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Don't Dismantle Public Pensions Because They Aren't 100 Percent Funded

Have you ever heard that policymakers want to close participation in a pension plan to all new hires? How about cutting benefits and increasing employee contributions, or converting defined-benefit pensions into do-it-yourself defined-contribution plans?

In the last decade or so, state and local policymakers have been doing exactly these things. In essence, they have been slowly dismantling public pensions. Why? Because, they argue, pension plans are underfunded and cannot be sustained. They also argue that taxpayers cannot afford public pensions. These are misguided arguments and actions. Ability to pay depends on whether an entity can meet its cash flow needs and whether the total assets of the entity – the public employer – are a reasonable fraction of its total liabilities.[1]

We have addressed the issue of whether taxpayers can afford public pensions in our earlier research,[2] which shows that public pensions impose little or no burden on taxpayers. If anything, we have demonstrated that public pensions are revenue-neutral or revenue-positive. In this study, we will focus on whether the ability of public pension plans to meet their benefit obligations has anything to do with their current underfunded status.

New research shows that funding status has little correlation with a pension fund's ability to pay the promised benefits. Building on Tom Sgouros's recent work,[3] John Mctighe et al.[4] argue that full funding of public pensions is not only a misguided goal but also waste of taxpayer money. As long as annual contributions and investment income exceed benefit payments, pension funds can continue to operate in perpetuity regardless of their funding status. Tom Sgouros, of Brown University, demonstrates this through a visual simulation.[5]

Contents

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1 See, for example, J.W. Mason and Arjun Jayadev, "The Evolution of State-Local Balance Sheets in the US, 1953–2013," February 20, 2017, http://jwmason.org/wp-content/uploads/2015/05/Mason-Jayadev-state-local-balance-sheets-v2.pdf.
2 National Conference on Public Employee Retirement Systems (NCPERS), *Public Pensions Are a Good Deal for Taxpayers* (Washington, DC: NCPERS, 2017).
3 Tom Sgouros, *Funding Public Pensions: Is Full Pension Funding a Misguided Goal?* (Berkeley, CA: Haas Institute for a Fair and Inclusive Society, University of California, Berkeley, 2017).
4 John J. Mctighe, Jim Baross, and David A. Hall, "Why Full Funding of Pensions Is a Waste of Money," *San Diego Union-Tribune*, September 14, 2017, www.sandiegouniontribune.com/opinion/commentary/sd-utbg-public-pensions-funding-20170914-story.html.
5 http://sgouros.com/haas-jmf/piggy/

The new research, while compelling, does not, of course, minimize the role of actuarial and investment professionals. Since employee contributions are usually fixed and deducted from employee paychecks, employer contributions and investment earnings become central to the future success of pension plans. Therefore, the determination of the required employer contributions, and the development of investment strategies by actuaries and investment professionals to ensure that contributions and investment income remain greater than annual benefit obligations, becomes more important than ever before. Implementation of an adequate funding policy is necessary to make sure that funds accumulate sufficient assets to weather future economic downturns.[6]

The purpose of this study is to examine what determines the ability of a pension system to pay annual benefits. Using empirical data from 1993 to 2016, we find that pension funding levels are not the key factor explaining the ability to pay annual benefits. Funding ratios are not a good benchmark to assess the health of a pension system. Our analysis shows that funding level does not correlate with pension plans' ability to pay annual benefits. Instead pension funds ability to pay benefits depends on two things: (1) contributions and investment income is more than benefit obligations in a given year and (2) there is a sufficient cushion to weather an economic recession.

Whether they realize it or not, policymakers are dismantling public pension structures that work to attract and maintain a productive workforce – to the detriment of their local economies and human resources needs. Our earlier analysis shows that if state and local governments continue to dismantle public pensions, the national economy will suffer $3 trillion in damage by 2025.[7] The analysis also estimates the damage dismantling does to each state economy. The Kentucky economy, for example, will experience $13 billion in damage by 2025 if the state continues along the path of dismantling public pensions.

The present study explores the following specific questions.

- How often have state and local pension plans been able to pay benefits from contributions and investment income during the last quarter century? Did they have enough assets to meet their obligations in case of shortfalls?
- What is the 2016 funding status of state pensions?
- Are the top- and bottom-funded state pension plans distinguishable in terms of their ability to pay annual benefits from contributions and investment income?
- If funding status should not be used as a basis for pension reforms, what should be the policy options?

The study is organized into six sections. Section 1 describes our data and methodology. Section 2 examines the ability of state and local pension plans to pay benefits from contributions and investment income during the last quarter century. Section 3 focuses on the 2016 funding status of state pension plans. Section 4 explores whether the top- and bottom-funded pension plans are distinguishable in terms of their ability to pay annual pension benefits from contributions and investment income. Section 5 addresses what policy options should focus on if funding status should not be used as a basis of reform. Section 6 summarizes our conclusions.

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[6] Conference of Consulting Actuaries Public Plans Community (CCA PPC), *Actuarial Funding Policies and Practices for Public Pension Plans* (Long Grove, IL: CCA PPC, 2014), www.soa.org/prof-dev/events/2016-cca-public-plans/.
[7] NCPERS, Economic Loss: *The Hidden Cost of Prevailing Pension Reforms* (Washington, DC: NCPERS, 2017).

Data and Methodology

We have used data from the annual survey of public pensions by the U.S. Census Bureau[8] for 1993–2016. We extracted variables such as total employee and employer contributions, investment earnings, total benefit and other payments, and assets. We have also extracted pension obligations for 2016 to examine the current funding status of state pension plans. Unfortunately, the Census data do not provide pension obligations information for local plans.

The ability to pay benefits during 1993–2016 is measured by the difference between income from contributions and investment earnings and expenses to pay benefits. To examine the ability to pay at the state and local level, we compare the four states with the highest levels of public pension funding with the four states with the lowest levels of pension funding. In cases where expenditures exceeded income, we examine whether the pension funds had enough cushion to meet the shortfall. (By "cushion" we mean the sum of money that is accumulated when income exceeds expenses.)

Ability of State and Local Pension Plans to Pay Benefits

During the last quarter century or so, state and local pension plans have always been able to meet their benefit and other payment obligations (see Figure 1 and Table 1). In four years (2002, 2008, 2009, and 2012), income from contributions and investment earnings was less than benefit obligations. But in the remaining 20 years, when income from contributions and investment earnings was more than benefit obligations, pension funds were building up a cushion that enabled them to weather the 2001 recession, the Great Recession of 2008, and other economic downturns.

Figure 1. Ability of State and Local Government Pension Plans to Meet Their Benefit Obligations, 1993-2016 ($ in Billions)
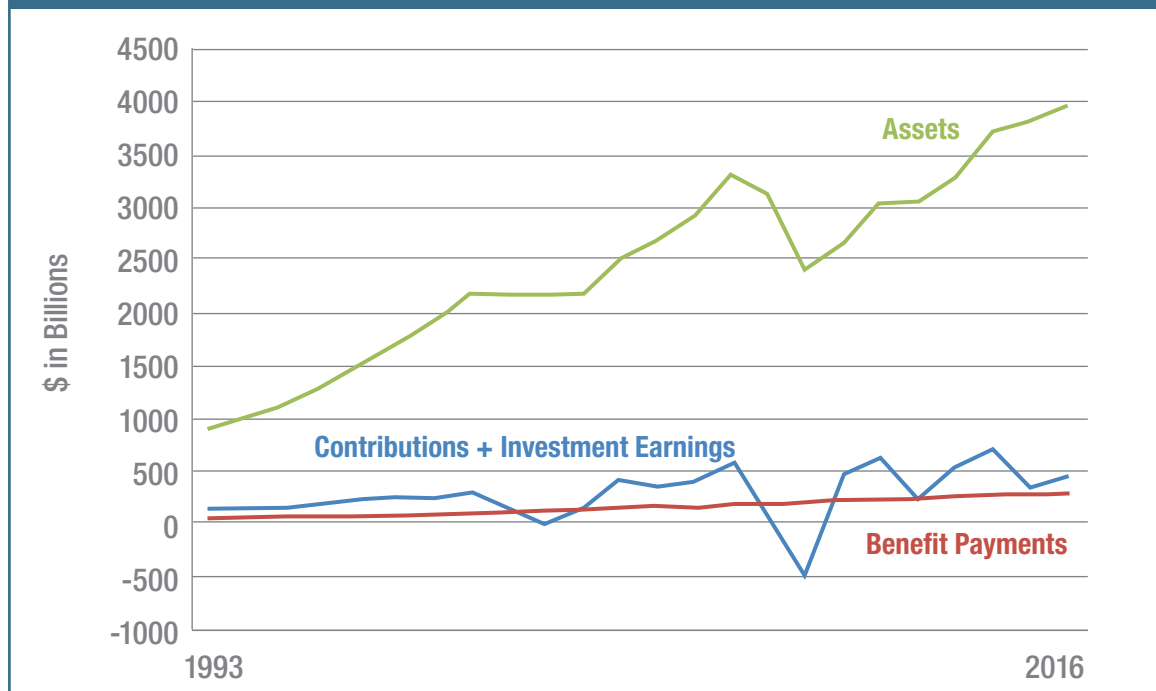
[8] U.S. Census Bureau, "Annual Survey of Public Pensions," as of October 12, 2017, https://www.census.gov/programs-surveys/aspp.html

As we shall see later in this study, this is true for all the state and local pension plans we examined, regardless of their current funding status. They had built up enough of a cushion during normal times that they were all able to meet their pension obligations. Today, state and local pension funds sit on a huge pile of money, about $3.9 trillion[9], that will provide a cushion during future economic recessions.

Year	Contributions + Earnings on Investments	Benefits and Other Payments	Income − Payments (Cushion)	Assets
1993	125.94	52.60	73.34	909.85
1994	133.29	58.56	74.73	1,006.41
1995	148.84	63.63	85.21	1,118.35
1996	190.45	71.00	119.45	1,273.20
1997	227.05	76.26	150.79	1,478.96
1998	261.31	84.01	177.30	1,718.98
1999	263.15	90.05	173.10	1,906.05
2000	297.04	100.46	196.58	2,168.64
2001	123.22	112.26	10.96	2,157.63
2002	-7.52	122.73	-130.25	2,157.21
2003	147.74	134.84	12.90	2,172.00
2004	407.32	145.45	261.87	2,495.35
2005	354.25	156.05	198.20	2,675.14
2006	392.8	166.41	226.39	2,912.49
2007	580.43	184.57	395.86	3,305.38
2008	46.50	194.46	-147.96	3,130.39
2009	-497.13	205.14	-702.27	2,415.67
2010	473.35	216.54	256.81	2,671.23
2011	617.31	233.90	383.41	3,050.40
2012	233.44	241.25	-7.81	3,047.70
2013	536.44	258.96	277.48	3,286.48
2014	698.83	272.48	426.35	3,726.04
2015	335.21	268.51	66.70	3,800.36
2016*	452.32	282.90	169.42	3,949.19

Table 1. Ability of State and Local Government Pension Plans to Meet Their Benefit Obligations, 1993–2016 ($ in Billions)

*2016 returns and assets are based on the Census Bureau's quarterly survey of public pensions – As of November 7, 2017 - https://www.census.gov/newsroom/press-releases/2017/cb17-tps26.html

Source: U.S. Census Bureau, "Annual Survey of Public Pensions," as of October 10, 2017, https://www.census.gov/programs-surveys/aspp.html

[9] The $3.9 trillion is calculated counting investment income from the 2016 quarterly survey of public pensions.

While assets have grown, so have pension obligations. Unfortunately, the Census Bureau does not provide pension obligation data for earlier years, and it provides such data only for state plans. During 2012–16, state pension obligations grew from $3.52 trillion to $4.19 trillion. Other sources of data[10] show that pension obligations have steadily grown since 2000, when plans were almost 100 percent funded. Our analysis shows that despite rising liabilities during the last quarter century, pension plans have been able to meet their annual benefit payments from contributions and investment income due to the cushion they built up in good years.

Funding Status of State Pension Plans

As mentioned above, U.S. Census Bureau data do not include information on pension obligations for local plans. Therefore, we will use state pension plans to examine current funding status. Table 2 shows the plans' assets and obligations as well as their funding levels. It should be noted that data in Table 2 refer to all statewide plans.

Table 2. Funding Levels of 299 State Pension Plans, 2016 (Ranked from Lowest to Highest)			
State	Assets ($ Billions)	Obligations ($ Billions)	Funding Levels
Illinois	114.0	247.6	46.04
Kentucky	27.8	60.2	46.18
New Jersey	73.1	152.1	48.06
Connecticut	28.6	59.4	48.15
Hawaii	14.2	27.4	51.82
Pennsylvania	75.8	142.9	53.04
Rhode Island	7.2	12.8	56.25
South Carolina	29.1	50.6	57.51
New Hampshire	7.5	12.8	58.59
Mississippi	25.3	42.8	59.11
Massachusetts	53.9	89.2	60.43
Colorado	46.5	74.7	62.25
Alaska	13.4	20.9	64.11
Indiana	30.8	47.9	64.30
Vermont	3.8	5.9	64.41
Michigan	64.3	99.6	64.56
Louisiana	42.1	64.3	65.47
Arizona	40.1	60.9	65.85
Kansas	17.2	25.9	66.41

[10] Center for State and Local Government Excellence, *Issue Brief: The Funding of State and Local Pensions 2014–2018* (Washington, DC: Center for State and Local Government Excellence, 2015).
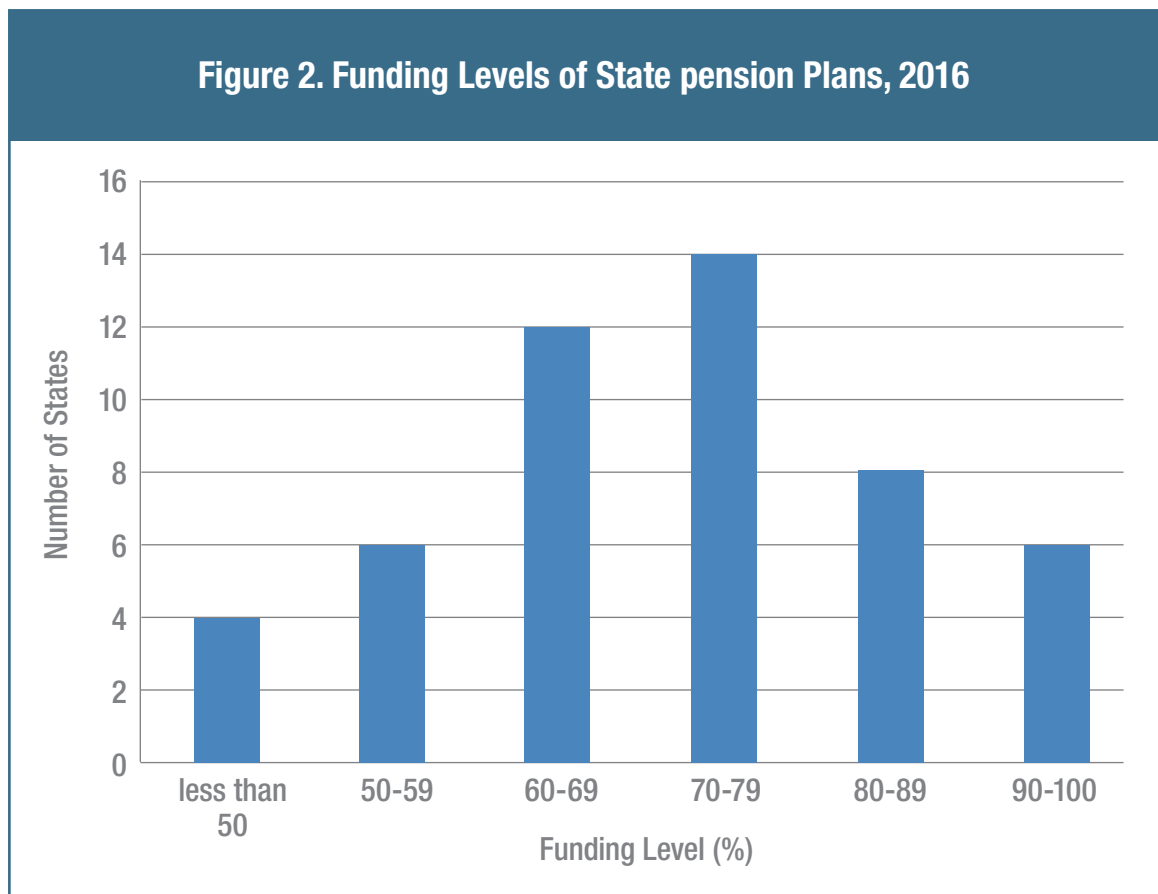
Table 2. Funding Levels of 299 State Pension Plans, 2016 (Ranked from Lowest to Highest) (cont'd)			
State	Assets ($ Billions)	Obligations ($ Billions)	Funding Levels
Alabama	32.1	48.2	66.60
New Mexico	25.8	37.6	68.62
North Dakota	4.7	6.8	69.12
Maryland	48.4	68.4	70.76
Montana	10.0	14.1	70.92
Nevada	34.9	48.4	72.11
Oklahoma	28.5	38.8	73.45
California	549.1	739.1	74.29
Minnesota	57.9	77.8	74.42
West Virginia	13.2	17.7	74.58
Wyoming	7.4	9.9	74.75
Ohio	173.6	232.1	74.80
Arkansas	25.3	33.3	75.98
Virginia	67.2	88.3	76.10
Texas	207.1	267.5	77.42
Maine	12.4	16.0	77.50
Georgia	82.3	103.3	79.67
Iowa	31.3	38.3	81.72
Missouri	61.8	74.3	83.18
Delaware	8.7	10.4	83.65
Idaho	14.3	16.6	86.14
Utah	27.1	31.1	87.14
Florida	142.9	161.4	88.54
North Carolina	86.9	97.7	88.95
Nebraska	12.1	13.5	89.63
Washington	75.7	83.7	90.44
Oregon	69.6	76.2	91.34
New York	284.0	301.8	94.10
Tennessee	42.7	44.6	95.74
South Dakota	10.5	10.8	97.22
Wisconsin	91.2	91.5	99.67

Source: U.S. Census Bureau, "Annual Survey of Public Pensions," as of October 10, 2017, https://www.census.gov/programs-surveys/aspp.html

Four states – Illinois, Kentucky, New Jersey, and Connecticut – had pension funds whose liabilities were more than twice their assets (that is, they were less than 50 percent funded) in 2016. On the other end of the funding spectrum are New York, Tennessee, South Dakota, and Wisconsin, which were all more than 94 percent funded (Table 2).

The majority of states' pension plans were more than 70 percent funded. Twenty-eight out of 50 states (56 percent) had pension funding levels that were 70 percent or above (Figure 2). Overall, the 299 state plans had total assets of $3.05 trillion and pension obligations of $4.2 trillion – which translates into a funding level of 72.6 percent. However, if we use quarterly earnings data for 2016, the assets for the 299 state plans were $3.26 trillion, which results in a funding level of 77.6 percent.

Figure 2. Funding Levels of State pension Plans, 2016

Comparison of Top- and Bottom-Funded State and Local Pension Plans in Terms of Ability to Pay Annual Benefit Obligations

Based on the funding levels of the state plans shown in Table 2, we compared the four top-funded states and the four bottom-funded states in terms of the ability of their state and local pension plans to meet their annual benefit obligations. The bottom-funded states are Illinois, Kentucky, New Jersey, and Connecticut. The top-funded states, as Table 2 shows, are New York, Tennessee, South Dakota, and Wisconsin.

Table 3 shows the top- and bottom-funded states in column 1. Column 2 specifies pension plan funding levels in terms of percentage funded, and column 3 shows the number of times contributions and investment income were insufficient to pay benefits. Column 4 shows the cushion built up during all the years in which contributions and investment income exceeded benefit payments, and column 5 shows the plans' total assets.

		Table 3. Ability of Top- and Bottom-Funded State and Local Pension Plans to Meet Their Annual Benefit Obligations from Contributions and Investment Income, 1993–2016		
Sate	Pension Plan Funding Level (%)	Number of Times Contributions + Investment Income Were Insufficient to Pay Benefits	Cushion ($ Billions)	Assets in 2016 ($ Billions)
Illinois	46.04	5	107.30	155.82
Kentucky	46.18	6	19.28	28.51
New Jersey	48.06	8	19.01	73.17
Connecticut	48.15	6	16.09	38.89
New York	94.10	5	249.61	452.98
Tennessee	95.74	5	33.13	53.08
South Dakota	97.22	5	9.02	10.99
Wisconsin	99.67	8	52.81	98.15

The results show that there is no significant difference between the top- and the bottom-funded state and local pension plans in terms of the plans' ability to meet their benefit obligations. During 1993–2016, every state – regardless of funding level – experienced five to eight instances in which contributions and investment income were insufficient to pay annual benefits. For example, both New Jersey (funded at 48 percent) and Wisconsin (funded at almost 100 percent) experienced eight instances in which annual contributions and investment income were insufficient to pay annual benefits.

The cash flow and asset growth for New Jersey's pension plans are shown in Figure 3, and the cash flow and asset growth for Wisconsin's plans are displayed in Figure 4. The trend lines for the two states are almost identical. We have used the data for New Jersey and Wisconsin for illustrative purposes. We also looked at the trend lines for the remaining six states listed in Table 3, and although not displayed here, they all look very similar. In short, the analysis shows that funding level is not correlated with ability to pay benefits.

States in both top- and bottom-funded groups on average experienced situations in which contributions and investment income was not enough to meet annual benefit obligations about six out of 24 years during 1993–2016. The cash flow shortfalls were caused by the 2001 and 2008 recessions as well as other economic downturns. But both types of funds – partially and almost fully funded public pension plans – had adequate cushions to cover the cash flow shortfall.

Figure 3. Ability of New Jersey State and Local Government Pension Plans to Meet Their Benefit Obligations, 1993-2016 ($ in Billions)
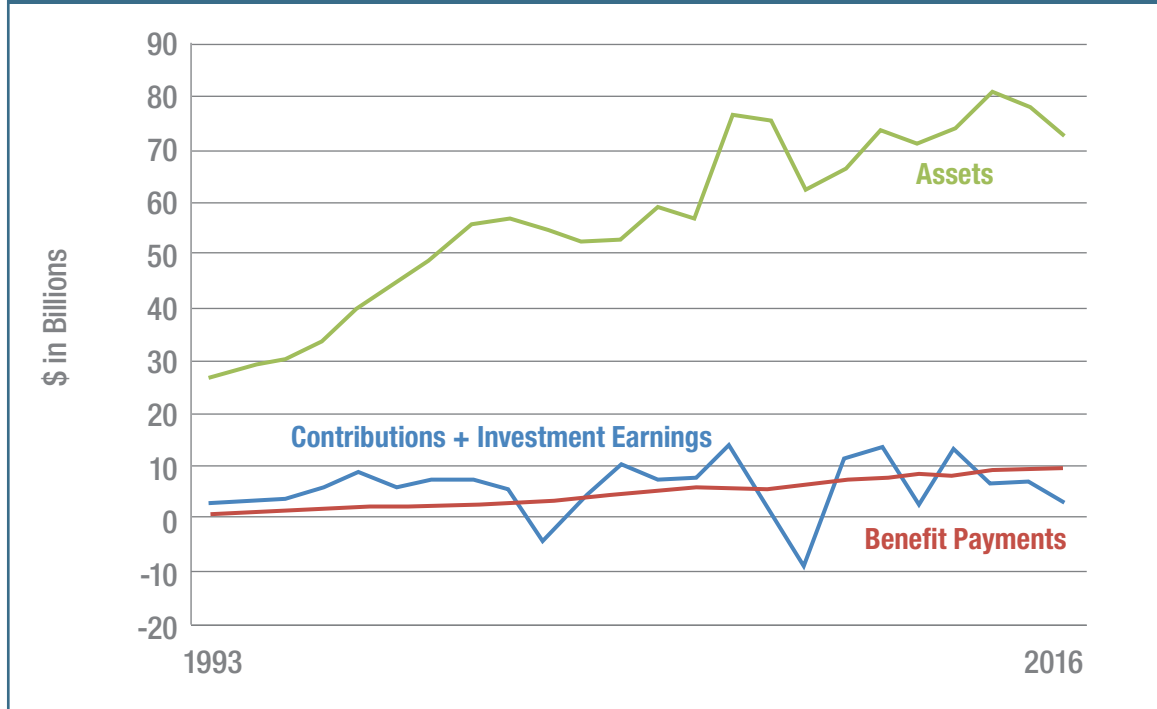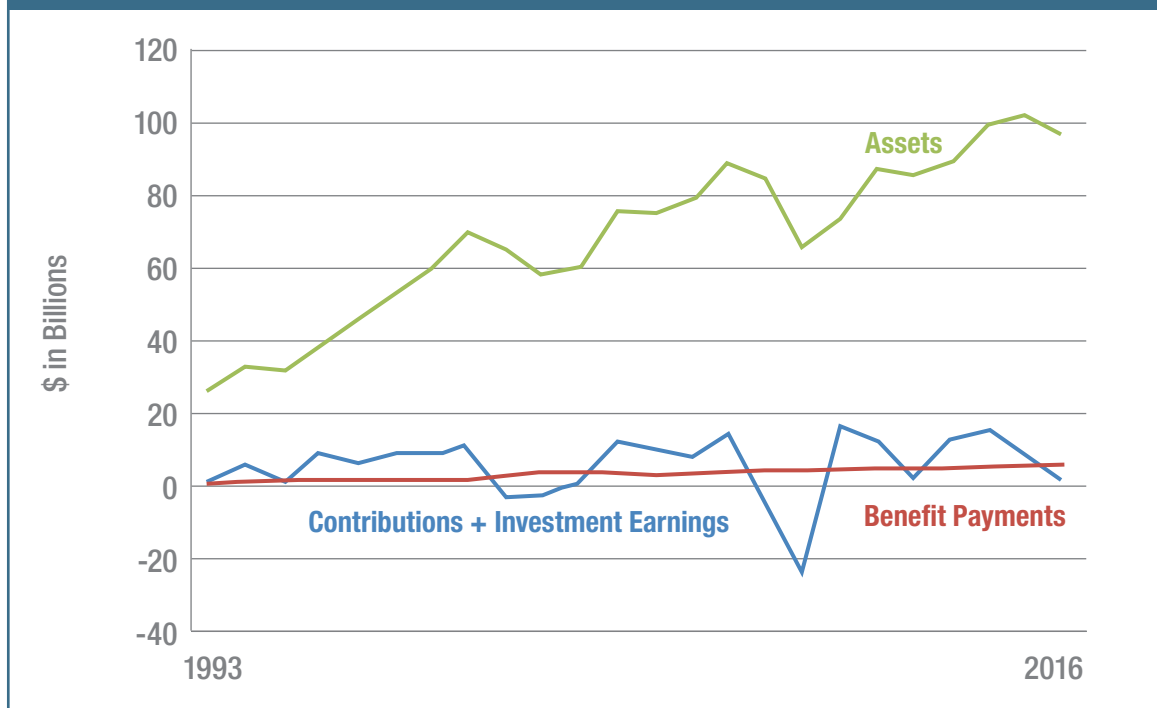

Figure 4. Ability of Wisconsin State and Local Government Pension Plans to Meet Their Benefit Obligations, 1993-2016 ($ in Billions)

In short, our analysis suggests that pension funds can continue to meet their benefit obligations in perpetuity, regardless of their current funding levels. This is because there are usually more good years than bad years as far as investment returns are concerned, and good years allow pension funds to build up a cushion that can cover the shortfall during recession years.

Policy Options

State and local pension funds are resilient. They have weathered some serious economic storms in the last quarter century. Their assets now exceed pre–Great Recession levels. They have been able to meet their benefit obligations even in recessions due to the cushion they built up during normal and good economic times. On average, pension funds' income from contributions and investments has exceeded benefit obligations in three out of four years. Pension funds are sitting on a pile of money that outstrips any past surplus.

The experience of the last quarter century suggests that state and local pension funds will face economic recessions in the next quarter century and beyond. To strengthen the ability of these pension funds to weather future recessions, state and local policymakers may consider the following policy options:

- Stop dismantling public pensions because they aren't 100 percent funded.
- Strengthen funding mechanisms by adhering to principles that help determine the appropriate levels of required employer contributions.[11]
- Establish a pension stabilization fund that can set aside money from a certain revenue stream to be used in special circumstances such as a recession. Currently, we know of only one state that has established a stabilization fund – Oklahoma. Unfortunately, at this time the Oklahoma pension stabilization fund has no revenue stream. Oregon uses side-accounts to stabilize funding which can also be an option for plans to consider.
- Implement a mechanism to ensure that full employer contributions are made on a timely basis, perhaps by making employer contributions a nondiscretionary part of the budget. As an example, New Jersey now makes pension contributions on a quarterly basis.

In the final analysis, state and local governments need to reform their revenue structures to adequately fund not only pensions but all public services. Over the last 30 years or so state and local governments have consistently made their revenue systems more regressive by cutting stable and progressive taxes such as income and property and replacing them with risky and volatile taxes such as user fees, casinos, lotteries, and sales and excise taxes. Regressive taxes are not only unfair to low and middle income Americans they cannot keep up with the economy. For example, if the economy grows by 1 percent, regressive tax revenues grow only by 0.8 percent. State and local governments will always be short on revenues unless they reform their revenue systems.

Conclusion

Policymakers are dismantling the structure and diminishing the effectiveness of state and local pension plans under the guise of pension reforms, arguing that an underfunded public pension plan cannot be sustained. This study shows that the ability of state and local pension plans to pay benefits is unrelated to their current funding status.

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[11] CCA PPC, *Actuarial Funding Policies and Practices for Public Pension Plans* (Long Grove, IL: CCA PPC, 2014), https://www.soa.org/prof-dev/events/2016-cca-public-plans/.

As long as pension plans' contributions and investment income exceed their annual benefit obligations, the plans can be sustained in perpetuity. This is because more often than not, pension funds' income surpasses their expenses, which allows them to build up a cushion to pay benefits during economic downturns.

If left intact, public pension plans are sustainable, as they have been for decades. Our analysis of data from more than 6,000 state and local pension plans over the last quarter century shows that pension funds are resilient. They weathered the Great Recession and several other economic downturns during the study period. Their assets now are higher than ever before.

Apart from the underfunding argument used in dismantling public pensions, policymakers often say that taxpayers cannot afford public pensions. Our earlier work shows that public pensions impose little burden on taxpayers.[12] In fact, public pensions are revenue-neutral or revenue-positive. Public pensions contribute to state and local revenues in two ways. First, when retirees spend their pension checks in local economies, it creates economic activity that generates revenues. Second, pension funds invest $3.7 trillion in the economy. This investment, traced down to individual localities, also boosts economic activity, which in turn generates state and local revenues. Our analysis shows that total state and local revenues generated by retiree spending and pension fund investments are equal to or greater than the taxpayer contribution to pensions.

What policy options will be most useful for policymakers to consider? We recommend identifying ways to strengthen the ability of pension funds to meet their annual benefit obligations, especially during economic downturns. Policymakers need to reform the state and local revenue system. Currently, state and local revenue structures are out of sync with our new economic reality and are loaded with tax loopholes and risky revenue schemes such as casinos. Above all, policymakers should stop dismantling public pensions. Our research shows that dismantling public pensions increases economic inequality and volatility and drags the economy down. If we continue to dismantle public pensions, our national economy will suffer $3 trillion damage by 2025.[13]

Acknowledgments

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[12] NCPERS, *Public Pensions Are a Good Deal for Taxpayers* (Washington, DC: NCPERS, 2017).
[13] NCPERS, *Economic Loss: The Hidden Cost of Prevailing Pension Reforms* (Washington, DC: NCPERS 2017).