

Statement of Professor Joshua Rauh

for the hearing on “The Role of Public Employee Pensions in Contributing to State Insolvency and the Possibility of a State Bankruptcy Chapter”

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General Introduction

The condition of state and local defined benefit (DB) pension systems and the risks that these systems pose for federal taxpayers is a critical aspect of our nation’s fiscal challenges. Until recently, the notion that state and local finances could pose a systemic threat to our national economy has not been at the forefront of public thinking. Almost all state and local governments operate within self-imposed legal restrictions against the extent to which they can run deficits and issue debt. These rules are designed to prevent politicians from spending money now and leaving the bills to their successors.

But just as companies have ways of issuing debt off their balance sheets, state and local governments have ways around the balanced-budget rules. The most pervasive means of circumventing balanced budget requirements at the state and local level has been to promise public employees pensions without setting aside adequate funds to meet the promises. The bill then is left to future taxpayers when the employees retire and collect their checks. By that time, the politicians who made the promises are long out of office. In some cases, the bills will be so large that the ability of state and local governments to operate will be threatened. Some states will likely seek federal assistance.

The state and local pension crisis in the U.S. reflects the fact that unfunded pension liabilities are the largest loophole in balanced budget pledges. When politicians have spent money without raising taxes, pensions have proven the perfect borrowing vehicle. The Government Accounting Standards Board (GASB) has been complicit in this hidden borrowing by allowing a form of accounting for these promises that violates the principles of financial economics.

This hidden debt will eventually force states and localities to choose among the unpalatable options of cutting services, raising taxes, attempting to reduce benefits owed to public employees, defaulting on other obligations, or seeking a federal bailout. The best hope for a soft landing for states is

to focus on measures that stop the growth of unfunded liabilities, and then attempt to renegotiate the most untenable pension obligations within the allowable state legal structures.

If states perceive implicit federal backing, they may lack the incentives to undertake these fundamental reforms. If the federal government is interested in limiting the liability of federal taxpayers to bailouts, it should provide states with those incentives by conditioning the availability of federal money on pension reforms that limit off balance sheet borrowing. Urgent action is required to ensure that federal taxpayers will not be the ultimate underwriters of state debts.

Disclosure

If a government promises deferred compensation in the form of pensions to employees when they retire, but does not set aside sufficient funds to honor those promises, it is effectively borrowing from future taxpayers. As a result, the definition of “sufficient funds” is crucial to determining whether governments are meeting their responsibilities to pay for today’s services today and are properly representing the status of their budgets.

In 1994, GASB issued Ruling 25, which stipulated that public pension liabilities are to be discounted at the expected rate of return on pension assets. The ruling codified the approach already being used by most public systems. Under GASB state and local governments calculate whether their funds are sufficient by discounting their liabilities using an expected return on pension plan assets. This expected return is a direct function of the amount of risk taken in the pension fund assets, which are invested in a range of securities including stocks, bonds, real estate, private equity, and hedge funds. But the fact that the systems are taking risk in order to target these expected returns never enters the accounting. The government effectively assumes that the actual return will be identical to the expected return, most commonly 8%. The trouble with this methodology is that it ignores the fact that if the assets do not return 8%, the taxpayers will have to come up with the difference.

Consider how this procedure would work if it were used in conjunction with a federal bond issue. Suppose the federal government issued \$1 trillion of 10-year bonds. Suppose further that it spent \$525 billion of the proceeds immediately and put the other \$475 billion in a fund invested in stocks and bonds, which it hopes will grow to repay the debt in 10 years. Any reasonable observer should agree that the government now has new debt of \$1 trillion and new unfunded liabilities of \$525 billion. But

under GASB logic, the government could claim that since their expected return on the portfolio is 8%, there is actually no unfunded liability.¹

Consider further how this methodology would work in the realm of personal finance. Imagine you personally have a \$10,000 repayment of a loan due in 5 years. If you applied for another loan, any reasonable lender would ask you to record your other debts on the loan application. Are you allowed to assume a return on your stocks and bonds in recording the value of this debt? Of course not. Does the amount of debt you report to the bank depend on whether the savings you have is invested in stock or bonds? Once again, the answer is obviously not. But under GASB accounting procedures, state and local governments can treat the higher returns they hope to achieve as a sure thing. The higher the return the government assumes, the lower the pension debt that it reports to the public and to the rating agencies.

This procedure contrasts sharply with private sector accounting methods, as well as financial logic. It ignores the role of risk – the reality that a wide range of investment outcomes are possible – and, more specifically, the fact that future taxpayers will have to make up any shortfalls if the fund's assets fail to generate the expected 8 percent return. If a taxpayer's personal portfolio underperforms, he or she can cut back on their expenditures. But if the government's pension portfolio underperforms, the taxpayer will be asked to pay to the government the difference between what the government promised to public employees and the resources that are left to meet those obligations. Since most households are effectively long the stock market, either through their personal portfolios or through the fact that stock market downturns are usually accompanied by layoffs and poorer job opportunities, this hit comes when it hurts the most.

State pension systems typically defend the GASB procedure on the grounds that the historical returns realized on their assets over a long period of time have been around 8%. Indeed, over the period 1926-2010, large cap stocks in the U.S. have returned on average almost 12% annually, so diversified portfolios of stocks and bonds have achieved returns of around 8%. But that fact does not allow state and local governments to write down the value of their debts by assuming that such returns will be earned in the future.

¹ This is since $(\$475 \text{ billion}) * (1.08)^{10} > \1 trillion

Indeed, the leading theory for why such returns were earned over this time period is that there were potential large downside risks that could have materialized but ultimately did not (see for example Cochrane (2001)). Investors are compensated with higher expected returns only in exchange for bearing risk. An expected return is just that – a return that is expected but that may or may not be achieved. There is no guarantee that an investor will get higher returns over the long run by investing in the stock market.

A well-known property of the returns of any risky assets (and the stocks, real estate, private equity, and hedge funds that public pension funds invest in are risky assets) is that they have what is called positive skew. What this means is that poor outcomes are more likely than good outcomes, but the good outcomes could be very, very good. An implication is that in most instances, the probability of achieving the “expected return” is less than 50%. Using parameters that financial economists typically use to model the stock market, Robert Novy-Marx of the University of Rochester and I have calculated the probabilities of actually achieving the targeted expected return. A portfolio with an “expected return” of 8% has only about a 1/3 probability of achieving that return over the next thirty years, and has a 50% chance of achieving a return of 6% or lower.²

Some states, such as Illinois, have passed their own statutes that allow them to operate under a regime in which they contribute even less than what the GASB guidelines would stipulate. Indeed, while the contributions that emerge from GASB guidelines are often termed Actuarially Required Contributions, these contributions are not “required” in any legal sense. A primary example of this fact is the state of New Jersey, which in FY 2010 contributed only 5.4% of its “actuarially required contribution” to the state’s Teachers’ Pension and Annuity Fund.

In practice, the accounting standard being used sets up a false equivalence between pension payments, which are extremely likely to have to be made, and the much less certain outcome of a risky investment portfolio. In effect, state and local pension accounting treats expected returns on risky assets as though they were riskless and certain, and uses that fallacy to calculate the extent of their debts to public employees.

What is the Extent of the Fiscal Problem?

² This calculation assumes a market volatility of 0.16.

Under their own accounting rules, state and local governments have around \$1.3 trillion of unfunded pension liabilities. Using valuation methods and accounting practices that are consistent with financial economics, Robert Novy-Marx and I have calculated that the already-promised part of these unfunded liabilities actually amounts to over \$3 trillion, more than the approximately \$2.6 trillion of recognized debt on state and local government balance sheets. Each day that public pension systems continue to ignore risk in their pension budgeting, this debt is likely to grow.

The logic behind our calculation goes back to standard finance theory: financial streams of payment should be discounted at a rate that reflects their risk. If a state wanted to pay an investor (say, an insurance company) to take over its pension liability, the amount the investor demanded would not depend on the state's asset allocation or the expected return on its assets. If a state tells its employees that their accrued pension benefits are secure – not subject to risk like stocks – then it should use the yields on safe government securities such as Treasury bonds to calculate the pension fund's net position. Our calculation uses discount rates from the U.S. Treasury bond market to reflect the risk profile of the pension liabilities.

Our calculation considers only payments that the states have promised employees for years of work already done—that is, the payments that give rise to what is called the Accumulated Benefit Obligation liability. From the state's point of view, these cash flows are extremely likely to be incurred. First, state constitutions in a number of cases provide explicit guarantees that public pension liabilities will be met in full (see Brown and Wilcox (2009) for a complete analysis). Second, state employees are a powerful constituency, and unless a government is willing to contend with serious labor unrest among state and local workers, it seems likely that already-promised benefits based on today's level of service and salary will have to be met. Third, if there is any even remote chance that the federal government could end up assisting states in paying their debts to public employees, then obviously the federal government would want to see how these pensions looked if they were a federal government promise.

Our calculations do not include any future benefit accruals, no matter how likely they are. In most states it would be legal for states to change the benefit formula for future accruals, as many companies have done, for example by freezing their pension plans. From the state's point of view, these pension obligations that have yet to arise can be trimmed. That said, of the changes that states have attempted to undertake, virtually none of them have touched current workers, even with respect to their future accruals. Even provisions like the ability to let final salary determine the pension, which can

result in “pension spiking” or rotation into high paying jobs for a short period of time to bump up pensions, have generally been preserved for existing workers in current reform proposals – it is only new hires who cannot avail themselves of these privileges.³

To put the number in context, each \$1 trillion is just under \$8,500 per U.S. household, so our baseline number of \$3 trillion is more than \$25,000 per American household.⁴ Of course, that calculation implicitly assumes that these legacy liabilities will be shared equally by all taxpayers. In Illinois, for example, the liability per household is close to \$40,000. Table 1 shows the state governments with the largest unfunded liability expressed as a share of 2009 tax revenues.

Table 1 – States with Largest Unfunded Pension Liabilities, as of June 2009

State Name (# of plans)	Pension Assets (\$ billion)	Liabilities		Unfunded Liability		Unfunded Liability Scaled	
		Stated Basis (\$ billion)	Using Treasury rates (\$ billion)	Stated Basis (\$ billion)	Using Treasury rates (\$ billion)	Percent of Tax Revenue	Percent of Gross State Product
Ohio (5)	114.7	197.5	281.4	82.8	166.8	632%	35%
Colorado (1)	28.8	57.3	86.2	28.5	57.4	596%	23%
Illinois (4)	65.7	151.0	233.0	85.3	167.3	525%	26%
Oregon (1)	42.9	57.5	80.7	14.6	37.8	519%	23%
South Carolina (2)	20.3	42.4	63.5	22.0	43.2	511%	28%
Rhode Island (1)	6.6	13.9	20.5	7.3	13.9	503%	29%
Alabama (3)	21.4	42.0	61.8	20.6	40.4	445%	24%
Mississippi (3)	15.5	31.4	44.2	15.9	28.7	424%	31%
New Mexico (2)	15.9	28.8	39.8	12.9	23.9	424%	30%
Kentucky (3)	21.1	45.2	63.4	24.1	42.3	420%	27%
New Jersey (4)	67.2	132.8	191.2	65.6	124.0	405%	26%

Source: Novy-Marx and Rauh (2010). Only states with unfunded liabilities greater than 4 years revenue are shown in this table.

The fact that states cannot freeze pension accruals as easily as companies may argue for considering a liability measure broader than the already-promised accumulated benefit in the state

³ The latest example of the protection of current worker’s ability to spike pensions is revealed in the reporting on Mayor Michael R. Bloomberg’s proposed changes to New York City’s pension system: “Mr. Bloomberg would forbid all new employees to benefit from a time-honored practice: adding hundreds of hours of overtime at the end of their careers to balloon their final year’s pay and their pensions” (New York Times, 2 February 2011). Note the use of the word “new”.

⁴ According to the U.S. Census Bureau, the population of the U.S. was 307,006,550 in 2009. As of the last complete census in 2000, there were 2.6 persons per household, indicating approximately 118 million U.S. households.

pension context. Under the so-called Entry Age Normal method used by most state and local governments themselves, implementing Treasury discounting would lead to an unfunded liability of over \$4 trillion.

Systemic Risks and Bankruptcy

Many pension systems are approaching a day of reckoning. Even assuming 8% returns the assets of the systems in seven states (notably Illinois and New Jersey) and six big cities would be insufficient to pay for today's already-promised benefits past the year 2020. Another 20 states and 24 localities have assets insufficient to cover already-promised benefits past 2025. This means that substantial contributions to the funds will be needed over the next 15 years to pay for legacy liabilities – that is, future contributions will be required to pay for public workers' services performed in the past.

To address the solvency issue, state and local governments need to make contributions that substantially exceed the present value of the new benefits employees are accruing. On average, they are falling short of that baseline. Across 116 major systems sponsored by the 50 states, annual contributions were \$93 billion in 2009, while the present value of their new benefit promises has been around \$100 billion annually in recent years (see Rauh (2010)). For comparison, total annual benefits paid have surpassed \$150 billion.

Some state governments are taking steps to address the solvency issue, but many are not. Illinois over the past decade has, for example, routinely made pension contributions in the form of borrowing, transferring one type of obligation to another. New Jersey has made only a fraction of the contributions that the actuarial calculations require. As long as states continue operating under GASB rules, in an economic sense they start out behind on funding from the first day their employees earn any new benefits.

If state and local governments end up trying to cover the unfunded portion of pension bills from current revenues in the face of depleted pension funds, benefit checks will in most cases consume 20 to 50 percent of general tax revenues for these entities. And without significant tax increases pension payments of this magnitude would make it virtually impossible for state and local governments to provide essential services and to service their other debts.

Economists Jeffrey Brown of the University of Illinois and David Wilcox of the Federal Reserve have documented major legal obstacles to attempts to cut benefits. In seven states (including Illinois, New York, Michigan and Louisiana), the states' constitutions stipulate that pension benefits may not be diminished or impaired. Thus, any cost-saving measures acknowledged as benefit cuts would likely prove impossible. Even in states whose constitutions are not explicit on the subject historical precedent and political reality suggest that, in local public-finance crises, already promised pension benefits will be honored. The affected retirees are members of unions whose workers provide essential public services such as public safety and education.

In half of the 50 states, local governments can avail themselves of Chapter 9 bankruptcy in the restructuring of their debts. While this proceeding has allowed an increasing number of municipalities to restructure some of their debts, accrued pension promises have generally been preserved for the reasons discussed above. One recent example that illustrates the de facto seniority of pension benefits is Vallejo, California, a city in California undergoing a Chapter 9 bankruptcy. Under current proposals, some bondholders or their guarantors are facing the prospect of large losses, while promised pensions will remain intact. The bankrupt town of Prichard, Alabama, on the other hand, has cut employee pensions, but the town has extremely limited resources so that it is unclear how the pensions would be paid even if it were legally mandated. The mayor of San Diego last year rejected the idea of a bankruptcy for the city on the grounds that it would not help address the pension debt.⁵

The evidence on Chapter 9 bankruptcy at the municipal level suggests that a federal bankruptcy proceeding for states would not be a panacea. If the political reality is that public unions will require pensions to be paid regardless, then a bankruptcy framework for states does not help the restructuring of that type of debt. On the other hand, there are other aspects of labor contracts that could be renegotiated in bankruptcy, and the threat point of state bankruptcy could help states reduce some of their debts.

A bankruptcy code for states would also send a signal to municipal markets that the federal government has no intention of bailing out states. Of course, there is a bankruptcy code for corporations in the United States, and that has not stopped federal bailouts of corporations, so this signal may or may

⁵ "In the end, bankruptcy would cost hundreds of millions of dollars and net nothing in return. And the most compelling claim made on its behalf – that it would allow us to shed our pension obligations – is patently false." (Jerry Sanders, "Debunking the Bankruptcy Myth," <http://www.sandiego.gov/mayor/pdf/100131.pdf>).

not be credible. The main effect of introducing a bankruptcy code for states would likely be to increase pressure from municipal bond markets on states to implement reforms.

Regulation

The self-regulation of state and local governments stands in stark contrast to private sector DB pension plans, which are regulated at the federal level under the 1974 ERISA legislation and many future laws that amended and updated the rules. State and local pensions on the contrary have been outside the realm of federal regulation. The Public Employee Pension Transparency Act (H.R. 567), introduced on February 9, 2011, seeks to change that, arguing that Congress has the authority to condition the continuation of certain specified Federal tax benefits on disclosure by the states of the financial value of public pension liabilities using Treasury discount rates.

If state and local governments had to actually calculate the cost of their benefits using a financially sound framework the way the private sector does, the true economic cost of the public employee legacy liabilities will be revealed. Governments should be required to disclose the magnitude of their unfunded liabilities using discount rates that reflect the fact that pensions constitute a solemn promise to pay and that taxpayers backstop the guarantee.

Ideally, states themselves would use this method of accounting in setting their contribution rates. If states want to claim a balanced budget in an economic sense, they should be evaluating the cost of the benefits as the financial value of the promises. The trouble with the GASB rules is that they confound the pension debt itself with the state or local government's plan for repaying the debt.

It would also be useful for states to report the stream of payments they expect to have to make, an ingredient they presumably already calculate in the production of their actuarial liabilities. Observers can then compare this stream with the pension assets and the resources that states have available in order to see what kinds of returns and future tax revenue will be necessary to meet the promises.

H.R. 567 is a very useful step because it establishes an incentive for states: if they want federal subsidies, they may not engage in substantial amounts of off-balance-sheet borrowing through improperly valued pension liabilities. The state pension system exposes the financial system to substantial risk, and there is a further risk that the federal government would be called on for bailouts. Even if there were not an explicit bailout, federal taxpayers would be on the hook for part of the cost

because more federal cash would flow automatically to hard-hit states under programs ranging from unemployment insurance to Medicaid. Moreover, state fiscal problems arising from pension systems could have broader, unwanted consequences for the economy as a whole. For example, businesses could choose to avoid higher taxes and lower-quality government services by moving abroad, rather than to a lower-tax state.

The exposure of federal taxpayers to state fiscal problems argues for further incentives-based approaches by the federal government, particularly if the idea of a state bankruptcy code is not to be pursued. A wide range of incentives should be considered, including both carrots and sticks. The key idea is that some portion of federal money to states should be contingent on the states and localities getting their off-balance-sheet liabilities under control.

One promising approach in this regard relates to the tax treatment of bonds that could be used to fund pensions. Under current law, bonds floated by states for this purpose are fully taxable. As a result, such debt is considerably more expensive than municipal bonds qualifying for tax-exempt status or the lapsed Build America Bonds program.

This setup creates potential leverage for Washington to drive a deal with states. In a plan I developed with Professor Novy-Marx (Rauh and Novy-Marx (2010)), a state would be allowed to issue tax-subsidized bonds for the purpose of pension funding for the next 15 years if (and only if) it agreed to specific austerity measures. Specifically, the state would have to close its defined-benefit plans to new workers, fund existing defined-benefit plans on an actuarially sound basis using the new borrowing facility, and enroll all new employees in a defined contribution plan plus Social Security. The enrollment of state and local workers into Social Security would allow the federal government to achieve substantial cost savings in that program (see Diamond and Orszag (2005)). Those cost savings would offset a large portion of the federal government's costs from the debt subsidy, while also ensuring that the employees had the same safety floors on their retirement as all private sector workers do.

We calculate that the net cost to the federal government of subsidizing pension bonds under this program would be \$75 billion. That would constitute a bargain relative to the multi-trillion-dollar crisis that taxpayers will likely face otherwise. This is just one example of an incentives-based approach that would protect federal taxpayers from the pension problems of state governments.

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