MERCATUS CENTER
George Mason University

POLICY BRIEF
SPECIAL EDITION

Public Sector Pensions and the COVID-19 Shock

Andrew Biggs and Eileen Norcross

April 13, 2020

The COVID-19 pandemic was largely unforeseen, but one effect was predictable: that an economic shock would push a number of state and local pension plans to dangerously low funding levels, requiring more government resources at a time when states and localities can ill afford it. In this brief we review the reasons states have avoided more significant stabilizing reforms and propose a way forward for governments to bring risk management in line with the realities of public sector pension plans, to improve fiscal stability for states, and to increase government accountability and transparency.

The worldwide spread of COVID-19 that began in late 2019 triggered a catastrophic global economic shutdown, with businesses forced to close and millions of workers laid off. Financial markets responded in kind, with a 2020 first quarter S&P decline of 20 percent. Bond yields fell to an all-time low as the Federal Reserve (Fed) lowered interest rates to buttress the economy.

State and local governments are positioning themselves to meet the challenge of mitigating the spread of COVID-19 through measures that reduce both economic activity and tax revenues even as the demand for health, welfare, and public safety services increases. One optimistic estimate suggests that a two-month partial shutdown of the economy will cost $2.14 trillion in lost economic activity.[1]

The 2020 Coronavirus Aid, Relief, and Economic Security Act (CARES) awarded $200 billion in federal aid to the states to support spending for core areas including general relief, education, and mass transit.[2] As revenue pressures mount in the coming months Congress may provide further aid to state and local governments. Nevertheless, financial support for key services such as health, welfare, and public safety should not be allowed to morph into a more generalized bailout of state and local pension plans. The most serious pension funding gaps are largely the result of failures to undertake meaningful pension reforms over the course of the past decade. Any future federal aid packages that might be used to meet pension plan obligations should be conditioned on structural pension reforms.

Conditions for federal assistance should include a de-risking of public pensions' overly aggressive investment strategies, a freezing of pension plans to future benefit accruals, and the establishment of alternate defined contribution retirement plans for affected public sector employees.

RECENT HISTORY OF PUBLIC PENSION FUNDING

The 2008 recession revealed large funding gaps in many state and local pension plans as stock market declines resulted in a loss in value of plan portfolios.[3] Using the accounting standards promulgated by the Governmental Accounting Standards Board, average pension funded ratios fell from 102 percent in 2001 to 87 percent in 2007 and to 72 percent in 2012, according to the Public Plans Database maintained by the Center for Retirement Research at Boston College. Rather than staging a recovery, pension funded ratios have remained largely stagnant since that time.

Given less attention has been a decades-long shift in public pension investments away from bonds and other safe holdings toward riskier stocks and alternative investments, including private equity, hedge funds, commodities, and real estate. Given the significant investment losses suffered by public pensions during the Great Recession, a casual observer might have expected public plans to rein in their risk-taking. In reality, investment risk-taking by public plans has only increased since the Great Recession. Data from the Public Plans Database show that in 2008, state and local pensions held an average of 70 percent of their assets in stocks, alternative investments, commodities, or real estate. By 2018, the latest full year of data available, pensions held 74 percent of their investments in these risky assets. These percentage changes likely understate the increase in risk-taking by public plans, since investments in public equities have in part been displaced by increasing portfolio allocations to riskier alternative investments.

Moreover, increased public pension risk-taking occurred during a period in which the number of retirees increased relative to the number of workers participating in the plans, with the result that the average age of participants increased for nearly all public pension plans. The best practice among pension actuaries is for a maturing pension to reduce risk-taking because a greater share of benefits must be paid in the near future and the plan must ensure it has sufficient assets available to pay all benefits as they come due. US public sector plans, in contrast to private sector pensions and pension plans in other countries, did the opposite. A 2014 letter written by the Society of Actuaries expressed concerns that US "public sector plans [were] making choices about risk taking that go against basic risk management principles."[4]

As a result of increasingly risky investment portfolios, US state and local government pensions have lost a significant portion of their assets in 2020 even as the growing numbers of retirees have caused cash outflows from these plans to increase. State and local governments have little ability to increase contributions, and the shrinking relative number of active employers means that employee contributions also are limited. These forces have combined to reduce the base of assets held by public plans, giving them less ability to recover financially even if stock markets rebound in 2020 and beyond.

Why did public sector retirement systems act so contrary to conventional best practices? The answer is that they perceived themselves to have little other choice. Many state and local governments had reached their limits in making pension contributions. The required government contributions to state and local pension plans more than doubled from 2001 through 2008, according to the Public Plans Database, but large numbers of governments found themselves unable to make their full contributions and so failed to do so. Required employer contributions have continued to increase since the Great Recession even as pension funded ratios have stagnated. Around the country, public pension trustees—many of whom are appointed by elected officials or by public employee unions—felt pressure to at least limit annual contribution increases by their sponsoring governments.

Likewise, far-reaching pension reforms were largely off the table for political or legal reasons. Many governments enacted modestly increased employee contributions or reduced benefits for newly hired employees. But very few made changes to the rate at which current employees earn future benefits, a step that is perfectly legal for private sector pensions and which can effectively reduce pension underfunding. Some states were able to reduce annual cost-of-living adjustments (COLAs), but in other states COLA changes were deemed a reduction to already-accrued benefits, a step that is generally considered unlawful outside of bankruptcy.

The most attractive option available to public sector pensions was to increase the assumed rate of return on the pension's investments. In the US public sector, GASB rules allow the assumed return on plan assets to be used as the discount rate to calculate the present value of the pension's liabilities and the annual contribution required to fund those liabilities. A higher discount rate can dramatically reduce a government's current pension contribution, albeit by increasing the risk of underfunding in the future. This practice differs from both the US private sector and most overseas pension plans, where the discount rate used to calculate the present value of benefits is generally derived from the yields on bonds, because pension payments promised by public plans resemble bonds in terms of the guarantee offered on such payments and the obligation of the government to pay even if the pension fund runs dry.

In most of the rest of the pension world, plans are free to take investment risk, but they may credit themselves with the rewards of risk-taking only after those risks have paid off. In other words, if investing in stocks increases the assets held by the plan, then the plan's funded ratio rises as its assets increase. For state and local governments, however, GASB accounting rules allow pensions to credit themselves with higher returns on stocks before any such returns have materialized. This crediting takes place by using the higher expected return on stocks to discount the present value of the plan's liabilities.

Public sector pensions used two methods to maintain or even increase the inflation-adjusted returns they assumed for plan investments. First, as noted above, public pensions continued their long shift from safe to risky investments. Holdings of fixed income investments declined while pension portfolios increased their holdings of riskier assets, in particular private equity, hedge funds, and real estate.

Second, even as pensions touted modest reductions in the nominal investment returns they assumed, those same pensions reduced their assumptions regarding future inflation by a greater amount. As a result, the real rate of return assumed by public pensions is as high today as it was before the Great Recession, and for a number of public plans the assumed real rate of return on investment has increased.

Moreover, these increases took place in an environment of declining interest rates, which implies that the risk premium pensions assume they will earn over safe investments has also risen. For instance, in 2008 the yield on 10-year Treasury securities was 3.7 percent while the median assumed pension investment return was 8 percent, producing an assumed risk premium over Treasury yields of 4.3 percent. Today, the median state and local pension assumes an investment return of about 7.25 percent, according to the National Association of State Retirement Administrators, while the current yield on 10-year Treasury securities is approximately 0.9 percent. As a result, state and local pensions today assume they will receive a risk premium of around 6.35 percent over Treasury yields, a figure well above the historical risk premium, which lies in the range of 3 to 4 percent.

As a result of inadequate contributions and investment returns that often have fallen short of expectations, pension fund assets have declined relative to the benefits they must fund. For instance, in 2001 the average public pension plan had assets on hand equal to 24 years of benefit payments. By 2008 this had fallen to 17 years of payments and by 2018 to 13 years.[5] These figures imply that the average plan is not in danger of running out of assets in the near future. However, several troubled pension plans may face such risks. For instance, in 2019 the Kentucky Employees Retirement System held assets equal to less than three years of benefit payments. The Illinois State Employees Retirement System had roughly seven years of benefit payments on hand. In both cases, the asset-to-benefits payment ratio is presumably even lower today.

Should a pension's assets be exhausted, the sponsoring government must then fund benefits on a pay-as-you-go basis, meaning that benefit payments must be met out of current budget expenditures. For most pension plans this would imply a large increase in annual government costs.

For the median pension in the Public Plans Database, annual benefit costs in 2018 were 2.2 times higher than the plan's annual required pension contribution. Thus, shifting pension funding to a pay-as-you-go basis would not reduce the funding burden on the sponsoring government.

THE WAY FORWARD FOR PUBLIC SECTOR RETIREMENT PLANS

Twelve years post-recession and in the midst of a deep economic shock, public sector pensions are faced with several challenges. Budget and revenue constraints mean that the most poorly funded plans will be pushed closer to pay-as-you-go financing. Plans that are moderately well funded have a longer horizon to make structural changes, but nevertheless they may suffer from a depleted asset base.

Given the impracticality of state and local governments dramatically increasing public pension contributions, it is not implausible to conclude that over the next several years the worst-funded states may approach the federal government for financial assistance. The lack of a federal bankruptcy statute for states and the regional economic threat will precipitate a crisis should a state government or even simply its pension plan become insolvent. And in such a crisis there is a distinct possibility that the federal government will have to provide financial aid in the form of loans as other sources of financing become unavailable to states with such a high credit risk.

Were federal financial assistance sought and provided, it must come with mandatory structural reforms designed to present the replication of pension-driven financial distress. Not all state plans face the same degree of fiscal stress. Those states with the deepest underfunding, including Connecticut, Illinois, and New Jersey are also states where deeper structural reforms have been largely avoided. This highlights the need for any federal legislation to be premised on structural reforms that eliminate the need for future assistance.

First, once the stock market recovers, pensions should move to adopt a fund investment strategy that explicitly matches investment risk to the age composition of the pension plan's participants, similar to an age-based target date fund commonly used in 401(k) retirement plans.[6] An investment strategy that reduces the portfolio allocation to equities as the average participant age increases moves closer to an income-generating strategy as pension participants increasingly shift from being workers to retirees. US state and local pensions became the biggest risk-takers in the pension world in order to avoid the realities of their true funding condition. That strategy failed and it should no longer be followed.

Second, states with severely underfunded public pensions should freeze those plans to new benefit accruals, just as an underfunded private sector pension would be required to freeze new benefits. Freezing a pension does not eliminate the plan's unfunded liabilities, but it lowers both the size and the risk of new pension costs that would be created under an alternate plan. That alternate plan should be a defined contribution program similar both to 401(k)s and the Thrift Savings Plan in which federal employees participate.

There is precedent for such reforms. Since 2008 several state plans have undertaken structural pension reform that includes creating a defined contribution (DC) plan. For example, in 2015 Oklahoma closed its defined benefit (DB) plan and opened a DC for new state employees. In 2017, Pennsylvania lawmakers enacted Act 5, which gave new state and public school employees a choice between a hybrid DB-DC plan or a DC-only plan. It also allowed current employees to choose between keeping the current DB plan and moving to the hybrid DB-DC plan or the DC-only plan. Michigan also offers an established DC retirement plan for public employees. When well designed and established with adequate contributions from both employers and employees, DC plans can build retirement savings that, when combined with Social Security benefits, can provide an adequate income for public employees once they shift into retirement.

CONCLUSION

This brief has reviewed the reason why state and local pension plans face increased risk of underfunding based on their investment strategies, and with it the additional risk that some deeply underfunded plans will be forced to move to pay-as-you-go funding even as the economy eventually recovers from the coronavirus economic shock. Should a state or local pension plan exhaust its assets, the plan's funding requirements would increase substantially and the sponsoring government's ability to make payments may fall into question. In such a case the sponsoring government may seek assistance in maintaining the plan and the rest of the government's essential activities. Should such assistance be sought, conditions must be attached to require structural pension reforms that will put such plans on a sustainable financial footing in the future.

ABOUT THE AUTHORS

Andrew G. Biggs is a resident scholar at the American Enterprise Institute (AEI), where he studies Social Security reform, state and local government pensions, and public sector pay and benefits. Before joining AEI, Biggs was the principal deputy commissioner of the Social Security Administration (SSA), where he oversaw SSA's policy research efforts.

Eileen Norcross is the vice president of policy research and a senior research fellow at the Mercatus Center at George Mason University. Her research focuses on questions of public finance and how economic institutions support or hamper economic resiliency and civil society. She specializes in fiscal federalism and institutions, state and local government finance, public sector pensions, public administration, and economic development. She is the lead author of "Ranking the States by Fiscal Condition: 2018 Edition."

NOTES

1. Christos A. Makridis and Jonathan S. Hartley, “The Cost of COVID-19: A Rough Estimate of the 2020 US GDP Impact” (Mercatus Policy Brief, Mercatus Center at George Mason University, Arlington, VA, April 6, 2020).

2. Coronavirus Aid, Relief, and Economic Security [CARES] Act, H.R. 748, 116th Cong., 2nd Sess. (2020).

3. States reported a funding gap of $438 billion in mid-2008 based on government accounting practices. Under market-based valuation, the funding gap was $3 trillion. See Andrew G. Biggs, “The Market Value of Public-Sector Pension Deficits,” American Enterprise Institute, *Retirement Policy Outlook* no. 1 (April 2010): 1.

4. Letter from Errol Cramer, President, Society of Actuaries, to the Actuarial Standards Board, October 30, 2014.

5. Center for Retirement Research at Boston College, “Public Plans Data” (dataset), accessed April 13, 2020, https://crr.bc.edu/data/public-plans-database.

6. Andrew G. Biggs, “Are There Transition Costs to Closing a Public-Employee Retirement Plan?” (Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, August 2016), 13.