

The State of Pensions 2022

The Era of Volatility: Asset Shocks, Inflation, and War

The State of Pensions is Fragile.

The good news: while the state of public pensions is fragile, there has been a positive funded ratio trend on net over the past three years. But there is also bad news: funded status in 2022 for state and local retirement systems has declined considerably from last year, the sharpest single year decline since the Great Recession and financial crisis. Investment return volatility is contributing to some significant swings in funded levels, which has been compounded by rising inflation and geopolitical turmoil.

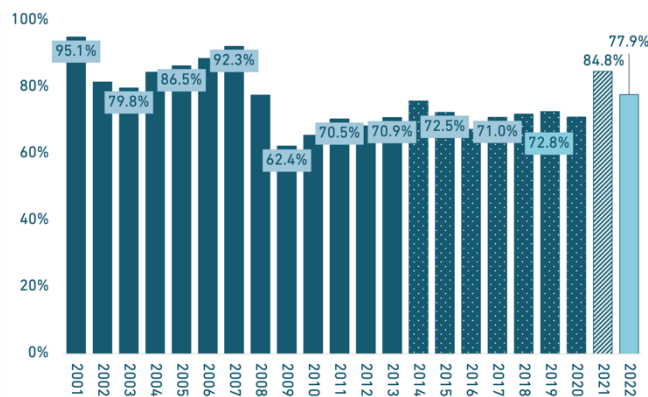
There should be little surprise that America's pension funds have taken a financial hit this year, swinging backwards the year following some of the best investment returns in history. Massive returns for public and private equity in 2021 didn't clearly align with any kind of obvious market fundamentals signaling a persistent future of growth. The volatility and fragility of the past few years point to the clear reality: state and local retirement systems collectively are not going to invest their way out of their poor funded status. The primary path forward for most pension funds with fragile or distressed funded ratios will likely require assumption changes and contribution increases.

Funded Ratio is projected to decline from 84.8% in 2021 to 77.9% in 2022.

Poor investment returns in 2022 have contributed to a decline in the projected funded status of state and local plans to 77.9%. This is a loss of roughly half of last year's improvement. This is the largest single-year decline since 2009.

FUNDED RATIO AVERAGE

FOR STATE & LOCAL PENSION PLANS | 2001-2021 + 2022 Estimate

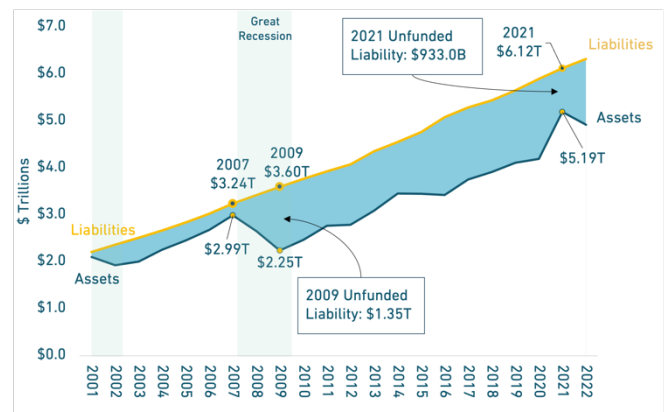


The pension funding shortfall will increase to \$1.4 Trillion in 2022, reversing the one-year drip below the \$1 Trillion line in 2021.

Strong investment returns 2021 led to a decline in unfunded liabilities down to \$933 billion. We think pension debt will increase back up to \$1.4 trillion in 2022 due to poor investment returns.

TOTAL UNFUNDED LIABILITIES

FOR STATE & LOCAL PENSION PLANS | 2001-2021 + 2022 Estimate



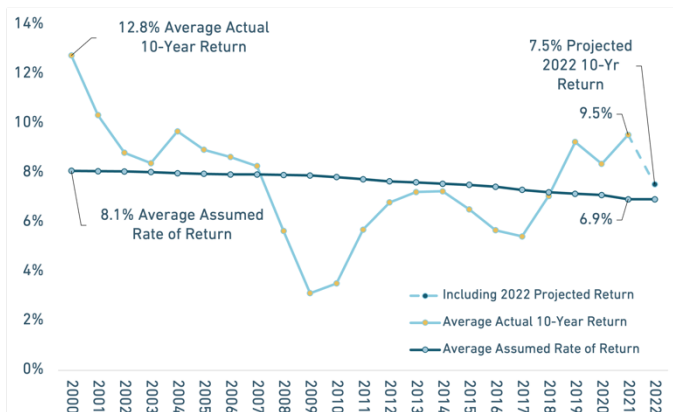
A -10.4% return in 2022 has erased nearly half the funded ratio gains of 2021.

Preliminary 2022 investment returns show a -10.4% return on average for state and local plans. All systems are forecast to miss their assumed return for the year, currently averaging 6.9%. The net result is that assets have declined the most since 2009.

Last year's incredible investment returns (25.3% on average) did include some future returns that were "pulled forward" and ultimately led to a market correction. The average return for 2020-2022 is 5.62%, tracking the pessimistic capital market forecasts that suggest the average return over the next decade is likely to be around 6%.

INVESTMENT RETURN AVERAGES

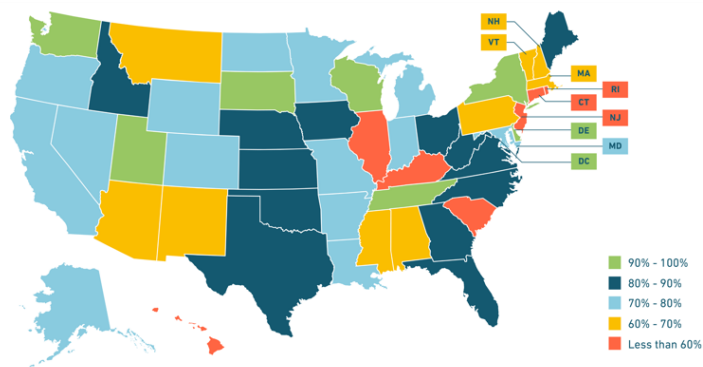
COMPARED TO ASSUMED RATES OF RETURN | 2001-2022



A majority of U.S. state and municipal pension plans are distressed or fragile.

Within the states, funded ratios and unfunded liability levels continue to vary considerably from state to state.

2022 ESTIMATED AGGREGATE STATE FUNDED RATIOS BASED ON ESTIMATED ASSETS FOR STATE & LOCAL PENSION PLANS



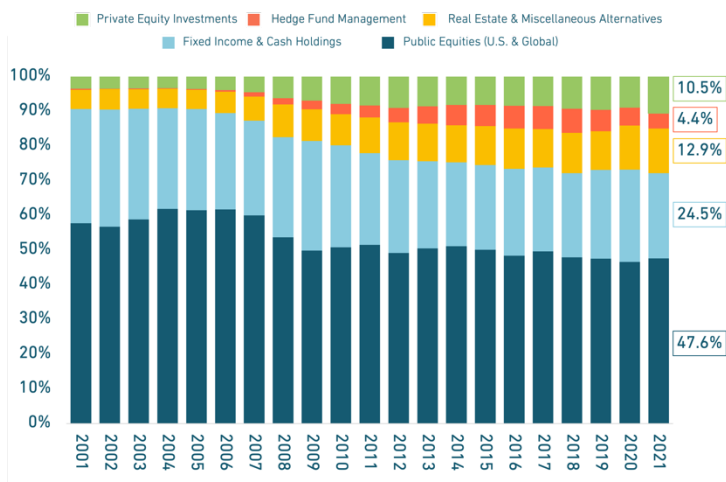
The vast majority of plans have a Fragile (90% to 60%) or Distressed (60% or less) funded status.

Retirement systems are taking on more risk but lowering their expectations on returns and adopting more responsible policies.

Asset allocations continue to shift toward alternatives, including private equity, hedge funds, and real estate. The share allocated to hedge fund managers and private equity strategies has grown to 14.9% (from 8% in 2008).

ASSET ALLOCATION TREND

OF STATE & LOCAL PENSION FUNDS | 2001-2021



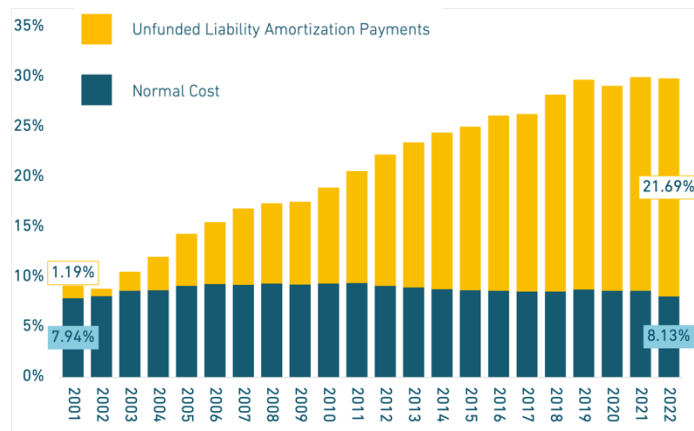
There are 84 state and local plans that assume investment returns below 7%, as of announcements through June 2022. This is up from 65 plans expecting 7% or less as of 2020. Just 9.2% of state and local plans have assumed returns 7.5% or more, while 14.9% of plans assume 6.5% or less now.

Public retirement plans are becoming more expensive for states, government employers, and members.

Negative trends from the past decade persist, as member contributions have increased to 6% of salary (for those with Social Security) and 8.1% of pay (for those without Social Security).

AVERAGE EMPLOYER CONTRIBUTIONS

AS A PERCENTAGE OF PAYROLL | 2001-2022

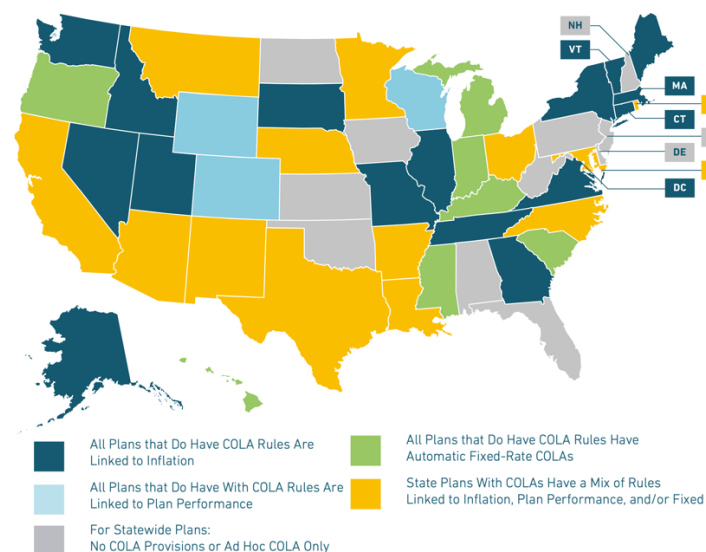


More than two of three dollars paid by employers is to pay down unfunded liabilities.

Public Retirees have significant potential exposure to the impacts of inflation.

Public retirees may be more exposed to inflation than many assume, given the limited cost-of-living adjustment provisions that are available across the country.

AUTOMATIC COLA POLICIES, BY STATE



To read more about State of Pensions visit Equable.org/StateofPensions2022.