

RVK

Quarterly Performance Report

Pennsylvania State Employees' Retirement System
Deferred Compensation Plan

June 30, 2025

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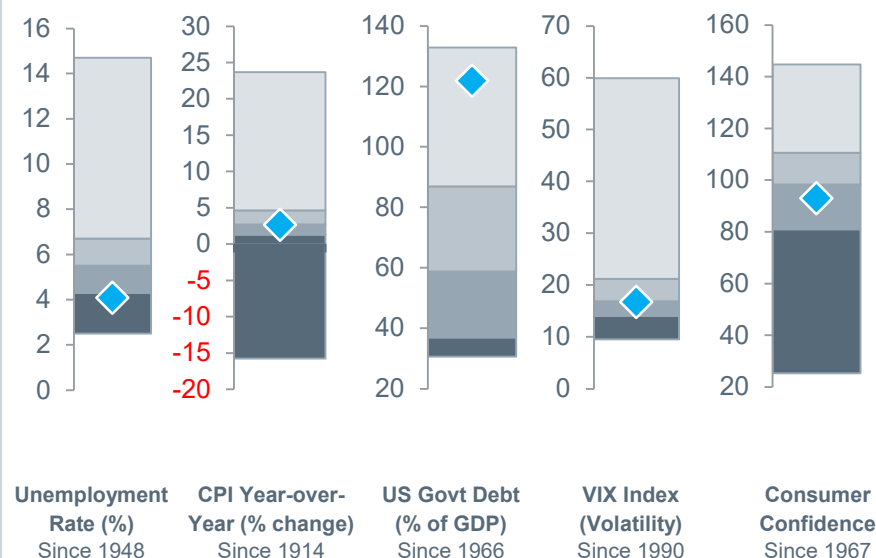
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Capital Markets Review

Second Quarter Economic Environment

The US tariff policy negotiations were front and center for investors throughout Q2. On April 2nd, the unexpected breadth and scale of the announced tariffs triggered a sharp drop in equity markets and contributed to significant dislocations in the US Treasury market. A 90-day tariff pause was declared on April 9th, reducing tariffs for most countries to the previously established 10% rate. This, along with subsequent progression in trade deals, contributed to a rebound in risk assets that continued through the latter half of the quarter. Global equity markets finished Q2 with returns of 11.6%, as measured by the MSCI All Country World Investable Market Index. Non-US developed and emerging market regional returns outpaced the US equity market with contributions from a weakening US Dollar and economic stimulus within major countries. Global bond markets, amid the volatility in Q2, delivered positive performance during the quarter, as inflationary pressures have remained subdued despite initial concerns that tariffs would cause a significant one-time shock. However, the Organisation for Economic Cooperation and Development (OECD) projected headline inflation for OECD countries of 4.2% in 2025, up from forecasts of 3.7% released in December 2024. The US Federal Open Market Committee (FOMC) maintained its policy rate range. At present, the FOMC forecasts indicate a continued expectation for rate reductions totaling 50 basis points in 2025.

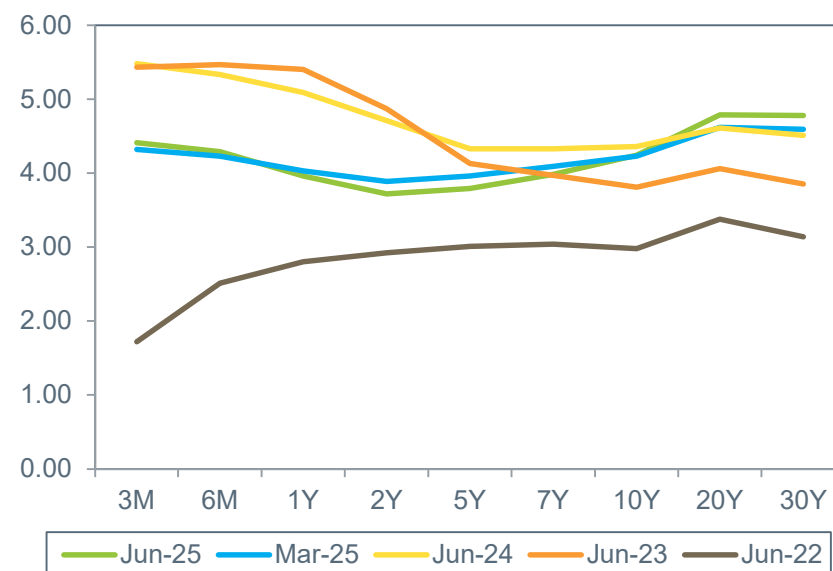
Key Economic Indicators

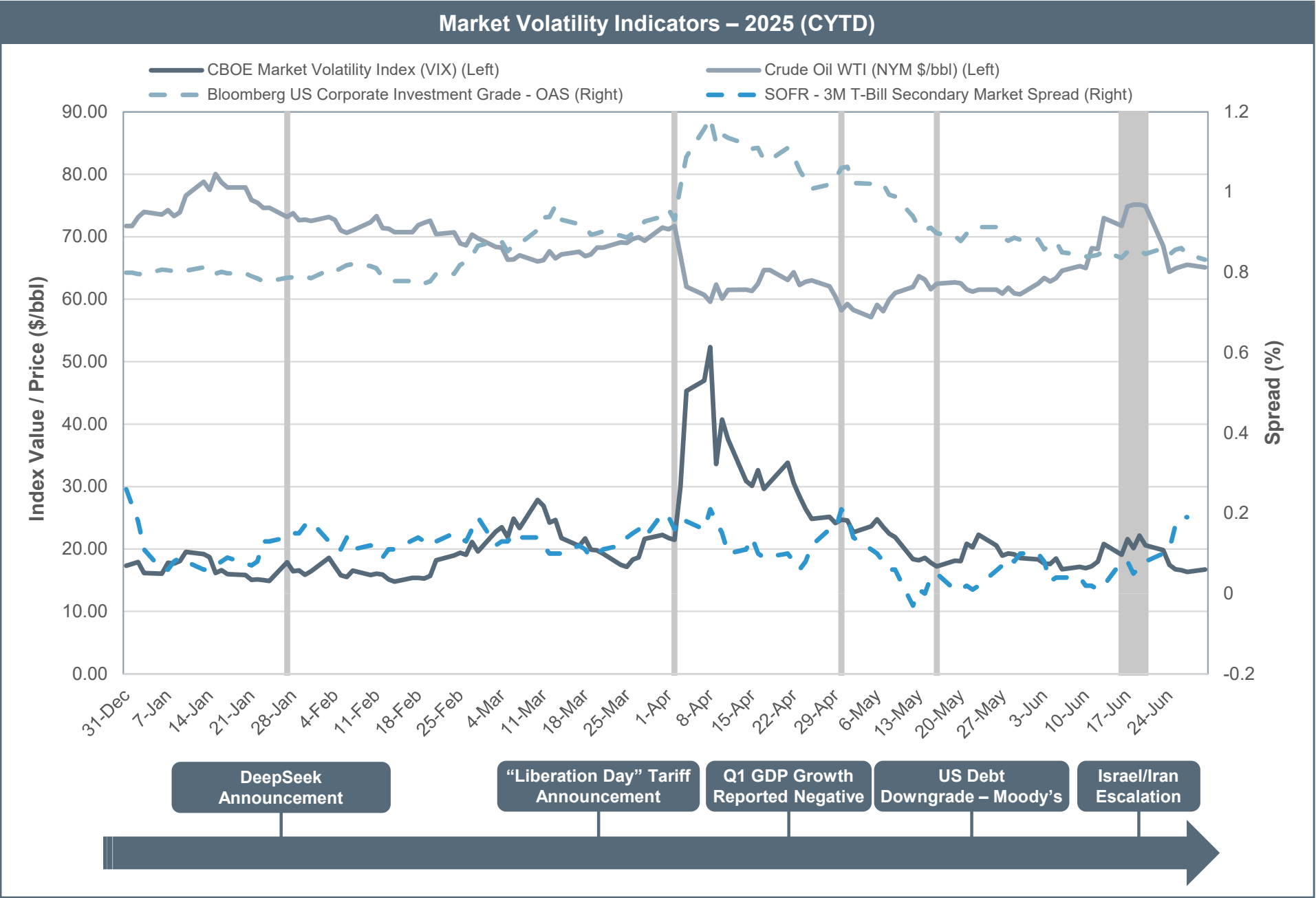


Economic Indicators	Jun-25	Mar-25	Jun-24	Jun-22	20 Yr
Federal Funds Rate (%)	4.33	4.33	5.33	1.58	1.72
Breakeven Infl. - 5 Yr (%)	2.31 ▼	2.63	2.24	2.62	1.92
Breakeven Infl. - 10 Yr (%)	2.28 ▼	2.37	2.27	2.34	2.08
CPI YoY (Headline) (%)	2.7 ▲	2.4	3.0	9.1	2.6
Unemployment Rate (%)	4.1 ▼	4.2	4.1	3.6	5.8
Real GDP YoY (%)	3.3 ▲	2.0	3.0	1.9	1.9
PMI - Manufacturing	49.0	49.0	48.5	53.0	52.8
USD Total Wtd Idx	119.83 ▼	126.94	124.52	121.05	104.92
WTI Crude Oil per Barrel (\$)	65.1 ▼	71.5	81.5	105.8	72.3
Gold Spot per Oz (\$)	3,303 ▲	3,118	2,337	1,807	1,400

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	10.94	6.20	15.16	16.64	13.65
Russell 2000	8.50	-1.79	7.68	10.04	7.12
MSCI EAFE (Net)	11.78	19.45	17.73	11.16	6.51
MSCI EAFE SC (Net)	16.59	20.89	22.46	9.28	6.51
MSCI Emg Mkts (Net)	11.99	15.27	15.29	6.81	4.81
Bloomberg US Agg Bond	1.21	4.02	6.08	-0.73	1.76
ICE BofA 3 Mo US T-Bill	1.04	2.07	4.68	2.76	1.97
NCREIF ODCE (Gross)	1.03	2.10	3.54	3.43	5.35
FTSE NAREIT Eq REIT (TR)	-1.16	-0.25	8.60	8.63	6.32
HFRI FOF Comp	3.33	2.93	7.15	6.19	3.81
Bloomberg Cmtty (TR)	-3.08	5.53	5.77	12.68	1.99

Treasury Yield Curve (%)





Second Quarter Review

Broad Market

The US tariff policy announcement caused a significant market drawdown to start Q2. However, following the initial tariff pause and other positive developments, market volatility waned and market returns rebounded with the Russell 3000 Index returning 11.0% in Q2.

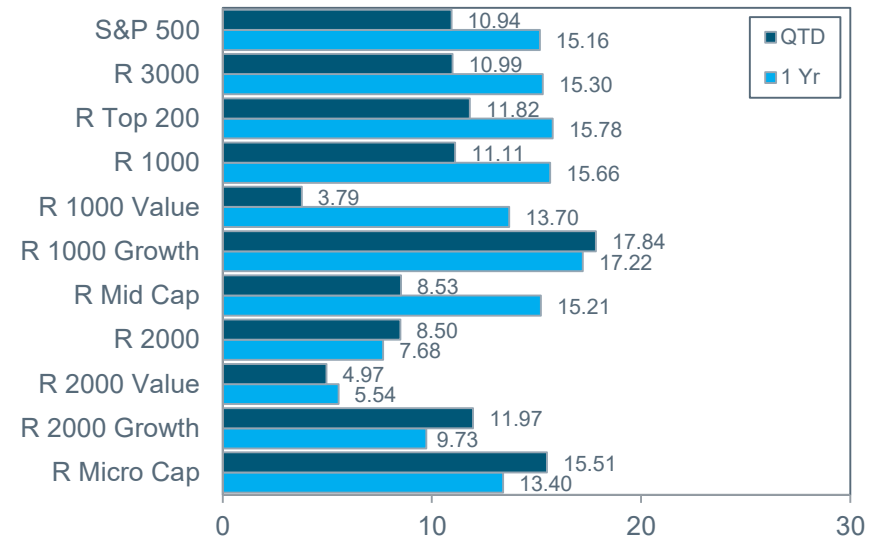
Market Cap

Growth stocks outperformed value stocks with the Russell 3000 Growth Index returning 17.6% while the Russell 3000 Value Index was more muted at 3.8%. Large-cap outperformed small-cap as measured by the Russell 1000 and Russell 2000 returning 11.1% and 8.5%, respectively. The primary contributor to the performance of the Russell 3000 Index was the recovery of the information technology sector which returned 23.7% in Q2.

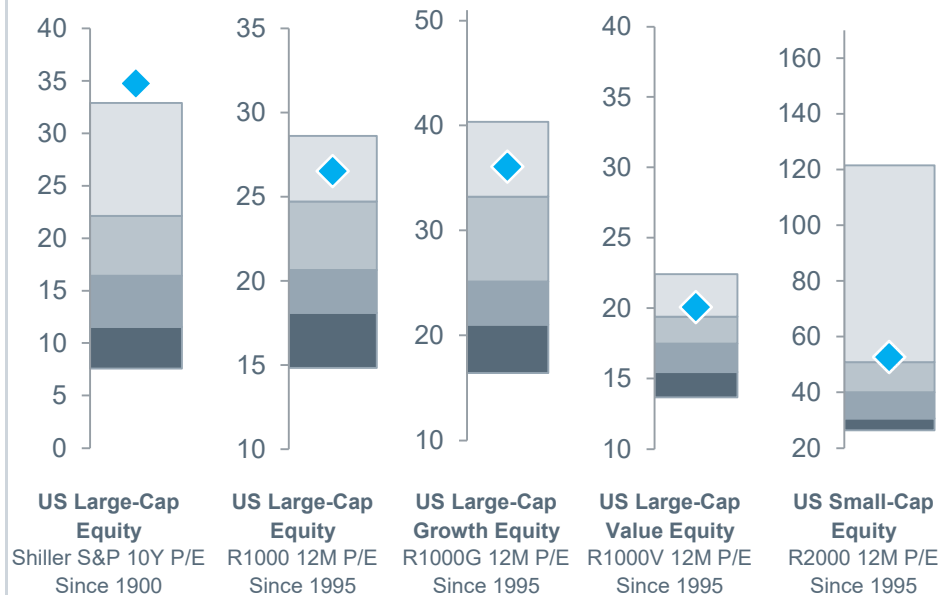
Style and Sector

Active value managers across the cap spectrum tended to have an easier time outperforming their benchmark than active growth managers. As in past quarters characterized by strong mega-cap growth performance, the strong absolute performance and concentration of growth indexes again played a role in the difficulty experienced by active growth managers.

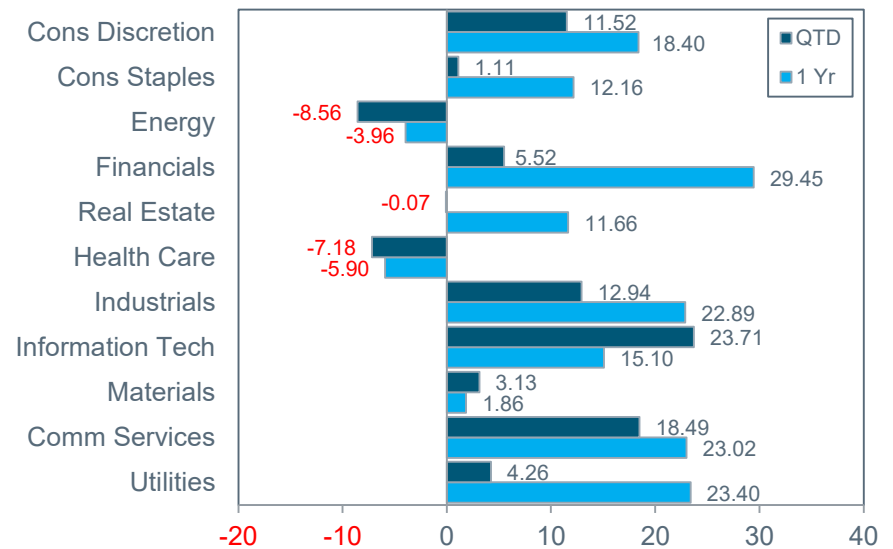
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition.
P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

Second Quarter Review

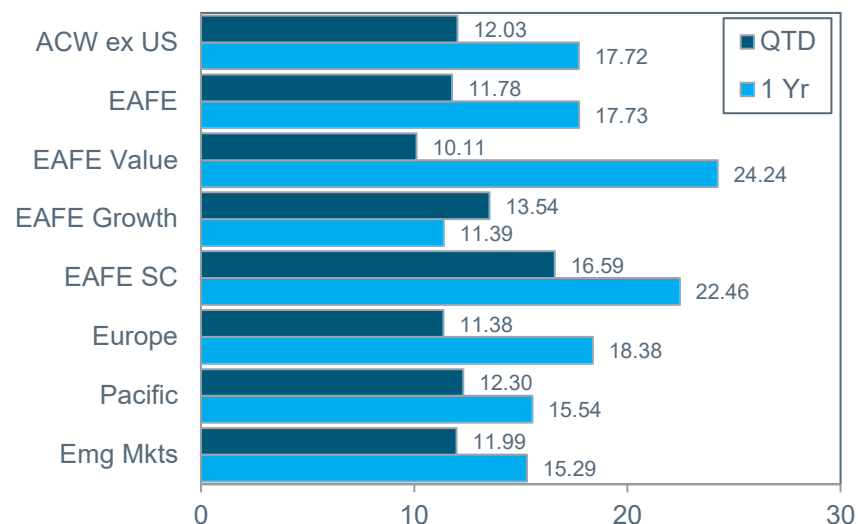
Developed Markets

Developed international markets delivered double digit returns that slightly outpaced their US counterparts in Q2, with the MSCI EAFE Index posting an 11.8% return during the quarter. This was driven, in part, by a weakening US Dollar and stimulus measures from foreign governments. Growth stocks outperformed value stocks in Q2, but remain significantly behind on a year-to-date basis. Small-cap stocks outperformed large-cap stocks during the quarter. All countries in the space posted positive returns for the quarter, while energy was the only sector with a negative return.

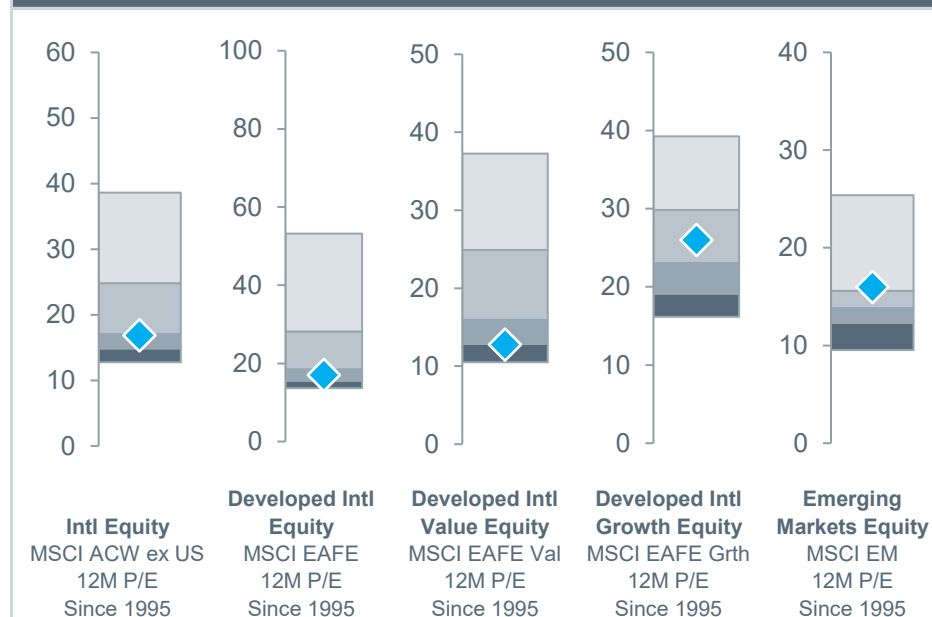
Emerging Markets

Emerging markets also experienced double digit returns in Q2, with the MSCI Emerging Markets Index returning 12.0% during the quarter. Growth stocks in emerging markets outpaced value stocks in Q2 with the group now outpacing their value counterparts for the year-to-date period. Small-cap stocks outperformed large-cap stocks during the quarter. Among the largest countries in the region, the top performers were South Korea and Taiwan, which benefited from renewed positive sentiment around companies contributing to AI development, and India, which rebounded from a more difficult Q1. China delivered positive market returns for Q2, but lagged other stronger performing countries.

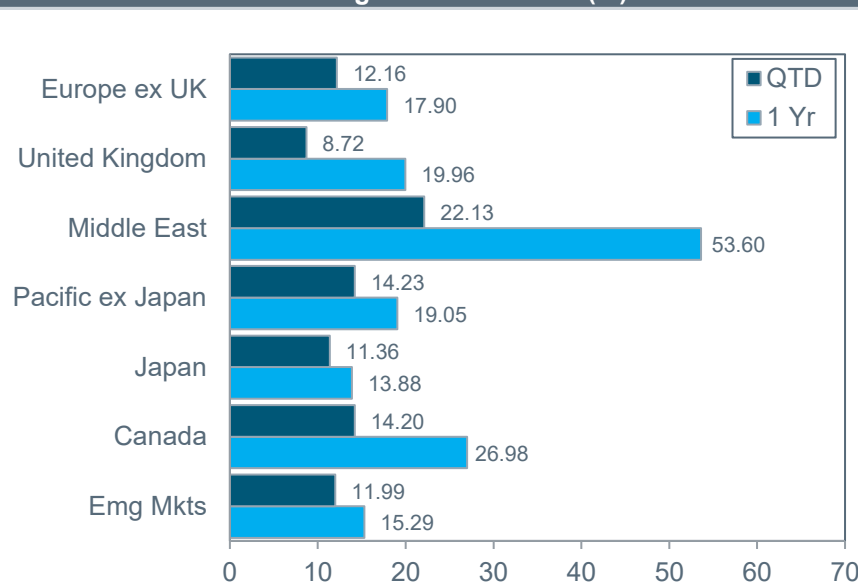
MSCI Style and Capitalization Market Performance (%)



Valuations



MSCI Region Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

All returns are shown net of foreign taxes on dividends.

Second Quarter Review

Broad Market

In Q2, the US yield curve steepened as short-term Treasury yields declined while long-term yields rose. The spread between 2-year and 10-year Treasuries widened by 18 basis points. The 10-year Treasury yield ended the quarter at 4.24%, essentially flat with the prior quarter-end, after fluctuating between 4.00% and 4.60% amid market volatility. These market movements reflected investor reactions to proposed tariffs, tax policy uncertainty and increased concerns over fiscal deficit, and tensions in the Middle East. The FOMC held its policy rate steady at 4.25%–4.50%, signaling a patient approach as it monitors the key economic data points and evolving policy dynamics. The Bloomberg US Aggregate Bond Index returned 1.2%.

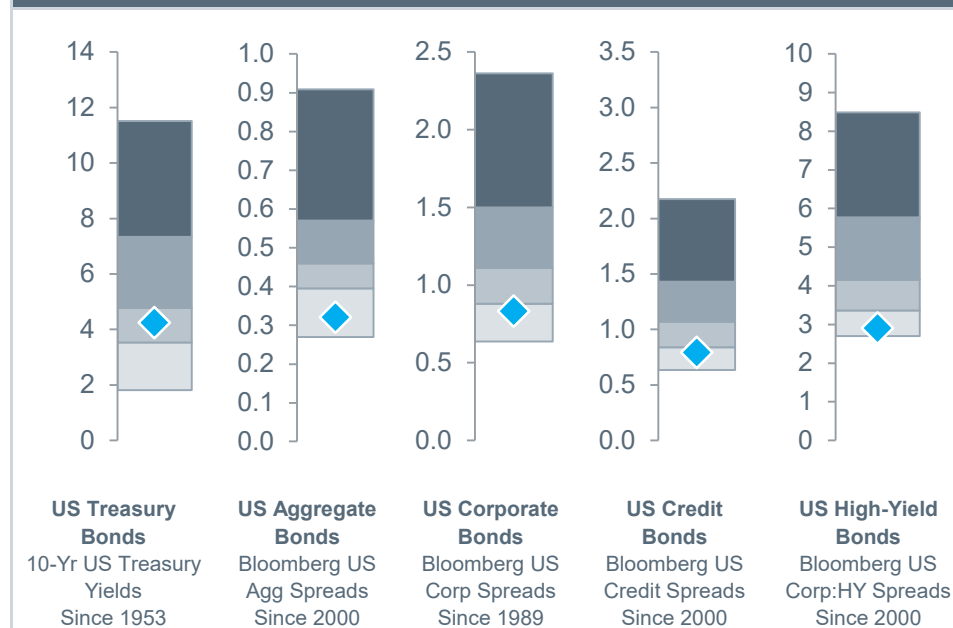
Credit Market

Risk sentiment improved during the quarter, fueling a strong rally in credit markets. The Bloomberg US Corporate Investment Grade Index gained 1.8%, while the Bloomberg US Corporate High Yield Index surged 3.5%.

Emerging Market Debt

Emerging market debt also saw strong performance, helped by a weaker US dollar. Local currency bonds outpaced hard currency issues: the JPMorgan GBI-EM Global Diversified Index rose 7.6%, versus a 3.3% gain for the JPMorgan EMBI Global Diversified Index.

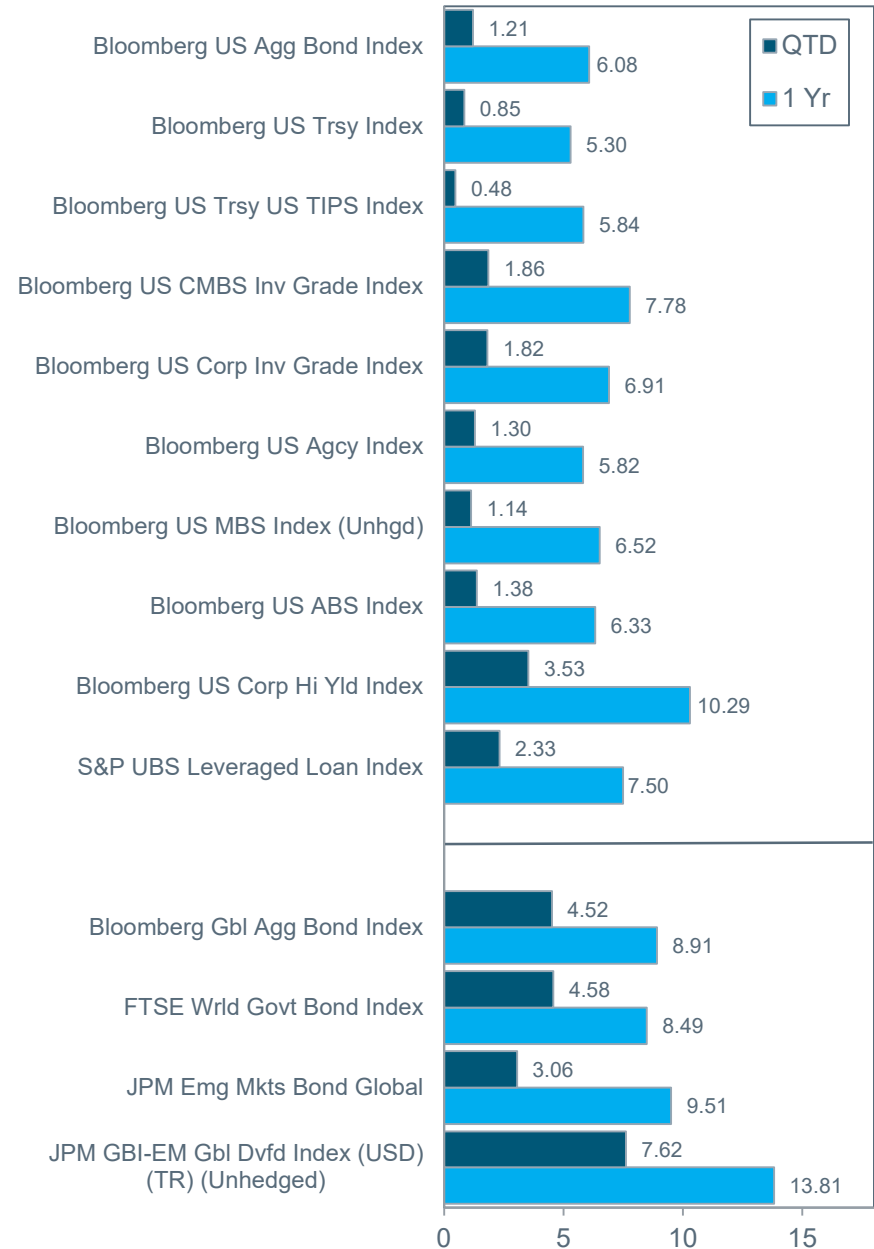
Valuations



Valuation data courtesy of Bloomberg Professional Service.

Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.

Fixed Income Performance (%)



Second Quarter Review - Absolute Return

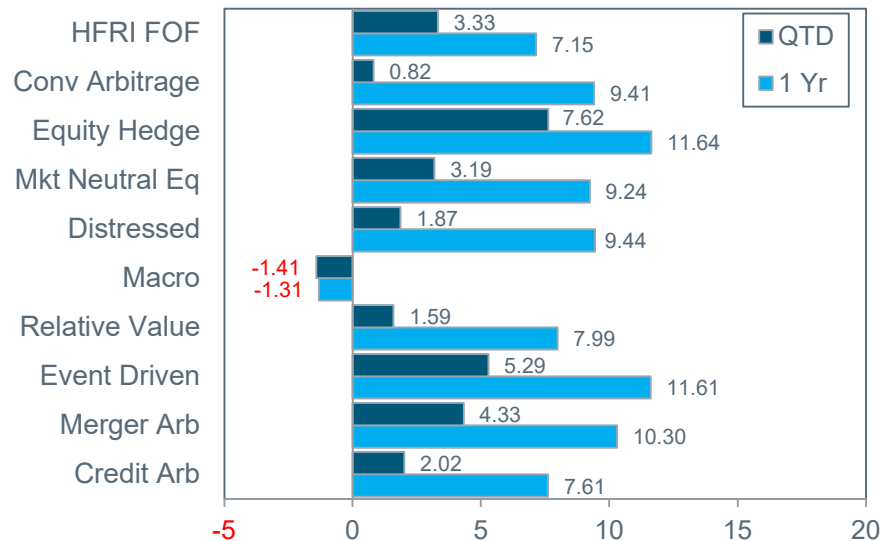
General Market - Hedge Funds

Hedge Fund returns were broadly positive in Q2 amid elevated macroeconomic uncertainty. Preliminary performance suggests that the HFRI Asset Weighted Composite Index finished the quarter with a 2.0% return, bringing its year-to-date return to 2.5%. Equity oriented managers were top performers. Alpha generation was strong, particularly on the long side, as global equities recovered sharply from their April lows and implied volatility declined from its April highs. Event Driven strategies were particularly strong in Q2 following a muted Q1. Macro strategies delivered mixed results with some properly positioned to capitalize on the volume of economic events. Diversified strategies remained consistently positive during Q2.

General Market - Global Tactical Asset Allocation (GTAA)

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely generated positive performance in Q2 with some outperforming a US centric blend of 60% equity and 40% fixed income (60/40 blend). The top performing long-biased GTAA strategies benefited from allocations to developed international equities, particularly European stocks, as well as industrials and information technology sectors. Managers that trailed peers held higher exposures to long duration bonds and MLPs. Alternative Risk Premia strategies posted disparate returns.

HFRI Hedge Fund Performance (%)



Second Quarter Review - Real Assets

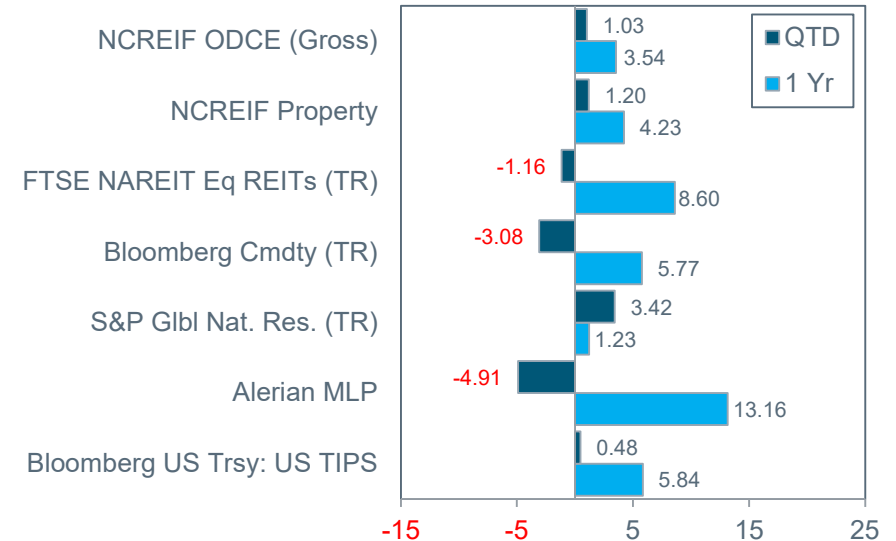
General Market - Diversified Inflation Strategies (DIS)

Diversified Inflation Strategy (DIS) managers tracked closely by RVK reported positive performance for the quarter but underperformed a 60/40 blend. The top performing managers benefited from larger exposures to listed infrastructure and precious metals within commodities. Managers that lagged peers had higher exposure to energy and soft commodities as supply and production expanded. Allocations to REITs detracted as returns were negatively impacted by investor uncertainty around US policy shifts, elevated interest rates, and volatility from geopolitical conflicts.

General Market - Real Estate

Core private real estate generated a positive 1.0% total return in Q2 (on a preliminary and gross of fee basis), as reported by the NFI-ODCE Index, driven primarily from a 1.0% return from income with price appreciation being incrementally positive. Investors in publicly traded real estate underperformed their private market counterparts. Publicly traded real estate delivered a total return of -1.1%, as measured by FTSE/NAREIT All REITs Index, however it remains positive year-to-date with returns of 1.7%. There continues to be encouraging signs of price stabilization across commercial real estate.

Real Asset Performance (%)



NCREIF Property Index is shown N/A until available.

Annual Asset Class Performance

As of June 30, 2025

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD
Best	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	19.96	43.24	16.09	26.29	25.02	20.89
	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	18.40	28.71	7.47	18.24	11.54	19.45
	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	18.31	27.11	1.46	16.93	9.15	15.27
	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	16.12	22.17	-5.31	13.73	8.73	6.20
	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	12.34	14.82	-11.19	13.45	8.19	5.53
	4.98	16.00	8.96	4.89	0.05	8.77	10.71	-4.02	19.59	10.99	11.26	-11.85	13.16	7.50	4.67
	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	-4.38	18.42	10.88	10.10	-13.01	9.83	5.38	4.57
	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-4.62	14.32	7.82	6.17	-14.45	7.13	5.25	4.02
	-4.18	8.78	0.07	2.45	-1.44	4.68	7.50	-4.68	8.72	7.51	5.96	-18.11	6.07	3.82	3.38
	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	7.11	5.28	-20.09	5.53	1.84	2.93
	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	1.19	0.05	-20.44	5.02	1.82	2.10
	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	0.67	-1.55	-21.39	3.90	1.25	2.07
	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.57	5.34	-3.12	-2.52	-24.34	-7.91	-1.43	-0.25
Worst	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-8.00	-2.54	-27.09	-12.02	-4.15	-1.79
	S&P 500 - US Large Cap	R 2000 - US Small Cap	MSCI EAFE (Net) - Int'l Dev.	MSCI EAFE SC (Net) - Int'l SC	MSCI EM (Net) - Int'l Emg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp Hi Yield - FI	Bloombrg US Trsy US TIPS - FI	Bloombrg US Gov Credit Lng - FI	NCREIF ODCE (Gross) - Real Estate	FTSE NAREIT Eq REITs Index (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofA 3 Mo T-Bill - Cash Equiv	

NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.

Plan Performance Review

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Manager Monitoring Dashboard

As of June 30, 2025

Total: \$5,074,680,841									
Fund Options: 8		Investment Options	Total Operating Expense	Fee Ranking	Market Value (\$)	Market Value (%)	RVK's Manager Ranking	Style Discipline	Return Expectations
Target Date Funds	Conservative ↑ ↓ Aggressive	Post Retirement Date Fund	0.07%	1	\$329,365,732	6.49%	Positive	Multi-Asset	Track Index
		2030 Retirement Date Fund	0.07%	1	\$147,884,166	2.91%	Positive	Multi-Asset	Track Index
		2035 Retirement Date Fund	0.07%	1	\$149,321,104	2.94%	Positive	Multi-Asset	Track Index
		2040 Retirement Date Fund	0.07%	1	\$105,762,227	2.08%	Positive	Multi-Asset	Track Index
		2045 Retirement Date Fund	0.07%	1	\$94,739,962	1.87%	Positive	Multi-Asset	Track Index
		2050 Retirement Date Fund	0.07%	1	\$70,616,194	1.39%	Positive	Multi-Asset	Track Index
		2055 Retirement Date Fund	0.07%	1	\$29,456,397	0.58%	Positive	Multi-Asset	Track Index
		2060 Retirement Date Fund	0.07%	1	\$13,658,479	0.27%	Positive	Multi-Asset	Track Index
		2065 Retirement Date Fund	0.07%	1	\$8,177,568	0.16%	Positive	Multi-Asset	Track Index
		2070 Retirement Date Fund	0.07%	1	\$744,841	0.01%	Positive	Multi-Asset	Track Index
Core Options	Large Cap Equity	U.S. Large Company Stock Index Fund	0.0100%	4	\$1,744,140,699	34.37%	Positive	US Large Cap Equity	Track Index
	SMID Cap Equity	U.S. Small/Mid Company Stock Index Fund	0.0150%	1	\$483,325,268	9.52%	Positive	US SMID Cap Equity	Track Index
	International Equity	Global Non-U.S. Stock Index Fund	0.0350%	2	\$330,188,690	6.51%	Positive	Global Ex-US All Cap Equity	Track Index
	Fixed Income	U.S. Bond Index Fund	0.0125%	4	\$266,065,825	5.24%	Positive	Core Fixed Income	Track Index
	Stable Value	Stable Value Fund	0.2481%	26	\$949,463,032	18.71%	Positive	Stable Value	Exceed Index
	Cash Equivalents	Short Term Investment Fund	0.0000%	N/A	\$144,250,345	2.84%	N/A	Cash	Exceed Index
Specialty Options	Brokerage Account	Charles Schwab Self-Directed Brokerage (SDB)	\$60 per year*	N/A	\$207,520,313	4.09%	N/A	N/A	N/A

Positive - Strong across all key areas; a best idea available for new searches. Requires full due diligence and on-site review.

Neutral - Institutional-quality but not a best idea. May still serve specific roles.

Negative - Lacking strength or stability in key areas. Research team will note improvements needed.

Research - Under active due diligence. May be a new top candidate or an existing strategy under review due to material changes.

Unrated - Insufficient research completed to assign a rating.

Performance shown is net of fees and product specific.

Fee rankings are based on each fund's applicable mutual fund peer group and are intuitively ranked (i.e., a lower expense ratio yields a better percentile rank than a higher expense ratio). Funds with no applicable fee peer groups will show N/A for fee peer group ranking. Market values shown are as of the report date. The Target Retirement suite and Brokerage Account are each considered one fund option. For more information on RVK manager rankings, please see the Addendum.

*Empower charges \$60 in annual account maintenance fee. Additional charges and transaction fees may be assessed by Charles Schwab on individual participant accounts.

Stable Value Fund Fee Ranking is for total fee excluding wrap fees.

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Manager Monitoring Dashboard

As of June 30, 2025

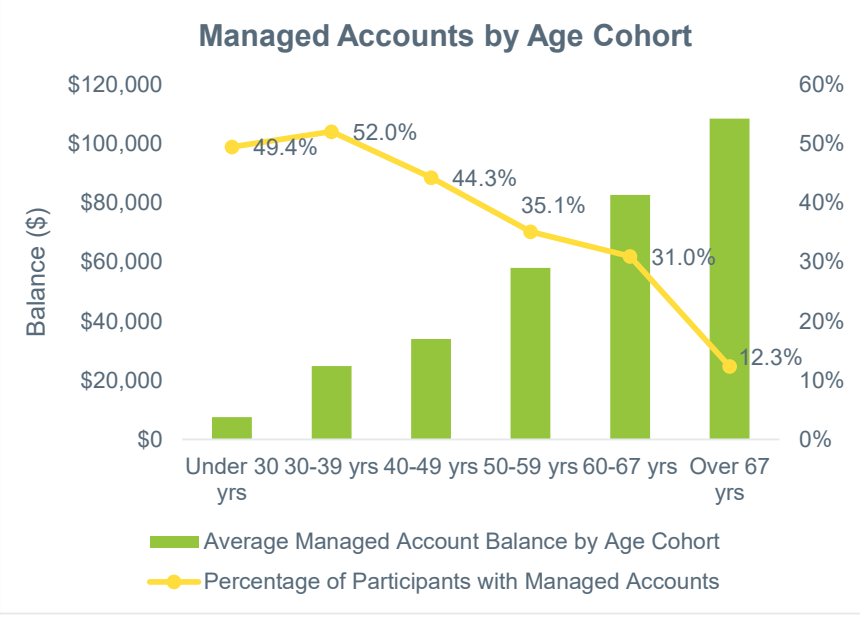
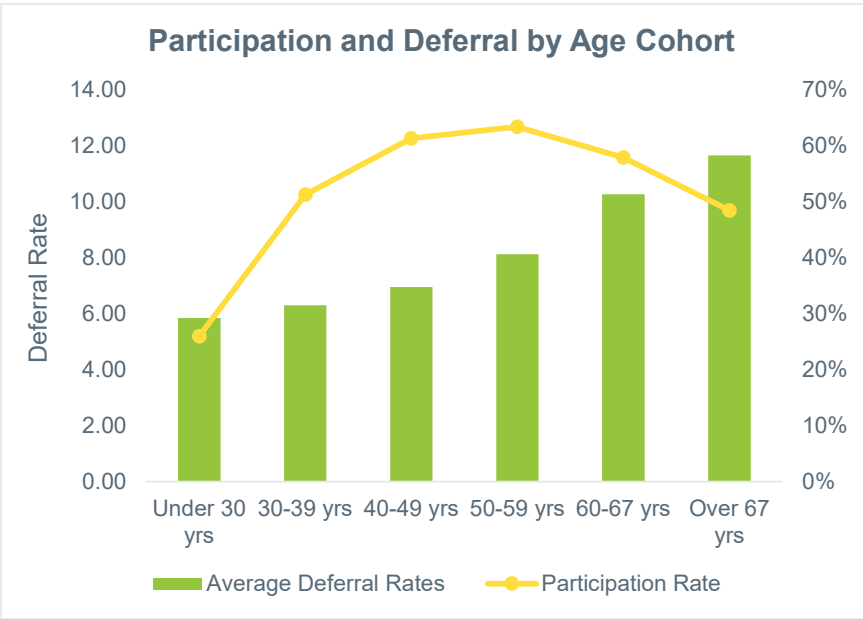
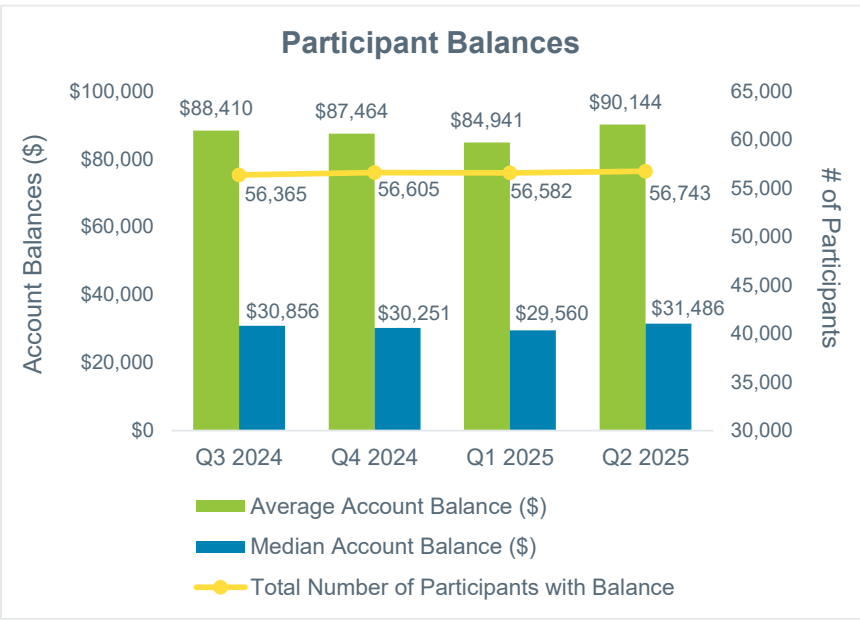
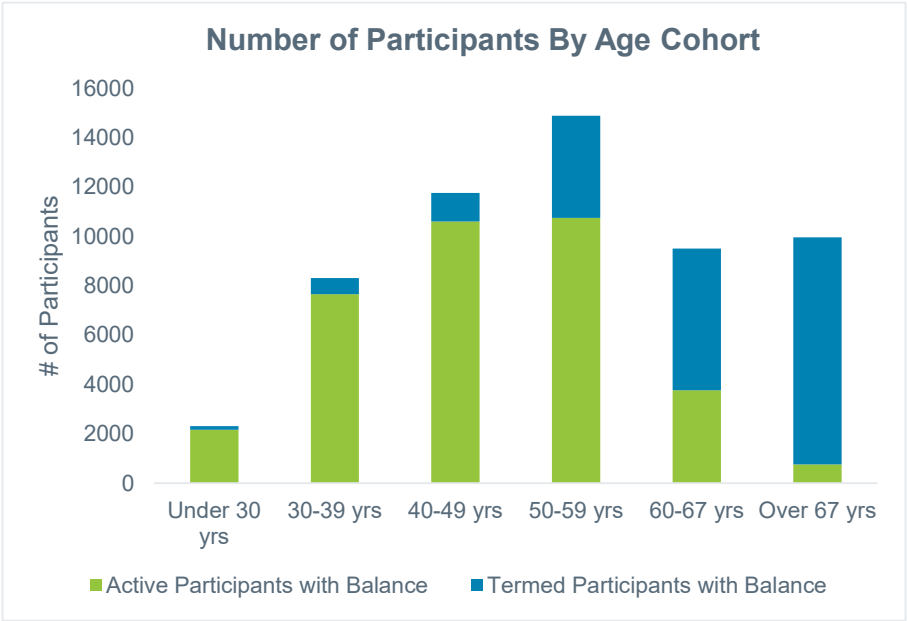
	Investment Options	Qualitative Evaluation	All Managers	Active Managers (Over 4 Consecutive Quarters)		Passive Managers	Watch Status
		No adverse Issues or Events?	Performance In Line with Expectations?	3 Year Return is Above Benchmark?	3 Year Return is Above Peer Group Median?	3 Year Return is in Line with Benchmark?	
Target Date Funds	Post Retirement Date Fund	✓	✓			✓	In Good Standing
	2030 Retirement Date Fund	✓	✓			✓	In Good Standing
	2035 Retirement Date Fund	✓	✓			✓	In Good Standing
	2040 Retirement Date Fund	✓	✓			✓	In Good Standing
	2045 Retirement Date Fund	✓	✓			✓	In Good Standing
	2050 Retirement Date Fund	✓	✓			✓	In Good Standing
	2055 Retirement Date Fund	✓	✓			✓	In Good Standing
	2060 Retirement Date Fund	✓	✓			✓	In Good Standing
	2065 Retirement Date Fund	✓	✓			✓	In Good Standing
	2070 Retirement Date Fund	✓	✓			N/A	In Good Standing
Core Options	U.S. Large Company Stock Index Fund	✓	✓			✓	In Good Standing
	U.S. Small/Mid Company Stock Index Fund	✓	✓			✓	In Good Standing
	Global Non-U.S. Stock Index Fund	✓	✓			✓	In Good Standing
	U.S. Bond Index Fund	✓	✓			✓	In Good Standing
	Stable Value Fund	✓	✓	X	✓		In Good Standing
	Short Term Investment Fund	✓	✓	✓	✓		In Good Standing
Specialty Options	Charles Schwab Self-Directed Brokerage (SDB)	✓	✓				In Good Standing

Funds that do not have enough yearly data will show "N/A". Performance measurements are not applicable to the Self-Directed Brokerage Account.

Passive funds meet expectations when tracking the benchmark by +/-0.10% for U.S. Large Cap Equity, -0.10% to +0.40% for U.S. Small Cap Equity, -0.40% to +1.00% for Global Equity, +/-0.10% for Fixed Income, and +/-0.50% for Target Retirement Date Funds.

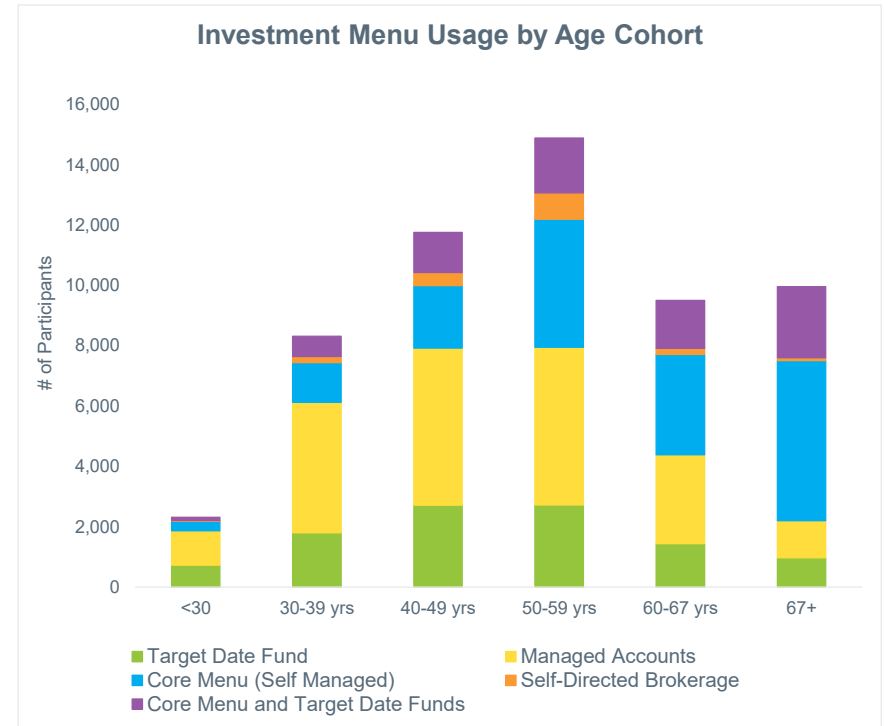
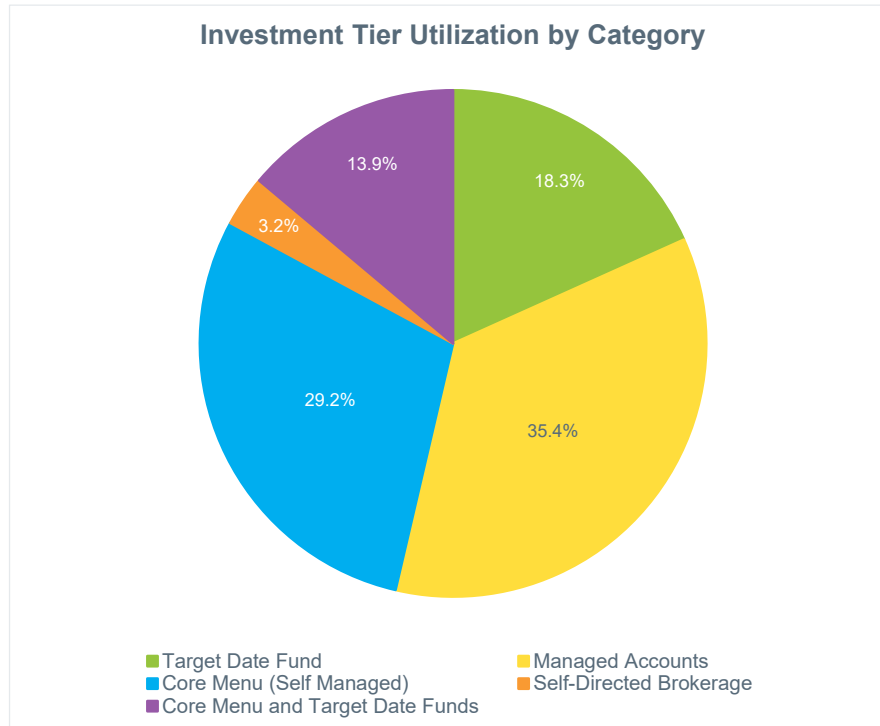
A higher upper tracking range is allowed for certain asset classes to account for the use of securities lending.

Active managers meet expectations when exceeding the benchmark and ranking above median.



Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Investment Menu Utilization

As of June 30, 2025

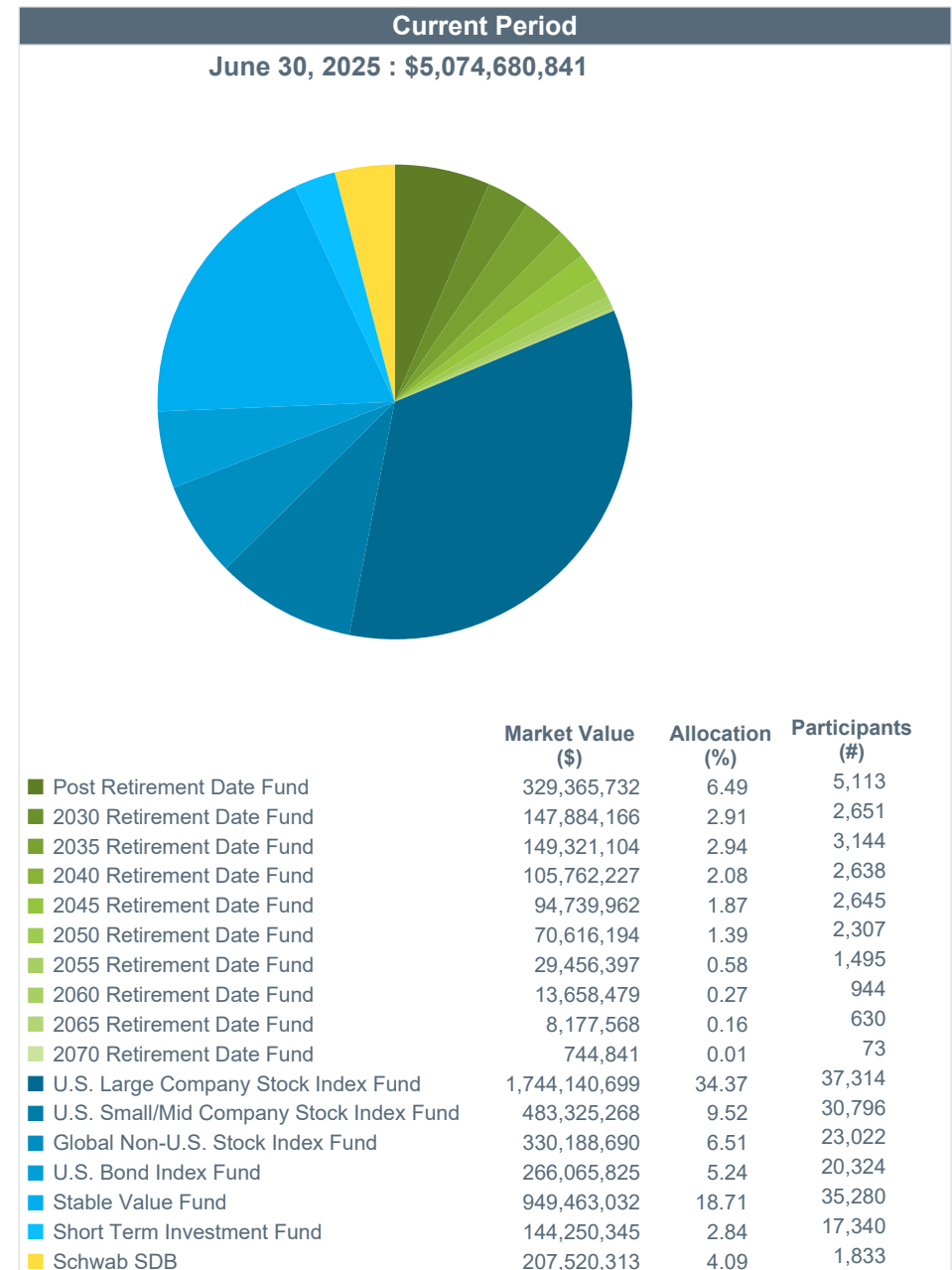
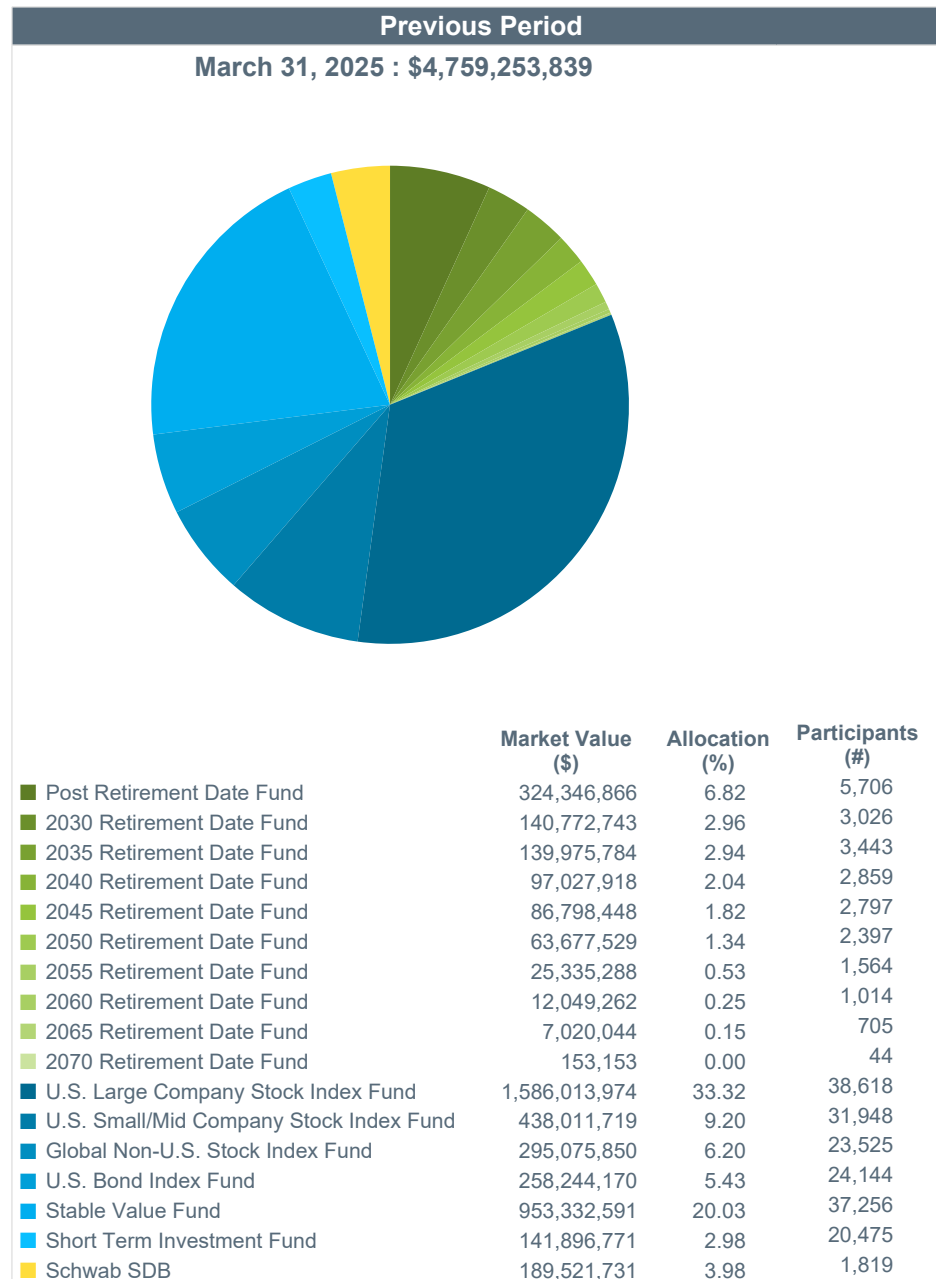


Investment Menu Usage by Category	Participant Count	% of Participants
Do it for me		
Target Date Fund Holders	10,367	18.3%
Managed Accounts	20,074	35.4%
Do it with me		
Core Menu (Self Managed)	16,593	29.2%
Core Menu and Target Date Funds	7,876	13.9%
Do it myself		
Self-Directed Brokerage Account	1,833	3.2%
Total	56,743	100.0%

Investment Menu Utilization data is provided by Empower and includes all participants with a positive balance at period-end. Participant counts may differ slightly due to missing or incomplete demographic information. 'Core Menu' includes participants solely in core options. 'Target Date Fund' includes those solely in one or more target date fund. 'Core Menu and Target Date Funds' reflects participants invested in both tiers. 'Self-Directed Brokerage' includes brokerage users, who may also have balances in other tiers.

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Asset Allocation by Manager

As of June 30, 2025



Allocations shown may not sum to 100% exactly due to rounding. Market value shown for Short Term Investment Fund includes forfeiture balance.

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Cash Flows

1 Quarter Ending June 30, 2025

	Beginning Market Value	Net Transfers	Contributions	Distributions	Fees	Gain / Loss	Ending Market Value
Tier I : Target Date Funds							
Post Retirement Date Fund	324,346,866	-3,965,923	2,151,993	-7,602,639	-91,753	14,527,188	329,365,732
2030 Retirement Date Fund	140,772,743	-542,978	3,159,863	-3,786,210	-45,371	8,326,121	147,884,166
2035 Retirement Date Fund	139,975,784	-1,224,178	2,117,168	-1,577,571	-49,297	10,079,198	149,321,104
2040 Retirement Date Fund	97,027,918	-960,857	2,703,589	-1,042,891	-39,249	8,073,718	105,762,227
2045 Retirement Date Fund	86,798,448	-2,275,639	2,562,086	-467,699	-38,983	8,161,750	94,739,962
2050 Retirement Date Fund	63,677,529	-1,242,428	1,610,499	-124,252	-32,602	6,727,448	70,616,194
2055 Retirement Date Fund	25,335,288	51,520	1,281,899	-83,490	-17,062	2,888,241	29,456,397
2060 Retirement Date Fund	12,049,262	-235,631	621,397	-111,632	-9,316	1,344,398	13,658,479
2065 Retirement Date Fund	7,020,044	-119,830	478,799	-15,109	-5,750	819,414	8,177,568
2070 Retirement Date Fund	153,153	511,523	29,947	-41	-478	50,738	744,841
Total Target Date Funds	897,157,034	-10,004,422	16,717,240	-14,811,534	-329,861	60,998,214	949,726,670
Tier II: Core Options							
U.S. Large Company Stock Index Fund	1,586,013,974	203,672	21,933,252	-35,746,074	-587,318	172,323,195	1,744,140,699
U.S. Small/Mid Company Stock Index Fund	438,011,719	-4,336,404	5,852,515	-8,711,241	-150,149	52,658,829	483,325,268
Global Non-U.S. Stock Index Fund	295,075,850	-592,454	7,943,890	-6,358,157	-331,363	34,450,923	330,188,690
U.S. Bond Index Fund	258,244,170	7,099,300	4,719,968	-6,974,994	-177,534	3,154,915	266,065,825
Stable Value Fund	1,000,799,704	3,325,003	9,186,743	-29,396,000	-303,126	7,365,553	990,977,877
Short Term Investment Fund	141,330,860	4,679,164	3,061,601	-7,389,475	-54,686	1,487,764	143,115,229
Total Core Options	3,719,476,277	10,378,280	52,697,969	-94,575,942	-1,604,177	271,441,179	3,957,813,587
Tier III: Speciality Options							
Schwab SDB	189,521,731	-373,874	-	-	-	18,372,456	207,520,313
Total Speciality Options	189,521,731	-373,874	-	-	-	18,372,456	207,520,313
Total Fund Cash Flows	4,806,155,041	-16	69,415,210	-109,387,476	-1,934,037	350,811,848	5,115,060,570

Cash flow data is provided by Empower. Cash flows and market value shown for Stable Value Fund are based on book value. Market value for Short Term Investment Fund and Total Fund does not include forfeiture balance. Contributions include employee contributions, employer contributions, and rollovers. Distributions include death withdrawals and total distributions. Net transfers are the sum of transfers in and out. Net transfers across investment options may not fully offset due to rounding or timing differences in reported flows

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
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As of June 30, 2025

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	15 Years	20 Years	2024	2023	2022	2021	2020
Tier I: Target Date Funds														
Post Retirement Date Fund	4.58	6.19	9.83	7.72	5.03	5.41	5.13	5.80	N/A	7.08	11.13	-14.63	6.95	11.97
BlackRock LP Id Ret Lending Index	4.61	6.12	9.82	7.75	5.05	5.40	5.11	5.78	N/A	7.08	11.10	-14.54	7.04	11.80
Difference	-0.03	0.07	0.01	-0.03	-0.01	0.01	0.02	0.03	N/A	0.00	0.03	-0.09	-0.08	0.17
IM Mixed-Asset Target Today (MF) Median	4.11	5.56	8.54	7.54	4.69	4.86	4.73	5.29	3.97	6.76	10.63	-12.92	6.16	9.50
Rank	35	17	12	40	35	18	28	31	N/A	41	30	82	28	7
2030 Retirement Date Fund	5.92	6.95	11.14	9.99	7.71	6.98	6.84	8.04	N/A	9.12	14.24	-15.97	11.43	12.88
BlackRock LP Id2030 Lending Index	5.94	6.85	11.09	10.02	7.71	6.95	6.79	7.96	N/A	9.12	14.24	-15.92	11.51	12.71
Difference	-0.02	0.10	0.06	-0.03	0.00	0.03	0.05	0.07	N/A	-0.01	0.00	-0.04	-0.08	0.17
IM Mixed-Asset Target 2030 (MF) Median	6.39	6.96	10.76	10.62	8.06	7.03	6.92	8.51	6.29	9.31	14.36	-16.21	11.46	12.85
Rank	66	51	37	69	68	54	57	70	N/A	58	55	46	51	50
2035 Retirement Date Fund	7.20	7.66	12.35	11.71	9.35	8.00	7.76	8.87	N/A	10.88	16.29	-16.67	13.80	13.57
BlackRock LP Id2035 Lending Index	7.23	7.51	12.25	11.72	9.33	7.95	7.68	8.78	N/A	10.89	16.29	-16.67	13.85	13.42
Difference	-0.03	0.15	0.11	-0.01	0.02	0.05	0.08	0.10	N/A	-0.01	0.00	0.00	-0.05	0.15
IM Mixed-Asset Target 2035 (MF) Median	7.52	7.67	11.92	12.12	9.51	7.99	7.81	9.25	6.70	11.08	16.30	-17.04	13.84	14.14
Rank	64	51	36	66	63	48	51	67	N/A	57	51	43	53	60
2040 Retirement Date Fund	8.28	8.26	13.47	13.38	10.88	8.93	8.58	9.63	N/A	12.62	18.30	-17.35	15.96	14.14
BlackRock LP Id2040 Lending Index	8.31	8.08	13.34	13.36	10.83	8.86	8.48	9.51	N/A	12.63	18.28	-17.38	15.99	13.98
Difference	-0.03	0.18	0.14	0.02	0.05	0.07	0.10	0.12	N/A	-0.01	0.02	0.04	-0.03	0.16
IM Mixed-Asset Target 2040 (MF) Median	8.57	8.21	13.04	13.70	10.76	8.73	8.48	9.89	7.08	12.80	18.11	-17.85	15.68	14.73
Rank	68	49	34	60	43	38	44	61	N/A	59	46	39	40	58
2045 Retirement Date Fund	9.39	8.83	14.53	14.93	12.20	9.75	9.26	10.27	N/A	14.26	20.14	-17.89	17.72	14.83
BlackRock LP Id2045 Lending Index	9.43	8.60	14.39	14.91	12.13	9.66	9.14	10.13	N/A	14.32	20.12	-17.96	17.71	14.64
Difference	-0.05	0.23	0.15	0.02	0.07	0.09	0.12	0.14	N/A	-0.05	0.01	0.07	0.01	0.18
IM Mixed-Asset Target 2045 (MF) Median	9.38	8.60	13.63	14.65	11.64	9.27	8.92	10.11	7.12	13.88	19.20	-18.15	16.69	15.35
Rank	50	40	26	38	18	23	26	41	N/A	30	19	44	21	56
2050 Retirement Date Fund	10.50	9.44	15.58	16.08	13.06	10.31	9.68	10.72	N/A	15.56	21.25	-18.20	18.67	15.20
BlackRock LP Id2050 Lending Index	10.55	9.17	15.45	16.05	12.98	10.20	9.56	10.57	N/A	15.66	21.23	-18.30	18.61	15.07
Difference	-0.05	0.27	0.13	0.03	0.08	0.10	0.13	0.14	N/A	-0.10	0.02	0.10	0.06	0.13
IM Mixed-Asset Target 2050 (MF) Median	9.97	8.84	13.92	15.05	11.89	9.42	9.06	10.27	7.31	14.16	19.84	-18.30	17.00	15.52
Rank	26	33	9	17	4	8	13	27	N/A	12	8	46	14	55

Performance shown is net of fees. Performance is annualized for periods greater than one year. Funds that do not have enough history will show "N/A" for applicable periods.

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Comparative Performance - Net

As of June 30, 2025

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	15 Years	20 Years	2024	2023	2022	2021	2020
Tier I: Target Date Funds														
2055 Retirement Date Fund	11.04	9.75	16.12	16.54	13.34	10.51	9.82	10.90	N/A	16.21	21.56	-18.27	18.83	15.32
BlackRock LP Id2055 Lending Index	11.09	9.47	15.98	16.52	13.27	10.41	9.70	N/A	N/A	16.31	21.57	-18.38	18.81	15.18
Difference	-0.05	0.28	0.14	0.02	0.07	0.10	0.12	N/A	N/A	-0.11	-0.01	0.11	0.03	0.14
IM Mixed-Asset Target 2055 (MF) Median	10.18	8.91	14.08	15.23	11.97	9.47	9.06	10.55	N/A	14.29	19.95	-18.31	17.19	15.61
Rank	13	29	4	11	4	5	13	31	N/A	8	11	49	16	55
2060 Retirement Date Fund	11.12	9.80	16.18	16.57	13.35	10.51	9.82	N/A	N/A	16.23	21.57	-18.28	18.82	15.31
BlackRock LP Id2060 Lending Index	11.17	9.52	16.06	16.56	13.29	10.42	9.71	N/A	N/A	16.36	21.58	-18.39	18.80	15.18
Difference	-0.05	0.28	0.12	0.01	0.06	0.09	0.12	N/A	N/A	-0.14	-0.01	0.10	0.02	0.13
IM Mixed-Asset Target 2060 (MF) Median	10.32	8.89	14.09	15.31	12.06	9.50	9.37	N/A	N/A	14.39	19.97	-18.33	17.27	15.70
Rank	15	28	4	13	4	5	21	N/A	N/A	10	14	49	18	54
2065 Retirement Date Fund	11.12	9.79	16.20	16.59	13.34	N/A	N/A	N/A	N/A	16.26	21.62	-18.30	18.77	15.14
BlackRock LP Id2065 Lending Index	11.17	9.51	16.06	16.56	13.28	N/A	N/A	N/A	N/A	16.37	21.59	-18.40	18.79	15.18
Difference	-0.05	0.28	0.14	0.03	0.06	N/A	N/A	N/A	N/A	-0.10	0.02	0.10	-0.01	-0.04
IM Mixed-Asset Target 2065+ (MF) Median	10.56	9.52	14.48	15.59	12.23	N/A	N/A	N/A	N/A	14.39	20.18	-18.58	17.15	16.23
Rank	24	43	6	13	4	N/A	N/A	N/A	N/A	11	13	41	22	67
2070 Retirement Date Fund	11.11	9.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BlackRock LP Id2070 Lending Index	11.17	9.51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Difference	-0.05	0.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM Mixed-Asset Target 2065+ (MF) Median	10.56	9.52	14.48	15.59	12.23	N/A	N/A	N/A	N/A	14.39	20.18	-18.58	17.15	16.23
Rank	24	43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Performance shown is net of fees. Performance is annualized for periods greater than one year. Funds that do not have enough history will show "N/A" for applicable periods.

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Comparative Performance - Net

As of June 30, 2025

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	15 Years	20 Years	2024	2023	2022	2021	2020
Tier II: Core Options														
U.S. Large Company Stock Index Fund	10.94	6.19	15.14	19.70	16.63	14.39	13.65	14.88	10.76	25.00	26.29	-18.12	28.70	18.43
S&P 500 Index (Cap Wtd)	10.94	6.20	15.16	19.71	16.64	14.39	13.65	14.86	10.73	25.02	26.29	-18.11	28.71	18.40
Difference	0.00	-0.02	-0.02	-0.01	-0.01	0.00	0.01	0.01	0.03	-0.02	0.00	-0.01	0.00	0.03
IM S&P 500 Index (MF) Median	10.86	6.04	14.83	19.38	16.30	14.05	13.28	14.42	10.37	24.67	25.96	-18.36	28.25	18.05
Rank	7	12	7	5	2	3	1	1	1	5	5	3	2	4
U.S. Small/Mid Company Stock Index Fund	12.14	2.16	15.64	15.37	11.87	8.83	9.29	12.22	9.54	17.10	25.39	-26.13	12.89	32.03
DJ US Cmpl TSM Index	12.16	2.12	15.57	15.08	11.51	8.54	9.02	11.96	9.31	16.88	24.97	-26.54	12.35	32.16
Difference	-0.01	0.03	0.07	0.30	0.36	0.29	0.27	0.26	0.23	0.22	0.42	0.41	0.54	-0.13
IM U.S. SMID Cap Equity (SA+CF) Median	7.04	0.15	8.14	11.43	11.66	8.17	8.80	11.60	9.59	12.41	16.47	-17.61	22.35	16.53
Rank	20	27	10	11	48	39	36	30	52	21	9	78	78	28
Global Non-U.S. Stock Index Fund	11.73	18.39	18.09	14.21	10.34	6.86	6.39	6.91	N/A	5.53	16.07	-15.92	7.97	11.15
MSCI ACW Ex US Index (USD) (Net)	12.03	17.90	17.72	13.99	10.13	6.58	6.12	6.66	5.83	5.53	15.62	-16.00	7.82	10.65
Difference	-0.31	0.49	0.37	0.22	0.21	0.28	0.26	0.25	N/A	0.00	0.46	0.08	0.14	0.50
IM All ACWI Ex US (SA+CF) Median	12.37	19.13	18.85	14.88	10.38	6.80	6.65	7.63	6.42	5.97	16.45	-17.50	8.49	14.66
Rank	59	56	61	63	51	50	57	73	N/A	53	53	41	58	57
U.S. Bond Index Fund	1.21	4.04	6.09	2.57	-0.74	1.78	1.74	2.25	3.06	1.25	5.54	-12.94	-1.65	7.56
Bloomberg US Agg Bond Index	1.21	4.02	6.08	2.55	-0.73	1.77	1.76	2.29	3.09	1.25	5.53	-13.01	-1.55	7.51
Difference	0.01	0.02	0.02	0.02	-0.01	0.01	-0.01	-0.03	-0.03	0.00	0.01	0.07	-0.10	0.05
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	1.23	4.03	6.15	2.81	-0.40	2.02	1.99	2.56	3.29	1.64	5.72	-13.13	-1.47	8.02
Rank	60	47	56	73	81	77	84	89	77	82	68	37	65	67
Stable Value Fund	0.74	1.49	2.99	2.68	2.30	2.35	N/A	N/A	N/A	2.95	2.65	1.70	1.64	2.28
ICE BofA 3 Mo US T-Bill Index	1.04	2.07	4.68	4.56	2.76	2.54	1.97	1.34	1.69	5.25	5.02	1.46	0.05	0.67
Difference	-0.30	-0.58	-1.69	-1.87	-0.46	-0.19	N/A	N/A	N/A	-2.30	-2.37	0.25	1.59	1.61
Morningstar US CIT Stable Val Index	0.76	1.51	3.06	2.82	2.42	2.42	2.26	2.24	2.73	3.03	2.86	1.88	1.74	2.24
Difference	-0.02	-0.01	-0.07	-0.14	-0.12	-0.07	N/A	N/A	N/A	-0.08	-0.21	-0.18	-0.11	0.03
IM U.S. GIC/Stable Value (SA+CF) Median	0.68	1.33	2.62	2.48	2.07	2.19	2.04	1.99	2.50	2.73	2.54	1.61	1.43	2.00
Rank	30	28	34	35	27	22	N/A	N/A	N/A	32	40	40	27	16
Short Term Investment Fund	1.06	2.14	4.70	4.59	2.80	2.57	2.07	1.44	1.81	5.20	5.00	1.59	0.07	0.65
ICE BofA 3 Mo US T-Bill Index	1.04	2.07	4.68	4.56	2.76	2.54	1.97	1.34	1.69	5.25	5.02	1.46	0.05	0.67
Difference	0.02	0.06	0.02	0.03	0.04	0.04	0.09	0.10	0.11	-0.05	-0.02	0.14	0.02	-0.02
IM U.S. Cash Equivalents (SA+CF)	1.14	2.34	5.26	4.68	2.82	2.70	2.17	1.56	1.98	5.36	5.32	0.32	0.01	1.44
Rank	85	89	88	73	52	68	72	68	70	75	90	10	42	85

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Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Comparative Performance - Gross

As of June 30, 2025

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	15 Years	20 Years	2024	2023	2022	2021	2020
Tier I: Target Date Funds														
Post Retirement Date Fund	4.60	6.22	9.90	7.79	5.10	5.48	5.20	5.87	N/A	7.15	11.21	-14.57	7.03	12.04
BlackRock LP Id Ret Lending Index	4.61	6.12	9.82	7.75	5.05	5.40	5.11	5.78	N/A	7.08	11.10	-14.54	7.04	11.80
Difference	-0.01	0.10	0.09	0.04	0.06	0.08	0.09	0.10	N/A	0.07	0.11	-0.03	-0.01	0.24
2030 Retirement Date Fund	5.94	6.99	11.22	10.06	7.78	7.05	6.92	8.11	N/A	9.19	14.32	-15.91	11.50	12.96
BlackRock LP Id2030 Lending Index	5.94	6.85	11.09	10.02	7.71	6.95	6.79	7.96	N/A	9.12	14.24	-15.92	11.51	12.71
Difference	0.00	0.14	0.13	0.05	0.07	0.10	0.13	0.15	N/A	0.07	0.08	0.01	0.00	0.25
2035 Retirement Date Fund	7.22	7.69	12.43	11.78	9.42	8.07	7.83	8.95	N/A	10.95	16.37	-16.61	13.88	13.65
BlackRock LP Id2035 Lending Index	7.23	7.51	12.25	11.72	9.33	7.95	7.68	8.78	N/A	10.89	16.29	-16.67	13.85	13.42
Difference	-0.01	0.18	0.18	0.07	0.10	0.13	0.15	0.17	N/A	0.07	0.08	0.06	0.03	0.23
2040 Retirement Date Fund	8.29	8.30	13.55	13.45	10.95	9.00	8.65	9.70	N/A	12.69	18.38	-17.29	16.04	14.22
BlackRock LP Id2040 Lending Index	8.31	8.08	13.34	13.36	10.83	8.86	8.48	9.51	N/A	12.63	18.28	-17.38	15.99	13.98
Difference	-0.02	0.21	0.21	0.09	0.13	0.15	0.17	0.19	N/A	0.06	0.10	0.09	0.05	0.24
2045 Retirement Date Fund	9.40	8.86	14.61	15.01	12.27	9.83	9.33	10.34	N/A	14.34	20.22	-17.84	17.79	14.90
BlackRock LP Id2045 Lending Index	9.43	8.60	14.39	14.91	12.13	9.66	9.14	10.13	N/A	14.32	20.12	-17.96	17.71	14.64
Difference	-0.03	0.27	0.22	0.10	0.14	0.17	0.20	0.21	N/A	0.02	0.09	0.12	0.08	0.26
2050 Retirement Date Fund	10.52	9.48	15.66	16.15	13.13	10.38	9.76	10.79	N/A	15.64	21.33	-18.15	18.75	15.28
BlackRock LP Id2050 Lending Index	10.55	9.17	15.45	16.05	12.98	10.20	9.56	10.57	N/A	15.66	21.23	-18.30	18.61	15.07
Difference	-0.03	0.30	0.21	0.10	0.16	0.18	0.20	0.22	N/A	-0.02	0.10	0.15	0.13	0.21
2055 Retirement Date Fund	11.06	9.79	16.20	16.62	13.41	10.58	9.89	10.97	N/A	16.28	21.64	-18.22	18.91	15.40
BlackRock LP Id2055 Lending Index	11.09	9.47	15.98	16.52	13.27	10.41	9.70	N/A	N/A	16.31	21.57	-18.38	18.81	15.18
Difference	-0.03	0.32	0.22	0.10	0.14	0.17	0.19	N/A	N/A	-0.03	0.07	0.17	0.11	0.22
2060 Retirement Date Fund	11.14	9.83	16.26	16.64	13.42	10.59	9.90	N/A	N/A	16.30	21.65	-18.23	18.90	15.38
BlackRock LP Id2060 Lending Index	11.17	9.52	16.06	16.56	13.29	10.42	9.71	N/A	N/A	16.36	21.58	-18.39	18.80	15.18
Difference	-0.03	0.32	0.20	0.09	0.14	0.17	0.19	N/A	N/A	-0.06	0.08	0.16	0.10	0.21
2065 Retirement Date Fund	11.13	9.83	16.28	16.66	13.42	N/A	N/A	N/A	N/A	16.34	21.70	-18.25	18.85	15.22
BlackRock LP Id2065 Lending Index	11.17	9.51	16.06	16.56	13.28	N/A	N/A	N/A	N/A	16.37	21.59	-18.40	18.79	15.18
Difference	-0.04	0.31	0.22	0.10	0.13	N/A	N/A	N/A	N/A	-0.03	0.11	0.15	0.07	0.04
2070 Retirement Date Fund	11.13	9.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BlackRock LP Id2070 Lending Index	11.17	9.51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Difference	-0.04	0.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Funds that do not have enough history will show "N/A" for applicable periods.

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Comparative Performance - Gross

As of June 30, 2025

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	15 Years	20 Years	2024	2023	2022	2021	2020
Tier II: Core Options														
U.S. Large Company Stock Index Fund	10.94	6.19	15.15	19.70	16.64	14.40	13.66	14.88	10.77	25.01	26.29	-18.11	28.71	18.44
S&P 500 Index (Cap Wtd)	10.94	6.20	15.16	19.71	16.64	14.39	13.65	14.86	10.73	25.02	26.29	-18.11	28.71	18.40
Difference	0.00	-0.01	-0.02	-0.01	0.00	0.01	0.01	0.02	0.04	-0.01	0.01	0.00	0.01	0.04
U.S. Small/Mid Company Stock Index Fund	12.14	2.16	15.64	15.38	11.88	8.84	9.29	12.22	9.55	17.11	25.40	-26.12	12.90	32.04
DJ US Cmpl TSM Index	12.16	2.12	15.57	15.08	11.51	8.54	9.02	11.96	9.31	16.88	24.97	-26.54	12.35	32.16
Difference	-0.01	0.04	0.07	0.30	0.37	0.30	0.27	0.26	0.24	0.22	0.42	0.42	0.55	-0.13
Global Non-U.S. Stock Index Fund	11.73	18.40	18.11	14.23	10.36	6.88	6.40	6.92	N/A	5.55	16.09	-15.91	7.98	11.17
MSCI ACW Ex US Index (USD) (Net)	12.03	17.90	17.72	13.99	10.13	6.58	6.12	6.66	5.83	5.53	15.62	-16.00	7.82	10.65
Difference	-0.30	0.50	0.39	0.24	0.23	0.30	0.28	0.26	N/A	0.01	0.48	0.09	0.16	0.52
U.S. Bond Index Fund	1.21	4.04	6.10	2.57	-0.73	1.79	1.75	2.26	3.06	1.25	5.54	-12.93	-1.64	7.56
Bloomberg US Agg Bond Index	1.21	4.02	6.08	2.55	-0.73	1.77	1.76	2.29	3.09	1.25	5.53	-13.01	-1.55	7.51
Difference	0.01	0.02	0.02	0.02	0.00	0.01	-0.01	-0.03	-0.03	0.00	0.01	0.08	-0.10	0.06
Stable Value Fund	0.80	1.61	3.24	2.92	2.55	2.61	N/A	N/A	N/A	3.20	2.90	1.91	1.89	2.57
ICE BofA 3 Mo US T-Bill Index	1.04	2.07	4.68	4.56	2.76	2.54	1.97	1.34	1.69	5.25	5.02	1.46	0.05	0.67
Difference	-0.24	-0.46	-1.44	-1.64	-0.22	0.07	N/A	N/A	N/A	-2.05	-2.11	0.45	1.84	1.91
Morningstar US CIT Stable Val Index	0.76	1.51	3.06	2.82	2.42	2.42	2.26	2.24	2.73	3.03	2.86	1.88	1.74	2.24
Difference	0.04	0.11	0.18	0.10	0.13	0.19	N/A	N/A	N/A	0.17	0.04	0.03	0.15	0.33
Short Term Investment Fund	1.06	2.14	4.70	4.59	2.80	2.57	2.07	1.44	1.81	5.20	5.00	1.59	0.07	0.65
ICE BofA 3 Mo US T-Bill Index	1.04	2.07	4.68	4.56	2.76	2.54	1.97	1.34	1.69	5.25	5.02	1.46	0.05	0.67
Difference	0.02	0.06	0.02	0.03	0.04	0.04	0.09	0.10	0.11	-0.05	-0.02	0.14	0.02	-0.02

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Funds that do not have enough history will show "N/A" for applicable periods.

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Fund Fees Peer Group Analysis

As of June 30, 2025



Fund Expense Ratios are intuitively ranked (i.e., a lower expense ratio yields a better percentile rank than a higher expense ratio).
The fee peer groups consist of only institutional mutual fund share classes.

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Fund Fees Peer Group Analysis

As of June 30, 2025



Fund Expense Ratios are intuitively ranked (i.e., a lower expense ratio yields a better percentile rank than a higher expense ratio). The fee peer groups consist of only institutional mutual fund share classes. Funds with no applicable fee peer groups are denoted with an asterisk (*). Stable Value Fund fees shown represent total all-in fees (including Invesco, wrap, subadvisor, and fund administration), and total fee excluding wrap, respectively, for a like-to-like comparison with peers. See Appendix for more information.

Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Stable Value Fees

As of June 30, 2025

Manager	Fee (bps)	Total Fee (bps)	Crediting Rate	Crediting Rate vs. Last Quarter	Percentage of Total Fund (%)
Invesco	7.3	7.3			100
Wrap Providers		Wrap Fee			
Met Tower Life	14.5	2.91	3.15	0	20.1
Nationwide	14	2.82	2.98	-0.04	20.2
Pacific Life	14	1.77	3.05	-0.07	12.7
Prudential	15	2.27	3.01	-0.02	15.1
RGA	14	2.13	3.06	-0.07	15.2
State Street	15	1.88	3.11	0.01	12.5
Bank Of New York Mellon (Unwrapped)	0	0	4.3		4.4
Total Wrap Fee		13.78	3.09		
Subadvisors Fee		3.71			
IGT Dodge & Cox Core Fixed Income Fund					4.0
IGT Invesco Core Fixed Income Fund					12.0
IGT Loomis Sayles Core Fixed Income Fund					4.0
IGT Invesco Intermediate Fund					3.0
IGT Jennison Intermediate Fund					3.4
IGT Loomis Sayles Intermediate Fund					5.6
PA SERS PFM Intermediate Bond Fund					9.1
PA SERS Ramirez Intermediate Bond Fund					9.2
IGT Invesco Short Term Bond Fund					45.0
Total		24.81			

Data shown for Subadvisors is based on market value, while all other data is based on book value.

**Pennsylvania State Employees' Retirement System Deferred Compensation Plan
Fee Analysis**

As of June 30, 2025

	Fee Schedule	Market Value As of 06/30/2025 (\$)	Estimated Annual Fee (\$)
Post Retirement Date Fund	0.0700 % of Assets	329,365,732	230,556
2030 Retirement Date Fund	0.0700 % of Assets	147,884,166	103,519
2035 Retirement Date Fund	0.0700 % of Assets	149,321,104	104,525
2040 Retirement Date Fund	0.0700 % of Assets	105,762,227	74,034
2045 Retirement Date Fund	0.0700 % of Assets	94,739,962	66,318
2050 Retirement Date Fund	0.0700 % of Assets	70,616,194	49,431
2055 Retirement Date Fund	0.0700 % of Assets	29,456,397	20,619
2060 Retirement Date Fund	0.0700 % of Assets	13,658,479	9,561
2065 Retirement Date Fund	0.0700 % of Assets	8,177,568	5,724
2070 Retirement Date Fund	0.0700 % of Assets	744,841	521
U.S. Large Company Stock Index Fund	0.0100 % of Assets	1,744,140,699	174,414
U.S. Small/Mid Company Stock Index Fund	0.0150 % of Assets	483,325,268	72,499
Global Non-U.S. Stock Index Fund	0.0350 % of Assets	330,188,690	115,566
U.S. Bond Index Fund	0.0125 % of Assets	266,065,825	33,258
Stable Value Fund	0.2481 % of Assets	990,977,877	2,458,616
Short Term Investment Fund	0.0000 % of Assets	144,250,345	-

Fees shown are sourced from Empower and represent total operating expenses (including investment management and administrative fee cap for the fund).
Stable Value Fund assets shown represent book value. For more information on Stable Value fee, please see the addendum.

Plan Manager Review

Product Profile

Management Style: Passive

Average Passive Allocation: 100%

Inflation Focused Investments: REITs, Commodities, TIPS, Listed Infrastructure

Tactical Asset Allocation: Non-Discretionary

Underlying Funds Mgd By TDF Provider: 100%

To vs. Through Glide Path: To

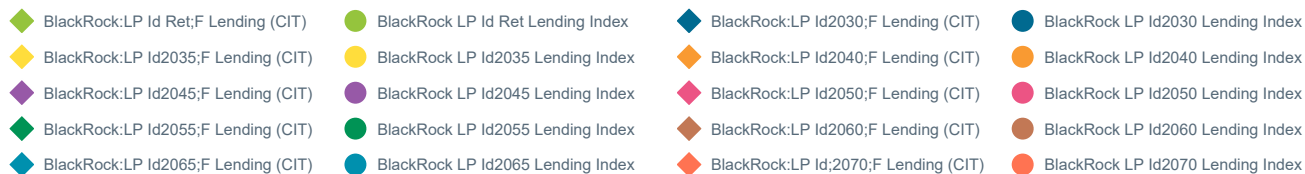
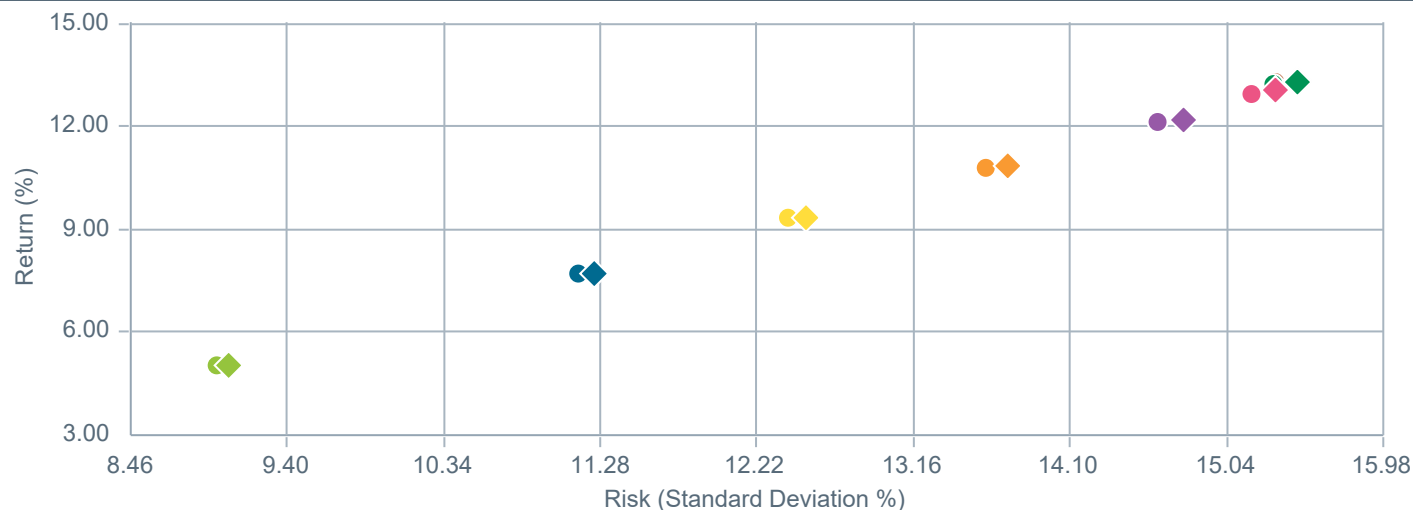
Equity Starting: 99%

Equity at Retirement: 40%

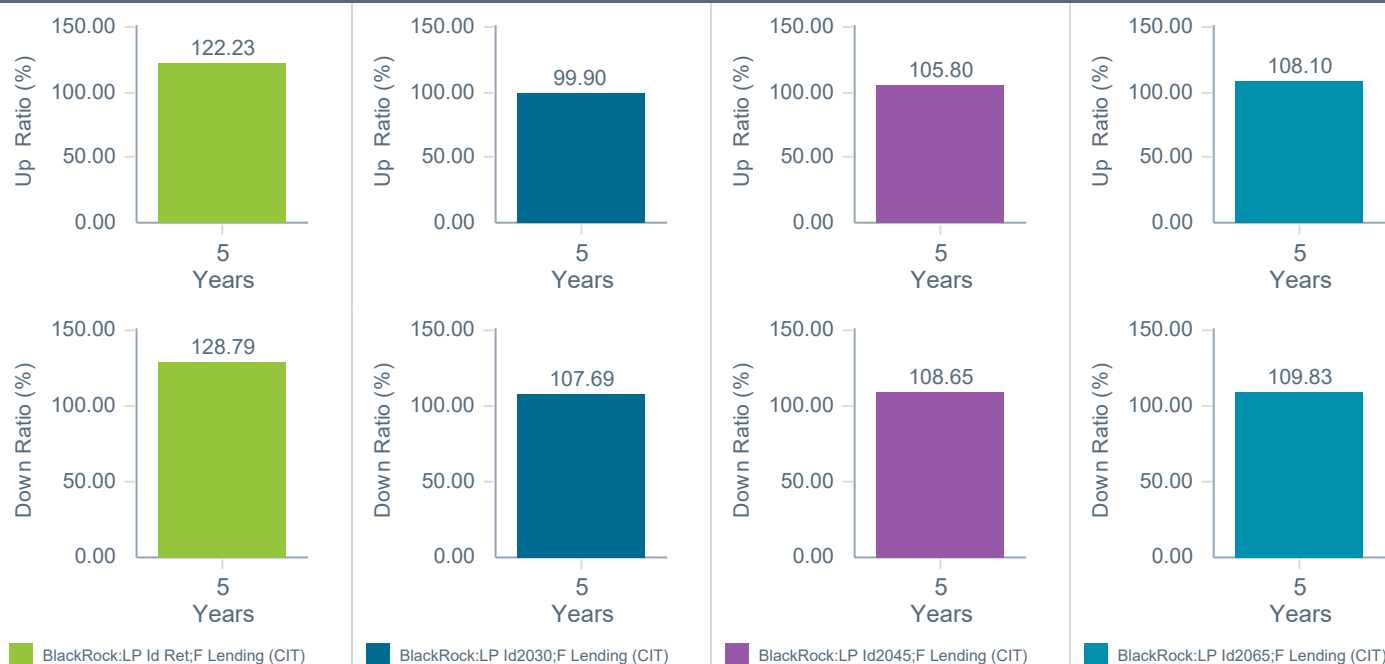
Equity Landing: 40%

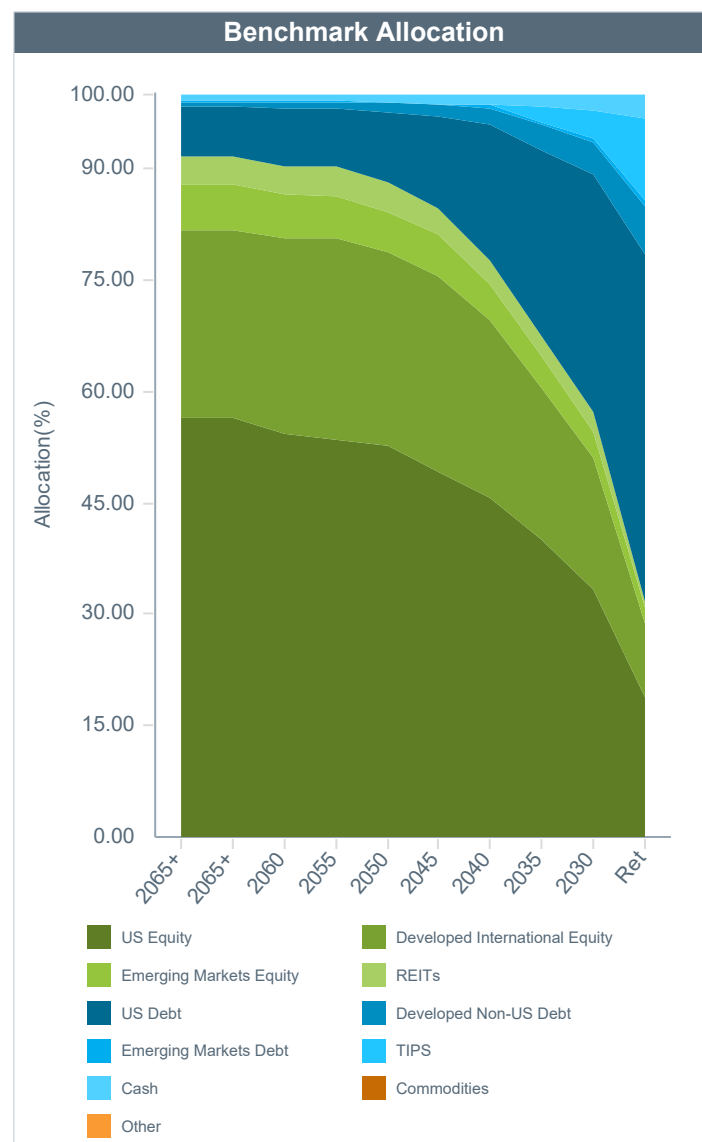
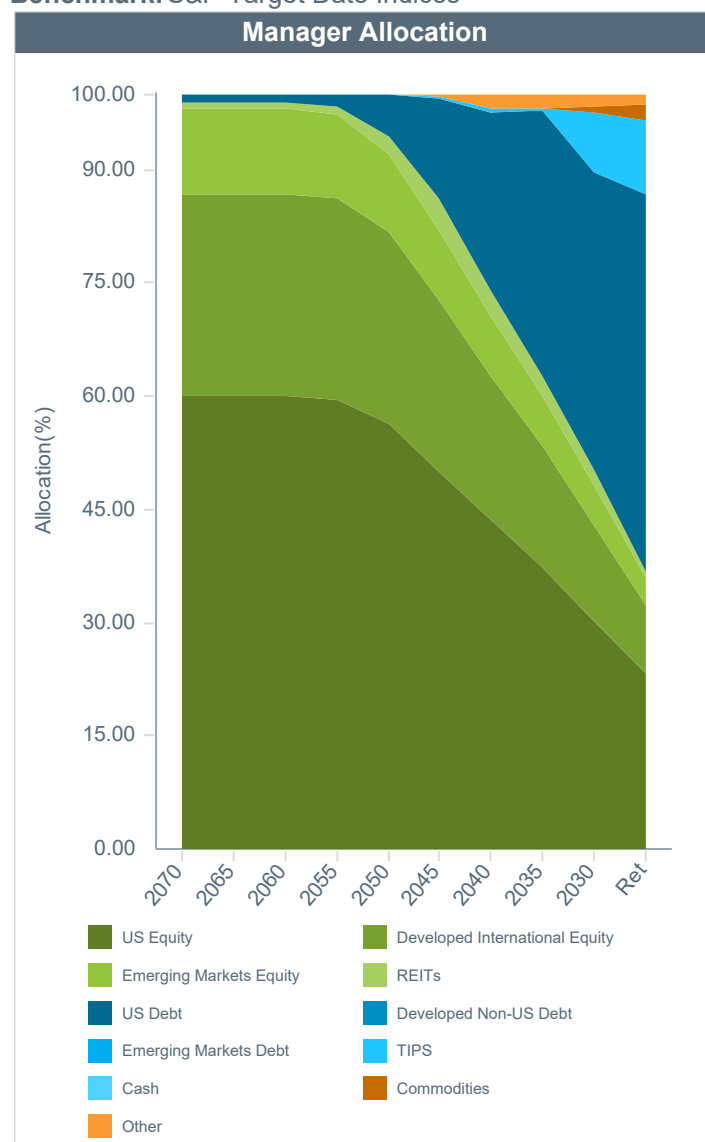
Yrs Roll Down After Retirement: N/A

Risk & Return Scattergram - 5 Years



Up/Down Market Capture Ratio (%) vs. Relevant S&P Tgt Date Idx

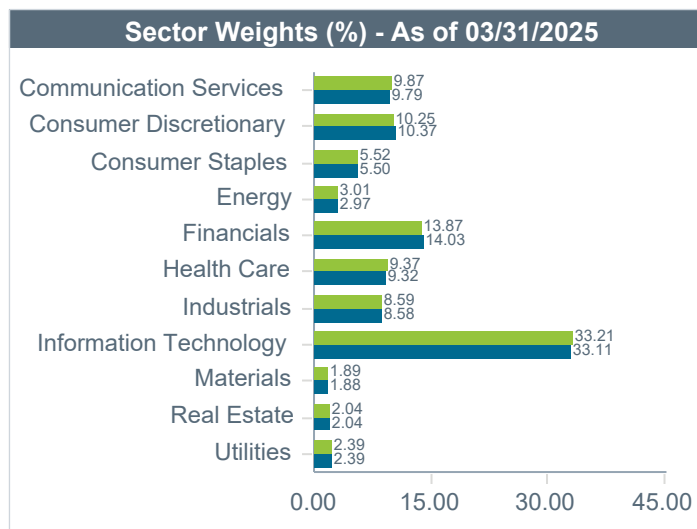
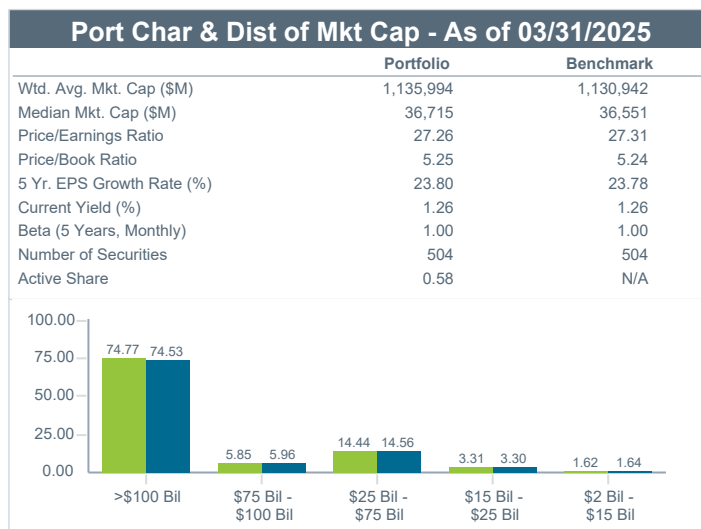
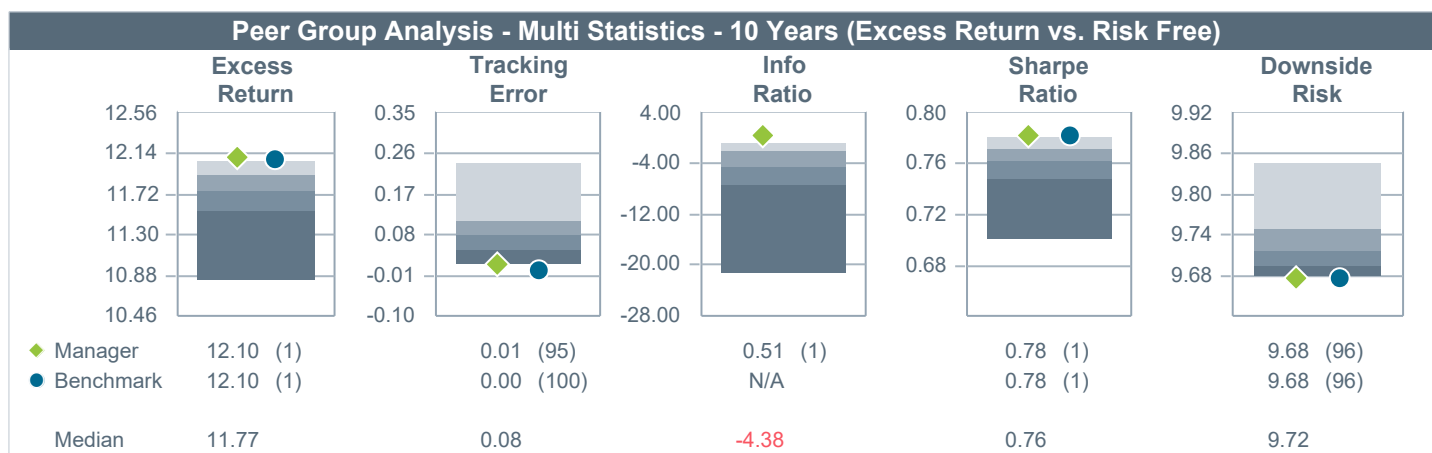
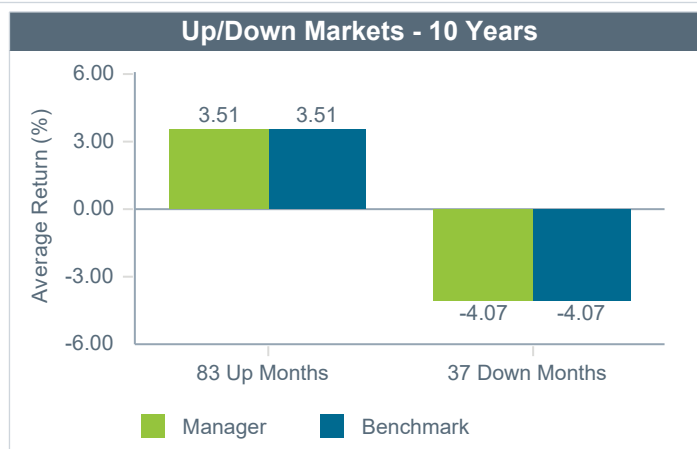
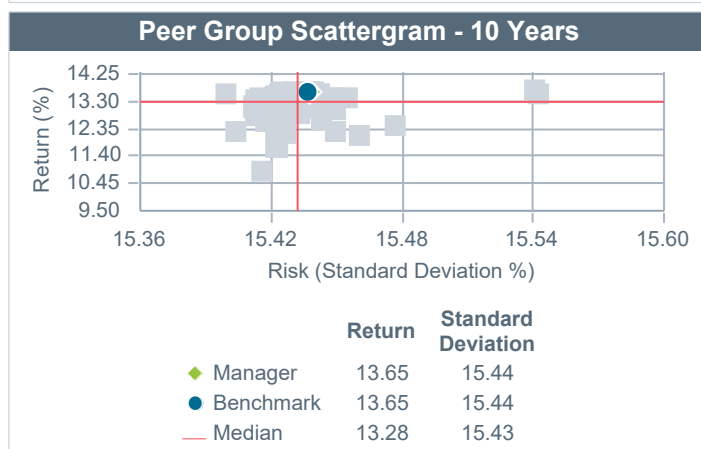




	2070	2065	2060	2055	2050	2045	2040	2035	2030	Ret
US Equity	60.04	60.04	60.01	59.49	56.37	50.13	43.55	37.21	30.26	23.32
Developed International Equity	26.84	26.84	26.85	26.66	25.29	22.59	19.22	16.20	12.71	9.02
Emerging Markets Equity	11.17	11.17	11.17	11.09	10.52	9.40	8.00	6.74	5.29	3.75
REITs	0.95	0.95	0.97	1.19	2.35	4.04	3.32	2.64	1.92	0.63
US Debt	1.00	1.00	1.00	1.57	5.46	13.41	23.67	35.08	39.54	49.95
Developed Non-US Debt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emerging Markets Debt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TIPS	0.00	0.00	0.00	0.00	0.00	0.03	0.32	0.35	7.91	9.80
Cash	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commodities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.87	2.13
Other	0.00	0.00	0.00	0.00	0.00	0.39	1.93	1.78	1.49	1.38
Total Equity	99.00	99.00	99.00	98.43	94.54	86.17	74.08	62.78	50.18	36.73
Difference From Benchmark	7.44	7.44	8.63	8.24	6.47	1.50	-3.71	-4.77	-7.08	4.93
Total Fixed Income	1.00	1.00	1.00	1.57	5.46	13.44	23.99	35.43	47.46	59.75
Difference From Benchmark	-7.44	-7.44	-8.63	-8.24	-6.47	-1.89	1.78	2.98	4.72	-8.45
Total Other	0.00	0.00	0.00	0.00	0.00	0.39	1.93	1.79	2.37	3.52
Difference From Benchmark	0.00	0.00	0.00	0.00	0.00	0.39	1.93	1.79	2.37	3.52

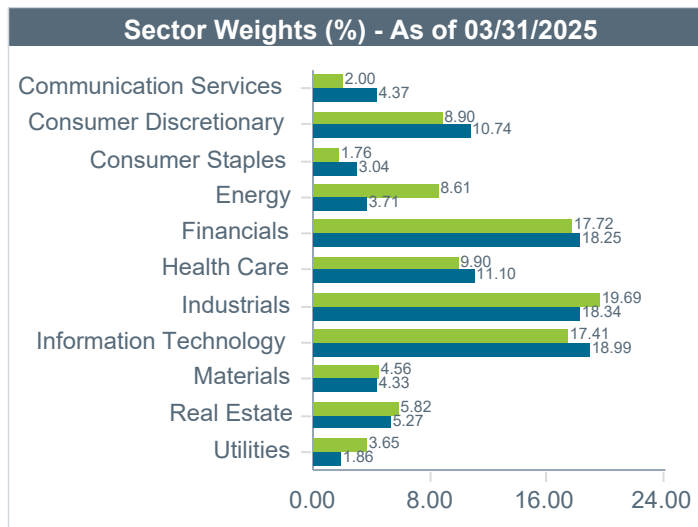
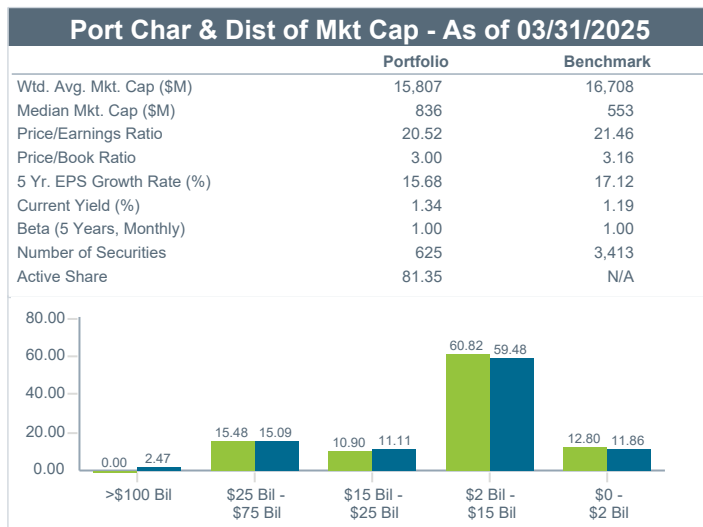
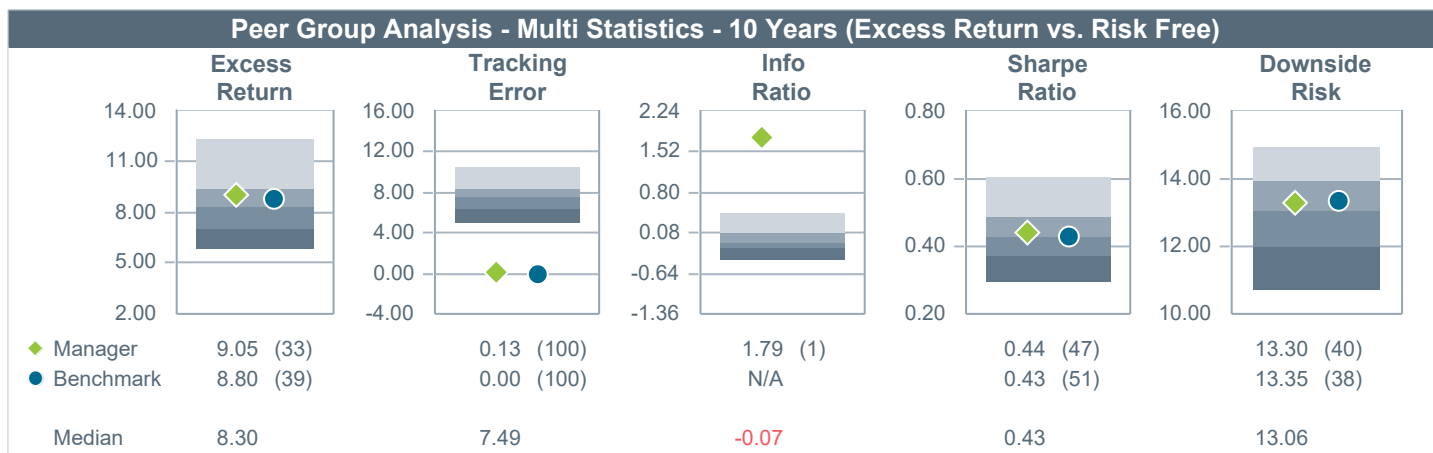
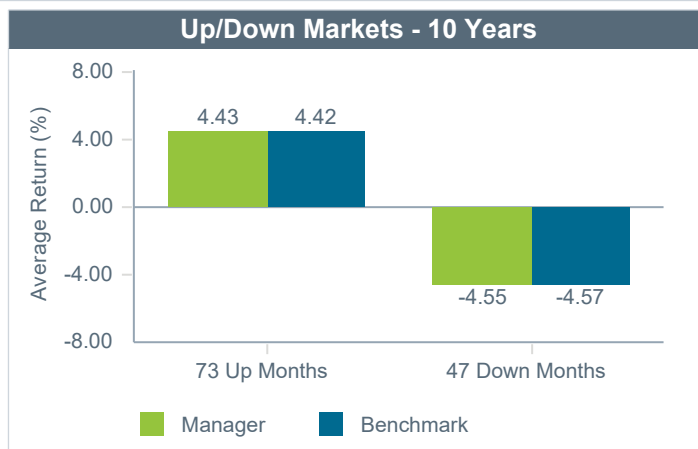
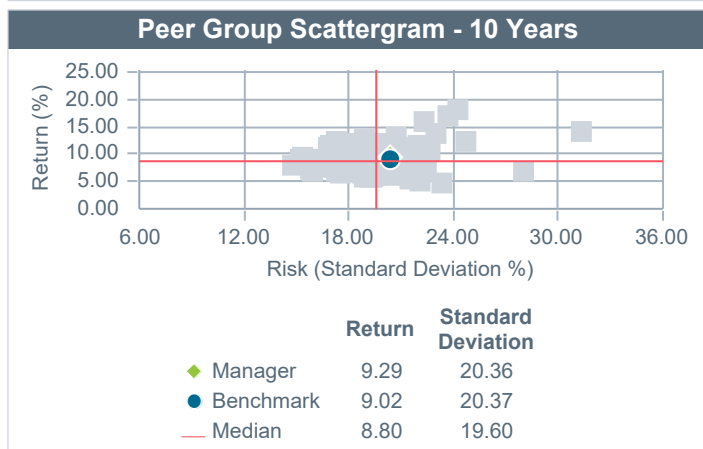
Allocations shown may not sum up to 100% exactly due to rounding. Allocation to "Other" contains unmapped securities or derivatives including swaps, options/forwards, futures, and T-Bills. Due to chart limitations, allocations less than 0.15% will not appear in the chart.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2024	2023	2022	2021	2020
Manager	10.94	15.14	19.70	16.63	14.39	13.65	25.00	26.29	-18.12	28.70	18.43
Benchmark	10.94	15.16	19.71	16.64	14.39	13.65	25.02	26.29	-18.11	28.71	18.40
Difference	0.00	-0.02	-0.01	-0.01	0.00	0.01	-0.02	0.00	-0.01	0.00	0.03
Peer Group Median	10.86	14.83	19.38	16.30	14.05	13.28	24.67	25.96	-18.36	28.25	18.05
Rank	7	7	5	2	3	1	5	5	3	2	4
Population	113	112	112	110	107	95	112	115	117	117	116



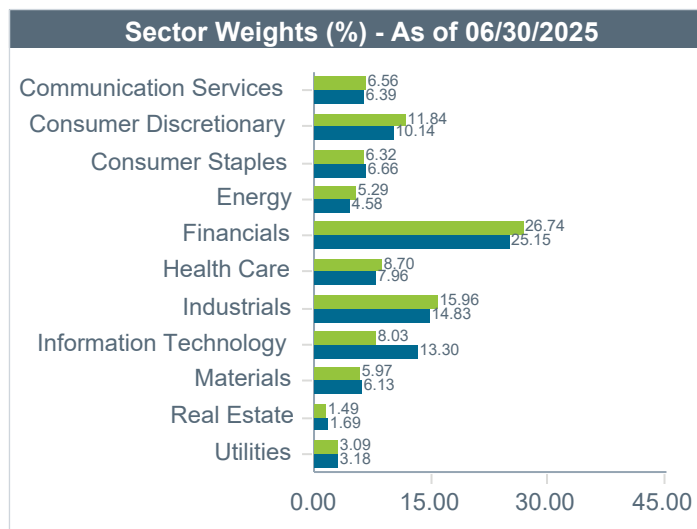
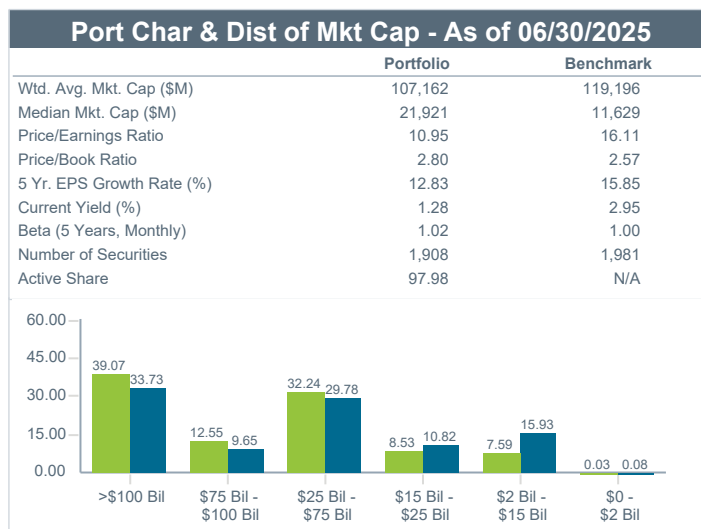
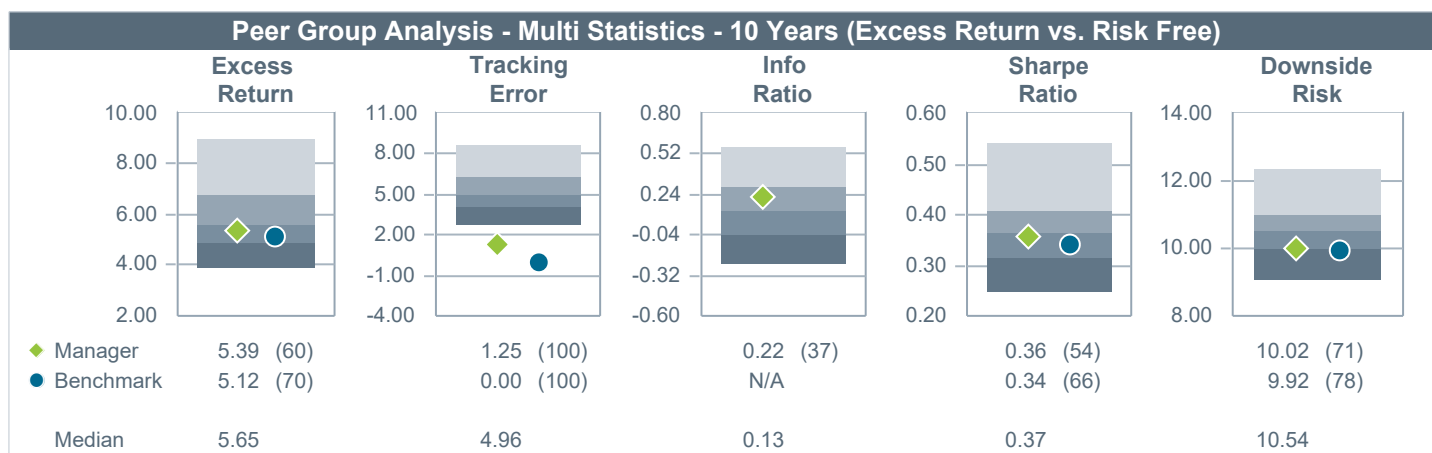
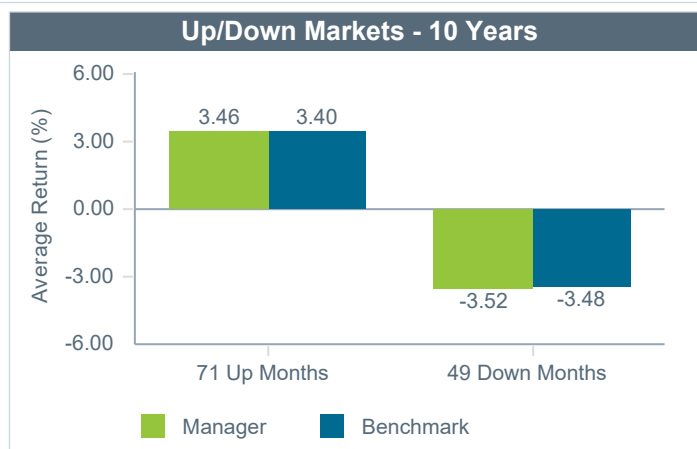
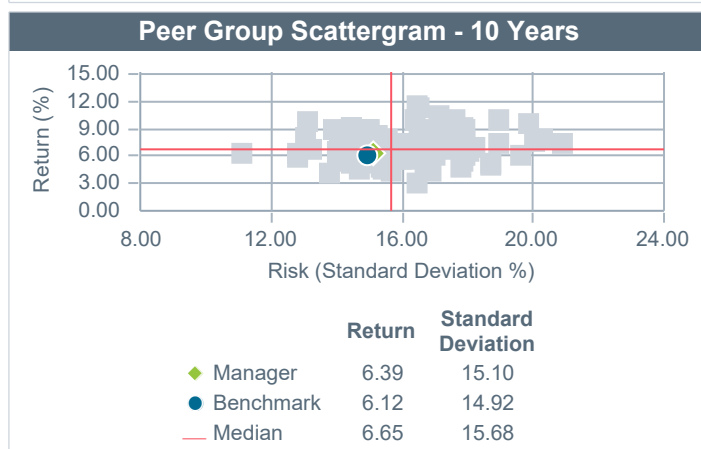
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2024	2023	2022	2021	2020
Manager	12.14	15.64	15.37	11.87	8.83	9.29	17.10	25.39	-26.13	12.89	32.03
Benchmark	12.16	15.57	15.08	11.51	8.54	9.02	16.88	24.97	-26.54	12.35	32.16
Difference	-0.01	0.07	0.30	0.36	0.29	0.27	0.22	0.42	0.41	0.54	-0.13
Peer Group Median	7.04	8.14	11.43	11.66	8.17	8.80	12.41	16.47	-17.61	22.35	16.53
Rank	20	10	11	48	39	36	21	9	78	78	28
Population	183	183	181	174	154	128	192	201	206	208	214



Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2024	2023	2022	2021	2020
Manager	11.73	18.09	14.21	10.34	6.86	6.39	5.53	16.07	-15.92	7.97	11.15
Benchmark	12.03	17.72	13.99	10.13	6.58	6.12	5.53	15.62	-16.00	7.82	10.65
Difference	-0.31	0.37	0.22	0.21	0.28	0.26	0.00	0.46	0.08	0.14	0.50
Peer Group Median	12.37	18.85	14.88	10.38	6.80	6.65	5.97	16.45	-17.50	8.49	14.66
Rank	59	61	63	51	50	57	53	53	41	58	57
Population	126	126	124	123	123	121	128	131	138	143	152



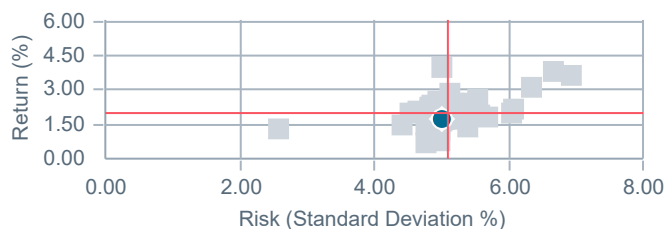
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: U.S. Bond Index Fund

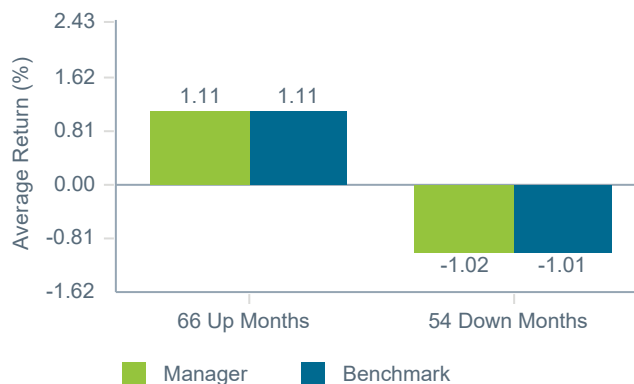
As of June 30, 2025

Benchmark: Bloomberg US Agg Bond Index**Peer Group:** IM U.S. Broad Market Core Fixed Income (SA+CF)

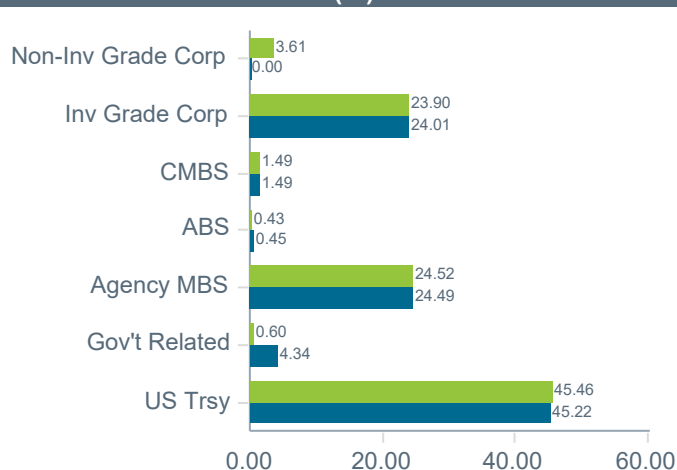
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2024	2023	2022	2021	2020
Manager	1.21	6.09	2.57	-0.74	1.78	1.74	1.25	5.54	-12.94	-1.65	7.56
Benchmark	1.21	6.08	2.55	-0.73	1.77	1.76	1.25	5.53	-13.01	-1.55	7.51
Difference	0.01	0.02	0.02	-0.01	0.01	-0.01	0.00	0.01	0.07	-0.10	0.05
Peer Group Median	1.23	6.15	2.81	-0.40	2.02	1.99	1.64	5.72	-13.13	-1.47	8.02
Rank	60	56	73	81	77	84	82	68	37	65	67
Population	127	126	120	112	107	100	130	135	139	137	139

Peer Group Scattergram - 10 Years

	Return	Standard Deviation
◆ Manager	1.74	5.02
● Benchmark	1.76	5.01
— Median	1.99	5.09

Up/Down Markets - 10 Years**Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)****Portfolio Characteristics (%) - As of 06/30/2025**

	Portfolio	Benchmark
Effective Duration	5.86	6.06
Spread Duration	3.28	5.88
Avg. Maturity	8.30	8.33
Avg. Quality	Aa2	Aa2/Aa3
Yield To Maturity (%)	4.55	4.51
Coupon Rate (%)	3.56	3.56
Current Yield (%)	3.84	N/A
Holdings Count	7,361	13,874

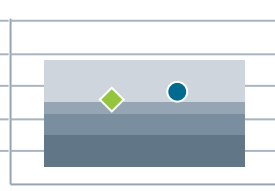
Sector Distribution (%) - As of 06/30/2025

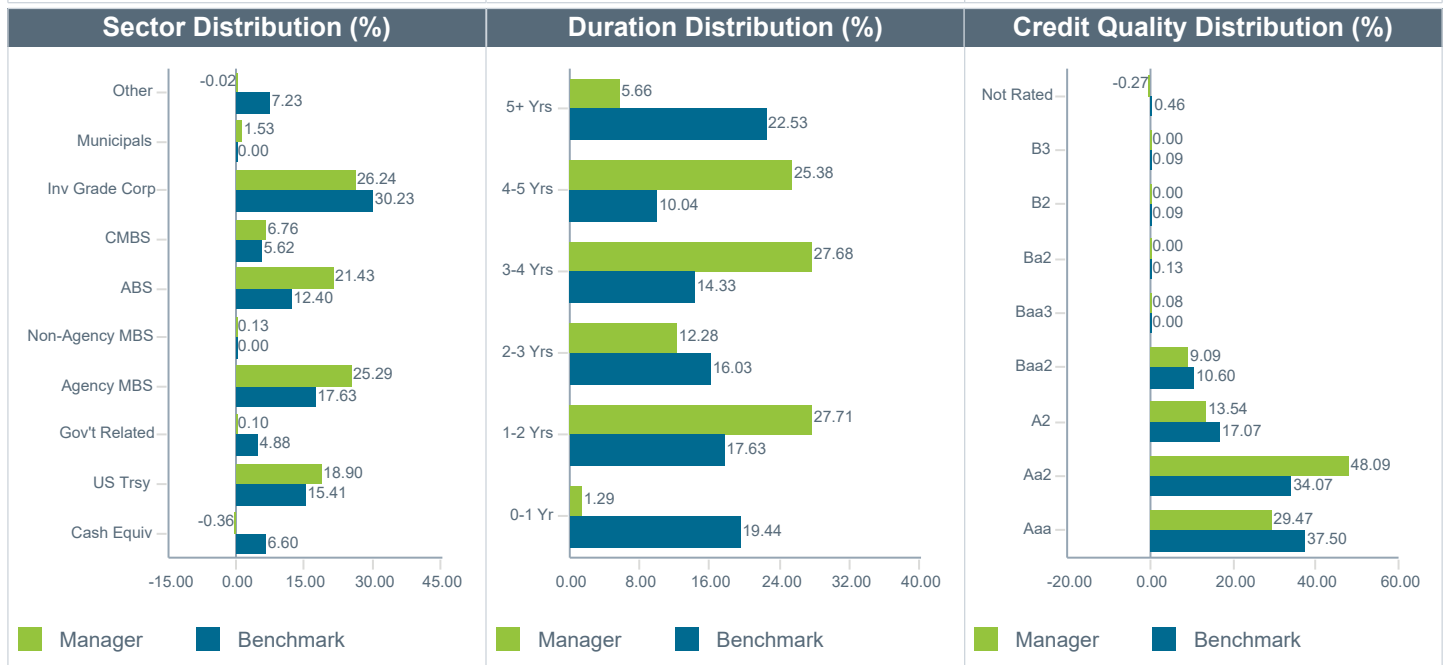
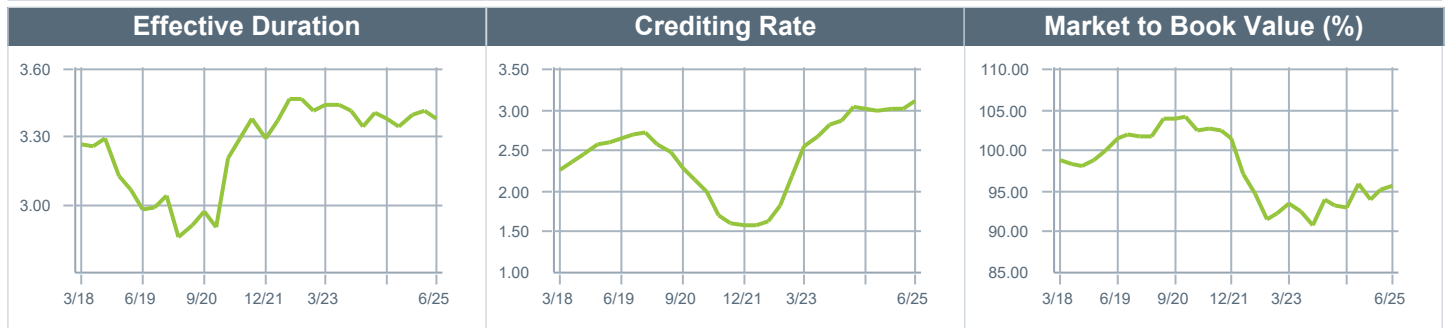
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: Stable Value Fund
As of June 30, 2025
Benchmark: Morningstar US CIT Stable Val Index

Peer Group: IM U.S. GIC/Stable Value (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2024	2023	2022	2021	2020
Manager	0.74	2.99	2.68	2.30	2.35	N/A	2.95	2.65	1.70	1.64	2.28
Benchmark	0.76	3.06	2.82	2.42	2.42	2.26	3.03	2.86	1.88	1.74	2.24
Difference	-0.02	-0.07	-0.14	-0.12	-0.07	N/A	-0.08	-0.21	-0.18	-0.11	0.03
Peer Group Median	0.68	2.62	2.48	2.07	2.19	2.04	2.73	2.54	1.61	1.43	2.00
Rank	30	34	35	27	22	N/A	32	40	40	27	16
Population	48	48	48	47	45	44	55	56	57	59	65

Peer Group Analysis		Portfolio Characteristics			Top Wrap Providers (%)	
Return (%)						
	7 Years					
	◆ Manager	2.35 (22)				
	● Benchmark	2.42 (20)				
	Median	2.19				



Performance shown is net of fees. Calculation is based on quarterly periodicity. Allocation to "Other" consists of Yankees. Crediting rate is the declared crediting rate net of all fees.

Addendum & Glossary

BlackRock:LP Id;F Lending (CIT) Index Compositions

As of June 30, 2025

BlackRock LP Ret Lending Index consists of 23.9% Russell 1000 Index, 0.5% Russell 2000 Index, 11.3% MSCI ACW Ex US IM Index (USD) (Net), 16.4% Bloomberg US Gov't Int Trm Bond Index, 8.7% Bloomberg US Gov't Lng Trm Bond Index, 7.9% Bloomberg US Crdt Int Trm Index, 3.2% Bloomberg US Lng Crdt Index, 0.0% FTSE 3 Mo T-Bill Index, 10.4% Bloomberg US TIPS 0-5 Yr Index, 13.4% Bloomberg US Sec Bond Index, 0.8% FTSE NAREIT All Eq REITs Index (TR), 1.3% FTSE Gbl Core Infra 50/50 Index, and 2.2% Bloomberg Enhanced Roll Yld Index.

BlackRock LP 2030 Lending Index consists of 31.9% Russell 1000 Index, 0.7% Russell 2000 Index, 16.5% MSCI ACW Ex US IM Index (USD) (Net), 6.7% Bloomberg US Gov't Int Trm Bond Index, 8.4% Bloomberg US Gov't Lng Trm Bond Index, 9.1% Bloomberg US Crdt Int Trm Index, 3.8% Bloomberg US Lng Crdt Index, 0.0% FTSE 3 Mo T-Bill Index, 8.1% Bloomberg US TIPS 0-5 Yr Index, 10.4% Bloomberg US Sec Bond Index, 2.1% FTSE NAREIT All Eq REITs Index (TR), 1.5% FTSE Gbl Core Infra 50/50 Index, and 0.8% Bloomberg Enhanced Roll Yld Index.

BlackRock LP 2035 Lending Index consists of 38.4% Russell 1000 Index, 1.5% Russell 2000 Index, 20.8% MSCI ACW Ex US IM Index (USD) (Net), 8.2% Bloomberg US Gov't Int Trm Bond Index, 5.4% Bloomberg US Gov't Lng Trm Bond Index, 7.0% Bloomberg US Crdt Int Trm Index, 4.3% Bloomberg US Lng Crdt Index, 0.0% FTSE 3 Mo T-Bill Index, 0.6% Bloomberg US TIPS 0-5 Yr Index, 9.2% Bloomberg US Sec Bond Index, 2.8% FTSE NAREIT All Eq REITs Index (TR), 1.8% FTSE Gbl Core Infra 50/50 Index, and 0.0% Bloomberg Enhanced Roll Yld Index.

BlackRock LP 2040 Lending Index consists of 44.4% Russell 1000 Index, 2.2% Russell 2000 Index, 24.6% MSCI ACW Ex US IM Index (USD) (Net), 4.7% Bloomberg US Gov't Int Trm Bond Index, 3.7% Bloomberg US Gov't Lng Trm Bond Index, 4.1% Bloomberg US Crdt Int Trm Index, 4.2% Bloomberg US Lng Crdt Index, 0.0% FTSE 3 Mo T-Bill Index, 0.5% Bloomberg US TIPS 0-5 Yr Index, 6.2% Bloomberg US Sec Bond Index, 3.5% FTSE NAREIT All Eq REITs Index (TR), 2.0% FTSE Gbl Core Infra 50/50 Index, and 0.0% Bloomberg Enhanced Roll Yld Index.

BlackRock LP 2045 Lending Index consists of 50.5% Russell 1000 Index, 3.2% Russell 2000 Index, 29.1% MSCI ACW Ex US IM Index (USD) (Net), 1.6% Bloomberg US Gov't Int Trm Bond Index, 1.8% Bloomberg US Gov't Lng Trm Bond Index, 1.6% Bloomberg US Crdt Int Trm Index, 4.3% Bloomberg US Lng Crdt Index, 0.0% FTSE 3 Mo T-Bill Index, 0.0% Bloomberg US TIPS 0-5 Yr Index, 3.5% Bloomberg US Sec Bond Index, 4.2% FTSE NAREIT All Eq REITs Index (TR), 0.3% FTSE Gbl Core Infra 50/50 Index, and 0.0% Bloomberg Enhanced Roll Yld Index.

BlackRock LP 2050 Lending Index consists of 56.1% Russell 1000 Index, 4.0% Russell 2000 Index, 32.6% MSCI ACW Ex US IM Index (USD) (Net), 0.0% Bloomberg US Gov't Int Trm Bond Index, 0.2% Bloomberg US Gov't Lng Trm Bond Index, 0.0% Bloomberg US Crdt Int Trm Index, 3.5% Bloomberg US Lng Crdt Index, 0.0% FTSE 3 Mo T-Bill Index, 0.0% Bloomberg US TIPS 0-5 Yr Index, 1.4% Bloomberg US Sec Bond Index, 2.2% FTSE NAREIT All Eq REITs Index (TR), 0.0% FTSE Gbl Core Infra 50/50 Index, and 0.0% Bloomberg Enhanced Roll Yld Index.

BlackRock LP 2055 Lending Index consists of 58.8% Russell 1000 Index, 4.3% Russell 2000 Index, 34.2% MSCI ACW Ex US IM Index (USD) (Net), 0.0% Bloomberg US Gov't Int Trm Bond Index, 0.0% Bloomberg US Gov't Lng Trm Bond Index, 0.0% Bloomberg US Crdt Int Trm Index, 1.5% Bloomberg US Lng Crdt Index, 0.0% FTSE 3 Mo T-Bill Index, 0.0% Bloomberg US TIPS 0-5 Yr Index, 0.0% Bloomberg US Sec Bond Index, 1.2% FTSE NAREIT All Eq REITs Index (TR), 0.0% FTSE Gbl Core Infra 50/50 Index, and 0.0% Bloomberg Enhanced Roll Yld Index.

BlackRock LP 2060 Lending Index consists of 59.2% Russell 1000 Index, 4.4% Russell 2000 Index, 34.4% MSCI ACW Ex US IM Index (USD) (Net), 0.0% Bloomberg US Gov't Int Trm Bond Index, 0.0% Bloomberg US Gov't Lng Trm Bond Index, 0.0% Bloomberg US Crdt Int Trm Index, 1.0% Bloomberg US Lng Crdt Index, 0.0% FTSE 3 Mo T-Bill Index, 0.0% Bloomberg US TIPS 0-5 Yr Index, 0.0% Bloomberg US Sec Bond Index, 1.0% FTSE NAREIT All Eq REITs Index (TR), 0.0% FTSE Gbl Core Infra 50/50 Index, and 0.0% Bloomberg Enhanced Roll Yld Index.

BlackRock LP 2065 Lending Index consists of 59.2% Russell 1000 Index, 4.4% Russell 2000 Index, 34.4% MSCI ACW Ex US IM Index (USD) (Net), 0.0% Bloomberg US Gov't Int Trm Bond Index, 0.0% Bloomberg US Gov't Lng Trm Bond Index, 0.0% Bloomberg US Crdt Int Trm Index, 1.0% Bloomberg US Lng Crdt Index, 0.0% FTSE 3 Mo T-Bill Index, 0.0% Bloomberg US TIPS 0-5 Yr Index, 0.0% Bloomberg US Sec Bond Index, 1.0% FTSE NAREIT All Eq REITs Index (TR), 0.0% FTSE Gbl Core Infra 50/50 Index, and 0.0% Bloomberg Enhanced Roll Yld Index.

BlackRock LP 2070 Lending Index consists of 59.2% Russell 1000 Index, 4.4% Russell 2000 Index, 34.4% MSCI ACW Ex US IM Index (USD) (Net), 0.0% Bloomberg US Gov't Int Trm Bond Index, 0.0% Bloomberg US Gov't Lng Trm Bond Index, 0.0% Bloomberg US Crdt Int Trm Index, 1.0% Bloomberg US Lng Crdt Index, 0.0% FTSE 3 Mo T-Bill Index, 0.0% Bloomberg US TIPS 0-5 Yr Index, 0.0% Bloomberg US Sec Bond Index, 1.0% FTSE NAREIT All Eq REITs Index (TR), 0.0% FTSE Gbl Core Infra 50/50 Index, and 0.0% Bloomberg Enhanced Roll Yld Index.

Allocations shown are updated annually and may not sum up to 100% exactly due to rounding.

General Comments

- RVK began monitoring the assets of the Pennsylvania State Employees' Retirement System Defined Contribution Plans as of 02/01/2025. Prior historical data was provided by Empower and investment managers.
- The Stable Value Fund fee shown represents total fees and is comprised of Investment Advisory Fees (0.0337% Stable Value Management and 0.073% Investment Management) and Operating Fees (0.1379% Wrap Contracts and 0.0034% Administrative Fees).

Performance Comments

- Performance shown is net of fees, except where noted, and product specific.

Glossary

Active Return - The difference between the investment manager/composite performance relative to the performance of an appropriate market benchmark.

Active Share - Measures the degree to which the holdings of a fund differ from the holdings of the benchmark. Active share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the fund versus the weight of each holding in the benchmark and dividing by two.

Alpha - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

Alpha Ratio - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

Average Quality - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. *Average Quality for managers unable to provide this statistic is instead provided by Morningstar; if unavailable on Morningstar, it has been estimated using a credit quality distribution provided by the manager.* There are two primary rating agencies in the US. *Moody's* assigns ratings on a system that employs up to four symbols (consisting of letters and numbers), such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. *Standard & Poor's (S&P)* employs a system that uses + and - along with letters, such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

<u>S&P</u>	<u>Moody's</u>	<u>Explanation</u>	<u>S&P</u>	<u>Moody's</u>	<u>Explanation</u>
Higher Credit Quality – Investment Grade			Lower Credit Quality – Below Investment Grade		
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality
AA+	Aa1	High credit quality	BB	Ba2	
AA	Aa2		BB-	Ba3	
AA-	Aa3		B+	B1	Highly speculative
A+	A1	Upper-medium credit quality	B	B2	
A	A2		B-	B3	
A-	A3		CCC+	Caa1	Substantial credit/default risk
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative
BBB	Baa2		CCC-	Caa3	
BBB-	Baa3		CC	Ca	Vulnerable to default
			C	Ca	
			D	C	In default

Beta - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

Book Value Return - Used by stable value and Guaranteed Investment Contracts (GIC) investments that are not valued daily. Book value returns are calculated based on the crediting rate set by the fund and guaranteed by the insurance wrap provider.

Box Plots - A graphical representation of the distribution of observations. From top to bottom, the four boxes represent the spread between the maximum value and the minimum value in each quartile. A quartile represents the values that divide the observations into four quarters (i.e., 1st quartile, 2nd quartile, 3rd quartile, and 4th quartile). The median observation is where the 2nd quartile and 3rd quartile meet.

Buy and Hold Attribution - At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

Sector - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data. Attribution to "Other" is the result of securities based in industries that do not fit into any GICS classification.

Country/Region - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider. Attribution to "EMEA" represents securities based in Europe, the Middle East, and Africa. Attribution to "Other" is the result of securities based in countries/regions that do not fit into any MSCI classification.

Style - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of the names are assigned to the value category. Stocks are unclassified when there is not enough data to determine a size and style metric.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.

Capital Markets Review -

Breakeven Inflation - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

Consumer Confidence - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

Consumer Price Index (CPI) - Measures the change in the price level of consumer goods and services.

Glossary

- Federal Funds Rate** - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.
- Option-Adjusted Spread** - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.
- Purchasing Managers Index (PMI)** - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.
- Real Gross Domestic Product (Real GDP)** - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.
- Unemployment Rate** - The percentage of the total labor force that is unemployed but actively seeking employment.
- US Dollar Total Weighted Index** - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.
- VIX** - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."
- Consistency** - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.
- Convexity** - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.
- Correlation** - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.
- Coupon Rate** - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.
- Current Yield** - The annual income of a security divided by the security's current price.
- Down Market Capture** - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.
- Downside Risk** - A measure similar to standard deviation that focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative returns for the selected periodicity. The higher the factor, the riskier the product.
- Earnings Per Share** - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.
- Effective Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield.
- Excess Return vs. Market** - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.
- Excess Return vs. Risk Free** - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., ICE BofA 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.
- Excess Risk** - A measure of the standard deviation of a portfolio's performance relative to the risk-free return.
- Expense Ratios** - Morningstar is the source for mutual fund expense ratios.
- Indices** - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used, or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability, and/or completeness.
- Information Ratio** - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.
- Market Capitalization** - The total dollar market value of a company's outstanding shares.
- Market to Book Value** - A ratio of the market value of all fund assets relative to the book value of those assets for a stable value fund. Wrap contracts provide for the payment of individual participant benefits at book value under normal circumstances.
- Market Value Return** - The returns associated with the underlying assets of a portfolio used to support the book value return provided to investors. For stable value investments, the market value return is representative of the performance of the portfolio as a daily-valued investment, but is purely for illustrative purposes. The investor instead earns the stated book value return.
- Modified Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield, assuming the bonds' expected cash flows do not change.
- Mutual Fund Performance** - Whenever possible, manager performance is extended for any share class that does not have 10 years of history. Using Morningstar's methodology, a single ticker within the same fund family (often the oldest share class) is chosen to append historical performance.

Glossary

Peer Groups -

Investment Manager Peer Groups - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 standard peer groups. Mutual Fund Peer Groups are net of fees.

Percentile Rankings - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value

100 - Lowest Statistical Value

Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4th percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.

Performance Methodology - Performance shown is provided by the investment managers and is annualized for periods greater than one year.

Portfolio Characteristics & Distribution (%) - Due to disclosure guidelines set by each investment manager, portfolio characteristics and distribution percentages shown are as of the most recent date available.

Price to Earnings Ratio - The ratio valuing a company's current share price relative to its trailing 12-month per-share earnings (EPS).

R-Squared - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

Return - Compounded rate of return for the period.

Risk Free Benchmark - ICE BofA 3 Mo US T-Bill Index unless specified otherwise.

Sector Allocation - Negative fixed income sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps. An allocation to "Other" is the result of securities that do not fit into RVK's standardized classification, such as Catastrophe, CLOs, Common Stock, Convertibles, CRTs, Derivatives, Direct Loans, Emerging Markets Local Corporates, ETFs, FX Forwards, Infrastructure Debt, Reverse Repo, Swaps, Trade Finance, Unsecured Bonds, and Other Assets.

Sharpe Ratio - Represents the excess rate of return over the risk-free return (i.e., ICE BofA 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return to the risk free asset. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

Simple Alpha - The difference between the manager's return and the benchmark's return.

Spread Duration - The approximate percentage change in a bond's price for a 100 basis point change in its spread over a Treasury of the same maturity.

Standard Deviation - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

Time Period Abbreviations - **QTD** - Quarter-to-Date. **CYTD** - Calendar Year-to-Date. **FYTD** - Fiscal Year-to-Date. **YOY** - Year Over Year.

Tracking Error - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

Treynor Ratio - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., ICE BofA 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

Up Market Capture - Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolio's return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

Yield to Maturity - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

Yield to Worst - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.

RVK

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