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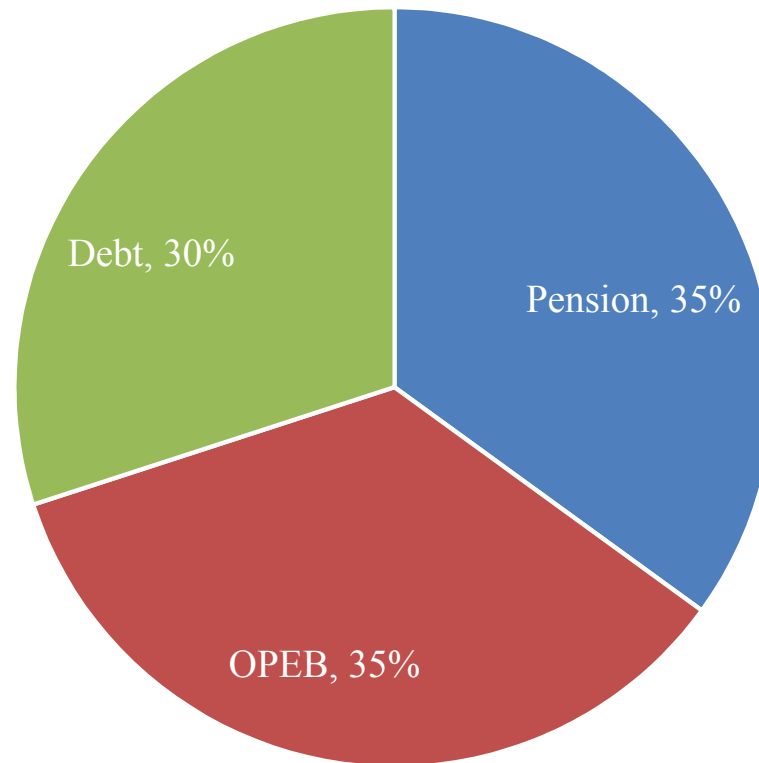
July 20, 2017

OPEB, Pension & Debt
North Carolina Local Government Investment Association
(NCLGIA) Conference 2017

Three Large Liabilities: Pension, OPEB & Debt

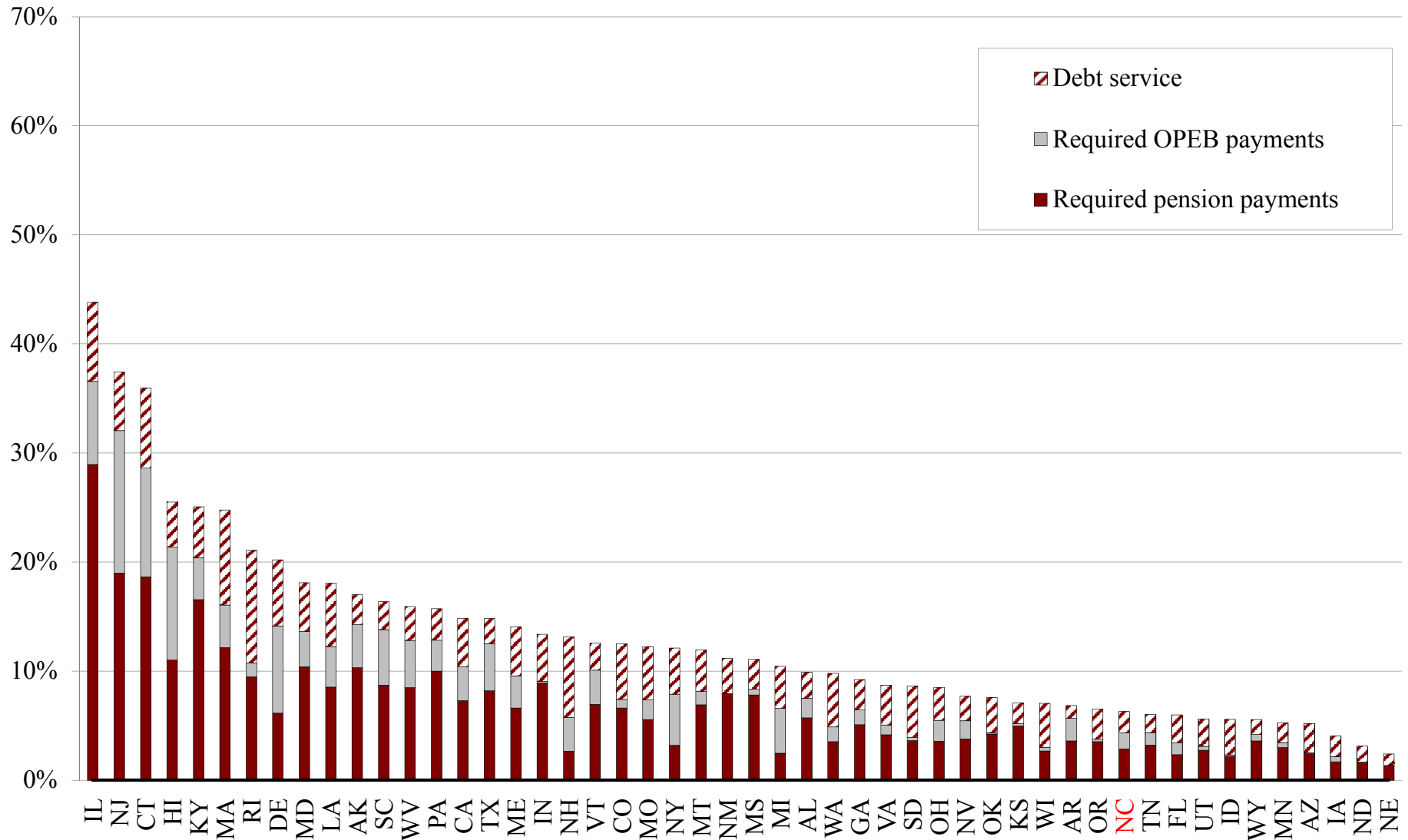
Pension, OPEB and Debt: Totals for State Governments

- Relative sizes vary considerably from one public entity to another
- A 2016 S&P study showed that the average state government had approximately equal unfunded pension and unfunded OPEB liabilities, and they were larger than debt:



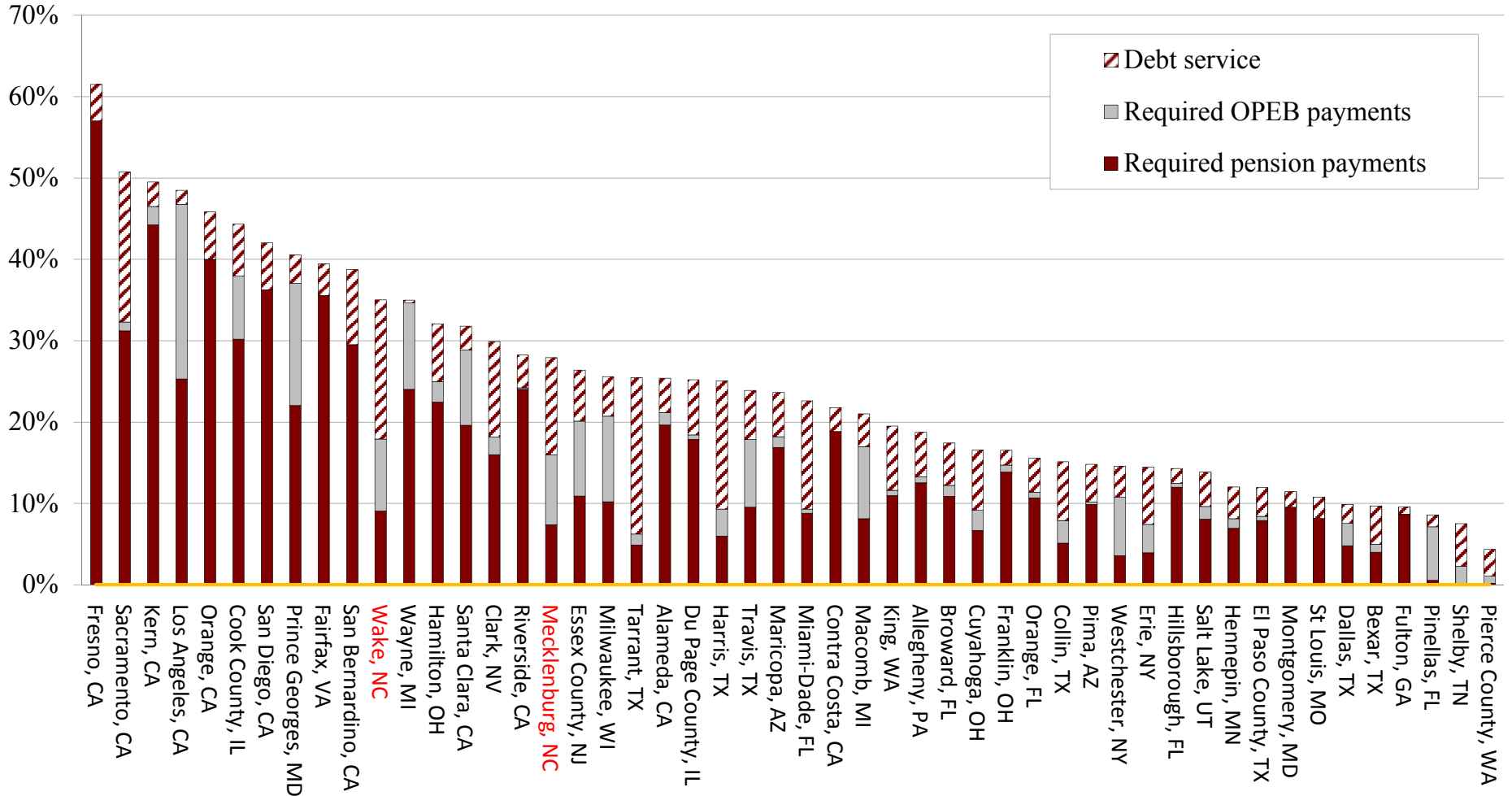
Source: Standard & Poor's, report on U.S. State Post-Employment Benefits Liabilities, September 7, 2016. Largest per capita OPEB unfunded liability was New Jersey with \$9,409 per capita.

Pension, OPEB and Debt: 50 State Governments



Source: Center for Retirement Research at Boston College, "An Overview of the Pension/OPEB Landscape", October 2016. Note: Most data is as of 2014.

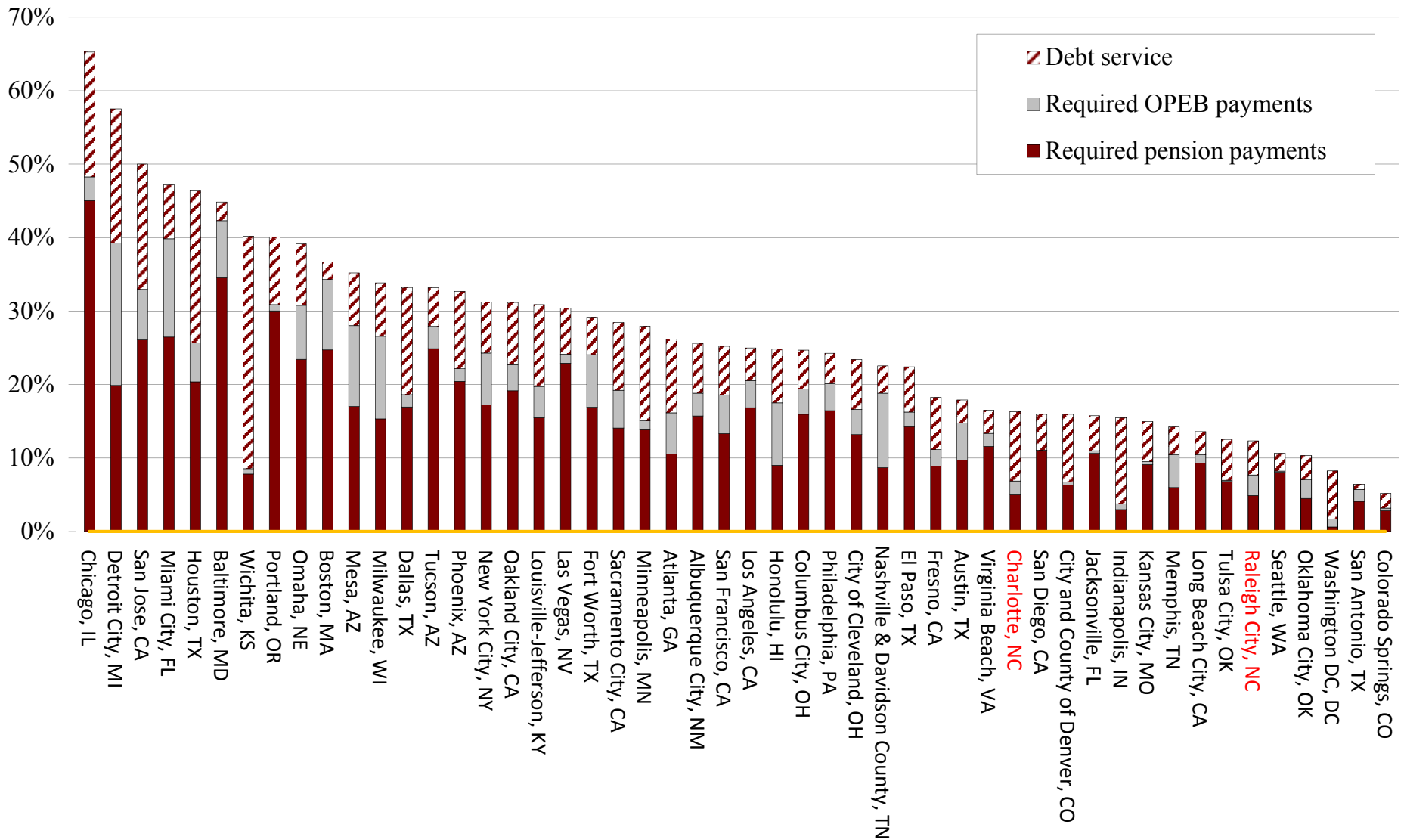
Pension, OPEB and Debt: Example Large Counties



Source: Center for Retirement Research at Boston College, “An Overview of the Pension/OPEB Landscape”, October 2016.

Note: Most data is as of 2014.

Pension, OPEB and Debt: Example Large Cities



Source: Center for Retirement Research at Boston College, “An Overview of the Pension/OPEB Landscape”, October 2016.

Note: Most data is as of 2014.

Some Cautions About Comparisons

- Comparisons require considerable care. Differences may arise due to causes such as:
 - Different actuarial assumptions or methods, rather than different true long term cost
 - Different valuation dates
 - How costs are allocated (e.g., between a state and school districts for a teacher retirement system)
 - Errors on the part of the researcher or rating analyst
 - Reforms, litigation, or large discretionary contributions which occurred after the comparison date
 - Only including costs of defined benefits plans and not DC plans
 - Units of government which aren't actually comparable, e.g., a city which includes school pension and OPEB liabilities vs another which does not

Prefunding and Investments

Pension vs OPEB, Sample Differences Which Can Affect Funding & Portfolios

	Pension	OPEB
Duration of Liabilities	Commonly 12-15 years for an open plan	Could be much shorter, if only for retirees <65; similar to pensions if dollar amount for all retirees is fixed; longer if covering medical costs for all retirees
Funded ratio	Usually 60%+, 50% viewed as unusually low	Often zero; 50% viewed as unusually high
Growth in assets	Usually <15% per year	If recently starting funding, >30% growth is common
Contributions vs Withdrawals	Withdrawals usually > contributions	Some trusts only have prefunding = no withdrawals
Liquidity needs/cash outflow volatility	Payment of pensions, very predictable in short run	If only prefunding, no liquidity need; if paying insurance similar to pensions; if paying claims, more volatile
Changes in benefits	Except for COLAs, not common for service already performed	Frequent, e.g., Medicare Part D, Obamacare, deductibles, premiums
Common discount rates	6.75-8.0%	6.0-8.0% if fully funding ARC/ADEC; 3.0-4.5% if pay as you go
Investment restrictions	Fairly rare	More common, in NC many restricted to 159-30 and State Treasurer OPEB investments
Mandates to fund ARC	Common	Much less common
Big multiemployer plans	Common	Much less common

Implications for OPEB Prefunding – 1. Contributions & Asset Allocations

- If prefunding, don't simply copy the asset allocation of your pension plan
- If given a menu of potential allocations, don't just select the most popular; OPEB plans vary quite a bit from employer to employer
- If only placing prefunding money in the trust (i.e., PAYGO still paid directly by employer), little or no need for cash allocation at the trust
- If major OPEB plan changes are contemplated, think carefully before funding amounts now that would be near 100% of liabilities after changes
- In North Carolina, usually G.S.159-30 restrictions if not using State Treasurer OPEB trust investments under G.S.147-69.2(b4). *“As of June 30, 2016, there were a total of 16 participants with assets totaling \$201.8 million”* Source for assets and statute numbers: NC State Treasurer's Annual Report, 2015-2016

Implications for OPEB Prefunding – 2. Trust Administration, RFPs

- Many more employers will have to make investment decisions for OPEB than for pensions
- Even if investing only with the State Treasurer, you have decisions on funding amount/policy and asset allocation
- If establishing an OPEB trust outside of the State Treasurer (e.g., you have expanded investment authority), more flexibility, but more work
- Will you have an OPEB committee? Who will be on it? Will they need additional education (e.g., investments, accounting, state law)?

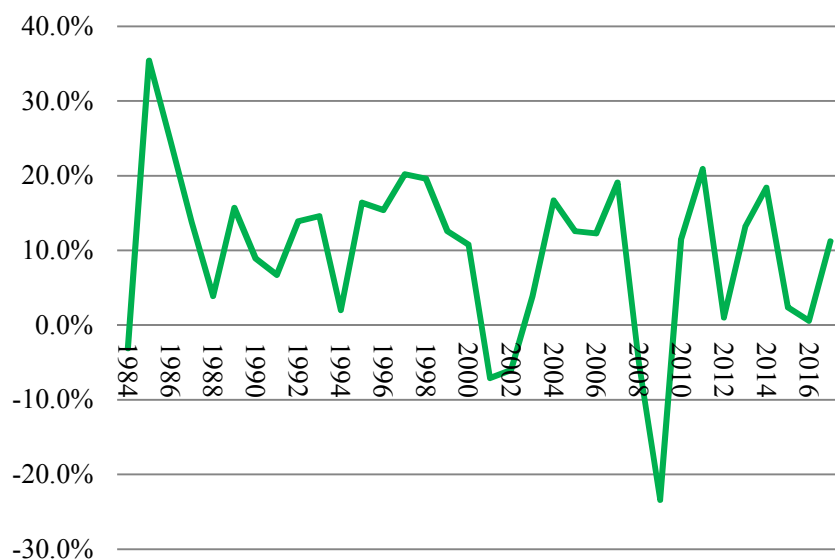
Implications for OPEB Prefunding – 3. OPEB & Pension Correlations

- Consider whether to try to target total pension + OPEB contributions, rather than treating them completely separately
 - Changes in pension and OPEB liabilities, or pension and OPEB ARCs, often don't have a high correlation
 - If you currently have little or no funding for OPEB, OPEB investment returns have little effect on unfunded liabilities/NPL
 - May want to consider simulations to develop strategies & policies

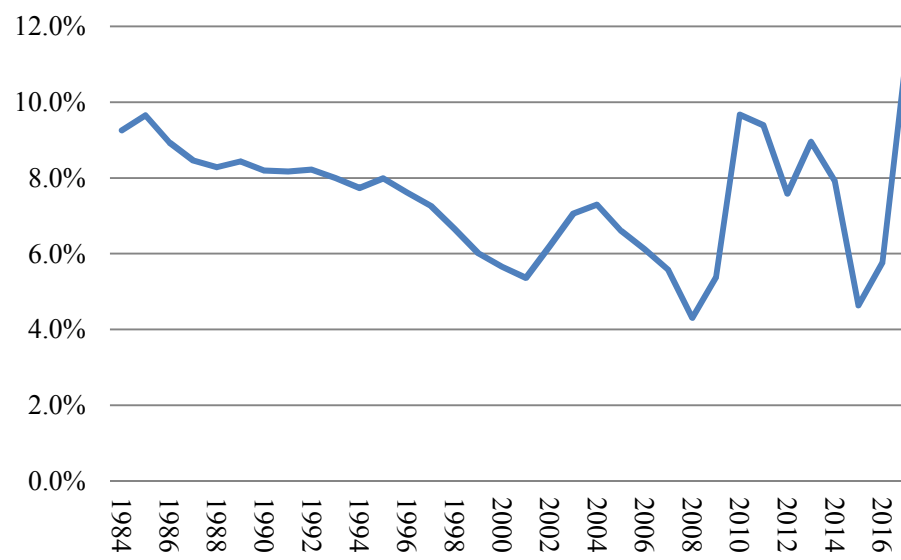
Returns if Prefunding

- So, what are expected investment returns if prefunding?
- Even the experts disagree
 - For a particular asset allocation (e.g., 60% equity, 40% bonds), pessimistic investment consultants are often about 100 basis points below the average, optimistic consultant often about 100 basis points above the average
- Beware of using only historic numbers: the time period used is important, and forecasts of future inflation are lower than 10+ years ago

**CalPERS FYE 6/30 Returns
(Geometric Avg 9.3%)**



**CalPERS Compound Annualized
Returns Through 6/30/17**



(Data source for charts: CalPERS)

Discount Rates: New GASB OPEB Accounting Rules

Statements 74 & 75

New GASB Pension Accounting Rules, Statements 74 and 75

- No direct effect on funding or contributions
- Accounting entries on CAFRs will be different than actuarial funding calculations, called the “divorce” of accounting from funding
- You can’t fund the GASB 74/75 OPEB Expense number, even if you try
- Unfunded liabilities will be on the balance sheet: renamed “Net OPEB liability,” and calculated somewhat differently

Comparison of Old and New GASB OPEB Rules

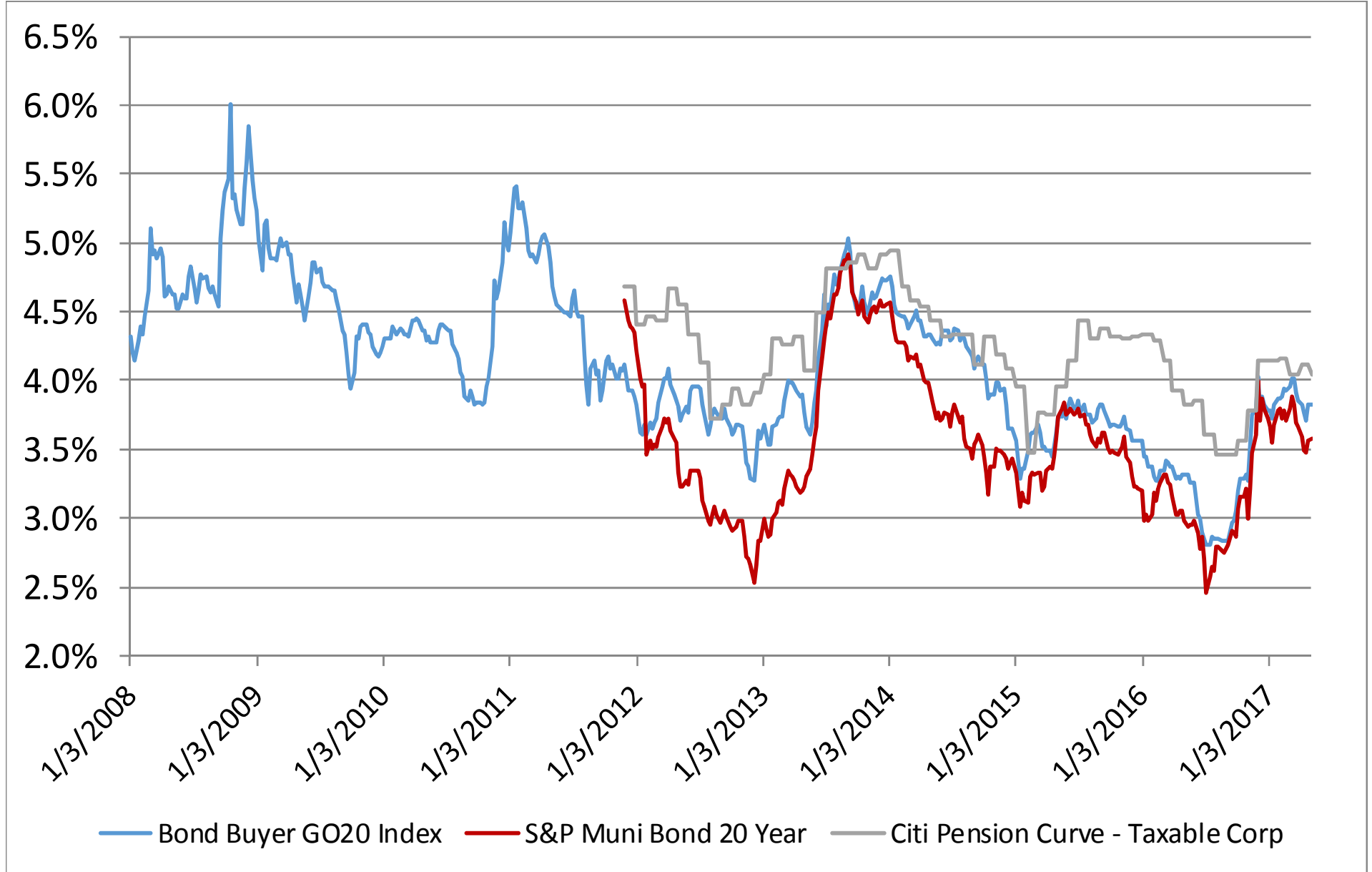
	Old GASB, 43 & 45	New GASB, 74 & 75
Volatile Discount Rate - Varies with High Grade Municipal Tax Exempt Bond Index?	No	No, for well-funded plans (e.g., prefunding ARC, 6.0-8.0% actuarial discount rate) Yes, volatile for others, including PAYGO
Discount Rate for Prefunded Plans Forecast to Run Out of Money if new hires are not included in forecast	Typically ~6.0%-8.0%	"Blended rate" of actuarial and high grade muni (e.g., *Bond Buyer GO 20 rates.)
Discount Rate for Pay As You Go Plans	Typically ~3.0%-4.5%	Will change from year to year, (e.g., Bond Buyer GO 20 rates). Range of ~2.8% - 6.0% in recent years.
Market Value/Smoothed Value For Reporting	If there are assets in a trust, market value is allowed, but smoothed actuarial values are more common	Market Value
Can Accounting Method Be Used For Contributions?	Yes	No (actuarial becomes different from accounting)

*Bond Buyer GO 20-Bond Municipal Bond Index

OPEB Discount Rates

- GASB 74/75 specify use of “index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher,” for any OPEB plan projected to run out of money if all actuarial assumptions are met, contributions are as expected, and new hires are not included in the calculations (source: GASB 75, paragraph 79)
- The Bond Buyer G.O. 20 Index is often used for blended rate calculations. Another choice is the S&P Muni Bond 20-Year Index. (rate sources: BondBuyer, S&P)
- For pensions, Moody’s recalculates liabilities using the Citi Pension Discount Curve, and might do so for OPEB (rate source for Citi Curve: Society of Actuaries)

Historical Data - Selected Bond Indexes



Rating Issues

Rating Agencies – Transitions to GASB 74/75 Data

- Rating agencies expected to continue to pay more attention to pension funding than OPEB funding
- Agencies mostly do not expect big “surprises” with the new rules
 - Exceptions might include more/less flexibility than expected on benefits and/or prefunding
- If you are issuing bonds after receiving your first GASB 74/75 numbers, rating agencies may not have fully converted to using the new GASB standards yet
- Rating agencies typically:
 - Appreciate the more extensive disclosure of the new rules
 - Like having a single actuarial method
 - Like the sensitivity calculations for discount rate and medical trend
 - Have been studying the new rules for some time
 - Have not yet decided on any changes to methodology

Rating Agencies – Transitions to GASB 74/75 Data

- Some employers will show negative net assets
- Unlike transition to GASB 67/68, under GASB 74/75 some employers may use higher discount rate for financial statements than actuarial calculations
 - For example, an employer might use a PAYGO actuarial discount rate of 3.5% and Bond Buyer GO 20 rate might be over 3.5% at financial statement date
 - In a future year, the effects could reverse, with actuarial discount rate less than Bond Buyer GO 20 rate
- Especially early on, consider having someone who is very well versed in GASB 74/75 assist with rating presentation:
 - Perhaps the actuary, but check with them in advance
 - Municipal advisor that has an OPEB specialist
 - Internal staff expert, even if person is not usually on rating calls

Disclosure

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