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WHITE PAPER

PUBLIC PENSION RISK SERIES

COVID-19 RESPONSE AND PUBLIC PENSIONS:

HOW TODAY'S POLICY CHOICES CAN DRIVE LONG-TERM RISKS

ABSTRACT

When the spread of the COVID-19 pandemic caused swift and severe losses in the stock market in March 2020, municipal bond investors immediately focused on the potential risks posed by public pension funds – in particular, the specific challenges posed by declining asset values. Those concerns faded relatively quickly, after substantial Federal stimulus aid helped fuel a market bounceback that largely erased the losses by the end of most funds' fiscal years on June 30th, and public pensions have largely stayed out of the headlines since then. But pension issues should remain central for municipal bond investors, because state and local governments' fiscal policy decisions made today could have long-term implications.

This paper explores the pension risk implications of some of the actions governments took in response to revenue declines as a result of the Great Recession, which we believe are likely to play out again as a result of the COVID-19 pandemic. These actions are divided into those that can increase risk, decrease risk, or can either increase or decrease risk depending on individual circumstances.

To date, investors and policymakers have primarily focused on the impacts on pension risk[1] from factors that are beyond an individual issuer's control: Asset values and demographic trends. In the first months of the pandemic, the key concern was that investment losses would put a strain on state and local government budgets due to rising pension contribution requirements. The subsequent rebound generally means that pension contribution rates may be only modestly affected by pandemic-related asset performance.[2] Similarly, despite the human tragedy of a pandemic that has caused thousands of U.S. deaths per day, it appears unlikely that demographic trends will significantly affect pension plans' long-term liabilities.[3]

The next phase of pension risk analysis will be different and more challenging for municipal analysts. Many state and local governments will be contending with revenue declines as they build their budgets for fiscal 2022 and in future years. Instead of macro-level market trends that impact all pension funds in a similar manner, analysts will need to evaluate individual jurisdictions' choices in the context of their unique workforce demographics, benefits and salary structure, and pension funding status.

The origin of this recession is very different from the Great Recession of 2008-2009, but some issuers are likely to experience a similar dramatic impact on local revenues. That creates an opportunity to look back on the budget policy choices made then and their impact on pensions to get a sense of what those reactions may be, and to help streamline the process of projecting their impact on pensions. The National League of Cities surveyed 485 cities for its "City Fiscal Conditions 2020"[4] report, which revealed that cities anticipate an average 13% revenue loss when comparing FY 2021 to FY 2020. This anticipated revenue decline is similar to that experienced in the years following the Great Recession. Actual revenue declines will vary from jurisdiction to jurisdiction, based on such factors as severity of the pandemic's impact on revenue, industry mix, and sources of government revenue, but it is reasonable to assume that, overall, state and local government actions taken to deal with the Great Recession revenue losses may play out again in response to pandemic-related revenue losses.

[1] "Pension risk" relates to how pension budgetary requirements affect a bond issuer's ability to pay debt service. Over the term of a bond, pension costs may rise to such a high level that they can crowd out an issuer's ability to provide services to taxpayers and in extreme cases, the ability to pay debt service on the bond—a key credit concern.

[2] When actual investment returns are less than assumed by the actuary, actuarially-calculated pension contributions rise to make up the return shortfall. The contribution increase can eat into a bond issuer's budget. Of course, actual budgetary impacts of pandemic-related asset performance will vary from pension plan to plan based on factors such as asset allocation, specific investments and valuation date.

[3] The jury is out on the degree to which the pandemic will affect other postemployment benefit (OPEB) liabilities and costs, which typically relate to retiree health benefits. Though costs of treating the COVID-19 illness will rise in the near-term, costs of other health services have declined due to such factors as decreases in elective surgeries. These two cost trends may reverse in future years. Because of this uncertainty, unless otherwise noted, this paper addresses pensions exclusively.

[4] https://www.nlc.org/wp-content/uploads/2020/08/City_Fiscal_Conditions_2020_FINAL.pdf

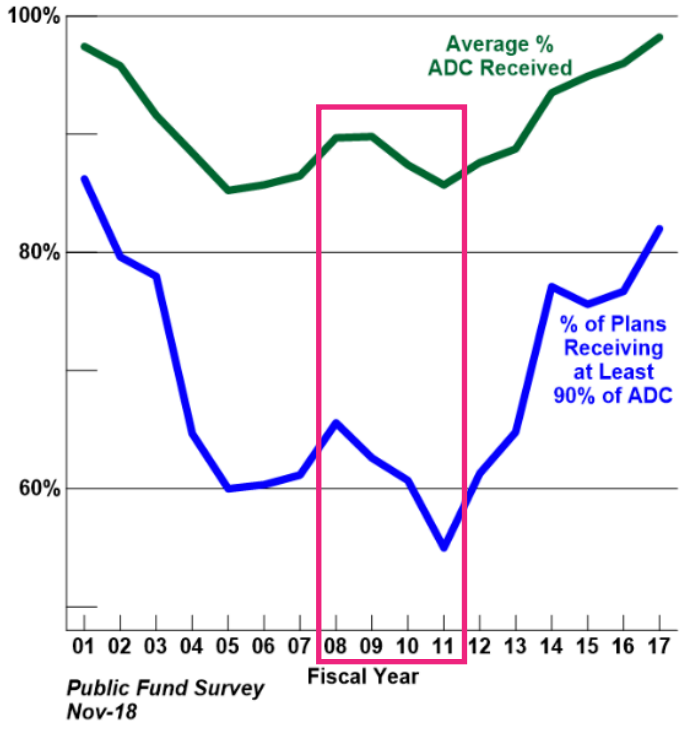
PENSION FUNDING "HOLIDAYS"

Decisions by pension plan sponsors to reduce, defer or skip pension contributions were widespread during the last recession. The National Association of State Retirement Administrators' (NASRA) Public Fund Survey, which encompasses about 85% of the U.S. public pension universe, shows that between 2008 and 2011, both the percentage of actuarially determined contributions (ADC) received and the number of plans receiving at least 90% of the ADC declined (see Figure A). The data supports the conclusion that when governments were faced with tough financial choices, service delivery won the battle of the budget dollars against pension contributions. ▼

Policy Changes That Typically Increase Risk

Figure A:

Percentage of Actuarially Determined Contributions Received
(2001 - 2017)[5]



In pension risk analysis, sound plan funding is extremely important. At BAM, we define sound funding as a policy under which the annual contribution will pay for the current year's benefit accrual plus an amount to pay down unfunded liabilities over a reasonable period of time (BAM uses a maximum of 30 years for this purpose). Sound funding supports the concept of intergenerational equity and the basic accounting principle that the cost of a service – in this case employee labor – should be recognized in the same period in which the benefit is received. Critical to municipal credit, however, is the fact that if contributions are too low today, future contributions must make up the shortfall, exacerbating pension-related budgetary burdens in the future. In extreme cases, this could even crowd out the ability for a bond issuer to pay debt service.

[5] In Figures A, B and C, emphasis was added by the author.

TAKING ON MORE INVESTMENT RISK

The 21st century has been marked by the dual trends of public sector pension funds taking on more investment risk at the same time that pension plan populations are becoming more mature.[6] These trends picked up steam in 2008-2009. As revenue losses caused employers to make workforce adjustments (more on that later), many workers retired. Figure B shows that in fiscal 2009-2014, the number of active members of U.S. public sector pension plans decreased while the number of retirees increased. ▼

Figure B:

Re-Shaping the Covered Population:
Changes in U.S. Public Pension Demographics
(2002 - 2019)

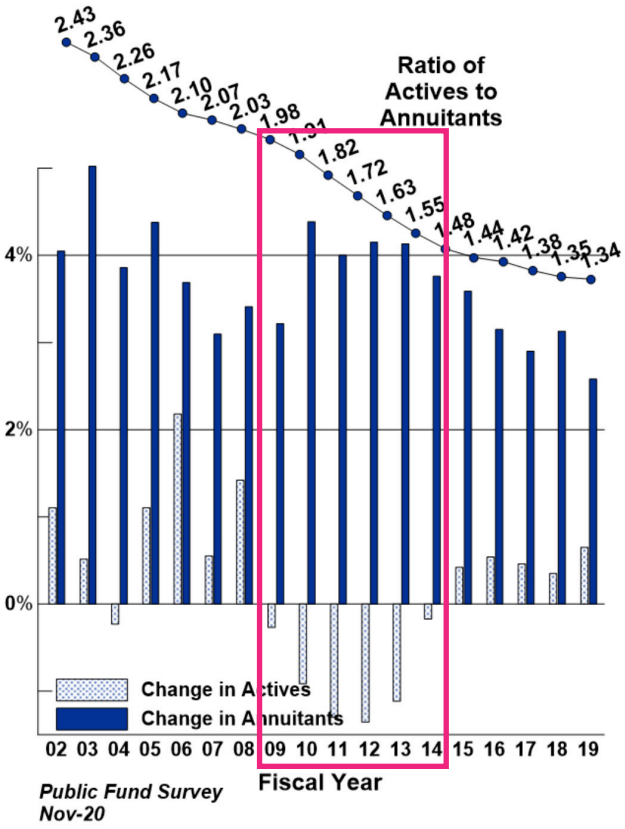
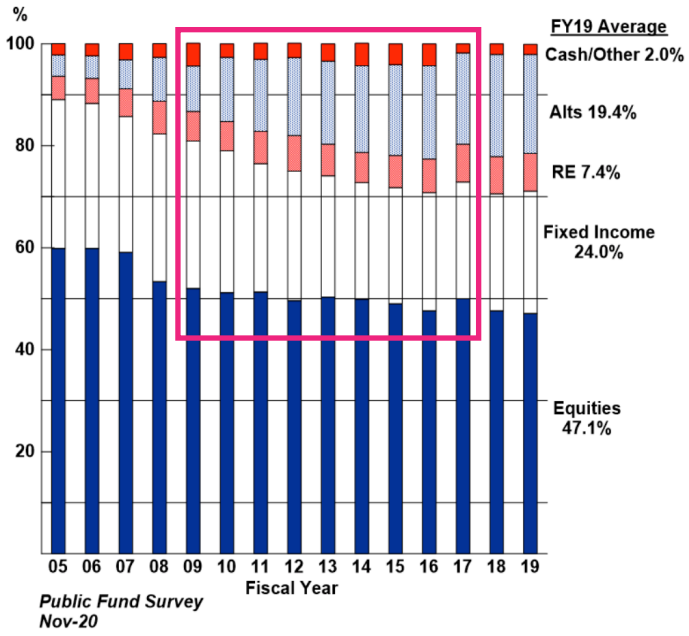


Figure C:

Embracing Alternatives:
Average Asset Allocation of U.S. Public Sector Pension Plans[8]
(2005 - 2019)



At the same time, employers were tempted to make riskier pension fund investments in the hope of earning greater returns that would stem the tide of increasing contribution requirements. Figure C shows that beginning in fiscal 2009, the percentage of pension plans' asset allocations to equities held fairly steady, while the allocation percentages to alternatives rose and to fixed income investments declined. In terms of pension-related credit risk, taking on more exposure to equities and alternatives (and similar investments that pair higher expected returns with elevated volatility) at the same time that a population is becoming more mature increases risk because it raises the chance that a short-term drop in asset values could coincide with the fund's need to sell holdings in order to pay benefits – forcing the fund to lock in a loss and raising future funding requirements. At BAM, we consider pension fund asset allocation-related investment risk in the context of plan demographics.[7] Data shows that this risk increased in the years following the Great Recession. ▲

[6] "Mature" in this context means greater portions of pension plan populations being comprised of retirees.
[7] Similar to an individual investor, where conventional wisdom says that as a person approaches retirement it is prudent to reduce the riskiness of investments in a retirement account, because of the short time horizon over which to weather the volatility of account performance.
[8] Note that "Alts" refers to alternative investments such as hedge funds and private equity, and "RE" refers to real estate investments.

Policy Changes That Typically Decrease Risk

BENEFIT AND FUNDING REFORMS

In a 2018 paper, *Spotlight on Significant Reforms to State Retirement Systems*,[9] NASRA noted that since 2009, almost every state had "passed meaningful reform to one, or more, of its pension plans." In light of revenue losses related to the COVID-19 pandemic, it seems reasonable to assume that public sector pension plan sponsors will again turn to pension reforms as a way to level off or lower the trajectory of projected required contributions. While the implementation of benefit reforms almost always decreases pension risk in municipal credit analysis, some types of reforms are more effective in that regard than others. BAM attributes greater positive credit impact to reforms that take effect immediately (like increased employee and/or sponsor contributions or benefit changes that impact current employees), because they are more effective in reducing risk than reforms (such as a new, less generous benefit tier affecting only future new hires) that may take many years to have a material impact.

Policy Changes That Can Increase or Decrease Risk

Many actions taken in response to the Great Recession had impacts on pension risk that can only be evaluated in the intermediate- to long-term, because analysts need to wait and see how they interact with developments that are outside the policy makers' control, like long-term investment returns.

WORKFORCE ADJUSTMENTS

In this context, "workforce adjustments" is really a euphemism for "cutting payroll expenses." When revenues are deficient, governments are sometimes tempted to reduce payroll in an effort to cover some or all of the deficiency. However, workforce adjustments in the public sector are tricky, because governments walk a fine line between budget affordability and service delivery to taxpayers. There are many different ways to implement workforce adjustments, and so the impact on pension risk is dependent on such factors as the specific action taken, the economic and demographic impacts of the action, and follow-up actions taken after the fiscal crisis eases, such as backfilling positions and retroactive pay increases. Future actuarial measurements would indicate the ultimate impact of these actions on pension liabilities and contribution requirements, and related pension risk.

[9] https://www.nasra.org/content.asp?admin=Y&contentid=219

More specifically, workforce adjustments can include:

LAYOFFS

The impact of layoffs on pension risk is highly dependent on the demographics of the affected group. Once an employee is laid off, for pension purposes they cease to be an active plan member and stop accruing additional benefits. They transition to one of three statuses:

1. **NON-VESTED**, so the employee will not receive a future plan benefit.[10] Pension liabilities drop to zero for these employees. However, this group also tends to be the least experienced and lowest-paid of the three groups, so the per-employee pension liability and salary savings tend to be the lowest.

2. **VESTED** and entitled to collect a pension in the future. These members' pension liabilities remain non-zero, but their actuarial value may decrease somewhat because there will be no future benefit accruals.

3. **RETIRED** and collecting a pension. These members' pension liabilities remain with the plan, and may even increase, depending on the plan's early retirement provisions. Pension liability (and salary) per employee tends to be the highest of the three groups.

It is almost impossible for an outside analyst to estimate the impact of layoffs on plan liabilities and ultimately pension risk without an actuarial study, because these items may increase or decrease based on the demographics of the affected plan members. For example, an employer that participates in a plan whose contributions are billed to them based on a simple "percent of payroll" (a funding procedure for some cost-sharing multiple employer plans) may experience an immediate contribution decrease in line with the payroll decrease due to the layoffs—seemingly reducing that employer's pension risk. However, if, based on the demographics of the affected employee group, plan liabilities do not decrease, then at the plan level the lower contributions may create or increase an unfunded liability, ultimately increasing pension risk.

Similarly, to the extent that the plan's covered population becomes more mature, in that the number of active employees per retiree decreases, demographic risk may increase.[11]

PAY FREEZES

Some employers may opt to freeze employees' salaries, or even impose pay cuts, to decrease overall government spending. These actions are often taken to decrease the number of layoffs needed to achieve the desired spending level to offset a revenue decrease.

Many pension plans' calculated benefits are a function of an employee's salary.[12] In the valuation process of computing pension plan liabilities and contributions, the actuary projects the future salary for each active member to estimate future benefits payable under the plan. If salaries rise less than expected under the actuary's salary increase assumption, which would occur if salaries are frozen or cut, future pensions would be projected to be less than previously expected, resulting in lower-than-expected plan liabilities and actuarially determined contributions.

One might think that pay freezes or cuts are clear examples of risk reducing actions, but the ultimate impact on pension risk will be based on the extent to which follow-up actions, such as retroactive pay increases, are taken.

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[10] Upon termination, non-vested members will likely receive a refund of their own contributions to the plan, if any.

[11] BAM correlates the active-to-retiree headcount ratio to the plan's funding ratio (plan assets over liabilities) as a measure of demographic risk. In general, a plan's funding ratio should rise as the plan population matures.

[12] For example, a pension might be computed as (x%) times (years of service) times (final n-years average salary).

EARLY RETIREMENT INCENTIVES

Some employers may offer employees an incentive to voluntarily retire, thereby reducing the workforce and consequently salary expense. These incentive programs are appealing because they are thought to be a more humane way of lowering employee headcount than layoffs. There are myriad ways to design an early retirement incentive, but designs generally fall into one of two categories: financial sweeteners and takeaway avoidance (so-called "carrots and sticks"). A financial sweetener will provide a benefit increase or monetary payment if an employee voluntarily retires within a certain time period (called the "early retirement window"). A takeaway avoidance incentive will involve telling employees that those who retire after a certain date will lose a benefit (such as retiree health benefits, or pension cost-of-living adjustments).

Clearly, a takeaway avoidance design is more favorable financially and from a pension risk perspective because of the long-term savings it represents. However, because such an action amounts to a benefit takeaway for all employees who do not elect to retire by the cutoff date, it may not be allowable under state law, or it may be subject to litigation. Therefore, this type of design is used far less frequently. The long-term financial and pension risk impacts of sweeteners are unclear because employer costs increase to pay for the sweetener, but decrease because of salary savings.

In addition, follow-on actions such as backfilling positions can lower the salary savings. An early retirement incentive requires employees to voluntarily elect to retire, and therefore the employer may have limited control over which employees exit the workforce. Government employers that experience a "talent drain" that impairs the ability to deliver services to taxpayers may need to backfill positions. Therefore, it may take several years of actuarial measurements to determine the quantitative and risk impacts of the incentive program.

Providing an incentive for employees to retire early may also have an unfavorable financial impact on other postemployment benefit liabilities. Retiree health benefits provided in the years before age 65, when Medicare benefits cut in, are the most expensive. The younger the retiree, the more of those years before age 65. Retiree health plans are usually unfunded, so early retirement incentives may cause a spike in the employer's pay-as-you-go cost.[13] Depending on the employer's mechanism for paying these costs, they may be volatile and add to credit risk.

PENSION OBLIGATION BONDS

The typical form of pension obligation bond (POB) issuance consists of issuing the bond at a low interest rate, depositing the proceeds in the pension fund, and investing them in assets that would (hopefully) earn more of a return than the interest paid on the bond. Because there are more assets available in the pension trust, pension contributions decrease, but debt service payments increase. Thus, for the POB to be a financial "winner" for the issuer, pension fund asset returns on the bond proceeds need to exceed bond interest paid. In today's low-interest environment, this would appear to be easy to do—but it is not guaranteed. Also, the debt service payments on the POB can be structured in many ways, and possibly even extend the payment period otherwise used to pay down unfunded pension liabilities—which may be tempting when confronting pandemic-related revenue losses. The impact of POBs on pension risk, therefore, can only be determined once more details are known about the specific issuer's issuance plans, and pension fund asset returns over time.

[13] One could argue that the employer would be paying these costs anyway if the retiring employee remained active, but GASB accounting requires the full recognition of the present value of these costs in the statement of net position. The quantitative portion of BAM's pension risk analysis combines pension, OPEB and debt contributions and liabilities to create a series of metrics, which would be unfavorably affected by increases in OPEB costs.

Conclusions

The true impact of the COVID-19 pandemic on state and local government pension risk will be defined by actions taken by bond issuers to confront revenue losses. Some of these actions can reliably be predicted to increase or decrease pension risk, but others will require future actuarial measurements to determine their impact. It is important when analyzing a bond issuer's credit risk, to carefully consider its specific actions, if any, and what they imply for the issuer's ability to pay their debts.

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Les Richmond evaluates municipal pension and other postemployment benefit (OPEB) plans and liabilities as part of BAM's credit underwriting process for municipal bond issuers. He reviews approximately 500 plans per year and is an expert on public pension policies and funding trends across the U.S.

Prior to joining BAM in January 2013, Mr. Richmond worked as an actuarial consultant to large public and private sector clients for over thirty years. In this capacity, he provided consulting and actuarial valuation services on clients' pension and OPEB plans, and assisted with benefit design and financing, mergers and acquisitions, employee benefits litigation, and benefit aspects of collective bargaining.

Mr. Richmond was a member of the Advisory Committee to the National League of Cities' Public Sector Retirement Initiative. He is an Associate of the Society of Actuaries, an Enrolled Actuary, a member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. He is a member of the National Federation of Municipal Analysts and the Municipal Analysts Group of New York. He holds a B.A. in Mathematics from Rutgers College.

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