Wilshire

AUGUST 2021

2021 Report on City & County Retirement Systems: Funding Levels and Asset Allocations

Financial Overview

This is Wilshire's 2021 Report on City and County Retirement Systems: Funding Levels and Asset Allocation, which reports the aggregate funded status of over 100 U.S. City and County-sponsored defined benefit retirement systems. Wilshire has been compiling these statistics since 1990.

The Data

Financial data on public retirement systems have historically lacked the timeliness and uniform disclosure governing pension plans sponsored by publicly traded companies, making it difficult to conduct a study with data that are both current and consistent across systems. Of the 107 systems included in this year's survey, 72 reported actuarial values on or after June 30, 2020.

This study reports the aggregate Total Pension Liability (TPL) values used for financial reporting under the accounting and financial reporting standards for state and local governments: Governmental Accounting Standards Board Statements No. 67 and 68 (GASB 67/68). Through these Statements, GASB and the financial industry have taken major steps to increase transparency and comparability of pension plan accounting. GASB's Statement 67, "Financial Reporting for Pension Plans," impacts annual pension reporting for plans as of June 2014; Statement 68, "Accounting and Financial Reporting for Pensions," impacts annual pension reporting for the employers contributing into government agency-sponsored pensions and applied to employers' financial reporting starting in June 2015.

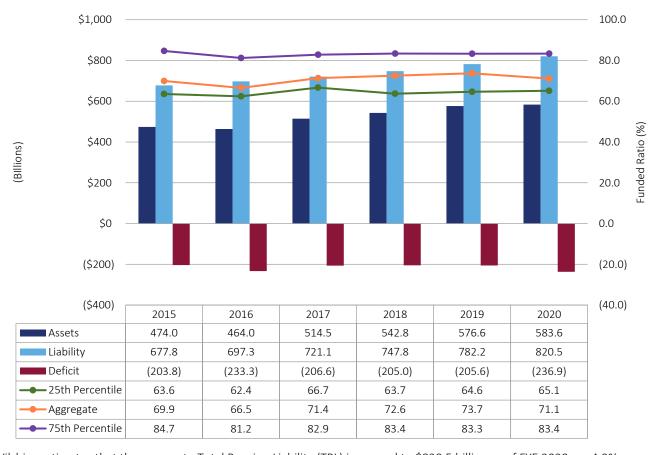
Funded Ratio

This year's report is based on the financial statements reported by these City and County plan sponsors as of their last fiscal year end (FYE) measurement date – June 30, 2020 is the most frequent measurement date for plans in this year's report.

Wilshire estimates that the aggregate funded ratio was 71.1% at FYE 2020, which represents a 2.6% decrease from FYE 2019 ending a streak of three consecutive years of aggregate funded ratio increases.

Exhibit 1 shows the aggregate reported funded status, asset, liability and surplus/deficit values over the past six fiscal years.

Exhibit 1: Funded Ratio History



Wilshire estimates that the aggregate Total Pension Liability (TPL) increased to \$820.5 billion as of FYE 2020, up 4.9%, or \$38.4 billion, from \$782.2 billion as of FYE 2019. Aggregate assets increased to \$583.6 billion as of FYE 2020, up 1.2%, from \$576.6 billion as of FYE 2019. Due to the increase in aggregate TPL, the aggregate shortfall is estimated to have increased by \$31.3 billion to \$236.9 billion from \$205.6 billion. This year's estimated aggregate asset value is the highest since Wilshire began reporting on City and County retirement system funding levels.

Attribution of Changes in Funding

Exhibit 2 shows the components of aggregate annual change in TPL and Plan Fiduciary Net Position.

Exhibit 2: Changes in Asset and Liability Values

	(\$, Billions)	% of BoY
Total Pension Liability, BoY	\$782.2	
Service Cost	13.0	1.7%
Interest Cost	44.7	5.7%
Benefit Payments	(36.4)	-4.7%
Actuarial (Gains)/Losses	3.0	0.4%
Other	<u>14.0</u>	<u>1.8%</u>
Total Pension Liability, EoY	\$820.5	4.9%
Plan Fiduciary Net Position, BoY	\$576.6	
Total Contributions	28.2	4.9%
Actual Return on Assets	16.6	2.9%
Benefit Payments	(36.4)	-6.3%
Other	(1.4)	<u>-0.2%</u>
Plan Fiduciary Net Position, EoY	\$583.6	1.2%

Liabilities

Wilshire estimates that the aggregate Total Pension Liability (TPL) increased to \$820.5 billion as of FY 2020 up 4.9% from \$782.2 billion as of FY 2019. The two largest components of the annual increase in aggregate TPL were continued annual benefit accruals, i.e. service cost, and interest cost.

- Service Cost, or continued annual benefit accruals, is estimated to have increased the TPL by 1.7%.
- Interest cost is similar to changes in the time value of money and is approximately equal to the discount rate as a percentage of the beginning of year TPL. The increase due to interest cost is estimated to be 5.7% for FYE 2020.
- Benefit payments are estimated to have decreased the TPL by -4.7%.
- Actuarial losses and "Other" in aggregate increased the TPL by 1.8%.

Assets

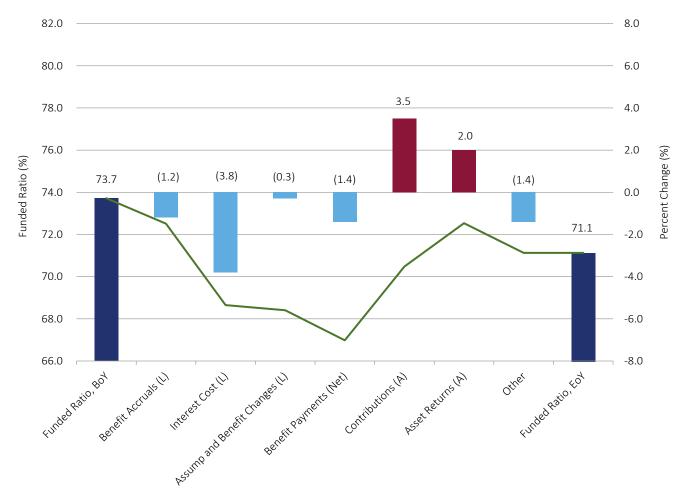
Wilshire estimates that aggregate assets increased to \$583.6 billion as of FYE 2020, up 1.2% from \$576.6 billion as of FYE 2019. Continued positive investment returns and contributions drove asset values to their highest levels since Wilshire began reporting on City and County retirement system funding levels.

- Contributions increased the asset value by 4.9% for the year with nearly 20% coming from plan participants.
- Investment income increased the asset value by 2.9% for the year.
- Benefit payments are estimated to have decreased asset values by -6.3%.

• "Other" items are expected to have marginally decreased asset values by 0.2%.

Exhibit 3 shows the components of change in TPL and Plan Fiduciary Net Position from Exhibit 2 and their relative impact on aggregate funded ratio change during the fiscal year.

Exhibit 3: Changes in Annual Funded Ratio



Benefit accruals, interest cost and benefit payments decreased the funded ratio by 6.4 percentage points which was partially offset by contributions and asset returns which increased funded levels by 5.5 percentage points.

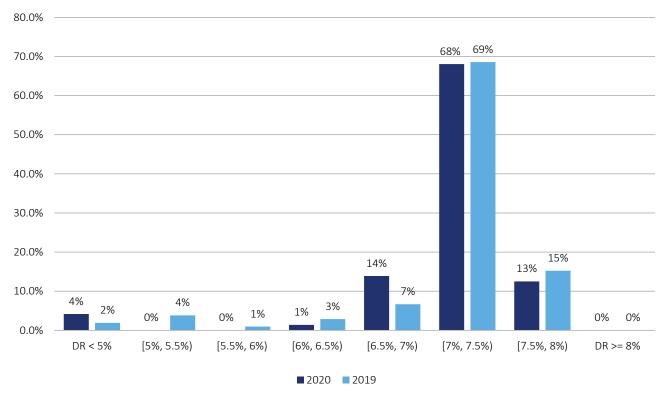
Discount Rates

The discount rate represents the expected long-term rate of return on invested plan assets used to calculate liability values (present value of a stream of projected benefit payments). Discount rates have trended lower over the past several years with nearly one quarter of this year's study plans lowering their discount rate. The range for discount rates this year is 3.38% to 7.90% with a median of 7.00%, a 15 basis-point decrease compared to last year's median discount rate.

For plans projected to run out of assets, GASB 67/68 requires the use of a blended discount rate using the plan's expected long-term rate of return on invested plan assets and the yield on a municipal bond high grade rate index. The calculation of the blended discount rate is based on a mandated projection methodology.

Exhibit 4 shows the distribution of discount rates used to calculate the TPL.

Exhibit 4: Distribution of Discount Rates*

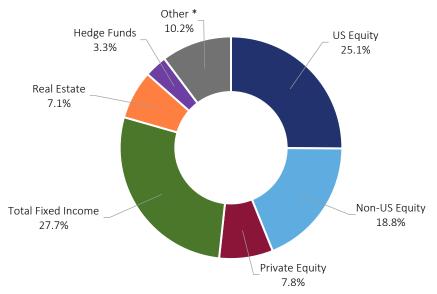


^{*}The total may not sum to 100% due to rounding.

Pension Plan Asset Allocation

Exhibit 5 shows the aggregate asset allocation for City and County Retirement Systems.

Exhibit 5: Aggregate Asset Allocation



^{*}Other refers to any other asset class for example Cash and Commodities.

Exhibit 6 examines the change in aggregate asset allocation over the last ten years.

Exhibit 6: Change in Aggregate Asset Allocation for City & county Pension Plans

Change in Exposure

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	2010 (%)	2015 (%)	2020 (%)	10-15 (%)	15-20 (%)	10-20 (%)
Equity						
U.S. Equity	35.2	30.5	25.1	-4.7	-5.4	-10.1
Non-U.S. Equity	17.3	19.9	18.8	2.6	-1.1	1.5
Real Estate	5.5	8.1	7.1	2.6	-1.0	1.6
Private Equity	3.3	5.2	7.8	1.9	2.6	4.5
Growth Subtotal	61.3	63.7	58.8	2.4	-4.9	-2.5
Total Fixed Income	30.0	24.7	27.7	-5.3	3.0	-2.3
Hedge Funds	3.4	5.8	3.3	2.4	-2.5	-0.1
Other*	5.3	5.8	10.2	0.5	4.4	4.9
Return**	4.3	4.6	4.4	0.3	-0.2	0.1
Risk**	10.6	10.9	10.3	0.3	-0.6	-0.3

^{*}Other refers to any other asset class for example Cash and Commodities.

Over the past ten years, the total allocation to Growth has declined by more than two percentage points despite the increased allocations to non-us equity, real estate and private equity in the same period.

Exhibit 7 shows Wilshire's long-term return and risk assumptions as of year-end 2020. The 10-year expected return for many asset classes are near-or-at their lowest point due to the historically low interest rate environment.

Exhibit 7: Wilshire's December 2020 Capital Market Assumptions

Expected Return (%)

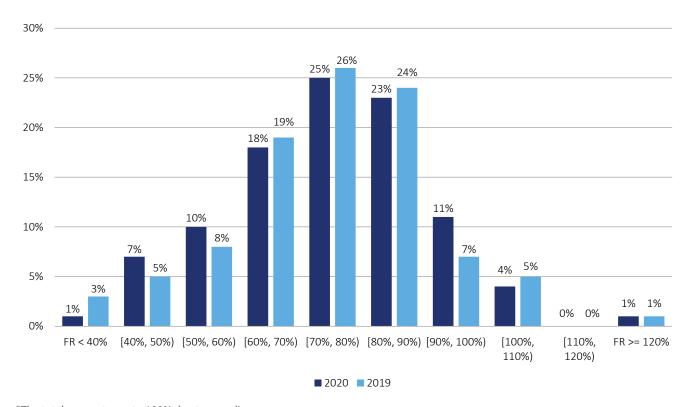
	10-Year	30-Year	Risk (%)
U.S. Equity	5.00	6.55	17.00
Non-U.S. Equity	6.00	7.20	19.15
Real Estate	6.20	7.10	14.00
Private Equity	6.95	8.90	28.00
Fixed Income	1.30	3.30	4.30
Hedge Funds	3.25	5.70	6.60
Other	0.70	2.00	0.75

We conclude the report with Exhibit 8, which shows the distribution of funded ratios over the past two years. We note that 95% of these 72 plans with 2020 actuarial data are underfunded.

Thirteen plans (or 18% of total plans) have assets less than 60% of liabilities; 26 plans (or 36% of total plans) have assets less than 70% of liabilities; and 44 plans (or 61% of total plans) have assets less than 80% of liabilities.

^{**}Return and Risk are based on Wilshire's current asset class assumptions (Exhibit 7).

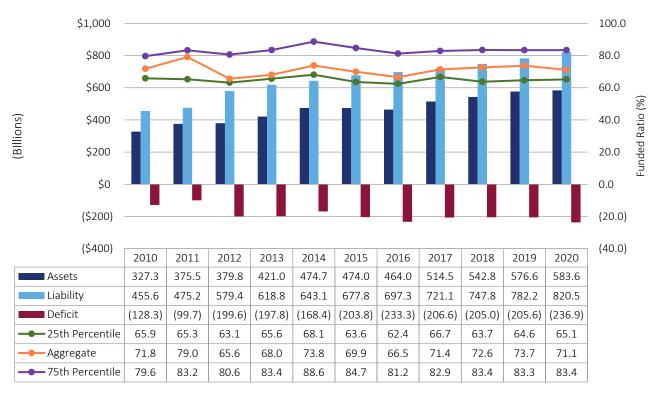
Exhibit 8: Distribution of Funded Ratios*



^{*}The total may not sum to 100% due to rounding.

Appendix: Funded Ratio History

This appendix shows the aggregate reported funded status, asset, liability and surplus/deficit values over the past ten (10) fiscal years.



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