Examining the Experiences of Public Pension Plans Since the Great Recession

Webinar
October 13, 2022
AGENDA

01. Introductions
02. Research Review
03. Q&A
Logistics

- Attendees in listen only mode.
- Questions are welcome. Submit using “Question” function on control panel.
- Audio/technical issues during webinar: call GoToWebinar at 1-800-263-6316.
- Webinar replay and slides will be posted at nirsonline.org/reports/greatrecession.
SPEAKERS

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Key Findings

- The Great Recession, or Global Financial Crisis, which lasted from December 2007 to June 2009, was the most severe economic downturn since the Great Depression of the 1930s. Nearly all investors, including public pension plans, suffered major losses that took years to recover.

- Most public plans recovered their pre-recession asset levels within six years, while continuing to pay over a trillion dollars in benefits.

- Public plans have made significant changes to their economic and mortality assumptions since the Great Recession.

- These assumption changes are a major driver of liabilities and plan costs today, typically having a much larger impact than investment gains and losses. Some factors impact all plan types.
Key Findings

- Other changes, such as adopting stronger mortality assumptions and shorter amortization periods, increased plan costs, but should strengthen plans in the future.
- Plan investments have evolved with changing market conditions, and plans now invest in a more diverse array of asset classes.
- There is strong evidence that professional asset management served plans well throughout volatile periods, as public plans rebalanced their investments in beneficial ways throughout this period, often against market cycles.
  - Unfortunately, retail investors sold off equities when markets were down and were slow to re-enter.
The Median Plan Took 6 Years to Recover Its Assets After the Crisis

Figure 1: Great Recession Recovery Period: Year in Which Market Value of Plan Assets Exceeded FYE 2007

Source: Public Plans Database
Contributions Dipped in the Years Following the Great Recession

Figure 2: Aggregate Percentage of Required Contribution Paid, 2007-2021

Source: Public Plans Database
Fiscal Year End Has a Strong Bearing on One-Year Investment Returns

Figure 3: Average One-Year Investment Returns for Various Fiscal Year End Dates in 2008

Source: Public Plans Database
Total Public Plan Assets Far Exceed Total Benefits Paid

Figure 5: State & Local Benefits Paid and Total Assets (in Millions)

Source: U.S. Census Bureau Annual Survey of Public Pensions
Public Plan Investment Returns Have Generally Exceeded Targets…

**Figure 6: Median Annualized Public Pension Investment Returns for Periods Ended 6/30/21 and 12/31/21**

Source: NASRA, using Callian data
...But Those Targets Have Been Trending Downward This Century

Figure 7: Change in Distribution of Public Pension Investment Return Assumption, FY 01 to FY 22

Source: NASRA
Actuarial Accrued Liability Has Increased as Assumptions Have Changed

Figure 8: Actuarial Accrued Liability with Prior Economic and Mortality Assumptions ($ in millions)

- Plan A: 13.8% more AAL
- Plan B: 19.2% more AAL
- Plan C: 21.2% more AAL

Source: Segal
Recent Experience Studies Have Typically Led to Increasing Liabilities

Figure 9: Impact of Assumption Changes on Actuarial Liabilities - Plan C ($ in millions)

Source: Segal
Multiple Factors Impact Liability

Figure 10: Factors that Changed UAAL from 2008 to 2021 Valuations - Plan A (in Millions)

- Change in general service retirement assumptions
- Change in mortality and other assumptions
- Change in investment return (7.75% to 7.25%), and inflation assumptions
- Change in investment return (7.25% to 7.00%), mortality, and other assumptions
- Change in mortality and other assumptions

Source: Segal
Assumption Changes Fully Account for the Increase in UAAL Since 2008 – Plan A
Post-2008 Assumption Changes Account for Significant Portion of Employer Costs – Plan B

Figure 12: 2021 Valuation Employer Rate Breakdown - Plan B

Source: Segal
Post-2008 Assumption Changes Exceed Normal Cost for Sample Plan C
Public Plans Have Tightened Amortization Periods in Recent Years
Target Asset Allocation Has Evolved

Figure 15: Public Plan Target Asset Allocations, 2001-2021

Source: Public Plans Database. Data is for plans with more than $10 billion in assets and a June 30th fiscal year end.
Market Changes Impact Actual Allocations

Figure 16: Public Plan Actual Asset Allocations, 2001-2021

Source: Public Plans Database. Data is for plans with more than $10 billion in assets and a June 30th fiscal year end.
Asset Allocation Before the Crisis Tilted More Toward Public Equities and Fixed Income

Figure 17A: FY 2007 Aggregate Asset Allocation

Source: Public Plans Database
Allocations to Other Asset Classes Have Increased Since the Financial Crisis

Figure 17B: FY 2021 Aggregate Asset Allocation

Source: Public Plans Database
Asset Allocation is Not Determined Simply by Market Returns...

Figure 18A: FY 2015 Implied Asset Allocation

Source: authors' calculations using data from the Public Plans Database
...Investment Professionals at Plans are Actively Rebalancing Portfolios

Figure 18B: FY 2015 Actual Asset Allocation

- Public Equities: 51.47%
- Fixed Income: 21.41%
- Real Estate: 8.27%
- Alternatives: 8.38%
- Private Equity: 1.33%
- Hedge Funds: 1.85%
- Commodities: 5.87%
- Cash: 1.13%

Source: Public Plans Database
Fund Flows Show Retail Investors Exhibited Poor Market Timing – GFC
Fund Flows Show Retail Investors Exhibited Poor Market Timing – Covid-19 Pandemic

Figure 20: Cumulative Retail Fund Flows and S&P 500 Index Trading Range during the COVID-19 Pandemic
Takeaways

• Throughout the downturn and recovery, roughly 2007-2013, public plans still made $1.4 trillion in benefit payments.

• Public plans have lowered discount rates, adopted generational mortality, and shortened amortization periods.
  • These actions are key drivers of increased costs and liabilities today, impacting plans more than investment experience. But, these decisions should position plans better for the future.

• DB Plans, with professional management, adopted to changing conditions since 2007 and stuck closely to target allocations. In contrast, many retail investors were reactive.
Questions
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