



State and Local Governments

Risk Identification and
Stress Testing Considerations
for Public Sector Pension Plans

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State and Local Pension Risk Identification and Stress Testing

With more than 5,500 different pension plans and 21 million participants, state and local governments sponsor many Americans' retirement benefits. In recent decades, inadequate contributions into the pension plans have left the unfunded pension liabilities near all-time highs for many public sector plans, with greater than ever disparity between well-funded and underfunded state retirement systems.ⁱ The emergence of the COVID-19 pandemic in 2020, coupled with a relatively short but severe economic downturn, resulted in increased pressure on state and local government budgets through revenue losses and increased spending on health and public services.ⁱⁱ Although public sector pension plans could not directly benefit from federal government support in the various aid packages, assistance provided to state and local governments to mitigate COVID-19-related costs may have reduced the short-term need for some state and local government budget reallocations. This aid may not exist for every crisis however, and public sector plans and governments should be prepared for future scenarios that they may encounter.

Global pandemics are among the many risks that public sector pension plans may face over the next few years. Significant changes in demographics, the economy, financial markets, and even climate, may continue to impact and often pressure the funding of pensions plans. State and local government policymakers and public sector pension plan executives should be equipped with tools to identify, quantify, and address such potential risks to their pension plans. One way of doing this is through stress testing, which offers scenario-based techniques to help policymakers measure and adequately address risks in their pension plans. Additionally, stress testing can provide these state policymakers a better understanding of potential liabilities and costs, to make informed decisions on retirement system investments and state budgets. Twelve states have already adopted a form of stress testing for public sector pension plans, though many municipalities still lack the resources to implement it.ⁱⁱⁱ

Risks and Stress Testing

Below are some examples of risks that policymakers may want to consider and include in their stress testing models, though this list is not comprehensive of all risks that state and local pension plans may be exposed to.

Markets / Economy

Despite the economy recovering from the COVID-19 pandemic downturn and major financial indices breaking all-time high records, how could future economic downturns or financial meltdowns impact state and local government pension plans?

Policymakers should consider situations such as changes in interest rates or the value of the dollar, the impact of a debt market freeze (as some pension plans tend to issue pension obligation bonds), or other economic changes. Stress testing can simulate market and economic scenarios, including but not limited to economic volatility, changes in currencies, and impacts from trade wars, in order to quantify gaps in pension plans that could lead to significant losses if unaddressed.

ⁱ <https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/projects/state-and-local-backgrounders/state-and-local-government-pensions>

ⁱⁱ [How much is COVID-19 hurting state and local revenues? \(brookings.edu\)](https://www.brookings.edu/research/how-much-is-covid-19-hurting-state-and-local-revenues/)

ⁱⁱⁱ [Public Pension Stress Testing in the States \(ncsl.org\)](https://www.ncsl.org/public-pension-stress-testing-in-the-states)

Demographics

How do changes in demographics, such as the recent urban flight following the COVID-19 pandemic, affect pension plan funding?

Some municipalities with inadequately funded pension plans are seeing significant population declines, shrinking their income tax base and adding revenue generation pressure.ⁱⁱ Stress testing can help municipalities evaluate scenarios for declining population due to migration and allow policymakers to proactively plan and consider implementing new policies to mitigate pension plan funding concerns. For example, stress testing could quantify potential negative impacts to funding ratios, as well as quantify alternative scenarios that positively increase contributions if more public sector staff were hired and contribute into a shared contribution plan.

Network

How is a retirement system impacted by other systems in the network, including surrounding cities or states?

Some public sector pension plans have been impacted in the past by credit rating downgrades, bankruptcies of neighboring cities, or even a bankruptcy of a contributing city. Stress testing can quantify systemic effects where public sector pension plans are reliant or closely aligned to other systems in a network and estimate how such impacts to the network could negatively affect a pension plan's contributions or ability to issue bonds.

Environmental, Social, and Governance (ESG)

Are public sector pension plan investment portfolios adequately allocated to address future ESG policy requirements? Are public sector pension plans equipped to deal with economic fallout from weather events or social unrest?

With effects from environmental impacts, social challenges, and governance risks becoming more apparent, as well as a continuously growing requirements to adhere to climate and social policies, pension plans are often exposed to risks stemming from these challenges. Stress testing can help by quantifying potential changes in ESG regulatory requirements and assessing the preparedness and costs of state and local pension plans to adapt to these changes. In addition, new trends such as impact and social investing could flow through to state and local pensions plans. Stress testing can help prepare policymakers by quantifying these trends and assessing how they might affect current pension plans.

Pandemic

Are public sector pension plans equipped to deal with impacts from potential future pandemics?

The COVID-19 pandemic continues to have unpredictable impacts around the world, including the United States. The current pandemic has stressed our health systems and economies. New strains or altogether new forms of diseases could occur again in the future, which could further pressure local economies and their budgets and in turn pressure pension plan funding. Stress testing can be a valuable tool for policymakers in identifying strategies to protect pensions plans from pandemic risks that could occur in the future.

Political Risk

How could state and local pension plans face risks stemming from increased political uncertainty?

Pension plans have often been subject to political contention, both domestically and internationally. As an example, pension plan investment portfolios are exposed to international investments, which increases the risks of losses due to foreign events or policymakers' decisions to limit foreign assets. Stress testing can measure the impact of potential political risks and a plan's related exposures on assets and investment returns.

Risk Transfer Strategies

How could third party decisions or failures impact state and local pension plans?

Some pension plans utilize risk transfer strategies, such as borrowing debt backed by city infrastructure. Decision-makers should keep in mind the risks associated with these strategies, particularly when the third parties fail to uphold their obligations. Stress testing and scenario analysis helps to quantify potential effects from such a breakdown and estimate pension plan exposure following such an event.

Conclusion

State and local pension plans are currently exposed to increased risks during the COVID-19 pandemic and, in the long-term, they may continue to face difficulty meeting investment return targets and pensioner obligations if other challenging macro events arise. There are tools and resources available to measure and manage these risks in these uncertain times. Decision-makers can reach out to third parties experienced in risk assessment and stress testing to help navigate the post-pandemic market environment and prepare public sector pension plans for future risks.



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