Trust Company (DTC) to release the bonds to investors.

Securities Law

- Continuing Disclosure Annual Requirement
 - Annual financial information and/or operating data must be provided annually (MSRB-EMMA electronic system).
 - After the current issuance of the security, if the issuer has in outstanding debt:
 - \$10,000,000 or more: Financial & Operating Data
 - Less than \$10,000,000: Only Financial Information

Questions



- (a) Fifth Third Securities is not recommending an action to you as the municipal entity or obligated person^[1];
(b) Fifth Third Securities is not acting as an advisor to you and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to you with respect to the information and material contained in this communication; (c) Fifth Third Securities is acting for its own interests; and (d) you should discuss any information and material contained in this communication with any and all internal or external advisors and experts that you deem appropriate before acting on this information or material.

^[1] Drafting Note: Exclude (a) if within MA exception (i.e. RFP response, IRMA, engaged as underwriter). Consider timing of sending Rule G-17 disclosures.

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