Municipal Employees' Retirement System

2019
Annual
Retirement
Conference

Considering Bonding?

Moderated by:

Leon Hank
MERS Chief Financial Officer

Introductions

Harlan Goodrich
Municipal Finance Manager
Michigan Department of Treasury

Tim Vagle
Director of Finance
City of Holland

Kari Blanchett
Managing Director
PFM Financial Advisors, LLC

Agenda

- Overview and research of pension obligation bonds
- Overview of the law, requirements and processes for issuing a pension obligation bond
  - *Harlan Goodrich, Michigan Department of Treasury*
- One city's pension obligation bond experience
  - *Tim Vagle, City of Holland*
- Working with a bonding consultant – what to expect
  - *Kari Blanchett, PFM consultant*

What is a Pension Obligation Bond?

- A pension obligation bond (POB) is a state or local government bond issued to help finance unfunded accrued liability (pension debt)
  - Since 1986, POBs must be taxable
  - When issued, an employer trades a “soft” debt for a “hard” debt
- Conceptually, POBs can save employers money, but there are risks
- This is a complex finance and business decision

Within MERS, 16 local units have bonded for pension debt in the last five years

** As of 7/31/2019*

Research and Issue Papers

CENTER *for* RETIREMENT RESEARCH at BOSTON COLLEGE

AN UPDATE ON PENSION OBLIGATION BONDS

Government Finance Officers Association

ADVISORY

Pension Obligation Bonds

An Update on Pension Obligation Bonds

Center for Retirement Research at Boston College, July, 2014

Reviewed $100B in 5,019 bond deals by 529 governments

Government Finance Officers Association (GFOA) Advisory

March 27, 2015

"…GFOA recommends that state and local governments do not issue POBs…"

Commentary In Defense of Pension Obligation Bonds

In Defense of Pension Obligation Bonds

The Bond Buyer, March 10, 2015

MERS Municipal Employees' Retirement System

Study: How POBs Have Fared

CENTER for RETIREMENT RESEARCH at BOSTON COLLEGE

"…as of February 2014, the majority of POBs have produced positive returns due to the large market gains that followed the crisis. Only those bonds issued at the end of the market run-up of the 1990s, and those issued right before the crash in 2007, have produced a negative return; all others are in the black."

Munnell, Alicia H.; Aubry, Jean-Pierre and Cafarelli, Mark. *An update on Pension Obligation Bonds,* Center for Retirement Research at Boston College, July 2014.

MERS Municipal Employees' Retirement System

MERS' Role in the POB Process

- As the plan fiduciary, MERS accepts responsibility for:
  - Investing the assets
  - Administering the plan
  - Ensuring assumptions are reasonable
- MERS provides education and information related to the overall POB process
- MERS partners with Treasury, financial consultants and actuarial experts to provide the required information

Overview of the Law, Requirements and Processes

Harlan Goodrich,
Michigan Department of Treasury

Michigan Department of TREASURY

Pension/OPEB Bonds

Harlan Goodrich

Municipal Finance Manager

October 3, 2019

Pension/OPEB Bonds

- Treasury does not advocate for or against the issuance of pension/OPEB bonds
- It is a local decision, with the risks/rewards being weighed by the local governing body

Statutory Authority

- Revised Municipal Finance Act, Public Act 34 of 2001
- Section 518 added October 17, 2012 (Public Act 329 of 2012)
- Section 518 sunsets December 31, 2023

Statistics

- Treasury has approved 26 pension applications for $560 million
  - 13 counties, 3 townships, 10 cities
  - Largest $81 million, Average $21 million, Smallest $2 million
  - 3 AAA, 22 AA, 1 A
- Treasury has approved 9 OPEB applications for $934 million
  - 2 counties, 1 township, 6 cities
  - Largest $350 million, Average $103 million, Smallest $7 million
  - 1 AAA, 8 AA

Statutory Requirements *1 of 3*

- County, city, village or township
- Close defined benefit plan and open defined contribution plan (not hybrid)
- Hybrid plan = defined benefit plan
- Prepare Comprehensive Financial Plan (CFP)
- Governing body approves CFP
- Post CFP on website and make available for review at clerk's office
- Publish notice of intent in local newspaper, wait 45 days for possible petition for referendum

Statutory Requirements *2 of 3*

- Credit rating of A-/A3 or higher
- Plans with 100+ members shall have a review of benefits within one year prior to bond issuance (are members receiving the benefits they're supposed to be receiving)

Statutory Requirements *3 of 3*

- Can issue bonds up to an amount adequate to fund your plan up to 95% for pension bonds and up to 60% for OPEB bonds. Example: If your pension plan has assets of $50 million and liabilities of $100 million, it can issue up to $45 million in pension bonds (50 + 45 = 95/100 = 95% funded)
- Can't change benefit structure or rescind closure of DB plan after bonding
- Bonds shall not mature beyond date final amortized pension/OPEB payment would have been made

Comprehensive Financial Plan *1 of 3*

- Analysis of all pension and OPEB plans, including those being bonded for and those not being bonded for
- Debt limit calculation (10% of SEV)
- Bonds shall not capitalize interest
- Bonds shall not fund past due Actuarially Determined Contribution (ADC) payments
- Level or descending annual debt service payments
- NPV savings of at least 15% of par for pension bonds and 20% of par for OPEB bonds

Comprehensive Financial Plan *2 of 3*

- Comparison of current rate of return assumption to actual rate of returns for past year, 5 years, and 10 years
- The following acknowledgment: *Since the actuarial value of the defined benefit plan or postemployment health care plan's assets and liabilities are subject to change, the county, city, village, or township acknowledges that it is possible the unfunded accrued pension liability or unfunded accrued heath care liability may increase after the issuance of the municipal security, thereby requiring the county, city, village, or township to make additional actuarially determined amortization payments to the defined benefit plan or post-employment health care plan beyond the principal and interest payments due on the municipal security.*

Comprehensive Financial Plan *3 of 3*

- Certification that 100% of total ADC payments over the past three years have been made (per most recent audit, pension only)
- Certification of compliance with Public Act 202 of 2017, the Protecting Local Government Retirement and Benefits Act
- Certification that the CFP is complete and accurate

Interested in Bonding?

- Call or email to discuss
- 517-335-7469
- Treas_MunicipalFinance@Michigan.gov
- Michigan.gov/MunicipalFinance
- Bulletin 11
- Contact Bond Counsel and Financial Advisor

Applying to Treasury

- Application for State Treasurer’s Approval to Issue Pension or Other Post-Employment Benefits (OPEB) Long-Term Securities (Form 5366)
- Budget 75 days to receive Treasury approval (application in, approval letter out)
- Meeting between municipality and Treasury staff in Lansing to discuss the bond issuance and address any questions

Items to Submit *1 of 2*

- Application – Form 5366
- Qualifying Statement (compliance letter if needed)
- Local Governing Body Resolution Approving Bond Issuance (certified by clerk)
- Certification of plan benefit review (100+ members)
- Local Governing Body Resolution Approving CFP (certified by clerk)
- Comprehensive Financial Plan
- Proof of Notice of Intent and Certificate of No Referendum (45 days)

Items to Submit *2 of 2*

- Documentation of credit rating
- Debt Service Schedules
- NPV Savings Sensitivity Analysis
- Filing Fee
- Prior to bond issuance, notification of funding methodology (actuarial value of assets or market value of assets) and par amount of bonds
- After bond issuance, file a Security Report and supporting documentation

Net Present Value Savings Sensitivity Analysis

- Use debt service schedules and plan rates of return to calculate NPV savings

NPV Savings	Current IR	Current IR+50 BPS	Current IR-50 BPS
Expected UAL ROR			
Expected UAL ROR-100 BPS			
Expected UAL ROR-200 BPS			

Actuarial Value or Market Value?

- Actuarial Value determined from most recent actuarial report
- Market Value determined within 150 days of issuance
- If issuing on the higher of the two UAL values, provide an explanation in the CFP

Other Things

- Do not have to close all divisions to bond; however, may only bond for closed divisions
- Bonds are federally taxable and state tax exempt

One City's POB Experience

Tim Vagle
City of Holland

Holland
MICHIGAN

MERS Annual Conference
Considering Bonding?

- October 3, 2019
- Grand Traverse Resort

Holland's Pension Story

- Two pension bond issues
- All defined benefit groups are now closed

Holland MICHIGAN

Series 2015 - $25 million

- For all groups closed since 2003
- 11-year term
- Funded 100% of actuarial asset value
- *Projected savings of $5 million*

Series 2018 - $20 million

- Public safety groups closed in 2017
- 22-Year Term
- Funded 100% of market asset value
- *Projected savings of $15 million*

Current Funding Status (12/31/18)

- Overall 93.8%
- Police 94.9%
- Fire 98.7%
- 5 Non-Union Groups (88.8% - 96%)

Current Funding Status (12/31/18)

- $8.6 million underfunded

  Actuarial Valuation of Assets (Series 2015)

  Changes in actuarial assumptions

  Earnings lower than projections

- City proactively made additional $500,000 contribution at FY2019 year end

How DB Pensions Work

- Large amount of cash is accumulated over working career to pay out promised benefit until death of all beneficiaries
- Holland needs $150 million to pay promises
- 240 retirees
- 90 active employees

Two Parts of MERS DB Payments

Normal Costs	For this year's cost to provide lifetime benefits
+ Unfunded Accrued Liability (UAL)	For the amount less than 100% funded
= Annual Required Contribution (ARC)	

Impact of High UAL (underfunded)

- Prior to issuing the POBs, for each DB pension dollar sent to MERS for firefighters
  - $0.18 was for normal costs
  - ***$0.82 was for UAL***
- Firefighter staff was reduced in Great Recession, but the pension costs escalated

Decision to Issue Pension Debt

- Budget driven decision

  Flat revenues/double digit pension increases
- Payments to MERS

  2005 *$1.5 million*

  2014 *$3.9 million*

  UAL $14M in 2009 (76% funded)

  2014 $26M (66% funded)

Preliminary Analysis

- Paid MERS for 20/30/40 year payment projection study

  After 40 years the UAL was slightly less

  (MERS has since changed their policies)
- 8% projected earnings/debt interest 3%
- Flattened double digit pension increases

Additional Analysis

- Financial Advisor assisted in preparation of Comprehensive Financial Plan which confirmed specific savings by issuing Pension Obligation Bonds.

  Payment to MERS without Debt

  Projected Payment for Debt Service plus MERS

Additional Analysis (cont.)

- Projected savings of $5 million for non-union groups (2015 pension debt)
- Projected savings of $15 million for public safety groups (2018 pension debt)

Additional Analysis (cont.)

- GFOA advises against POBs
- Considered the impact of taking on additional debt vs. unfunded liabilities
- Holland decided to proceed with debt

Build Support/Education

- Get elected officials and manager on board
- Suggested content for public education
  - ✓ Legal authority (PA 329)
  - ✓ Defined benefit vs. defined contribution pensions
  - ✓ Reason defined benefit plan is underfunded
  - ✓ What government as done to reduce pension liability
  - ✓ Potential cost savings by bonding
  - ✓ Possibility the plan could become underfunded in the future

It's Complicated – Get Some Help

- Financial advisor

  Analysis/comprehensive financial plan/bonds

- Bond counsel

  Not just legal details but also good counsel

Experts know what to do, when and how!

Contact Information

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Working with a Bond Consultant – What to Expect

Kari Blanchett
PFM Financial Advisors, LLC

Key Participants

Issuer / Municipality

Municipal Advisor

- ✓ Serves in a fiduciary capacity to look out for the best interest of the municipality
- ✓ Provides municipality information to assist in analyzing the benefits and risks associated with bonding
- ✓ Prepares schedules / savings analysis*
- ✓ Assist in preparing required Comprehensive Financial Plan
- ✓ Assists with Treasury process
- ✓ Coordination of rating process
- ✓ Assist in coordinating the preparation of the Official Statement
- ✓ Assist with the bond pricing
- ✓ Assist with final bond sizing and structure
- ✓ Prepares final estimated savings analysis*
- ✓ Does not underwrite / buy the bonds

Bond Counsel

- ✓ Works closely with and represents the interests of the municipality
- ✓ Reviews and provides counsel for compliance with state and federal laws
- ✓ Prepares legal documents on behalf of the municipality
- ✓ Reviews comprehensive financial plan for legal compliance
- ✓ Reviews official statement and purchase contract

Bond Underwriter

- ✓ Underwrites/purchases the bonds for sale to investors
- ✓ Stands between the municipality (issuer) and the investors
- ✓ Owes the issuer and investors a duty of fair dealing
- ✓ Does not have a fiduciary responsibility to the municipality
- ✓ Assists with the preparation of the official statement.

Other Participants

- Department of Treasury
- Rating Agency(ies)
- Actuary
- MERS
- Underwriter's Counsel
- Paying Agent
- Credit Enhancers

** Based on information provided by municipalities actuary and estimated or actual bond interest rates.*

Determining Bond Size

- The recent amendments[1] limit the bond amounts to **funding levels** of:
  - **95% of pension liabilities / 60% of OPEB liabilities**
- In determining the funding level and bond amount, the following may be used:
  - Actuarial Value of Assets (using a smoothing of investment losses and/or gains)
  - Market Value of Assets within 150 days of the bond closing
  - Cost of issuance of the bonds
  - Bonds may NOT include capitalized interest (interest payments on bonds)

Example

		Pension Bonds		OPEB Bonds
	Description	Using Actuarial Value of Assets	Using Market Value of Assets	Using Actuarial/Market Value of Assets
(a)	Actuarial Accrued Liability (ALL)	$11,412,247	$11,412,247	$15,000,000
(b)	Maximum % Funding Level for Bonding	95.00%	95.00%	60.00%
(c)	Maximum Funding Level for Bonding in Dollars (a x b)	$10,841,635	$10,841,635	$9,000,000
(d)	Less: Value of Assets	$5,342,974	$5,090,470	$5,000,000
(e)	Maximum Unfunded Liability to be Bonded (c - d)	$5,498,661	$5,751,165	$4,000,000
(f)	Plus: Estimated Issuance Cost*	$91,339	$93,835	$100,000
(g)	Maximum Estimated Bond Amount (e + f)	$5,590,000	$5,845,000	$4,100,000
(h)	Funding Level After Bonding (d + e / a)	95.00%	95.00%	60.00%
(i)	Funding Level Before Bonding (d / a)	46.82%	44.61%	33.33%

* *Includes estimated underwriting discount*

NOTE: No differential is shown between actuarial value and market value for OPEB example, as OPEB typically does not use a smoothing period.

Source: Act 575 of 2018, Public Acts of Michigan, which amended Act 329 of 2012, Public Acts of Michigan (together, the "Act").

Net Present Value Savings Calculation

Example

A	B	C	D (B+C)	E	F	G (E+F)	H	I	J (=C)	K (G+H+I+J)	L (K-D)	M
Year Ending 12/31	**UAAL Amortization Payment <1>**	**Normal Cost <2>**	**UAAL Payments plus Normal Cost**	**Principal Due May. 1**	**May 1 & Nov. 1 Interest Payments**	**Bond Payments <3>**	**Remaining UAL Payments <4>,<5>**	**"UAL Payments Already Made <6>**	**Normal Cost <2>**	**Bond Payments + Remaining UAL Payments + Normal Cost**	**Estimated Nominal Savings**	**NPV Savings @ 2.757% <7>**
2019	$ 408,800	$ 48,156	**$ 456,956**	--	--	$0	$13,520	$272,533	$48,156	**$334,209**	**$122,747**	**121,789**
2020	430,600	43,340	**473,940**	175,000	168,591	343,591	42,723	--	43,340	**429,654**	**44,286**	**42,754**
2021	446,500	39,006	**485,506**	200,000	146,430	346,430	44,300	--	39,006	**429,736**	**55,770**	**52,387**
2022	463,500	35,106	**498,606**	210,000	142,084	352,084	45,987	--	35,106	**433,176**	**65,429**	**59,800**
2023	480,600	31,595	**512,195**	220,000	137,526	357,526	47,684	--	31,595	**436,804**	**75,391**	**67,044**
2024	497,800	28,436	**526,236**	230,000	132,756	362,756	49,390	--	28,436	**440,581**	**85,654**	**74,114**
2025	517,000	25,592	**542,592**	240,000	127,726	367,726	51,295	--	25,592	**444,613**	**97,979**	**82,489**
2026	536,300	23,033	**559,333**	250,000	122,371	372,371	53,210	--	23,033	**448,614**	**110,719**	**90,697**
2027	555,700	20,730	**576,430**	255,000	116,676	371,676	55,135	--	20,730	**447,540**	**128,889**	**102,730**
2028	577,200	18,657	**595,857**	265,000	110,564	375,564	57,268	--	18,657	**451,488**	**144,369**	**111,960**
2029	598,800	16,791	**615,591**	270,000	104,009	374,009	59,411	--	16,791	**450,210**	**165,380**	**124,791**
2030	621,500	15,112	**636,612**	275,000	97,127	372,127	61,663	--	15,112	**448,902**	**187,709**	**137,815**
2031	644,200	13,601	**657,801**	285,000	89,831	374,831	63,915	--	13,601	**452,347**	**205,454**	**146,769**
2032	668,100	12,241	**680,341**	290,000	82,183	372,183	66,287	--	12,241	**450,710**	**229,630**	**159,610**
2033	692,100	11,017	**703,117**	300,000	74,336	374,336	68,668	--	11,017	**454,021**	**249,096**	**168,464**
2034	719,200	9,915	**729,115**	310,000	66,223	376,223	71,357	--	9,915	**457,495**	**271,620**	**178,736**
2035	745,400	8,923	**754,323**	320,000	57,300	377,300	73,956	--	8,923	**460,180**	**294,144**	**188,331**
2036	772,700	8,031	**780,731**	330,000	47,550	377,550	76,665	--	8,031	**462,246**	**318,485**	**198,409**
2037	802,100	7,228	**809,328**	340,000	37,500	377,500	79,582	--	7,228	**464,310**	**345,018**	**209,133**
2038	830,700	6,505	**837,205**	350,000	27,150	377,150	82,419	--	6,505	**466,075**	**371,131**	**218,886**
2039	861,000	5,855	**866,855**	360,000	16,500	376,500	85,426	--	5,855	**467,780**	**399,074**	**229,011**
2040	438,500	5,269	**443,769**	370,000	5,550	375,550	43,507	--	5,269	**424,326**	**19,443**	**10,856**
		--							--	--		
	$13,308,300	**$434,137**	**$13,742,437**	**$5,845,000**	**$1,909,979**	**$7,754,979**	**$1,293,367**	**$272,533**	**$434,137**	**$9,755,017**	**$3,987,420**	**$2,776,574**

Estimated Net Present Value Savings <8>:	**$2,776,574**
Bond Amount <8>:	**$5,845,000**
NPV Savings / Par Amount <8>:	**47.50%**
Arbitrage Yield:	**2.757%**

<1> amortized payment only, do not include normal cost
<2> normal cost can be included for presentation purposes, but it's not required as it has no impact on NPV savings calculation
<3> debt service structured with approximately level or descending payments (excluding year one) - see Bulleting 11, page 2, B.2.
<4> PA 34 of 2001, Sec. 518 (1) and (2) prohibits bonding to fund up to 100% of UAL, therefore smaller UAL amortization payments will remain after bonding
<5> 4 months worth of UAL amortization payments for Sep 2019 - Dec 2019 made after bond issuance: 4/12 * 408,800 * 9.92% ≈ $13,520. 9.92% = (UAL remaining / UAL before bonding)
<6> 8 months worth of UAL amortization payments for Jan-Aug 2019 made prior to bond issuance in Sept 2019: 272,533 ≈ 8/12 * 408,800 (see column B)
<7> Each year NPV savings calculation discounted using arbitrage yield from bonds
<8> $2,776,574 / 5,845,000 = 47.50% - see PA 34 of 2001, Sec. 518 (5)(e)

Savings Comparisons at Various Rate of Returns

- The Michigan Department of Treasury requires scenario-analyses showing different combinations of bond interest rates and investment rate of returns for assets

Example

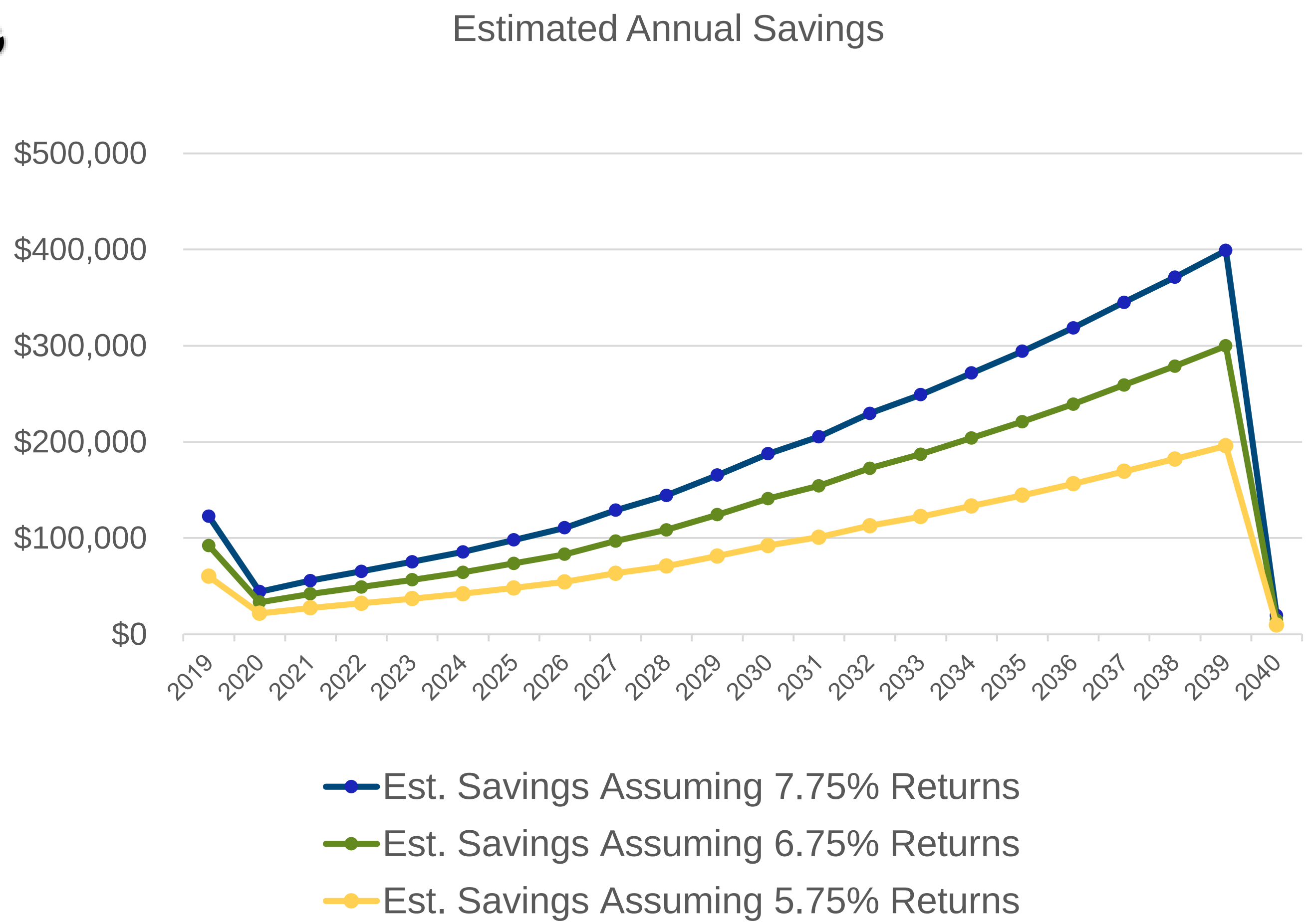
	Estimated Net Present Value Savings		
Unfunded Actarial Liability at Investement Rate of Return Assumptions of*	Current Bond Interest Rates - 0.50%	Current Bond Interest Rates**	Current Bond Interest Rates + 0.50%
Est. TIC	2.28%	2.78%	3.28%
7.75% (current actuarial ROR)	$3,323,188 / 56.86%	$2,776,574 / 47.50%	$2,269,060 / 38.82%
6.75% (current ROR - 100 bps)	$2,594,088 / 44.38%	$2,085,883 / 35.11%	$1,614,088 / 27.61%
5.75% (current ROR - 200 bps)	$1,831,433 / 31.33%	$1,363,579 / 23.33%	$929,308 / 15.90%
ROR = Rate of Return assumption	bps = basis points		

** Rate of return assumptions as provided in the Issuer's actuarial reports.*
*** Current bond interest rates reflect an Issuer's actual interest rates.*
Note: Bond size in this example is equal to $5,845,000

Savings Comparisons at Various Rate of Returns, Cont.

- Shows the impact on the projected savings with the change of investment rate of returns and bond rates

Example



Required Savings Percentages

- In order to issue bonds to fund a portion of the pension or OPEB liabilities, the Act requires that the debt issuance must produce the following net present value (NPV) savings:
  - **15%** for Pension / **20%** for OPEB
- As investment rate of return assumptions decrease and taxable bond interest rates rise, it will become more difficult for municipalities to achieve these minimum thresholds.
- The table below provides the actual results for financings completed on which PFM was municipal advisor since 2013, as well as the approximate impact on the savings if the rate of return assumption had been 1% lower.

Issuer	Funding Type	Assumed Investment ROR	Original Actual Est. Savings %*	Est. Savings % assuming ROR -1%**
1	OPEB	8.00%	15.55%	10.54%
2	Pension	7.50%	30.23%	17.83%
3	OPEB	7.50%	29.32%	17.01%
4	Pension	6.00%	36.43%	23.68%
5	Pension	8.00%	44.34%	31.92%
6	OPEB	7.50%	47.81%	34.90%
7	Pension	7.75%	25.01%	14.76%
8	OPEB	7.00%	36.57%	25.60%
9	Pension	7.75%	42.80%	30.82%
10	Pension	7.75%	17.67%	11.49%
11	Pension	7.50%	35.34%	23.68%
12	Pension	7.75%	53.86%	33.69%
13	Pension	7.75%	25.41%	17.55%
14	Pension	7.75%	43.49%	31.35%
15	OPEB	7.00%	27.83%	15.90%
16	Pension	7.00%	19.78%	13.26%
17	OPEB	7.00%	17.24%	9.68%
18	Pension	7.75%	47.50%	35.11%

Minimum NPV Savings Levels

Pension Bonds: 15%

OPEB Bonds: 20%

Note: red figures denote savings which
1. Would not have met new savings threshold; or
2. Would not have met new threshold if assumed rate of return had been 1% lower at time of issuance.

Issued under new legislation

** Does not include the impact of any refinancing issuances which may have occurred since the original issuance.*
***Source: supplemental actuarial reports and final payment schedules for the respective Issuer.*

Sample Debt Service

- Below are sample debt service payment schedules based on “A” and “AA” rated credits using taxable interest rates as of September 26, 2019 for 15 and 25 year bond terms at various bond amounts

Example

Assumed Rating	Bond Term	Bond Amount	Total Bond Payments	Estimated True Int. Cost	**Average Annual Payment**
"A"	25.00 yrs	$5,000,000	$7,221,213	3.08%	**$288,849**
		$10,000,000	$14,442,197	3.08%	**$577,688**
		$30,000,000	$43,327,642	3.08%	**$1,733,106**
"A"	15.00 yrs	$5,000,000	$6,154,755	2.75%	**$410,317**
		$10,000,000	$12,308,804	2.75%	**$820,587**
		$30,000,000	$36,923,884	2.75%	**$2,461,592**
"AA"	25.00 yrs	$5,000,000	$7,069,799	2.89%	**$282,792**
		$10,000,000	$14,141,535	2.89%	**$565,661**
		$30,000,000	$42,425,583	2.89%	**$1,697,023**
"AA"	15.00 yrs	$5,000,000	$6,081,532	2.59%	**$405,435**
		$10,000,000	$12,164,351	2.59%	**$810,957**
		$30,000,000	$36,486,617	2.59%	**$2,432,441**

Assumptions:
- Cost of Issuance and Underwriter’s Discount are estimated
- Assumes level annual debt service
- Interest rates estimated using U.S. Treasury rates as of 9-26-2019 plus average spread of 0.93% for "A" rated credit and 0.75% for "AA" rated credit

Pension / OPEB Bond Financing Steps

- The financing process shown below will typically take between 6 to 8 months to complete

FEASIBILITY
- Analyze benefit of issuing pension and/or OPEB bonds
- Closure of defined benefit plan
- Preparation, review and approval of Comprehensive Financial Plan
- Plan made available to public

LEGALS
- Adopt and publish notice of intent
- Right of referendum period expire
- Adopt bond authorizing resolution
- Prepare and file Treasury application package

BOND ISSUE PREPARATION
- Prepare and review Preliminary Official Statement
- Apply for bond rating / rating call
- Meet with Department of Treasury
- Receive Treasury approval

BOND SALE PROCESS
- Preliminary Official Statement published
- Underwriter markets bonds to potential investors
- Bond pricing / sale
- Bond purchase agreement signed / bonds awarded

POST SALE PROCESS
- Prepare final numbers / analysis
- Prepare and publish Final Official Statement
- Prepare closing documents
- Final numbers provided to Treasury

CLOSING / POST-CLOSING
- Bond proceeds received
- Bonds released to purchaser
- Net bond proceeds sent to pension / OPEB system or trust
- Bond proceeds invested

Rating Considerations for Issuance of Pension / OPEB Bonds

Debt Structure

- Rating agencies will analyze how the POB and/or OPEB bonds fit into the total debt structure, including a review of future capital requirements that may necessitate bonding, as well as other long-term liabilities

Overall Pension and OPEB Management Plan

- Will want to understand how the municipality will handle cost containment, workforce issues, supplemental annual funding, and policies to address future shortfalls

Budget Impact

- Affordability is a factor—the municipality's plan to fund the annual bond payments as well as any future annual required contributions
- What portion of the debt payments are not-self supporting as a percentage of General Fund revenues?

Amount and Timing of Savings

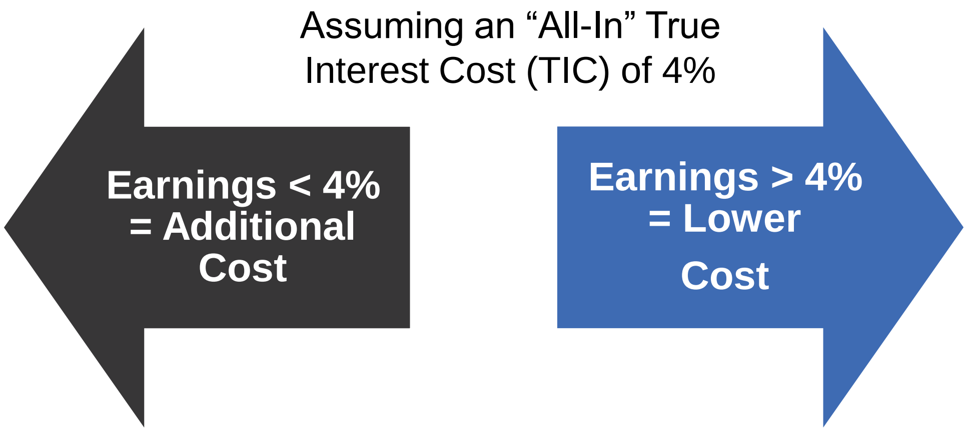
- Is there front-loading of savings? If so, what is the reason / strategy for the structure? (i.e. only reason allowed under State law is to wrap around other debt payments for first five years)

RISK of Pension and OPEB Bonds

- **Bonds are a hard cost**
  - Issuing Pension Obligation Bonds and/or OPEB Bonds creates a mandatory payment schedule for the issuer to repay the bonds, eliminating flexibility for the issuer to temporarily delay contributions, if necessary
- **Uses Debt Capacity that could be applied to other projects**
  - For entities with limited debt capacity, issuing POBs or OPEB Bonds could impact the municipality’s ability to finance other essential projects
- **Does not eliminate the possibility of a UAL payment if future investment earnings do not meet assumptions and/or other assumptions are changed in the future**
  - This would be the case regardless of the issuance of POBs or OPEB bonds
- **Actual returns may fail to exceed the cost of the debt service**
  - The size of the POBs and/or OPEB bonds should reflect a manageable debt service in case the investment returns do not achieve projections
- **Health care costs are volatile**
  - For OPEB bonds, health care costs can change rapidly, decreasing or increasing liability

Pension and OPEB Financing Risk Mitigation

- Issuer should be comfortable with the probability of the "all-in" true interest cost (including the cost of issuance) being lower than the investment earnings rate over the term of the bonds



- Creation of formal or informal stabilization fund
  - Funded from portion of savings generated by the issuance of bonds
  - Assist with funding of future additional ARC payments with fluctuation of UAL / Net Pension Liability

Considerations When Issuing Bonds to fund Pension / OPEB

- Has the municipality done everything within its power to reduce the liability?
- Has the municipality carefully considered the benefits and risks associated with issuing pension and/or OPEB bonds?
- Municipalities issuing bonds to fund pension or OPEB liabilities likely need to be prepared to take a long term view on the results of the strategy
- Should the municipality size the bonds based on the liability calculated using the actuarial or market value of assets?
  - If market value of assets, must be within 150 days of the bond closing
- How should the bond repayments be structured?
  - Should the bond payments be structured around existing debt for the initial five years, and if so, what is the impact on the bond interest rate?
- What is the impact on the ability of the municipality to issue needed debt in the future?

Disclosures

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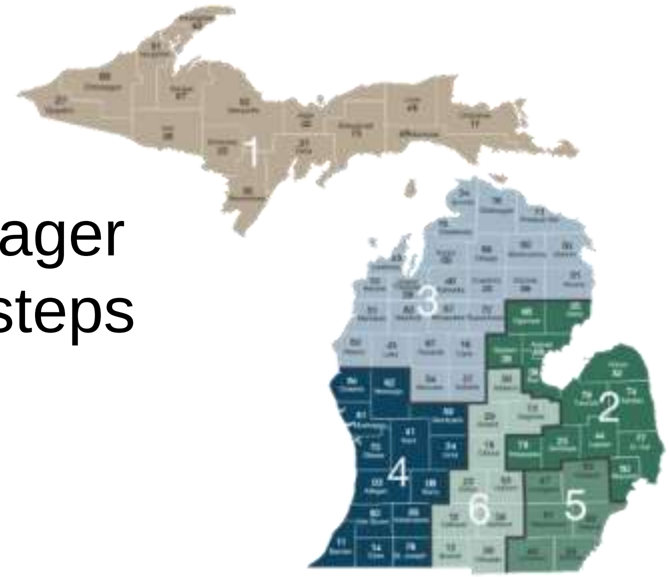
What’s Next?

Next Steps

Consider attending *Defined Benefit Mechanics Part 2 – Managing UAL*

Contact your Regional Manager to review options and next steps



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