Chilton Investment Services

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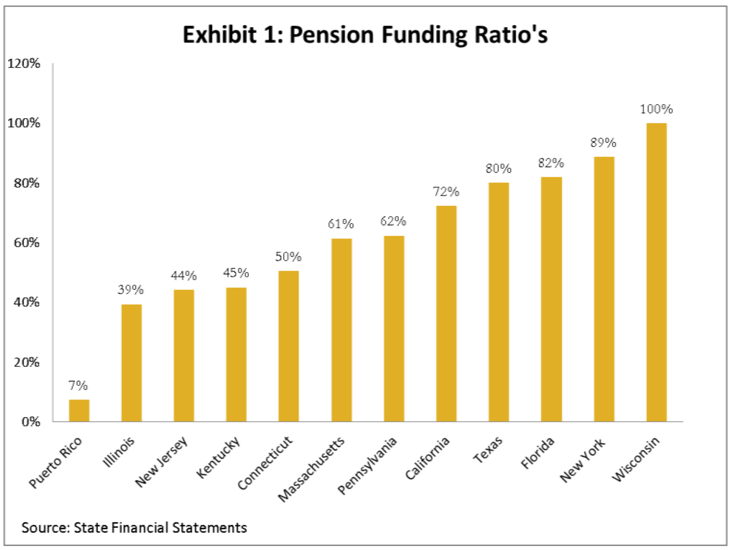
Time to pay the piper - understanding municipal pensions

Public pensions have traditionally been thought of as a necessary employment benefit which allowed the public sector to compete with the private sector. While the validity of this idea and the appropriate level of benefit is debatable (and beyond the scope of this paper), what is clear is that underfunded public sector pension plans represent the single biggest drag on U.S. municipal finances. Accounting practices for public sector pensions are very weak relative to corporate plans. And public pension benefits are increasingly viewed as contractual legal agreements, immune to legislative reform measures. Faced with funding challenges, officials often choose the path of least resistance, utilizing stop-gap measures which only defer costs to future taxpayers. **In this paper, we outline the crux of this pension problem and conclude with a brief assessment of how we evaluate pensions in our credit research process.**

Accounting: Estimates for the aggregate amount of unfunded municipal pension liabilities range from $915 billion[i] to over $4.7 trillion[ii] . It is largely a public sector problem as the funding ratio for corporate pensions is a strong 92%[iii] versus the current state average of 74%[iv] . **The first step toward adequately funding any pension system is accurately projecting pension benefit costs and generating a funding schedule. Unfortunately, most pension plans have failed to do so due to aggressive accounting assumptions.**



Of all the factors used in calculating the pension liability, the discount rate has the greatest effect on changes in the plan's funding status, as a small change in the discount rate will result in an exponentially large impact on the present value of the liabilities. So what is the best discount rate? Most economists have argued that if pension benefits are guaranteed by law, the appropriate discount rate should be the risk-free rate[v]. Others (including us) believe the employer's long-term bond yield represents the best discount rate, reflecting the employer's promise to pay on long-term liabilities such as bonds. Private sector pensions in the US are required to use this approach.

However, public pensions are allowed to use a higher, more aggressive discount rate, typically tied to the investment portfolio's Return on Asset (ROA) assumptions. Public pensions utilized an average discount rate of 7.7% in 2013[vi] compared to 4.75% used in the private sector[vii]. We believe this approach is fundamentally flawed as the ROA and discount rate are two separate concepts. Using ROA as a discount rate assumes that "the entire investment return is available to help pay future benefits, making no allowance for expected losses, which is represented by the risk premium."[viii] Estimates show that the higher discount rate for public pensions has underestimated pension liabilities significantly, potentially by 30–50%[ix].

Two new Governmental Accounting Standard Board (GASB) accounting rules (GASB 67 & 68) will partially address this issue, introducing the new concept of a "crossover point" which is defined as the point in time when a plan is expected to run out of cash. Any plan projected to hit the crossover point will have to immediately start discounting its plan liabilities at a more conservative municipal bond yield. Most plans are not impacted by this rule as they do not currently expect to reach a crossover point. However, certain weaker plans such as those for the State of New Jersey will be significantly impacted as two of the State's three plan's assets are expected to be depleted before 2030. As a result, the aggregate funding ratio of New Jersey's three largest pension plans will drop from 64% in FY13 to 42% in FY14. We believe that more conservative, transparent pension reporting measures will intensify the pension reform discussion.

However, GASB has still not addressed some other important pension accounting weaknesses, including the ROA assumption and choice of amortization method. An aggressive assumption (which most public pensions use) will lead to underestimation of the Annual Required Contribution (ARC) from employers. This has become increasingly prevalent given the average assumed ROA of 7.7% versus actual average investment returns of only 5.2% since 2001[x]. Additionally, the amortization period is usually "open" instead of "closed", meaning the amortization period is perpetually maintained at 30 years instead of decreasing each year. This results in an ongoing understatement of the employer's annual contribution and prevents any unfunded liability gap from ever being closed. A final accounting assumption is the choice of cost recognition method, a decision which will be easier going forward given new GASB regulations requiring use of the Entry Age Normal method. Our assessment of these critical accounting factors helps assess the long term affordability of the plan.

<u>Legal:</u> **States offer varying levels of legal protections for pension benefits, raising complications for governments which attempt reform.** For example, seven states currently have constitutional provisions for public pension benefits, while benefits in other states offer weaker protection via contract and property law (See Exhibit 2). In some states, like New York, both past and future accrued benefits are protected, while in other states, like Rhode Island, Connecticut and New Jersey, the law is less clear on protection of future benefits. By contrast, private sector pensions only enjoy protection for past benefits, not future. Regardless of jurisdiction, almost every pension reform across the country has faced legal challenges from labor unions. In this year alone, we have seen major pension reforms overturned in Illinois and Oregon.

Exhibit 2: Strength of Legal Protections

Stronger → Weaker	Legal Basis	Past & Future	Past & Maybe Future	Past Only	None
		Accrued benefits protected			
Stronger	State Constitution	AK, IL, NY	AZ	HI, LA, MI	
	Contract	AL, CA, GA, KS, MA, NE, NV, NH, ND, OR, PA, TN, VT, WA, WV	CO, ID, MD, MS, NJ, RI, SC	AR, DE, FL, IA, KY, MO, MT, NC, OK, SD, UT, VA	
	Property	ME, WY	CT, NM, OH	WI	
Weaker	Promissory estoppel	MN			
	Gratuity				IN, TX

Source: Center for Retirement Research at Boston College

Illinois narrowly passed a comprehensive pension reform package in December of 2013 despite a clause in the State Constitution protecting pension benefits. The plan was expected to save $160bn over a 20 year period, with $90-100bn coming from benefit cuts including changes in Cost of Living Adjustments (COLA), capping of pensionable salary, and switching to a more accurate cost recognition method. Several unions immediately filed suit and in May 2015 the Illinois Supreme Court upheld a lower court decision that the reform package was unconstitutional, finding that pension benefits are contractually agreed upon and cannot be diminished or impaired. The State argued unsuccessfully that the fiscal crisis facing the state trumped the contractual nature of pension obligations but the State Supreme Court ruled that "crisis is not an excuse to abandon the rule of law"[xi]. Interestingly, the Court struck down the entirety of the reform package, as opposed to individual pieces, providing little legal precedent for the State of Illinois to build on in future reform efforts.

Based on court rulings to date, it appears as though those reforms that withstand legal challenges fall into two primary categories: 1) not altering earned benefits of current retirees; and/or, 2) reaching reforms through negotiations with a majority of labor unions. One approach to reform that has been successfully implemented is creating new tiers with new benefits for incoming workers, while either keeping current employees in their current benefit plan or giving them the option to switch to a new benefit plan. Such was the case in New York in 2012 when a reform package implemented a tiered plan for new workers which was expected to save the State of New York roughly $80 billion over 30 years. In addition, the New York plan included higher employee contribution rates, another reform tactic that has been successfully implemented likely because it does not alter accrued benefits.

Exhibit 3: Reductions of State Pension COLAs

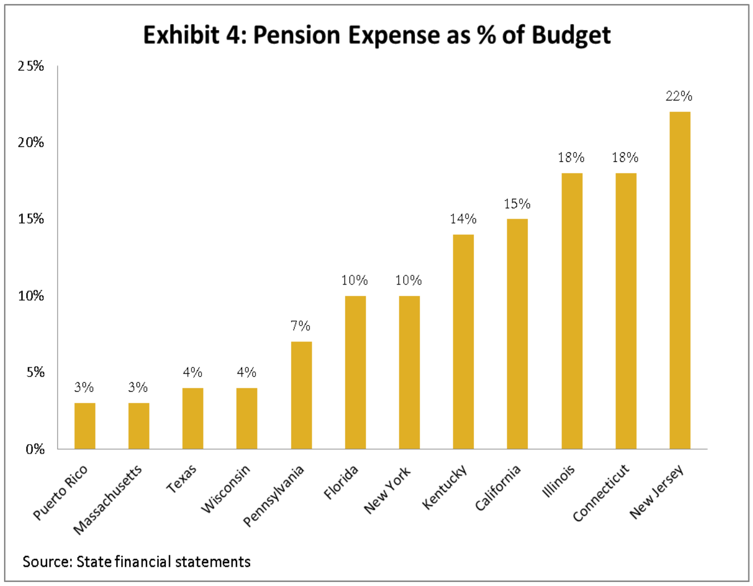
Upheld	Overturned	Complaint Dismissed	Settled through Mediation
Colorado	Oregon	Montana	Rhode Island**
Florida	Illinois		
Maine	Arizona		
Minnesota	New Jersey*		
South Dakota			
Washington			
New Mexico			

* - awaiting appeal
** - pending legislative approval

Source: Chilton Investment Services, LLC Research

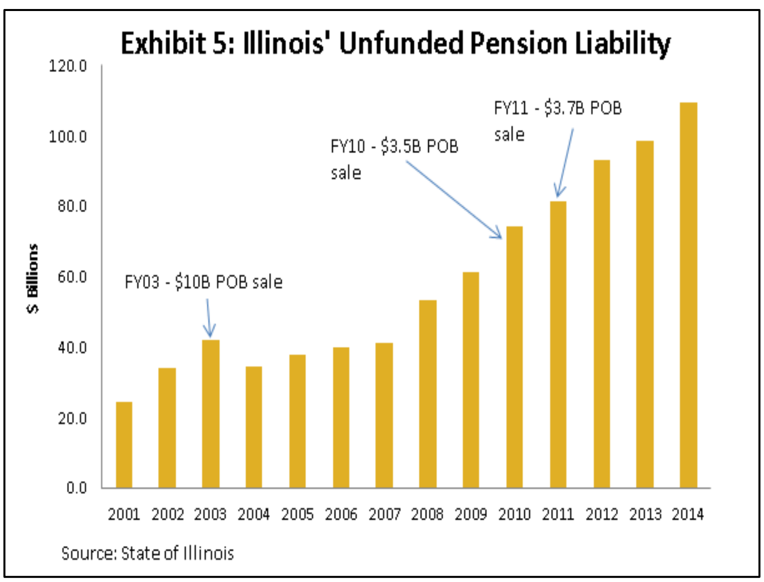
Similar efforts to adjust COLA have also been highly contested with 13 lawsuits filed since 2010 over a proposed reduction/alteration of COLA. Of these 13 suits, the court held that the states had the ability to reduce COLA in 7 cases, with one case in Rhode Island settling through mediation. **While these cases are state specific and not necessarily representative of a nationwide position, it appears that attempting to reduce COLA's has been a successful reform tactic that states have at their disposal.**

Political willingness: More than accounting or legal issues, we believe that a large part of the pension problem can be attributed to the policy (and often politically driven) choices made by pension plan governing Boards, typically comprised of elected officials and labor representatives. The long-standing political practice of rewarding current employees with deferred compensation in the form of pension benefits has led to back-loaded liability profiles. These issues gain political urgency when annual expenses rise to above-average levels, typically comprising more than 10% of budget (See Exhibit 4).



In addition to setting the accounting assumptions discussed earlier, pension Boards are responsible for establishing key plan policies such as the COLA rate, the benefit calculation factor and the choice of a defined benefit versus defined contribution plan. Many public plans have a fixed COLA rate of 3%, much higher than post-recession consumer price increases. The benefit calculation factor is simply a multiple designed to calculate the retiree's annual cash payment. In many public pension plans, this multiple has risen to 2% versus the typical private sector factor of 1.5%[xii].

Plan affordability is evaluated by considering the Annual Required Contribution (ARC), the annual budget payment needed to fund benefit payments and any plan underfunding. A critical legal test is whether the ARC is protected by law. One study found that 50% of public pension plans contained some type of legal requirement that the full ARC is made[xiii]. On average, states and locals contributed a good 89% of ARC in 2014, but the difference varies significantly among states[xiv]. Unsurprisingly, those states with such a requirement also tended to fare better in their actual funding levels[xv]. For example, the State of New York has consistently contributed an average of 100% of its ARC, reflecting the State's legal requirement to fully fund pension expenses. However, a statutory requirement to make ARC does not necessarily mean that full ARC will be received as witnessed recently when the New Jersey Supreme Court reversed a lower court ruling and held that the State of New Jersey was allowed to reduce scheduled ARC, ruling that the State's pension law "does not create a legally enforceable contract that is entitled to state constitutional protection." Interestingly, the Court also found that dedicating monies through legislative acts beyond the annual appropriation act have no binding effect. Nevertheless, even for those issuers making full ARC, the liability can continue to grow due to the open amortization method outlined earlier which effectively resets the plan liability each year. Moody's Investors Service notes that even for plans making full ARC, only 40% were able to maintain their previous year's funding ratio due to aggressive accounting[xvi].



Finally, we evaluate the approach an issuer takes if benefits become unaffordable. If pension expenses contribute to the crowding out of essential services, it will raise political pressure and lead to calls for action. **Addressing pension funding gaps utilizing dubious practices such as amortizing pension costs, underfunding annual payments, using unrealistic investment return assumptions and issuing pension obligation bonds (POB's) only compounds the problem.** POB's are a theoretically effective way to transform a flexible, politically-influenced pension funding commitment into a fixed bond obligation. POB proceeds are deposited into the pension trust fund with the invested proceeds improving the long term funding ratio. However, POB's are at best a stop-gap measure and outsized pension liability growth will quickly resume for those plans with aggressive accounting or policy provisions. In addition, many governments have utilized POB proceeds to make annual payments, a form of deficit financing. For example, the State of Illinois issued a $10B POB in 2003, $2B of which was used to make ARC payments in 2003 and

2004. The State later sold another $3.5B in 2010 and $3.7B in 2011, which amounts were used to make ARC payments. As shown in Exhibit 5, this borrowing did not slow the growth of the State's unfunded liability.

By comparison, we believe the appropriate approach is a comprehensive, impactful reform law. While difficult in any state, this type of reform becomes especially problematic for an elected official in states where organized labor is strong. Such is the case in Rhode Island, where 62% of public sector workers were unionized when State Treasurer Gina Raimondo sought to reform the State's troubled pension systems in 2011[xvii]. Through her report "Truth in Numbers," Raimondo concluded that 10% of tax revenues were going to pay pension costs, with this percentage expected to double in the medium term. Raimondo worked with Governor Lincoln Chaffee, members of both political parties in the State Legislature, organized community forums to garner public support, and ultimately achieved much needed labor union support. The result was the Rhode Island Retirement Security Act (RIRSA), which was a multifaceted reform effort that targeted several key issues. RIRSA reduced the frequency of COLA's until an 80% funded ratio was reached, increased the eligible retirement age, and switched employees to a hybrid defined benefit / defined contribution plan. The expected cost savings from the reform reduces the unfunded liability by 40%. Despite lawsuits by a few holdout unions, a mediated deal was reached which is expected to preserve 90% of the cost savings associated with the plan, pending legislative approval.

Exhibit 6: Illinois vs. Rhode Island pension reform plans

	Illinois	Rhode Island
Plan Type	95% defined benefit; 5% defined contribution	Hybrid defined benefit / defined contribution
Cost of Living Adjustment (COLA)	Blend of 3% and CPI	Every four years until plans are 80% funded
Retirement Age	Increase to 60 from 55 for individuals age 45 and under	Increased to 67 from 62 with some exceptions
Employee contributions (as % wages)	Reduced by 1% (current rates 4-12.5%)	Unchanged at 8.75%
Liability reduction	Est. -24%*	-40%
New funding ratio	Est. 47%* (currently 40%)	56% (from 42%)

* Hypothetical estimates only as plan was never implemented

Our approach: In short, CIS believes the magnitude of the public sector pension funding problem is sufficiently large that it will continue to exert a drag on a large number of municipal credits going forward, potentially lasting a decade or more. When evaluating municipal credits, we seek to clarify three areas –

1. Financial - How reasonable are the terms and accounting for a particular pension plan and how much of a financial burden does it represent? CIS evaluates the discount rate, assumed Return on Assets (ROA), funded status and pension expenses as a percentage of the annual budget.

2. Legal - How restrictive is the State's legal framework and does any proposed reform stand a reasonable chance of approval? CIS evaluates the strength of constitutional or statutory protections for pension payments.

3. Political – do management's actions reflect a willingness and discipline to adequately address any pension challenges? CIS evaluates whether the issuer offers particularly generous plan terms such as an above-average COLA or factor, the issuer's track record of annual pension funding and, if reform is necessary, are officials taking a bold yet consensual approach which offers real financial benefit as well as realistic chances of political and court approval.

i "The Fiscal Health of State Pension Plans." The Pew Charitable Trusts. n.p., n.d. Web. 08 April. 2014.

ii Promises Made, Promises Broken 2014: Unfunded Liabilities Hit $4.7 Trillion, Joe Luppino-Esposito, State Budget Solutions November 12, 2014

iii John W. Ehrhardt, Alan H. Perry, and Zorast Wadia. "Milliman 2015 Pension Funding Study". April 2015

iv Jean-Pierre Aubry and Alicia H. Munnell. "The Funding of State and Local Pensions: 2014-2018." Center for Retirement Research at Boston College. State and Local Pension Plans. Number 45. June 2015.

[v] Jean-Pierre Aubry, Richard W. Kopcke, Alicia H. Munnell, and Laura Quinby. "Valuing Liabilities in State and Local Plans." State and Local Pension Plans. Number 45. June 2015.

[vi] Center for retirement research at Boston College, Public Plans Database, 150 state and local pension plans

[vii] Ibid iii

[viii] ibid vi

[ix] Ronald J. Ryan. "The Public Pension Crisis." Investment and Wealth, July/August 2011.

[x] Ibid vii

[xi] Justice Lloyd A. Karmeier, Illinois Supreme Court Rejects Lawmakers' Pension Overhaul, New York Times, May 8th, 2015

[xii] Alicia H. Munnell and Mauricio Soto, Center for retirement research at Boston College, Boston College, State And Local Pensions Are Different From Private Plans

[xiii] Keith Brainard and Alex Brown. National Association of State Retirement Administrators, The Annual Required Contribution Experience of State Retirement Plans, FY 01 to FY 13, March 2015

[xiv] ibid vii

[xv] Ibid xiii

[xvi] Thomas Aaron and Timothy Blake, "New pension accounting increases clarity of plan funding trajectories", Moody's Investors Services, March 16th, 2015

[xvii] "Patrick McGuinn, ""Pension Politics: Public Employee Retirement System Reform in Four States"", Brown Center on Education Policy at Brookings, pg12, Feburary 2014"