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Unfunded Pension Debts of U.S. States Still Exceed \$3 Trillion

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Guest post written by

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It's well-known that there's a huge financial hole in state-sponsored retirement plans for public employees, a hole that states will eventually have to fill with tax increases and spending cuts.

There is, however, still considerable debate as to the size of this government debt owed to public employees. In July 2015, the Pew Charitable Trusts released their latest [issue brief](#), reporting that as of 2013, the nation's state-run retirement systems had a \$968 billion funding gap, not far from the ["Trillion Dollar Gap"](#) they reported in 2010.

The Gap is Actually Bigger

As serious as this sounds, the true magnitude of unfunded pension promises for the systems tracked by Pew is much larger. The system of measurement and budgeting for public pension promises has fallen prey to one of the fundamental fallacies in financial economics: undervaluing a risk-free stream of promised cash flows by assuming that the promises can be met with high, anticipated returns on smaller pools of risky assets.

When I correct the calculations to reflect the expectation of public employees that these promises will be honored, the market value of unfunded liabilities proves to be far larger: \$3.28 trillion (as of 2013). Moreover, this figure excludes local government obligations such as those of U.S. cities and counties.

Pew collects its information from state government disclosures. Its 2013 [data](#) suggest that, across 237 state-level pension systems, there were \$3.43 trillion of liabilities backed by \$2.47 trillion of assets. In other words, this

implies a net gap of around \$1 trillion.

These liability measures are far too low. They are based on state assumptions of high assumed returns on risky asset portfolios: the median assumed return was 7.75% (and the liability-weighted average 7.66%). The funding gap amounts to a mere \$1 trillion only if the public plans can achieve these high compound annualized returns over the horizon during which these benefits must be paid. Yet governments have promised to pay the pensions regardless of what happens to the pension investments. As such, pension promises should be treated like the [senior government debt](#) they are, [akin to default-free government bonds](#).

For a proper financial market valuation, the promised pensions should first be adjusted to reflect only accrued benefits, or retirement payments that employees would be entitled to receive under their current salary and years worked. This is not how governments do it today, but my [2011 paper](#) with [Robert Novy-Marx](#) did this recomputation for most of the plans in the Pew study.

Using the Treasury yield curve and assuming the pension payouts have an average maturity of 14 years, the correct 14-year discount rate is 2.8% — implying a whopping \$5.77 trillion in total state pension liabilities for these accrued benefits only.

What about the assets backing these promises? The Pew report relies on asset values smoothed over a period of years. To correct for the artificial smoothing, we collected actual market values for the majority of the Pew-included plans. The resulting numbers indicated assets in 2013 were only about 1% larger than the smoothed values, still just under \$2.50 trillion. Total unfunded state pension promises using market values were therefore \$3.28 trillion, or the difference between \$5.77 trillion in accrued liabilities versus a little less than \$2.50 trillion in assets.

Moreover, state [court decisions in California](#) and [recently in Illinois](#) suggest that even prospective benefits for current workers are inviolate under the law of some states. If states cannot even slow the rate of future benefit accruals, then the true magnitude of the liability to which states have committed is even larger than the liabilities formally accrued at present.

Lack of Progress

It's remarkable that, despite strong investment performance over the 2009-2013 period, the states' unfunded pension liabilities have hardly declined. Though assets have grown, liabilities have continued to move steadily upwards, as plans continue to make new promises faster than they pay off their old ones. Public pensions have also had to re-evaluate their

[assumptions about longevity](#). Meanwhile, market interest rates have continued to fall, raising the cost of making good on these promises. For all of these reasons, unfunded liabilities on a market value basis will likely be even larger in 2015 when the data become available.

The [Governmental Accounting Standards Board's Statement 67](#) began, in 2014, to impose some stricter reporting requirements on systems that project their plans' net assets to be insufficient for meeting all benefit payments to current plan members. The trouble is that few states are recognizing that their assets will be insufficient, since they "expect" to achieve their high returns on invested assets. Most systems will therefore continue to budget for pensions exactly as they have in the past – by hoping that good returns on their financial assets will bail them out of trouble, and marking down the value of their liabilities as though such returns were a certainty.

U.S. governmental accounting standards should be replaced with a more transparent standard: one that measures the true financial cost of public pension promises. This would be an important step towards ending the use of pension systems as a way for state and local governments to run off-balance-sheet budget deficits.

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