

Belmont, Massachusetts

Pension Obligation Bonds Overview



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Presented by

Peter Frazier, Senior Vice President



Introduction

- Peter Frazier, Senior Vice President, First Southwest Company
 - 29 years experience in Massachusetts public finance
 - Managed Bank of New England's Municipal Advisory Group
 - Senior Member of Fleet Bank and Fleet Securities Public Finance Department
 - Senior Vice President and a Managing Director in First Southwest Company's Boston Office
 - Serves approximately 75 Massachusetts Cities, Towns, Districts and Authorities
 - Since joining First Southwest in June 2001, has advised on more than 1,500 bond and note transactions with par value greater than \$11 billion
 - Since 1989, has assisted the Town of Belmont with more than 50 bond and note transactions, with a par value greater than \$150 million
 - Securities Registrations – Series 52, 53, 63
- First Southwest Company – Public Finance Department
 - In the last five years has acted as financial advisor on more municipal bond and note transactions than any other firm in Massachusetts, New England and the nation
 - Works with approximately 180 cities, towns, districts and authorities in Massachusetts
 - Financial Advisor on the City of Brocton's 2005, \$100 million pension obligation bond issue

Presentation Overview

- Pension Obligation Bonds Defined
- Potential Benefits
- Risks
- Credit Rating Agency Perspectives
- City of Brockton Case Study
- Next Steps - Authorization and Issuance Process
 - Exhibits – Examples of Potential Outcomes

Pension Obligation Bonds

Background

Definitions

- An Unfunded Accrued Actuarial Liability (UAAL) is created when employer contributions and system investment performance fail to keep pace with a growing benefit stream
- Pension Obligation Bonds (POBs) allow municipal issuers to capture savings between prevailing market interest rates and the actuarial earnings rate that is embedded in the contribution rate (% of payroll) they are charged on their unfunded pension liabilities

Factors Affecting UAALs

- Amount of pension liability impacted by:
 - Benefits package
 - Workforce “experience factor”
 - Length of career
 - Mortality
 - Employee classification
 - Inflation (COLAs)
 - Investment performance
- Plan Sponsor incurs interest expense equal to actuarial investment assumption on unpaid balance (Belmont’s Assumption equals 7.75%)
- A pension obligation issue replaces one form of debt (internal) that bears a relatively high rate of interest with bonds sold in the public market at a lower coupon

What are POBs?

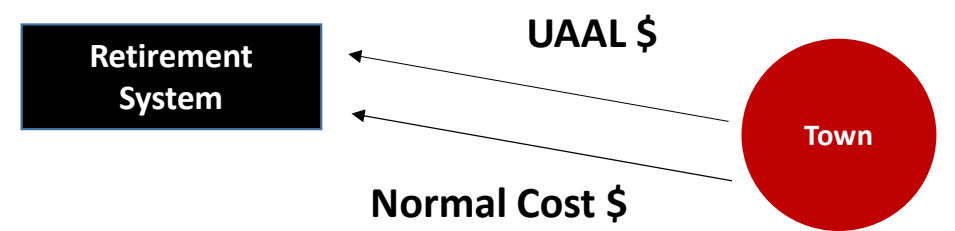
- Pension Obligation Bonds (POBs) are taxable bonds issued by states and local municipalities (Plan Sponsors) to refund, in the capital markets, all or a portion of their Unfunded Actuarially Accrued Liabilities (UAAL)
- POBs are not issued by pension systems nor are the pension systems liable for the bonds
- Plan Sponsors use bond proceeds to retire all or a portion of the UAAL, with savings resulting from the lower taxable bond market rates vs. the pension system's actual earnings rate which is effectively the Plan Sponsor's interest cost

Mechanics of Pension Obligation Bonds

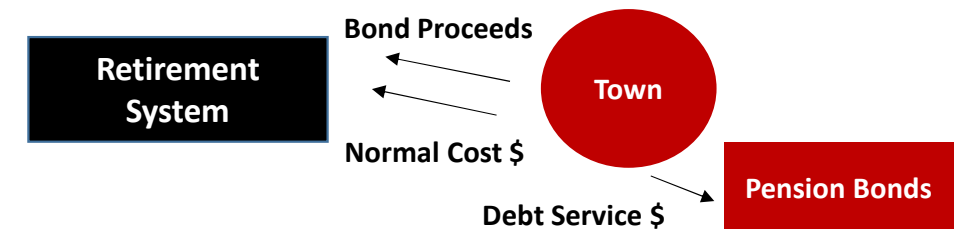
Understanding the Process

- Plan Sponsor's (Town's) employer contribution rate (% of payroll) consist of normal and UAAL payments
 - Normal: Cost of funding benefits *currently* accrued
 - UAAL: Amortization of *previously* accrued but unfunded benefits
- UAAL payment implicitly include interest expense (7.75%)
 - Refinancing this internal debt at lower rate leads to savings, independent of normal contributions.
- Plan Sponsor uses POB proceeds to prepay UAAL discounted at actuarially assumed rate
- Debt service payments replaces UAAL amortization payments

Pension Funding Mechanics Before POBs



Pension Funding Mechanics After POBs



Town of Belmont, Massachusetts

Pension Funding Schedule as of January 1, 2014

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization of Remaining Unfunded Liability	(4) Total Plan Cost: (2) + (3)	(5) Total Unfunded Actuarial Accrued Liability at Beginning of Fiscal Year
2015	\$ 1,297,269	\$ 6,067,254	\$ 7,364,523	\$ 76,501,166
2016	1,349,160	6,528,798	7,877,958	76,013,403
2017	1,403,126	7,024,063	8,427,189	74,999,719
2018	1,459,251	7,555,460	9,014,711	73,383,694
2019	1,517,621	8,125,572	9,643,193	71,080,433
2020	1,578,326	8,737,165	10,315,491	67,995,730
2021	1,641,459	9,393,201	11,034,660	64,025,154
2022	1,707,118	10,096,850	11,803,968	59,053,048
2023	1,775,402	10,851,508	12,626,910	52,951,438
2024	1,846,418	11,660,807	13,507,225	45,578,845
2025	1,920,275	12,528,639	14,448,914	36,778,977
2026	1,997,086	13,459,168	15,456,254	26,379,319
2027	2,076,970	14,456,854	16,533,824	14,189,578
2028	2,160,048	-	2,160,048	-

*Refer to Segal Consulting's Actuarial Valuation and Review as of January 1, 2014 dated December 8, 2014.

*Reflects Retirement Board's decision to fully fund the Retirement System by June 30, 2027 with the appropriation increasing approximately 7% per year.

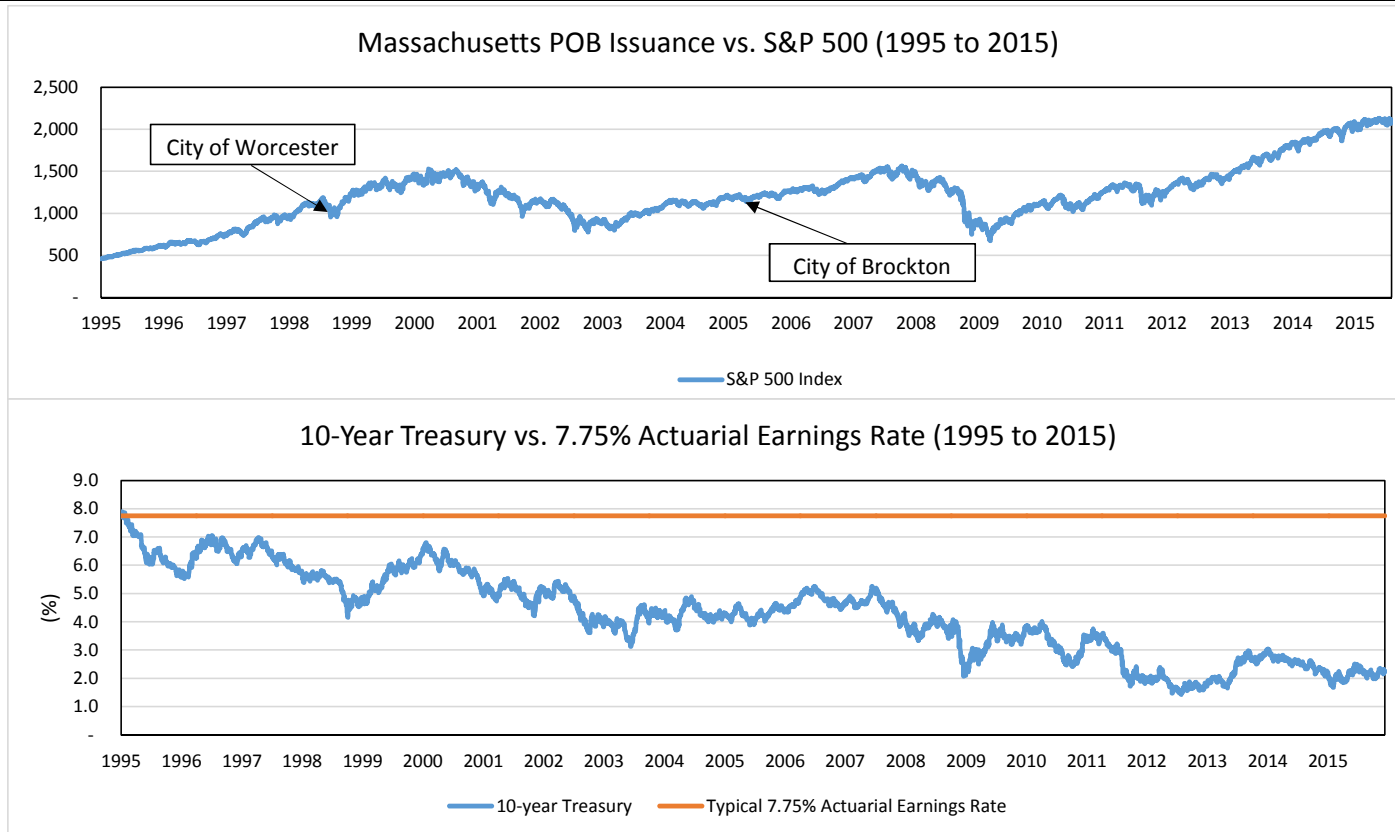
*Assumes assets will return 7.75% in each year from 2014 through 2027.

Why Some Communities are Considering POBs

- Historically Low Interest Rate Environment
- Asset Growth has not kept pace with liability growth

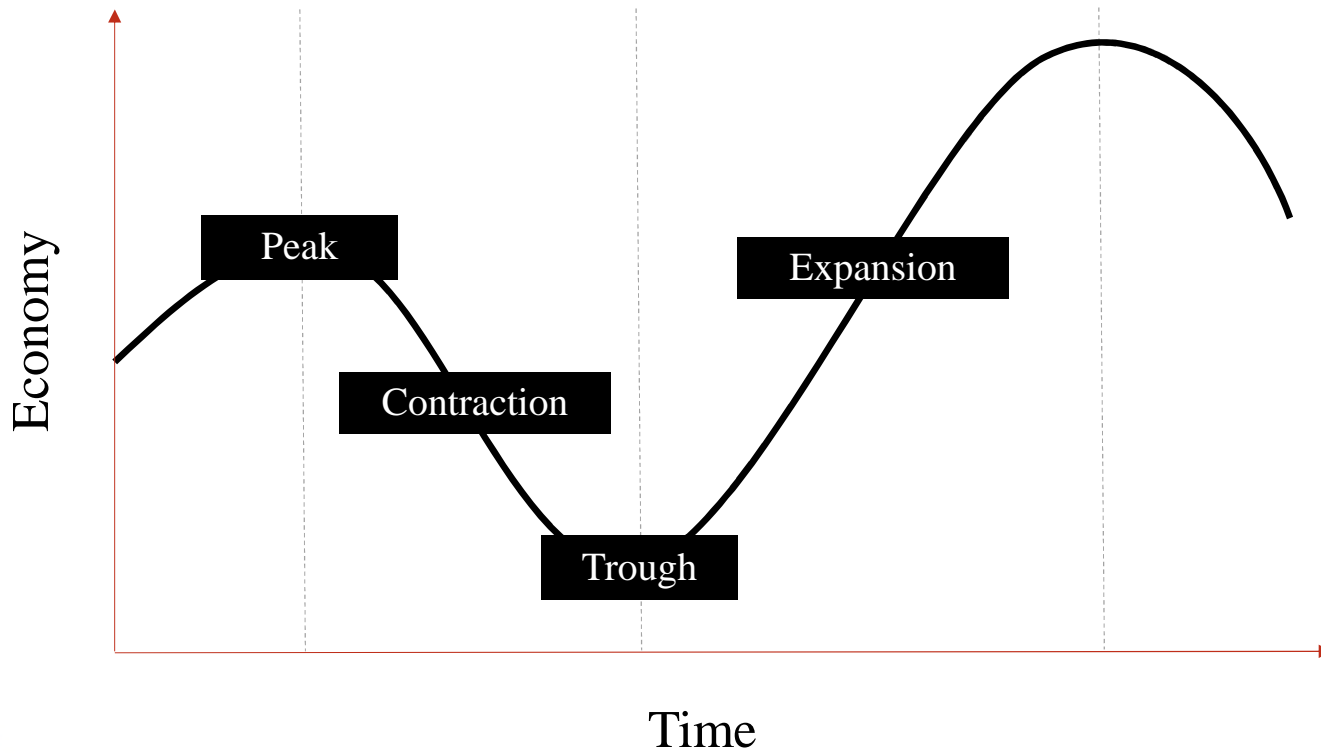
Market Conditions History

Stock Market Performance and Interest Rate History



The Business Cycle

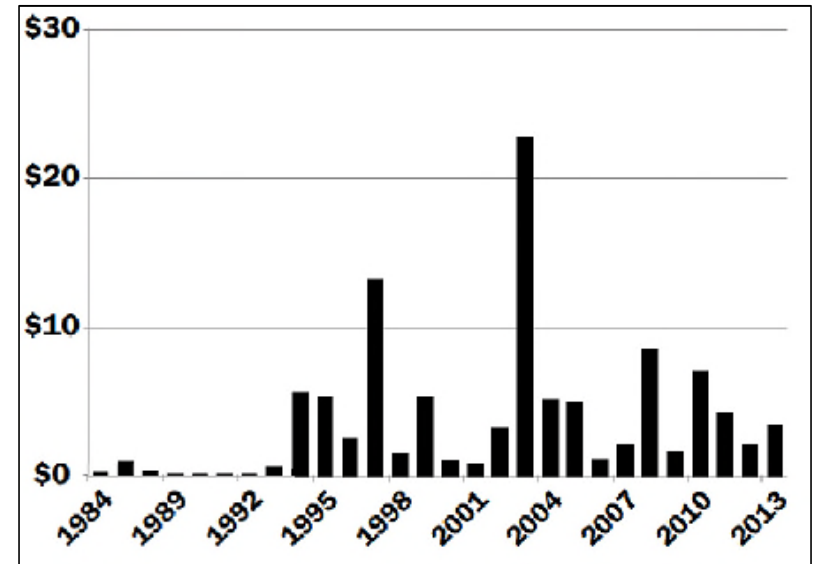
Timing is Important



Overview of National POB Market

- In 1985, Oakland, CA issued the first POB
- Since then, over \$46 billion of POBs have been issued nationally in the states of California, Colorado, Connecticut, Florida, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Minnesota, Missouri, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Texas, and Wisconsin

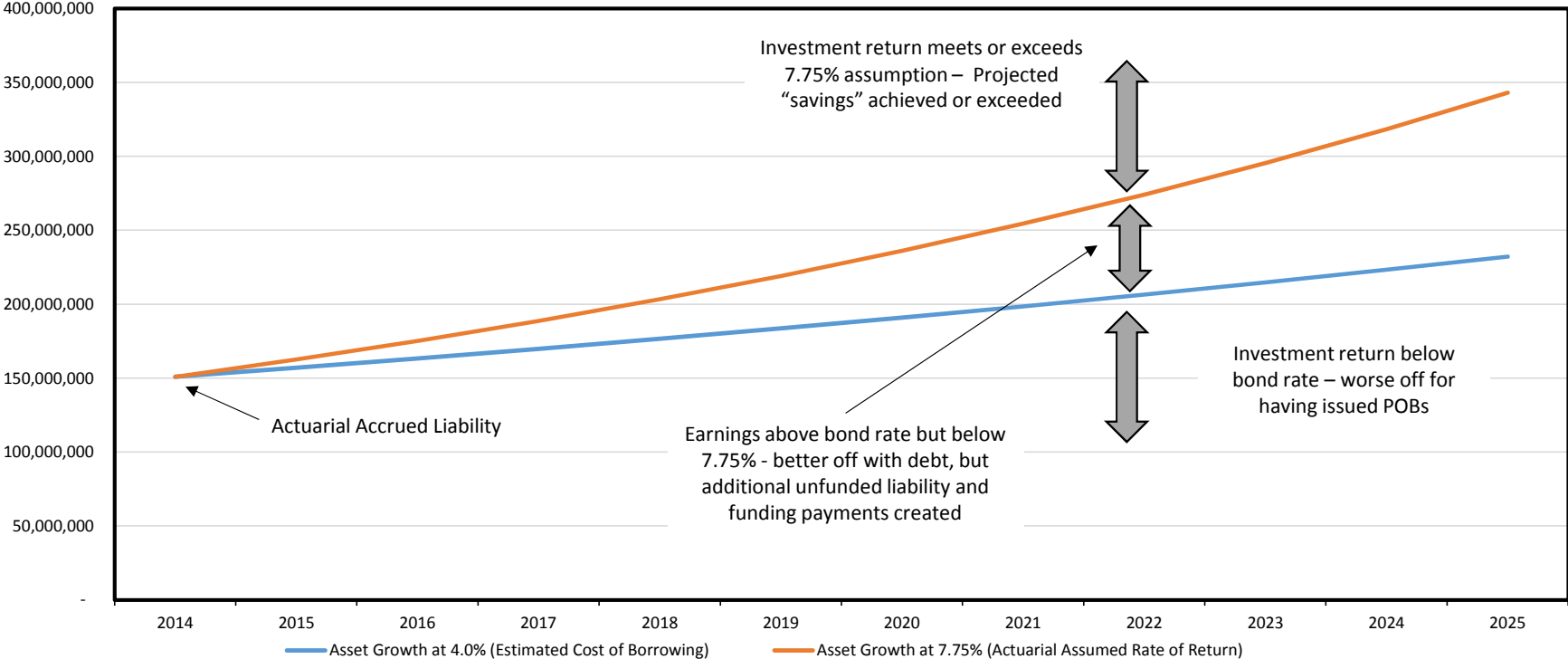
Pension Obligation Bonds Issued From 1985-2013
(Billions of Dollars)



Source: Data set compiled from Bloomberg Online Service and SDC Thompson Reuters databases.

Range of Outcomes – Investment Performance

Asset Growth at Estimated Borrowing Rate (4%) vs. Investment Assumption (7.75%)



Benefits of POBs

- Pension Plan is fully (or more fully) funded
- Substantial Savings realized vs. existing amortization schedule **if** actuarial investment return is achieved over the life of the POBs
- Some Savings realized if actual investment return is greater the bond rate
- Town invests all bond proceeds at once (see Risks)

Risks of POBs

- Reduced flexibility – POB Debt Service vs. a more flexible amortization schedule
- Neutral (to negative) credit rating impact
- If the retirement portfolio under performs – additional unfunded liability
- Town invests all bond proceeds at once (see Benefits)

The Rating Agency Perspective

POBs can help underfunding, however pension liabilities must be prudently managed.

- With the growth of POBs, rating agencies' awareness of pension funding obligations have grown, and they now consider pension funding status as part of credit reviews
 - Severe underfunding is a credit negative
- Rating agencies have generally viewed POBs as a tool for reducing the cost of financing unfunded liabilities
 - Unfunded Liabilities are the functional equivalent of debt, although analyzed differently
- Rating Agencies want to make certain that POBs are not a substitute for real budget solutions
- Rating agencies want to see how POBs fit into broader plan of finance/budgeting strategy

Moody's Investors Service

"If pension bonds merely shifted an issuer's long term obligations from one similar form to another, in this case from an unfunded pension liability to bonded debt, they would tend to have a neutral credit impact. However, issuance of pension bonds changes the nature of the liability and typically creates additional risks, including budgetary risk, default risk, and loss of flexibility. Issuance of pension bonds may also reflect poorly on the quality of management.

If bond proceeds substitute for annual contributions to pension plans or are used to pay pensioners, we consider it a deficit borrowing and would view the financing as credit negative, particularly if it is large relative to the budget (e.g. over 5%), is part of a continuous pattern of reliance on one-time resources, or is used in the absence of a plan to restore budget stability over the medium term."

Source: Moody's Investors Service, "US State and Local Governments Face Risks with Pension Funding Bonds," December 11, 2012.

The Rating Agency Perspective

POBs can help underfunding, however pension liabilities must be prudently managed.

Standard & Poor's Ratings Services

Standard & Poor's considers pension obligation bonds neutral or risky depending on the structure and intentions of the issuer.

The issuer is converting a soft, flexible liability into a hard liability. S&P considers an issuer's debt in its quantitative analysis and makes qualitative adjustments for pension liabilities. When an issuer increases its debt with a POB the additional debt is factored into its debt ratios.

Source: Victor Medeiros, Director, S&P December 15, 2015

Fitch Ratings

"Pension obligation bonds (POBs) will not correct unsustainable benefit and contribution practices and are not a form of pension reform, Fitch Ratings says.

Issuing POBs is neutral for some governments' credit quality and negative for others.

In our view, credit quality is tied to whether governments implement reforms to make their underlying pension obligations sustainable over time."

Source: Fitch Ratings, "Pension Obligation Bonds Won't Fix US Public Pensions,"

August 13, 2015.

Overview of Massachusetts POB Experience

- The following communities have POB enabling legislation:
 - Brockton*
 - Brookline
 - Chelsea
 - Dracut**
 - Everett
 - Fall River
 - Hingham
 - Holyoke
 - Quincy
 - Springfield
 - Worcester***

*Issued \$100 million POBs in 2005

** Issued \$2.2 million POBs in 2005

***Issued \$221 million POBs in 1999

Brockton Case Study

- Brockton Retirement System was approximately 62% funded with an unfunded liability of approximately \$142 million
- City received special legislation, subject to conditions, to issue POBs
- City issued \$100 million POBs in 2005 at a average rate of 5.50% with a final maturity of FY2028 to raise their funding percentage from 62% to 89%
- The 2008 market crash and subsequent under performance reduced the funding level to 58%. As of January 1, 2015 the funding ratio is approximately 67%
- CFO estimates that the POBs are approximately breakeven after 10 years with 12 years left until POBs are paid off
- The CFO indicates that “he would do it again”

Next Steps

- Develop Financial Plan (including Risk Analysis-Monte Carlo Simulation)
- Initial Meeting with A&F, DOR to determine State support of POB and conditions
- Town Meeting Authorizes Petitioning the General Court for Special Legislation and authorizes POBs
- Legislature Passes Enabling Act (subject to conditions)
- Actuarial Study Updated
- Administration & Finance, DOR and PERAC review and sign-off
- Request for Proposals for Underwriters
- Price Bonds/Invest Proceeds

UAL vs. \$60 Million POB Debt Service – Scenario 1

Investment Return Meets 7.75% Assumption

Asset Return is 7.75% each year Beginning in 2016

Fiscal Year	A			B		C		D = B + C	A - D		
	Amortization of Unfunded Liability (UAL) (1) (2) (3)			Estimated \$60M Pension Obligation Bond Debt Service (1) (4)		Remaining UAL After Funding \$60M (1) (5)		POB Debt Service + Remaining UAL After Funding \$60M (1)	"Savings" After POBs (1)		
2015	\$	6,067,254		\$	-	\$	6,067,254	\$	6,067,254	\$	-
2016		6,528,795			-		6,528,795		6,528,795		-
2017		7,024,057			-		7,024,057		7,024,057		-
2018		7,555,450			4,305,338		1,727,910		6,033,248		1,522,202
2019		8,125,558			4,879,127		1,727,910		6,607,037		1,518,521
2020		8,737,146			5,488,503		1,727,910		7,216,413		1,520,733
2021		9,393,177			6,143,766		1,727,910		7,871,676		1,521,502
2022		10,096,821			6,847,726		1,727,910		8,575,636		1,521,186
2023		10,851,471			7,606,170		1,727,910		9,334,080		1,517,391
2024		11,660,762			8,413,850		1,727,910		10,141,760		1,519,003
2025		12,528,586			9,280,794		1,727,910		11,008,704		1,519,882
2026		13,459,106			10,211,710		1,727,910		11,939,620		1,519,487
2027		14,456,782			11,209,066		1,727,910		12,936,976		1,519,806
2028		6,897,328			3,650,433		1,727,910		5,378,343		1,518,986
Totals	\$	133,382,293		\$	78,036,482	\$	38,627,116	\$	116,663,598	\$	16,718,696

(1) Subject to change.

(2) January 1, 2014 valuation results updated to reflect a 6.7% return in 2014 and an estimated 0% return in 2015.

(3) Assumes Retirement Board will maintain 7% increases in the appropriation and extend the funding schedule to June 30, 2028 to absorb investment losses.

(4) POB dated December, 2016 and assumes interest on the bonds is 3.89% (subject to change).

(5) Assumes unfunded liability remaining after bonds are issued will be amortized in level dollar payments through June 30, 2028.

UAL vs. \$60 million POB Debt Service – Scenario 2

Investment Return Greater than Bond Rate, But Lower than 7.75%

Asset Return is 7.75% Each Year beginning in 2016 with the exception of a 0% return in 2018

Fiscal Year	A			B		C	D = B + C	A - D			
	Amortization of Unfunded Liability (UAL)			Estimated \$60M Pension Obligation Bond Debt Service		Remaining UAL After Funding \$60M	POB Debt Service + Remaining UAL After Funding \$60M	"Savings" After POBs			
	(1)	(2)	(3)	(1)	(4)	(1)	(1)	(1)			
2015	\$	6,067,254		\$	-	\$	6,067,254	\$	-		
2016		6,528,795			-		6,528,795		-		
2017		7,024,057			-		7,024,057		-		
2018		7,555,450			4,305,338		6,033,249		1,522,201		
2019		8,125,558			4,879,127		6,607,038		1,518,520		
2020		8,737,146			5,488,503		8,897,529		(160,383)		
2021		9,393,177			6,143,766		9,552,791		(159,614)		
2022		10,096,821			6,847,726		10,256,751		(159,930)		
2023		10,851,471			7,606,170		11,015,196		(163,725)		
2024		11,660,762			8,413,850		11,822,875		(162,112)		
2025		12,528,586			9,280,794		12,689,819		(161,234)		
2026		13,459,106			10,211,710		13,620,735		(161,629)		
2027		14,456,782			11,209,066		14,618,091		(161,309)		
2028		15,526,387			3,650,433		7,059,458		8,466,929		
2029		6,332,257			-		3,409,025		2,923,231		
Totals	\$	148,343,607		\$	78,036,482	\$	57,166,181	\$	135,202,663	\$	13,140,944

(1) Subject to change.

(2) January 1, 2014 valuation results updated to reflect a 6.7% return in 2014 and an estimated 0% return in 2015.

(3) Assumes Retirement Board will maintain 7% increases in the appropriation and extend the funding schedule to June 30, 2029 to absorb investment losses.

(4) POB dated December, 2016 and assumes interest on the bonds is 3.89% (subject to change).

(5) Assumes unfunded liability remaining after bonds are issued will be amortized in level dollar payments through June 30, 2029.

UAL vs. \$60 million POB Debt Service – Scenario 3 Investment Return Below Bond Rate

Asset Return is 7.75% Each Year beginning in 2016 with the exception of a -10% return in 2018 and 2020

Fiscal Year	A			B		C	D = B + C	A - D
	Amortization of Unfunded Liability (UAL) (1) (2) (3)			Estimated \$60M Pension Obligation Bond Debt Service (1) (4)		Remaining UAL After Funding \$60M (1) (5)	POB Debt Service + Remaining UAL After Funding \$60M (1)	"Savings" After POBs (1)
2015	\$	6,067,254		\$	-	\$ 6,067,254	\$ 6,067,254	\$ -
2016		6,528,795			-	6,528,795	6,528,795	-
2017		7,024,057			-	7,024,057	7,024,057	-
2018		7,555,450			4,305,338	1,727,910	6,033,249	1,522,201
2019		8,125,558			4,879,127	1,727,910	6,607,038	1,518,520
2020		8,737,146			5,488,503	5,733,349	11,221,853	(2,484,706)
2021		9,393,177			6,143,766	5,733,349	11,877,115	(2,483,938)
2022		10,096,821			6,847,726	8,376,741	15,224,466	(5,127,645)
2023		10,851,471			7,606,170	8,376,741	15,982,911	(5,131,440)
2024		11,660,762			8,413,850	8,376,741	16,790,590	(5,129,828)
2025		12,528,586			9,280,794	8,376,741	17,657,535	(5,128,949)
2026		13,459,106			10,211,710	8,376,741	18,588,450	(5,129,344)
2027		14,456,782			11,209,066	8,376,741	19,585,807	(5,129,024)
2028		15,526,387			3,650,433	8,376,741	12,027,173	3,499,214
2029		16,673,030			-	8,376,741	8,376,741	8,296,289
2030		17,902,181			-	8,376,741	8,376,741	9,525,441
2031		19,219,696			-	8,376,741	8,376,741	10,842,955
2032		8,343,167			-	8,376,741	8,376,741	(33,574)
Totals	\$	204,149,424		\$	78,036,482	\$ 126,686,772	\$ 204,723,253	\$ (573,829)

(1) Subject to change.

(2) January 1, 2014 valuation results updated to reflect a 6.7% return in 2014 and an estimated 0% return in 2015.

(3) Assumes Retirement Board will maintain 7% increases in the appropriation and extend the funding schedule to June 30, 2032 to absorb investment losses.

(4) POB dated December, 2016 and assumes interest on the bonds is 3.89% (subject to change).

(5) Assumes unfunded liability remaining after bonds are issued will be amortized in level dollar payments through June 30, 2032.

Questions?
