

Everyone who pays attention to the news has noticed the drumbeat of reports urgently warning that the public pension system is perched on the brink of disaster and that it will soon collapse, bringing a number of state and local governments down with it. These stories are based on questionable research from self-proclaimed experts in public finance, and their predictions have created misconceptions about the health and future of the public-sector pension system.

Further context and balance is essential to clearing up these media misconceptions. Media outlets have been starting with a thesis — that a public pension crisis is upon us. They cite opinions and research studies that support their position without offering a counterpoint from professionals who understand public finance. Before rushing to publication, reporters should test their assumptions by vetting all their information and conclusions — otherwise, the picture presented isn't fair and balanced.

Providing perspective is a critical role for the finance officer, who should be able to respond to media inaccuracies and misunderstandings as well as providing rapid but measured responses to media inquiries or published articles. Finance officers can give the public the information it needs to preempt or correct the inaccuracies that are being reported. And of course, where real problems exist, it is essential to address them through formal action plans for solving the problems that involve all constituencies and stakeholders.

FANNING THE FIRE

Several common themes have evolved in media reports of pension valuations, bond defaults, and budgetary deficits. "The sky is falling" school of coverage features multi-trillion dollar amounts of supposedly unreported pension liabilities and so-called experts who predict state bankruptcies, bond defaults, and pension fund collapses. Recent examples include a New York Times article indicating that some states

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Exhibit I: Changes States Made to their Pension Plans from 2000 to 2010

	Increased Employee Contributions	Changed Eligibility or Benefit Formula	Reduced COLAs	Defined Contribution or Hybrid Plan
Alabama				
Alaska				■
Arizona	■	■		
Arkansas		■		
California	■	■		
Colorado	■	■	■	■
Connecticut				
Delaware				
Florida				■
Georgia				■
Hawaii				
Idaho				
Illinois		■	■	
Indiana				
Iowa	■	■		
Kansas	■	■		
Kentucky		■		
Louisiana	■	■	■	
Maine				
Maryland	■			
Massachusetts		■		
Michigan			■	■
Minnesota	■	■	■	■
Mississippi	■	■		
Missouri	■	■		
Montana				■
Nebraska				■
Nevada		■	■	
New Hampshire	■	■		
New Jersey	■	■		
New Mexico	■	■		
New York		■		
North Carolina				
North Dakota		■		■
Ohio				■
Oklahoma				
Oregon				■
Pennsylvania	■	■		
Rhode Island		■	■	
South Carolina	■			■
South Dakota	■	■	■	
Tennessee				
Texas	■	■		
Utah				■
Vermont	■	■		
Virginia	■	■	■	
Washington	■			■
West Virginia				
Wisconsin				
Wyoming	■		■	

*Source: "Legislative Changes to State Pension Funds: A Survey," U.S. Municipal Focus, RBC Capital Markets, December 9, 2010, compiling data from the National Conference of State Legislatures and the Pew Center on the States.

might not be able to make their bond payments¹ and the December 19, 2010, “60 Minutes” segment — “*State Budgets: The Day of Reckoning*” — in which Wall Street analyst Meredith Whitney warned about an impending widespread “financial meltdown in state and local governments.” Both reports were based on questionable assumptions and neither mentioned the pension reforms many states — including Illinois, which was featured in both pieces — have enacted (see Exhibit 1 for a summary).

In addition, today’s reporters are reporting yesterday’s results, and they don’t acknowledge the difference or the significant impact the Great Recession had on funded ratios for virtually all pension systems in 2009 — along with most other public and private entities.² They also leave out the significant recoveries the equity market has experienced since then. By December 31, 2009, the Dow Jones Industrial average was up 59 percent from its March 2009 low, and by December 31, 2010, the rebound was 77 percent.

ONE POINT OF VIEW

Some of the newly minted experts on municipal finance who have garnered much attention for their research findings have casually dismissed or failed to acknowledge significant data that run contrary to their thesis that public pension plans are in crisis. Their research, which has material omissions, has not been subjected to standard academic or professional vetting. Nevertheless, it has been widely used to support the allegations that the sky is falling.

A case in point is the public-sector pension research by Joshua Rauh and Robert Novy-Marx. It has been cited numerous times in the Wall Street Journal, the New York Times, and the Washington Post, as well as untold local newspapers that subsequently picked up those initial stories. These articles offered no counterpoint from actuaries for public funds or from professional organizations such as the Government Finance Officers Association or the National Association of State Retirement Administrators.

MISLEADING GENERALIZATIONS

Some articles generalize from the specific to the universal. Consider the following headline: “Alabama Town’s Failed

Pension is a Warning.”³ The article discusses the City of Prichard’s inability to make retirement benefit payments to its annuitants. The article factually notes that the town of 27,000 has lost 40 percent of its population, along with an even greater loss of its tax base. Nevertheless, the story goes on to generalize that the same fate might befall state pension systems in California and Illinois. It fails, however, to note those two states, as stand-alone sovereignties, would rank in the top 20 largest economies in the world, and therefore any comparisons to a town with a population of 27,000 are completely inappropriate.

A variation on this theme is the questionable use of statistics to imply that public-sector retirees who receive large pension payouts are representative of all public-sector pensioners, and that this is the cause of all public-sector pension funding issues. The following is from a May 2010 New York

Times article: “According to pension plan data collected by the New York Times from the city and state, about 3,700 retired public workers in New York are now getting pensions of more than \$100,000 a year, exempt from state and local taxes. The data belie official reports that the average state pension is a modest \$18,000 or \$38,000 for retired police officers and firefighters.”⁴ A few

lines down, however, one discovers the following context: “Roughly one of every 250 retired public workers in New York is collecting a six-figure pension” — in other words, only 0.4 percent of all retired public workers in the state, or 3,700 of approximately 925,000 annuitants.

Another statistic missing from the above article is the profile and distribution of “public workers.” It would be useful to know the proportion of the 3,700 public workers cited who are retired doctors, professors, and other professionals who worked for 25 to 30 years or more, making salaries that were well below what they might have earned in the private sector. Beyond those annuitants, what are the numbers of teachers, policemen, and firemen — and the relative percentage of each group — receiving benefits in excess of \$100,000?

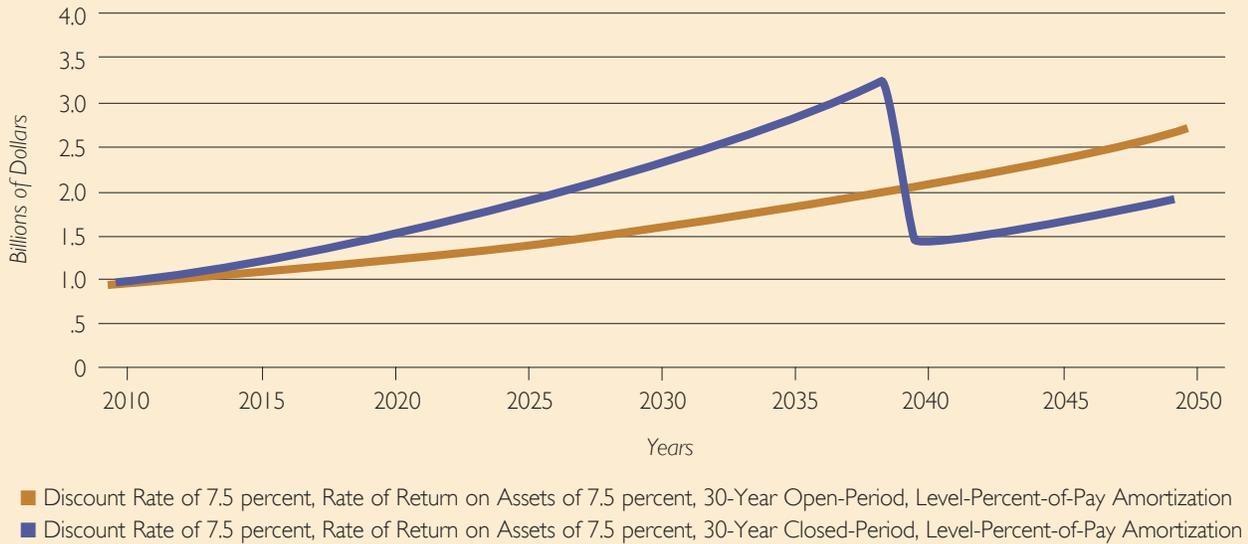
Similarly, selective numbers or calculated values are used to demonstrate the largess behind those “gold-plated Cadillac” plans, without providing context. Consider the following from IllinoisBroke.com: “During the past three

Finance officers can give the public the information they need to preempt or correct the inaccuracies that are being reported.

Exhibit 2: Long-Term Costs of Switching to a Defined Contribution Plan

Contribution Dollar Amount 40-Year Projection

Putting new hires into a defined contribution plan results in increased costs for the next 30 years.



years, 175 Illinois workers have retired from state employment at age 55 after full careers (30 years or more of service). The average value of their pensions is approximately \$1 million.⁵ Without any context or additional background, we have no idea of the assets associated with those estimated benefits, what portion of those assets were contributed by those retired workers, what percentage the 175 retirees represent of all retirees in the state over the same period, or if there are legal caps on maximum benefits that actually create incentives for employees to leave at age 55 after a full career.

SIMPLISTIC SOLUTIONS

Advancing the perception that simple solutions exist for complex problems, the media often reminds us of the universal solution to pension funding problems: All governments have to do to solve the problem is immediately convert to defined contribution plans for all employees. The implicit assumption is that the costs of defined contribution plans are lower and that such

plans are less volatile and more manageable than traditional defined benefit plans.

This recommendation seldom includes a discussion of the significant transition costs and collective bargaining constraints involved in such a switch. The truth is that making such a transition is unlikely to do much to resolve plan sponsors' near- or medium-term fiscal problems. In fact, switching new employees to defined contribution plans can actually increase costs in the near term.

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When State of Illinois officials studied shifting new hires to a defined contribution plan for one of its pension systems, they found that total costs would be higher over the next 30 years. The reason: transition costs. Putting new hires into a different plan means their contributions would stop flowing into the existing underfunded defined benefit plan, so other revenue would be needed to make up the difference. Exhibit 2 illustrates that putting new

hires into a defined contribution plan with a 10 percent employer contribution, while continuing to fund the existing defined benefit plan, would actually increase the employer's total contributions for the next 30 years.

Another problem with replacing defined benefit plans with defined contribution plans as a solution for managing near-term retirement costs is that it is difficult, if not impossible, to modify existing pension benefits for current active employees as well as current retirees. This is because of protections afforded by collective bargaining agreements, constitutional guarantees, laws, and court rulings. As such, governments must phase in lower-cost defined contribution plans gradually, as new workers enter the system. However, even after a conversion from a defined benefit to a defined contribution plan, it could be decades before a government would see substantial cost savings.

ACADEMIC AND PROFESSIONAL VETTING

Media reports have generally drawn on research studies from academics, university research centers, and public pol-

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icy organizations. However, a common shortcoming is that none of this research has been subjected to vetting by the appropriate subject-matter experts — namely actuaries who practice in the public sector. For example, press releases and Internet links have been issued regarding recent pension studies,⁶ but this is not research and findings that have been presented to actuarial groups or professional societies.

Some of the most frequently cited work from Rauh and Novy-Marx are working papers — they have not undergone the same academic scrutiny and vetting associated with submission to refereed academic journals.⁷ This vetting process uses acknowledged experts in the discipline to serve as referees, and they typically review the findings without knowing the authors, to emphasize objectivity and independence. Such reviews frequently entail significant revisions or outright rejection. If the goal of authors such as Rauh and Novy-Marx is to change public policy, then their research should be directed to actuarial science or public finance journals, where an appropriate vetting process can occur.

Exhibit 3: Risk-Free Rate Leads to Increased Costs

Contribution Dollar Amount 40-Year Projection

Funding at a risk free rate requires significant increases for the next 30 years.

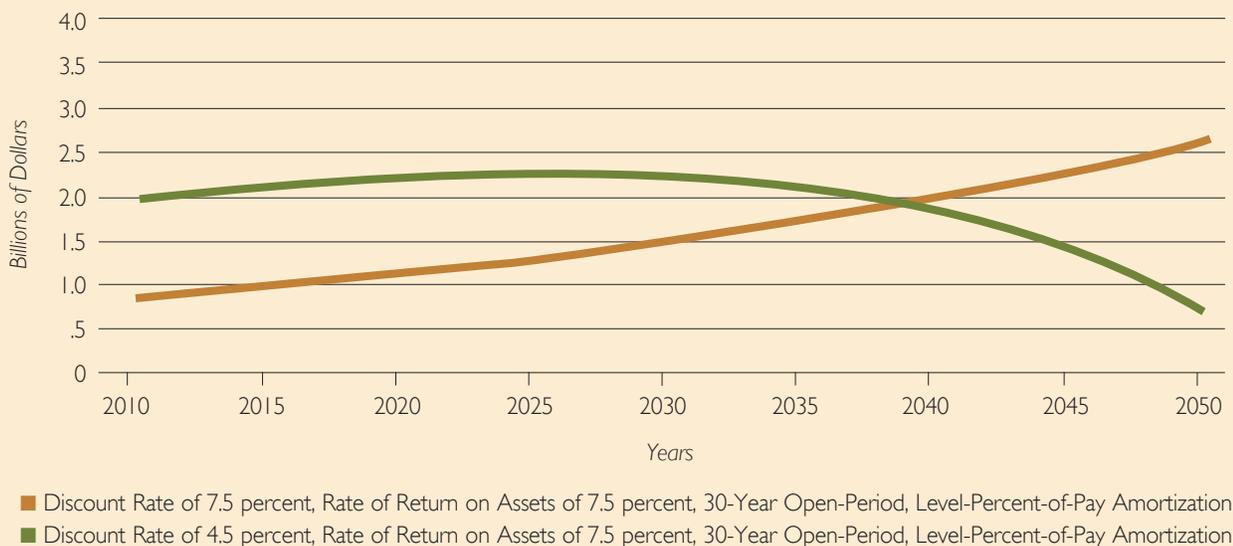
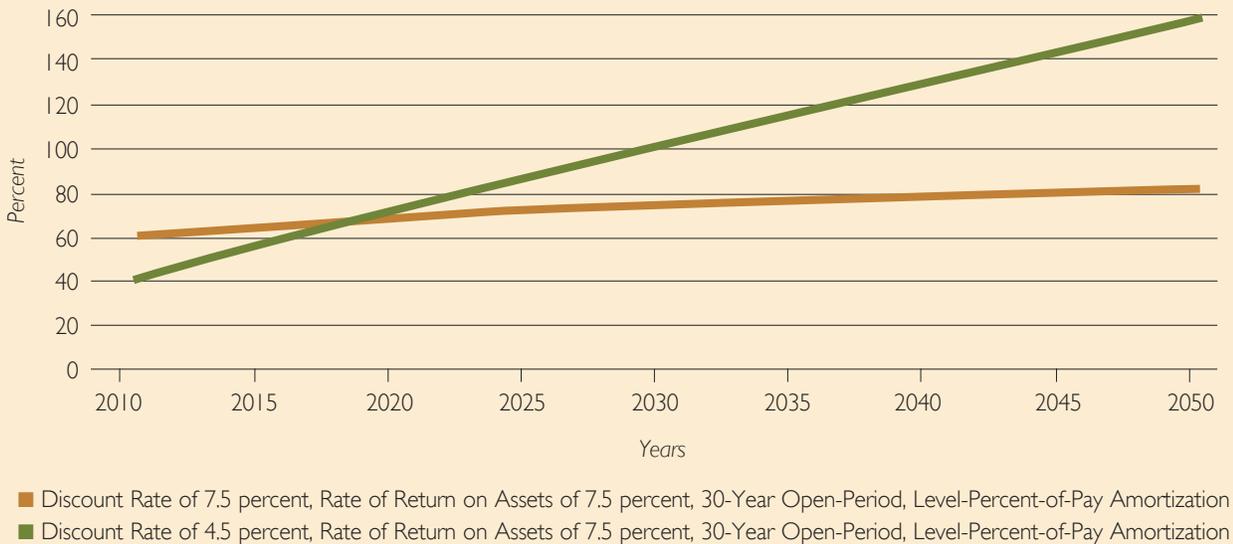


Exhibit 4: Risk-Free Rate Leads to Excess Funding

Funded Ratio

40-Year Projection

Funding at a risk free rate results in an overfunded plan.



The bottom line is that until research has been fully vetted by appropriate referees and experts in the discipline — and any subsequently identified issues addressed by the authors — preliminary and potentially inaccurate findings should not be reported in the mass media, or at least not published without providing a balanced perspective drawing upon such experts.

UNDERSTATED LIABILITY

Many media reports say the investment return assumptions public-sector pension plans use to calculate and report actuarial accrued liability are overstated, and therefore that the actuarial reports and governmental financial statements using these assumptions are misleading the public by significantly understating the actuarial accrued liability. The authors of such articles typically note that when actuaries estimate a public pension plan's actuarial accrued liability, they use investment return assumptions in the range of approximately 7 to 8 percent

to discount the estimated future benefits payments.⁸ These same authors argue that a risk-free rate of return should be used instead to reduce or eliminate the risk inherent in public pension plans. (Opinions vary as to what “risk-free” rate should be used to determine the pension plan liability, ranging from the rate on 10-year U.S. Treasury notes to a basket of fixed-income securities that has a higher rate.)

Using the much lower risk-free rates, these studies then project multi-trillion dollars of unrecorded and unfunded pension

liabilities. They suggest that taxpayers may be “on the hook” for these huge unfunded liabilities or that retirees will lose their benefits. Basically, these studies argue that using a risk-free rate of return to calculate pension liabilities will increase the transparency of the risks public pension plans are taking (i.e., investing in equities) and result in an appropriate reduction in those risks. These same studies, however, never mention that the use of a risk-free rate of return could have significant negative consequences for public pensions, including: contribution rate

These studies argue that using a risk-free rate of return to calculate pension liabilities will increase the transparency of the risks public pension plans are taking, but they never mention that the use of a risk-free rate of return could have significant negative consequences.

volatility; funding levels that are misleading and confusing; contribution rates that are greater than what is needed; lower investment returns as a result of shifting from equities to fixed income; and abandonment of traditional pension plans in lieu of defined contribution plans, as has occurred outside the public sector.

The National Association of State Retirement Administrators (NASRA) has developed a response to the questionable assumptions and methods Novy-Marx and Rauh used to develop their conclusions on pension liability valuations.⁹ The NASRA analysis shows that historical investment returns of public pension plans exceed the typical assumed investment return assumption of 7 to 8 percent even after incorporating losses from the 2008 market collapse. From an actuarial point of view, it also does not make sense to discount the liabilities at a risk-free rate such as 4.5 percent if the expected rate of return is expected to average around 7.5 percent. Fitch Ratings recently released a report regarding U.S. state and local government pension systems that said: “...to assume that pension fund returns are going to hover close to Treasuries going forward seems unrealistic given the long duration of pension liabilities that are paid by governments and the fact that governments can confidently be expected to exist for the long term. Therefore, it is appropriate for these entities to invest in a diversified, long-term portfolio and assume a historically justifiable return on investments.”¹⁰

In its preliminary views document on pension accounting, published in June 2010, the Governmental Accounting Standards Board (GASB) considered but rejected the Novy-Marx and Rauh risk-free bond rate method for valuing future liabilities, stating instead that the interest rate used should be a reasonable estimate of the rate at which plan assets are expected to grow as a result of investment earnings.¹¹ While the issue is still under study, it does reflect input from actuarial organizations with public-sector practices.

Beyond these conceptual as well as pragmatic issues, the risk-free rate advocates fail to understand a fundamental feature of public-sector pension plans. Because actuarial valuations are, in effect, self-correcting, using the risk-free rate would lead to actuarial gains developing over time, which would drive down future year costs. In effect, funding at 4.5 percent would increase contributions significantly for many years, resulting in the plan being significantly overfunded — at the expense of the taxpayer. Exhibits 3 and 4 illustrate this result. Exhibit 3 shows that there is an increase

Responding to Key Media Misconceptions

■ **Understated Pension Liabilities and Appropriate**

Discount Rate. The assumption that public pension plan liabilities should be discounted at a risk-free rate such as 4.5 percent is not supported by the Governmental Accounting Standards Board (GASB), is not consistent with historical public plan investment experience, and does not make sense from an actuarial perspective. In its preliminary views document published in June 2010, the GASB considered but rejected the risk-free bond rate method for valuing future liabilities, stating instead that the interest rate used should be a reasonable estimate of the rate at which plan assets are expected to grow as a result of investment earnings. Historical public plan investment experience does not support using a risk-free rate, and it also does not make sense from an actuarial perspective.

■ **Bankrupt Pension Funds.** The assumption that state and local governments will contribute nothing to amortize past pension liabilities is not supported by the facts. According to the Public Fund Survey, pension plan sponsors made, on average, 91 percent of their required contributions from 2001 through 2009.

■ **Defined Contribution Plans.** The suggestion that replacing defined benefit plans with defined contribution plans will fix the problem is probably practical only for jurisdictions that have reasonably well-funded retirement plans; these jurisdictions might be able to tolerate higher short-term costs in exchange for minimizing future costs. Jurisdictions with large underfunded pension liabilities might find the cost of paying off defined benefit plans while creating new defined contribution plans for new, younger workers much too expensive.

in annual contributions required for a representative defined benefit pension plan for the next 30 years if the investment return assumption is 4.5 percent instead of 7.5 percent. Exhibit 4 shows that the funded ratio of this same representative defined benefit pension plan reaches 160 percent if the investment return assumption is 4.5 percent and the plan assets actually earn 7.5 percent on average.

THE SPECTER OF BANKRUPTCY

Another research theme that has garnered widespread media attention is that state pension systems are headed for bankruptcy. The Rauh and Novy-Marx studies¹² report doomsday scenarios using key assumptions that significantly deviate from reality, particularly the idea that governments will fund only currently earned benefits, and no provision will be made on behalf of previously accrued but unfunded liabilities. In other words, all future contributions will go to paying future benefits, and none will be used to pay off the existing unfunded liability. While that assumption may provide an adequate basis for conducting a hypothetical and conceptual academic study, the same assumption reflects neither reality nor statutory requirements, resulting in a classic straw man.¹³

The resulting findings forecast dire consequences, showing the specific fiscal year each state's pension system will become bankrupt. In a paper titled "Are State Public Pensions Sustainable?" Rauh actually states the range and calculates the mean year such financial catastrophe will befall various states: "Assuming 8 percent asset returns, Illinois would run out in 2018, followed by Connecticut, New Jersey, and Indiana in 2019. Five states never run out, including New York and Florida, and 17 other states have a horizon of 2030

The doomsday scenarios use key assumptions that significantly deviate from reality, particularly the idea that all future contributions will go to paying future benefits, and none will be used to pay off the existing unfunded liability.

or beyond. If all states experience 8 percent average returns, 20 of the states will have run out of pension money by 2025."¹⁴

Using the same flawed assumption (i.e., that municipalities will fully fund all future benefit accruals but will not make progress toward funding the unfunded legacy liabilities), another study by Rauh and Novy-Marx also projects the doomsday for municipalities: "We also identify six major municipalities whose current pension assets

would only be sufficient to pay already promised benefits through 2020, and 20 whose current pension assets would only be sufficient to pay already promised benefits through 2025."¹⁵

This is, in effect, a self-fulfilling conclusion — of course pension systems will go bankrupt if they do not receive the needed funding. An everyday example is a mortgage payment. If you determine the total cost and then never make a payment beyond that day, you will default and foreclosure proceedings will be initiated.

In fact, public pension plans have an excellent record of meeting their full obligations. According to the Public Fund Survey, produced by NASRA and the National Council on Teacher Retirement, pension plan sponsors made, on average, 91 percent of their required contributions from 2001 through 2009.¹⁶ The assumption that state and local governments will contribute nothing to amortize past pension liabilities is not realistic.

In addition, states are sovereignties and have taxing powers that significantly differentiate governments from the private sector that can only depend upon market forces to generate revenue. Government bankruptcy under Chapter 9 reflects those differences and can result in debt restructuring but not debt forgiveness.¹⁷ Moreover, a strong argument can be made that any state or major governmental issuer will never default on a general obligation bond, since those entities require a regular flow of bond proceeds to finance the various capital projects undertaken on a continuing basis. In addition, self-supported debt (debt that is to be repaid exclusively from revenues generated by the enterprise activity for which the debt was issued) is extremely secure.



CONCLUSIONS

Most of the current “the sky is falling” reporting related to public pension programs focuses on multi-trillion dollar amounts of unreported pension liabilities that are purported to result in imminent state bankruptcies, bond defaults, and pension fund collapses. While mounting public-sector retirement costs are certainly an issue for many state and local governments — and a major issue for some — inflammatory rhetoric does nothing to help solve the problem. The issues the public sector is having with its pension systems are complicated and multifaceted, and unfortunately there is no simple strategy for dealing with them. ■

Notes

1. Michael Cooper and Mary Williams Walsh, “Mounting Debts by States Stoke Fears of Crisis,” *New York Times*, December 4, 2010.
2. For example, Robert Novy-Marx and Joshua D. Rauh (“Public Pension Promises: How Big Are They and What Are They Worth?” *Journal of Finance*, forthcoming, and http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1352608) based on their analysis of pension asset values as of June 30, 2009, which was at the end of a 12-month period when the S&P 500 Index had a return of -26 percent and before much of the market recovery that took place during the following year or so. Another example is “The Trillion Dollar Gap,” a report by the Pew Center for the States, which was primarily based on fiscal 2008 data (February 2010, http://downloads.pewcenteronthestates.org/The_Trillion_Dollar_Gap_final.pdf).
3. Michael Cooper and Mary Williams Walsh, “Alabama Town’s Failed Pension is a Warning,” *New York Times*, December 22, 2010.
4. Mary Williams Walsh and Amy Schoenfeld, “Padded Pensions Add to New York Fiscal Woes,” *New York Times*, May 20, 2010.
5. “Public pensions creating millionaires — and we pay for it,” <http://www.illinoisbroke.com/trib.aspx>.
6. Joshua D. Rauh, “Are State Pension Funds Sustainable? Why the Federal Government Should Worry About State Pension Liabilities,” May 15, 2010 working paper, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1596679.
7. “Are State Pension Funds Sustainable?”; Robert Novy Marx and Joshua D. Rauh, “Policy Options for State Pensions Systems and Their Impact on Plan Liabilities,” July 2010 working paper, <http://www.nber.org/papers/w16453>; and Robert Novy-Marx and Joshua D. Rauh, “The Crisis in Local Government Pensions in the United States”, October 2010 working paper, <http://www.kellogg.northwestern.edu/faculty/rauh/research/NMRLocal20101011.pdf>.
8. “Public Pension Promises,” Robert Novy-Marx and Joshua D. Rauh, “The Liabilities and Risks of State-Sponsored Pension Plans,” *Journal of Economic Perspectives*, Volume 23, No. 4, Fall 2009; “Are State Pension Funds Sustainable?”; Howard Bornstein, Stan Markuze, Cameron Percy, Lisha Wang, and Moritz Zander, “Going For Broke: Reforming California’s Public Employee Pension Systems,” Stanford Institute for Economic Policy Research Brief, April 2010; Alicia H. Munnell, Richard W. Kopcke, Jean-Pierre Aubry, and Laura Quinby, “Valuing Liabilities in State and Local Plans,” Center for Retirement Research at Boston College, June 2010, http://crr.bc.edu/briefs/valuing_liabilities_in_state_and_local_plans.html; Josh Barro and Stuart Buck, “Underfunded



Teacher Pension Plans: It’s Worse Than You Think,” Civic Report, Manhattan Institute for Policy Research, April 2010; and “The Trillion Dollar Gap.”

9. See <http://www.publicfundsurvey.org/publicfundsurvey/index.htm>.
10. Fitch Ratings, “U.S. State and Local Government Pensions: One Size Does Not Fit All,” January 11, 2011.
11. Governmental Accounting Standards Series, “Preliminary Views of the Governmental Accounting Standards Board on Major Issues Related to Pension Accounting and Financial Reporting by Employers,” June 16, 2010, http://www.gasb.org/cs/ContentServer?c=Document_C&pagename=GASB%2FDocument_C%2FGASBDocumentPage&cid=1176156938122.
12. “Are State Pension Funds Sustainable?” and “The Crisis in Local Government Pensions in the United States.”
13. This is not to suggest that governments have not taken a “pension holiday” as a one-time budget-balancing technique in a given fiscal year. New Jersey represents the most recent case in point of this technique, though not as an ongoing and uninterrupted tactic, unlike the assumption of the Rauh and Levy-Norton studies.
14. “Are State Pension Funds Sustainable?”
15. “The Crisis in Local Government Pensions in the United States.”
16. The National Association of State Retirement Administrators, “Faulty Analysis is Unhelpful to State and Local Pension Sustainability Efforts,” <http://www.nasra.org/resources/RauhNovyMarxMuniStateCritique.pdf>, and “Critique of Joshua D. Rauh’s Paper, ‘Are State Public Pensions Sustainable,’” <http://nasra.org/resources/RauhResponseFinal.pdf>.
17. See www.uscourts.gov/FederalCourts/Bankruptcy/BankruptcyBasics/Chapter9.aspx.

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