Interest Rate Savings

Interest Rate Savings

Comparing the amortization of $1 billion debt at 8.25% cost to $1 billion debt at 5.75% over 25 years:

- Saving on interest cost is 2.5%;
- Saving on annual debt payment is $19 million;
- NPV of savings on annual debt payment over 25 years is $272 million discounted at 5%.

	Amount ($Billion)	Interest Cost	Annual P&I Payment ($Million)
$	1	8.25%	$ 96
$	1	5.75%	$ 76
Savings		2.50%	$ 19
NPV of Cumulative Savings @ 5%			$ 272

Interest Rate History

- 10-Year Treasury yield is 4.52% as of March 14, 2007. This rate is extraordinarily attractive when viewed in a historical context.

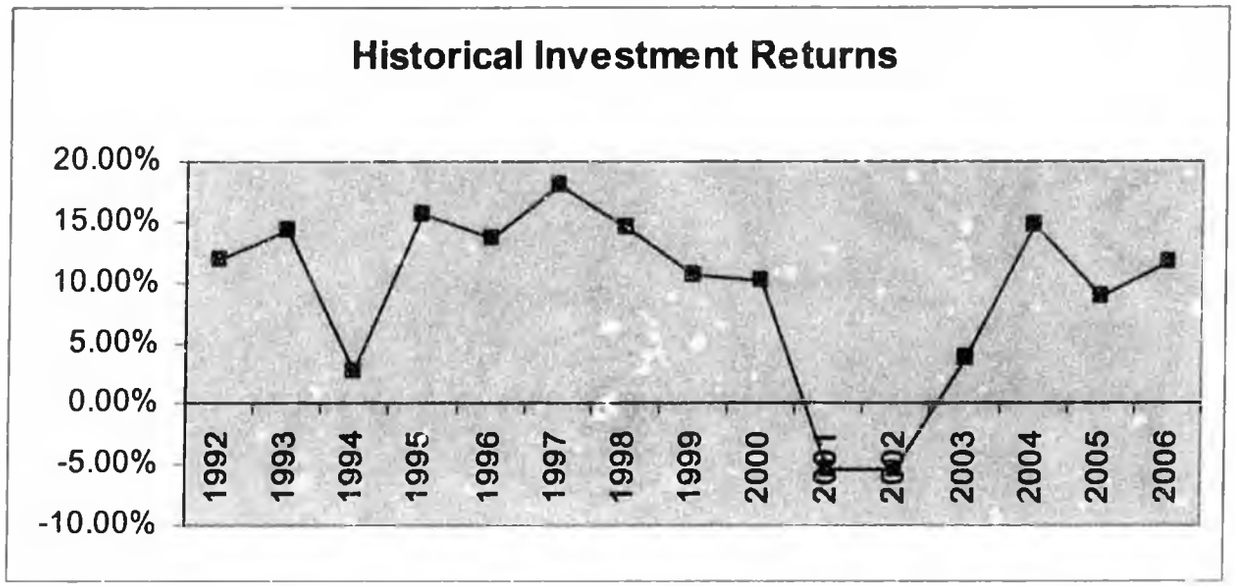
10-Year Treasury Yields

Source: Yahoo!Finance

Arbitrage

Historical Investment Returns of State Pension Plans (PERS)

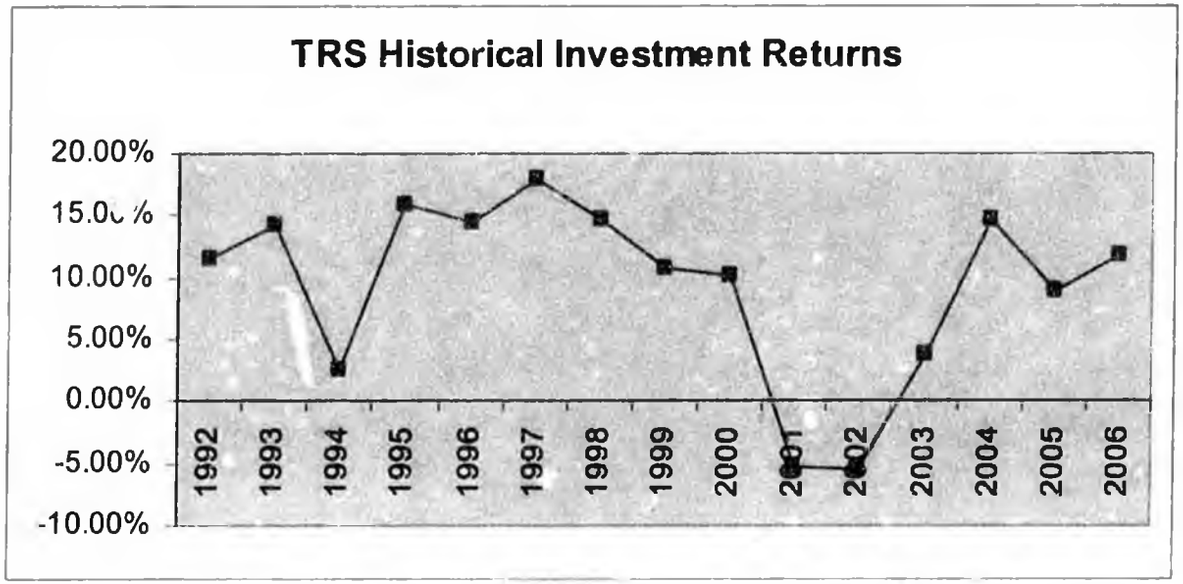
FY	ROR
2006	11.69%
2005	8.86%
2004	14.73%
2003	3.82%
2002	-5.40%
2001	-5.30%
2000	10.12%
1999	10.65%
1998	14.62%
1997	18.07%
1996	13.70%
1995	15.56%
1994	2.66%
1993	14.25%
1992	11.80%



- The average return from 1992 to 2006 is 9.09%.
- Standard Deviation is 7.25%.

Historical Investment Returns of State Pension Plans (TRS)

FY	ROR
2006	11.72%
2005	8.90%
2004	14.75%
2003	3.81%
2002	-5.41%
2001	-5.36%
2000	10.19%
1999	10.73%
1998	14.73%
1997	18.00%
1996	14.35%
1995	15.89%
1994	2.61%
1993	14.16%
1992	11.58%



- The average return from 1992 to 2006 is 9.14%.
- Standard Deviation is 7.31%.

Long Term Target Asset Allocation

Asset Class	Allocation	Range
Domestic Large Capitalization	30%	± 3%
Domestic Small Capitalization	6%	± 3%
International Equity	14%	± 3%
Emerging Markets Equity	2%	± 2%
Private Equity	7%	± 5%
Domestic Fixed-Income	20%	± 3%
High Yield	2%	± 2%
International Fixed-Income	2%	± 2%
Real Estate	10%	± 4%
Absolute Return	4%	± 4%
Other	3%	± 3%
Cash	0%	± 3%

Median Return **8.05%**

Standard Deviation **12.27%**

Source: Callan Associates, Inc.

Credit Neutrality

Credit Rating Consideration

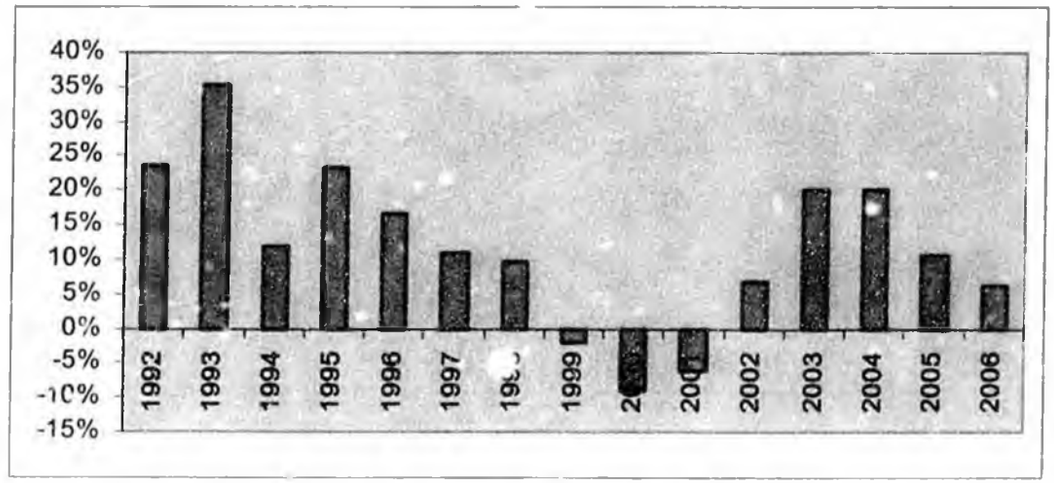
- Credit Neutral – debt obligation is already recognized and POBs are nct considered new debt.
- "Moody's believes the issuance of POBs is one effective way of addressing an unfunded liability."
- "Standard & Poor's has viewed POBs as a strategy for savings on carrying charges as long as the transaction are structured conservatively and the assumptions were reasonable and attainable."

Risks

Investment Risk (PERS)

FY	ROR	Estimated Cost of Borrowing	Estimated Cumulative Net Return to 2006
2006	11.69%	5.55%	6.14%
2005	8.86%	5.04%	10.47%
2004	14.73%	5.02%	20.22%
2003	3.82%	4.76%	20.06%
2002	-5.40%	5.36%	6.90%
2001	-5.30%	5.77%	-6.22%
2000	10.12%	6.78%	-8.94%
1999	10.65%	6.40%	-2.03%
1998	14.62%	6.01%	9.70%
1997	18.07%	7.10%	10.86%
1996	13.70%	7.19%	16.47%
1995	15.56%	7.32%	23.28%
1994	2.66%	7.84%	11.86%
1993	14.25%	6.62%	35.35%
1992	11.80%	7.76%	23.43%

Estimated Cumulative Net Return to 2006 (PERS)

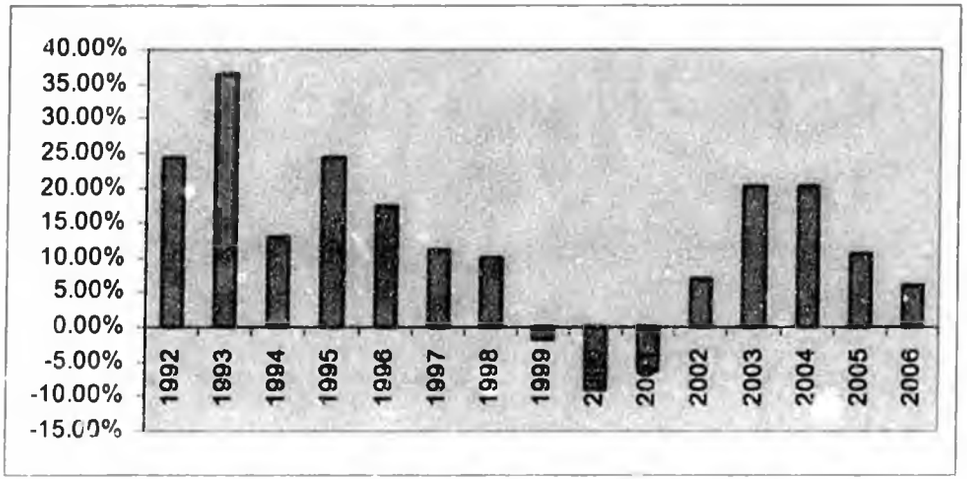


- Based on PERS actual investment history, we can see what the cumulative net return to 2006 might have been if POBs had been issued in any given year.
- For 12 out of 15 years the issuance of POBs would have resulted in a gain to the pension system.

Investment Risk (TRS)

FY	ROR	Estimated Cost of Borrowing	Estimated Cumulative Net Return to 2006
2006	11.72%	5.55%	6.17%
2005	8.90%	5.04%	10.54%
2004	14.75%	5.02%	20.31%
2003	3.81%	4.76%	20.14%
2002	-5.41%	5.36%	6.97%
2001	-5.36%	5.77%	-6.21%
2000	10.19%	6.78%	-8.86%
1999	10.73%	6.40%	-1.87%
1998	14.73%	6.01%	9.97%
1997	18.00%	7.10%	11.06%
1996	14.35%	7.19%	17.32%
1995	15.89%	7.32%	24.46%
1994	2.61%	7.84%	12.99%
1993	14.16%	6.62%	36.39%
1992	11.58%	7.76%	24.25%

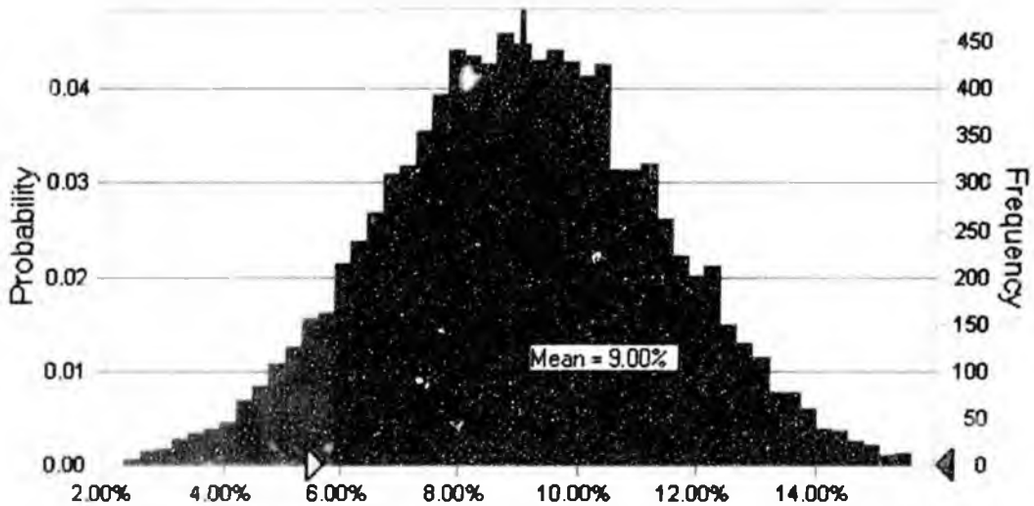
Estimated Cumulative Net Return to 2006 (TRS)



- Based on TRS actual investment history, we can see what the cumulative net return to 2006 might have been if POBs had been issued in any given year.
- For 12 out of 15 years the issuance of POBs would have resulted in a gain to the pension system.

Investment Return Forecast

With an asset mix of 70% S&P 500 Equity and 30% Government/Credit Bonds, the average return over 25 years is 9%.



Monte Carlo Simulation

- 10,000 iteration
- Annualized Average Return: 9%
- Probability of outperforming 5.75%: 91.45%

Types of POBs

Security

- **General obligation bonds**

  Bonds that satisfy any constitutional debt limitation and are backed by the full faith and credit and taxing power of the issuing state and local government.

- **Obligations imposed by law**

  Obligations imposed by the state or local government by the constitution or by statute or by court judgment as distinguished from a voluntary exercise of the borrowing power by the state or local government.

- **Annual appropriation bonds**

  Bonds that are not considered debt subject to a constitutional debt limitation because the state and local government issuer has no legal obligation to pay them and payment is therefore subject to annual appropriation of funds for that purpose at the discretion of the legislature or governing body of the state or local government issuer.

Taxable POB Bond Alternatives (1 of 2)

Taxable Product Alternatives

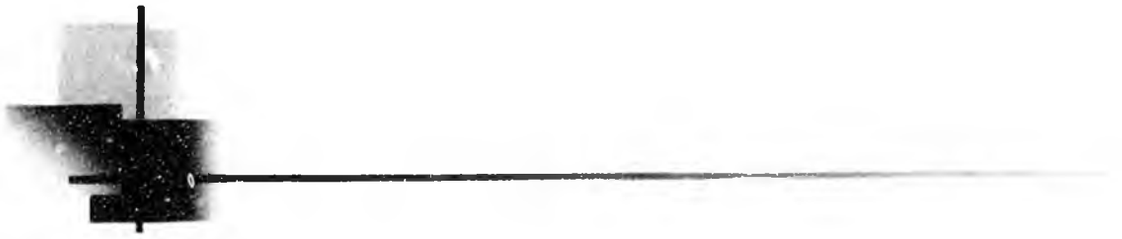
Product	Investors	Advantages	Disadvantages
Current Interest Bonds (CIBS)	Domestic Institutions; European Banks	Low-Cost Financing; No Basis Risk	Typically Non-Callable or Issued with a Make-Whole Call on Term Bonds; Call Option Expensive
Zero Coupon Bonds (CABs)	Domestic Institutions; European Banks	Defers Debt Service	More Expensive than CIBs; Noncallable
Put Bonds	Domestic Institutions; Corporations	Benefit of Upward Sloping Yield Curve Versus Conventional Fixed-Rate Bonds	Interest Rate Risk
Quarterly Unsecured Interest Bonds (QUIBs)	Domestic Retail	Provides Most Efficient 5-Year Call Option	Slightly Higher Yield; 3% Issuance Cost
Floating Rate Notes (FRNs)	European Banks	Fixed Spread to LIBOR; Historically Least Costly Form of Financing; Provides Quarterly Call Options; No Ongoing Fees	Interest Rate Risk
Variable Rate Demand Bonds	Money Market Funds	Historically Least Costly Form of Financing; Continuously Callable at Par	Interest Rate Risk; Facility Renewal Risk
Auction Rate Notes	Corporations; High Net Worth Retail	Historically Least Costly Form of Financing; Continuously Callable at Par	Interest Rate Risk

Source: Morgan Stanley

Taxable POB Bond Alternatives (2 of 2)

	Variable Rate Demand Bonds	Auction Rate Notes	Floating Rate Notes (Private Placement)
Prepayment	Yes	Yes	Yes
Interest Rate Reset	Weekly	Varies	Varies
Liquidity Facility Required	Yes	No	No
Rating Required	Yes	Yes	No
Legal Documentation	Substantial	Substantial	Simplified
Concerns	Failed Remarketing	Failed Auction	Short-term interest rates only
Investor Base	Money-market funds	Retail investors	European banks
Term Out Provisions	Yes	No	No

Source: Morgan Stanley



Potential Saving

POBs and Cash Infusion

Pay partial UAAL off with cash and borrow partial at 5.75% by issuance of Pension Obligation Bonds (POBs).

Implications

- Immediate reduction of the UAAL;
- Increase in the Funded Ratio;
- Reduction of employer past service contribution rate.

Case Study (PERS)

Employer Contribution Rates

POBs (in billions)

Cash (in billions)	$ -	$ 0.5	$ 1.5	$ 2.5	$ 3.5	$ 4.5	$ 5.5
	0%	9%	27%	45%	64%	82%	100%
$ -	44.49%	43.91%	42.76%	41.61%	40.46%	39.31%	38.15%
$ 0.5	41.64%	41.06%	39.91%	38.76%	37.60%	36.45%	
$ 1.5	35.93%	35.35%	34.20%	33.05%	31.90%		
$ 2.5	30.22%	29.64%	28.49%	27.34%			
$ 3.5	24.51%	23.94%	22.78%				
$ 4.5	18.80%	18.23%					
$ 5.5	13.09%						

Savings on Annual Contribution Amount (in millions)

POBs (in billions)

Cash (in billions)	$ -	$ 0.5	$ 1.5	$ 2.5	$ 3.5	$ 4.5	$ 5.5
	0%	9%	27%	45%	64%	82%	100%
$ -	$0.00	$9.65	$28.96	$48.27	$67.58	$86.89	$106.20
$ 0.5	$47.84	$57.50	$76.81	$96.12	$115.43	$134.73	
$ 1.5	$143.53	$153.19	$172.49	$191.80	$211.11		
$ 2.5	$239.22	$248.87	$268.18	$287.49			
$ 3.5	$334.91	$344.56	$363.87				
$ 4.5	$430.59	$440.25					
$ 5.5	$526.28						

Savings on Employer Contribution Rates

POBs (in billions)

Cash (in billions)	$ -	$ 0.5	$ 1.5	$ 2.5	$ 3.5	$ 4.5	$ 5.5
	0%	9%	27%	45%	64%	82%	100%
$ -	0.00%	0.58%	1.73%	2.88%	4.03%	5.18%	6.34%
$ 0.5	2.85%	3.43%	4.58%	5.73%	6.89%	8.04%	
$ 1.5	8.56%	9.14%	10.29%	11.44%	12.59%		
$ 2.5	14.27%	14.85%	16.00%	17.15%			
$ 3.5	19.98%	20.55%	21.71%				
$ 4.5	25.69%	26.26%					
$ 5.5	31.40%						

NPV of Savings on 25-year Contribution Amount (in millions)

POBs (in billions)

Cash (in billions)	$ -	$ 0.5	$ 1.5	$ 2.5	$ 3.5	$ 4.5	$ 5.5
	0%	9%	27%	45%	64%	82%	100%
$ -	$0.00	$136.07	$408.21	$680.36	$952.50	$1,224.64	$1,496.78
$ 0.5	$674.31	$810.38	$1,082.52	$1,354.66	$1,626.80	$1,898.95	
$ 1.5	$2,022.92	$2,158.99	$2,431.13	$2,703.27	$2,975.42		
$ 2.5	$3,371.53	$3,507.60	$3,779.74	$4,051.89			
$ 3.5	$4,720.14	$4,856.21	$5,128.35				
$ 4.5	$6,068.75	$6,204.82					
$ 5.5	$7,417.37						

1. $1.5 billion POBs issued in 2007
2. Assumed $5.5 billion PERS UAAL in 2007
3. Funding ratio will be improved from 65.12% to 74.64% (based on preliminary $10.27 billion PERS asset as of Dec 31, 2006)

Case Study (TRS)

Employer Contribution Rates

POBs (in billions)

Cash (in billions)	$ -	$ 1.0	$ 2.0	$ 3.0	$ 3.1
	0%	32%	65%	97%	100%
$ -	57.65%	54.45%	51.25%	48.04%	47.72%
$ 0.5	49.72%	46.51%	43.31%	40.11%	
$ 1.0	41.78%	38.58%	35.38%		
$ 1.5	33.85%	30.65%	27.44%		
$ 2.0	25.91%	22.71%			
$ 2.5	17.98%	14.78%			
$ 3.1	8.46%				

Savings on Annual Contribution Amount (in millions)

POBs (in billions)

Cash (in billions)	$ -	$ 1.0	$ 2.0	$ 3.0	$ 3.1
	0%	32%	65%	97%	100%
$ -	$0.00	$19.31	$38.62	$57.93	$59.86
$ 0.5	$47.84	$67.15	$86.46	$105.77	
$ 1.0	$95.69	$115.00	$134.31		
$ 1.5	$143.53	$162.84	$182.15		
$ 2.0	$191.37	$210.68			
$ 2.5	$239.22	$258.53			
$ 3.1	$296.63				

Savings on Employer Contribution Rates

POBs (in billions)

Cash (in billions)	$ -	$ 1.0	$ 2.0	$ 3.0	$ 3.1
	0%	32%	65%	97%	100%
$ -	0.00%	3.20%	6.40%	9.61%	9.93%
$ 0.5	7.93%	11.14%	14.34%	17.54%	
$ 1.0	15.87%	19.07%	22.27%		
$ 1.5	23.80%	27.00%	30.21%		
$ 2.0	31.74%	34.94%			
$ 2.5	39.67%	42.87%			
$ 3.1	49.19%				

NPV of Savings on 25-year Contribution Amount (in millions)

POBs (in billions)

Cash (in billions)	$ -	$ 1.0	$ 2.0	$ 3.0	$ 3.1
	0%	32%	65%	97%	100%
$ -	$0.00	$272.14	$544.28	$816.43	$843.64
$ 0.5	$674.31	$946.45	$1,218.59	$1,490.73	
$ 1.0	$1,348.61	$1,620.75	$1,892.90		
$ 1.5	$2,022.92	$2,295.06	$2,567.20		
$ 2.0	$2,697.22	$2,969.37			
$ 2.5	$3,371.53	$3,643.67			
$ 3.1	$4,180.70				

1. $0.5 billion cash infusion and $2.0 billion POBs issued in 2007
2. Assumed $3.1 billion TRS UAAL in 2007
3. Funding ratio will be improved from 59.9% to 92.24% (based on preliminary $4.63 billion TRS asset as of Dec 31, 2006)

Tax Issues

Tax Exempt Bonds vs. Taxable Bonds

- Taxable Bonds
  - Can be issued for any purpose
  - Complete flexibility with use of proceeds
  - Interest rate about 1% higher than tax exempt in current market

- Tax Exempt Bonds
  - Can only be issued for public capital projects
  - Earnings on proceeds are restricted to yield paid on bonds
  - 1% lower interest rate than taxable bonds in current market

The Difficulty with Tax Exempt

- Very difficult to identify appropriate GF funded capital projects to issue bonds for.

- Certificates of Participation issuance is the most viable option.
  - However the existing, yet unexpended GF funded capital projects are small, for private purposes, short lived acquisitions, operational grants, or federal match.
  - Fiscal Year 2008 capital budget is only $100 million, all of which could not be funded with tax exempt bonds.

- Any use of tax exempt bonds to fund capital projects would have to be coincidental, rather than integrated, to any use of on hand cash to fund PERS/TRS contributions.

Take-aways

Take-aways

1. POB issuance is a financial transaction which will lower the cost of funding the UAAL by the state and local governments – POBs issued in the near future will be at a cost lower than 8.25% charged by the pension system.
2. We are in a very favorable interest rate environment – take advantage of it!
3. Risks associated with POB issuance are quantifiable and statistically justified by the rewards.
4. Doing nothing is not a viable option.

Q & A

25th Alaska State Legislature
House Special Committee on Ways & Means

MEMORANDUM

Chair:

Rep. Mike Hawker
Capitol Room 502
465-4949

Vice-Chair:

Rep. Anna Fairclough
Capitol Room 411
465-3777

Members:

Rep. Bob Roses
Capitol Room 416
465-4939

Rep. Paul Seaton
Capitol Room 102
465-2689

Rep. Peggy Wilson
Capitol Room 403
465-3824

Rep. Sharon Cissna
Capitol Room 420
465-3875

Rep. Max Gruenberg
Capitol Room 110
465-4940

Committee Aide:

Juli Lucky
465-6587 direct

TO: Representative Bob Lynn, Chairman
House State Affairs Committee

FROM: Representative Mike Hawker
Chair, House Special Committee on Ways & Means

RE: House Bill 13

DATE: March 7, 2007

Transmitted herewith is CS For House Bill No. 13(W&M). This bill provides statutory authority for the state and political subdivisions to structure Pension Obligation Bond (POB) transactions for the purpose of reducing the unfunded actuarial liability of government retirement systems and lowering ultimate costs to the public treasury

HB 13 is the result of a collaborative effort between its sponsor, Representative Mike Hawker, and the Departments of Revenue and Law. The Department of Revenue has testified in support of HB 13.

The bill version passed from the House Special Committee on Ways and Means provides necessary authority for the State and local governments to structure POB transactions reducing the unfunded liabilities in both the PERS and TRS systems. HB 13 does not authorize any specific transaction; it only provides the ability for government agencies to contemplate and structure transactions that are in the public interest.

Individual members of the committee differed in their opinion as to whether such POB transactions should be allowed for individual employers participating in the TRS system. Those opposed expressed concern that an individual TRS employer structuring a transaction that reduced their individual annual contribution rate would introduce a rate differential that does not currently exist in the TRS system. Proponents of allowing individual TRS employers to structure pension bond transactions believe that providing the greatest possible array of tools for addressing unfunded retirement system obligations is an overriding consideration. They also respond that the bill includes regulatory authority for the TRS system managers to develop accounting procedures or credit mechanisms that could recognize the benefit of disproportionate contributions made by individual employers in a manner that does not change the blended system rates.

Authorizing individual TRS employers to structure pension obligation bond transactions is an identified policy question most appropriate for consideration in the House Committee for State Affairs. I request that you consider this matter in your deliberations.

Possible Teleconference Requests for House Bill 13

The following individuals have testified via teleconference during previous meetings.

Larry Semmens, City of Kenai, Kenai LIO
Michael Lamb, Fairbanks North Star Borough, Fairbanks LIO

The following individuals from national investment banking firms have expertise in Pension Obligation Bonds. They have testified and been available via teleconference to answer committee questions.

Goldman Sachs:

Frank Ingrassia, Managing Director
Dick Schober, Vice President
Andrew Prindle, Analyst
Ami Karnik, Analyst

Merrill Lynch Global Markets

Paul Bloom, Dir & Regional Manager

Seattle-Northwest Securities

Carol Samuels, Vice President
Lindsay Sovde, Vice President
John Wanamaker

CS House Bill 13
Work Draft Version E
Sectional Analysis

Prepared by Representative Mike Hawker's Office

Section 1: Allows a Teacher's Retirement System (TRS) employer to make a lump sum payment to prepay all or a part its share of the unfunded accrued actuarial pension liability (UAAL); allows the commissioner to accept a lump sum payment that is less than the full amount; allows administrative fees to be charged; outlines how the lump sum payment and earnings or losses will be credited; and holds an employer who prepays its liability harmless if there are future state discretionary payments that benefit multiple employers. Requires the administrator of the TRS plan to recalculate the employer contribution rate within 180 days of the lump sum payment.

Sections 2 - 5: These sections allow the Alaska Housing Finance Corporation (AHFC) to create a subsidiary to aid an employer in the financing of a prepayment of all or a portion of that employer's UAAL.

Section 6: Outlines how municipalities can join together to issue debt obligations and allows funds diversion agreements between the municipalities and state agencies.

Section 7: Adds Article 8 to the State Bonding Act, which authorizes the state bond committee to issue Pension Obligation Bonds (POBs) and provides guidelines and requirements for bond issuance, sale, structure, repayment and the investment and accounting of bond and investment proceeds.

Section 8: Creates the Alaska Pension Obligation Bond Corporation, which is authorized to issue POBs. Provides guidelines and requirements for bond issuance, sale, structure, repayment and the investment and accounting of bond and investment proceeds.

Sections 9 - 10: Adds facilitating language to two sections of the accounting statute for the Public Employees Retirement System (PERS) to accommodate lump sum payments.

Section 11: Allows a PERS employer to make a lump sum payment to prepay all or a part its share of the accrued actuarial pension liability; allows the commissioner to accept a lump sum payment that is less than the full amount; allows administrative fees to be charged; outlines how the lump sum payment and earnings or losses will be credited; and holds an employer who prepays its liability harmless if there are future state discretionary payments that benefit multiple employers. Requires the administrator of the PERS plan to recalculate the employer contribution rate within 180 days of the lump sum prepayment.

Section 12: Adds to the statutory policies established for the Municipal Bond Bank Authority. Provides a directive to assist governmental employers to meet their unfunded retirement system obligations by issuing POBs on their behalf. Specifies that the bond bank should provide the lowest rates possible without subsidizing the employers beyond their means.

Sections 13 - 14: These sections allow the Municipal Bond Bank to create a subsidiary to aid an employer in the financing of a prepayment of all or a portion of that employer's UAAL.

Section 15: Exempts "Pension Obligation Bonds" from the current limit for revenue bonds that the Municipal Bond Bank may issue each year.

Section 16: Authorizes the Municipal Bond Bank to issue "Pension Obligation Bonds."

Section 17: Exempts "Pension Obligation Bonds" from the current limit for total revenue bonds and notes that the Municipal Bond Bank may have outstanding at any time.

Section 18: Adds a definition for "governmental employer" to the definitions section for the Municipal Bond Bank.

Section 19: Immediate effective date.

Representative Mike Hawker
Alaska State Legislature

Session:
State Capitol
Juneau, AK 99801
907 465-4949 direct
800 478-4950 toll free
907 465-4979 fax

Interim:
716 W 4th Avenue
Anchorage, AK 99501
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907 269-0248 fax

Member
House Finance Committee
Legislative Budget & Audit Committee

District 32:
Eagle River
Anchorage
Rainbow
Indian
Bird
Girdwood
Portage
Whittier
Sunrise
Hope

House Bill 13
Sponsor Statement

Short Title: Retirement System Liability/Bonds

HB 13 provides governmental employers the opportunity to utilize a financial mechanism generally referred to as a "Pension Obligation Bond" (POB) to help reduce the ultimate cost of satisfying the unfunded accrued actuarial liabilities of their retirement systems. A POB is essentially a legal arbitrage transaction where money is borrowed at a lower rate of interest than the money earns when invested by the retirement system.

HB 13 clarifies the ability of municipal entities to include POBs in their strategy to reduce the cost of meeting unfunded pension liabilities and expands the authority of the Alaska Municipal Bond Bank Authority, the Alaska Housing Finance Corporation, and the state bond committee to support governmental employers seeking assistance engaging in such transactions. HB 13 also creates the Alaska Pension Obligation Bond Corporation. The authority granted in this legislation will allow for the greatest flexibility in creating transactions to fit the needs of public employers.

This bill does not authorize any debt instruments to be issued. Separate specific action would be required to initiate any transaction under the authority provided by HB 13.

FISCAL NOTE

STATE OF ALASKA
2007 LEGISLATIVE SESSION

Fiscal NoteNumber: 1
Bill Version: CSHB 13(W&M)
(H) Publish Date: 3/7/07

Revision Date/Time (Note if correction):
Dept. Affected: Revenue
Title: Pension Obligation Bonds
RDU: Taxation and Treasury
Component: Treasury
Sponsor: Representative Hawker
Requester: House Ways and Means
Component No.: 121

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES						
CHANGE IN REVENUES ( )						

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
Bond Proceeds						
Bond Bank Operating Budget						
TOTAL	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2007) cost: 0.0
Mark this box (X) if funding for this bill is included in the Governor's FY 2008 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: *(Attach a separate page if necessary)*

The bill expands the powers of the Alaska Municipal Bond Bank Authority (Bond Bank) and the State Bond Committee (SBC) and creates the Pension Obligation Bond Corporation (POBC) for the purpose of issuing obligations to provide funds to prepay unfunded accrued actuarial liabilities of the retirement systems. The premis of undertaking this type of transaction is borrowing at rates that are at least 1.5% lower than the actuarial assumed rate of return on the pension funds (8.25%).

The fiscal note is indeterminate in cost as it is uncertain how or if a transaction will develop if the legislation is passed. If a transaction is undertaken it is likely that it will be of considerable size, up to several billion dollars, and occur in FY 2008. Contractual costs include rating agency fees, financial advisor, bond counsel, printing, cusip service, underwriting, & other miscellaneous costs would need to be funded in the year of issuance as well as ongoing costs for administrative monitoring and cost of contractors over the life of the bonds.

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An Introduction to

Pension Obligation Bonds

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ORRICK

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CHAPTER ONE

Introduction

Pension obligation bonds ("POBs") are bonds issued by a state or local government to pay its obligation to the pension fund or system in which its employees (or others for whose pension benefits it is responsible) are members. POBs are an increasingly popular way for state or local governments to accomplish a variety of financial and other (including political) objectives.

According to Thomson Financial, during the past decade there have been at least 275 POB issues by state and local government issuers in at least 22 states.

The purpose of this pamphlet is to introduce interested parties to the reasons why POBs are issued, advantages/disadvantages, structure alternatives, federal tax issues, and representative programs in three states where POBs are particularly popular.

The author is chair of the Public Finance Department at Orrick, Herrington & Sutcliffe LLP and has been bond counsel on more than twenty POBs in various states. Orrick is the nation's premier bond counsel firm, ranked number one for more than a decade,[1] with extensive experience in all types of POBs and similar financings.[2]

[1] Rankings for securities transactions of various types are performed annually by Thomson Financial, which has ranked Orrick number one in the country as bond counsel since prior to 1990. In an average year, Orrick handles more than 500 bond issues, aggregating more than $20 billion.

[2] Orrick is ranked by Thomson Financial as the number one bond counsel in the country for POBs over the last decade, with more than 4 times as many such issues as the second ranked firm.

CHAPTER TWO

Pension Obligations

Pension obligations generally fall into two categories:

A. Unfunded Accrued Actuarial Liability (UAAL)

The unfunded accrued actuarial liability ("UAAL") is determined by the actuary for the pension fund to be the amount by which the pension fund is short of the amount that will be necessary, without further payments from the state or local government, to pay benefits already earned by current and former employees covered by the pension system. The UAAL is based on assumptions (in some cases established by the actuary and in some cases by the pension system or by the state or local government) as to retirement age, mortality, projected salary increases attributed to inflation, across-the-board raises and merit raises, increases in retirement benefits, cost-of-living adjustments, valuation of current assets, investment return and other matters. In order to avoid volatility in the UAAL based on swings in market valuation, the investment gains and losses on assets in the pension fund are often recognized (sometimes referred to as "smoothed") over a 3 to 5 year period.[1] The state or local government is obligated to amortize the UAAL over a period established by law or agreement with the pension system, typically at an assigned interest rate established by the pension system, which assigned interest rate is usually the same as the actuary's assumed rate of investment return on pension fund assets (sometimes referred to as the "Actuarial Rate").

[1] Note that the smoothing methodology referred to may result in "unrealized" or "lagging" unfunded liability. See discussion of POB possibilities in footnote [4].

B. Normal annual contribution

In addition to making payments toward any UAAL, the state or local government is required to make payments to the pension fund each year in respect of the present value of the benefits being earned by the current employees covered by the pension fund (that is, the amount being earned by those employees with each paycheck necessary to pay future retirement benefits, based on assumptions of mortality rates, salary increases, assumed rate of investment income and the other assumptions referred to in the preceding paragraph), generally referred to as the "normal annual contribution."

CHAPTER THREE

Reasons For Issuing POBs

The reasons why state or local governments issue POBs vary from issuer to issuer and from time to time with economic conditions and other circumstances. However, these reasons generally fall into one or more of the following categories:

A. Interest Rate Savings

As described in Chapter Two, most pension systems assign an interest component to the payments the state or local government is required to make in respect of its UAAL. Assigned interest rates currently generally range from 7½% to 8½% depending on the particular pension system. When taxable bond rates are low, and as of fall 2003 they are roughly 5.95% or less for 30 year debt, then POBs can function like a classic interest rate savings refunding. For example, if the assigned rate is 7.5% on a UAAL of $100,000,000, the annual all in cost would be roughly $8,500,000 assuming a 30 year amortization, compared to an all in cost of $7,300,000 on POBs amortized over the same period assuming a 5.95% interest rate and costs of issuance of 1%. These savings to a degree can be front loaded or otherwise structured to occur when most needed (see Section C of Chapter 5).

On the other hand, because the factors on which the UAAL is based are constantly changing (such as mortality and investment return), the final amount of interest rate savings cannot be determined with certainty. Also, the assigned interest rate may change from time to time during the life of the bond issue, and, at least theoretically, the amount of interest rate savings could become negative (even if all the other factors remain the same) if the assigned interest rate were to drop and remain below

the bond interest rate for a substantial period. So far this has not occurred, even though the assigned interest rate in some cases has dropped by more than one percentage point since the mid-1990s. This possibility is furthermore generally considered to be unlikely because the assigned interest rate is based on an assumed investment rate of return which reflects investments with a higher risk profile and, therefore, higher projected return than the POBs.

B. Discounts

In some cases, it may also be possible to negotiate discounts with the pension system for early payment of the normal annual contribution or even the UAAL (which may reflect the pension fund's assumed rate of investment return or even its then current investment opportunity). It may also be an opportunity to renegotiate other terms of the pension obligation.

C. Arbitrage

Generally, pension funds may invest in a much broader range of investments than the state or local governments, and the size and diversity of the pension fund's portfolio allows for a higher risk profile than the state or local government could prudently sustain with its own investments. As mentioned above, this is why the assumed rate of investment return is generally materially higher than the bond rate. The actual investment performance of most pension systems (at least in most years) has substantially exceeded the assumed interest rate. Therefore, there is the possibility that proceeds of the POBs will be invested by the pension fund at significantly higher return than the interest cost on the POBs (even if interest on the POBs is taxable).

In almost all cases, the benefit of earnings on investment of bond proceeds in the pension fund will be credited to the state or local government issuer either in reduced UAAL or reduced normal annual contribution or both. In some cases, the allocation of this benefit is subject to negotiation between the state or local government and the pension system and may even be decided by the state or local government each year. This benefit from earnings is why interest on POBs is generally not exempt from federal income tax (see Chapter 6). So this arbitrage is not the typical municipal bond arbitrage derived from borrowing at tax-exempt rates and investing at taxable rates, but rather what might be called risk arbitrage derived from borrowing against the credit of the state or local government and participating through the pension fund in a portfolio of investments that is designed to produce a higher yield and manage the higher risk through diversification. Of course, there is no guaranty that such arbitrage will be positive.

D. Budget Relief

Particularly in the current environment of substantial budget deficits, POBs are being used for budget relief. This may be accomplished by:

(1) reamortizing the UAAL by replacing the obligation to the pension fund with POBs having a longer term and/or lower payments in the early years (or even no debt service in the early years if capital appreciation bonds (CABs) or capitalized interest is used), and/or

(2) funding the normal annual contribution for the current (and maybe the next) fiscal year (to the extent permitted by applicable state law).

E. Labor Relations Benefits

Some state or local governments have used POBs, at least in part, to improve relations (or negotiations) with its employees and their unions by funding unfunded pension liabilities to those employees.

F. Better Than The Alternatives

In some cases, POBs are simply better than the alternatives: (i) paying more into the pension fund; (ii) asking employees to pay more into the pension fund, (iii) reducing benefits; or (iv) hoping that gains on pension fund investments will substantially exceed the assumed rate of investment return.

CHAPTER FOUR

Possible Disadvantages of POBs

Despite the foregoing benefits of POBs, there are a few possible disadvantages.

A. In some jurisdictions, a state or local government may negotiate or even unilaterally make changes in its pension obligation, perhaps by postponing payments or changing assumptions. POBs replace this potentially flexible pension obligation with a more immutable bond obligation.

B. As explained in Chapter 3, while unlikely, it is possible that the assigned interest rate will drop below the bond interest rate or that the pension fund will have negative earnings, in each case for a sustained period.

C. If the pension fund enjoys higher than expected earnings, the pension fund may become overfunded and result in temporary contribution holidays, but also can lead to increases in retirement benefits that may be costly to sustain at some point in the future.

D. POBs result in payment to and investment by the pension fund of a lump sum amount that otherwise would have been paid and invested in increments over a period of years, concentrating rather than spreading market timing risks.

E. Almost all POBs are taxable and most taxable bonds with fixed interest rates are sold as noncallable bonds. Adding a redemption feature will ordinarily result in a materially higher interest rate cost than the same redemption feature in tax-exempt bonds. Therefore, taxable noncallable bonds may be expensive to refund or defease, although there have been a number of successful tender offer refundings of taxable POBs (that is, a tender offer was made for the prior bonds and the tender price was paid with proceeds of new refunding bonds).

Another way to address this concern is by using variable rate bonds, which may contain redemption provisions without additional interest rate cost, and may be accompanied by a floating-to-fixed interest rate swap if a fixed rate obligation is desired.

Note that many of these issues can be addressed in whole or in part by using POBs to fund less than all of the UAAL.

CHAPTER FIVE

Types of POBs

A. Security

Most POBs are payable from the general fund of the issuing state or local government. As such, they must either satisfy or be exempt from the debt limitation provisions typically found in the applicable state constitution and, accordingly, generally fall into one of the following three categories:

1. ***General obligation bonds,*** which term generally refers to bonds that satisfy any constitutional debt limitation and are backed by the full faith and credit and taxing power of the issuing state or local government. An example is the $10,000,000,000 State of Illinois General Obligation Bonds Pension Funding Series of June 2003 (Taxable), the largest POB issue to date. A variation is full faith and credit limited tax bonds payable from available general funds but without any obligation to levy additional taxes. See discussion in Chapter 10.

2. ***Obligations imposed by law,*** which term refers to an exception recognized in a few states from the otherwise applicable debt limitation contained in the state constitution. It applies to obligations imposed on the state or local government by the constitution or by statute or, in some cases, by court judgment as distinguished from a voluntary exercise of the borrowing power by the state or local government. Most pension obligations would qualify and, in states in which the obligations imposed by law concept applies, bonds issued to fund those pension obligations (POBs) are considered to have the same legal character as the pension

obligations themselves. POBs issued in California during the past decade have all been obligations imposed by law. See discussion in Chapter 9.

POBs issued as obligations imposed by law generally cannot include reserves or capitalized interest because those components of the obligation are not considered to be imposed by law, even on the theory they are essential to marketing the bonds (because so many obligations imposed by law POBs have been issued without them). On the other hand, costs of issuance may be included. The inability to include capitalized interest means that it may be difficult to achieve complete budget relief in the early period following issuance of the bonds without resort to capital appreciation bonds (CABs).

3. ***Annual appropriation bonds,*** which term refers to bonds that are not considered debt subject to a constitutional debt limitation because the state or local government issuer has no legal obligation to pay them and payment is therefore subject to annual (or other periodic) appropriation of funds for that purpose at the discretion of the legislature or governing body of the state or local government issuer. Examples include the $773.5 million POBs issued in 1996 for the State of New York and the $2.8 billion POBs issued in 1997 for the State of New Jersey.

4. ***Other.*** In the mid-1980s and occasionally since, some cities and counties in California issued POBs as so called asset-strip lease revenue bonds or certificates of participation (COPs). The city or county leased existing facilities (with a value at least equivalent to the amount of bonds/COPs to be issued) to a joint powers authority or other governmental entity or to a nonprofit corporation, simultaneously leasing them back; the leaseback was assigned to a trustee and bonds/COPs were issued secured by the leaseback payable from the city or county's general fund, and the proceeds of the bonds/COPs were paid to the pension fund net of costs of issuance and reserves and capitalized interest retained by the trustee.

In certain circumstances, it may also make sense to use revenue bonds as POBs (for example, if the issuer is a revenue producing enterprise, authority or district). (See also Chapter 10.)

B. Credit Ratings/Borrowing Capacity

Because POBs replace existing pension obligations, they are not generally viewed as adding to the debt burden of the state or local government issuer (much like a conventional refunding).[1] To quote the rating agencies:

> "Moody's believes the issuance of pension obligation bonds (POBs) is one effective way of addressing an unfunded liability. Since POBs reduce the cost of funding an unfunded liability, their issuance is not by itself a credit weakness. However, the planning and analysis conducted by a local government as part of the decision to grant expanded benefits, the government's plan for funding any unfunded pension liability, and its ability and willingness to budget appropriately for any attendant higher costs, are reflective of the quality of the government's overall financial management. These factors, therefore, will be considered in our assessment of a government's general credit quality.
>
> "Standard & Poor's factors the effects of a pension obligation bond strategy into the long-term rating of the sponsor. Standard & Poor's has viewed POBs as a strategy for savings on carrying charges as long as the transaction was structured conservatively and the assumptions were reasonable and attainable. This requires a clear financing plan including reasonable assumptions and manageable leverage. Prudent expectations for investment returns and the cautious use of resultant savings help insure a POB's success. Another positive factor for a POB is, of course, to be fortunate enough to sell the bonds in a low interest rate environment, thereby increasing the spread between interest costs and investment return expectations and lowering the risk of underperformance."
>
> "Fitch believes that POBs, if used moderately and in conjunction with a prudent approach to investing the proceeds and other pension assets, can be a useful tool in asset-liability management. However, a failure to follow balanced and prudent investment practices with respect to POB proceeds could expose the sponsor to market losses.

[1] Note that to the extent the POBs fund the normal annual contribution, new long-term debt is created which could have an affect on credit ratings not present if the POBs fund only the UAAL.

Because a sponsor's unfunded pension liability is already factored into the rating, the issuance of POBs simply moves the obligation from one part of the balance sheet to another. However, Fitch notes that POBs create a true debt, one which must be paid on time and in full, rather than a softer pension liability that can be deferred or rescheduled from time to time during periods of fiscal stress. Consequently, POBs can have a significant effect on financial flexibility over time."

The actual ratings on the POBs will depend primarily on legal structure. General obligation bonds and annual appropriation POBs should be rated the same as the issuer's other general obligation or annual appropriation debt. Obligations imposed by law POBs are generally rated in between: a notch below the issuer's general obligation bond rating and a notch above its lease or other annual appropriation debt.

C. Structures

Because POBs are generally payable directly from the general fund of the state or local governmental issuer, the structure of the bond issue is usually simple and straightforward, varying primarily in interest rate mode, using one or a combination of the following:

1. ***Fixed rate bonds.*** Because most POBs are issued, at least in part, to achieve interest rate savings, most POBs are issued as fixed rate bonds. The advantages are the same as fixed rate bonds generally, namely, they lock in interest cost, and with interest rates at historic lows, this is a very attractive prospect in itself. The disadvantages are: (i) the assigned interest rate on the pension obligations funded with POBs is not fixed, so interest savings cannot be fixed with certainty (see Section A of Chapter 3), and (ii) fixed rate taxable bonds are usually sold as noncallable, so they cannot be easily refunded or defeased if rates drop or circumstances change (see discussion Section E of Chapter 4).

2. ***Variable rate demand bonds.*** Variable rate demand bonds are bonds the holders of which may tender them back to the issuer or its agent upon short notice (usually 7 days, but may be 1 day, 1 month or other periods), for a purchase price equal to par plus accrued interest. As a result, they bear interest at rates like, and have some other characteristics of, short term obligations. Variable rate demand bonds generally require a bank letter of credit, standby purchase agreement or other facility to assure liquidity in the event bonds are tendered and cannot be remarketed. Unless the issuer is highly rated, variable rate demand bonds are typically also credit enhanced with either bond insurance or bank letter of credit or other credit facility. The advantages of variable rate demand POBs are that (i) their interest rates are generally lower than fixed rate bonds, and (ii) they are usually subject to redemption at any time without premium and at no extra interest rate cost for the right to redeem. However, while the interest rate usually starts out lower than fixed rate bonds, the rate is variable and subjects the issuer to interest rate exposure and risk to the interest rate savings objective and to the risk arbitrage pension fund investment objective for issuing the POBs (see discussion in Sections A and C of Chapter 3). Interest rates may be affected not only by market conditions but also by the financial condition of the issuer or the credit provider or liquidity provider. In addition, there are risk, costs and aggravation associated with renewal of any bank liquidity or credit facilities, which usually have a term of one to five years, compared to the POBs which typically have a term of more than 20 years.

3. ***Auction rate bonds.*** Auction rate bonds appear to be the most popular current variable rate mode at this time because they do not require a bank letter of credit, standby purchase agreement or similar liquidity facility required for variable rate demand bonds or commercial paper. This is because auction rate bonds are not puttable back to the issuer but instead are subject to periodic auction (typically every 7, 28 or 35 days) if the holder would like to dispose of its bonds other than by direct sale. The interest rate is reset by the auction price and tends to be materially less than the then current fixed rates (for example, in the fall of 2003, 7 day auction rate taxable POBs bore rates of roughly 1.05%-1.15% compared to 30 year taxable fixed rates of approximately 5.95%). However, there is no assurance that auction rates will not increase to exceed the fixed rate at which the POBs could have been originally issued. If there is an auction with no buyers (*i.e.*, a failed auction), the interest rate

usually goes to the maximum rate (typically 12 to 15%). Failed auctions are rare. The primary reason they may occur is (i) a cloud of some kind on the tax-exemption of the bonds (for example, an IRS audit or challenge to the tax-exemption of similar bonds), which is not a risk for most POBs because they are taxable; or (ii) a shock to the security for the bonds (for example, bankruptcy of an important source of revenue) which is improbable with general fund obligations like POBs unless the issuer goes bankrupt (which states cannot do under U.S. bankruptcy law, and cities and counties do very rarely).

4. ***Indexed bonds.*** Indexed bonds are variable rate bonds that are not subject to tender back to the issuer and, therefore, do not require a bank liquidity facility, and bear interest at a fixed spread over a market index (typically either three or six month LIBOR) reset at the end of each accrual period (typically quarterly if three month LIBOR is used or semiannually if six month LIBOR is used). LIBOR refers to the London Interbank Offered Rate and is published daily as page 3750 on the Telerate, Inc. news and information service (referred to as the Official LIBOR Page). Indexed bonds of this type are used primarily to facilitate marketing of POBs outside of the U.S. where investors are more accustomed to LIBOR based investments, but are also attractive to many U.S. investors as well. Like auction rate bonds, index bonds may be subject to redemption without penalty. However, also like auction rate bonds there is no assurance that LIBOR indexed rates will not increase to exceed the fixed rate at which the POBs could have been originally issued. However, unlike auction rates, the LIBOR index is not affected by events affecting the POBs issuer or the POBs. Index bonds may also be swapped to fixed more efficiently and with little or no basis risk compared to auction or other variable rate bonds because the global swap market is primarily LIBOR based.

5. ***Capital appreciation bonds.*** Capital appreciation bonds (CABs) are bonds that bear no current interest, which instead is accrued, compounded (usually semiannually) and paid at the maturity of the bonds. They are used primarily to reduce debt service in the early years. A variation is convertible CABs, that function as CABs for several years and then convert on a certain date to current interest bonds (with interest paid on the then accrued value of the bonds, being the original principal amount plus the amount of accrued, compounded interest up to the conversion date). The disadvantage of CABs is that higher rates of interest are required in order to market them.

6. ***Swaps.*** If variable rate bonds are used, the resulting interest rate exposure may be swapped to a fixed rate, in whole or in part, using a floating-to-fixed interest rate swap. While swaps may often make a great deal of sense in this context, they are complex financial investments and beyond the scope of this pamphlet. It is important to make sure that if a swap is to be used, it is consistent with the issuer's objectives and does not itself expose the issuer to risks or consequences the issuer does not fully understand or are inconsistent with its objectives. For example, if the purpose of using variable rate POBs is to allow for refunding or early redemption if rates drop or other circumstances change, the termination payment that may be due on early termination of the swap may offset the benefit of and effectively prevent refunding or redemption. There are also other circumstances in which a substantial termination payment may be due from the state or local government such as default of the swap provider or downrating of either party, as well as other terms that can be modified to suit the state or local government's objectives. Expert advice should be sought before entering into any swap.

D. Payments to the Pension Fund: Whole or Part

POBs may be issued to pay all or any part of the UAAL or (depending on applicable state law) the normal annual contribution.* Frequently, issuers choose to use POBs to fund only a portion of the UAAL, generally to avoid or reduce the concerns described in Chapter 4. The portion of the UAAL funded may be (1) a percentage of the total UAAL as of the date of issuance of the POBs, or (2) all of

* Depending on state law and financing structure, it may also be possible to finance future year's normal annual contribution and/or unfunded liability created by investment losses not yet realized due to actuarial smoothing methodologies (which phase in investment gains and losses over a period of, usually, 3 to 5, years).

certain years contributions to the UAAL. If agreed to by the pension system, the second approach can result in suspension of all UAAL contributions during those years (for example, the next succeeding 10 years). At the end of the period, the UAAL will be recalculated and amortized over the remaining original term of the UAAL. The risk of this second approach to partial payment of the UAAL, which is much less common than the first approach, is that if investment performance of the pension fund is substantially below the assumed rate of return, there could be a significant increase in the amount of UAAL to be amortized over the remaining term. To a degree, that risk can be addressed by subsequent issues of POBs (before or after the date of recalculation).

CHAPTER SIX

Tax Issues

A. Taxable Bonds

Most POBs are taxable. That is, interest on the bonds is included in gross income for federal tax purposes, although they are usually exempt from income taxes of the state in which the issuer is located. This affects not only the interest rate at which the POBs are sold but also the types of investors to which they are marketed (for example, corporate pension funds, charitable endowments and others not subject to federal income tax and, for some of the larger issues, non-U.S. investors). There are, however, a few circumstances in which POBs may be tax-exempt.

Why most POBs are taxable, with these few exceptions, is explained below.

B. Tax-Exempt POBs Prior to 1986 Tax Act

Prior to the enactment of the Tax Reform Act of 1986 (the "1986 Tax Act") POBs that were properly structured could bear interest that was excluded from gross income for federal tax purposes. However, to get tax-exempt treatment, investment of bond proceeds for the benefit of the covered employees and former employees had to be designed so that the issuer/employer did not benefit from the investment in any way other than relieving the issuer of the responsibility of paying its retirees.

If proceeds deposited in the pension fund were expected to be invested in securities or obligations with a yield higher than the yield on the POBs, the issuer's obligation to make additional contributions into the fund would be reduced in the future, a

prohibited anticipated direct benefit from the investment of the bond proceeds by the pension fund.

However, the situation was different where the issuer contracted with someone else to take over the responsibility of making payment to the retirees and paid for that transfer of risk with proceeds of POBs – for example, by purchasing an insurance company annuity whereby the insurance company took over all liability for the payment of the pension benefits. In that case, the insurance company bore the risks and benefits of investment return – the issuer got no benefit from investments made by the insurance company even if the expected investment return was reflected in the price paid by the issuer for the annuity policy. In addition, the purchase of an annuity was not treated as the purchase of a "security" or "obligation" under the tax law. A number of tax-exempt POB transactions were consummated in the early 1980's in which the proceeds were deposited into a pension fund and were used to acquire insurance company annuity contracts.

C. Tax Reform Act of 1986; Transition Rules

1. ***Stopping New Issues of Tax-Exempt Pension Bonds.*** As a result of the threat of a proliferation of tax-exempt POB issues, Congress decided to amend the tax law to prevent the investment of tax-exempt bond proceeds in annuity contracts. New rules were adopted in the 1986 Tax Act. "Investment type property," including annuity contracts, was added to "securities" and "obligations" – potential arbitrage investments. In addition, because of the urgency with which it viewed the matter, Congress included a special effective date rule in the 1986 Tax Act relating to annuity contracts which applied to all bonds issued after September 25, 1985. The 1986 Tax Act essentially ended the issuance of tax exempt POBs for the purpose of depositing the proceeds into a pension fund or for the purpose of purchasing annuities to replace the issuer's responsibilities to its retirees, except as described below.

2. ***Transition Rules for Refundings of POBs.*** The status of refundings of pre-1986 Tax Act POBs was not specifically addressed in the 1986 Tax Act. In connection with two later tax acts, the Technical Corrections Bill of 1988 and Technical and Miscellaneous Revenue Act of 1988, Congress attempted to clarify its position on refundings. While the statutory language and legislative history are a bit confused, the related House, Senate, and Conference Committee Reports indicate that Congress intended generally to permit one advance refunding of pre-September 25, 1985 POBs (at least where the amount of the refunding is not greater than the amount of prior bonds). Additionally, the legislative history indicates that Congress intended to permit any number of current refundings of pre-September 25, 1985 POBs where the refunding bonds do not additionally burden the tax-exempt market, but merely replace existing tax-exempt debt.

D. Columbus Case

The State of Ohio created a state fund into which municipal corporations in the State were required to transfer, on January 1, 1967, all existing assets and liabilities of their local pension funds for police and firefighters. Under the State law, all pension liabilities accruing after the transfer would be supported by current employer and employee contributions. However, while the State fund completely assumed the assets and liabilities of a city's retirement fund, the law mandated the city pay to the fund, either immediately or over time, an amount equal to the present value of the accrued but unfunded liability determined at the time of the transfer. The City of Columbus opted to satisfy its obligation over time together with the required interest.

In 1993, the State modified the law to allow any city still owing money to the fund to extinguish its remaining UAAL in return for a single payment equal to 65% of the then unpaid principal balance. The City decided to prepay its obligation. However, upon hearing that the City was going to issue tax exempt bonds to fund its prepayment, representatives of the Internal Revenue Service notified the City that they would assert that interest on these bonds would be taxable. The City sought a private letter ruling from the Internal Revenue Service and received an adverse ruling which it appealed to the Tax Court.

In the court proceedings the Service argued, among other things, that the discount the City received on the prepayment of its obligation to the fund was a form of

investment return and thus created impermissible arbitrage profit. The Service reasoned that the pricing of the prepayment reflected the expectation of the State fund that it would be able to invest the amount of the prepayment at a yield materially higher than the yield on the City's bonds. As a result, the Service believed that both the City and State fund would benefit form the earnings on the investments. In addition, the Service argued that the prepayment constituted the use of bond proceeds to acquire "investment-type property" at a yield higher than that on the bonds (after taking into account the discount received on the prepayment) in that absent the discount pricing of the prepayment there would be no economic savings for the City.

Ultimately, the City prevailed on appeal as the Court of Appeals concluded that there was an existing obligation of the City to the State fund, the City would not benefit from the investment of amounts by the State fund and the prepayment of the City's own debt obligation to the State fund did not constitute the acquisition of investment type property by the City. The City was then able to refund its obligation to the State fund by issuing tax exempt POBs.

While the unusual facts in this case have application beyond the City of Columbus, such application is likely to be fairly limited and to attract unfavorable attention from the Internal Revenue Service.

E. Tax-Exempt Working Capital Bonds

While directly issuing bonds to deposit the proceeds into a pension fund does not appear to be permitted under current tax law governing tax-exempt bonds, in certain cases it may be possible for a state or local government to indirectly fund the current year's pension deposit. For example, a state or local government may issue short term tax or revenue anticipation notes or long term working capital bonds to finance a cash flow budget deficit or a so-called structural budget deficit. The deficit analysis would include any cash flow deficit relating to the state or local government's obligation to deposit amounts into its pension fund.

It may be that this type of financing is best done so that the bond proceeds are not required to be deposited in the pension fund, but rather, are used to fund deficits created by working capital expenditures including the deposit of amounts into the pension fund. In other words, it is important that the bond proceeds not be "traced" into the pension fund or required to be deposited there and the bonds should not be called Pension Obligation Bonds.

Among other things, long term bonds of this type would bring into play the application of some complex federal tax rules relating to when proceeds can be treated as spent, allocation of the deficit in sizing the issue, permitted amortization structure, the application of so-called "other replacement proceeds" rules, applicable yield and other investment restrictions, post-issuance compliance matters, plus the intersection in sizing and in post-issuance compliance with the issuance of normal tax or revenue anticipation notes and any other short term or long term working capital obligations.

F. Investment of POB Proceeds in Municipal Obligations

The primary tax problem in the use of tax-exempt POBs to make a deposit to a pension fund is that the proceeds are not treated as spent, but rather are treated as invested. Moreover, under the so-called "proceeds spent last" rule applicable to working capital financings, these proceeds cannot be treated as paid out to pension recipients until all other available amounts are first expended, which as a practical matter, means that the proceeds will never be deemed expended. Unless the investment yield on the investments in the pension fund is not more than the yield on the bonds, the bonds will become taxable arbitrage bonds. In addition, the "hedge bond" rules would result in the bonds being treated as taxable hedge bonds unless the issuer actually expected to spend the proceeds within a three- or five-year time frame, taking into account the "proceeds spent last" rule.

However, under both the arbitrage rules and the hedge bond rules, interest on the bonds used to fund the pension fund could be tax exempt if the issuer invested the proceeds of the bonds in municipal obligations the interest on which is not subject to the alternative minimum tax (so-called "non-AMT" municipal bonds). Under these provisions as long as the amount of non-AMT municipal bond investments in the

pension fund is at least equal to 95% of the amount of POBs outstanding at any time, interest on the POBs will be tax exempt. As the POBs are amortized, there is a similar reduction in the amount required to be invested only in non-AMT municipal bonds in the pension fund.

While this structure allows for POBs to be issued as tax exempt, the benefit of the tax exemption on the bonds may be outweighed by the limitation on the type of investments allowed with the proceeds.

G. Other Considerations: Effect on TRANs

Tax and revenue anticipation notes (TRANs), are typically issued by state and governmental units of all sizes to fund the annual cash flow deficit which arises due to the timing mismatch between annual revenues and annual expenses. TRANs are almost always issued as short term notes with maturities of 13 months or less and are repaid at or shortly after the end of the fiscal year by which time it is expected that revenues will have "caught up" with expenses. To the extent the POB proceeds are used to fund a deposit to the pension fund that otherwise would have been made out of current year's revenues, the deficit will be likely be reduced by the same amount, impacting the sizing of any TRANs issued for that year. The one circumstance where this would not happen is if the calculation of the maximum cash flow deficit used in sizing the TRANs shows that it is incurred prior to the time of the pension deposit. In that case, the use of proceeds to make that deposit would not have any impact on the size of the TRAN issue.

CHAPTER SEVEN

Federal Reimbursement Issues

Certain costs of state and local government in administering programs under grants from or contracts with the federal government are eligible for reimbursement from the federal government. Such costs include compensation and benefits, including pension benefits, of state or local government employees for the time devoted to the administration of such programs. Such allocable pension benefit costs even include the interest assigned to the state or local government's unfunded liability. The principles governing such reimbursement are set out in Office of Management and Budget Circular A-87. Some states have similar programs for reimbursement of local governments for costs related to the administration of state programs.

POBs replace the state or local government's payment of some or all of these pension costs with payment of the principal of and interest on the POBs. Issuers will want to be comfortable that the federal government will treat debt service on the POBs as the surrogate for the pension obligations funded or refunded with the POBs and will continue to reimburse its allocable share. Statements have been issued by the Office of Management and Budget and the Department of Health and Human Services to the effect that the POBs, including principal (representing amounts paid to the pension fund), interest and costs of issuance, will be allowable as the pension costs funded or refunded thereby, so long as the POBs are not more costly to the federal government than the regular pension costs funded or refunded over the remaining life of the unfunded liability. The same principles should apply to refunding POBs. Further details of federal and state reimbursement programs are beyond the scope of this pamphlet.

CHAPTER EIGHT

New York

A greater number of POBs (roughly 95) have been issued by the state and local governments in New York over the past decade than from any other state.

The issuance of POBs by local governments in New York was first authorized in 1989. The State and Local Employees Retirement System of the State of New York ("ERS"), the New York State Police and Fire Retirement System ("PFRS") and the New York State Teachers Retirement System ("TRS", in the aggregate referred to as the "NYS Retirement System") were all modified in 1989 with respect to the method by which the annual contribution amounts were to be calculated in the future. As a result, each system was significantly underfunded, requiring a "catch-up" payment to return to actuarial full funding. Participating local governmental units were offered the option of (1) amortizing the UAAL amount due by a date certain through a direct loan from the State which carried an 8% (for TRS) or 8¼% (for ERS and PFRS) rate of interest until the liability was fully met, or (2) financing the UAAL through the issuance of general obligation bonds over a statutory period (applicable to the particular retirement system), or (3) paying cash by the date certain. Few local governments, except small jurisdictions with few employees, took the third option.

During the period 1989 through 1993, counties, cities and larger school districts, in particular, issued general obligation bonds to pay off their then current balance of unamortized UAAL whenever interest rates dipped sufficiently to permit a lower net interest cost on their own bonds than the 8% or 8¼% rate being charged by the State. During this period, local governments could issue ten year general obligation bonds with net interest costs in the range of 6% to 7.375% depending on their credit rating. The 1989 legislation further provided that at such time as the remaining amortization period was less than five years, local governments could no longer issue

their own debt to pay off the outstanding balances. Thus, with a permitted maximum statutory amortization period of seventeen years for most UAALs, the possibility of financing of the 1989 UAALs ended in the 2001-2002 fiscal year of most local governments.

Beginning in 1995, the State adopted legislation almost every year creating new retirement incentive programs for various categories of State and local government employees, largely to support a goal of efficient downsizing of government. Generally the legislation establishing these programs did not at the time include provisions for financing of the resulting unfunded liabilities. Such costs, which added to any existing UAAL, were paid either by amortization through the NYS Retirement System or by cash.

Concurrently in this time period, another type of pension-related program was developed by the State legislature which authorized local governments to create service award and defined benefit programs for volunteer ambulance and fire-fighting personnel. The legislation permitted the financing of contributions to certain of such programs attributable to years of volunteer service rendered during the five years prior to adoption of such programs. Such financing cannot be amortized over a period exceeding five years.

In 2003, new legislation was adopted for the purpose of structural reform in the method and manner of employer contributions to the NYS Retirement System, which legislation also included two provisions for the issuance of POBs:

1. Local governments are now permitted to issue POBs for any outstanding obligations to the State for any existing retirement incentive program (i.e., the retirement incentive programs established annually in the years from 1995 through 2002). (This provision was drafted by Orrick attorneys on behalf of the New York State Association of Counties.) The amortization period is limited to five years.

2. Similar to the 1989 legislation, a local government (and the State itself with regard to its own employees) is permitted to amortize a portion of its normal annual contribution for one fiscal year — that is, local governments are permitted to amortize the amount due on December 15, 2004 to the ERS or PFRS component of the NYS Retirement System (except deficiency payments, adjustments relating to prior year payments, obligations for retirement incentives or other similar amounts) to the extent that such amount exceeds 7% of the estimated "pensionable salary" base for the then current fiscal year (2004-2005). This "amount eligible for amortization" may be amortized over a five year period at 8% with the State, or local governments are authorized to issue their own debt obligations to pay such amount, with maximum maturity not to exceed five years. On or about October 15, 2003, the State Comptroller is to determine the "amounts eligible for amortization."

The only type of financing specifically authorized for POBs in New York State are general obligation bonds (which obligations include a pledge of the full faith and credit and taxing power of the local government). These bonds must be issued in the same manner, under the same procedural requirements and subject to the same debt limits and other constraints as for any capital project of the local government. Mandatory or permissive referendum requirements applicable to general obligation bonds of the particular type of local government apply to bond resolutions authorizing POBs. For example, school districts must receive voter approval before issuing debt for any purpose authorized by the 2003 legislation. (Note that the legislation in 1989 exempted such school district POBs from the voter approval requirement, this omission in the 2003 legislation may be corrected during a future legislative session.) Likewise, fire districts would need prior voter approval. The bond resolutions of counties, towns and villages which authorize payment for five years or less are not subject to mandatory or permissive referendum. Similarly, city bond ordinances should not be subject to mandatory or permissive referendum unless specified by applicable special city charter provisions.

Once a bond resolution has been adopted by a local government authorizing the issuance of POBs, it is generally necessary to publish a legal notice of estoppel including a summary of the bond resolution and allow the 20 day estoppel period to elapse prior to the sale of the POBs. The purpose of the estoppel notice is to ensure that debt issued by the local government cannot be challenged on any basis

procedural or otherwise, except on constitutional grounds once the estoppel period elapsed.

The New York State Legislature has also authorized the State itself to borrow in order to fund its UAAL on at least two occasions. In 1996, the State through the Dormitory Authority of the State of New York issued $773,475,000 of POBs as annual appropriation debt. These bonds had a final maturity in 2003. The 2003 legislation described above also amended the State Retirement and Social Security Law to authorize the State to amortize a portion of the State's contribution bill for the fiscal year ending March 31, 2005. The amortizable portion is calculated in the same manner as that permitted local governments. Likewise, the State may either amortize that portion through the office of the State Comptroller for five years at 8% or issue POBs.

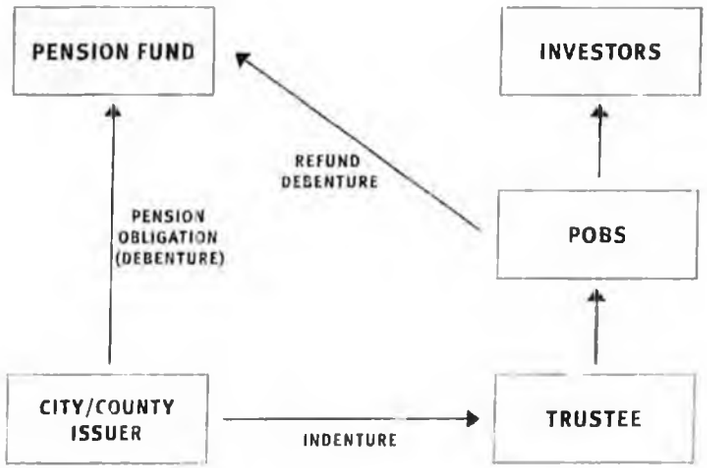
CHAPTER NINE

California

Pension obligation bonds had their start with the famous City of Oakland, California pension bond financing in 1985, the first POB in the country, which Orrick helped to invent and for which it served as bond counsel. That financing and a number of copy-cats that rapidly followed were tax-exempt and primarily driven by then legal arbitrage possibilities. As explained in Chapter 6, tax-exempt POBs largely came to an end with the introduction of tax legislation that became part of the Tax Reform Act of 1986.

A new taxable version of POBs surfaced in late 1993. During the last decade since, thirteen or so cities and seventeen or so counties in California have issued over 60 POBs (second only to New York) aggregating more than $11 billion (more than from any other state). With the exception of one tax-exempt transaction rule (see Chapter 6C) POB transactions issued as lease revenue bonds, all of these POBs have been issued under the local agency refunding law (drafted by Orrick a few years before for other purposes). California cities and counties do not have specific authority to issue POBs.[1] However, the local agency refunding law is available to all local public entities in California to refund prior bonds or "other evidence of indebtedness." The pension obligation to the county pension system, the California Public Employees Retirement System or other retirement system is memorialized as a "debenture," thereby becoming an "evidence of indebtedness," which can be refunded by POBs under the local agency refunding law.

[1] The State of California enacted specific authority for State POBs in 2004.



The POBs are typically structured as obligations payable from the general fund of the city or county issuer. They are not full faith and credit taxing power general obligation bonds backed by the issuer's taxing power, because the California Constitution's debt limitation requires such type of bonds to be approved by two-thirds of the electorate. Instead, California POBs have generally been designed to be valid without voter approval under a judicially created exception to the State Constitution debt limitation, which exception is generally referred to as "obligations imposed by law". See discussion in Section A2 of Chapter 5. Because this exception to the Constitutional debt limit was and is much less developed in the case law (few cases not directly on point) than the other two judicially created exceptions (for lease financing and revenue bonds) each POB issue in California has been validated pursuant to California's validation statute (Code of Civil Procedure §§860 *et seq*).

While there have been many validation actions for POBs, so far they have all ended with a default judgment and no published opinion, meaning that they have no precedential value or application to any transaction other than the specific transaction(s) validated.

What is validated in such validation actions is not legal principles but the bonds and the other principal legal documents approved in a bond resolution. Before the validation action is filed, it is necessary for the state or local government issuer to first adopt the resolution and authorize the bonds, the documents and the validation action. The validation action is filed in the superior court of the county in which the issuer is located, and an order for publication of summons is received. Summons can then be published (usually in a newspaper of general circulation in the city or county in which the issuer is located), which takes a minimum of 21 days. If no one answers the complaint by the date specified in the summons, which must be at least 10 days after completion of publication, the clerk can enter a default, and schedule a hearing before the judge for the default judgment (the timing of which will depend on the jurisdiction, and may be a day or two or, in some jurisdictions, at least 15 days after the clerk enters the default).

So assuming the very best case, obtaining a validation judgment takes a minimum of 31 to 46 days (depending on the jurisdiction) after filing the validation complaint. Of course, issuers are at the mercy of the judge and the clerk, and it sometimes takes a week or more to get an order for publication of summons, or longer than 15 days after the clerk enters a default to schedule the hearing. In addition, the judge could take the matter under submission for an indefinite amount of time or even disagree with the proposed default judgment, and decline to validate the transaction. Once granted, the default judgment may be appealed on jurisdictional grounds within 30 days. Therefore, it is typically assumed that the validation action will take approximately 60 days (not including the appeal period). It is generally considered reasonable to sell the POBs without waiting for the 30 day appeal period to run, assuming no one has answered the complaint, because the grounds for appeal are so narrow, but usually the bond closing does not occur until after the appeal period has expired.

If someone does answer the complaint, then there is true two party litigation on the merits. While some expedited procedures are available, the timing for resolution of the litigation cannot be predicted, and may take many months unless settled or abandoned. So far, no one has answered the complaint and default judgments have been obtained for every city and county POB issuer. However, the same was not true of the State of California, whose validation complaint was answered by the Howard Jarvis Taxpayers Association, and resulted in a decision on September 23, 2003 by

the Sacramento County Superior Court declining to validate the State's proposed POBs, which decision, as of this writing, is being appealed by the State.

The validation actions can and usually do validate not only the POBs to be issued but also any future POBs or refunding POBs. Not all validation actions are as inclusive or as flexible as they could be (some leaving out future new money or refunding POBs or costs of issuance or locking in semiannual interest payment dates, etc.), and must be carefully reviewed before relied on for future POBs or refunding POBs.

Note, as mentioned in Section A2 of Chapter 5, that the "obligations imposed by law" concept that is generally used to support POBs in California does not support reserves or capitalized interest because inclusion of such components in the bond issue are considered volitional not mandatory (as evidenced by the numerous California POBs issued without them) and therefore not "obligations imposed by law." Costs of issuance, on the other hand, can be included on the theory that they cannot be avoided. The inability to include capitalized interest makes achieving current budget relief more challenging (see discussion of structure options in Section C of Chapter 5). Alternatively, the POBs could be issued as annual appropriation bonds or asset-strip lease revenue bonds (see Section A3 and 4 of Chapter 5), which can include reserves and capitalized interest.

CHAPTER TEN

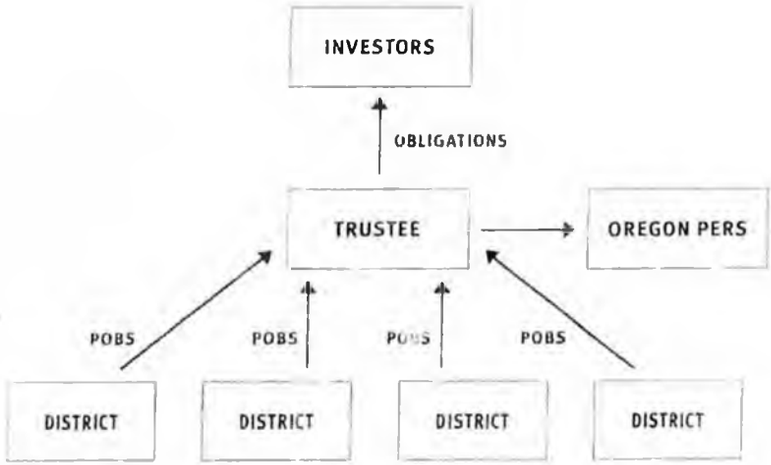
Oregon

State and local government issuers in Oregon have been among the most active users of POBs to finance their share of unfunded liability to the Oregon Public Employees Retirement System. POBs are issued in Oregon either as limited tax bonds or as revenue bonds.

Prior to the passage of the Pension Bonding Act in 2001, the City of Portland, Multnomah County and Josephine County issued significant sized POBs under Oregon's Uniform Revenue Bond Act. In 2001, the Oregon Legislative Assembly approved the Pension Bonding Act (which Orrick attorneys were involved in drafting). The Pension Bonding Act granted authority to "governmental units," including cities, counties, school districts, special districts, public corporations and intergovernmental corporations, to sell full faith and credit obligations for the purpose of refinancing pension obligations. POBs issued under the Pension Bonding Act are not subject to voter approval or annual appropriation and may be issued by local governments individually or jointly.

Significant pooled POB issues have been done by Oregon school districts, community college districts and local governments. In these transactions, the participants pledge their full faith and credit within the limitations of the Oregon Constitution and issue limited tax bonds payable from available general funds of the issuer. Available general funds include all ad valorem property tax revenues received from levies under each issuer's permanent rate limit and all other unrestricted taxes, fees, charges and revenues legally available to pay debt service on the POBs. The issuers are not authorized to levy additional taxes to pay the POBs.

In the pooled school district and community college district transactions, individual districts issued limited tax POBs in favor of a bond Trustee, which in turn issued obligations that represent a proportionate and undivided interest in and right to receive POB payments pursuant to a Trust Agreement. The POBs were further secured by an Intercept Agreement between the State Department of Education and the school districts and community colleges under which the Trustee was authorized to intercept specific education revenues otherwise paid by the State to the school districts and community colleges in an amount equal to the debt service on each issuer's POBs. Specific examples of recently completed Oregon pooled POB issues include: $153,582,299.60 Oregon Community College Districts Limited Tax Pension Obligations, Series 2003 (Federally Taxable); $927,079,763.45 Oregon School Boards Association Limited Tax Pension Obligations, Series 2003 (Federally Taxable); and $238,743,693.40 Oregon Local Governments Limited Tax Pension Obligations, Series 2002 (Federally Taxable). Each of the pooled transactions have been enhanced by bond insurance. By pooling these transactions, the issuers were able to increase the amount of bonds sold, which increased access to investors, and to lower interest rates and reduce costs of issuance.



Other jurisdictions, including the City of Portland, City of Corvallis, Multnomah County, Marion County, Josephine County, Eugene Water and Electric Board and Portland Community College District have sold POBs on a stand-alone basis.

As an alternative to issuing POBs as limited tax bonds pursuant to the Pension Bonding Act as described above, issuers have the option to issue POBs as revenue bonds pursuant to the Uniform Revenue Bond Act or the Pension Bonding Act. The Uniform Revenue Bond Act allows municipalities to issue revenue bonds for any public purpose secured by designated "revenues," which may include taxes and virtually all other general and special fund revenues and receipts of the municipalities. The Uniform Revenue Bond Act requires notice and a 60-day referendum period during which revenue bonds are normally subject to referral to a vote of the electorate if within the 60-day period 5% or more of the voters file petitions requesting a vote on the bonds. Revenue bonds issued pursuant to the Pension Bonding Act are exempt from this requirement.

In a special election on September 16, 2003, Oregon voters approved an amendment to the Oregon Constitution that authorizes the State Treasurer to issue POBs as general obligation bonds of the State of Oregon for the purpose of paying substantially all of the State's UAAL. The amendment provides that the general obligation of the State must contain a direct promise on behalf of the State to pay the principal, premium, if any, and interest on that indebtedness. The State also will pledge its full faith and credit and taxing power to pay that indebtedness; however, the ad valorem taxing power of the State may not be pledged to pay that indebtedness. The amount of POB indebtedness authorized by the amendment that may be outstanding at any time cannot exceed 1% of the real market value of all property in the State. The State presently expects to issue approximately $2 billion in POBs and to list them on the Luxembourg Stock Exchange in order to facilitate sales to European investors.

In 2003, the Oregon Legislative Assembly made substantial changes to Oregon PERS. The amount of litigation surrounding PERS in Oregon is increasing, and a

number of challenges to the legislative changes are pending in the courts. Several lawsuits have been filed in the Oregon Supreme Court and in the federal district court in Oregon seeking to have changes that were enacted to PERS enjoined or declared an unconstitutional impairment of contract or unconstitutional taking of property. Although these cases are not directly related to any particular bond issues, their outcome could have far-reaching implications with respect to PERS and related liability.

CHAPTER ELEVEN

Similar To POBs

Pension obligations are similar to other state and local government non-bond obligations, which it may be possible to fund in a manner similar to POBs. While this pamphlet is intended to cover primarily POBs, and they are the most frequently used and highly developed of this category, it is useful to note, at least briefly, that there may be other applications of the same concepts discussed above. Several examples (not an exhaustive list) may include such other actuarially based insurance or benefit obligations as workers compensation, health benefits and unemployment insurance or such non-actuarial obligations imposed by law as court rendered judgments for damages against the state or local government and, in California, county obligations under the Teeter delinquent property tax program.

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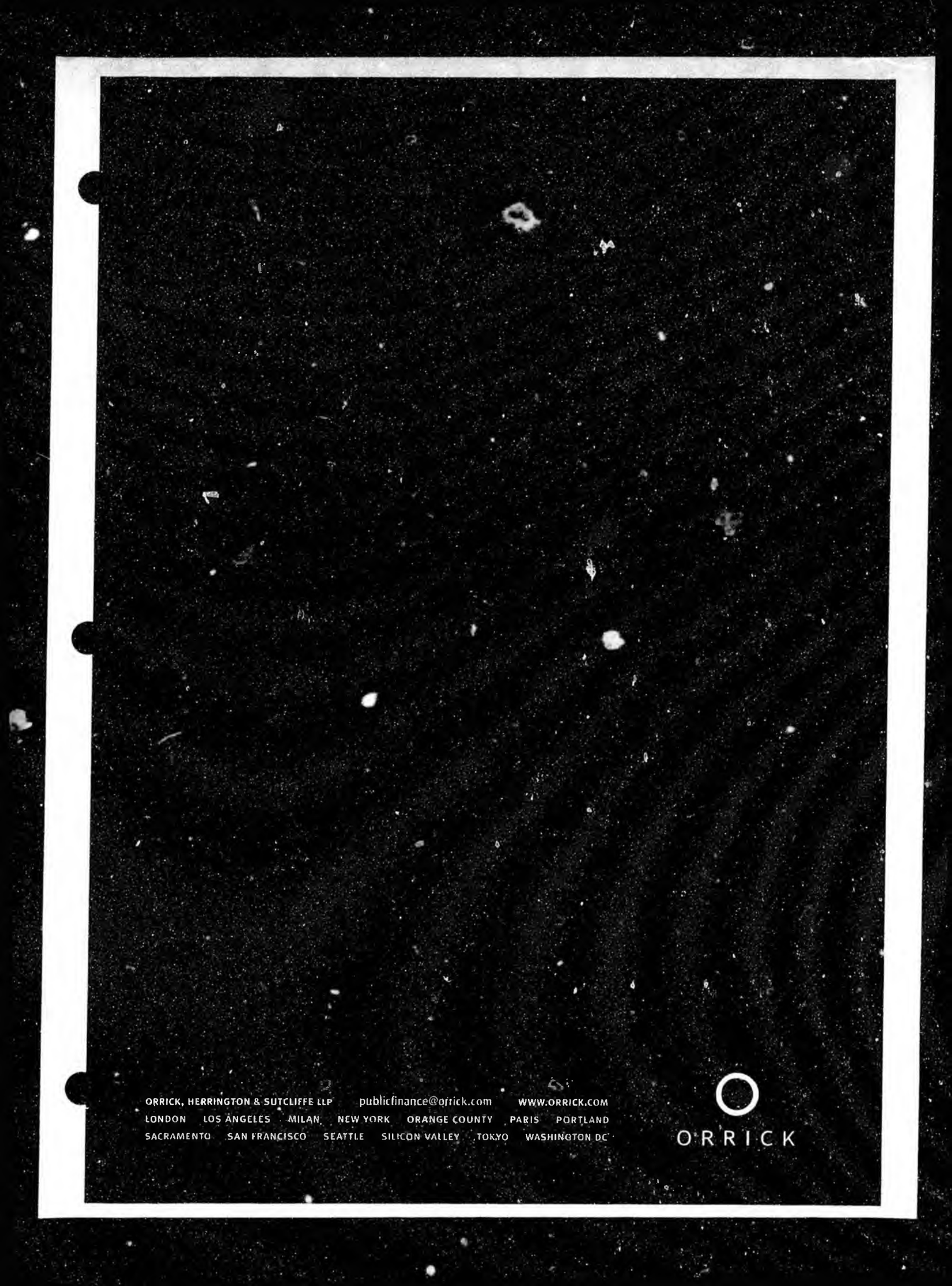
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Research:

Pension Obligation Bonds Are Surging After Brief Hiatus

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Pension obligation bonds (POBs), the once-arcane debt instrument used to finance unfunded pension liabilities, have returned with a vengeance after a brief hiatus, and are again making their mark on the public finance landscape. A number of conditions have fallen into place to spark this resurgence, including:

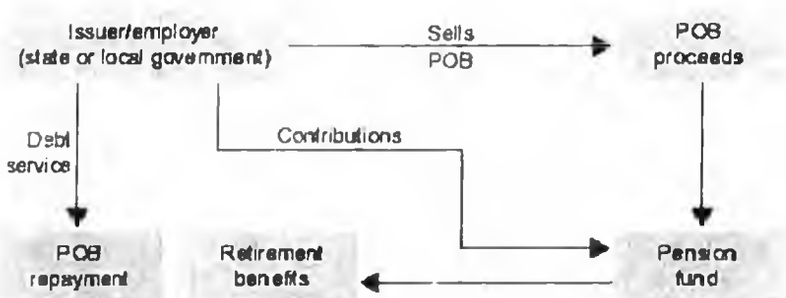
- The rapid growth in unfunded liabilities for public pension funds over the last few years, driven by investment losses, benefit enhancements, and greater longevity of pension plan beneficiaries;
- The relatively low interest-rate environment, which widens the spreads between the POB interest costs paid by the issuer/employer and the assumed investment return rate of the pension systems, which makes the economics of the transaction more attractive; and
- The potential cost savings from a POB, as many state and local employers struggle with budgetary imbalances and other savings alternatives become scarce.

Because of the confluence of these factors, POBs are back. This report details the mechanics of how POBs work, their history, the special risks unique to this debt instrument, the critical rating factors and implications, and future prospects.

How POBs Work

While the financial implications of POBs are complex, the actual mechanics are relatively simple. Generally, the municipal employer will use the findings from the most recent actuarial valuation, or have a new valuation completed, to determine the pension system's unfunded actuarial accrued liability (UAAL). Then, it will decide what portion of the UAAL (either all or a part) will be funded with the POB. In the 1990s most employers funded the entire UAAL, but for various reasons discussed below, many now tend to finance less than the full amount. Once the POB is sized and sold, the net proceeds are placed in the pension trust fund to be commingled with the other funds, and usually invested according to the existing asset allocation guidelines (see Chart). Thus, the pension fund experiences a rapid increase in assets resulting in a higher funded ratio (actuarial value of assets divided by actuarial accrued liability). For the POB to generate savings for the employer, the investment return rate on the POB proceeds must be greater than the interest cost of the bonds (and ideally equal to, or exceed the pension system's investment return assumption), and the larger the spread between these to two rates the better. The employer, as POB issuer and obligor, would then be projected to achieve lower total pension contribution and debt service costs than it would have if it had not sold the POB.

Pension Obligation Bond Mechanics



Brief History

While there were a few issues in the 1980s, the first big wave of POBs really came in the early 1990s. By the end of the decade about $15 billion of POBs had been issued. The years 2000 and 2001 were slow from a POB standpoint, with 2000 correlating to the apex of U.S. public pension funding at an average funded ratios of slightly over 100%, up from only about 80% in 1990. These robust funding gains were fueled by above-average equity returns during the period and a general shift in the weighting of public pension assets to this asset class from fixed-income. The corollary to a high funding level is a lower or nonexistent UAAL. Falling funding ratios, now estimated to be heading toward's the 90%, have been exacerbated by a combination of adverse circumstances, some uncontrollable and some self-inflicted. These factors include the decrease in asset values from poor equity returns and the increase in liabilities from benefit enhancements and demographic changes (for example, members living longer). The second wave of POBs, driven by burgeoning unfunded liabilities, has come on strong in 2002 and 2003. As in the first wave, California counties have been leading the pack, and there are a number of repeat borrowers, but there are also significant new players. The state of Illinois, which issued in June of this year, now holds the POB record for sheer size at $10 billion — almost four times larger than the previous record. Oregon sold a $2 billion issue last fall, and other states that have recently completed or plan a POB sale include Kansas, Wisconsin, and West Virginia.

POB Risks

The principal risks to the issuer of a POB fall into a number of categories:

- Arbitrage (investment return/POB interest cost);
- Leverage;
- Market risk; and
- Political.

POBs are essentially an arbitrage play, the success of which is dependent on the premise that the pension fund assets (including POB proceeds) will earn on average more than the interest cost on the POBs and hopefully the assumed investment return rate (generally about 8%) or better each year for the life of the bonds. If the bonds are sold at an interest cost of 6%, for example, the spread could generate handsome savings if the investment returns goals are met over the life of the bonds. The problem is that there is no certainty that the average 8% return will be realized over time, and therein lies the principal risk of the POB to the issuer. If the pension fund earns 8% or more on the POB proceeds, then the result will be success by virtue of having to pay lower pension-related costs (contributions plus POB interest) than without the POB. However, if the investment return is less than the POB interest cost, the transaction becomes a drag on cash flows. Not only will the employer have the new POB debt service costs but also higher contribution rates attributable to new unfunded liabilities from under performing investment returns. If returns are above 6% (as in the example above) but below 8%, the employer will have increasing contribution rate costs, but it would have had them even without the POB. When investment returns are less than the POB interest costs, the POB puts additional strains on financial operations rather than helping.

While the 1990s produced some impressive investment returns, no pension fund consistently earns 8% or higher every year in perpetuity; returns vary dramatically and may (or may not) average the investment return assumption or even the POB interest rate cost. The POB paradigm has a goal to average or beat the 8% investment return assumption over the long-term. With the appropriate asset allocation strategy this goal may be attainable, but market experience over the last several years has led some to believe that an 8% return assumption may be too aggressive.

Another factor in evaluating the success of a POB is that its full effect can only fully be tallied at final maturity of the bonds. Due to market gyrations, a POB may look like a great success for several years, or even a decade, only to see investment gains erode, and at maturity are pronounced a failure. Conversely the exact opposite may be true, with poor results in the early years later overcome to achieve projected benefits in the final analysis.

In any event, we do know that even if projections are met on average over the life of the POBs, there will be years with returns that are higher, and some that are lower (maybe significantly), than the 8%

bogey. We do not have to look back very far to see evidence of such swings: in fiscal 2001 the S&P500 index of domestic equities fell 16%, in 2002 it fell another 19%, but in 2003 it fell only 1.6%. These market declines hurt issuers with POBs outstanding: most had to pay increased contribution rates to cover the new actuarial losses, plus they had the higher debt service costs due to the POB.

The risk of adding too much leverage is another factor for POB issuers to consider. Borrowing for any purpose increases leverage, and incurring debt to pay unfunded liabilities is no different. While the issuer is substituting one type of long-term liability (POB) for another (UAAL), there is a difference. In most cases, bond debt service is a "harder" obligation than the "softer" contribution payments used to amortize the UAAL. Bond debt service must be paid in full and on time or the issue falls into default, with wide ramifications. For certain employers, contribution payments, on the other hand, may be temporarily deferred or reduced without serious negative consequences. Therefore, the size of the POB relative to the total debt structure of the issuer must be measured in terms of what level of debt service can be managed if actual future investment returns do not meet the original POB plan projections.

Because POBs generate very large infusions of funds into the pension system compared with the more steady investment and reinvestment of interest, dividends, and contributions by the fund, the plan for investing POB proceeds must be considered. Should the monies be invested according to the existing asset allocation guidelines, or should POB proceeds have a special allocation strategy because of current market conditions or expectations? If the chief investment officer of the fund believes that international equities, for example, are overvalued, maybe a delay in filling that allocation would be warranted. On the other hand, in that pension funds are long-term investors, most have stuck with their traditional allocations for proceeds, eschewing market timing strategies. Whatever the strategy may be, it should be fully vetted before the POB sale.

Another aspect that few envisioned when this instrument was first initiated is the political risk hidden, almost like a Trojan horse, within the POB structure. As was mentioned in a feature on this subject, ("Pension Obligation Bonds: Unique Rating Documentation", RatingsDirect, March, 4, 1999), POBs can become victims of their own success. For example, if a POB is issued for the full UAAL, resulting in a 100% funded ratio, and subsequent higher-than-average returns push the ratio to 110% or 120%, there will arise tremendous political pressure to distribute the so-called "excess" funding by increasing benefits, thus incurring new liabilities. The excess funding touted in the late 1990s turned out to be illusory. Even systems bolstered by POBs that did not increase benefits found themselves in under funded positions following the market declines from 2000 to 2003. Those that fell victim to the siren's song and increased benefits have even lower funding levels. Some pension funding ratios declined to the extent that the employers' opted to go back to the market to issue POBs for a second time.

Analysis

The rating process for POBs basically parallels that of long-term debt with similar security plus with certain additional analytical factors pertinent to the POB and pension system. Most POBs issued to date have a GO or general fund pledge. Also, a high percentage of those sold have been additionally secured by bond insurance. In Standard & Poor's analysis specific to POBs we focus on the effect of the bonds on the issuer's debt structure and its ability to meet its obligations. The financial review includes the impact on both the balance sheet and the operating statement or cash flows. The status of the issuer's pension fund on a pro forma basis is also part of the review as with any similar analysis.

From the balance sheet perspective we look at how the POB fits into the issuer's total debt plan. Does the POB dramatically alter the issuer's debt profile? We look at total debt with and without the POB so as not to penalize a POB issuer in comparison to another issuer that might have relatively low debt (and no POBs) but sizable unfunded pension liabilities. Also, we evaluate the leverage added by the POB. Does it markedly increase hard, fixed costs (bond debt service) in place of a softer, more discretionary obligation (pension contributions)? If sub par investment returns put upward pressure on contribution rates will they, coupled with the new higher debt service costs due to the POB, put the issuer's budget under greater strain? The issuer must also be cognizant of the effect the POB issuance may have on statutory debt limits. Will the POB use up debt capacity that might be needed for other, more pressing needs?

From a cash flow standpoint, Standard & Poor's reviews projected debt service and contribution costs, with and without the POB, including the validity of the assumptions including those for POB interest

costs and pension fund investment returns. How do the projections compare in total and on an annual basis? The spread between interest costs and investment return generates the savings expected from the transaction. What is the magnitude of annual savings and total present value savings? Where (in what years) are the savings taken? Are the savings front-loaded in an attempt to mask budgetary stress? Will any front-loading lead to higher, unsustainable contribution rates in later years? Do the potential savings form the POB outweigh the risks involved? The analysis of the cash flows is a critical component to understanding the full impact of the transaction.

As part of the POB analysis we also review the current status of the recipient of bond proceeds — the pension system itself. What is the statutory relationship between the issuer/employer and fund? How have the laws and precedents for making contributions affected funding progress and how do they play into the POB strategy? Have funding levels generally been increasing over time? What are the funding goals and how will the POB impact these objectives?

The pension fund's general actuarial methods and assumptions also will be reviewed for comparative purposes. The fund's asset allocation strategy will be studied for consistency with the POB assumptions and for the general risk profile. An aggressive investment strategy may make the POB objectives more difficult to achieve on a consistent basis.

Rating Implications

Employers looking to help manage their unfunded liabilities through the issuance of a POB should weigh the pros and cons very carefully. Any applicable risks from the above list should be evaluated. There should be a clear POB plan with attainable actuarial and investment assumptions and a conservative structure. Prudent allocation for projected savings over time limits the chances for problems.

It is possible for POBs to have a negative effect on credit quality, especially in the investment environment over the last several years or if they were structured poorly at the outset. Standard & Poor's will continue to evaluate POB risks in light of each employer's individual profile at the time of sale as well as their projected effects over time. POBs may work as planned over the long-term, but short-term fiscal dislocations resulting from these structures are part of their baggage.

Special Rating Documentation Requirements for POBs

The unique nature of POBs requires certain additional documentation not normally requested for other types of ratings:

- POB financing plan, including its effect on the overall debt plan;
- Projections of UAAL contributions and debt service with and without the POB;
- Latest pension fund annual report;
- Most recent actuarial valuation and experience studies of the fund; and
- Pension fund's current asset allocation strategy and plan for investing POB proceeds.

Return to Regular Format

Research:

Managing State Pension Liabilities: A Growing Credit Concern

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State governments have a long history of providing retirement security for their employees--and in many cases certain local government employees--through large, defined benefit pension systems, which, throughout the 20th century, had been successful in meeting their intended goals. However, after state pension funds reached their apex of financial soundness, based on funding levels, in 2000, they have since deteriorated--in many cases precipitously--leaving most funds with the problem of managing new, large unfunded liabilities. The rapid growth and significant magnitude of these liabilities has become an increasing credit concern for many state ratings, reaching crisis proportions in some cases.

This article provides a brief overview of public pension funds in the U.S., along with the factors leading to their current status and some of the options available for managing pension liabilities. In addition, the status of a number of state funds, with a range of funding levels, and some of the strategies states have used to address their respective pension situations, will be examined.

Historical Background

Defined benefit pension plans, as used by most states, provide a systematic method for setting aside sufficient monies to pay promised retirement benefits to employees in the future. The benefits are funded by contributions, usually from both employer and employee, and the investment income derived from such contributions. Most states have two principal funds: one for state employees, and possibly certain local government employees, called public employee' retirement systems; and one for teachers, referred to as state teachers' retirement systems. Some have one, monolithic system for all government employees (state and local), while others have multiple systems for individual job specialties, such as judges and safety officers.

Public pension funds in the U.S., of which the lion's share of assets belong to state funds, have come a long way from their humble beginnings--some dating to the beginning of the 20th century. Starting with little or no assets to offset liabilities, and some initially operating on a pay-as-you-go-basis, pension funds gradually improved their funding ratios (actuarial value of assets divided by actuarial accrued liability) to the 50% level in the mid-1970s, and further to around 80% by 1990. Early on, pension assets were invested largely, if not exclusively, in fixed income investments. Gradually, investment strategies became more diversified, however, and by the end of the 1990s public funds had increased their allocations to equities and other higher yielding asset classes significantly. This shift in allocations coincided with, and to some extent was fueled by, the bull markets in domestic equities that lasted from the early 1980s through fiscal 2000. At June 30 (the fiscal year-end for most public pension funds), 2000, the average funding ratio for all U.S. public funds was slightly above 100%, and was even higher for state funds.

The party to celebrate the final defeat of unfunded pension liabilities was short-lived, unfortunately, as dark clouds soon began to appear. Trends that would adversely affect actuarial balance impacted both liabilities and assets. Liabilities were being inflated not only by normal growth and inflationary pressures but also by overt changes in benefits and actuarial assumptions. The late 1990s saw a number of improvements to pension benefits, which automatically boosted liabilities, and the actuarial consequences of many of these changes really kicked in after 2000 due to the normal delayed reaction in contribution increases. Demographic and lifestyle trends--along with the resultant assumption changes, such as retirees living longer (a global phenomenon) and more employees taking early retirement--had a similar, expansionary effect on liabilities. However, the biggest component in the steep decline in funding levels from fiscals 2001 to 2003 came from the asset side, and was caused by the bottom falling out of the domestic equity markets. The investment return assumption requirement for most public funds to maintain actuarial balance, about 8%, could not be sustained when the average allocation to domestic equities stood at 40%-50% and the annual returns of the S&P 500 Index were

negative 16%, negative 19%, and positive 2% in fiscals 2001, 2002, and 2003, respectively. The net result was that, by June 30, 2003, average funding ratios for state funds had fallen from an average overfunded level in 2000 to an estimated 80%-90% in just three short years. While the S&P 500 saw a 17% gain at fiscal year-end June 30, 2004, public pension fund actuarial results, on average for the year, will not report major funding gains due to the effects of the actuarial smoothing of gains and losses over a period of years used by most. With five-year smoothing, for example, a fund in fiscal 2004 would still be accounting for a portion of the losses (or gains) from the prior four years.

Alternatives to Improve Funding

The range of options to fix a pension mismatch of assets and liabilities is relatively narrow, and almost all are difficult to implement due to legal, economic, or political impediments. Corrective measures should act to stop or slow pension liability growth or grow assets, or both. From a liability standpoint, most states have constitutional or statutory pension benefit protections that preclude any reductions in benefits already promised to existing employees. One way around these restrictions is to close off the current benefit to new employees and offer new employees a reduced level of benefits. This tactic of creating a new tier of benefits has been used by a number of funds to reduce liability growth. Completely closing existing plans and creating new, less generous defined benefit plans, and even new defined contribution plans, is another option.

Changing actuarial assumptions to reduce liabilities has been used in the past; the current demographic and economic realities related to the major variables, however, make these options difficult. The raising of the actuarial investment return assumption to 8.25% from 8.00%, for example, would automatically lower actuarial liabilities, all other assumptions being equal. However, the investment experience over the past three or four years and current expectations would tend to preclude such a change at this time.

The principal options to improve pension balance by increasing assets fall into three main categories:

- The pension fund may alter its asset allocation strategy to enhance investment returns;
- The pension fund sponsor may sell pension obligation bonds (POBs), placing the proceeds in the pension trust and thus reducing or eliminating the unfunded actuarial accrued liability (UAAL); and
- Annual contribution rates for sponsors or employees may be increased.

Pension funds in the U.S., as major global investors with more than $2 trillion in assets, have developed sophisticated asset allocation plans over the years, and, with access to professional asset managers, attempt to maximize returns within their prescribed tolerance for risk. For an individual fund to dramatically enhance yields by altering its allocations, there would most likely need to be a sea change in thinking about the fund's view of risk. Minor tweaking of strategies is a more regular occurrence as funds seek to keep up with changing markets, risk profiles, and expected returns of various asset classes, but major strategy changes leading to markedly improved results are rare.

Some states, as sponsors, have opted to pursue the POB route to significantly boost assets in one bold move, while at the same time taking advantage of the projected lower carrying charges this vehicle offers to a sponsor. (For further information, see report titled "Pension Obligation Bonds Are Surging After Brief Hiatus," published Jan. 20, 2004, on RatingsDirect). While no panacea, POBs are basically an arbitrage play based on the premise that, as a result of the bond proceeds being invested at an expected yield above the cost of the bonds, net savings will be achieved by the sponsor over the life of the bonds. In other words, after the issuance of the POB, combined debt service plus pension contribution costs will be lower than they would have been without a POB. The success of this formula depends on the realization of a certain investment return, which is in no way guaranteed. Whether a POB succeeds or fails cannot fully be evaluated until the final maturity of the bond, and it is a given that some years will be winners and others losers. The bad years may add short-term fiscal stress to the POB issuer (pension sponsor), which could be significant based on the amount of leverage the POB exerts. With most POBs having been issued over the past 10 years or so, it would be premature to pronounce them an unqualified success (or failure). The best that can be said to date is that POB results have been mixed, with some having met or exceeded expectations while others have come up short based largely on the vicissitudes of market timing.

The last major option for increasing assets, and the most common alternative used to manage new, unfunded liabilities, is to simply increase annual contribution rates. Indeed, a major principle of an actuarially funded defined benefit plan is that, if assets and liabilities become unbalanced, increasing

(or decreasing if the system is overfunded) contributions will bring the system back into balance. Sometimes employee contributions are increased, but usually it is the sponsor that steps up to the plate: the investment risk of a public defined benefit plan and the burden to make good on benefit promises are ultimately the responsibilities of the sponsor. Thus, the principal byproduct of the current state pension funding crisis has been increasing contribution costs coming at a time when states, in recent years, have been squeezed by weak revenues and burgeoning expenses, including security and health care cost pressures.

How Are Some States Managing Their Pension Liabilities?

Arizona.

The Arizona State Retirement System, a multiple-employer defined benefit plan, provides pension benefits for employees of the state, political subdivisions, and public schools, with more than 500 employers and 222,000 active members. The system's funded ratio fell to 98.4% at June 30, 2003, after a decade of more than 100% funding. As reported in the June 30, 2003, actuarial valuation, the major contributor to this decline was investment losses for the year that resulted in a decrease in the actuarial value of assets by $1.2 billion. In November 2002, the state retirement system board removed the requirement that actuarial assets be within 20% of market value, and changed the period for recognizing investment gains or losses to 10 years from five years. At June 30, 2003, the system's market value of assets ($18.1 billion) was 77% of actuarial value. The 2003 actuarial valuation developed hypothetical contribution rates for both employees and employers (odd-year calculations are not actually implemented) of 6.96% each, compared with 1.92% each in 2001.

California.

California has two large state pension funds: one for state and certain local employees--California Public Employees' Retirement System (CalPERS)--with assets exceeding $170 billion; and the other for teachers--California State Teachers' Retirement System (CalSTRS)--with more than $115 billion in assets. These systems have been experiencing some of the same pressures as pension funds in other states, and have experienced declines in funding levels. For example, the funded ratio for the state member category of CalPERS had fallen to 84% as of June 30, 2003, compared with 111% in 2000. State contributions to CalPERS for its employees, as actuarially determined, have risen from $16[illegible] million in fiscal 2001 to $2.2 billion in fiscal 2004. In the same vein, the funded ratio for the CalSTRS defined benefit plan fell from 110% in 2000 to 82% in 2003. However, total amounts contributed to CalSTRS by members, employers, and the state, as set by statute, increased just 1[illegible] during the same period.

A number of changes for both pension systems have been proposed over the last year. In relation to CalPERS, the state's 2005 budget included certain pension reforms, such as a two-year delay of contributions into CalPERS from new miscellaneous and industrial employees, thus obviating the state's obligation to make contributions on their behalf over that period. A $900 million POB was proposed, the proceeds of which would be used to pay a portion of the current contribution payment as opposed to paying a portion of the unfunded actuarial accrued liability like most other POBs. Court validation of the POBs is being sought. The 2005 state budget also included proposals to increase employee contribution rates and lower benefits for new employees to pre-1999 levels.

In December 2004, CalSTRS proposed a number of options to help address the funding deficiency in its defined benefit plan. At June 30, 2003, the system's unfunded actuarial obligation totaled $23.1 billion. The first option was for the state to issue a POB to pay down the entire liability. Other options included a change in the amortization period of the unfunded liability and a number of changes to how benefits are calculated. One option that could have a large effect on the amortization cost is to eliminate the 2% benefit adjustment. Several alternatives included increases in contribution rates by all three contribution bases: members, employers, and the state.

On July 1, 2003, the state did not make its full contribution payment to CalSTRS' supplemental benefit maintenance account, although it did make the required payment to the system's defined benefit program. The state paid $59 million of the $559 million required supplemental benefit maintenance account amount. In October 2003, CalSTRS filed suit in Sacramento County Superior Court to have the $500 million payment restored. The state is currently defending the action.

Of late, proposals to replace the two California state defined benefit plans with defined contribution plans, and to eliminate state contributions to CalSTRS, have been actively debated.

Florida.

The Florida Retirement System was created in 1970. The system was created to provide a defined benefit pension plan for participating employees. The plan is administered by the state division of retirement in the department of management services. Participation by local governments in the state is optional, but is generally irrevocable once the government opts to participate in the plan. Currently there are 866 participating employers and 956,875 individual participants. Of the total participants, 23.5% are retirees and beneficiaries. Contrary to trends for most other states, the actuarial value of assets in the system has consistently exceeded the actuarial accrued liabilities in recent years. The funded ratio of the pension system has ranged from 112% in fiscal 2004 to 118% in fiscal 2000. Investment performance in fiscal 2004 was strong, with a return of 16.6% compared with the 7.75% assumed rate of return. The actuarial value of assets at July 1, 2004, was $106.7 billion. The solid asset position of the Florida Retirement System has provided budget relief in the form of lower contribution requirements for the state and participating local governments.

Illinois.

Illinois sponsors five defined benefit retirement plans for about 630,000 members and annuitants, including public employees, teachers, university personnel, and judges. By 2003, the funded ratio of the Illinois funds ranked near the bottom compared with other states in the U.S. Contributing to the $26.9 billion increase in unfunded liabilities from 2000 to 2003 were:

- Contribution shortfalls ($4.8 billion of the total),
- Investment losses ($14.1 billion), and
- Benefit improvements ($3.3 billion).

Adding to the state's pension woes is a 2002 early retirement incentive plan for state employees, which resulted in a liability that, at $2.5 billion, was quadruple the original estimate. Part of the variance was due to a much larger number of employees (11,032) taking part in the program than originally projected (7,215). Due to the requirement of a 10-year amortization of this liability, the early retirement program contribution for 2005 is $382 million, compared with the originally projected $70 million.

In 2003, the state sold a $10 billion POB, the largest on record, using the proceeds to fund a portion of the UAAL ($8.1 billion) and to pay ($1.9 billion) the state's current pension contribution for fiscals 2003 and 2004. The POB increased the combined system's funded ratio by seven percentage points. At the end of fiscal 2003, the funded ratio for the combined systems was 57% (after giving effect to the POB), and the UAAL was $35.8 billion.

New York State.

The New York State comptroller is the sole trustee of the state's common retirement fund, which includes all assets of the New York State Retirement System. Members of the system are typically employees of New York State or employees of municipalities in the state (excluding New York City). As of March 31, 2004, there were 2,985 participating government employers in the system. The overall membership in the system exceeds 970,000; this includes 641,721 members and 328,357 retirees and beneficiaries. Overall, membership has expanded continuously, but the growth from retirees has been most significant. Retirees now make up 34% of the system's members, compared with 26% in 1990. Benefit payments continue to rise, reflecting improvements in final average salaries, cost of living adjustments, and benefit improvement. The increased benefit payments, coupled with the performance of the stock market after 2000, have required significant employer contribution increases, with significant increases forecasted for the next two years as well. At March 31, 2004, about 63% of the pension system assets were invested in various stocks. For the largest component in the system--the New York State and Local Employees' Retirement System--employer contributions had averaged 1.75% from fiscals 1996 through 2003. Contributions will increase in fiscal 2004 to 5.9%, totaling $1.2 billion. This rate is projected to more than double in fiscal 2005 to 12.9%, or a $2.6 billion contribution, followed by an estimated 11.4% contribution rate in fiscal 2006. Similar increases are forecasted in the New York State and Local Police and Fire Retirement System (PFRS) for fiscal 2004. The contribution rates for fiscals 2005 and 2006 are projected to be even steeper for PFRS, however, growing to 17.6% and 16.3%, respectively. These contribution increases have been, and will continue to be, a significant source of budget pressure for the state and its local governments. The legislature has allowed a portion of the increase to be funded with the issuance of bonds or a loan from the state comptroller. For governments that choose this option, fixed costs to service pension contributions will include an interest component, with the fixed costs extended for up to 10 years. The system uses the aggregate actuarial funding method, which does

not identify or separately amortize unfunded actuarial liabilities. Due to the use of this funding method, there is no disclosure or schedule provided on funding progress.

Oregon.

Oregon has historically delivered pension benefits for state and local employees through a single system called the Oregon Public Employees Retirement System (OPERS). After experiencing relatively high funding levels through the 1990s, the UAAL of OPERS at Dec. 31, 2001, was estimated at $9.7 billion, almost three times the prior year. With 2002 investment losses, this figure was estimated to be almost $15 billion--of which about one-third was the state's share. Contributing factors to the increase in UAAL included some of the usual suspects: benefit increases in the late 1990s and poor investment returns. In addition, under the plan, tier-one members were guaranteed a minimum 8% on their regular account assets regardless of actual investment returns earned by the system, and in 2001 and 2002, like most other funds, the system generated negative returns.

In 2003, the state initiated a number of reforms to OPERS, including:

- Modernizing the mortality tables and requiring regular updates;
- Shifting future employee contributions to a defined contribution plan;
- Converting the annual 8% guaranteed rate of return to an assumed 8% to be received over the length of members' service;
- Temporarily suspending future cost of living increases for retirees in certain instances; and
- Creating a new, more independent, retirement system board.

In addition, for new employees hired after Aug. 29, 2003, the state created a new retirement plan called the Oregon Public Service Retirement Plan, which includes both defined benefit and defined contribution components. Employer contributions fund the defined benefit plan, and employee contributions fund the defined contribution plan.

The legislative changes to OPERS resulted in an estimated reduction in the state's UAAL to $2.2 billion from $4.6 billion. A number of lawsuits have been filed challenging some of the OPERS changes. The state intends to continue to defend the challenges. In October 2003, the state sold $2 billion of GO POBs to further reduce its UAAL. The preliminary results of the OPERS 2003 actuarial valuation reported the pension system's funded ratio at about 97%. Employer contribution rates under the valuation showed an increase to 18.27% from 9.96%.

West Virginia.

The West Virginia Teachers' Retirement System (TRS) is a multiple-employer, defined benefit plan for 55 county school systems, certain state higher education employees, and the state boards of education and higher education. The state provides substantially all funding for the system. TRS has occupied the bottom rung among state plans in terms of funded ratios for some time. As of July 1, 2003, the funded ratio was 19%, and the UAAL was $5.1 billion. The state supreme court has ruled that the UAAL of TRS is a public debt, and has required the state to fund TRS in an actuarially sound manner. This requirement entails the elimination of the UAAL over a 40-year period beginning July 1, 1994, enabling TRS to meet cash flow requirements to fulfill future obligations to members.

While for a number of years West Virginia has attempted to clear the way to issue a POB to help lower or eliminate the UAAL in TRS and other state funds, its efforts have been blocked by legal issues, including the requirement for voter approval. If bonding is not an option, the state may have to pursue other avenues to cure its pension ills.

Looking Ahead

States are under varying degrees of pressure to fund the burgeoning liabilities of their pension systems. The common theme lies in developing strategies to manage increasing contribution rates at a time when other demands are conspiring to break the budget: growing health care, education, and security costs to name a few. Options to reduce pension liabilities or even slow their growth, and thus moderate contribution rates, are few and usually difficult to bring to fruition. Even with adequate investment returns, the pension funding problem will be in the forefront for at least a few more years, and possibly much longer if the markets don't cooperate. As if pension liabilities were not enough to handle, states and other governments will soon have to deal with funding issues related to liabilities from Other Postemployment Benefits (OPEB)--largely retiree health care costs. The GASB has established new accounting rules for reporting on OPEB liabilities. (For further information, see report titled "Reporting &

Credit Implications of GASB 45 Statement on Other Postemployment Benefits," published Dec. 1, 2004, on RatingsDirect.) Both pension and OPEB liabilities will act to constrain ratings over the foreseeable future.

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STANDARD &POOR'S

Research: Pension Obligation Bonds: Were They A Good Bet?

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What do the volatility in equity prices and the decline in market indices over the past year or two mean for the security of public pension investments and, further, what is their effect on the strategy, used by a number of governmental pension sponsors over the last decade, of selling pension obligation bonds to fund the unfunded liability of their pension funds? Specifically, given the current and expected market conditions, was the POB strategy a good idea and, if so, does it still have validity, and does this technique represent a viable opportunity for governmental sponsors who may find themselves wrestling with unfunded liabilities as a result of the declines in equity performance?

Brief History

While a few POBs were done in the 1980s, they really came into their own in the 1990s with more than $10 billion being sold. Over the last two years, only a few, relatively small, POBs have been floated. The average principal amount for POBs ranged from $100 million to $300 million with a few exceeding $1 billion or more. Most POBs issued to date have been general obligation or general fund secured, capitalizing on the credit quality of the pension system's sponsor.

The POB Experience Through 2000

With this kind of debt instrument, timing is very important and issuers of POBs in the early- to mid-1990s could not have had better timing. While public pension funds during the 1990s were boosting their average allocations in domestic equities from 35% to almost 50%, the returns on this asset class were sustained at levels well above the historical experience. The average annual increase in the S&P 500 index for the 10 fiscal years ended June 30, 2000 (most public pension funds have June fiscal years), was almost 15%, compared to a historical average of about 10%. The five-year total portfolio return for public funds has averaged more than 13%. These performances should be viewed in the context of average investment return assumptions for public pension systems of only about 8%.

Following the issuance of POBs to increase the funding status or to fully fund a system, this excess return phenomenon could easily result in funded ratios greatly exceeding 100%. However, in that actuarially funded pension systems tend to be self-balancing, this overfunding imbalance would have been corrected by actions taken to affect either the pension fund's assets or liabilities, or both. In these circumstances, pension fund sponsors would, upon the recommendation of their actuaries, decrease or temporarily eliminate pension contributions (contribution holiday), thus slowing the growth of assets. On the liability side, some sponsors made the decision to improve employee benefits, instantly increased liabilities but also balancing overfunding. Regardless of how the "problem" of overfunding was managed by sponsors or pension funds that used POBs prior to fiscal 2000, POBs produced, as promised, an economic benefit and in most cases it was substantial.

2001: Harbinger of Tough Times for POBs?

For the fiscal year ended June 30, 2001, the S&P 500 declined 15.8% (and fell a further 15% in the next quarter), which was its worst performance since fiscal 1982. This fiscal 2001 result followed the below-average performance of positive 6% for fiscal 2000. Following two decades of above-average equity returns, it is probable that these returns will approach the historical pattern going forward.

While a long-term environment of weak investment returns will lower pension funding levels, it may be premature for issuers of POBs and pension funds in general to adjust investment expectations based on the most recent results. As more data become available, if it is apparent that a trend is developing, some reactive changes made be needed. Regardless of the causes, any investment underperformance over an extended period of time will lead to actuarial losses and new unfunded liabilities, resulting in the need to increase contribution rates to bring the systems back into balance. It should be kept in mind that such a need would be in sharp contrast to recent years, when a decrease in the needed contribution rates actually provided budgetary flexibility for fund sponsors. Many funds now use smoothing methods for actuarial purposes in valuing assets to spread investment gains and losses over up to five years. This practice would temper the effects of the fiscals 2000 and 2001 investment return experience. With five-year smoothing, for example, only 20% of the fiscal 2001 losses would be included in the June 30, 2001 valuation, which would still be taking into account prior year gains as far back as 1997.

No matter how sponsors who utilize a POB strategy choose to manage their actuarial gains from the excess investment returns following POB sales (lower contributions or increased benefits), most are likely still fully funded, albeit with a lower cushion. In a long-term lower return environment with declining funding levels, those systems that have taken the bulk of their excess funding out of their POB structure may see trouble ahead.

For example, say a state sold POBs in 1985 with a 30-year amortization to fully fund its retirement system and had average annual investment returns of 12% against its investment assumption of 8%. However, instead of permitting the natural increase in the funded ratio that these conditions would have caused, the state managed its funding ratio, through contribution holidays and benefit improvements, to maintain the ratio at around 100%. If we are in fact heading into a lower return period (the average annual increase in the S&P 500 for the 16 years from 1966 to 1982 was a meager 2.7%, for example), the state may have already reaped all its gains from the transaction structure and be headed for losses. If actuarial losses start to be incurred, contributions will have to increase. If returns fall below the interest cost on its POB that will mean that the POB will have become a net financial drain. If investment yields fall below POB interest cost, total debt service, including that on the POB, plus normal and new unfunded actuarial accrued liability (due to low returns) contributions, will now be higher than if the POB had not been sold. To judge the full effect of a POB, however, any future losses have to be weighed against prior period gains. With a POB, its ultimate success, or failure, can only be judged at its final maturity is approached. The financial dynamics may be a winning formula for 25 years, for example, and then a losing one in the last five years (or vice versa).

POBs Going Forward

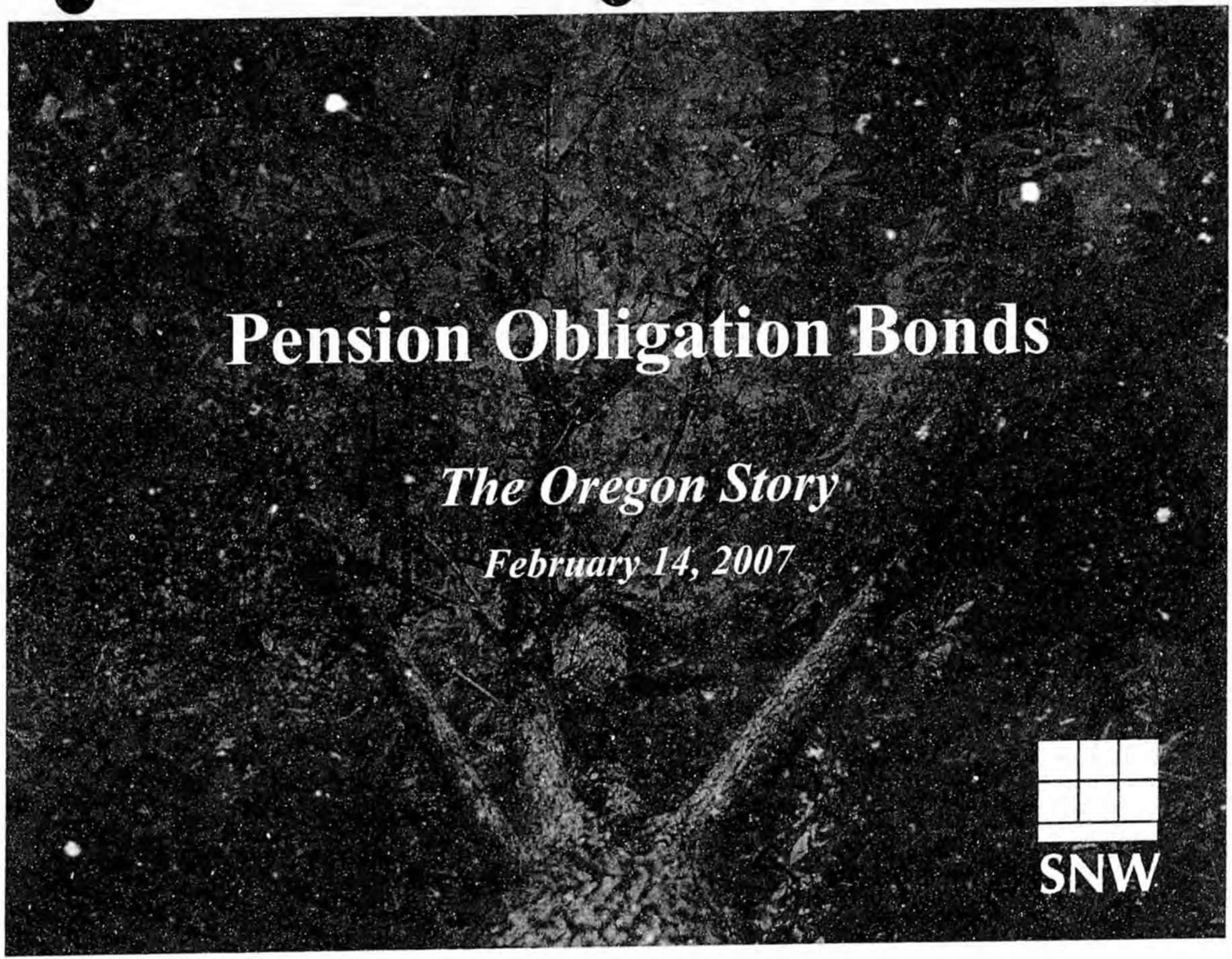
Standard & Poor's factors the effects of a pension obligation bond strategy into the long-term rating of the sponsor. Standard & Poor's has viewed POBs as a strategy for savings on carrying charges as long as the transaction was structured conservatively and the assumptions were reasonable and attainable. This requires a clear financing plan including reasonable assumptions and manageable leverage. Prudent expectations for investment returns and the cautious use of resultant savings help insure a POB's success. Another positive factor for a POB is, of course, to be fortunate enough to sell the bonds in a low interest rate environment, thereby increasing the spread between interest costs and investment return expectations and lowering the risk of underperformance. The long-term expectations for investment returns have not yet changed because of the recent return experience or current economic and political conditions and public funds will rely on diversification of investments to maintain necessary total returns. Thus, a sound POB plan today should be as viable as it was 10 years ago. The 2000 Public Pension Coordinating Council Survey of State and Local

Government Retirement Systems reported total public pension fund unfunded liabilities at more than $100 billion, which would be the theoretical limit of POB bonding capacity nationwide.

Conclusion

Pension obligation bonds, despite recent equity market gyrations, have largely been a boon to the sponsors who have used this strategy. Over the last 10 years, during which period the vast majority of these bonds were issued, investment yields have comfortably exceeded the investment return assumptions of public pension funds and the interest cost of the POBs, generating handsome actuarial gains.

Do the math: actual return of approximately 12% minus expected return of 8% equals 4% gravy. Some of the gravy was used to lower current contributions and some to increase benefits. By any economic measure POBs have been a success. However, for a POB to be a total success the math has to work (or generate net savings) over the full amortization of the bonds and for most POBs we are not even halfway there. To use a baseball analogy, POBs are ahead 3-1, but it's only the fourth inning. If the POB plan was sound to begin with, they should still be winning at the final out. The same ingredients that helped outstanding POBs succeed--conservative planning and expectations coupled with fortuitous timing--will also help future POBs to be a viable alternative for savings.


Pension Obligation Bonds
The Oregon Story
February 14, 2007
SNW

*Oregon vs. Alaska Pension System **

	Oregon	Alaska	
		PERS	TRS
Asset base	$ 52.9 billion	$8.6 billion	$4.0 billion
Covered Employees	324,914	71,009	21,865
Average employer rate	14.80% (1)	21.77% (2)	26.00% (3)
Projected high rate	30.00% (4)	35%	64%
Funded ratio	91.00%	65.70%	60.90%
UAAL as of 2005 valuation	$ 4.6 billion (5)	$4.4 billion	$2.5 billion

* As of December 31, 2005 for Oregon and June 30, 2005 for Alaska.

(1) Tier 1 and Tier 2 only.

(2) 39.76% for 2008. Actuarially computed at 28.19% for 2007 and 32.51% for 2008 by Buck Consultants.

(3) 54.03% for 2008. Actuarially computed at 41.78% for 2007 and 42.26 for 2008 by Buck Consultants.

(4) Prior to reforms.

(5) Not counting bond proceeds in side accounts.

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Bonding a Popular Tool

Many Oregon jurisdictions have chosen to finance PERS liabilities with bonds.

- Original statutory authority provided to local governments and school districts in 2001 for issuance of "full faith and credit obligations."
- Jurisdictions also granted authority to enter into intercept agreements with the State, whereby operating funds were additionally pledged. This approach resulted in "State" credit rating.
- State Constitutional amendment approved by voters in 2003 authorizing the State to issue GO bonds for its share of the liability. Voter approval margin was 55.25%.
- Bond proceeds are placed in a "lump sum account" for benefit of employer. Earnings and losses directly accrue to that account.
- Lump sum account is used to provide prepayment credit on payroll rates charged to jurisdictions.
- Although bonds have to be sold on taxable basis, interest rates for most borrowings have been well under 6%.