

December 3, 2024



**Pennsylvania State Employees'  
Retirement System – 457(b) Plan**

Third Quarter 2024

Executive Summary

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Callan

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**Market Environment**

# Equity and Bond Markets Up Sharply in 3Q

Equities have recovered losses of 2022; fixed income and real estate still lag

## S&P 500 climbed 5.9% in 3Q24

- U.S. small cap outperformed U.S. large cap, as did developed ex-U.S. markets and emerging markets.

## Strong quarter for core fixed income

- The Bloomberg Aggregate rose 5.2% as rates fell over the quarter.
- Long duration fixed income and non-U.S. bonds saw even stronger returns than the Aggregate.
- Interest rates remain volatile as the markets assess how the Fed will continue with easing.
- CPI-U came in at 2.4% (year-over-year) in 3Q, down slightly from last quarter's 2.5%, and supporting the prospects for further rate cuts later this year.

## Economy reignites in 3Q

- 3Q24 GDP came in at a surprisingly strong 2.8%, after another surprise in 2Q. Consumer spending continues to drive GDP growth, fueled by rising incomes and lower inflation.

Returns for Periods ended 9/30/24

	Quarter	1 Year	1/1/22 - Current	5 Years	10 Years	25 Years
<b>U.S. Equity</b>						
Russell 3000	6.23	35.19	7.74	15.26	12.83	8.38
S&P 500	5.89	36.35	8.85	15.98	13.38	8.20
Russell 2000	9.27	26.76	1.23	9.39	8.78	8.27
<b>Global ex-U.S. Equity</b>						
MSCI World ex USA	7.76	24.98	4.99	8.36	5.68	4.77
MSCI Emerging Markets	8.72	26.05	0.92	5.75	4.03	--
MSCI ACWI ex USA Small Cap	8.90	23.25	1.29	8.21	6.08	6.79
<b>Fixed Income</b>						
Bloomberg Aggregate	5.20	11.57	-1.52	0.33	1.84	4.06
90-day T-Bill	1.37	5.46	3.81	2.32	1.65	1.92
Bloomberg Long Gov/Credit	7.96	17.24	-7.43	-1.97	2.32	5.62
Bloomberg Global Agg ex-US	8.52	12.28	-4.40	-1.86	-0.50	2.62
<b>Real Estate</b>						
NCREIF Property	0.78	-3.47	-1.21	3.26	5.88	7.67
FTSE Nareit Equity	16.09	34.74	-0.10	5.46	7.83	10.08
<b>Alternatives</b>						
Cambridge Private Equity*	1.00	4.62	1.94	13.84	13.10	12.73
Cambridge Senior Debt*	1.19	7.51	6.08	6.92	6.76	4.33
HFRI Fund Weighted	2.84	12.64	4.23	7.41	5.12	6.09
Bloomberg Commodity	0.68	0.96	4.60	7.79	0.03	2.21
<b>CPI-U</b>	0.36	2.44	4.58	4.19	2.85	2.55

\*Cambridge Private Equity and Cambridge Senior Debt data as of 6/30/24.

Returns greater than one year are annualized. Sources: Bloomberg, Callan, Cambridge, FTSE Russell, HFRI, MSCI, NCREIF, S&P Dow Jones Indices

# Diversification Remains Key Risk Control

## Periodic Table of Investment Returns

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	3 Qtrs. 2024
Emerging Markets	Emerging Markets	Emerging Markets	U.S. Fixed	Emerging Markets	Small Cap	Real Estate Funds	Emerging Markets	Small Cap	Large Cap	Real Estate Funds	Small Cap	Emerging Markets	Real Estate Funds	Large Cap	Small Cap	Large Cap	Real Estate Funds	Large Cap	Large Cap
34.00%	32.17%	39.38%	5.24%	78.51%	26.85%	14.96%	18.23%	38.82%	13.69%	13.95%	21.31%	37.28%	7.36%	31.49%	19.96%	28.71%	6.55%	26.29%	22.08%
Real Estate Funds	Non-U.S. Equity	Real Estate Funds	Non-U.S. Fixed	High Yield	Emerging Markets	U.S. Fixed	Non-U.S. Equity	Large Cap	Real Estate Funds	Large Cap	High Yield	Non-U.S. Equity	Cash Equivalent	Small Cap	Large Cap	Real Estate Funds	Cash Equivalent	Non-U.S. Equity	Emerging Markets
20.15%	25.71%	14.84%	4.39%	58.21%	18.88%	7.84%	16.41%	32.39%	11.46%	1.38%	17.13%	24.21%	1.87%	25.52%	18.40%	21.02%	1.46%	17.94%	16.86%
Non-U.S. Equity	Small Cap	Hedge Funds	Cash Equivalent	Non-U.S. Equity	Real Estate Funds	High Yield	Small Cap	Non-U.S. Equity	U.S. Fixed	U.S. Fixed	Large Cap	Large Cap	U.S. Fixed	Non-U.S. Equity	Emerging Markets	Small Cap	Hedge Funds	Small Cap	Non-U.S. Equity
14.47%	18.37%	12.56%	2.06%	33.67%	15.26%	4.98%	16.35%	21.02%	5.97%	0.55%	11.96%	21.83%	0.01%	22.49%	18.31%	14.82%	1.06%	16.93%	13.10%
Hedge Funds	Large Cap	Non-U.S. Equity	Real Estate Funds	Small Cap	High Yield	Non-U.S. Fixed	Large Cap	Real Estate Funds	Small Cap	Cash Equivalent	Emerging Markets	Small Cap	High Yield	Emerging Markets	Non-U.S. Fixed	Non-U.S. Equity	High Yield	High Yield	Small Cap
7.61%	15.79%	12.44%	-10.70%	27.17%	15.12%	4.36%	16.00%	12.90%	4.89%	0.05%	11.19%	14.65%	-2.08%	18.44%	10.11%	12.62%	-11.19%	13.44%	11.17%
Large Cap	Real Estate Funds	Non-U.S. Fixed	Hedge Funds	Large Cap	Large Cap	Large Cap	High Yield	Hedge Funds	Hedge Funds	Hedge Funds	Real Estate Funds	Non-U.S. Fixed	Non-U.S. Fixed	High Yield	Non-U.S. Equity	Hedge Funds	U.S. Fixed	Emerging Markets	Hedge Funds
4.91%	15.27%	11.03%	-19.07%	26.47%	15.06%	2.11%	15.81%	9.73%	4.13%	-0.71%	7.79%	10.51%	-2.15%	14.32%	7.59%	8.23%	-13.01%	9.83%	9.02%
Small Cap	Hedge Funds	U.S. Fixed	High Yield	Hedge Funds	Hedge Funds	Cash Equivalent	Real Estate Funds	High Yield	High Yield	Non-U.S. Equity	Non-U.S. Equity	High Yield	Hedge Funds	Hedge Funds	U.S. Fixed	High Yield	Non-U.S. Equity	Hedge Funds	High Yield
4.55%	13.86%	6.97%	-26.16%	18.57%	10.95%	0.10%	9.79%	7.44%	2.45%	-3.04%	2.75%	7.50%	-3.19%	9.31%	7.51%	5.28%	-14.29%	5.83%	8.00%
Cash Equivalent	High Yield	Large Cap	Small Cap	Non-U.S. Fixed	Non-U.S. Equity	Hedge Funds	Hedge Funds	Cash Equivalent	Cash Equivalent	Small Cap	U.S. Fixed	Hedge Funds	Large Cap	U.S. Fixed	High Yield	Cash Equivalent	Large Cap	Non-U.S. Fixed	U.S. Fixed
3.06%	11.85%	5.49%	-33.79%	7.53%	8.95%	-2.52%	7.67%	0.07%	0.04%	-4.41%	2.65%	7.12%	-4.38%	8.72%	7.11%	0.05%	-18.11%	5.72%	4.45%
High Yield	Non-U.S. Fixed	Cash Equivalent	Large Cap	U.S. Fixed	U.S. Fixed	Small Cap	U.S. Fixed	U.S. Fixed	Emerging Markets	High Yield	Non-U.S. Fixed	Real Estate Funds	Small Cap	Non-U.S. Fixed	Hedge Funds	U.S. Fixed	Non-U.S. Fixed	U.S. Fixed	Cash Equivalent
2.74%	8.16%	5.00%	-37.00%	5.93%	6.54%	-4.18%	4.21%	-2.02%	-2.19%	-4.47%	1.49%	6.66%	-11.01%	5.09%	6.36%	-1.54%	-18.70%	5.53%	4.03%
U.S. Fixed	Cash Equivalent	High Yield	Non-U.S. Equity	Cash Equivalent	Non-U.S. Fixed	Non-U.S. Equity	Non-U.S. Fixed	Emerging Markets	Non-U.S. Fixed	Non-U.S. Fixed	Hedge Funds	U.S. Fixed	Non-U.S. Equity	Real Estate Funds	Cash Equivalent	Emerging Markets	Emerging Markets	Cash Equivalent	Non-U.S. Fixed
2.43%	4.86%	1.87%	-43.56%	0.21%	4.95%	-12.21%	4.09%	-2.60%	-3.09%	-6.02%	1.25%	3.54%	-14.09%	4.39%	0.67%	-2.54%	-20.09%	5.01%	2.81%
Non-U.S. Fixed	U.S. Fixed	Small Cap	Emerging Markets	Real Estate Funds	Cash Equivalent	Emerging Markets	Cash Equivalent	Non-U.S. Fixed	Non-U.S. Equity	Emerging Markets	Cash Equivalent	Cash Equivalent	Emerging Markets	Cash Equivalent	Real Estate Funds	Non-U.S. Fixed	Small Cap	Real Estate Funds	Real Estate Funds
-8.65%	4.33%	-1.57%	-53.33%	-30.40%	0.13%	-18.42%	0.11%	-3.08%	-4.32%	-14.92%	0.33%	0.86%	-14.57%	2.28%	0.34%	-7.05%	-20.44%	-12.73%	-3.20%

- Bloomberg Barclays Corp High Yield ● Bloomberg Barclays Global Aggregate ex US ● Bloomberg Barclays US Aggregate
- Credit Suisse Hedge Fund ● ICE BofAML US 3-Month Treasury Bill ● MSCI Emerging Markets ● MSCI World ex USA
- NFI-ODCE (value-weighted net) ● Russell 2000 ● S&P 500

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# DC Industry Talking Points

3Q24

## Forfeiture Use in Recent Lawsuit Filings

- Forfeitures are generated when a participant terminates service with an unvested benefit.
- Allegations are based on a challenge to the anti-inurement provisions of ERISA, claiming that applying the funds to the employer contributions was essentially self-dealing rather than using the money to pay participant expenses, which could benefit participants.
  - In some instances the plan document is unclear on the handling; when discretion is available, the utilization is being challenged as a fiduciary obligation rather than a settlor function (i.e., when the plan document states how the forfeitures should be used).
  - The allegations note that the fiduciaries failed to engage in a reasoned and impartial decision-making process regarding usage (aka prudence) and acting “solely in the interest of the participants and beneficiaries” to provide benefits and defray reasonable expenses (aka loyalty).
- These lawsuits have resulted in different outcomes—some being dismissed, and some being continued.
- Plan sponsors should review the plan documents and consult legal counsel.

## IRS Private Letter Ruling (PLR) Allows Employees to Direct Employer Contributions Annually

- The funds can be directed to the following:
  - Defined contribution (DC) plan account as a non-matching contribution
  - Health savings account (HSA) up to statutory limits (\$4,300 for individuals and \$8,550 for families in 2025) or a retiree health reimbursement arrangement (HRA)
  - Student loan reimbursements through a Section 127 educational assistance plan (up to an annual limit of \$5,250)
- Note that a Private Letter Rule can only be relied on by the plan sponsor that requested it. Employers interested in pursuing a similar choice program may wish to seek their own PLR.

## Bill to Allow CITs in 403(b) Plans?

- Both the relevant Senate and House Committees have wide support to allow CITs to be included in 403(b) plans.
- There is a strong chance the bill could be picked up and added to a must-pass bill by year end.
- This is not a done deal but there is strong optimism.

# SECURE 2.0 Provisions

## Timeline

Provision	Optional / Mandatory	Effective Date (Plan years beginning on or after)
Automatic Enrollment for new plans effective in 2024	Mandatory	1/1/24
Required Minimum Distribution Age	Mandatory	Age 73 (after 12/31/22) Age 75 (after 12/31/32)
Roth Catch-up (for participants making in excess of \$145,000 (indexed), catch-up contributions must be made as Roth after-tax contributions)	Mandatory	1/1/26
Long-term Part-time Worker Inclusion (employees who perform >500 hours during 2 consecutive years are eligible to defer)	Mandatory	12/31/24
Increase in Catch-up Contribution Limit (for employees age 60–63, can contribute 1.5x the regular catch-up limit)	Optional	1/1/25
Match on Student Loans	Optional	1/1/24
Small Financial Incentives (e.g., gift cards, T-shirts, or other small “de minimus” gifts in connection with an employee's participation in a 403b or 401k plan)	Optional	12/29/22
Emergency Savings (Roth Emergency Savings accounts to non-HCEs, solely funded by employee contributions, and not to exceed \$2,500 (not including earnings)) which can be withdrawn without a “distributable event”; these deferrals would be matched as if they were regular contributions	Optional	12/31/23
Emergency Distributions (participants can certify an “emergency personal expense” not to exceed \$1,000, and not subject to 10% early withdrawal penalty). Note participants may only take one emergency withdrawal per calendar year, and must repay the distribution to be eligible for another within a three-year period	Optional	1/1/24
Amendment Deadline (section 101)	Optional & Mandatory	Optional provisions should be codified by amendment and executed by the tax filing deadline for the year in which the optional provision was effective. Mandatory amendments must be made by the statutory deadline: 12/31/26

Callan

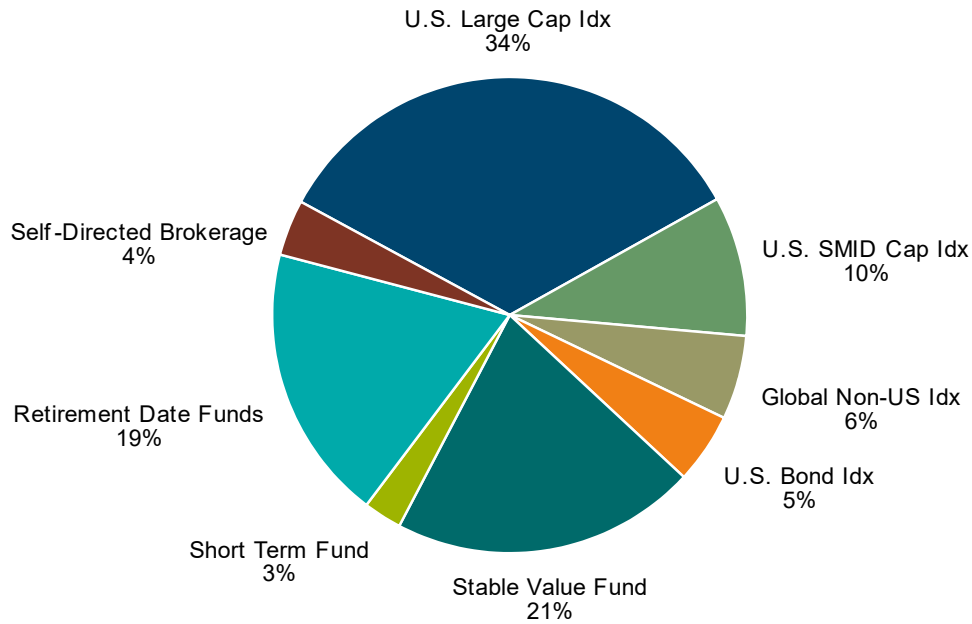
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**PA SERS 457(b) Plan Performance Review**

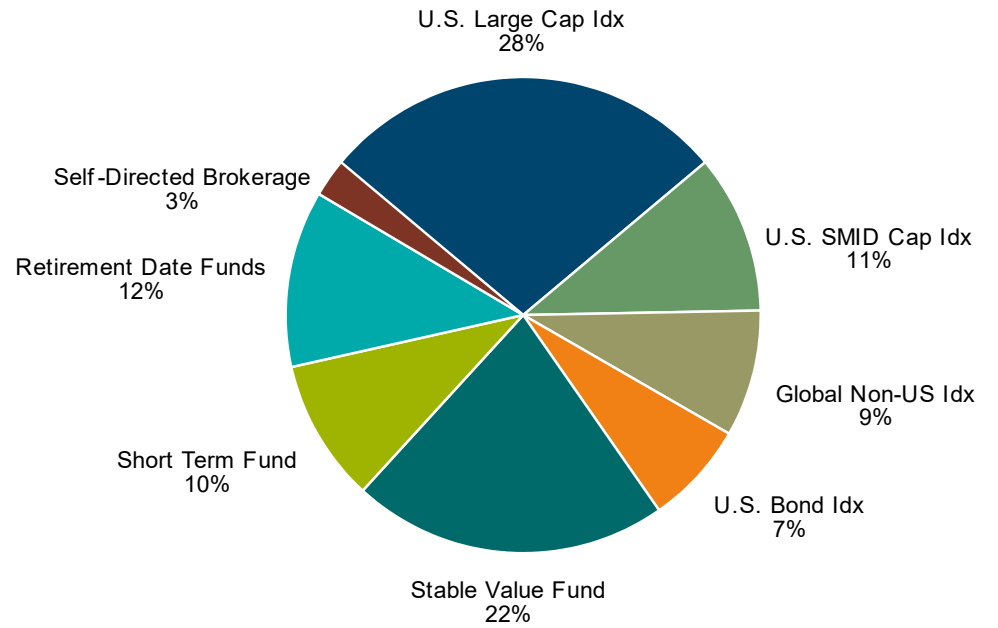
# 457(b) Plan Asset Allocation & Contributions

As of September 30, 2024

### Asset Allocation



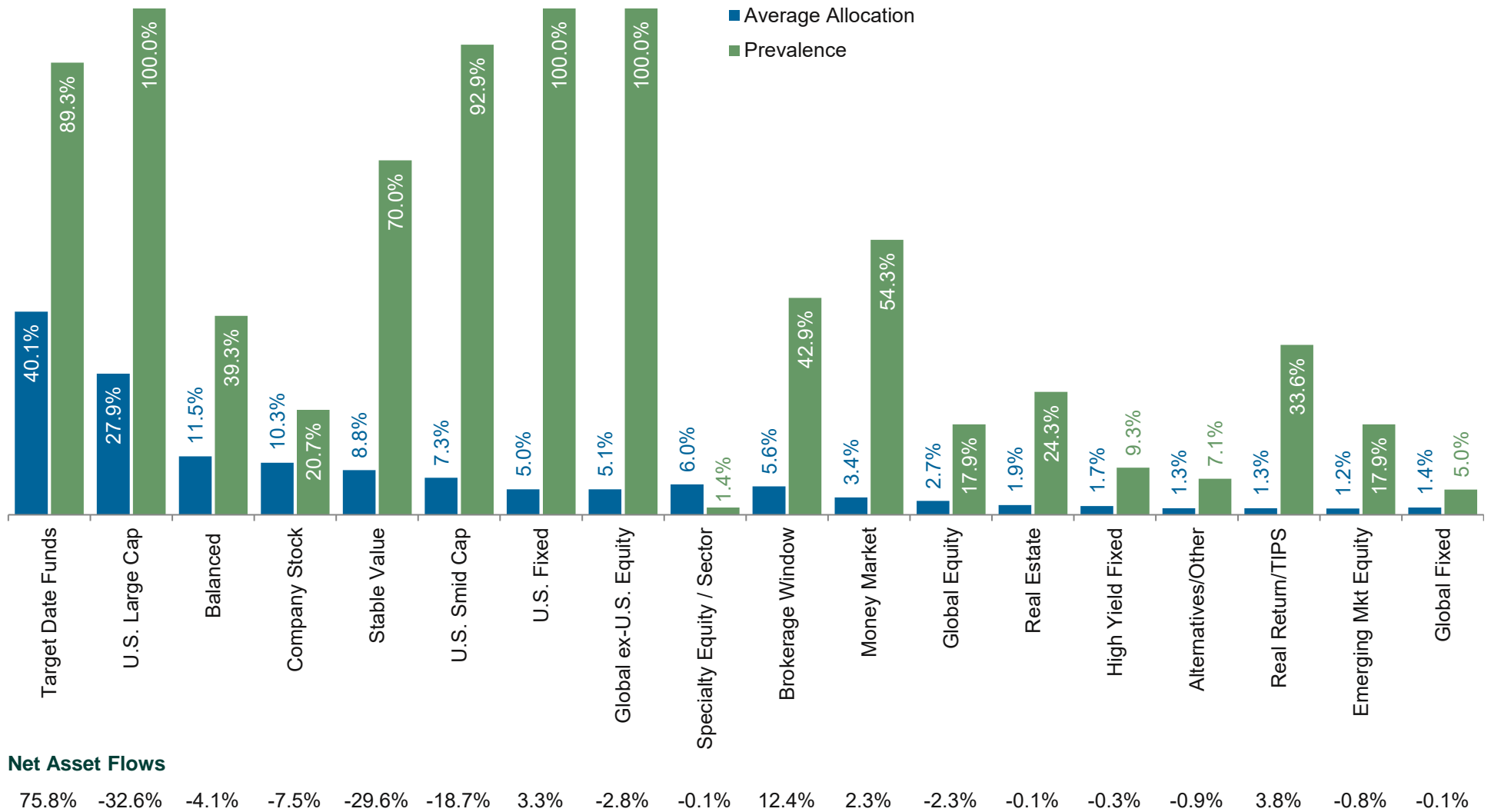
### Contributions





# Callan DC Index Asset Allocation as of 6/30/24

Callan DC Index™ tracks the underlying fund performance, asset allocation, and cash flows of more than 100 large defined contribution plans representing approximately \$400 billion in assets.



# Asset Allocation

As of September 30, 2024

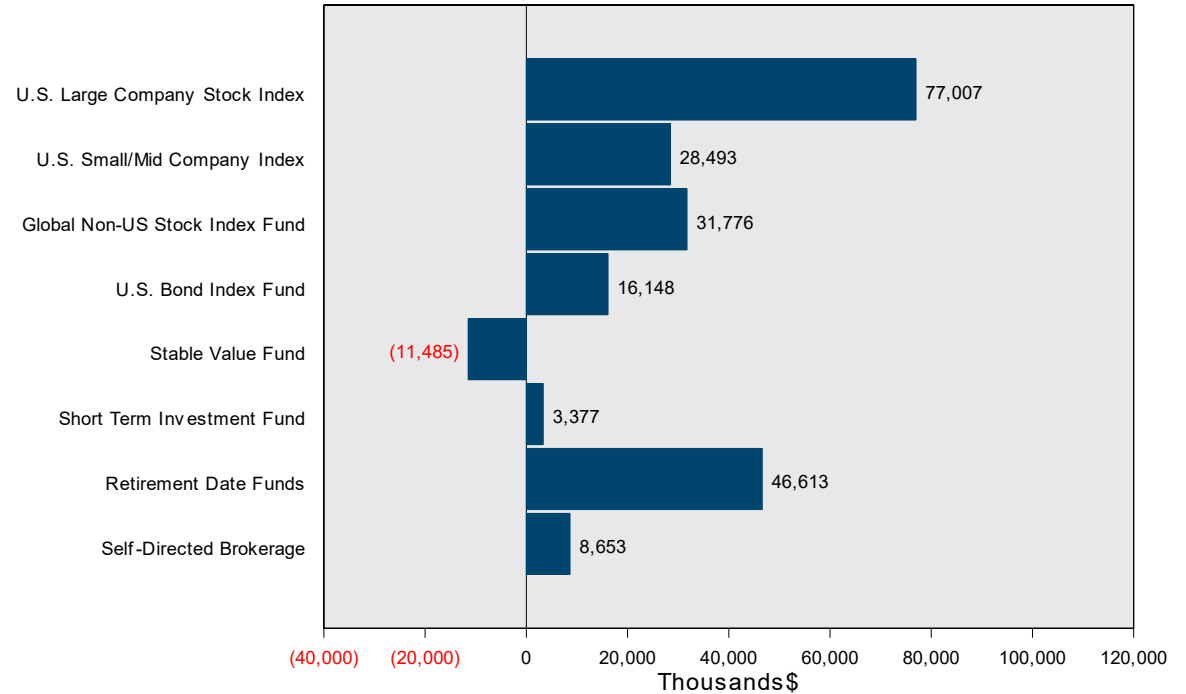
	September 30, 2024			Inv. Return	June 30, 2024	
	Market Value	Weight	Net New Inv.		Market Value	Weight
<b>SERS Retirement Date Funds</b>	<b>\$938,334,006</b>	<b>18.83%</b>	<b>\$(9,952,008)</b>	<b>\$56,565,358</b>	<b>\$891,720,656</b>	<b>18.64%</b>
SERS Post Retirement Fund	216,378,553	4.34%	(1,813,210)	11,811,550	206,380,213	4.32%
SERS 2025 Retirement Fund	135,448,923	2.72%	(4,933,788)	7,643,312	132,739,399	2.78%
SERS 2030 Retirement Fund	148,681,596	2.98%	(3,505,559)	8,885,949	143,301,206	3.00%
SERS 2035 Retirement Fund	142,716,962	2.86%	(3,102,682)	8,854,526	136,965,118	2.86%
SERS 2040 Retirement Fund	100,165,878	2.01%	(805,451)	6,460,060	94,511,269	1.98%
SERS 2045 Retirement Fund	88,902,411	1.78%	781,076	5,880,210	82,241,125	1.72%
SERS 2050 Retirement Fund	62,195,002	1.25%	942,253	4,139,518	57,113,231	1.19%
SERS 2055 Retirement Fund	25,550,027	0.51%	1,514,116	1,681,057	22,354,854	0.47%
SERS 2060 Retirement Fund	11,273,378	0.23%	644,314	742,178	9,886,886	0.21%
SERS 2065 Retirement Fund	7,021,276	0.14%	326,922	466,999	6,227,355	0.13%
<b>SERS U.S. Equity</b>	<b>\$2,169,251,161</b>	<b>43.53%</b>	<b>\$(24,160,264)</b>	<b>\$129,660,314</b>	<b>\$2,063,751,111</b>	<b>43.15%</b>
SERS U.S. Large Company Index Fund	1,695,135,474	34.02%	(16,910,021)	93,917,296	1,618,128,200	33.83%
SERS U.S. SMID Company Index Fund	474,115,687	9.51%	(7,250,243)	35,743,018	445,622,911	9.32%
<b>SERS Non-U.S. Equity</b>	<b>\$282,633,242</b>	<b>5.67%</b>	<b>\$11,027,090</b>	<b>\$20,749,092</b>	<b>\$250,857,060</b>	<b>5.24%</b>
SERS Global Non-US Index Fund	282,633,242	5.67%	11,027,090	20,749,092	250,857,060	5.24%
<b>SERS Fixed Income</b>	<b>\$1,404,209,496</b>	<b>28.18%</b>	<b>\$(12,471,975)</b>	<b>\$20,511,680</b>	<b>\$1,396,169,791</b>	<b>29.19%</b>
SERS Short Term Investment Fund	127,925,358	2.57%	1,763,795	1,612,791	124,548,773	2.60%
SERS Stable Value Fund	1,036,623,550	20.80%	(18,821,374)	7,336,241	1,048,108,683	21.91%
SERS U.S. Bond Index Fund	239,660,588	4.81%	4,585,604	11,562,648	223,512,336	4.67%
<b>Self-Directed Brokerage Account</b>	<b>\$189,007,268</b>	<b>3.79%</b>	<b>\$(467,760)</b>	<b>\$9,120,849</b>	<b>\$180,354,178</b>	<b>3.77%</b>
<b>SERS 457(b) Total Fund</b>	<b>\$4,983,435,173</b>	<b>100.0%</b>	<b>\$(36,024,917)</b>	<b>\$236,607,293</b>	<b>\$4,782,852,797</b>	<b>100.0%</b>

# Changes in Market Values and Contributions

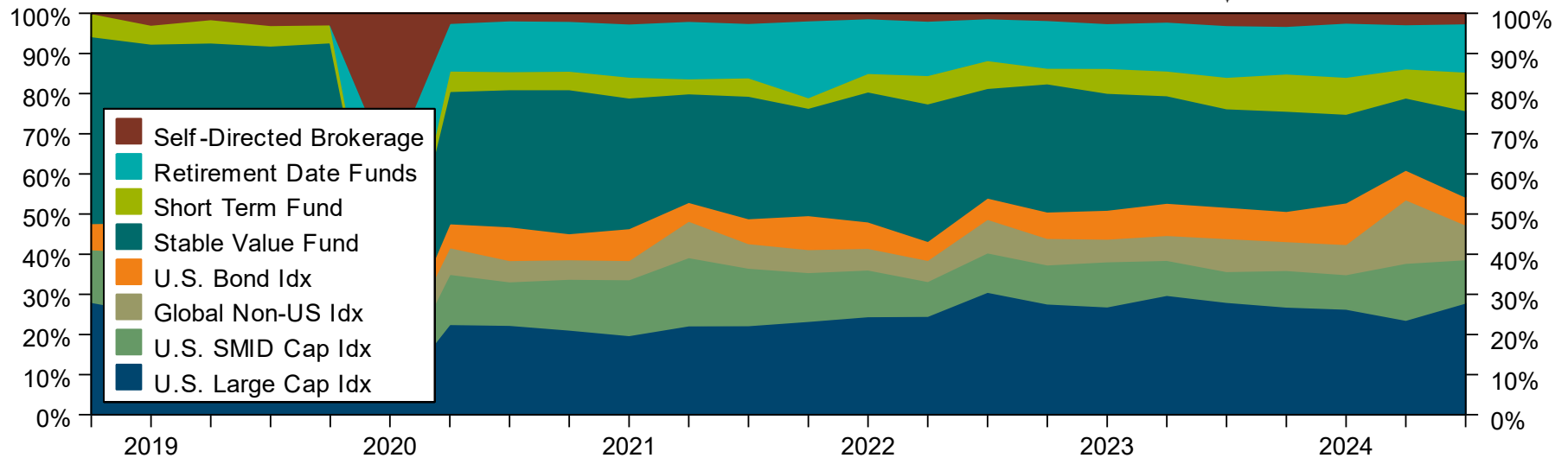
As of September 30, 2024

- The chart to the right shows the change in fund values across the various investment options for the quarter ended September 30, 2024. The change in value for each fund is the result of a combination of 3 factors:

1. Market movements
2. Contributions or disbursements into or out of the fund by the participants (and any matching done by the company)
3. Transfers between funds by the participants

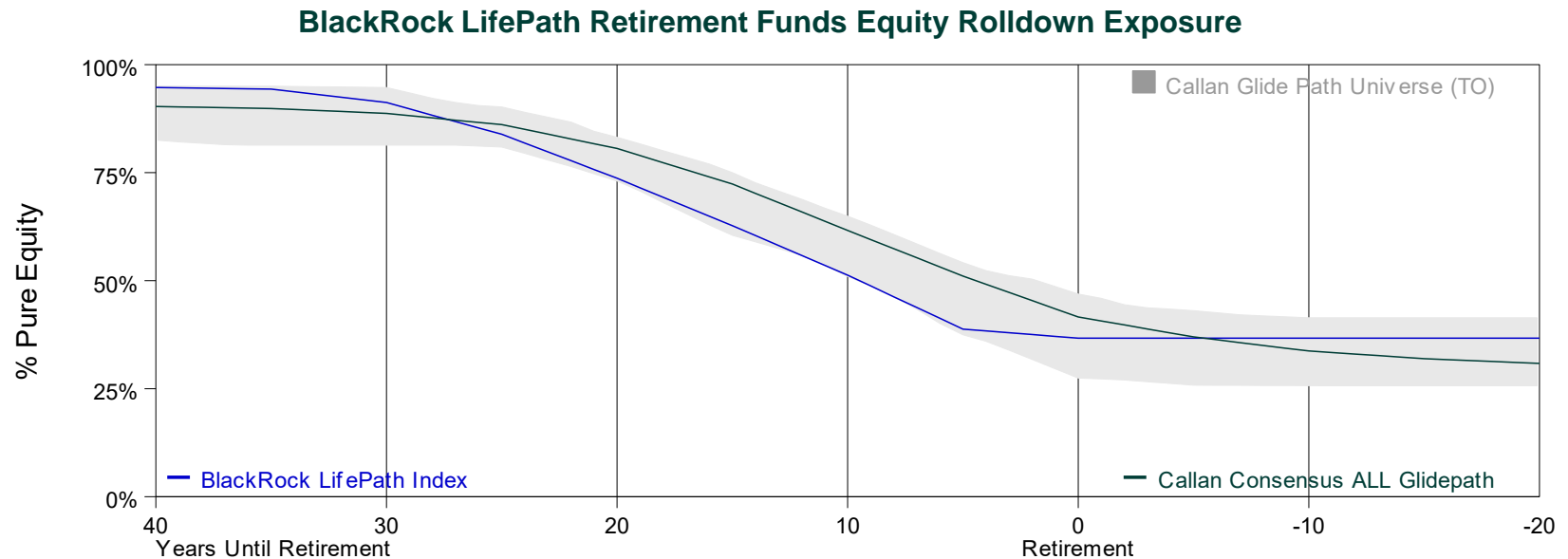
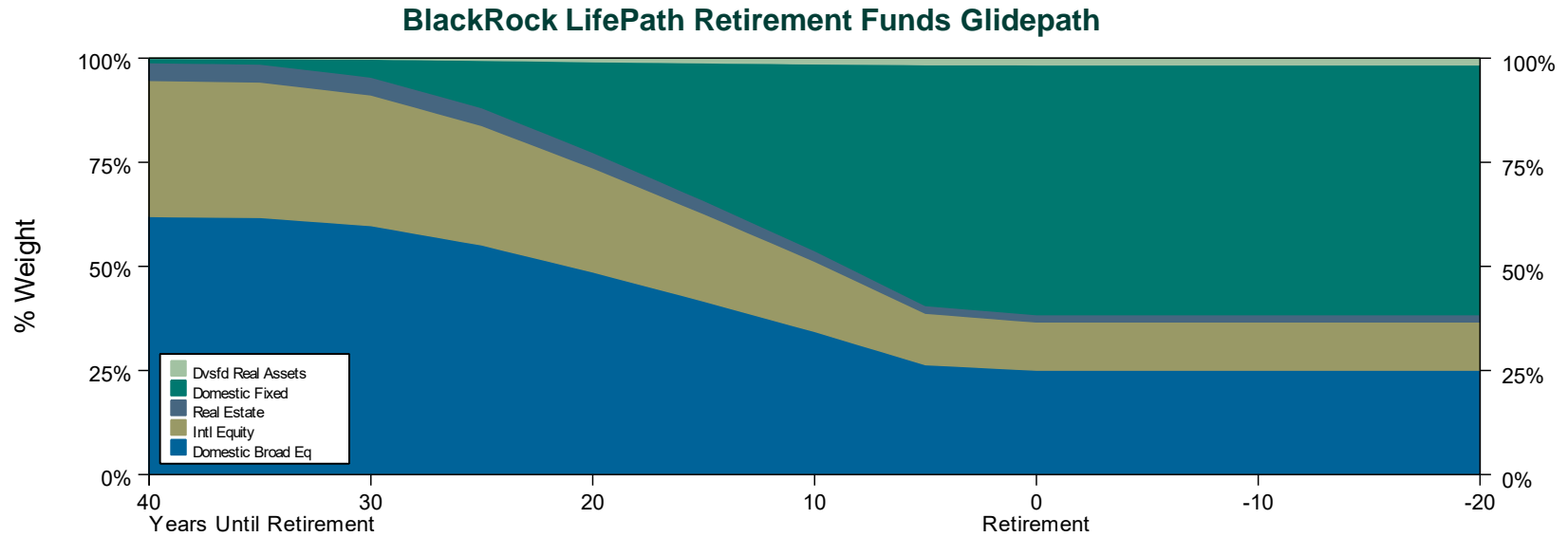


## Historical Allocation of Contributions



# Blackrock LifePath Retirement Funds

Glidepath and Equity Roll-down Exposure as of September 30, 2024



# Cumulative Performance - Net of Fees

As of September 30, 2024

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
<b>Net Performance</b>					
<b>Retirement Date Funds</b>					
SERS Post Retirement Fund	5.80%	9.53%	18.64%	2.14%	5.21%
BlackRock Post Retirement Index	5.84%	9.52%	18.69%	2.18%	5.20%
Callan Tgt Date Ret Inc	5.25%	8.99%	17.03%	2.37%	4.65%
SERS 2025 Retirement Fund	5.89%	9.87%	19.40%	2.46%	5.98%
BlackRock 2025 Index	5.90%	9.85%	19.41%	2.48%	5.96%
Callan Target Date 2025	5.66%	10.73%	20.27%	3.29%	6.77%
SERS 2030 Retirement Fund	6.30%	11.62%	22.18%	3.66%	7.37%
BlackRock 2030 Index	6.34%	11.62%	22.23%	3.69%	7.36%
Callan Target Date 2030	5.89%	12.21%	22.90%	4.04%	7.75%
SERS 2035 Retirement Fund	6.62%	13.27%	24.71%	4.75%	8.68%
BlackRock 2035 Index	6.66%	13.27%	24.74%	4.76%	8.66%
Callan Target Date 2035	6.13%	13.53%	24.84%	4.90%	8.81%
SERS 2040 Retirement Fund	6.90%	14.85%	27.16%	5.79%	9.89%
BlackRock 2040 Index	6.94%	14.86%	27.16%	5.78%	9.84%
Callan Target Date 2040	6.26%	14.81%	26.88%	5.80%	9.84%
SERS 2045 Retirement Fund	7.16%	16.34%	29.45%	6.75%	10.95%
BlackRock 2045 Index	7.21%	16.35%	29.41%	6.72%	10.89%
Callan Target Date 2045	6.43%	15.89%	28.39%	6.39%	10.67%
SERS 2050 Retirement Fund	7.24%	17.34%	30.83%	7.35%	11.57%
BlackRock 2050 Index	7.30%	17.36%	30.79%	7.32%	11.51%
Callan Target Date 2050	6.42%	16.32%	29.21%	6.64%	10.84%
SERS 2055 Retirement Fund	7.26%	17.81%	31.34%	7.58%	11.75%
BlackRock 2055 Index	7.33%	17.84%	31.31%	7.55%	11.70%
Callan Target Date 2055	6.49%	16.41%	29.35%	6.67%	10.97%
SERS 2060 Retirement Fund	7.26%	17.81%	31.36%	7.58%	11.75%
BlackRock 2060 Index	7.33%	17.85%	31.34%	7.55%	11.71%
Callan Target Date 2060	6.47%	16.43%	29.40%	6.63%	11.02%
SERS 2065 Retirement Fund	7.28%	17.85%	31.41%	7.59%	11.70%
BlackRock 2065 Index	7.34%	17.86%	31.36%	7.55%	11.71%
Callan Target Date 2065	6.52%	16.57%	29.47%	6.50%	11.06%

Note: SERS Funds are the top fund in each grouping followed by each fund's respective benchmark and median peer.  
\*Target Date funds replaced risk-based funds in 1Q20.

## Cumulative Performance - Net of Fees

As of September 30, 2024

	Last 7 Years	Last 10 Years	Last 15 Years	Last 20 Years
<b>Net Performance</b>				
<b>Retirement Date Funds</b>				
SERS Post Retirement Fund	5.19%	4.99%	5.74%	-
BlackRock Post Retirement Index	5.18%	4.98%	5.73%	5.43%
Callan Tgt Date Ret Inc	4.61%	4.42%	5.07%	4.77%
SERS 2025 Retirement Fund	5.87%	5.82%	6.91%	-
BlackRock 2025 Index	5.84%	5.77%	6.87%	6.12%
Callan Target Date 2025	6.22%	6.25%	7.57%	6.68%
SERS 2030 Retirement Fund	6.93%	6.73%	7.70%	-
BlackRock 2030 Index	6.91%	6.67%	7.66%	6.65%
Callan Target Date 2030	7.08%	7.07%	8.29%	6.60%
SERS 2035 Retirement Fund	7.92%	7.58%	8.44%	-
BlackRock 2035 Index	7.88%	7.50%	8.37%	7.12%
Callan Target Date 2035	7.93%	7.77%	8.86%	7.49%
SERS 2040 Retirement Fund	8.83%	8.35%	9.10%	-
BlackRock 2040 Index	8.77%	8.25%	9.01%	7.53%
Callan Target Date 2040	8.62%	8.37%	9.44%	7.37%
SERS 2045 Retirement Fund	9.60%	8.97%	9.64%	-
BlackRock 2045 Index	9.52%	8.85%	9.55%	7.88%
Callan Target Date 2045	9.16%	8.78%	9.58%	8.29%
SERS 2050 Retirement Fund	10.04%	9.30%	9.99%	-
BlackRock 2050 Index	9.96%	9.18%	9.89%	8.24%
Callan Target Date 2050	9.27%	8.94%	9.79%	-
SERS 2055 Retirement Fund	10.17%	9.39%	-	-
BlackRock 2055 Index	10.10%	9.28%	-	-
Callan Target Date 2055	9.35%	9.02%	9.92%	-
SERS 2060 Retirement Fund	10.16%	-	-	-
BlackRock 2060 Index	10.10%	-	-	-
Callan Target Date 2060	9.48%	9.11%	-	-

Note: SERS Funds are the top fund in each grouping followed by each fund's respective benchmark and median peer.

\*Funds not listed do not have longer term history.

\*\*Target Date funds replaced risk-based funds in 1Q20.

## Cumulative Performance - Net of Fees

As of September 30, 2024

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
<b>Net Performance</b>					
<b>Domestic Equity</b>					
SERS U.S. Large Company Index	5.88%	22.06%	36.34%	11.91%	15.98%
S&P 500 Index	5.89%	22.08%	36.35%	11.91%	15.98%
Callan Lg Cap Broad MF	5.14%	20.36%	35.19%	9.78%	15.01%
SERS U.S. SMID Company Index	8.16%	11.89%	28.83%	1.48%	10.95%
Dow Jones US Completion	8.07%	11.61%	28.26%	1.03%	10.62%
Callan SMID Broad MFs	8.14%	12.34%	24.89%	3.41%	10.50%
<b>International Equity</b>					
SERS Global Non-US Index	8.16%	14.43%	25.78%	4.48%	7.82%
MSCI ACWI ex US	8.06%	14.21%	25.35%	4.14%	7.59%
Callan Non US Equity MFs	7.58%	13.21%	24.87%	4.77%	8.19%
<b>Domestic Fixed Income</b>					
SERS Short Term Investment Fund	1.33%	3.98%	5.35%	3.52%	2.34%
3-month Treasury Bill	1.37%	4.03%	5.46%	3.49%	2.32%
Callan Cash Database(1)	1.64%	4.26%	5.94%	3.59%	2.51%
SERS Stable Value Fund	0.72%	2.19%	2.89%	2.32%	2.24%
3-month Treasury Bill	1.37%	4.03%	5.46%	3.49%	2.32%
Callan Stable Value SA	0.72%	2.14%	2.85%	2.42%	2.35%
SERS U.S. Bond Index Fund	5.21%	4.46%	11.59%	(1.38%)	0.34%
Blmbg Aggregate	5.20%	4.45%	11.57%	(1.39%)	0.33%
Callan Core Bond MFs	5.23%	4.93%	12.23%	(1.30%)	0.74%

(1) Callan Cash Database includes STIF, enhanced cash, and money market funds.

\*The Global Non-U.S. Stock Index Fund replaced the International Company Stock Index Fund in 1Q20.

## Cumulative Performance - Net of Fees

As of September 30, 2024

	Last 7 Years	Last 10 Years	Last 15 Years	Last 20 Years
<b>Net Performance</b>				
<b>Domestic Equity</b>				
SERS U.S. Large Company Index	14.50%	13.39%	14.16%	10.75%
S&P 500 Index	14.50%	13.38%	14.15%	10.71%
Callan Lg Cap Broad MF	13.61%	12.53%	13.50%	10.44%
SERS U.S. SMID Company Index	9.46%	9.76%	12.00%	9.98%
Dow Jones US Completion	9.15%	9.48%	11.74%	9.74%
Callan SMID Broad MFs	9.26%	9.34%	11.59%	9.75%
<b>International Equity</b>				
SERS Global Non-US Index	5.70%	5.48%	5.70%	-
MSCI ACWI ex US	5.44%	5.22%	5.49%	6.14%
Callan Non US Equity MFs	5.60%	5.62%	6.20%	6.47%
<b>Domestic Fixed Income</b>				
SERS Short Term Investment Fund	2.27%	1.75%	1.24%	1.75%
3-month Treasury Bill	2.22%	1.65%	1.13%	1.62%
Callan Cash Database(1)	2.43%	1.94%	1.41%	2.04%
SERS Stable Value Fund	2.28%	2.21%	2.51%	3.05%
3-month Treasury Bill	2.22%	1.65%	1.13%	1.62%
Callan Stable Value SA	2.39%	2.32%	2.48%	3.04%
SERS U.S. Bond Index Fund	1.48%	1.83%	2.56%	3.19%
Blmbg Aggregate	1.47%	1.84%	2.60%	3.22%
Callan Core Bond MFs	1.76%	2.06%	3.02%	3.46%

(1) Callan Cash Database includes STIF, enhanced cash, and money market funds.

\*Funds not listed do not have longer term history.

\*The Global Non-U.S. Stock Index Fund replaced the International Company Stock Index Fund in 1Q20.



# Performance Summary & Expense Ratios as of September 30, 2024

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	10 Year Return	5 Year Return Consistency	5 Year Risk Quadrant	Expense Ratio
<b>Net of Fee Performance</b>									
<b>Retirement Date Funds</b>									
<b>SERS Post Retirement Fund</b> Callan Tgt Date Ret Inc	5.8 <sup>9</sup>	18.6 <sup>24</sup>	2.1 <sup>63</sup>	5.2 <sup>27</sup>	5.2 <sup>13</sup>	5.0 <sup>17</sup>			0.07 <sup>75</sup>
BlackRock Post Retirement Index	5.8 <sup>7</sup>	18.7 <sup>23</sup>	2.2 <sup>61</sup>	5.2 <sup>27</sup>	5.2 <sup>13</sup>	5.0 <sup>17</sup>			
<b>SERS 2025 Retirement Fund</b> Callan Target Date 2025	5.9 <sup>22</sup>	19.4 <sup>73</sup>	2.5 <sup>88</sup>	6.0 <sup>75</sup>	5.9 <sup>72</sup>	5.8 <sup>79</sup>			0.07 <sup>79</sup>
BlackRock 2025 Index	5.9 <sup>21</sup>	19.4 <sup>73</sup>	2.5 <sup>87</sup>	6.0 <sup>75</sup>	5.8 <sup>74</sup>	5.8 <sup>80</sup>			
<b>SERS 2030 Retirement Fund</b> Callan Target Date 2030	6.3 <sup>12</sup>	22.2 <sup>60</sup>	3.7 <sup>71</sup>	7.4 <sup>70</sup>	6.9 <sup>57</sup>	6.7 <sup>73</sup>			0.07 <sup>68</sup>
BlackRock 2030 Index	6.3 <sup>11</sup>	22.2 <sup>59</sup>	3.7 <sup>70</sup>	7.4 <sup>70</sup>	6.9 <sup>58</sup>	6.7 <sup>76</sup>			
<b>SERS 2035 Retirement Fund</b> Callan Target Date 2035	6.6 <sup>11</sup>	24.7 <sup>55</sup>	4.7 <sup>55</sup>	8.7 <sup>66</sup>	7.9 <sup>50</sup>	7.6 <sup>67</sup>			0.07 <sup>74</sup>
BlackRock 2035 Index	6.7 <sup>10</sup>	24.7 <sup>54</sup>	4.8 <sup>54</sup>	8.7 <sup>66</sup>	7.9 <sup>53</sup>	7.5 <sup>73</sup>			
<b>SERS 2040 Retirement Fund</b> Callan Target Date 2040	6.9 <sup>8</sup>	27.2 <sup>43</sup>	5.8 <sup>50</sup>	9.9 <sup>47</sup>	8.8 <sup>32</sup>	8.3 <sup>51</sup>			0.07 <sup>71</sup>
BlackRock 2040 Index	6.9 <sup>6</sup>	27.2 <sup>43</sup>	5.8 <sup>50</sup>	9.8 <sup>50</sup>	8.8 <sup>41</sup>	8.2 <sup>56</sup>			
<b>SERS 2045 Retirement Fund</b> Callan Target Date 2045	7.2 <sup>4</sup>	29.4 <sup>17</sup>	6.7 <sup>23</sup>	11.0 <sup>27</sup>	9.6 <sup>24</sup>	9.0 <sup>34</sup>			0.07 <sup>74</sup>
BlackRock 2045 Index	7.2 <sup>3</sup>	29.4 <sup>17</sup>	6.7 <sup>25</sup>	10.9 <sup>29</sup>	9.5 <sup>29</sup>	8.8 <sup>44</sup>			
<b>SERS 2050 Retirement Fund</b> Callan Target Date 2050	7.2 <sup>5</sup>	30.8 <sup>9</sup>	7.4 <sup>12</sup>	11.6 <sup>12</sup>	10.0 <sup>10</sup>	9.3 <sup>22</sup>			0.07 <sup>71</sup>
BlackRock 2050 Index	7.3 <sup>3</sup>	30.8 <sup>9</sup>	7.3 <sup>13</sup>	11.5 <sup>14</sup>	10.0 <sup>14</sup>	9.2 <sup>32</sup>			
<b>SERS 2055 Retirement Fund</b> Callan Target Date 2055	7.3 <sup>8</sup>	31.3 <sup>8</sup>	7.6 <sup>10</sup>	11.8 <sup>7</sup>	10.2 <sup>8</sup>	9.4 <sup>20</sup>			0.07 <sup>74</sup>
BlackRock 2055 Index	7.3 <sup>4</sup>	31.3 <sup>8</sup>	7.5 <sup>11</sup>	11.7 <sup>8</sup>	10.1 <sup>10</sup>	9.3 <sup>30</sup>			
<b>SERS 2060 Retirement Fund</b> Callan Target Date 2060	7.3 <sup>7</sup>	31.4 <sup>11</sup>	7.6 <sup>13</sup>	11.7 <sup>11</sup>	10.2 <sup>11</sup>				0.07 <sup>72</sup>
BlackRock 2060 Index	7.3 <sup>4</sup>	31.3 <sup>11</sup>	7.6 <sup>14</sup>	11.7 <sup>12</sup>	10.1 <sup>13</sup>				

Returns:  
■ above median  
■ third quartile  
■ fourth quartile

Return Consistency:  
■ above median  
■ third quartile  
■ fourth quartile

Risk Quadrant:  
  
Return  
Risk

Expense Ratio:  
■ below median  
■ second quartile  
■ first quartile

Note: For returns, each SERS Fund and corresponding benchmark return are shown with their respective peer group rankings. For returns, lower peer group rankings are more desirable (e.g. 25th percentile equates to top quartile performance). Expense Ratio: Higher peer group rankings are more desirable (e.g. 75th percentile equates to bottom quartile/cheapest fees).

# Performance Summary & Expense Ratios as of September 30, 2024

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	10 Year Return	5 Year Return Consistency	5 Year Risk Quadrant	Expense Ratio
<b>SERS 2065 Retirement Fund</b> Callan Target Date 2065 BlackRock 2065 Index	7.3 8 7.3 6	31.4 11 31.4 11	7.6 13 7.6 14	11.7 17 11.7 17					0.07 76
<b>Domestic Equity</b>									
<b>SERS U.S. Large Company Index</b> Callan Lg Cap Broad MF S&P 500 Index	5.9 37 5.9 37	36.3 44 36.4 44	11.9 21 11.9 21	16.0 38 16.0 38	14.5 40 14.5 40	13.4 40 13.4 40			0.01 100
<b>SERS U.S. Small/Mid Company Index</b> Callan SMID Broad MFs Dow Jones US Completion	8.2 48 8.1 52	28.8 25 28.3 27	1.5 62 1.0 64	11.0 40 10.6 46	9.5 44 9.1 52	9.8 43 9.5 49			0.02 100
<b>International Equity</b>									
<b>SERS Global Non-U.S. Index Fund</b> Callan Non US Equity MFs MSCI ACWI ex US	8.2 33 8.1 39	25.8 38 25.4 41	4.5 52 4.1 54	7.8 60 7.6 65	5.7 47 5.4 57	5.5 52 5.2 61			0.04 99
<b>Domestic Fixed Income</b>									
<b>SERS Short Term Investment Fund</b> Callan Cash Database 3-month Treasury Bill	1.3 94 1.4 82	5.4 95 5.5 94	3.5 56 3.5 56	2.3 79 2.3 80	2.3 84 2.2 88	1.7 79 1.6 89			0.00 100
<b>Comments:</b> Callan Cash Database includes STIF, enhanced cash, and money market funds.									
<b>SERS Stable Value Fund</b> Callan Stable Value SA 3-month Treasury Bill	0.7 48 1.4 2	2.9 45 5.5 2	2.3 68 3.5 4	2.2 66 2.3 52	2.3 66 2.2 82	2.2 71 1.6 94			0.25 70
<b>SERS U.S. Bond Index Fund</b> Callan Core Bond MFs Blmbg Aggregate	5.2 59 5.2 60	11.6 91 11.6 91	-1.4 56 -1.4 57	0.3 93 0.3 93	1.5 88 1.5 88	1.8 88 1.8 86			0.01 100

Returns:  
 above median  
 third quartile  
 fourth quartile

Return Consistency:  
 above median  
 third quartile  
 fourth quartile

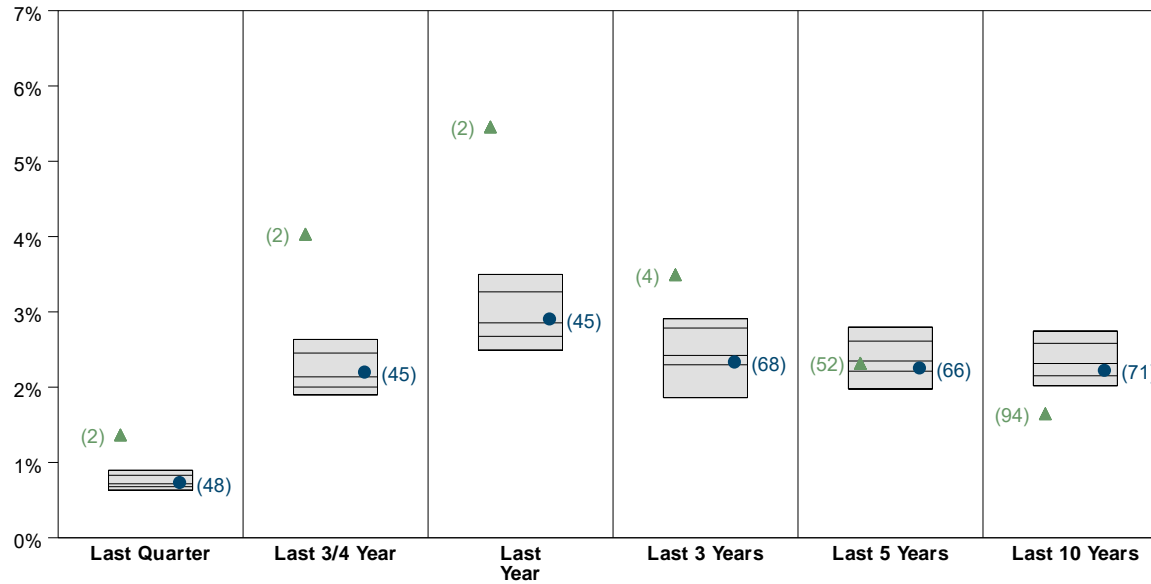
Risk Quadrant:

Expense Ratio:  
 below median  
 second quartile  
 first quartile

Note: For returns, each SERS Fund and corresponding benchmark return are shown with their respective peer group rankings. For returns, lower peer group rankings are more desirable (e.g. 25th percentile equates to top quartile performance). Expense Ratio: Higher peer group rankings are more desirable (e.g. 75th percentile equates to bottom quartile/cheapest fees).

# Stable Value Fund as of September 30, 2024

## Performance vs Callan Stable Value SA (Gross)



	Last Quarter	Last 3/4 Year	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	0.90	2.63	3.50	2.91	2.80	2.75
25th Percentile	0.83	2.45	3.27	2.79	2.61	2.58
Median	0.72	2.14	2.85	2.42	2.35	2.32
75th Percentile	0.68	2.00	2.68	2.30	2.21	2.15
90th Percentile	0.63	1.90	2.49	1.86	1.98	2.02

	Last Quarter	Last 3/4 Year	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>SERS Stable Value Fund</b> ●	0.72	2.19	2.89	2.32	2.24	2.21
3-month Treasury Bill ▲	1.37	4.03	5.46	3.49	2.32	1.65

Manager Diversification*	
Manager	Portfolio
Jennison	3.3%
Dodge & Cox	4.1%
Invesco	61.0%
Loomis Sayles	9.8%
PFM	9.2%
Ramirez (DWDO Manager)	9.3%
STIF	3.3%
<b>Total</b>	<b>100%</b>

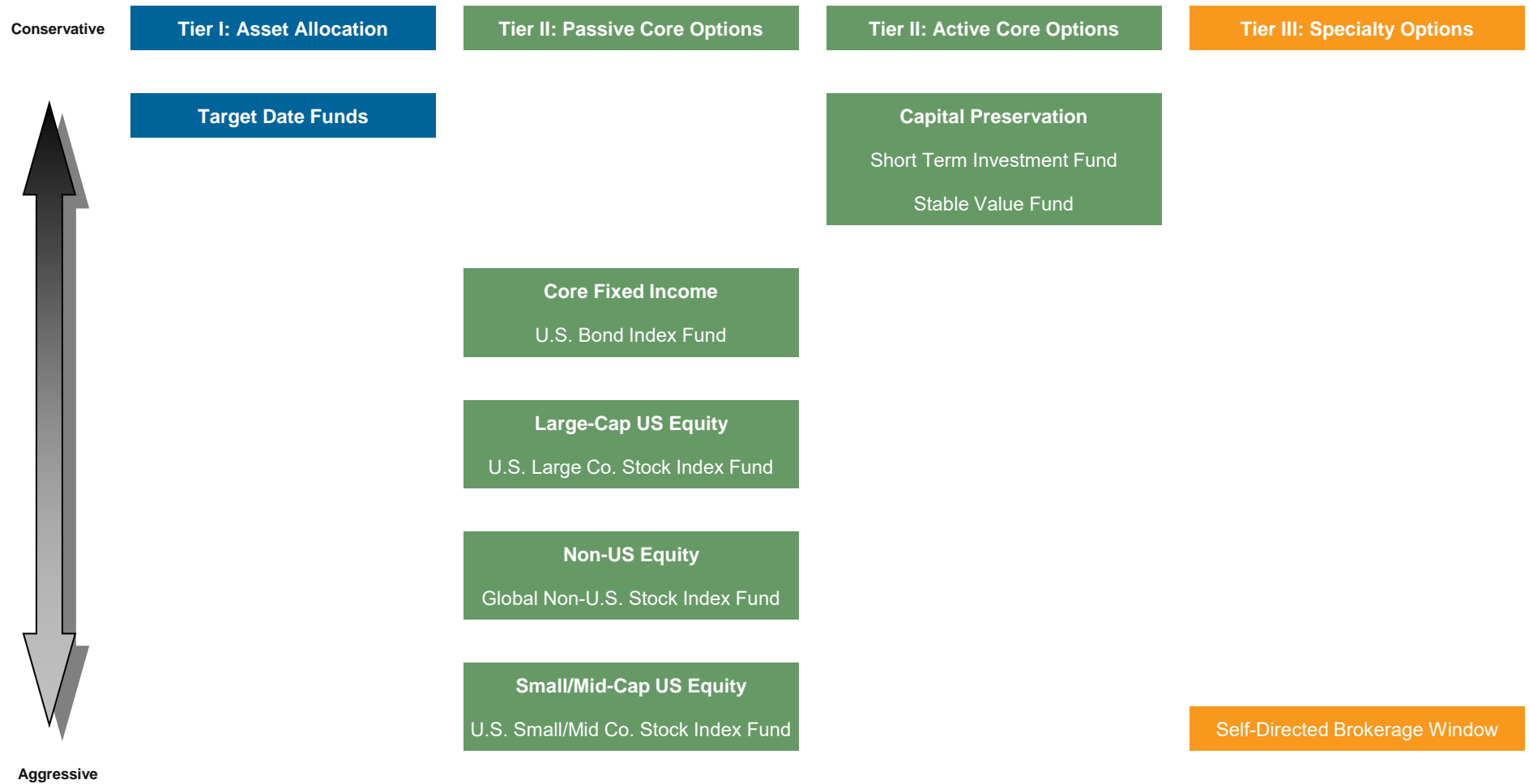
## Wrap Provider Exposure\*

Contract Issuer	Portfolio	Average Fee	Moody's Rating	S&P Rating	Fitch Rating
Nationwide Life Insurance	20.38%	0.14%	A1	A+	NR
Met Tower Life	20.30%	0.15%	Aa3	AA-	AA-
RGA	15.35%	0.15%	A1	AA-	A+
Prudential Insurance Co.	15.30%	0.15%	Aa3	AA-	AA-
Pacific Life Insurance	12.81%	0.15%	Aa3	AA-	AA-
State Street Bank	12.65%	0.15%	Aa2	AA-	AA
	<b>96.79%</b>	<b>0.14%</b>			

\*Source: Invesco

# 457(b) Plan Investment Structure

## Lineup Mapped to Callan's Clean Sheet



Callan

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**Appendix – Callan Update**

# Published Research Highlights: 3Q24

## STAR Report (clients-only)



## Private Equity Fees and Terms Study



## 2Q24 Market Intelligence Report (clients-only)



## Coming Soon: ESG Survey



## Recent Blog Posts

**Navigating U.S. Equity Concentration: A Look at Global Stocks**

Fanglue Zhou

**Nonprofits: Same Mission, but New Approach to Allocations**

Tony Lissuzzo

**The Supermicro Conundrum: When Success Hurts Managers**

Nicole Wubbena

## Additional Reading

Active vs. Passive quarterly charts  
*Capital Markets Review* quarterly newsletter  
Monthly Updates to the Periodic Table  
*Market Pulse Flipbook* quarterly markets update  
Market Intelligence (clients-only)  
*Real Estate Indicators* market outlook

# Callan Institute Events

Upcoming conferences, workshops, and webinars

## 2025 National Conference

**Mark your calendars for this event in Scottsdale on April 27-29, 2025**

Our annual conference will feature mainstage speakers and Callan-led workshops on a variety of topics.

This year we welcome Zanny Minton Beddoes to the stage.

Registration for this event will open in January 2025!

Please visit our website at [callan.com/events-education](https://callan.com/events-education) as we add dates to our 2025 calendar!



## Mark Your Calendar

### 2025 Regional Workshops

June 3, 2025 – Denver

June 5, 2025 – New York

October 28, 2025 – Chicago

October 30, 2025 – San Francisco

*Watch your email for further details and an invitation.*

## Upcoming Webinars

### November 21, 2024

Research Café featuring Callan's 2024 Private Equity Fees and Terms Study

### January 2025

Callan's 2025 Capital Markets Assumptions Webinar

# Introducing Callan On-Demand Education (CODE)

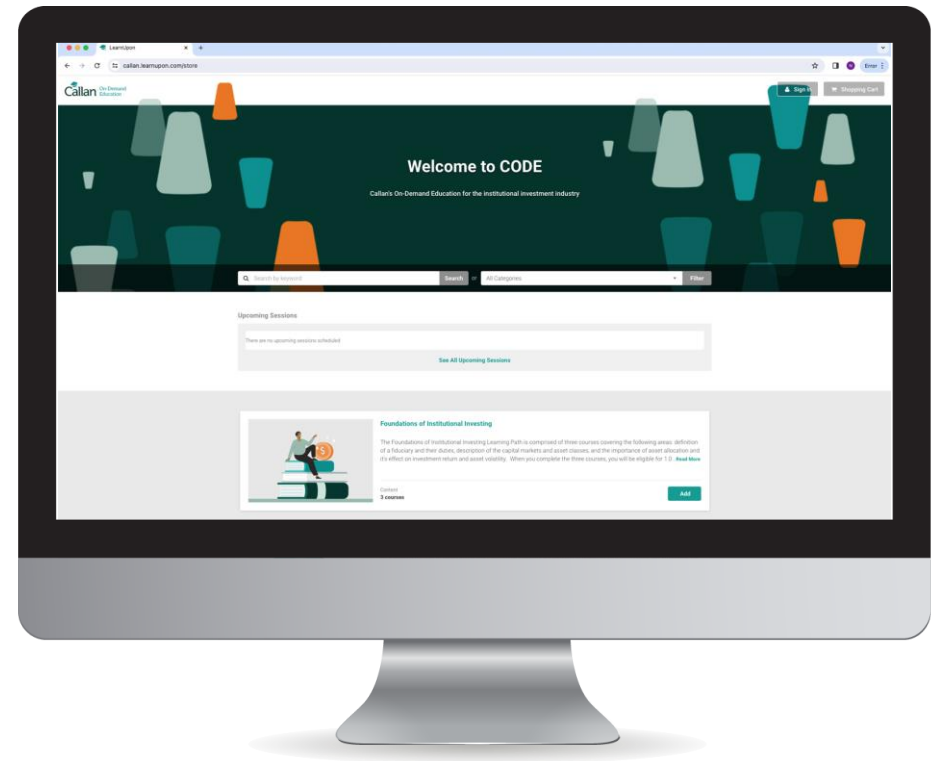


- ▶ Variety of educational courses
- ▶ Interactive and engaging
- ▶ Self-guided modules
- ▶ Eligible for continuing education credits
- ▶ Learning at your own pace

**CODE** courses are designed for investment professionals of all levels—and they're self-guided. Access them anytime, from anywhere, and get continuing education credits for each completed course.

**CODE** is for you, your colleagues, your new hires, and your interns. It's for anyone interested in learning about institutional investing.

[callan.com/code](https://callan.com/code)



## 3 Reasons to Take CODE Courses

- 1 Become a better fiduciary
- 2 Showcase your skills and knowledge
- 3 Learn from Callan's investment experts



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