

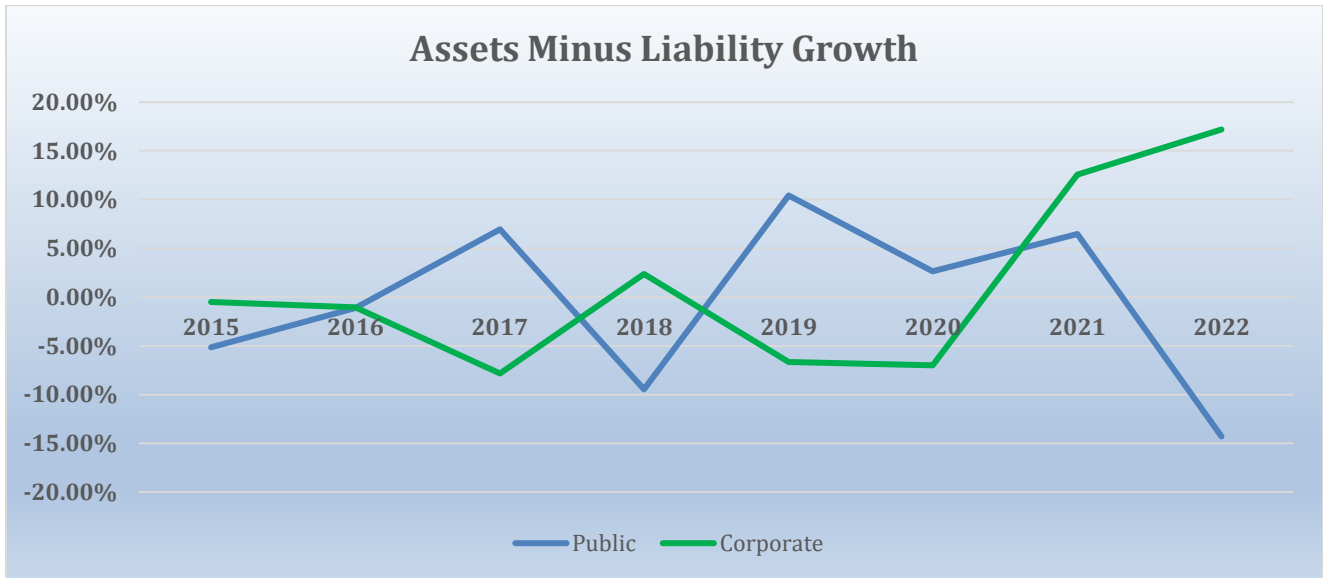
Ryan ALM Pension Monitor (Through December 31, 2022)

Pension plan liabilities need to be measured and monitored regularly. Without knowledge of plan liabilities, the allocation of plan assets cannot be done efficiently or appropriately. The funded ratio/status of pension plans are present value calculations. Each type of plan is governed by accounting rules and actuarial practices, which determine the discount rate used to calculate the present value of liabilities. Single employer corporate plans are under ASC 715 (FASB) discount rates (AA corporate zero-coupon yield curve); multiemployer plans and public plans use the ROA (return on asset assumption) as the liability discount rate. The difference in liability growth between these plans can be quite significant (see 2022), which will affect funded status and contribution levels.

The table below compares these different liability growth rates (based on a 12-year average duration) versus the asset growth rate based on the P&I asset allocation survey of the top 1,000 plans which is updated each year. The graph below shows the contrasting annual differences of asset versus liability growth for corporate and public plans since 2015. The impact of different accounting rules is massive, and none greater than this year.

ASSET ALLOCATION	YTD Return	Corporate	Public	Union
Domestic Stock	-18.1%	11.1%	24.4%	24.7%
International Stock	-14.0%	6.5%	16.3%	8.6%
Global Equity	-18.0%	10.4%	5.3%	11.4%
Domestic Fixed Income	-13.0%	46.7%	20.2%	28.0%
Global Fixed Income	-18.3%	1.3%	1.7%	0.9%
Cash	1.1%	2.0%	2.0%	0.6%
Private Equity	12.0%	8.5%	12.7%	8.2%
Real Estate Equity*	10.8%	4.1%	7.9%	9.3%
Other	10.3%	9.4%	9.5%	8.3%
TOTAL ASSETS Growth Rate		-8.7%	-7.2%	-8.7%
LIABILITIES Growth Rate		-26.6%	7.0%	7.3%
Asset Growth – Liability Growth		17.9%	-14.2%	-16.0%

Index Benchmarks: Domestic Stock = S&P 500; Int'l Stock = EAFE, Global Equity = All Country World; Domestic Fixed Income = BB Aggregate; Global Fixed Income = FTSE World Gov't (unhedged); Cash = Ryan ALM Cash Index; Private Equity =10-year return for the R2500 + 2%; *Real estate Equity =NFI-DP Index (delayed one month); Alternative Investments and Other = CPI-U & 3%.



Footnote: The measurement of asset growth to liability growth is an annual calculation beginning on December 31, 2015. For periods shorter than 1-year, the observation is a YTD calculation.

The question that must be asked: If two pension systems (one public and the other private) have similar asset allocations and are investing in the same markets, how is it possible that they have such meaningful differences in outcomes? These differences, caused by different reporting requirements, may distort contributions and funded status, and may influence benefit decisions unnecessarily.