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You Dropped a Bomb on Me, GASB

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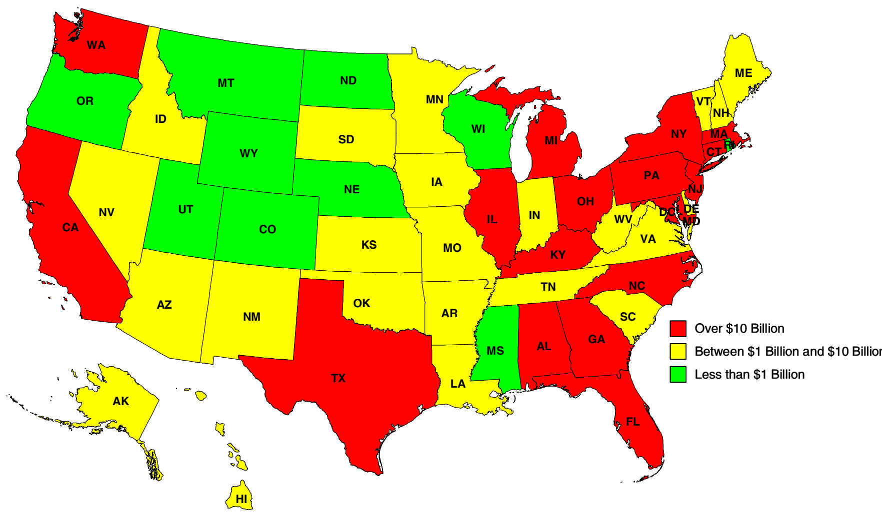
ACCOUNTING

Uncovering $1.5 Trillion in Hidden OPEB Liabilities for State and Local Governments

Estimated State Government OPEB Underfunding



- There's a new accounting rule in town that's beginning to uncover some very large, hidden liabilities of state and local governments. It's GASB 45, which drastically changes the accounting for Other Postemployment Benefits or OPEB (e.g., retiree healthcare, life insurance, etc.), moving it from a cash (i.e., pay-as-you-go) basis to an accrual basis.
- The rule, issued by the Governmental Accounting Standards Board (GASB) back in 2004, goes into effect starting this year. What's being revealed is not too pretty: we estimate over $1.5 trillion in unfunded OPEB liabilities. It's not as if GASB 45 is creating this obligation. (State and local governments did that all by themselves.) However, GASB 45 does highlight another large legacy obligation where a promise made to U.S. workers is going to be hard to keep, presenting difficult challenges for the U.S. economy.
- The rude awakening provided by GASB 45 (this will be the first time many of these governments measure this obligation) could spark changes in behavior by state and local governments, potentially creating some interesting capital market implications. For example, passing more of these costs off to the retirees or raising taxes are not positives for the consumer; if more state and local governments prefund their OPEB plans, they could become significant new investors; GASB 45 may be the spark that turns the talk about states and local governments selling/leasing their infrastructure assets (privatizing toll roads, lottery systems, etc.) into action.

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We would like to acknowledge our former colleague, Bill Carcache, for his contributions to this report.

You Dropped a Bomb on Me, GASB

You dropped a bomb on me, baby. You dropped a bomb on me. The Gap Band

There's a new accounting rule in town that's beginning to uncover some very large hidden liabilities of state and local governments. It's GASB 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, which drastically changes the accounting by state and local governments for Other Postemployment Benefits or OPEB (e.g., retiree healthcare, life insurance, etc.), moving it from a cash (i.e., pay-as-you-go) basis to an accrual basis. The rule, issued by the Governmental Accounting Standards Board (GASB) back in 2004, goes into effect starting this year. What's being revealed is not too pretty; in fact, it's big and ugly. We estimate $558 billion in unfunded OPEB liabilities for the 50 states, and then another $951 billion for local governments (e.g., cities, counties, etc.); that's over $1.5 trillion in unfunded liabilities. To put that into perspective, the size of the municipal bond market at the end of 2006 was $2.4 trillion and the OPEB plans of the companies in the S&P 500 were "only" $326 billion underfunded at the end of 2005.

You may be wondering why we are writing a report on an accounting rule from the GASB (the other half of the U.S. GAAP band) and the OPEB obligations of state and local governments, when our research typically focuses on the investment implications of accounting rules for Corporate America and the FASB. Because GASB 45 may make OPEB, particularly retiree healthcare, a hot topic (as we noted in our February 15, 2006, report, *The Buck Stops Where? OPEB Plans: Cash Flow Implications for the S&P 500*), and because it highlights another large legacy obligation (like defined benefit pension plans, social security, and Medicare and Medicaid)—where a promise made to U.S. workers is going to be hard to keep—that presents difficult challenges for the U.S. economy. (As David Walker, the Comptroller General of the United States, made clear in recent congressional testimony, "Over the long term, the nation's growing fiscal imbalance stems primarily from the aging of the population and rising healthcare costs . . . Continuing on this unsustainable path will gradually erode, if not suddenly damage, our economy, our standard of living, and ultimately our domestic tranquility and national security.") Also the rude awakening provided by GASB 45 could cause state and local governments to change their behavior, thereby affecting their residents and potentially having some interesting capital market implications. For example:

- *Passing the buck*. State and local governments may try to pass the buck, passing more and more of the OPEB costs to the retiree, just as corporations have done for years. Of course, the cost doesn't magically disappear; it's just a transfer of risk where retirees end up bearing more of the burden, and, as a result, have less disposable income—knowing their employer is covering less of these costs may even force people to save more. We don't expect the workers or retirees will be too happy about this.
- *Higher taxes*. If the state and local governments are unsuccessful at paring back these liabilities, someone is going to have to pay for all the promises made to their workers, and that someone may be you. In other words, you might be paying more in taxes, clearly not a positive for the consumer. Businesses may also face a higher tax burden. We find that the 12 states in Exhibit 15 could see a more than 10% increase in their per capita tax burden by prefunding their OPEB plans.
- *Cutting other services*. For those governments that can't raise taxes, other services may need to be cut in order to keep providing benefits to their retirees.
- *Major new investor*. Today, very few state and local governments prefund their OPEB plans. We expect that will change under GASB 45, as there are huge incentives to prefund. If prefunding gets popular, these OPEB plans could become significant new investors (just like state and local pension plans). We estimate that if the 26 states in Exhibit 18 were to prefund their OPEB plans, an incremental $35.6 billion *per year*

could get invested in various different asset classes (including the stock market). Of course, the number would be much higher if we extended our scope to include the remaining states and local governments.

- *Increased borrowing*. One way in which state and local governments may look to fund their OPEB plans is by borrowing, i.e., issuing taxable OPEB obligation bonds just as they have issued pension obligation bonds.
- *Selling assets*. There has been a lot of talk (little action) about states and local governments selling/leasing their infrastructure assets, privatizing toll roads, lottery systems, etc. GASB 45 may be the spark that turns that talk into more action, as states look for ways to fund their gigantic OPEB liability. By the way, privatization could provide some much needed supply of long-duration assets that the market has been craving (especially defined benefit pension plans).

One could even dream up a scenario where corporate defined benefit pension plans and state and local governments are the counterparties in a gigantic trade: To help fund their OPEB plans, state and local governments could sell long-duration infrastructure assets and bonds to corporate defined benefit pension plans that are trying to close large-duration gaps between their plan assets and their long-duration pension obligations. In return, as the accounting rules become more mark-to-market oriented, companies keeping a closer watch on the risks in their pension plans may look to trim their exposure to the stock market (e.g., General Motors recently announced that it's shifting 20% of its pension portfolio from equities to fixed income), potentially selling publicly traded equities in their portfolio to state and local government OPEB plans. This would be a broker's dream come true.

In this report, we focus on the OPEB obligations for each of the 50 states, along with the 25 largest cities in the U.S. For a further discussion of OPEB plans for Corporate America, see our September 30, 2003, report, *OPEB: The "Other" Retirement Benefits*.

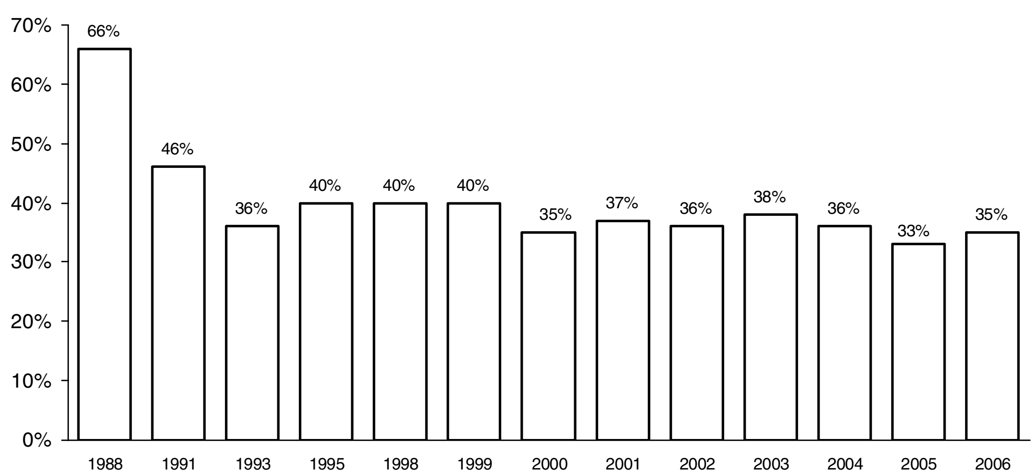
A Little Background

To start off, we provide some background on OPEB or Other Postemployment Benefits. These are all the postemployment benefits, other than the pension plan, provided by a state or local government to their employees. The largest of these benefits is retiree healthcare (e.g., medical, dental, vision, hearing, etc.). OPEB also includes postemployment life insurance, disability, and long-term care, among other benefits. Each state and local government has its own mix of benefits and provides varying levels of coverage; for example, the state of Maryland offers the following postemployment benefits, according to an October 2005 actuarial study prepared by Aon Consulting:

> The State of Maryland provides medical, prescription drug, behavioral health, dental, and vision benefits to retirees and their covered dependents. The State pays a portion of the cost for retirees, disabled retirees, spouses, and dependents. All active employees who retire or are disabled directly from the State and meet the eligibility criteria will participate.

On the corporate side of the fence, rising healthcare costs and the bright light that FAS 106 shine on the OPEB (for corporations it's Other Postretirement Employee Benefits) obligation has resulted in many companies cutting back on these benefits over the years. For example, Exhibit 1 shows the percentage of all large firms responding to the Kaiser/HRET survey of employer-sponsored health benefits that offer retiree healthcare. Note the drastic drop in the percentage of firms offering these plans between 1988 and 1993, around the same time FAS 106 was being crafted and put into effect. Focusing on the companies in the S&P 500, we find that 325 of the companies or 65% have some type of OPEB obligation, 31 of those plans appear to be frozen.

Exhibit 1: Percentage of All Large Firms (20 or More Workers) Offering Retiree Health Benefits, 1988–2006



Source: The Kaiser Family Foundation and Health Research and Educational Trust, Employer Health Benefits, 2006 Summary of Findings.

As for state and local governments, it appears that many still offer their employees retiree healthcare benefits; for example, according to the same Kaiser survey, 82% of state and local governments with more than 200 workers provide retiree healthcare coverage. (Note the percentage drops to 29% for those with less than 200 workers.) We found that all but 3 states, Mississippi, Nebraska, and Wisconsin, and all of the 25 largest cities (except Jacksonville, Florida) provide some type of OPEB benefit.

GASB 45: A Summary

The accounting for other postemployment benefits offered by state and local governments is changing dramatically under GASB 45, moving from a cash (pay-as-you-go) basis of accounting to an accrual basis. Today the accounting for OPEB plans is about as straightforward (and misleading) as you can get. When a state or local government pays benefits to retirees, it recognizes the cash going out the door and records a corresponding cost on the income statement. There are a couple of problems with this method. First of all, an expense is being recognized today for the benefits paid to retirees who have long since performed their service and earned the benefit they now receive. Let's not forget that the employer has also promised employees and retirees a future benefit, but the obligation to provide it and the cost of deferred compensation as the benefits are being earned is not reported anywhere in the financial statements nor is it even disclosed, thus understating liabilities and expenses.

Measuring the OPEB Liability for the First Time

That all changes under GASB 45. State and local governments will be required to determine the actuarial accrued liability (AAL); that's the present value of the future OPEB benefits that have been promised to and earned by its employees to date. This is the first time that many of these governments will be measuring this obligation (which is frightening, and also presents a great opportunity for actuaries). Once it's measured and after the sticker shock wears off, look for state and local governments to start managing it. (You manage what you measure.)

To determine the funded status of the plan, GASB 45 requires a comparison of the AAL to the actuarial value of plan assets (to the extent there are plan assets). An underfunded plan (or UAAL, unfunded actuarial accrued liability) is one where the AAL is greater than the actuarial value of plan assets; an overfunded plan (not that you will see many) is the exact opposite.

Even though it's much better than the old rules, this calculation still does not properly capture the underlying economics of the OPEB plan. First of all, instead of using the fair value of plan assets, an actuarial value is used, which smoothes the asset values over time. More important, the discount rate that's used to arrive at the AAL is the expected return on the assets that will be used to pay OPEB benefits. (We would prefer using market-based interest rates, a current yield curve.) If the plan is funded, the discount rate is the expected return on plan assets. If it's not funded, it's the return on employer assets, which in most cases will be much lower. (If it's partially funded it's somewhere in between.) This provides a giant incentive to prefund the plan and allocate toward historically higher-returning asset classes like equities, since using a higher discount rate will result in a smaller obligation (in some cases, cutting the obligation by more than half, see Exhibit 16 for a few examples), and it reduces the OPEB cost reported on the income statement.

Adding another layer of confusion, the amount by which the OPEB plan is underfunded will in most cases differ from the net OPEB obligation that will be reported on balance sheet. As the amount on balance sheet under GASB 45 represents the cumulative difference between OPEB cost reported on the income statement and contributions to the plan. In other words, prefunding the plan reduces the net OPEB obligation on balance sheet, providing another incentive to prefund.

Recognize OPEB Costs as Incurred

Under GASB 45, the OPEB cost that's reported on the income statement will be very different (and probably much higher) than it is today. OPEB costs will be recognized as they are incurred, not years later when the benefits are paid to retirees and the liability comes due. The main driver of OPEB costs under GASB 45 is something called the Annual Required Contribution (ARC) even though there is *no* requirement for state and local governments to fund these plans. The ARC is made up of two components, the normal cost of the plan (aka service cost, which is the amount of the OPEB benefit the employees have earned by working in the current year) and the amortization of the OPEB underfunding (or overfunding) over a maximum of 30 years. The ARC is the amount of annual contribution that would be required to fully fund the obligation over the amortization period, all else equal.

New Disclosures

Not only does GASB 45 change the accounting for OPEB plans, it provides some interesting new disclosures. For example, New York City, which early adopted GASB 45, included six pages of disclosures on other postemployment benefits in its June 30, 2006, Comprehensive Annual Financial Report (CAFR). The disclosures included, a description of the plan, the funding policy, actuarial value of assets, actuarial accrued liability (AAL), unfunded AAL (UAAL), UAAL as a percentage of covered payroll (it's 321.2% for New York City), annual required contribution, benefit payments made, net OPEB obligation on balance sheet, discount rate (4%), healthcare cost trend rate (10% initially, trending down to 5% by 2017), dependent coverage, and lots more.

Phased Effective Date, to Balance Supply with Demand for Actuarial Services

The GASB has been tinkering with the accounting for OPEB plans since 1988. It finally issued GASB 45 in 2004. However, the rule goes into effect starting this year in three phases based on revenues generated in the first fiscal year ending after June 15, 1999. As you can see in Exhibit 2, the largest state and local governments based on revenue have to apply GASB 45 first, with the smaller ones getting some more time.

Exhibit 2: GASB 45 Effective Date

Phase	Revenues	Effective for Periods Beginning After:
1	Greater than or equal to $100 million	December 15, 2006
2	Greater than or equal to $10 million but less than $100 million	December 15, 2007
3	Less than $10 million	December 15, 2008

Source: GASB 45.

The GASB explains one reason for the phased implementation schedule is that since many OPEB plans have not had actuarial valuations in the past, GASB 45 "could increase the demand for actuarial services to the extent that supply would become a problem if all plans had effective dates within the same year. Phased implementation will enable spreading of the increased demand for services and assist adjustments of supply and demand." Sounds like a good problem to have if you are an actuary.

What's the GASB?

For those of you not familiar with the GASB or Governmental Accounting Standards Board, it sets accounting standards for the public sector; in contrast, the FASB sets accounting standards for the private sector. GASB standards apply to financial reports of all state and local government entities, including general purpose governments; public benefit corporations and authorities; public employee retirement systems; and public utilities, hospitals and other healthcare providers, and colleges and universities.

Who Has Exposure?

Up from the depths . . . 30 stories high . . . breathing fire . . . his head in the sky . . . Godzilla! Hanna-Barbera

It has been referred to as the Elephant in the Room, the Trillion Dollar Pothole, The OPEB Tsunami, and The 800 Lb. Gorilla, among other names. Colorful terminology is necessary when describing the liability for the other retirement benefits (most significantly retiree healthcare) that state and local (e.g., cities, counties, etc.) governments have promised to their employees. Not only are the obligations huge, but in most cases there are no assets set aside to meet these liabilities, since many plans are financed on a pay-as-you-go basis. As a result, we estimate that the state and local governments in the United States have about $1.5 trillion of unfunded OPEB liabilities in the aggregate, with $558 billion belonging to the 50 states and the remaining $951 billion going to local governments. To put that into perspective, the OPEB plans of the companies in the S&P 500 were "only" $326 billion underfunded at the end of 2005.

Our Methodology

You might be wondering how we arrived at our estimates of the OPEB underfunding for state and local governments? It's not as if GASB 45 is in effect and we could just pluck the information out of the annual reports. Instead, we used a variety of sources, the back of an envelope, and some simplifying assumptions.

Our first step was to get our hands on the most recent Comprehensive Annual Financial Report (CAFR) for each of the 50 states, even though we didn't expect it to have the exact information that we would need. We found the CAFR on Web sites affiliated with each state (e.g., State Controller, State Auditor, Bureau of Finance and Management, Commissioner of Finance, Department of Administrative Services, etc.). A CAFR in the world of public finance is analogous to a publicly traded company's annual report.

After digging through the CAFR (sort of like digging a ditch) for any information we could find on OPEB (which, in many cases, was not much more than OPEB benefits paid), we went in search of any other sources that could help us estimate a state's unfunded OPEB liability, including actuarial studies, bond offering documents, census data, etc. As a final step, we picked up the phone and called the states. (In cases where we had incomplete information, wanted to obtain clarification, etc.) In the end, we were able to find an estimate of the unfunded OPEB liability for 31 of the 50 states, 3 states—Mississippi, Nebraska, and Wisconsin—don't appear to have OPEB plans.

For the remaining 16 states, we took a shot at estimating the unfunded OPEB liability ourselves by simply multiplying the number of full time equivalent employees for each state, per the U.S. Census Bureau from 2004, by $100,000. How did we come up with a multiple of $100,000 per employee? We got it by comparing the estimated OPEB underfunding for the 31 states where it was available from an outside source with the number of employees. (In cases where a range of underfunding is provided, we use the high end of the range to provide the most conservative estimate.) The OPEB underfunding per employee ranged from $2,700 per employee to $402,000 per employee, with a median of $131,000 and an average of $130,000. With such a wide range we decided to choose a nice round $100,000 per employee.

Warning: Our Estimates May be Way Off

Of course, using such a simple methodology is fraught with problems, especially since each OPEB plan is unique (different benefits and levels of coverage). As a result, our estimates of the OPEB underfunding may differ significantly from the number that a particular state will calculate. However, we believe it provides a useful starting point for gauging a state's exposure to its OPEB plan. We provide the source of our data for each of the states in Appendix A.

Extending the Analysis to Local Governments

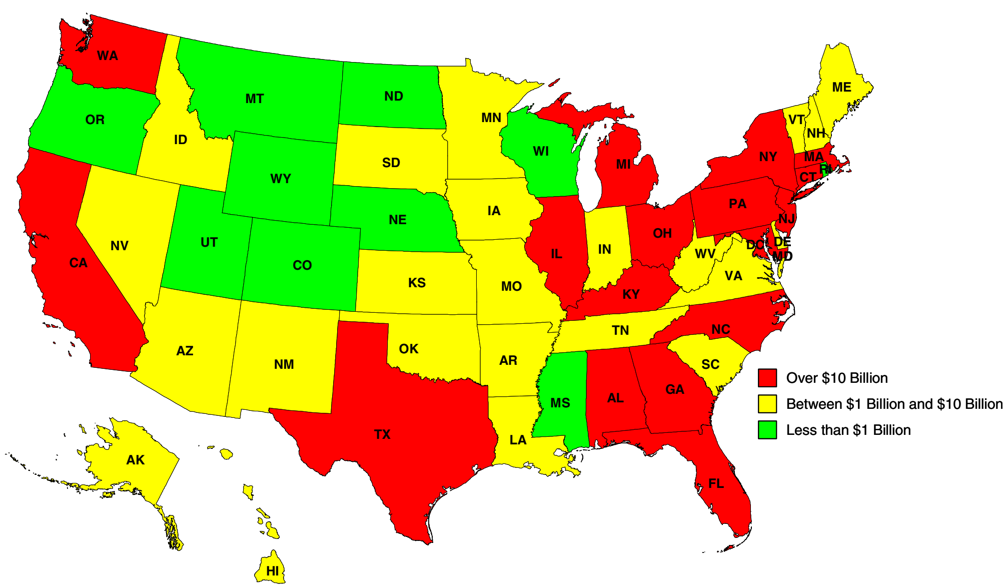
After completing the analysis for all 50 states, we decided to extend the same methodology to local governments, focusing on the top 25 cities in the United States ranked by population according to the U.S. Census Bureau. We provide the source of our data for each of the cities in Appendix B.

We used our work on the top 25 cities and the back-of-an-envelope to arrive at a rough estimate of the OPEB underfunding for all local governments in the United States. The total estimated unfunded OPEB liability for the top 25 cities is about $91 billion. According to the U.S. Census Bureau, local governments employed 11.6 million full time equivalent employees in 2004; excluding the approximately 845,791 that work for the top 25 cities leaves 10.8 million workers. If we assume that 80% of those workers are employed by a local government that provides OPEB benefits, that leaves us with 8.6 million workers; at $100,000 per employee, we come up with about $860 billion in OPEB underfunding. Add that to the $91 billion for the top 25 cities, and we arrive at $951 billion of OPEB underfunding for local governments; a rough estimate, we admit. However, we once again view it as a starting point, until the local governments provide us with more information about their OPEB plans.

Exposure Varies Widely

Some states have made OPEB promises to their employees that are going to be very difficult to keep. Other states have little to no exposure to this issue. You can see the wide variation in the size of these promises in Exhibit 3, where we map out the estimated unfunded OPEB liabilities for each of the 50 states. (For the details on each state, please contact us.)

Exhibit 3: Estimated State Government OPEB Underfunding



Source: See Appendix A for applicable source information.

In Exhibit 4, we highlight the ten states with the largest amount of estimated OPEB underfunding and the ten states with the smallest. At one end of the spectrum are three states, Mississippi, Nebraska, and Wisconsin, that appear not to have any OPEB liabilities and two states, North Dakota and Wyoming, where we estimate the OPEB underfunding is less than $100 million. On the other end of the spectrum are states like California, New Jersey, and New York, where the OPEB underfunding could exceed $50 billion.

Exhibit 4: Estimated OPEB Underfunding by State

US$ in millions

Largest Unfunded Obligations			Smallest Unfunded Obligations		
State	**Abbreviation**	**Estimated OPEB Underfunding**	**State**	**Abbreviation**	**Estimated OPEB Underfunding**
California	CA	$ 70,000	Mississippi	MS	$ 0
New Jersey	NJ	60,000	Nebraska	NE	0
New York	NY	54,000	Wisconsin	WI	0
Texas	TX	26,817	North Dakota	ND	49
North Carolina	NC	23,786	Wyoming	WY	72
Maryland	MD	22,903	Colorado	CO	313
Michigan	MI	22,745	Oregon	OR	432
Connecticut	CT	21,100	Montana	MT	525
Alabama	AL	20,000	Rhode Island	RI	630
Georgia	GA	20,000	Utah	UT	749

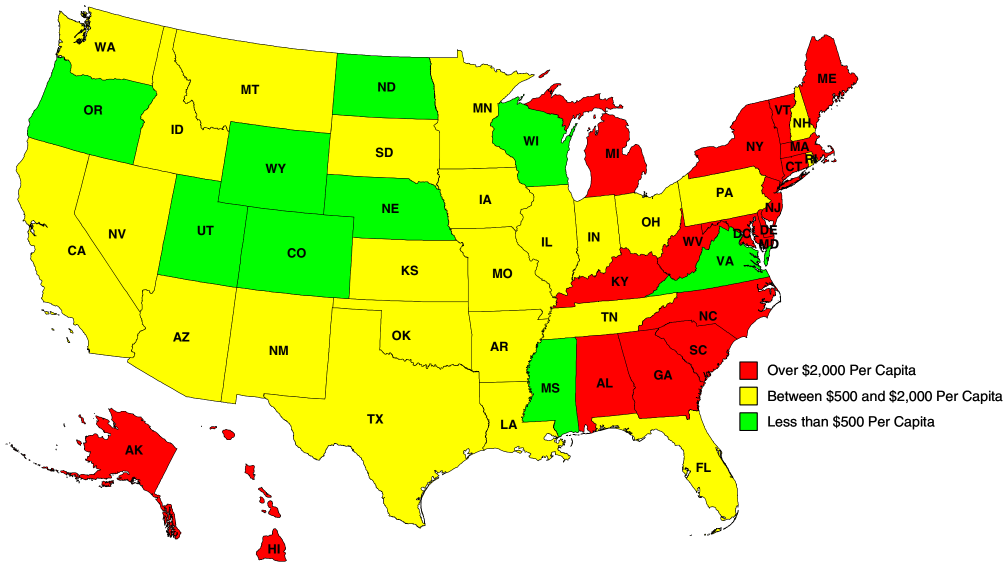
Source: See Appendix A for applicable source information.

As we noted earlier, when states provide us with a range of underfunding, to be conservative, we use the high end of the range. For example in Exhibit 4, California provides a range of $40 billion to $70 billion, New Jersey's range is from $40 billion to $60 billion, New York provides a range of $27 billion to $54 billion, Connecticut's range is from $8.4 billion to $21.1 billion, and Wyoming provides a range of $41 million to $72 million. Another reason for choosing the high end of the range is that the estimates of OPEB underfunding are all over the place, and they seem to keep getting ratcheted up. Take New Jersey, where the following was included in the *Analysis of the New Jersey Budget* prepared by the Office of Legislative Services in May 2006. "Notwithstanding the unofficial estimate of $20 billion for New Jersey's OPEB liability, Mercer Consulting, a global corporate consultant firm, estimates that OPEB liability will be 40-60 times an entity's annual medical expenditures. This suggests that New Jersey's OPEB liability is in the $40 billion to $60 billion range." As if the estimate hadn't increased enough, *The Star-Ledger* reported on February 7, 2007, that the most recent estimate of the unfunded OPEB liability for New Jersey was $78 billion.

OPEB Underfunding per Capita

All else equal, you would expect the states with the larger populations to have the larger OPEB liabilities. That's why it was no surprise to see California, New York, and Texas among the list of states with the largest OPEB liabilities. Or states like North Dakota and Wyoming among those with the smallest. We were curious as to what would happen if we took a look at the data on a per capita basis. So we divided the estimated OPEB underfunding for each state by its population per the U.S. Census Bureau. The result is mapped out in Exhibit 5.

Exhibit 5: Estimated State Government OPEB Underfunding per Capita



Source: See Appendix A for applicable source information

As you can see in Exhibit 6, the results look a little different on a per capita basis, only four of the states with the ten largest unfunded OPEB liabilities—New Jersey, Connecticut, Alabama, and Maryland—remain on the top ten list on a per capita basis. Alaska vaults to the top of the list with an estimated OPEB underfunding of more than $7,000 per person; as compared with a median OPEB underfunding of $1,581 per capita.

Exhibit 6: Estimated OPEB Underfunding per Capita

US$ in millions; except population and per capita amounts

Largest Unfunded OPEB Obligations per Capita					Smallest Unfunded OPEB Obligations per Capita				
State	Abbr.	Estimated OPEB Underfunding	Population	OPEB Underfunding per Capita	State	Abbr.	Estimated OPEB Underfunding	Population	OPEB Underfunding per Capita
Alaska	AK	$ 4,722	670,053	$ 7,047	Mississippi	MS	$ 0	2,910,540	$ 0
New Jersey	NJ	60,000	8,724,560	6,877	Nebraska	NE	0	1,768,331	0
Connecticut	CT	21,100	3,504,809	6,020	Wisconsin	WI	0	5,556,506	0
Hawaii	HI	5,654	1,285,498	4,398	Colorado	CO	313	4,753,377	66
Alabama	AL	20,000	4,599,030	4,349	North Dakota	ND	49	635,867	76
West Virginia	WV	7,781	1,818,470	4,279	Oregon	OR	432	3,700,758	117
Maryland	MD	22,903	5,615,727	4,078	Wyoming	WY	72	515,004	140
Delaware	DE	3,175	853,476	3,720	Utah	UT	749	2,550,063	294
Maine	ME	4,756	1,321,574	3,599	Virginia	VA	2,312	7,642,884	303
Kentucky	KY	13,425	4,206,074	3,192	New Mexico[1]	NM	1,000	1,954,599	512

[1]The OPEB plan is a cost sharing plan (where OPEB costs are shared among a number of employers) and the state portion is unknown. We expect our estimate of the OPEB underfunding will be higher than the actual OPEB underfunding as we have not factored in the cost sharing.

Source: See Appendix A for applicable source information.

In Maryland's case, one could argue that the $22.9 billion in OPEB underfunding or $4,078 per person, overstates the liability to the state. Why? Because it excludes $2.5 billion in savings the state expects as a result of the subsidy provided by Medicare Part D to employers that continue to offer prescription drug coverage to Medicare-eligible retirees. We ignored this subsidy because the GASB will not allow state and local governments to take this into account when calculating the OPEB liability (in contrast with how corporations deal with it); instead they will book it as revenue.

Focusing on Local Governments

In addition to the promises of retiree benefits made by the 50 states, local governments (e.g., cities, counties, etc.) have made their own set of promises and they employ almost three times the number of people that the states do. We estimate the 25 largest cities in the United States listed in Exhibit 7 have OPEB plans that are underfunded by nearly $91 billion (please contact us for further details). Extrapolating that out, the OPEB underfunding for local governments could be nearly $1 trillion.

Exhibit 7: Estimated OPEB Underfunding for the 25 Largest Cities

US$ in millions

City	State	Estimated OPEB Underfunding	City	State	Estimated OPEB Underfunding
New York City	NY	$ 50,544	Phoenix	AZ	$ 1,359
Detroit	MI	6,447	Austin	TX	1,203
San Francisco	CA	4,948	Denver	CO	1,194
Philadelphia	PA	2,952	Seattle	WA	1,061
Baltimore	MD	2,727	Columbus	OH	814
Memphis	TN	2,669	Milwaukee	WI	792
Houston	TX	2,207	Charlotte	NC	577
Boston	MA	2,088	El Paso	TX	573
Los Angeles	CA	1,758	Fort Worth	TX	564
San Antonio	TX	1,626	San Jose	CA	372
Dallas	TX	1,492	Indianapolis	IN	46
Chicago	IL	1,400	Jacksonville	FL	0
San Diego	CA	1,380			

Source: See Appendix B for applicable source information.

When comparing the OPEB liabilities among the different cities listed in Exhibit 7, keep in mind that you may be comparing apples and oranges. (The same holds true for the states.) For example, the $50.5 billion OPEB underfunding for New York City appears to include all of the city's employees, including, teachers, police, fire department, social services, etc. In comparison, the $1.8 billion in OPEB underfunding for Los Angeles looks down right puny. However, that $1.8 billion excludes, among other things, the Los Angeles Unified School District, where according to a February 2006 Legislative Analyst's Office report, a "July 1, 2004, actuarial valuation pegged the unfunded retiree health liability of the district at $4.9 billion."

Unfunded OPEB Liabilities, Balance Sheets Not as Healthy as They Appear

In most cases, state and local governments have not set aside any assets to pay for their OPEB liabilities (there are only 13 states that appear to at least partially prefund), which is why we decided to extend our analysis and compare the estimated OPEB underfunding to the total primary government assets that each state and city has on its balance sheet. In the aggregate, we found the OPEB underfunding of the 50 states was about 34% of their $1.6 trillion in assets, while it was 32% of the $284 billion in total assets for the 25 largest cities. There were 21 states where the OPEB underfunding was more than one-third of total assets on balance sheet (versus the S&P 500 where no companies have OPEB underfunding greater than one-third of total assets), including the 11 states on the left side of Exhibit 8, where it was more than half. Note that both New Jersey and Connecticut could have OPEB underfunding that is greater than their total assets. Now you can understand why New Jersey is considering selling off the New Jersey Turnpike, its lottery, and other revenue-producing assets—it's in a deep hole that will be difficult to dig out from. Speaking of big digs, check out New York City and Boston on the right side of Exhibit 8, with estimated OPEB underfunding that exceeds 75% of each city's total assets. Maybe some state and local government balance sheets aren't as strong as they initially appear.

Exhibit 8: Highest Ratio of Estimated OPEB Underfunding to Total Primary Government Assets

US$ in millions

		States					Cities		
		A	B	A/B			C	D	C/D
State	Abbr.	Estimated OPEB Underfunding	Assets	%	City	State	Estimated OPEB Underfunding	Assets	%
New Jersey	NJ	$ 60,000	$ 35,430	169%	New York City	NY	$ 50,544	$ 60,050	84%
Connecticut	CT	21,100	20,871	101%	Boston	MA	2,088	2,688	78%
Maine	ME	4,756	5,823	82%	Detroit	MI	6,447	10,099	64%
Alabama	AL	20,000	25,896	77%	El Paso	TX	573	1,067	54%
Michigan	MI	22,745	30,472	75%	Memphis	TN	2,669	5,537	48%
Maryland	MD	22,903	35,580	64%	Baltimore	MD	2,727	6,805	40%
Georgia	GA	20,000	34,283	58%	San Antonio	TX	1,626	4,603	35%
Vermont	VT	1,419	2,447	58%	Milwaukee	WI	792	2,448	32%
West Virginia	WV	7,781	13,590	57%	San Francisco	CA	4,948	15,439	32%
North Carolina	NC	23,786	46,101	52%	Philadelphia	PA	2,952	9,286	32%
Kentucky	KY	13,425	26,771	50%	Dallas	TX	1,492	7,821	19%

Source: See Appendix A and B for applicable source information.

Taking a look at the other side of the balance sheet, we compared the estimated OPEB underfunding with primary government long-term debt. When you get down to it, the OPEB liabilities are just another form of financing, with a different set of creditors. Instead of borrowing from the bond market, the governments with OPEB plans have borrowed from their employees (paying them less today, with the promise to provide them some type of benefit in the future). With pay-as-you-go accounting and funding, this system appears to work great for politicians until the promises come due; then, watch out. In the aggregate, the OPEB underfunding of the 50 states is greater than their $483 billion in long-term debt, while the OPEB underfunding of the top 25 cities is more than one-third the size of their $232 billion in long-term debt. We found 31 states where the OPEB underfunding exceeds their long-term debt (versus only 8 companies in the S&P 500), including the 9 states in Exhibit 9 where it's more than triple. We also found 5 of the 25 largest cities—Boston, Baltimore, El Paso, Memphis, and Milwaukee—could have OPEB underfunding that is greater than their long-term debt. Once you take into account their OPEB liabilities, these state and local governments are much more leveraged than they initially appear.

Exhibit 9: Estimated OPEB Underfunding More Than Triple Primary Government Long-Term Debt

US$ in millions

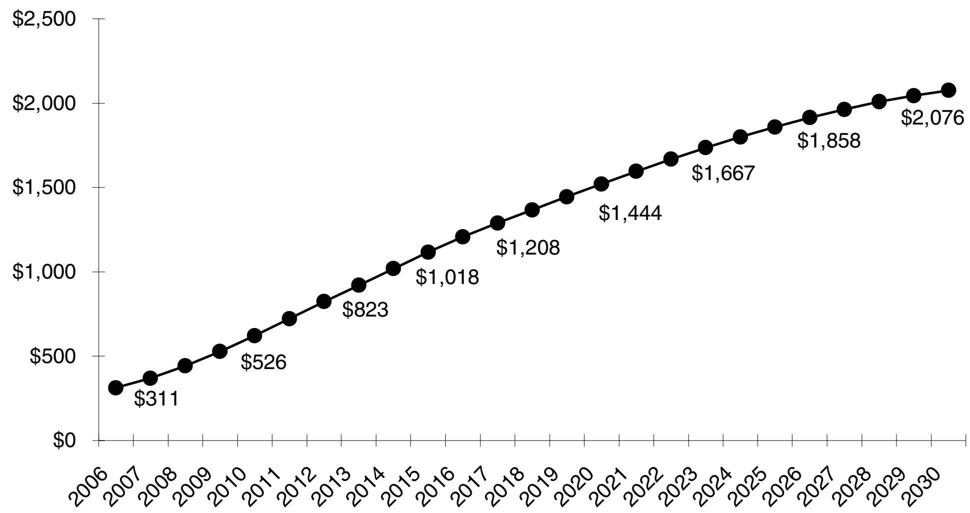
		A	B	A/B
State	Abbreviation	Estimated OPEB Underfunding	Long-Term Debt	%
Alabama	AL	$ 20,000	$ 1,270	1574%
Maine	ME	4,756	1,063	447%
Idaho	ID	2,314	564	410%
North Carolina	NC	23,786	6,519	365%
Michigan	MI	22,745	6,300	361%
Kentucky	KY	13,425	4,100	327%
Delaware	DE	3,175	1,027	309%
South Dakota	SD	1,320	427	309%
Vermont	VT	1,419	461	308%

Source: See Appendix A for applicable source information.

OPEB Costs, an Increasing Drain on State and Local Governments

Don't forget that GASB 45 is just an accounting rule change; these liabilities existed whether or not the states had to measure them. All GASB 45 does is shine a big, bright light on them. Even if we ignore the rule change, this liability would eventually catch up with the state and local governments that had promised OPEB benefits to their retirees, through higher and higher benefit payments, especially as the population ages and healthcare costs continue to inflate faster than state and local revenues. Take Maryland as an example. Its OPEB benefit payments have jumped 62% from $146 million in 2005 to $236 million in 2006; and as you can see in Exhibit 10, these costs are projected to keep on growing.

Exhibit 10: Maryland's 25-Year Payout Projection
US$ in millions



Source: State of Maryland, Postemployment Benefit Plans Actuarial Valuation, AON Consulting.

Of course, Maryland, is not alone; in New Jersey, retiree healthcare costs are projected to grow fast as Governor Corzine noted in his budget address, "Healthcare costs for state workers and retirees are projected to double—from $1.4 billion to $2.8 billion in five years. Post-retirement medical costs for teachers are expected to more than double—from $750 million this year to $1.8 billion in just five years."

To put the current OPEB burden into perspective, we compared OPEB benefits paid with primary government revenue for each of the 50 states and the 25 largest cities. For most of the states and cities, the OPEB benefit payments appear manageable at less than 1% of revenue. As you can see in Exhibit 11, at the top of the list are Alaska and Hawaii, where OPEB benefit payments are more than 3% of revenue, and Detroit, and Baltimore, where they are more than 5% of revenue. As the OPEB benefit payments continue to grow, however, they will eat up a larger and larger portion of state and local government revenue.

Exhibit 11: Highest Ratio of OPEB Benefits Paid to Primary Government Revenue

US$ in millions

		States					Cities		
		A	B	A/B			C	D	C/D
State	Abbr.	OPEB Benefits Paid	Revenues	%	City	State	OPEB Benefits Paid	Revenues	%
Alaska	AK	$ 295	$ 11,098	3%	Detroit	MI	$ 146	$ 2,440	6%
Hawaii	HI	178	7,096	3%	Baltimore	MD	121	2,217	5%
Michigan	MI	1,060	43,895	2%	New York City	NY	2,183	56,081	4%
New Jersey	NJ	964	49,371	2%	Milwaukee	WI	32	913	4%
Connecticut	CT	377	20,214	2%	Boston	MA	77	2,337	3%
North Carolina	NC	477	35,861	1%	San Antonio	TX	30	1,268	2%
Illinois	IL	623	50,002	1%	San Francisco	CA	115	5,909	2%
Alabama	AL	209	17,747	1%	San Jose	CA	29	1,520	2%
Kentucky	KY	213	18,684	1%	Fort Worth	TX	16	895	2%
West Virginia	WV	106	11,049	1%	Houston	TX	50	2,890	2%

Source: See Appendix A and B for applicable source information.

Remember, under GASB 45 the OPEB benefit payments will no longer run through the income statement; instead, they will be replaced by the accrual-based OPEB cost. OPEB costs under GASB 45 are driven by the Annual Required Contribution or ARC, which is made up of the normal cost and the amortization of the OPEB underfunding, as we explained earlier. In most cases, the ARC is expected to be significantly larger than the OPEB benefits paid; we have seen discussions estimating it at anywhere between four to ten times as large. For the 13 states that provided an estimate of the ARC, we compared it with their estimated UAAL, and found the ARC as a percentage of the UAAL ranged between 6.2% and 14%, with a median of 9%. Armed with these data, we decided to multiply the estimated UAAL by 10% to arrive at an estimate of the ARC for those states that don't provide one. We then compared the estimated ARC for each state with its revenue. Not surprisingly, it paints a different picture than the analysis above when we compared OPEB benefits paid to revenue. Now, we find 29 states where the ARC was more than 3% of revenue, including the 12 states in Exhibit 12 where it's more than 5%. It appears as if OPEB costs are much larger than they initially appear.

Exhibit 12: Estimated Annual Required Contribution (ARC) Greater Than 5% of Primary Government Revenue

US$ in millions

		A	B	A/B
State	Abbreviation	ARC	Revenues	Percentage
New Jersey	NJ	$ 6,000	$ 49,371	12%
Alabama	AL	2,000	17,747	11%
Connecticut	CT	2,110	20,214	10%
Maryland	MD	2,202	26,001	8%
Hawaii	HI	565	7,096	8%
Kentucky	KY	1,342	18,684	7%
West Virginia	WV	765	11,049	7%
North Carolina	NC	2,390	35,861	7%
Delaware	DE	317	5,466	6%
Georgia	GA	2,000	36,044	6%
Maine	ME	356	6,481	5%
Michigan	MI	2,274	43,895	5%

Source: See Appendix A for applicable source information.

Changing Behavior

When it came time to negotiate with its workforce, instead of paying its employees more in salaries and wages (which would negatively impact the current budget, income statement, and politicians' chances of reelection), state and local governments could simply defer compensation, promising the employees more of a pension benefit or retiree healthcare, offloading today's costs on future generations of taxpayers. The old rules made it very easy for most state and local governments to promise their employees OPEB benefits in retirement, as doing so had no effect on their balance sheets, and the costs were only reflected in the budget and on the income statement when the benefits were paid to retirees (many years later, long after the politicians that had made these promises left office). In fact, most didn't even bother to measure the promises they made. Of course, that shortsightedness will eventually catch up to these municipalities and cause problems, as New Jersey Governor Corzine highlighted in his budget address last month "The constant focus on short-term priorities without consideration of long-term costs has led to financial decisions that hang over the state today, tomorrow, and far into the future."

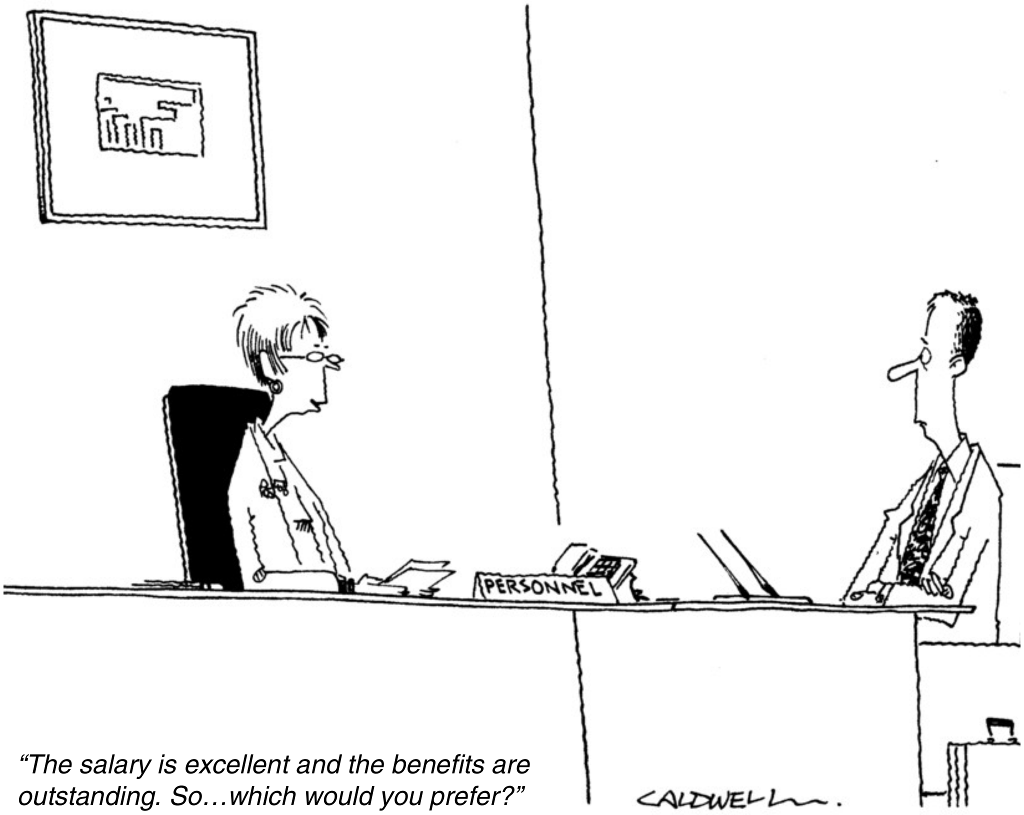
Applying GASB 45 will provide a rude awakening for many of these governments, as they finally realize they have made very large promises for which they have set aside little or no assets. So what can they do to get their OPEB plans better funded? When you get down to it, there are only two simple options: (1) shrink the obligation and/or (2) set aside more assets. Maybe there is another option: A state or local government could simply bury its head in the sand, ignoring the entire matter (probably not the most prudent path). In fact, the state of Texas is apparently considering not adopting GASB 45.

Remember, it's not as if GASB 45 is creating this obligation (state and local governments did that all by themselves); whether you account for the OPEB plans or not, the economics don't change. However, with its big bright spotlight, GASB 45 may change state and local government behavior (just as FAS 106 did for corporations). We briefly take a look at five potential behavioral changes that could have interesting capital market implications: (1) to the extent these benefits are cut back, it's simply another burden being hoisted on workers, which, at some point, will likely affect their consumption of other goods; (2) whether or not the OPEB plans are scaled back, they need to be financed, and that may mean higher taxes—probably not a positive for the consumer; (3) we expect to see more prefunding, which could turn state and local government OPEB plans into significant investors; (4) prefunding could be financed by increased borrowing, an arbitrage that may or may not work; and (5) GASB 45 may be the spark that gets state and local governments to sell/lease their assets.

Passing the Buck

As state and local governments realize they may have made promises to their employees and retirees that they can't afford to keep (or don't want to keep), we expect that more of them will actively try to cut their OPEB costs. For example, state and local governments might stop offering OPEB benefits to new hires, or have them make difficult choices, like the one in Exhibit 13.

Exhibit 13: Pepper. . . and Salt Cartoon



"The salary is excellent and the benefits are outstanding. So…which would you prefer?"

Credit Line: From The Wall Street Journal*, permission Cartoon Features Syndicate. Permissions Ed. CFS.*

There are lots of ways to cut OPEB costs, many of which involve sharing more of the burden with retirees (or passing the buck). These methods include, for example, increased retiree contributions to premiums, higher copayments, higher deductibles, caps on the plan, closing the plan to new employees, freezing the plan, setting up a defined contribution plan, etc. According to a TIAA-CREF survey, more than 75% of colleges and universities sponsored a retiree healthcare plan in 2004; however, 12% of those sponsors reported they were likely to discontinue it in the next five years. During our research, we came across a number of studies that highlighted how state and local governments have already started to try to cut their OPEB costs. For example, Michigan introduced higher copayments and deductibles; Ohio amended its plan to limit eligibility to only long-tenured employees; Alabama increased premiums for employees that smoke; Anaheim (California) introduced a defined contribution plan for new employees; and others like Utah, Orlando (Florida), Pittsburgh (Pennsylvania); and Easton (Pennsylvania) have apparently closed their plans to new employees.

The most extreme version of passing the buck would be terminating the plan (walking away from the obligation accrued by existing employees and retirees). Even if a state or local government has the legal right to terminate the plan, doing so would be extremely difficult, as the GASB highlighted in GASB 45 "as a practical matter, it is unlikely that an employer could terminate a plan to avoid the related obligation without potentially suffering adverse consequences or incurring compensating cost in some way."

Whether changes can be made to an OPEB plan will vary from state to state and city to city. Many states are not only scrambling to figure out the size of their unfunded OPEB obligation under GASB 45, some are working with their legal counsel to understand how much flexibility they have in making changes to past and future benefits. For example, the Maryland State Senate and House of Delegates asked the State Attorney General's office its opinion on a series of questions related to the legal status of its retiree healthcare benefits, the key questions and answers from the Attorney General's December 16, 2005, report are included in **Exhibit 14**.

Exhibit 14: Questions and Answers Related to the Legal Status of Maryland's Retiree Healthcare Benefit Obligations

Question	Answer
Does the State have a statutory, contractual, or legal obligation to provide or to continue to provide health benefits to . . . retirees . . . ?	The State currently has a statutory obligation to provide healthcare benefits to certain retirees; however, the statute does not create a contractual obligation, and the General Assembly remains free to amend the law that provides such benefits. Even a contractual right to healthcare benefits would be subject to modification, if reasonable and necessary to serve an important public purpose.
In terms of other states and local governments, . . . does any relevant case law exist regarding the provision or alteration of retiree health benefits. . .?	Cases in other states have reached various conclusions; some of those decisions recognize a contractual obligation to provide healthcare benefits to retirees. However, those cases are of limited value in construing Maryland law, as they are based on the particular state constitution, statute, collective bargaining agreement, or other circumstances peculiar to the case.
Are there any legal distinctions between the contractual rights that exist for pension benefits and promised retiree health benefits?	In contrast to retiree healthcare benefits, pension benefits are contractual in nature.
Can the State's legal obligations regarding retiree healthcare . . . be altered as the result of a collective bargaining agreement entered into by the Administration and employee representatives?	Collective bargaining negotiations could result in changes in the State's legal obligations concerning retiree health benefits, but only if the General Assembly specifically adopted those changes.
Does GASB 45 create any legal obligation for the State to treat promised retiree health benefits the same as promised pension benefits? If the State were to create a nonrevocable trust fund in response to the GASB 45 requirements, does this action create any legal obligation to provide retiree health benefits . . .?	GASB 45, as an accounting standard issued by a private entity, does not itself impose any legal obligation on the State concerning the level or funding of retiree healthcare benefits. If the trust fund consisted in part of employee contributions, there may be a stronger argument that the State had undertaken to devote the funds in the trust to retiree healthcare benefits.

Source: Public Officers and Employees, Budgetary Administration—Status of Retiree Health Care Benefits in Light of the Government Accounting Standards Board Statement 45, December 16, 2005.

Of course, state and local government's success in passing off this cost may ultimately depend upon how much leverage they have over their workers. Union workers would surely cry foul if these governments announced that they were reducing OPEB benefits or taking them away (especially if workers claim to have accepted lower wages in return for better benefits), resulting in possible business interruptions and loss of revenue. (Remember the NYC transit strike.) In general, the more heavily unionized the workforce, the more difficult it is to cut retiree benefits, a problem for state and local governments where, according to an April 2005 Employee Benefit Research Institute research note, it is estimated that 37.2% of the workforce are members of a union versus only 8.2% for the private sector.

One other thing to consider: If we see state and local governments aggressively try to pare back their OPEB plans on top of corporations, which have been scaling these back for years, the headlines of more and more retirees losing their healthcare benefits may press the U.S. Congress into action. The U.S. government could step in to try and protect the OPEB plans as it has done for defined benefit pension plans through ERISA.

Higher Taxes

Ultimately, states and local governments may find they've overpromised OPEB benefits to their workers, and American taxpayers could end up getting saddled with the bill in the form of higher taxes. (Don't expect voters to be too happy about this, especially when many of them don't have retiree healthcare coverage of their own.) We all know that higher taxes translate into less disposable income, which could lead to lower consumption (the driver of our nation's GDP).

According to the U.S. Census Bureau, the 50 states collected $590 billion in taxes during 2004, based on estimates that have been revised as recently as March 2006. That works out to approximately $1,976 per person. To get an idea as to how much that tax burden could increase by prefunding state OPEB plans; we assume that the states will begin making contributions to their OPEB plans equal to the Annual Required Contribution (ARC) per GASB 45. Under that scenario, the increase in funding, and therefore the estimated incremental tax burden, is the difference between the ARC and OPEB benefits paid. We calculate that incremental tax burden on a per capita basis and compare it with each state's current per capita tax burden. We find that the 12 states in Exhibit 15 could see a more than 10% increase in their per capita tax burden by prefunding their OPEB plans, with two states—Alabama and New Jersey—seeing an increase that's greater than 20%.

Exhibit 15: Estimated Increase in Per Capita Tax Burden in Excess of 10%

US$ in millions, except per capita amounts

State	Abbr.	Taxes	Population	Tax Burden Per Capita	Incremental Tax Burden from Prefunding OPEB Per Capita	Estimated % Increase in Per Capita Tax Burden
Alabama	AL	$ 7,018	4,599,030	$ 1,526	$ 389	26%
New Jersey	NJ	20,986	8,724,560	2,405	577	24%
West Virginia	WV	3,749	1,818,470	2,062	362	18%
Connecticut	CT	10,291	3,504,809	2,936	494	17%
Alaska	AK	1,343	670,053	2,005	323	16%
Maryland	MD	12,328	5,615,727	2,195	350	16%
Kentucky	KY	8,463	4,206,074	2,012	269	13%
Georgia	GA	14,571	9,363,941	1,556	195	13%
South Carolina	SC	6,804	4,321,249	1,574	187	12%
North Carolina	NC	16,836	8,856,505	1,901	216	11%
Maine	ME	2,870	1,321,574	2,172	233	11%
Hawaii	HI	3,849	1,285,498	2,994	302	10%

Source: See Appendix A for applicable source information.

Major New Investor

There is a significant incentive built into GASB 45 for state and local governments to prefund their OPEB plans: the ability to use a higher discount rate when calculating the Actuarial Accrued Liability. Since this is a present value calculation, the higher rate will result in a smaller liability, making the OPEB plan appear healthier and reducing the OPEB cost reported on the income statement. According to GASB 45, the discount rate is supposed to represent the expected return on the assets that will be used to pay OPEB benefits. If the plan is funded, the discount rate is the expected return on plan assets. If it's not funded, it's the return on employer assets, which in most cases will be much lower. (If it's partially funded, it will be some combination of the two.) To give you an idea as to how significant this effect can be, check out Exhibit 16, where we list seven states that provided a range of estimates for their OPEB underfunding, along with the discount rate used for each end of the range.

Exhibit 16: Sensitivity of Estimated OPEB Underfunding to the Discount Rate Assumption

US$ in millions

		Low Estimate		High Estimate		Difference	
State	Abbr.	OPEB Underfunding	Discount Rate	OPEB Underfunding	Discount Rate	% Change in OPEB Underfunding	Discount Rate (bps)
Maine	ME	$ 3,234	7.50%	$ 4,756	4.50%	47%	300
Massachusetts	MA	7,562	8.25%	13,287	4.00%	76%	425
Nevada	NV	1,350	8.00%	2,640	3.50%	96%	450
New York	NY	27,000	8.00%	54,000	4.10%	100%	390
Vermont	VT	691	8.00%	1,419	3.75%	105%	425
West Virginia	WV	5,113	7.50%	7,781	4.50%	52%	300
Wyoming	WY	41	8.50%	72	4.00%	76%	450

Source: See Appendix A for applicable source information.

OPEB liabilities are long-duration obligations; that's why the OPEB underfunding is very sensitive to changes in the discount rate. Take New York as an example. Assuming the plan is not funded, it uses a discount rate of 4.10%, resulting in $54 billion of OPEB underfunding. However, assuming the plan is funded, the discount rate jumps to 8%, and the funded status improves to $27 billion underfunded. In other words, a 390 basis point increase in the discount rate results in an 100% or $27 billion reduction in the amount the OPEB plan is underfunded—that's roughly, a 26-year duration. We estimate the duration of the OPEB liabilities for each of the seven states listed in Exhibit 16 is greater than 15 years.

In addition, the rating agencies have made clear that they would prefer state and local governments to prefund their OPEB plan instead of continuing to fund on a pay-as-you-go basis. (See Exhibit 17 where we provide some excerpts from reports produced by Fitch, Moody's, and Standard & Poor's.)

Exhibit 17: View on Prefunding OPEB from the Credit Rating Agencies

Rating Agency	Commentary
Fitch	The switch to actuarial funding from a pay-as-you-go practice may have a sizable fiscal impact. However, Fitch Ratings believes that meeting actuarial funding requirements for other post employment benefits (OPEB) will be a stabilizing factor and protective of credit over time. . . . steady progress toward reaching the actuarially determined annual contribution level will be critical to sound credit quality. An absence of action taken to fund OPEB liabilities or otherwise manage them will be viewed as a negative rating factor.
Moody's	Governments will have a strong incentive, though not an obligation, to set aside funds for benefit obligations as they are incurred, which is in keeping not only with accounting principles but also with prudent financial management.
Standard & Poor's	Depending on the size of the plan, including the number of employees and the level of benefits in relation to an entity's total budget, advance funding of the plan under the new rules may add stress to the budget. On the other hand, continuing to pay only the PAYGO amount will result in a growing unfunded actuarial liability and net OPEB obligation. The advance funding of OPEB presents a vehicle for employers to build an asset base to offset the actuarial accrued liabilities and provide for payment of the benefits as they come due in future years. . . . the full, advance funding of OPEB would generate both real cost savings from investment earnings and more favorable liability calculations.

Source: Fitch, Moody's, and Standard & Poor's.

Beyond the accounting benefits and rating agency opinions, some would say it simply makes good economic sense to prefund an OPEB plan. Of course, that view regarding pensions has been around for quite some time. For example, in 1928 the *Report of the Commission on Pensions of State Employees* had the following to say on the matter:

> Any system which proposes to provide funds only as they are needed to meet disbursements is inviting disaster; the unseen liabilities continue to mount, and

> the time will come when they will begin to mature in such volume as to cause serious embarrassment to the state, forcing it either to make staggering appropriations, or to default in its obligations to members of the system.

Some Have Already Started Prefunding

However, not many states have taken this advice when it comes to their OPEB plans. It appears that 28 states fund their OPEB plans on a pay-as-you-go basis, while only 13 states partially prefund their OPEB plans. (The remaining nine states either don't have OPEB plans or it is not clear how they are financing their plans.) The state that appears to have most aggressively prefunded its OPEB plan is Ohio, which has accumulated nearly $11 billion in assets against a $30 billion OPEB obligation, the plan is still only 37% funded. A few states have recently set up trust funds (some in response to GASB 45) that will eventually be used to accumulate assets to help meet their OPEB obligations. For example, Maryland set up the State Employees and Retirees Health & Welfare Benefits fund, and Georgia included the following discussion in its 2006 CAFR:

> In response to the GASB Statements, the General Assembly has made statutory changes to create a trust fund, in which employer contributions for future retiree health costs may be accumulated and invested, and which is expected to facilitate the separate financial reporting of these benefits.

New York City also set up the NYC Retiree Health Benefits Trust Fund in fiscal year 2006, and contributed $1 billion.

Sizing Up the Prefunding

If prefunding gets popular (we expect it will), these OPEB plans could become significant new investors. The potential flow of funds into the stock and bond markets from these plans will depend upon how much the state and local governments will contribute to their OPEB plans. It's unlikely that we will see many prefund the entire OPEB obligation all at once. (Most couldn't afford to do so even if they wanted to.) We think the Annual Required Contribution (ARC) from GASB 45 is as good an estimate as any of what might eventually get contributed to the OPEB plans each year. However, that's not the amount that could be invested by the plan, as it would still need to pay OPEB benefits to the retirees. That's why we use the amount of the ARC left over after paying OPEB benefits as an estimate of the amount that could be invested by OPEB plans if they were prefunded. We calculated the difference between the ARC and benefits paid for the 26 states in Exhibit 18 that currently fund their OPEB plans on a pay-as-you-go basis and disclosed benefits paid. For these 26 states, we estimate the total ARC is $43.9 billion, while benefits paid were $8.3 billion; that's an incremental $35.6 billion *per year* that could get invested in various different asset classes (including the stock market) if just these 26 states were to prefund their OPEB plans using the ARC. Of course, the number would be much higher if we extend it to the remaining states and local governments.

Exhibit 18: Potential Increase in OPEB Funding for States with Pay-as-You-Go Plans

US$ in millions

State	Abbr.	OPEB Benefits Paid	Annual Required Contribution (ARC)	Potential Increase in OPEB Funding
California	CA	$ 993	$ 7,000	$ 6,007
New Jersey	NJ	964	6,000	5,036
New York	NY	858	5,400	4,542
Texas	TX	629	2,682	2,053
Maryland	MD	236	2,202	1,966
North Carolina	NC	477	2,390	1,913
Georgia	GA	174	2,000	1,826
Alabama	AL	209	2,000	1,791
Connecticut	CT	377	2,110	1,733
Michigan	MI	1,060	2,274	1,214
Pennsylvania	PA	519	1,400	881
Missouri	MO	79	907	829
South Carolina	SC	114	923	809
Massachusetts	MA	328	1,062	734
Minnesota[1]	MN	15	745	731
Illinois	IL	623	1,337	714
West Virginia	WV	106	765	659
Kansas	KS	1	438	437
Louisiana	LA	190	600	410
Hawaii	HI	178	565	388
Maine	ME	49	356	307
Tennessee	TN	64	301	238
Nevada	NV	28	222	194
Vermont	VT	13	114	101
Rhode Island	RI	18	63	45
Montana	MT	8	51	43

[1]Per our discussions with the state, the only OPEB liability the state has is an implicit rate subsidy (which we define in Appendix A). As a result, we expect our estimate of the OPEB underfunding will be higher than the actual OPEB underfunding. Therefore, our estimate of the ARC is likely overstated.

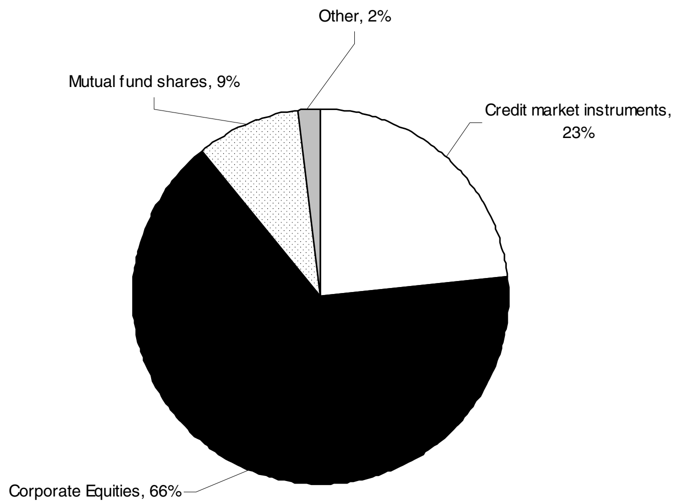
Source: See Appendix A for applicable source information.

It's unlikely that most states will be funding their OPEB plans at the ARC level immediately, as even that might be too painful. However, give them a few years and they may eventually get there. On the other hand, there are a few reasons why prefunding may remain limited. First of all, there is no requirement for state and local governments to fund their OPEB plans. In addition, states that budget on a cash basis may not be too excited about increasing contributions to an OPEB plan, as that will take a bite out of the budget. Last, certain states may choose not to prefund to maintain maximum flexibility.

OPEB Asset Allocations Could Look Like Pension Asset Allocations

If the state and local governments do prefund their OPEB plans, we would expect the asset allocations to be very similar to their pension brethren, with a heavy dose of equities as you can see in Exhibit 19.

Exhibit 19: State and Local Government Retirement Fund Asset Allocation, Third Quarter 2006



Source: Federal Reserve.

Maybe the state and local OPEB plans will buy shares from corporate defined benefit pension plans looking to trim their exposure to the stock market as the companies more closely monitor the risks in their pension plans with the accounting rules becoming more mark-to-market oriented (FAS 158 and, more important, Phase 2 of the FASB's pension project. See our November 10, 2005, research report, *Let the Games Begin, FASB to Tackle Pensions & OPEB,* for a further discussion.)

Increased Borrowing

In the previous section, we highlighted how GASB 45 may result in more state and local governments beginning to prefund their OPEB plans. However, there's just one problem, where are they going to get the funds with which to prefund. One good old fashioned way is to borrow. Just as state and local governments have issued pension obligation bonds to help fund their pension plans, we expect to see them issue taxable OPEB bonds to help fund their OPEB plans. In fact, there are a few of these that have already been issued; we include some examples in Exhibit 20.

Exhibit 20: OPEB Bonds Issued by Local Governments

OPEB Bonds
1. Gainesville, FL Post Employment Benefits Obligation Revenue (36283P), FL
2. Kenosha Unified School District No 001 Post Employment Benefit (489845), WI
3. Kimberly Area School District Post Employment Benefits Trust (494428), WI
4. Waukesha School District Post Employment Benefits (943100), WI
5. West Allis West Milwaukee ET AL School District Post Employment Benefit Trust (951168), WI
6. Whitefish Bay School District Post Employment Benefits Trust (964798), WI

Source: Bloomberg.

When you get down to it, issuing these bonds is nothing more than trading one form of debt (OPEB underfunding) for another. In fact, they're moving from what is generally a more flexible form of debt to one that's less flexible. So why would a state or local government decide to make this trade? From an accounting perspective, it's a home run. Let's say the state issues OPEB bonds and uses the proceeds to begin funding its OPEB plan. First of all, the plan will get healthier since there are now some assets set aside to meet the obligation; even more powerful is the effect that funding the plan will have on the discount rate—it increases the discount rate, potentially cutting the OPEB obligation significantly, depending upon the duration of the liability. In other words, contributing to the OPEB plan appears to improve the health of the plans by much more than the amount of the contribution. With the plan better funded, OPEB costs on the income statement shrink. Let's not forget that by borrowing to prefund, there is a piece of debt that shows up on balance sheet and debt service costs to deal with.

What appears to be a riskless strategy is actually a very risky arbitrage. If the returns on the assets invested in the OPEB plan don't exceed the cost of servicing the debt it's a bet gone bad that the taxpayer will bear the brunt of.

The rating agencies have expressed their own opinions on OPEB funding bonds, see Exhibit 21 where we provide some excerpts from reports done by Fitch, Moody's, and Standard & Poor's.

Exhibit 21: Views on Issuing OPEB Bonds from the Credit Rating Agencies

Rating Agency	Commentary
Fitch	Fitch believes that OPEB funding bonds, if used moderately and in conjunction with a prudent approach to investing the proceeds and other plan assets, can be a useful tool in asset-liability management. However, a failure to follow balanced and prudent investment practices could expose the plan sponsor to market losses. Because a sponsor's unfunded OPEB liability will be factored into the rating, bond issuance would simply move the obligation from one part of the government-wide or full accrual-based fund statements, to another. However, Fitch notes that OPEB or pension funding bonds create a true debt, one which must be paid on time and in full, rather than a softer liability that can be deferred or rescheduled from time to time during periods of fiscal stress. Consequently, issuing bonds to fund an OPEB plan could have a significant effect on financial flexibility over time.
Moody's	The credit impact of borrowing to address a retiree health plan funding deficit will depend, as it does with pension obligation bonds, on the extent to which the debt is part of a realistic plan to address these liabilities, and its effect on the issuer's overall debt burden.
Standard & Poor's	These bonds are basically arbitrage funding, in that the proceeds are placed in a plan trust and invested in equities, bonds, and other instruments that are expected to return a higher rate of return than the interest cost of the bonds. The principal risk of this strategy is that investment returns may not meet expectations over the long term and the bond issue could have the effect of actually adding costs during period of weak investment returns instead of generating savings. The success of any pension obligation bond or OPEB obligation bond in the future will depend on conservative planning and fortuitous market timing.

Source: Fitch, Moody's, and Standard & Poor's.

Selling Assets

Another source of funds for state and local governments looking to fund their OPEB plans could be through the sale/lease of various assets, privatizing toll roads, lottery systems, etc. This has been talked about for quite some time. For example, Credit Suisse's Strategy Team released a report titled, *U.S. Roads: An Emerging Asset Class*, back on May 13, 2005. However, GASB 45 may be the spark that really gets this ball rolling, as states look for ways to fund their gigantic OPEB liability. Take New Jersey as an example. Governor Corzine had the following to say about monetizing the state's assets in last month's Budget Address:

> The one option that is new and that we are now studying is asset monetization. It's something that has been implemented in other states and successfully around the globe. I think it's fair to say that most governmental entities across the country are examining its feasibility and appropriateness. The economic potential from restructuring the state's interest in our asset portfolio is too significant to ignore, whether that asset is the turnpike, the lottery, naming rights, air rights, or

> whatever. Potentially asset monetization could reset the state's finances by dramatically reducing our debt burden, and consequently reducing debt service.

One example of where privatization has taken place overseas is in New Zealand. In a February 11, 2004, lecture titled "Rolling Back Government: Lessons from New Zealand," Maurice P. McTigue, a former member of the New Zealand Parliament who held various ministry positions, highlighted how in New Zealand:

> Some of the things that government was doing simply didn't belong in the government. So we sold off telecommunications, airlines, irrigation schemes, computing services, government printing offices, insurance companies, banks, securities, mortgages, railways, bus services, hotels, shipping lines, agricultural advisory services, etc. . . .
>
> We achieved an overall reduction of 66% in the size of government, measured by the number of employees. The government's share of GDP dropped from 44% to 27%. We were now running surpluses, and we established a policy never to leave dollars on the table: We knew that if we didn't get rid of this money, some clown would spend it. So we used most of the surplus to pay off debt, and debt went from 63% to 17% of GDP. We used the remainder of the surplus each year for tax relief.

If state and local governments were to pursue the same strategy here, two key questions come to mind:

- How can a state or local government know they are getting a fair price for these hard-to-value illiquid assets?
- What would the state or local government do with the proceeds?

If the proceeds were used to help fund an OPEB plan, other questions come to mind: how would the OPEB plan invest the assets? Should we feel comfortable with a state or local government playing the role of hedge fund?—that's effectively what's going on here, when you boil it down, this is nothing more than a giant trade, selling hard assets to buy other assets (stocks, bonds, etc.). Residents can only hope these governments have done their research and have good timing. (On the other hand the state and local governments could decide to contribute the infrastructure assets directly to their own OPEB or pension plans.)

By the way, those assets could provide some much needed supply of long-duration assets that the market has been craving (especially defined benefit pension plans that are trying to close large duration gaps between their plan assets and their long-duration pension obligations). In addition, as the accounting rules become more mark-to-market oriented and provide less smoothing mechanisms, corporate pension plans may be more interested in owning hard-to-value assets (e.g., private equity, infrastructure) that could provide the appearance of a nice, smooth return.

Appendix A

Exhibit 22: Source of State Government Data

State	Abbr.	Unfunded Actuarial Accrued Liability (UAAL), Annual Required Contribution (ARC), etc.	Benefits Paid, Plan Type (e.g., Pay-as-You-Go)
Alabama	AL	Dec 2006 PEEHIP Quarterly News letter	State CAFR
Alaska	AK	Actuarial study by Buck Consultants	State CAFR
Arizona[1]	AZ	Credit Suisse Estimate	NA
Arkansas	AR	Credit Suisse Estimate	NA
California	CA	Legislative Analyst Office	State CAFR
Colorado[2]	CO	State CAFR	State CAFR
Connecticut	CT	Office of Policy and Management	State CAFR
Delaware	DE	Press release on the State of Delaware web site.	State CAFR
Florida[1]	FL	Credit Suisse Estimate	State CAFR
Georgia	GA	Bond Offering Official Statement	State CAFR
Hawaii	HI	Credit Suisse Estimate	State CAFR
Idaho	ID	Credit Suisse Estimate	State CAFR
Illinois	IL	Credit Suisse Estimate	State CAFR
Indiana	IN	Credit Suisse Estimate	NA
Iowa[3]	IA	Credit Suisse Estimate	NA
Kansas	KS	Credit Suisse Estimate	State CAFR
Kentucky	KY	Retirement System CAFR	Retirement System CAFR
Louisiana	LA	Louisiana Association of Nonprofit Organizations	State CAFR
Maine	ME	Actuarial Valuation by Bartel Associates LLC & Glicksman Consulting LLC, January 2007	State CAFR
Maryland	MD	Actuarial valuation by AON	State CAFR
Massachusetts	MA	State CAFR	State CAFR
Michigan	MI	Retirement systems CAFRs	State CAFR
Minnesota[3]	MN	Credit Suisse Estimate	State CAFR
Mississippi	MS	No OPEB	No OPEB
Missouri	MO	Credit Suisse Estimate	State CAFR
Montana	MT	State CAFR	State CAFR
Nebraska	NE	No OPEB	No OPEB
Nevada	NV	Minutes on the Nevada Legislatures	State CAFR
New Hampshire	NH	Credit Suisse Estimate	General Obligation Capital Improvement Bonds 2006 Series
New Jersey	NJ	Office of Legislative Services	State CAFR
New Mexico[1]	NM	MINUTES of the FIRST MEETING of the INVESTMENTS AND PENSIONS OVERSIGHT COMMITTEE, September 2006	State Retirement Plan CAFR
New York	NY	2006-07 Financial Plan Mid-Year update	State CAFR
North Carolina	NC	Aon Consulting	State CAFR
North Dakota	ND	State CAFR	State CAFR
Ohio	OH	State Auditor CAFR	State CAFR
Oklahoma	OK	Credit Suisse Estimate	State CAFR
Oregon	OR	State CAFR	State CAFR
Pennsylvania	PA	Dec 2006 - Governor's Mid-Year Budget briefing	State CAFR
Rhode Island	RI	Treasury Press release - March 31, 2005.	State CAFR
South Carolina	SC	State CAFR	State CAFR
South Dakota	SD	Credit Suisse Estimate	NA
Tennessee	TN	State CAFR	State CAFR
Texas	TX	Credit Suisse Estimate	State CAFR
Utah	UT	State CAFR	State CAFR
Vermont	VT	Buck Consultants Presentation	State CAFR
Virginia	VA	OPEB Presentation by Auditor of Public Accounts, November 14, 2006	State CAFR
Washington	WA	Credit Suisse Estimate	NA
West Virginia	WV	Public Employee Insurance Agency	State CAFR
Wisconsin	WI	No OPEB	No OPEB
Wyoming	WY	Buck Consultants Presentation	Buck Consultants Presentation

Note: Comprehensive Annual Financial Report (CAFR)—this is also the source of data on assets, liabilities, revenues, expenses, and long-term debt.

Appendix A (continued)

Note: In addition to the sources listed above, Credit Suisse estimated the unfunded actuarial accrued liability (UAAL) when the UAAL was not available from an alternative source. For our methodology, see page 8. In addition, per capita and state tax information contained in this report was obtained from the United States Census Bureau.

[1]The OPEB plan is a cost-sharing plan (where OPEB costs are shared among a number of employers) and the state portion is unknown. We expect our estimate of the OPEB underfunding will be higher than the actual OPEB underfunding, as we have not factored in the cost sharing.

[2]The OPEB plan is a cost-sharing plan. Per our discussion with the state, the state portion is not available. However, we can estimate it based on the proportion of the covered payroll. State payroll: $2.1 billion, School payroll: $3.2 billion, Municipal: $0.6 billion, Judicial: $0.3 billion. Therefore, the state payroll is 33.87% of the total payroll. As a result, we estimate the state UAAL is 33.87% of $925.4 million or $313 million.

[3]Per our discussions with the state, the only OPEB liability the state has is an implicit rate subsidy. (The best way of defining an implicit rate subsidy is with an example: let's say a state government allows its retirees to continue receiving the same healthcare coverage as they had when working, however, the retiree has to pay the full amount of the premium, $100 per month. Since the state is not paying the retirees' health insurance premiums it looks like the state does not have an OPEB obligation. GASB 45 says otherwise due to the implicit rate subsidy the state is providing the retiree. The $100 per month is an average cost for retirees and activities. If you examined the costs for just the retirees, it would be $175 per month; therefore, the retiree is saving $75 per month. In other words, the state is providing an implicit rate subsidy of $75 per month.) As a result, we expect our estimate of the OPEB underfunding will be higher than the actual OPEB underfunding.

Appendix B

Exhibit 23: Source of City Government Data

City	State	Unfunded Actuarial Accrued Liability (UAAL), Annual Required Contribution (ARC)	Benefits Paid, Plan Type (e.g., Pay-as-You-Go)
New York City	New York	City CAFR	City CAFR
Los Angeles	California	City CAFR	City CAFR
Chicago	Illinois	City CAFR	City CAFR
Houston	Texas	Credit Suisse Estimate	City CAFR
Philadelphia	Pennsylvania	Credit Suisse Estimate	City CAFR
Phoenix	Arizona	Credit Suisse Estimate	City CAFR
San Antonio	Texas	Credit Suisse Estimate	City CAFR
San Diego	California	5-Year Financial Outlook, November 14, 2006	NA
Dallas	Texas	Credit Suisse Estimate	City CAFR
San Jose	California	City CAFR	City CAFR
Detroit	Michigan	Boyle Report April 20, 2005	City CAFR
Indianapolis	Indiana	City CAFR	City CAFR
Jacksonville	Florida	No OPEB	No OPEB
San Francisco	California	GASB 45 memo report	City CAFR
Columbus	Ohio	Credit Suisse Estimate	City CAFR
Austin	Texas	Credit Suisse Estimate	City CAFR
Memphis	Tennessee	Credit Suisse Estimate	City CAFR
Baltimore	Maryland	Credit Suisse Estimate	City CAFR
Fort Worth	Texas	Credit Suisse Estimate	City CAFR
Charlotte	North Carolina	Credit Suisse Estimate	City CAFR
El Paso	Texas	Credit Suisse Estimate	City CAFR
Milwaukee	Wisconsin	Credit Suisse Estimate	City CAFR
Seattle	Washington	Credit Suisse Estimate	City CAFR
Boston	Massachusetts	Credit Suisse Estimate	City CAFR
Denver	Colorado	NA	NA

Note: Comprehensive Annual Financial Report (CAFR)—this is also the source of data on assets, liabilities, revenues, expenses, and long-term debt.
Note: In addition to the sources listed above, Credit Suisse estimated the unfunded actuarial accrued liability (UAAL) when the UAAL was not available from an alternative source. For our methodology, see page 8. In addition, per capita and state tax information contained in this report was obtained from the United States Census Bureau.

Disclosure Appendix

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