NYSAC
NEW YORK STATE ASSOCIATION OF COUNTIES

GASB 45 Conference: *The Next Great Financial Challenge*

June 29, 2006

FUNDING STRATEGIES

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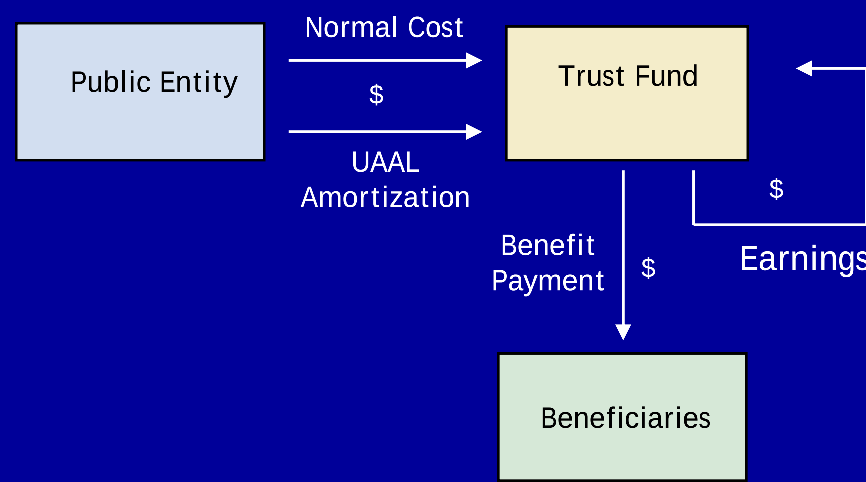
1) Introduction

Unfunded vs. Funded OPEB Plan

Unfunded / Pay-As-You-Go

Trust Funded



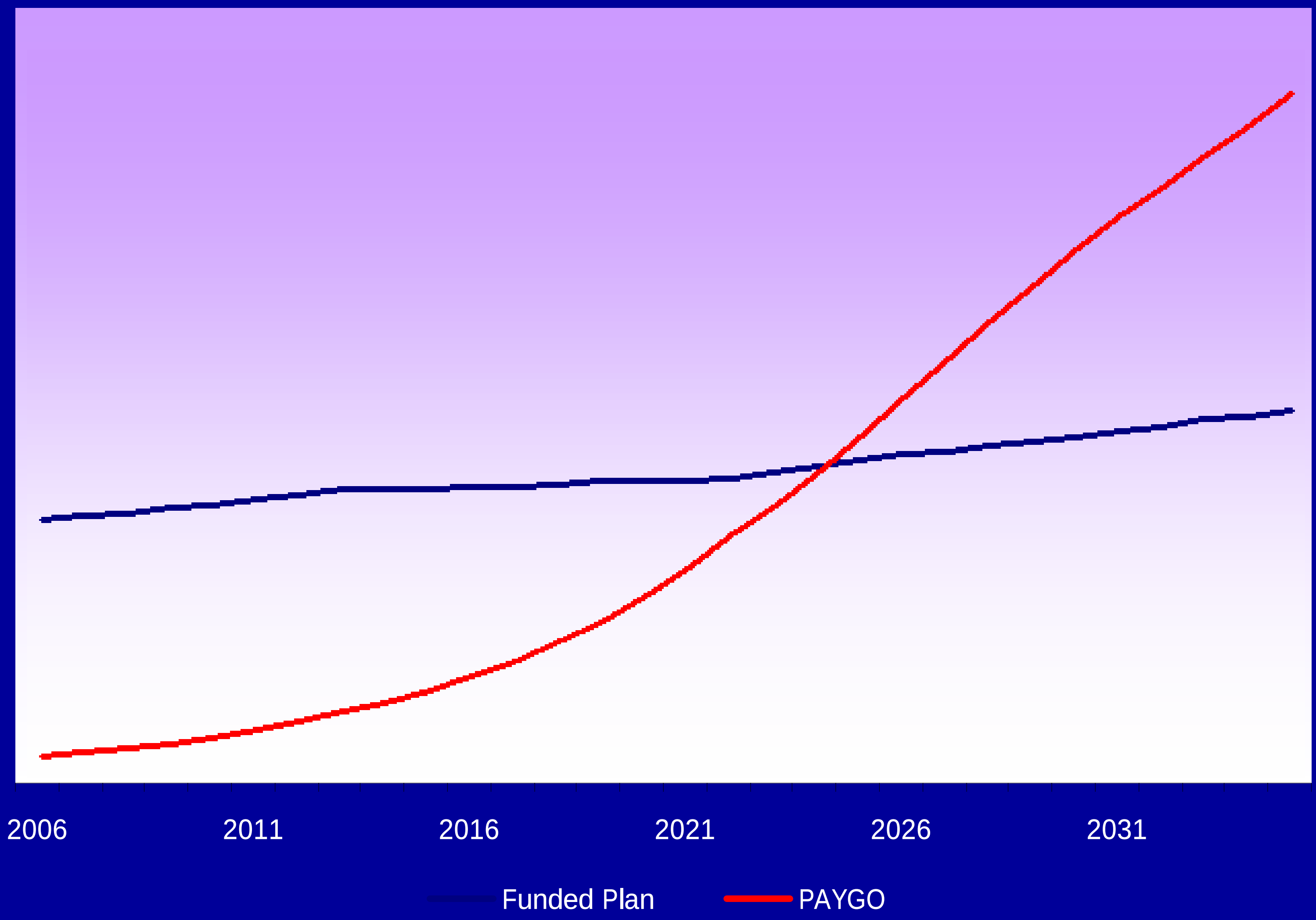
Unfunded Plan

- Pay liabilities only from current operating revenues
- Discount rate to calculate UAAL is 3% to 5%
- Each year, unfunded ARC adds to unfunded liability

Funded Plan

- Annual payments to trust are higher in the beginning, but the earnings from the accumulated trust reduce the size of future payments from operating revenues versus an unfunded plan
- Fund accumulates invested balance over time
- Allows use of a higher discount rate on invested funds in calculating UAAL (typically 7-9%), assuming pension-like investments permitted

Funded OPEB Plan vs. PAYGO



Source: GFOA Annual Conference, July 2005

Methods to Address OPEB Underfunding

Increase Annual Payments and Deposit to a Trust	Reduce or Control Benefits	Work Actively with Actuaries	Issue OPEB Bonds	Continue PAYGO Funding Approach
Pros • Least Complicated • If annual budget contribution equals the ARC, no balance sheet liability	**Pros** • Reducing or limiting a portion of existing or future benefits can help reduce the UAAL • Private sector precedents	**Pros** • Establish framework for assessing liability • Trust Fund treatment can move discount rate to 7-9%, similar to a pension system. This decreases the PV of unfunded liabilities	**Pros** • Immediate budget relief possible • Can be used along with other strategies • Potential market gains on addt'l assets • Proposed LDC could issue appropriation-backed bonds	**Pros** • No immediate negative impact on budget • "Pre-funding" not required by GASB 45
Cons • Annual Payments could be substantially higher than current budget • Contributes to budget stress	**Cons** • Polarization of employer/retiree interests • May need to be used in conjunction with other options	**Cons** • Limit to how much actuaries will allow • Aggressive assumptions may have negative rating implications	**Cons** • Confers additional permanence to OPEB liability • Potential market losses • Counties can't issue GO bonds to finance OPEB liabilities	**Cons** • Lack of trust fund means growing Net OPEB Obligation on balance sheet • Likely adverse rating consequence

2) Establishing Trusts

GASB Irrevocable Trust

- The existence of an OPEB Trust with broad investment powers, in conjunction with a long-term plan for funding the remaining OPEB liabilities, would be the basis for the actuary to use a long-term investment rate of return, in the range of 7-9% used by many pension systems, as the discount rate used in determining the size of any remaining unfunded liability
- GASB 45 requires an OPEB Trust to have the following protections:
  - A legally separate entity ("Trust") under the control of a trustee or board of trustees
  - Employer no longer has ownership or control of the assets; the Trust is irrevocable
  - OPEB Trust moneys are dedicated to OPEB liabilities and may not be diverted by employer to other purposes
  - Legally protected from the employer's and administrator's creditors

Authority of County to Establish an OPEB Trust

- Is there any?
- Express authority?
- Implied authority?

Formation of a Trust Under State Law – Two Options

- Statutory trusts and common law trusts
- Delaware Business Trusts created under authorizing statute
  - Example - residual trusts created in tobacco securitizations
  - Provide certainty of statutory scheme
  - Requires Delaware resident trustee
- New York common law trust created by agreement
  - Example - NYCTTs (I through V)
  - Example – OPEB trust authorized by recent New York City local law

Federal Tax Law

- Tax-exempt status is key for OPEB trusts
- OPEB trusts can be exempt one of three ways
  - IRC Section 401(h) trust account
  - IRC Section 501(c)(g) trust (VEBA)
  - IRC Section 115 trust
- Practically, only a Section 115 trust will works for trusts created by New York counties
- Section 115 trust offers flexibility, allows for asset reversion, allows for multiple entities to participate in the same trust

Formation Process

- Adoption of local law
- Approval of trust document (agreement) with trustees
- Funding of trust
- Selection of investment manager

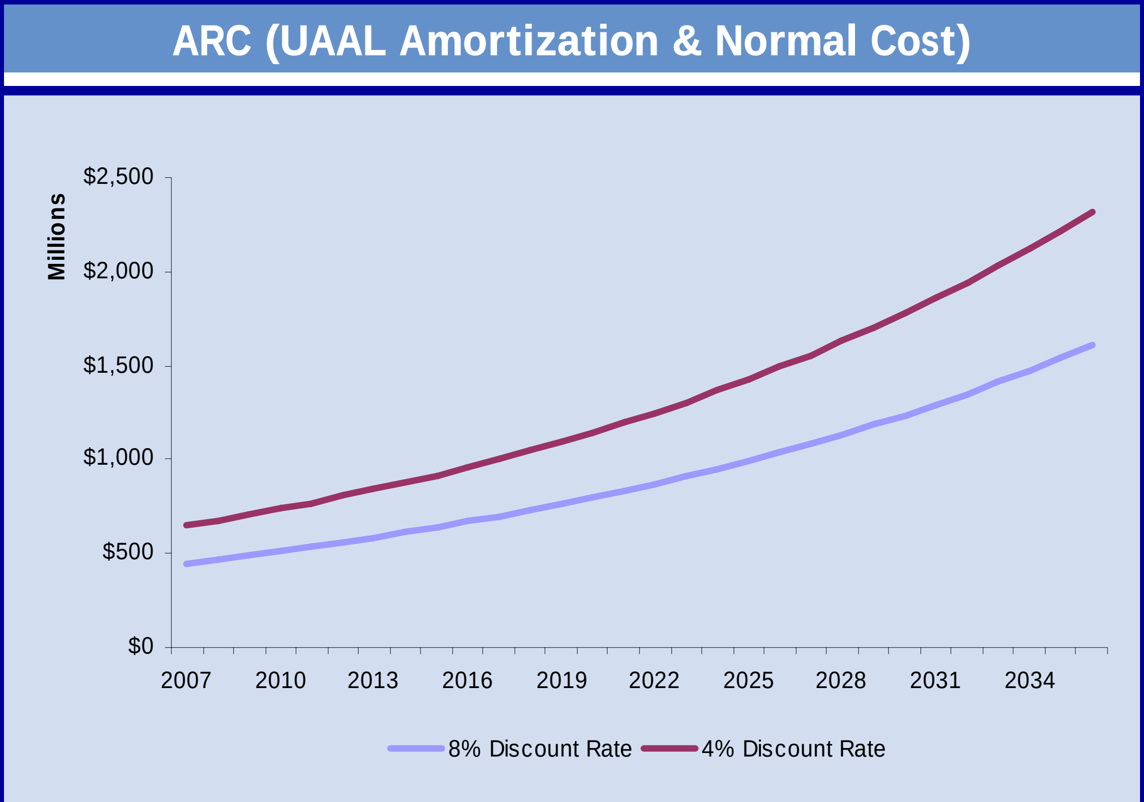
3) Trust Investments

Discount Rate and Relationship on Annual Payments

- Assuming OPEB assets are placed in an irrevocable trust with broad investment powers and employers contribute the ARC, GASB 45 allows use of estimated long-term investment yield, considering nature & mix of plan investments, to determine annual payments
  - If irrevocable trust with broad investment powers is not established, the discount rate is limited to a rate of return consistent with the limited investments local governments in New York can use
- Actuarial Discount Rate has a significant impact on the size of the UAAL and Normal Cost
  - Discount Rate should be representative of actual investment returns achievable
  - For PAYGO plans, typically reflects General Fund returns of 3-5%
  - Funded plans investing in equity and bonds can achieve returns of 7-9%
    - GASB 45 allows an irrevocable trust with broad investment powers to use a higher discount rate
- The use of a higher discount rate will translate into lower annual ARC payments since the Present Value of the future liability will be lower

Example: Discount Rate and UAAL Illustration for "Larger County"

- "Larger County" with hypothetical pay-as-you-go cost of $90 million and 20,000+ members (active and retired)
- We estimate Larger County's UAAL at $3.60 billion utilizing an 8% discount rate*
- We estimate Larger County's UAAL could be $7 billion utilizing a 4% discount rate*
- For illustrative purposes, we modeled the two ARC scenarios

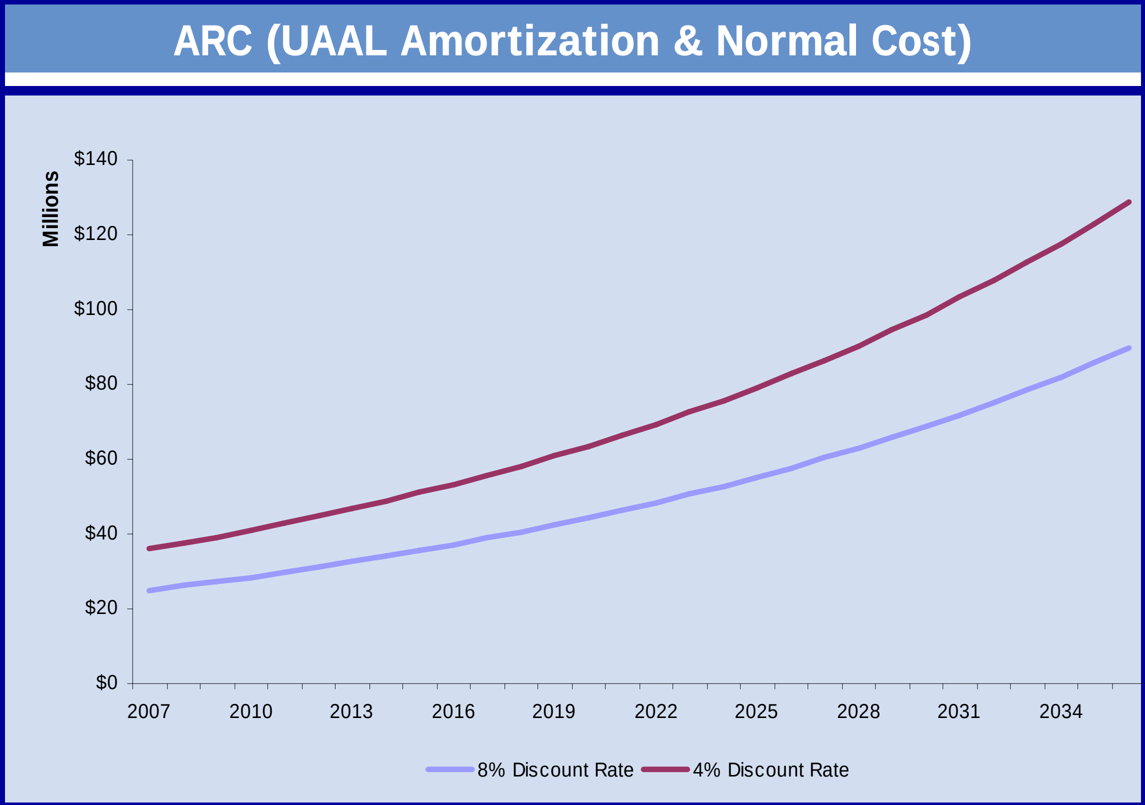


$ in millions	ARC		
	8%	4%	Diff.
2007	$ 450	$ 646	$ 196
2036	1,613	2,315	702
Average	915	1,313	398
Total	27,453	39,401	11,948

* Actual results will vary. Reflects estimated multiple of hypothetical PAYGO.

Example: Discount Rate and UAAL Illustration for "Smaller County"

- "Smaller County" with hypothetical pay-as-you-go cost of $5 million and 2,000+ members (active and retired)
- We estimate Smaller County's UAAL at $200 million utilizing an 8% discount rate*
- We estimate Smaller County's UAAL could be $390 million utilizing a 4% discount rate*
- For illustrative purposes, we modeled the two ARC scenarios



$ in millions	ARC		
	8%	**4%**	**Diff.**
2007	$ 25	$ 36	$ 11
2036	90	129	39
Average	51	73	22
Total	1,525	2,189	664

* Actual results will vary. Reflects estimated multiple of hypothetical PAYGO.

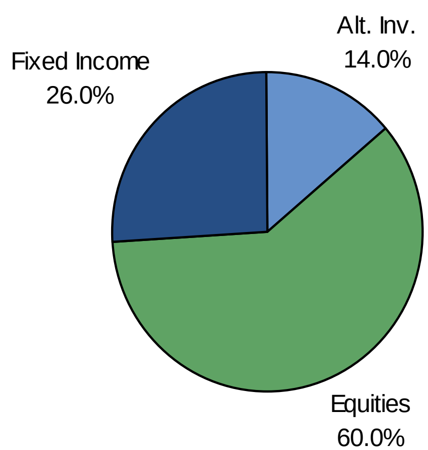
Investment Limitations in New York for Municipal Funds

<u>**NYS General Municipal Law**</u>	<u>**Proposed Structure**</u>
✓ Treasury and Agency securities	✓ Treasury and Agency securities
✓ NY municipal securities	✓ NY municipal securities
✓ Municipal securities of other states/PR rated “AAA”	✓ Municipal securities of other states/PR rated “AAA”
✓ Repurchase agreements	✓ Repurchase agreements
X **Equity securities**	✓ **Equity securities**
X **Alternative Investments**	✓ **Alternative Investments**
X **Real Estate**	✓ **Real Estate**
X **Credit diversification**	✓ **Credit diversification**

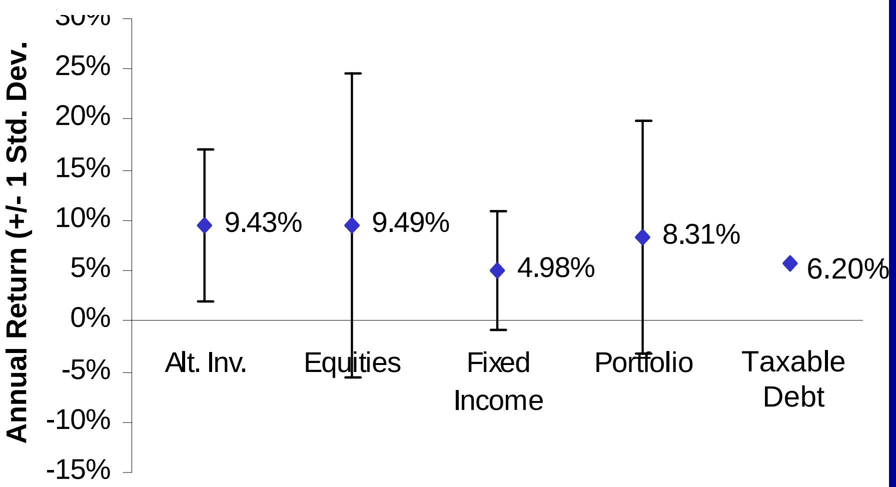
Hypothetical OPEB Investment Approach

- By way of example, we assume the approximate asset allocation of CalPERS, the nation's largest public pension fund (blended estimated portfolio return of 8.31%)
- CalPERS has a diversified, professionally managed investment portfolio with returns linked to fixed income, equities and alternative investments (hedge funds, private equity, real estate)
- While portfolio expected returns are weighted averages of each asset class's expected return, the expected portfolio volatility is less than the weighted average, as diversification reduces portfolio risk

CalPERS ESTIMATED INVESTMENT ALLOCATION[1]



INVESTMENT RETURNS AND INTEREST EXPENSE[2]



1) Source: CalPERS.
2) Please refer to page 29 for important assumptions and information. Past performance may not indicate future results. For illustration purposes only; actual results will depend on future market conditions.

4) OPEB Bonds

OPEB Financing Objectives

- OPEB bonds can be component of a larger, prospective financial plan to address OPEB liabilities
  - Generate bond proceeds to fund a portion of OPEB UAAL
  - Create groundwork for ongoing funding
  - Rating agencies will approve of financings as part of a sound overall plan
- Take advantage of historically low interest rates
  - The debt service on the OPEB bonds is LESS than the Actuarial Amortization of a trust-funded liability

Bond Limitations in New York – Use of Proceeds

NYS Local Finance Law

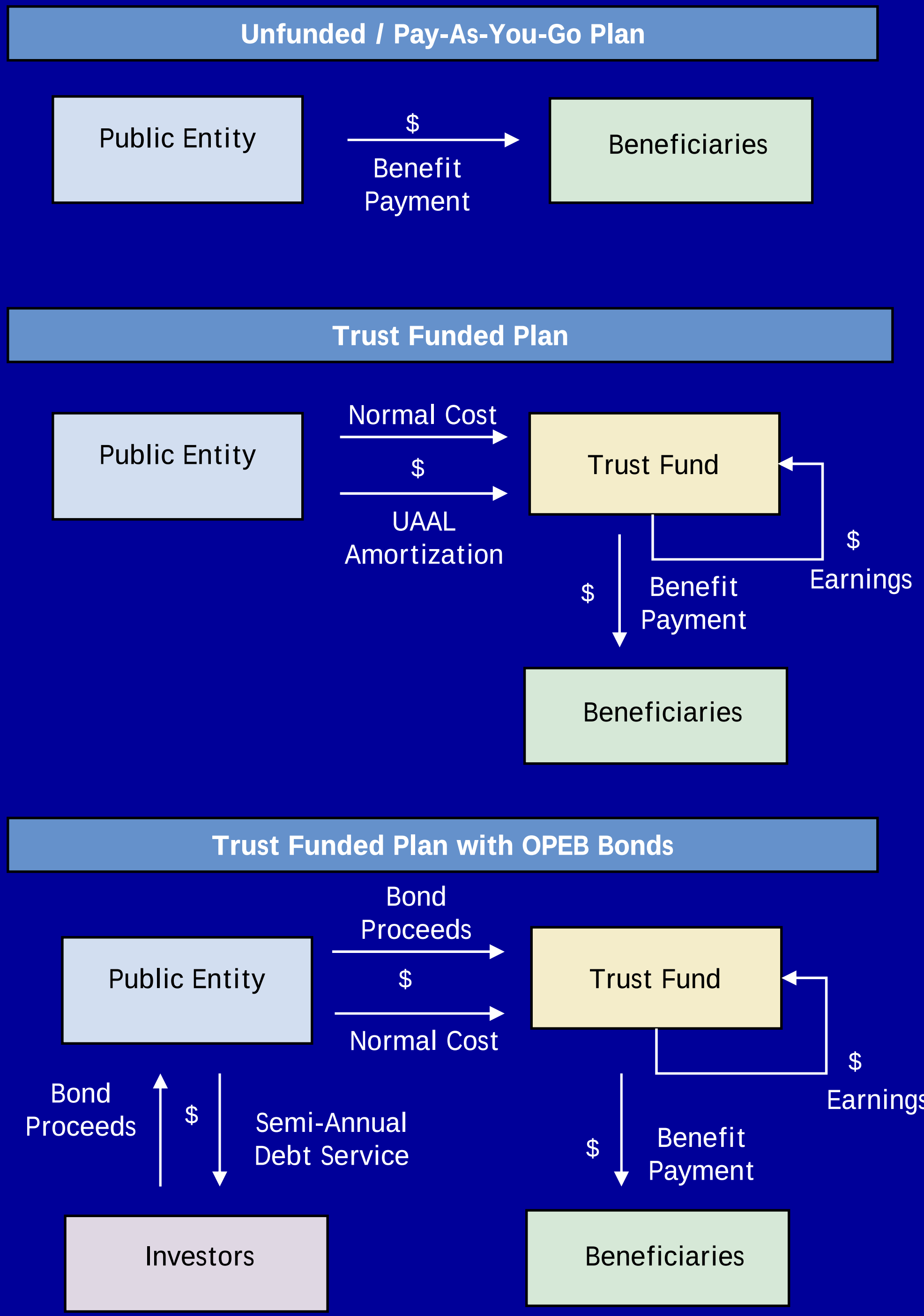
- ✓ Buildings
- ✓ Water and sewer
- ✓ Streets, bridges and tunnels
- ✓ Parks
- ✓ Vehicles
- ✓ Equipment
- ✓ Judgments and claims
- X **OPEB Liabilities**

Proposed Structure

- ✓ **OPEB Liabilities**

How Do OPEB Bonds Work?

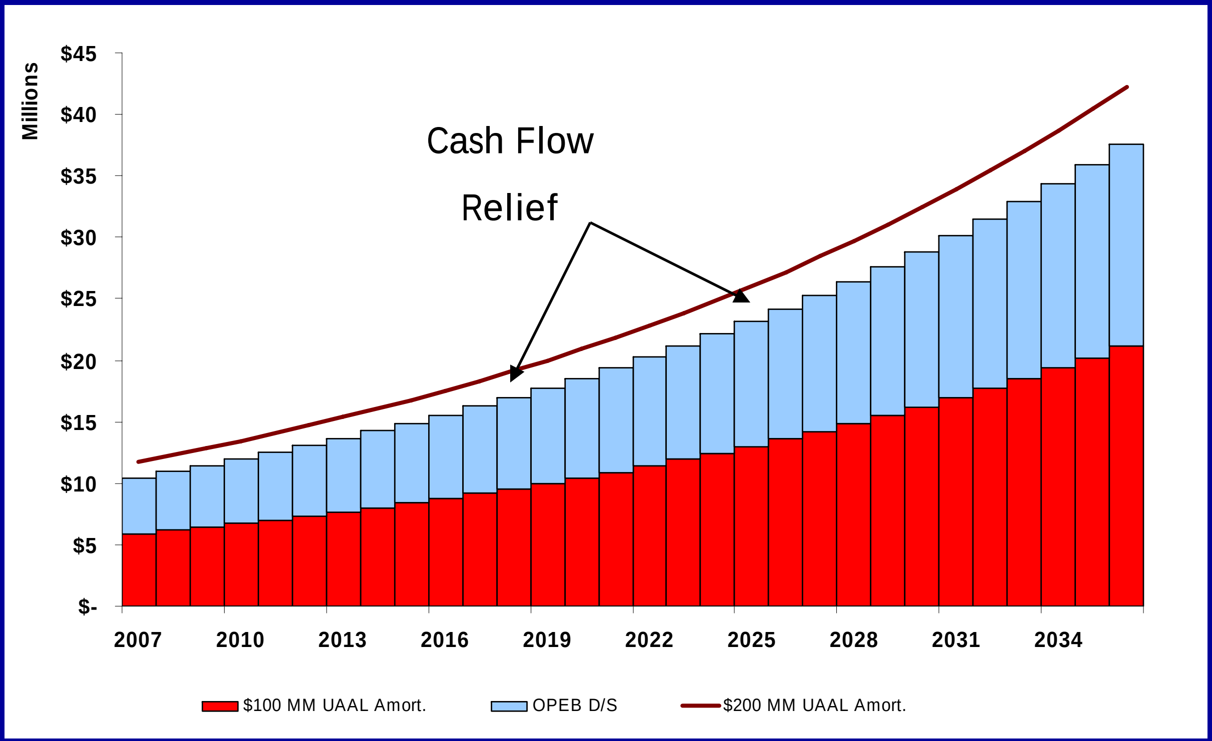
- Bonds are issued to finance all or a portion of the OPEB UAAL (bonds are taxable)
- Proceeds of bonds are deposited in a Trust Fund: funds will be invested according to investment policy
- Scheduled UAAL amortization payments are replaced with lower principal and interest payments to bondholders
- Net effect is to lower and restructure the annual budget payments
- Projected "reduction" = difference between actuarial requirement (current payment schedule) and payments of bond debt service



Illustrative Basic OPEB UAAL Financing Structure – Smaller County

Scenario Assumes 50% Bond Funding for a Total OPEB UAAL of $200 million

Structure:	Proportional Annual Cashflow Relief
Amortization:	30-Year
Products:	100% Traditional Taxable Fixed Rate Debt



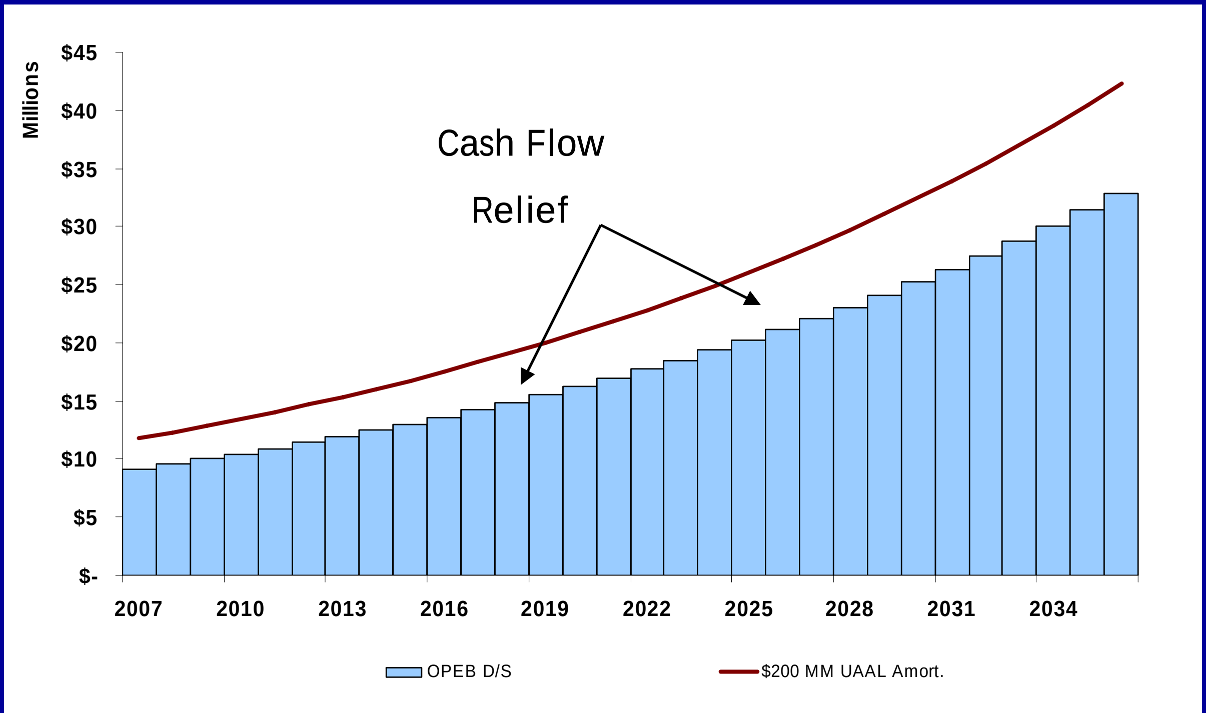
Total Par	$103,137,113
All-in Cost	6.199%
Total Debt Service	$279,320,257
Avg. Annual DS	$9,310,675
Maximum Annual DS	$16,410,000
Cash Flow Relief (vs. actuarial amort schedule)	
Avg. Annual Cash Flow Relief	2,676,962
Total Cash Flow Relief	80,308,850
PV Cash Flow Relief	29,637,450
PV Cash Flow Relief %	29.637%
Assumptions	
Funded UAAL	100,000,000
PV Rate (TIC)	6.13%

Funding schedule above does not account for the County's Normal Cost component of the ARC
For Illustrative Purposes Only: Actual results will vary depending upon borrowing costs, actuarial assumptions and other factors.
Rates as of 05/08/06, subject to market conditions, documentation, and credit approval. 8.25% Investment Rate of Return and 4.5% Inflation.

Illustrative Basic OPEB UAAL Financing Structure – Smaller County

Scenario Assumes 100% Bond Funding for a Total OPEB UAAL of $200 million

Structure:	Proportional Annual Cashflow Relief
Amortization:	30-Year
Products:	100% Traditional Taxable Fixed Rate Debt



Total Par	$206,268,184
All-in Cost	6.199%
Total Debt Service	$558,615,204
Avg. Annual DS	$18,620,507
Maximum Annual DS	$32,815,000
Cash Flow Relief (vs. actuarial amort schedule)	
Avg. Annual Cash Flow Relief	5,354,767
Total Cash Flow Relief	160,643,009
PV Cash Flow Relief	59,281,005
PV Cash Flow Relief %	29.641%
Assumptions	
Funded UAAL	200,000,000
PV Rate (TIC)	6.13%

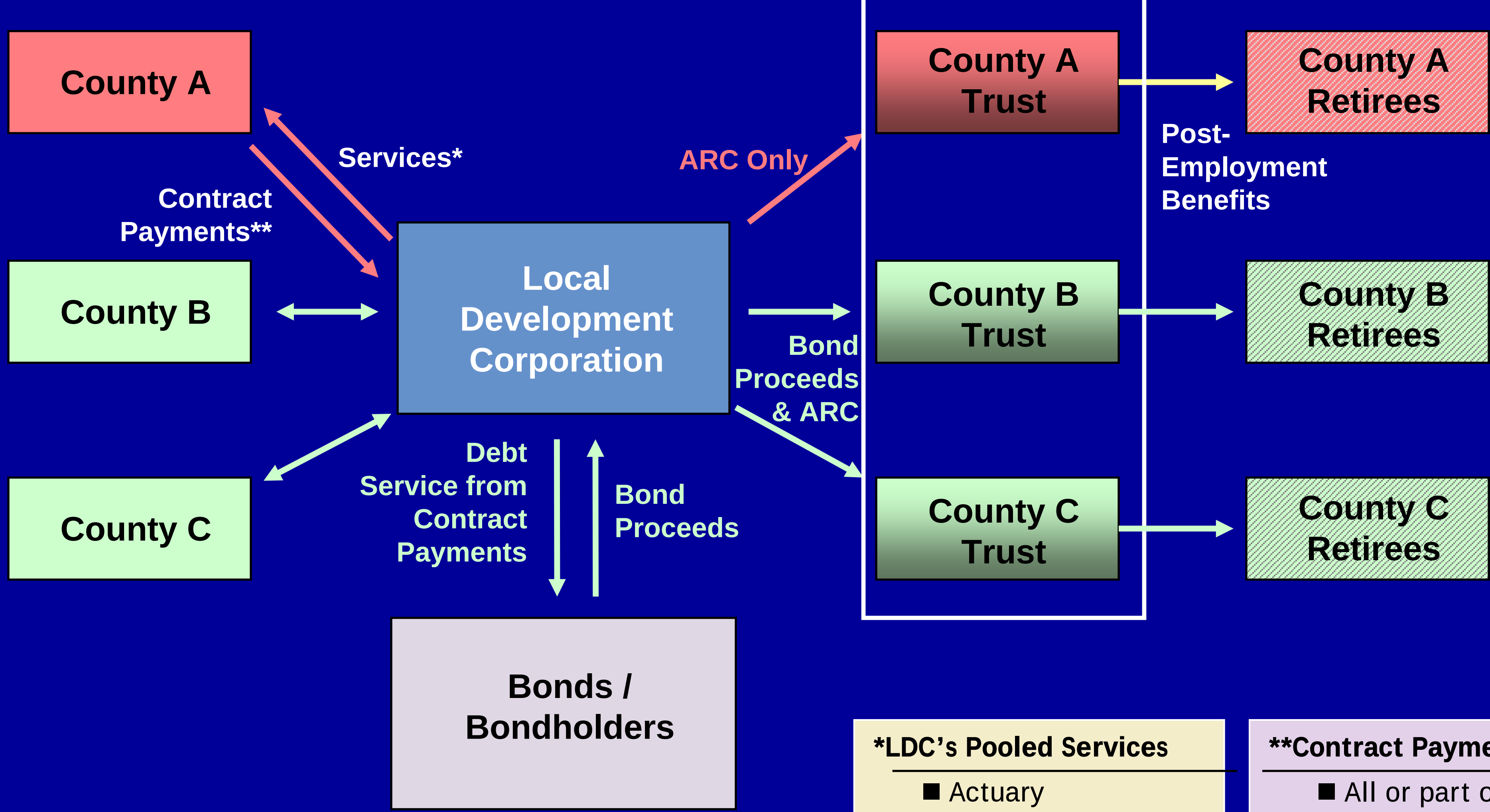
Funding schedule above does not account for the County's Normal Cost component of the ARC
For Illustrative Purposes Only: Actual results will vary depending upon borrowing costs, actuarial assumptions and other factors.
Rates as of 05/08/06, subject to market conditions, documentation, and credit approval. 8.25% Investment Rate of Return and 4.5% Inflation.

5) A Proposed Pooled Solution

Benefits of The Proposed Pooled OPEB Solution

- Provides a vehicle for OPEB funding and investment that is not provided under current New York Local Finance Law or General Municipal Law
- Counties maintain autonomy regarding benefit levels and OPEB funding methods
- Pooled Professional Services
  - Actuarial and Legal
- Pooled Bond Issuance
  - Upfront and ongoing cost savings
  - Shared legal structure and legal costs
  - Pool of county borrowers will increase issue size and raise profile in taxable market
- Pooled Investments
  - Increased investment size
  - Increased investment opportunities
- Structure is flexible and can be revised
  - Input from other parties (e.g., State Comptroller)
  - State legislation (preliminary OPEB legislation has been proposed)

A Proposed Pooled OPEB Solution



Bond-Issuing and ARC County

ARC-Only County

***LDC's Pooled Services**

- Actuary
- OPEB Consultant
- OPEB Trust
- Investments
- Accounting
- Legal
- Bond Issuance

****Contract Payments**

- All or part of ARC (including debt service on bonds, if issued)
- County's share of pooled services costs

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Portfolio Return Assumptions

Assumed portfolio weighting: 20% MSCI EAFE, 40% S&P 500, 23% Citigroup BIG, 3% Citigroup World GBI and 14% HFRI FOF.

I-bars represent +1 annual standard deviation, 1983-2005.

Debt cost based on Citigroup estimate.

EQUITIES

Historical returns and annual volatility of returns (standard deviation) for equities are based on the indices below and indicated time periods.

Large Cap Stocks:

- S&P 500 (1983-2005): An index consisting of 500 stocks chosen for market size, liquidity and industry grouping, among other factors. The S&P 500 is designed to be a leading indicator of U.S. equities and is meant to reflect the risk/return characteristics of the large-cap universe

Mid Cap Stocks:

- S&P 400 (1992-2005); The S&P MidCap 400 Index consists of 400 domestic stocks chosen for market size, liquidity, and industry group representation. Like the S&P 500 Index, it is a market-value weighted index and was the first benchmark of midcap stock price movement

Small Cap Stocks:

- Russell 2000 (1987-2005): The Russell 2000 is constructed to provide a comprehensive and unbiased small-cap barometer and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set

International Stocks:

- MSCI EAFE (1983-2005): The MSCI Europe, Australia and Far East (EAFE) Index is a broad-based index composed of non-US stocks traded on the major exchanges around the globe

Hedge Funds:

- HFRI FOF Index (1990-2005): Fund of Funds invest with multiple managers through funds or managed accounts with the objective of significantly lowering the risk (volatility) of investing with an individual manager. The Hedge Fund Research Inc (HFRI) Fund of Funds (FOF) Index measures performance of approximately 600 funds which invest in a variety of strategies

CASH AND FIXED INCOME

Cash and fixed income volatilities (standard deviation) based on annual yield changes, 1983-2005. Returns represent current yields.

Cash:

- LIBOR Yield

Intermediate Bonds:

- Citigroup Treasury/Government Sponsored/Credit 1-3 Year Bond Index Yield: 1.79-year duration, average credit quality AAA-

Long-Term Bonds:

- Citigroup Broad Investment Grade (BIG) Index Yield: 4.64-year duration, average credit quality AA+

High Yield Bonds:

- Citigroup High Yield Market Index: 4.54-year duration, average credit quality B+

Non-US Bonds:

- Citigroup World Government Bond Index (GBI) Yield: 5.96-year duration, average credit quality AA+