

RVK

Quarterly Performance Report

Pennsylvania State Employees' Retirement System
Defined Contribution Plan

June 30, 2025

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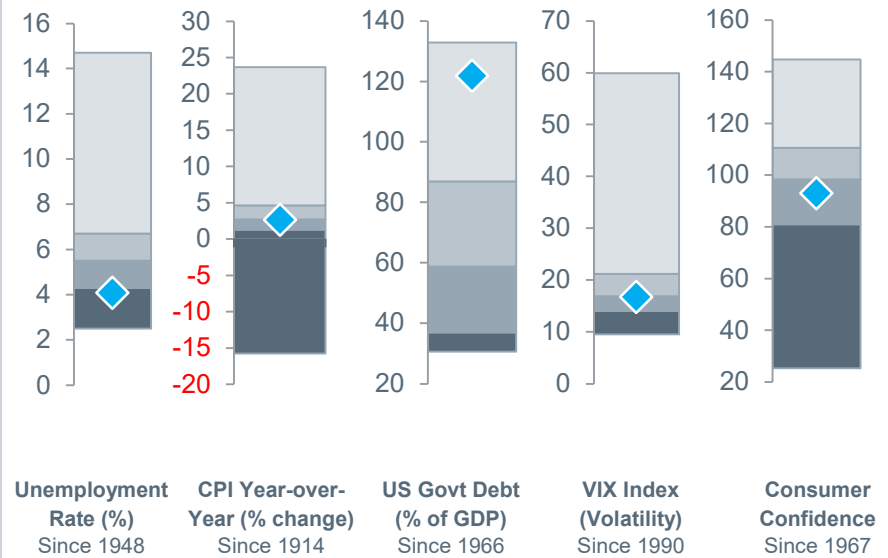
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Capital Markets Review

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.

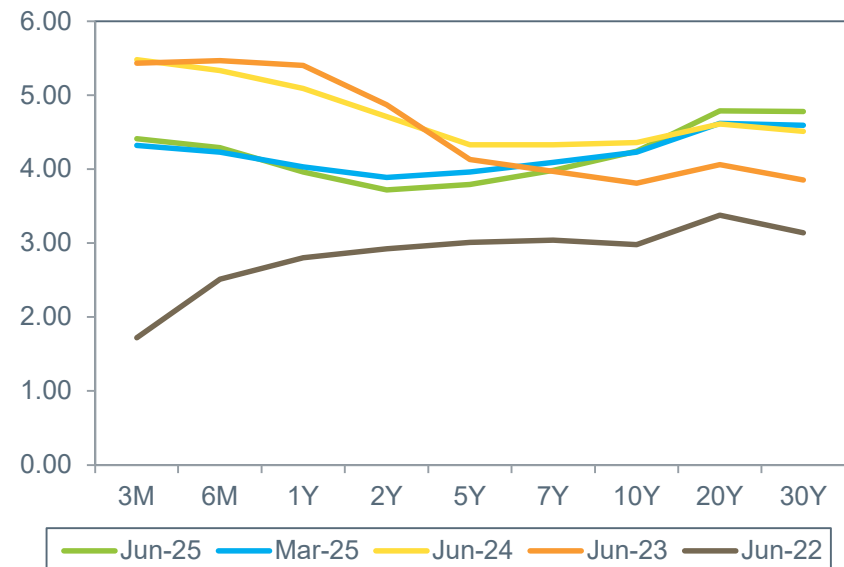
Key Economic Indicators

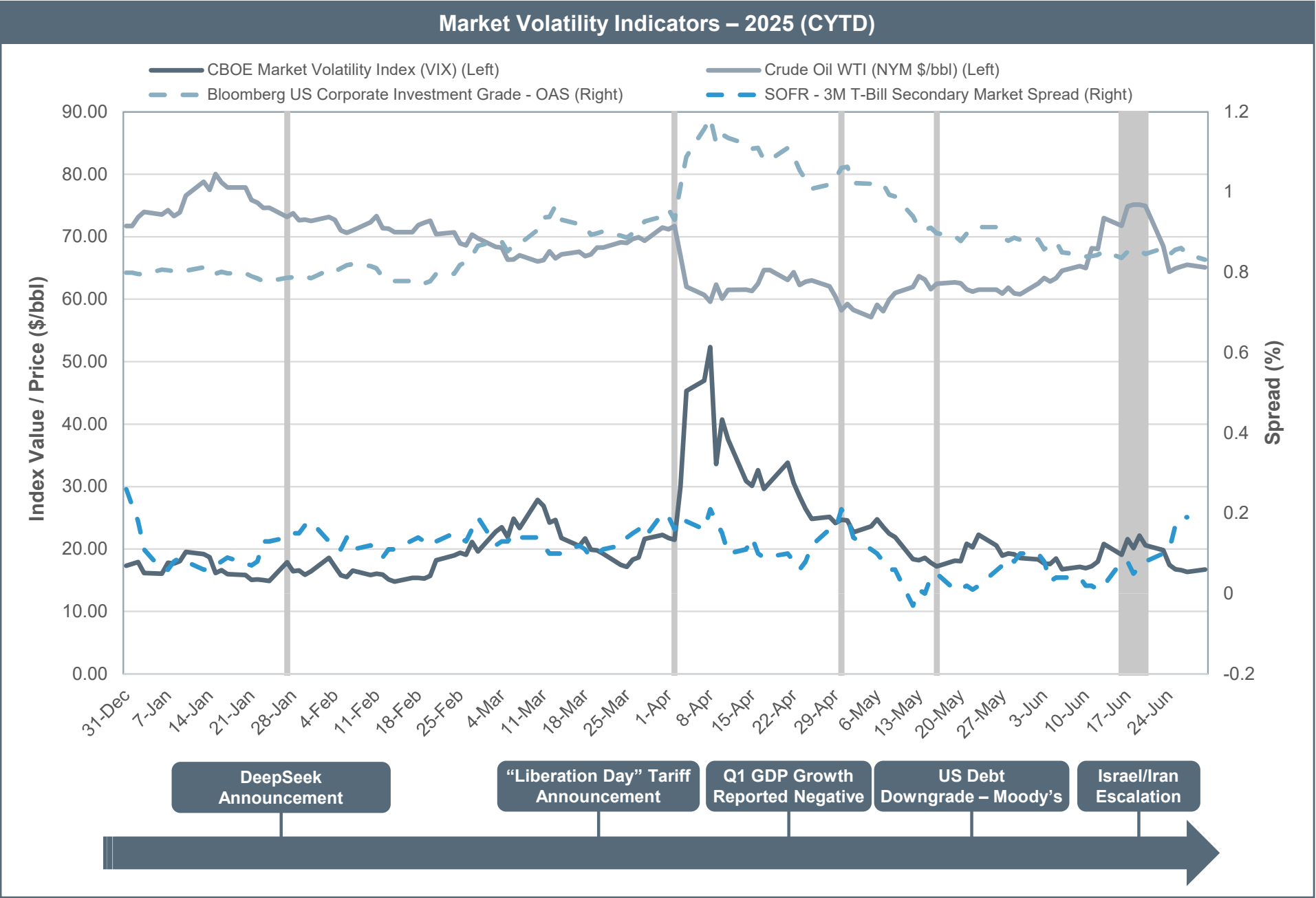


Economic Indicators	Jun-25	Mar-25	Jun-24	Jun-22	20 Yr
Federal Funds Rate (%)	4.33	4.33	5.33	1.58	1.72
Breakeven Infl. - 5 Yr (%)	2.31 ▼	2.63	2.24	2.62	1.92
Breakeven Infl. - 10 Yr (%)	2.28 ▼	2.37	2.27	2.34	2.08
CPI YoY (Headline) (%)	2.7 ▲	2.4	3.0	9.1	2.6
Unemployment Rate (%)	4.1 ▼	4.2	4.1	3.6	5.8
Real GDP YoY (%)	3.0 ▲	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.

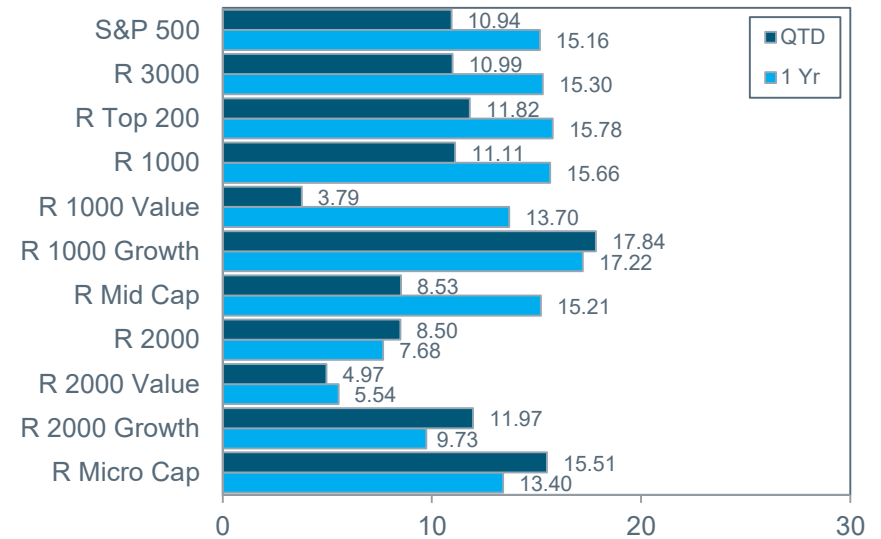
Market Cap

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.

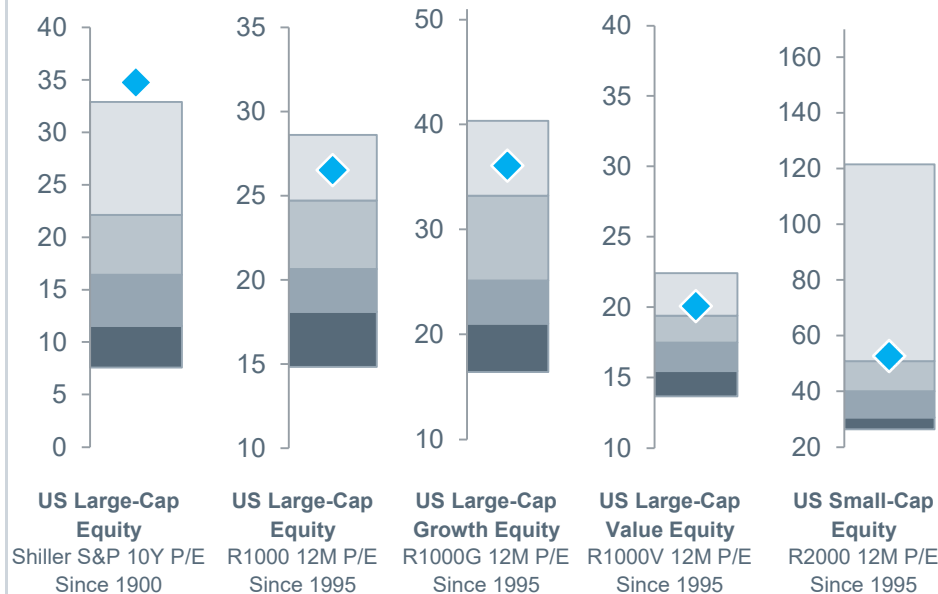
Style and Sector

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.

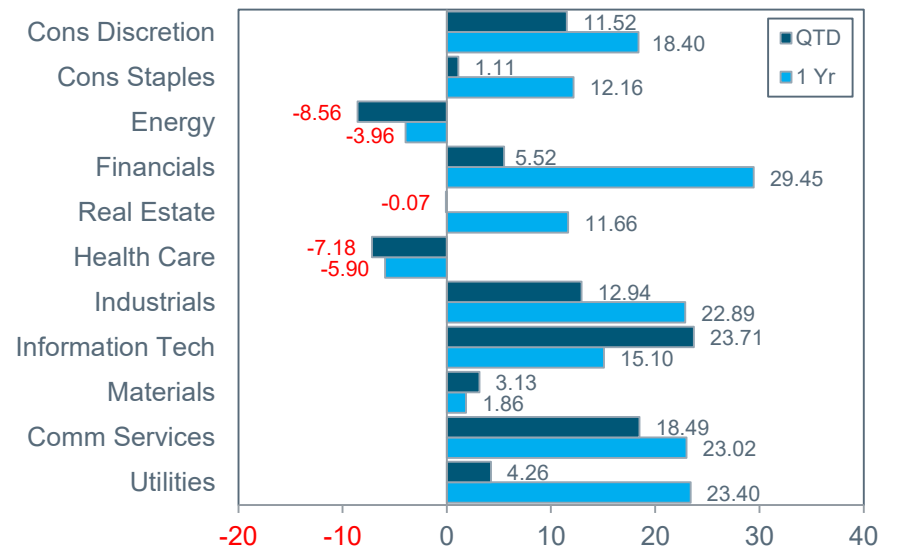
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



Second Quarter Review

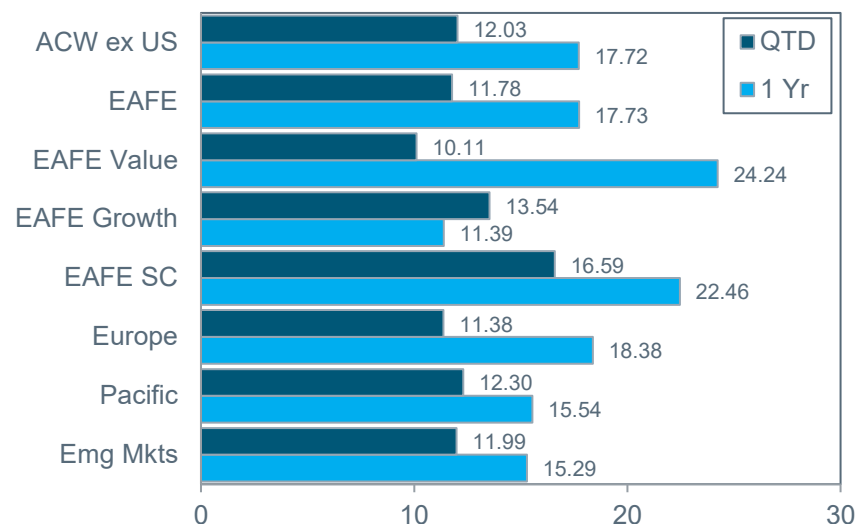
Developed Markets

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.

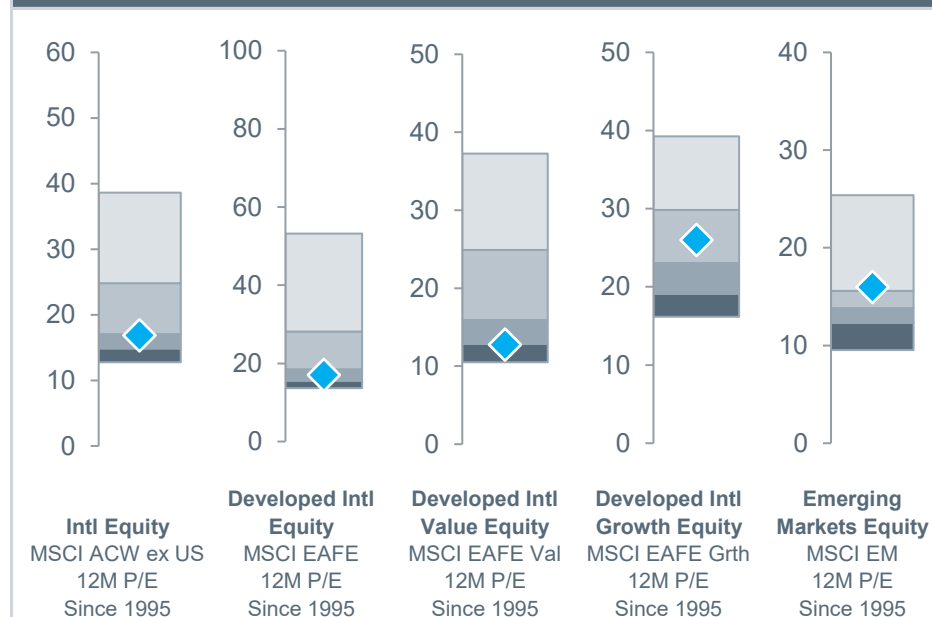
Emerging Markets

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.

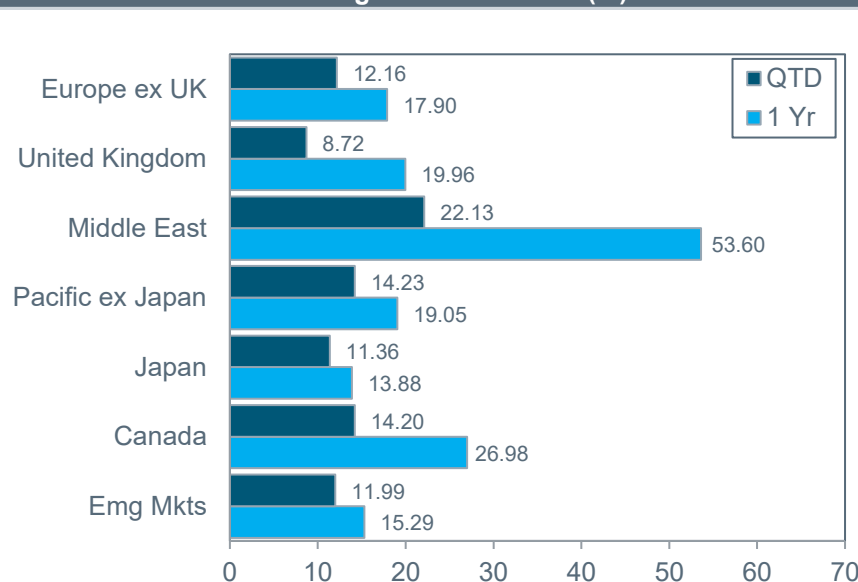
MSCI Style and Capitalization Market Performance (%)



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%.

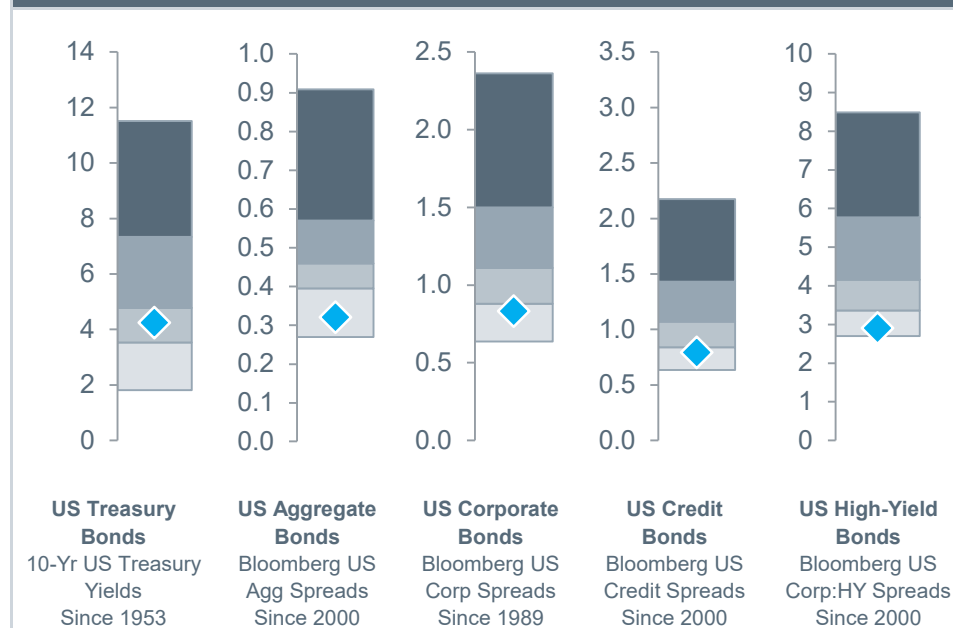
Credit Market

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.

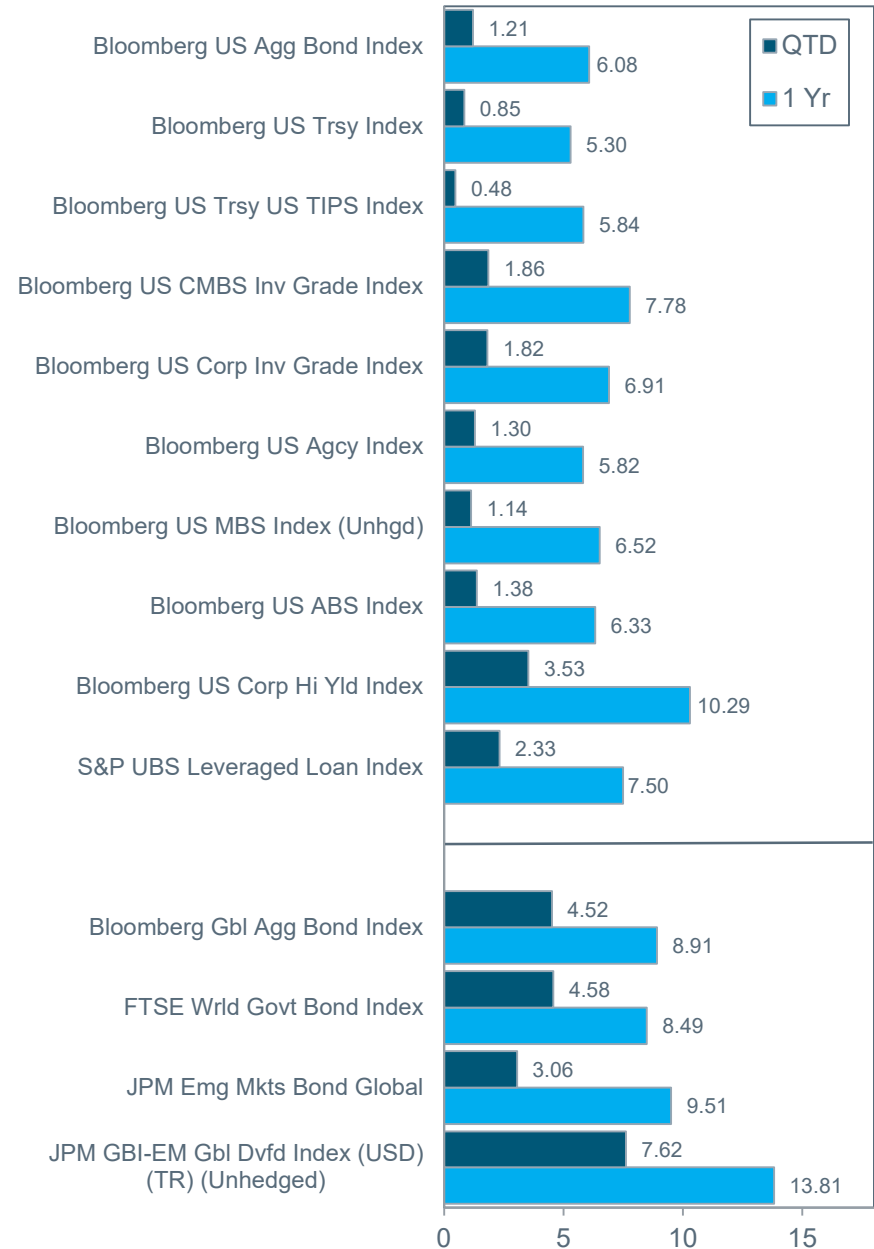
Valuations



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

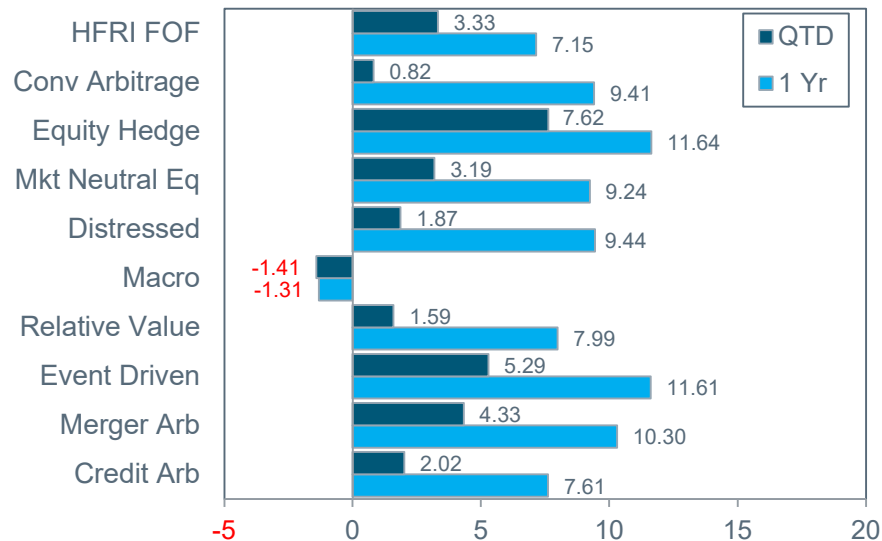
General Market - Hedge Funds

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

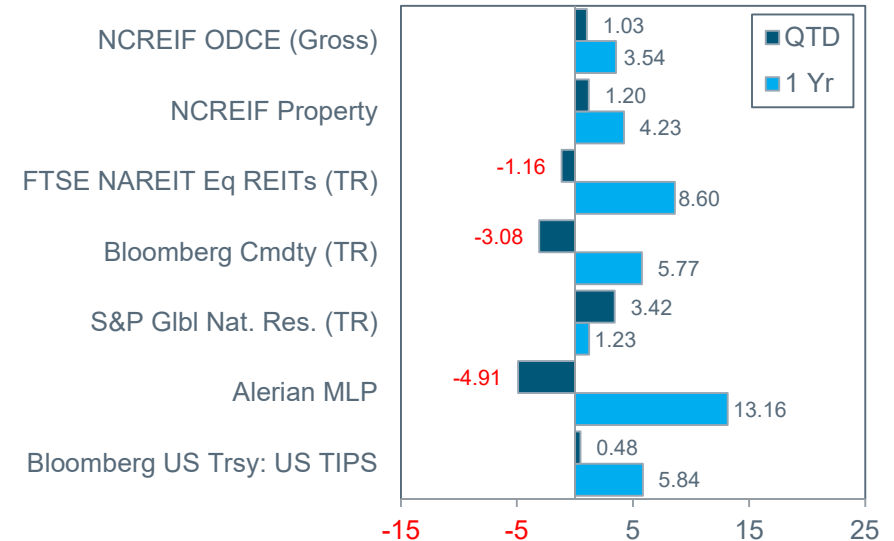
General Market - Diversified Inflation Strategies (DIS)

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 Defined Contribution Plan
Manager Monitoring Dashboard

As of June 30, 2025

Total: \$365,820,356		Investment Options	Total Operating Expense	Fee Ranking	Market Value (\$)	Market Value (%)	RVK's Manager Ranking	Style Discipline	Return Expectations
Fund Options: 10									
Target Date Funds	Conservative ↑ ↓ Aggressive	Post Retirement Date Fund	0.07%	1	\$14,086,620	3.85%	Positive	Multi-Asset	Track Index
		2030 Retirement Date Fund	0.07%	1	\$24,595,776	6.72%	Positive	Multi-Asset	Track Index
		2035 Retirement Date Fund	0.07%	1	\$31,701,338	8.67%	Positive	Multi-Asset	Track Index
		2040 Retirement Date Fund	0.07%	1	\$37,220,306	10.17%	Positive	Multi-Asset	Track Index
		2045 Retirement Date Fund	0.07%	1	\$39,486,561	10.79%	Positive	Multi-Asset	Track Index
		2050 Retirement Date Fund	0.07%	1	\$42,206,113	11.54%	Positive	Multi-Asset	Track Index
		2055 Retirement Date Fund	0.07%	1	\$44,110,312	12.06%	Positive	Multi-Asset	Track Index
		2060 Retirement Date Fund	0.07%	1	\$42,179,678	11.53%	Positive	Multi-Asset	Track Index
		2065 Retirement Date Fund	0.07%	1	\$38,944,633	10.65%	Positive	Multi-Asset	Track Index
		2070 Retirement Date Fund	0.07%	1	\$3,486,989	0.95%	Positive	Multi-Asset	Track Index
Core Options	Large Cap Equity	U.S. Large Company Stock Index Fund	0.0100%	4	\$20,405,227	5.58%	Positive	US Large Cap Equity	Track Index
	SMID Cap Equity	U.S. Small/Mid Company Stock Index Fund	0.0150%	1	\$6,415,045	1.75%	Positive	US SMID Cap Equity	Track Index
	All Cap Equity	U.S. All Company Stock Index Fund	0.0250%	2	\$7,567,821	2.07%	Positive	US All Cap Equity	Track Index
	International Equity	Global Non-U.S. Stock Index Fund	0.0350%	2	\$1,727,301	0.47%	Positive	Global Ex-US All Cap Equity	Track Index
	Fixed Income	U.S. Bond Index Fund	0.1250%	4	\$2,748,420	0.75%	Positive	Core Fixed Income	Track Index
	Short Term Fixed Income	U.S. Short Term Bond Index Fund	0.1750%	2	\$1,325,056	0.36%	Positive	Short Term Fixed Income	Track Index
	TIPS	U.S. Treasury Inflat Protected Sec Index Fund	0.1250%	6	\$1,241,131	0.34%	Positive	Inflation Protected Securities	Track Index
	Cash Equivalents	Short Term Investment Fund	0.0000%	N/A	\$4,715,104	1.29%	N/A	Cash	Exceed Index
Specialty Options	Brokerage Account	Charles Schwab Self-Directed Brokerage (SDB)	\$60 per year*	N/A	\$1,656,924	0.45%	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 value shown is 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.

Pennsylvania State Employees' Retirement System Defined Contribution Plan
Manager Monitoring Dashboard

As of June 30, 2025

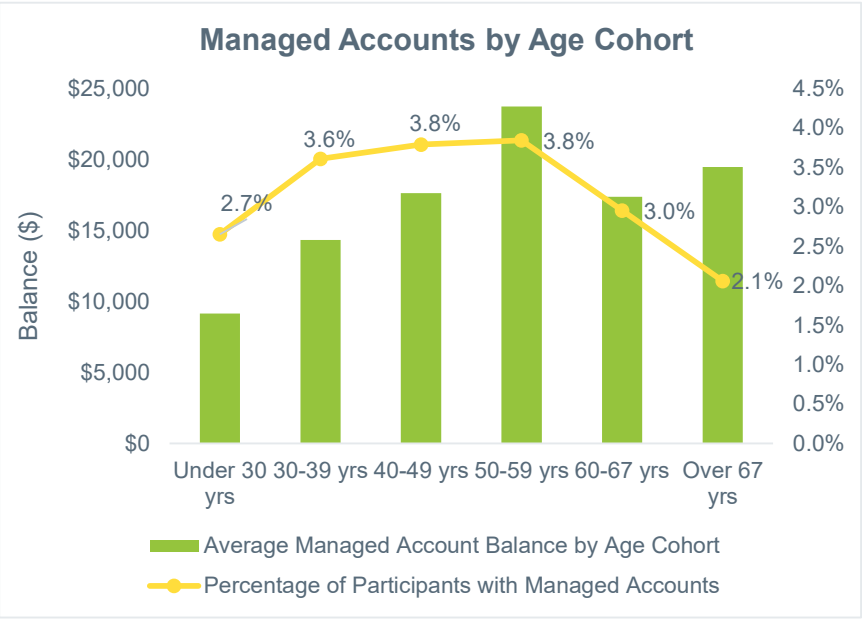
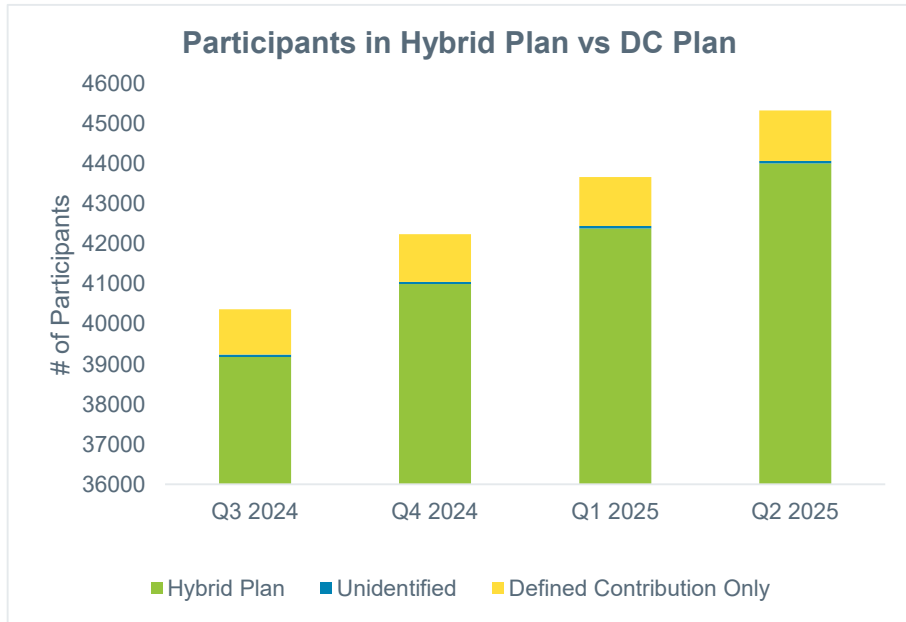
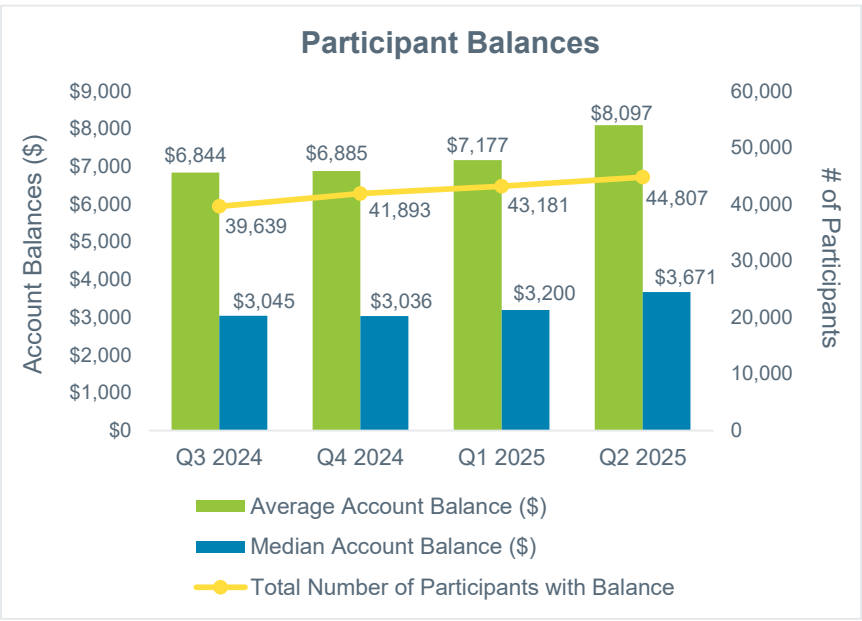
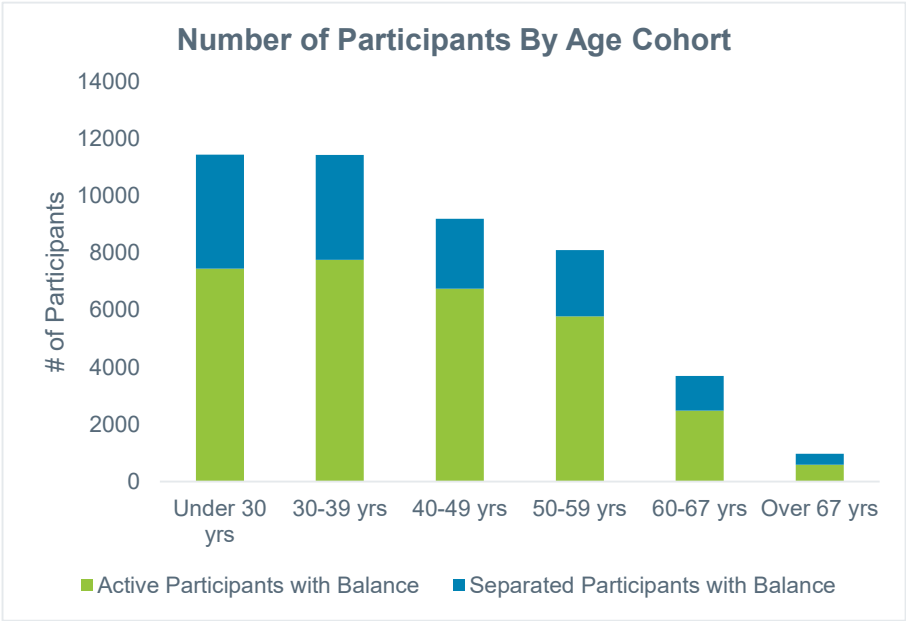
	Investment Options	Qualitative Evaluation	All Managers	Active Managers (Over 4 Consecutive Quarters)		Passive Managers	Watch Status
		No adverse Issues or Events?	Performance In Line with Expectations?	3 Year Return is Above Benchmark?	3 Year Return is Above Peer Group Median?	3 Year Return is In Line 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
	U.S. All Company Stock Index Fund	✓	✓			X	On Watch
	Global Non-U.S. Stock Index Fund	✓	✓			✓	In Good Standing
	U.S. Bond Index Fund	✓	✓			✓	In Good Standing
	U.S. Short Term Bond Index Fund	✓	✓			✓	In Good Standing
	U.S. Treasury Inflat Protected Sec Index Fund	✓	✓			✓	In Good Standing
	Short Term Investment Fund	✓	✓	✓	✓		In Good Standing
Specialty Options	Charles Schwab Self-Directed Brokerage (SDB)	✓	✓				In Good Standing

Performance shown is net of fees and product specific. 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, -0.10% to +0.20% for U.S. All Cap Equity, -0.40% to +1.00% for Global Equity, +/-0.10% for Fixed Income and TIPS, 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.

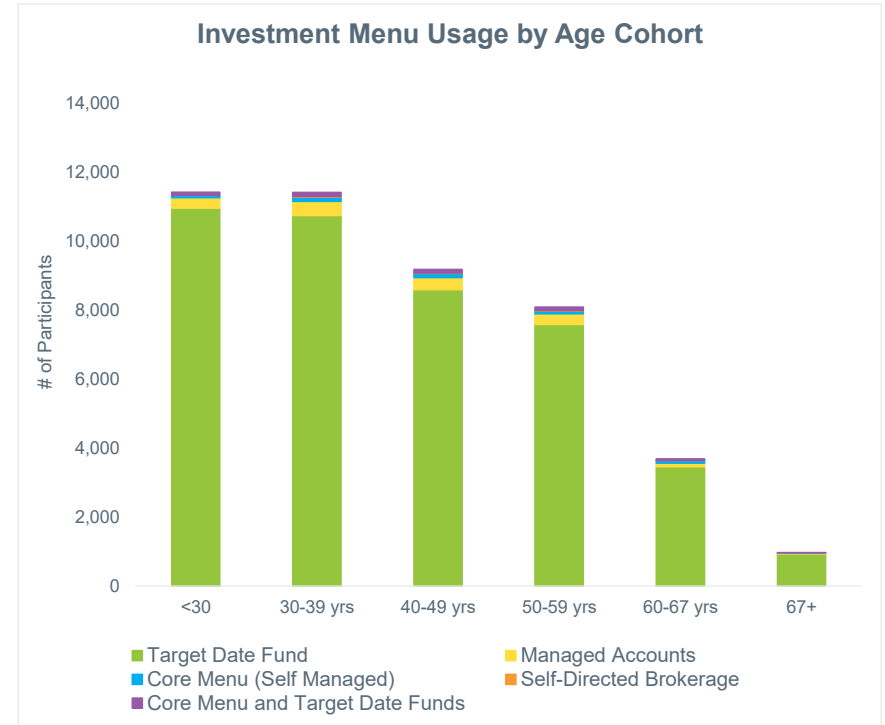
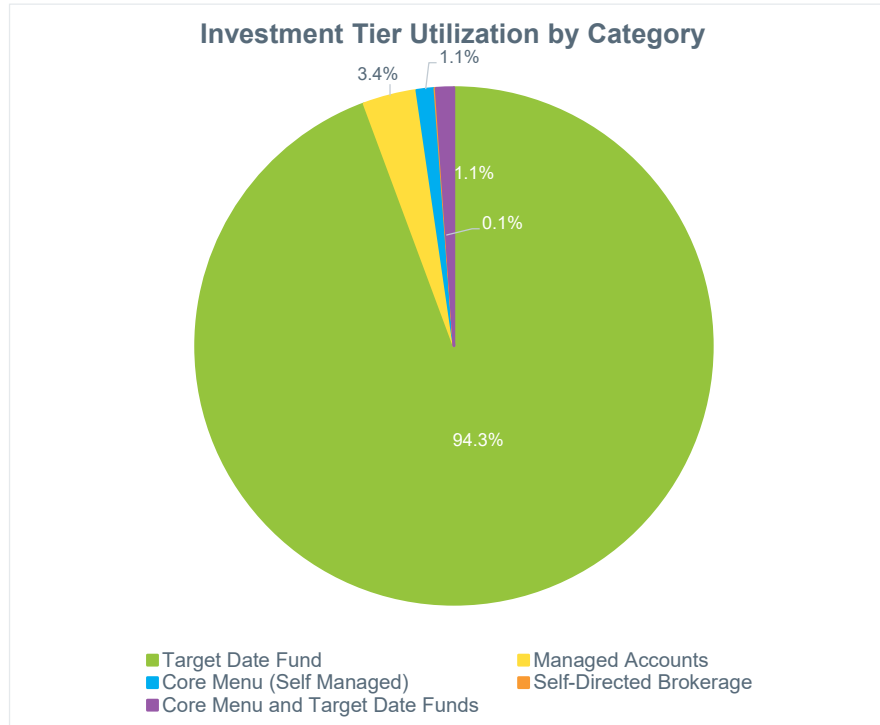
Active managers meet expectations when exceeding the benchmark and ranking above median.



Data for Plan Statistics is provided by Empower and is inclusive of active and inactive participants. Participants for whom Empower was not provided class information for will appear as "Unidentified" in the Participants in Hybrid Plan vs DC Plan chart.

Pennsylvania State Employees' Retirement System Defined Contribution Plan
Investment Menu Utilization

As of June 30, 2025

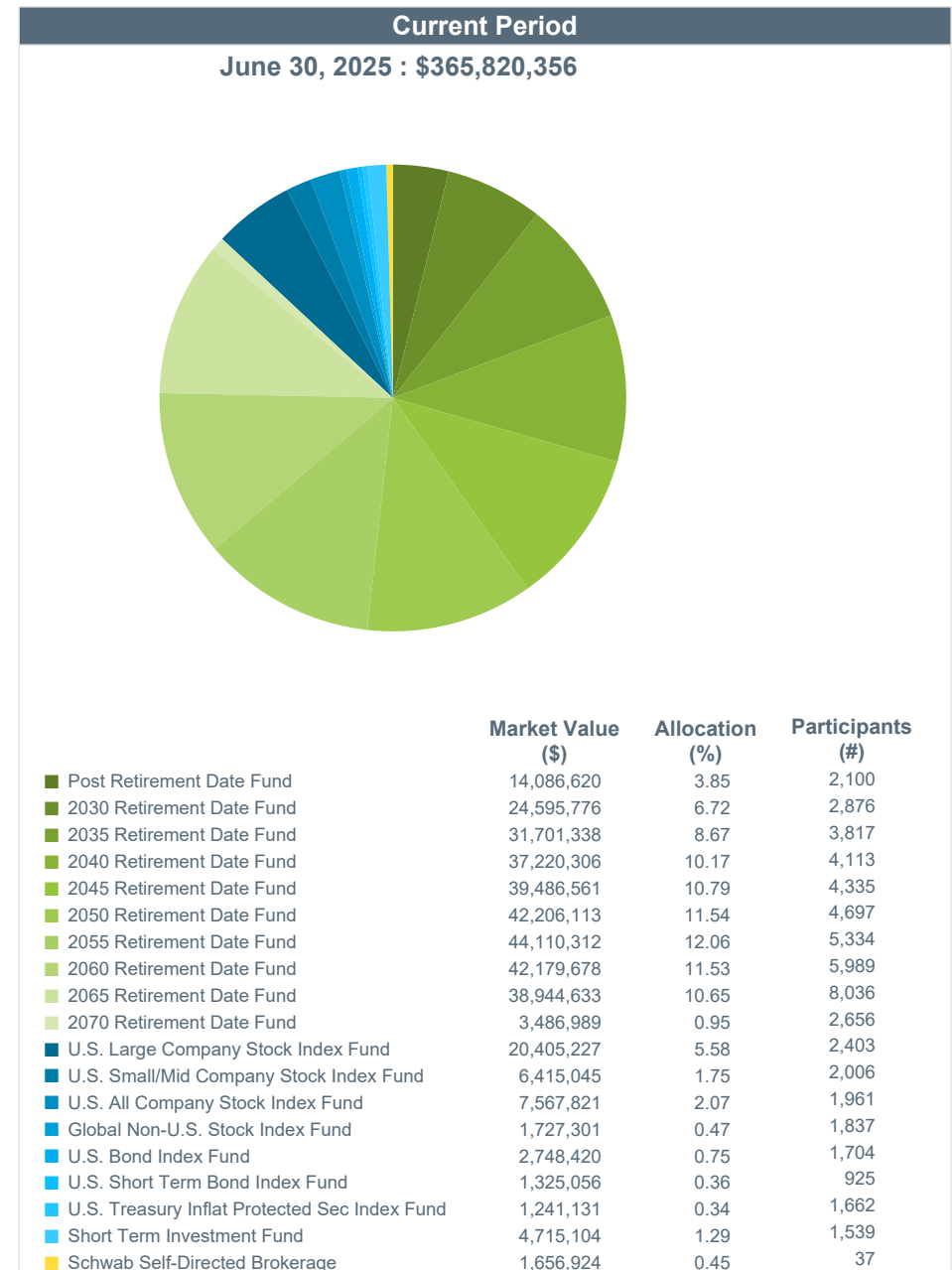
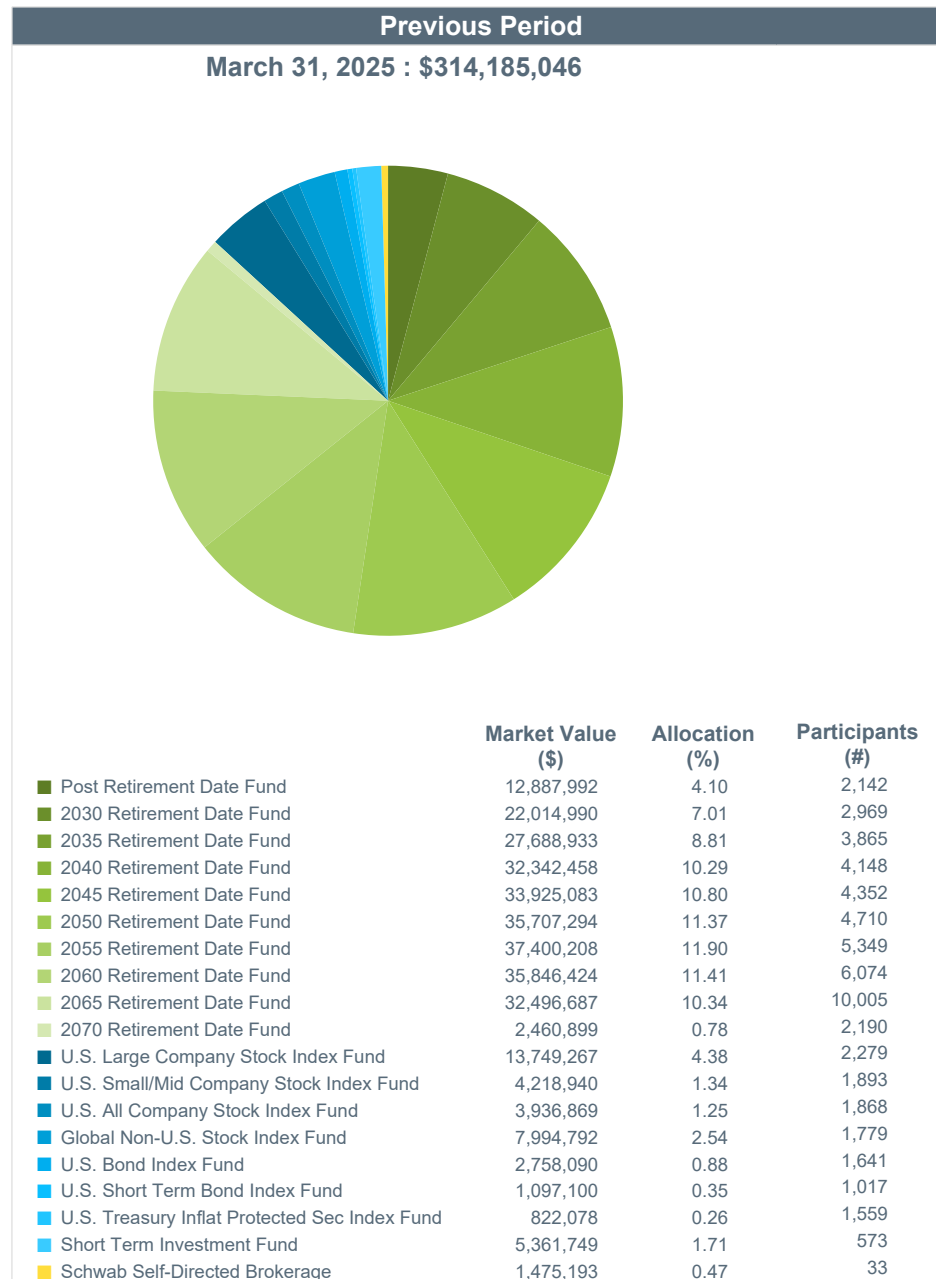


Investment Menu Usage by Category	Participant Count	% of Participants
Do it for me		
Target Date Fund Holders	42,269	94.3%
Managed Accounts	1,503	3.4%
Do it with me		
Core Menu (Self Managed)	501	1.1%
Core Menu and Target Date Funds	494	1.1%
Do it myself		
Self-Directed Brokerage Account	37	0.1%
Total	44,804	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 Defined Contribution 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 Defined Contribution 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	12,887,992	-20,858	848,641	-242,864	-1,985	615,693	14,086,620
2030 Retirement Date Fund	22,014,990	-55,674	1,576,263	-306,538	-3,458	1,370,193	24,595,776
2035 Retirement Date Fund	27,688,933	-459,051	2,792,059	-400,988	-4,333	2,084,719	31,701,338
2040 Retirement Date Fund	32,342,458	-336,313	2,614,957	-206,948	-5,088	2,811,241	37,220,306
2045 Retirement Date Fund	33,925,083	-145,002	2,692,786	-308,496	-5,376	3,327,565	39,486,561
2050 Retirement Date Fund	35,707,294	-116,768	2,939,050	-281,020	-5,679	3,963,236	42,206,113
2055 Retirement Date Fund	37,400,208	-174,887	2,989,427	-427,606	-6,012	4,329,183	44,110,312
2060 Retirement Date Fund	35,846,424	-184,445	2,937,377	-582,713	-5,696	4,168,731	42,179,678
2065 Retirement Date Fund	32,496,687	-139,724	3,303,504	-541,386	-5,219	3,830,770	38,944,633
2070 Retirement Date Fund	2,460,899	4,886	783,672	-90,381	-428	328,341	3,486,989
Total Target Date Funds	272,770,968	-1,627,836	23,477,736	-3,388,939	-43,274	26,829,673	318,018,328
Tier II: Core Options							
U.S. Large Company Stock Index Fund	13,749,267	4,077,641	992,970	-159,126	-6,045	1,750,520	20,405,227
U.S. Small/Mid Company Stock Index Fund	4,218,940	1,309,073	326,070	-33,805	-2,286	597,053	6,415,045
U.S. All Company Stock Index Fund	3,936,869	2,784,983	345,149	-46,615	-1,759	549,194	7,567,821
Global Non-U.S. Stock Index Fund	7,994,792	-7,506,690	480,801	-77,725	-7,413	843,535	1,727,301
U.S. Bond Index Fund	2,758,090	-171,304	154,243	-21,980	-2,154	31,524	2,748,420
U.S. Short Term Bond Index Fund	1,097,100	159,390	63,811	-9,728	-852	15,335	1,325,056
U.S. Treasury Inflat Protected Sec Index Fund	822,078	359,572	59,230	-7,805	-548	8,605	1,241,131
Short Term Investment Fund	1,077,625	547,150	73,754	-20,743	-119	13,406	1,691,073
Total Core Options	35,654,761	1,559,815	2,496,028	-377,527	-21,177	3,809,173	43,121,074
Tier III: Speciality Options							
Schwab Self-Directed Brokerage	1,475,193	68,021	-	-	-	113,710	1,656,924
Total Speciality Options	1,475,193	68,021	-	-	-	113,710	1,656,924
Total Fund Cash Flows	309,900,922	-	25,973,764	-3,766,466	-64,451	30,752,557	362,796,326

Cash flow data is provided by Empower. Market values for Short Term Investment Fund and Total Fund do not include forfeitures. 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.

Pennsylvania State Employees' Retirement System Defined Contribution 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														
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 Defined Contribution 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 Defined Contribution 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	6.98	0.04	8.01	11.28	11.66	8.16	8.78	11.59	9.60	12.40	16.38	-17.60	22.39	16.53
Rank	19	27	9	10	48	39	36	29	53	21	8	78	78	27
U.S. All Company Stock Index Fund	10.90	5.66	15.12	18.95	15.85	13.46	12.89	N/A	N/A	23.49	25.96	-19.23	25.61	21.20
DJ US TSM Index	11.09	5.68	15.23	19.07	15.87	13.46	12.88	14.41	10.57	23.88	26.06	-19.53	25.66	20.79
Difference	-0.19	-0.02	-0.11	-0.12	-0.02	0.00	0.00	N/A	N/A	-0.39	-0.10	0.30	-0.05	0.41
IM U.S. All Cap Equity (SA+CF) Median	8.35	5.31	13.69	15.56	13.85	11.37	10.55	12.48	9.22	17.22	20.59	-17.46	24.20	14.21
Rank	33	45	39	25	29	22	23	N/A	N/A	25	31	63	41	35
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	12.34	19.14	18.87	14.96	10.47	6.89	6.63	7.61	6.45	5.97	16.45	-17.50	8.49	14.66
Rank	59	56	61	63	52	51	57	73	N/A	53	53	41	58	57

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 Defined Contribution 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. 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	2.79	-0.40	2.02	1.99	2.57	3.27	1.64	5.79	-13.13	-1.47	8.02
Rank	61	46	55	71	81	75	83	88	76	82	68	37	65	67
U.S. Short Term Bond Index Fund	1.27	2.91	5.97	3.75	1.57	2.33	N/A	N/A	N/A	4.39	4.59	-3.69	-0.52	3.36
Bloomberg US Govt Crdt 1-3 Yr Bond Index	1.27	2.92	5.94	3.75	1.58	2.33	1.84	1.62	2.34	4.36	4.61	-3.69	-0.47	3.33
Difference	0.00	0.00	0.03	0.00	-0.01	0.00	N/A	N/A	N/A	0.03	-0.02	0.00	-0.05	0.03
IM U.S. Short Duration Fixed Income (SA+CF) Median	1.42	3.14	6.24	4.27	2.09	2.60	2.07	1.96	2.52	4.81	5.08	-3.66	-0.37	3.62
Rank	89	83	76	79	77	76	N/A	N/A	N/A	72	87	52	62	68
U.S. Treasury Inflat Protected Sec Index Fund	0.50	4.70	5.88	2.37	1.62	3.00	N/A	N/A	N/A	1.84	3.90	-11.76	5.87	11.00
Bloomberg US Trsy US TIPS Index	0.48	4.67	5.84	2.34	1.61	2.99	2.67	2.88	3.40	1.84	3.90	-11.85	5.96	10.99
Difference	0.02	0.03	0.04	0.03	0.01	0.01	N/A	N/A	N/A	0.00	0.01	0.08	-0.08	0.01
IM U.S. TIPS (SA+CF) Median	0.49	4.68	5.87	2.39	1.61	2.96	2.65	2.82	3.37	1.87	3.80	-11.87	5.71	10.61
Rank	44	40	45	52	49	43	N/A	N/A	N/A	53	38	41	31	29
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	1.55	1.98	5.36	5.32	0.32	0.01	1.44
Rank	84	87	86	73	52	68	72	68	70	75	90	10	42	85

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 Defined Contribution 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 LifePath 2065 Index - Lending	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 LifePath 2070 Index - Lending	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 Defined Contribution 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
U.S. All Company Stock Index Fund	10.90	5.67	15.12	18.95	15.85	13.47	12.89	N/A	N/A	23.49	25.96	-19.23	25.62	21.20
DJ US TSM Index	11.09	5.68	15.23	19.07	15.87	13.46	12.88	14.41	10.57	23.88	26.06	-19.53	25.66	20.79
Difference	-0.18	-0.01	-0.10	-0.11	-0.02	0.01	0.01	N/A	N/A	-0.38	-0.09	0.30	-0.04	0.41
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
U.S. Short Term Bond Index Fund	1.27	2.91	5.97	3.76	1.58	2.34	N/A	N/A	N/A	4.39	4.60	-3.68	-0.51	3.37
Bloomberg US Govt Crdt 1-3 Yr Bond Index	1.27	2.92	5.94	3.75	1.58	2.33	1.84	1.62	2.34	4.36	4.61	-3.69	-0.47	3.33
Difference	0.00	0.00	0.04	0.01	-0.01	0.00	N/A	N/A	N/A	0.04	-0.02	0.01	-0.04	0.04
U.S. Treasury Inflat Protected Sec Index Fund	0.50	4.70	5.88	2.38	1.62	3.01	N/A	N/A	N/A	1.85	3.91	-11.76	5.88	11.00
Bloomberg US Trsy US TIPS Index	0.48	4.67	5.84	2.34	1.61	2.99	2.67	2.88	3.40	1.84	3.90	-11.85	5.96	10.99
Difference	0.02	0.03	0.04	0.04	0.02	0.01	N/A	N/A	N/A	0.01	0.01	0.09	-0.08	0.01
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 Defined Contribution 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 Defined Contribution 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 Defined Contribution 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	14,086,620	9,861
2030 Retirement Date Fund	0.0700 % of Assets	24,595,776	17,217
2035 Retirement Date Fund	0.0700 % of Assets	31,701,338	22,191
2040 Retirement Date Fund	0.0700 % of Assets	37,220,306	26,054
2045 Retirement Date Fund	0.0700 % of Assets	39,486,561	27,641
2050 Retirement Date Fund	0.0700 % of Assets	42,206,113	29,544
2055 Retirement Date Fund	0.0700 % of Assets	44,110,312	30,877
2060 Retirement Date Fund	0.0700 % of Assets	42,179,678	29,526
2065 Retirement Date Fund	0.0700 % of Assets	38,944,633	27,261
2070 Retirement Date Fund	0.0700 % of Assets	3,486,989	2,441
U.S. Large Company Stock Index Fund	0.0100 % of Assets	20,405,227	2,041
U.S. Small/Mid Company Stock Index Fund	0.0150 % of Assets	6,415,045	962
U.S. All Company Stock Index Fund	0.0250 % of Assets	7,567,821	1,892
Global Non-U.S. Stock Index Fund	0.0350 % of Assets	1,727,301	605
U.S. Bond Index Fund	0.0125 % of Assets	2,748,420	344
U.S. Short Term Bond Index Fund	0.0175 % of Assets	1,325,056	232
U.S. Treasury Inflat Protected Sec Index Fund	0.0125 % of Assets	1,241,131	155
Short Term Investment Fund	0.0000 % of Assets	4,715,104	-

Fees represent total annual operating expense (including investment management and administrative fee caps) for the funds. Fees are sourced from Empower.

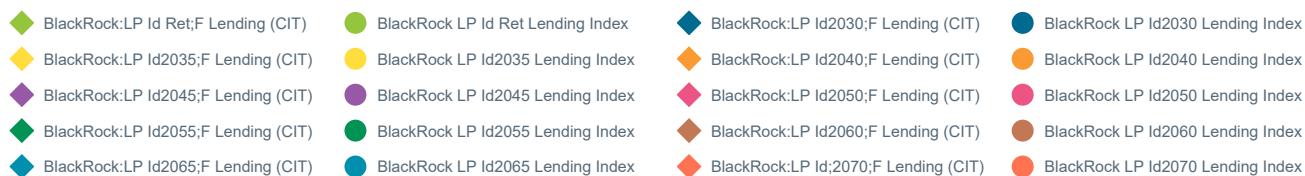
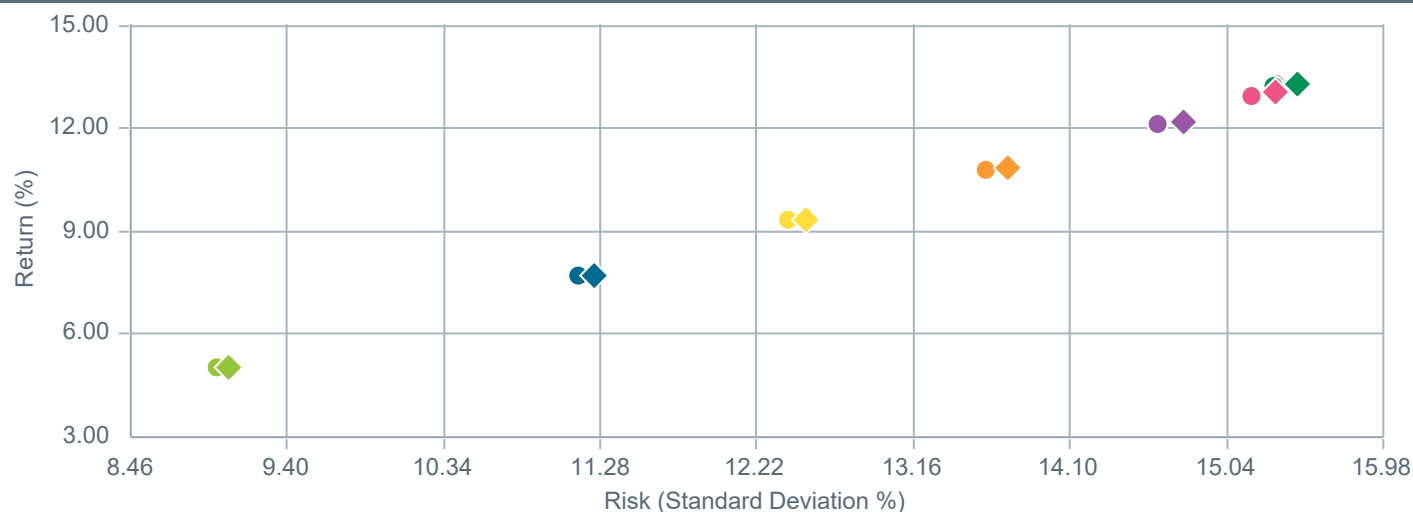
Plan Manager Review

Product Profile

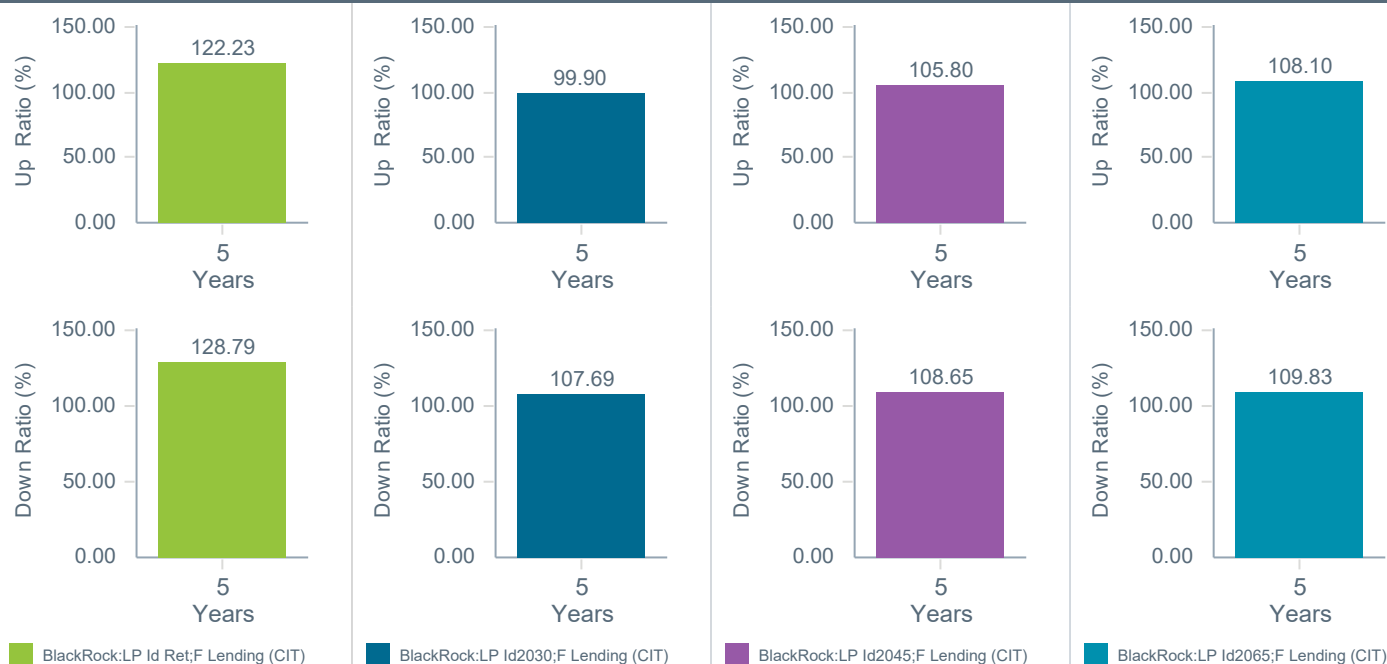
Management Style: Passive
Average Passive Allocation: 100%
Inflation Focused Investments: REITs, Commodities, TIPS, Listed Infrastructure
Tactical Asset Allocation: Non-Discretionary
Underlying Funds Mgd By TDF Provider: 100%

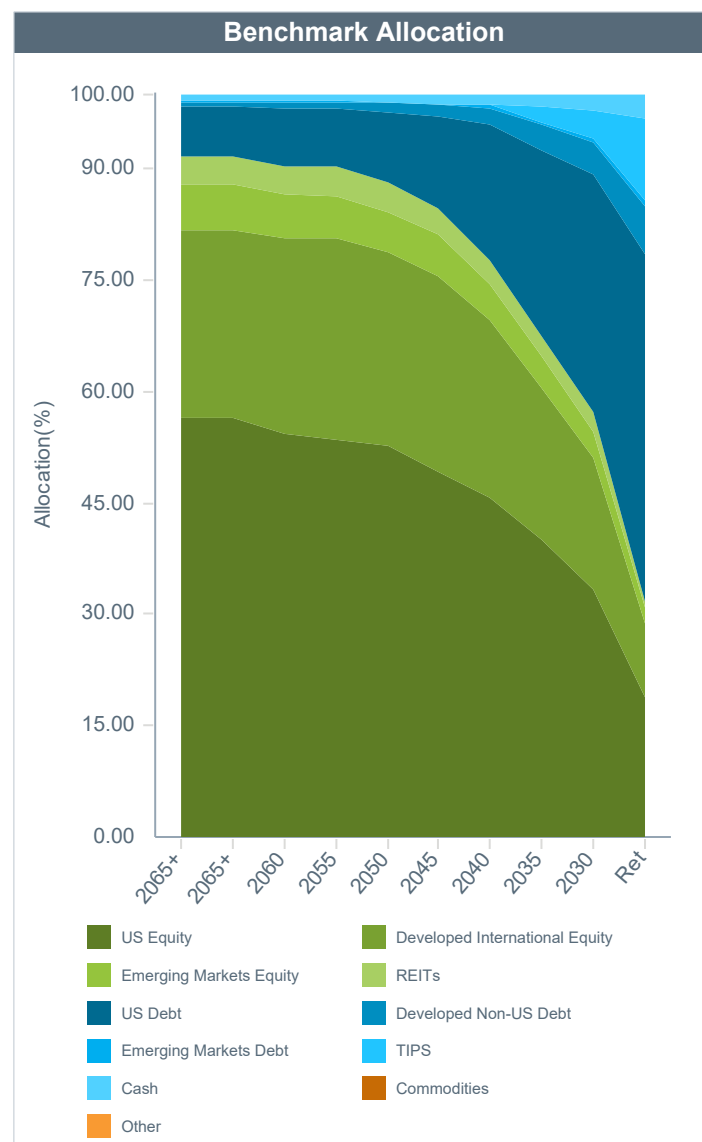
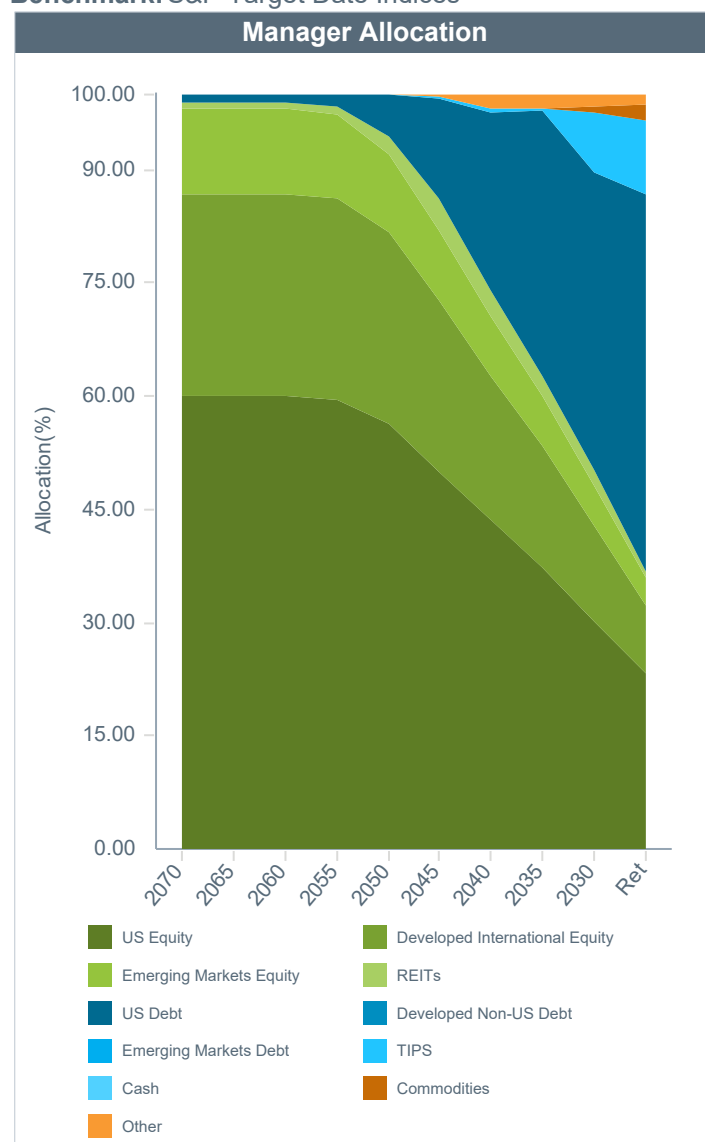
To vs. Through Glide Path: To
Equity Starting: 99%
Equity at Retirement: 40%
Equity Landing: 40%
Yrs Roll Down After Retirement: N/A

Risk & Return Scattergram - 5 Years



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

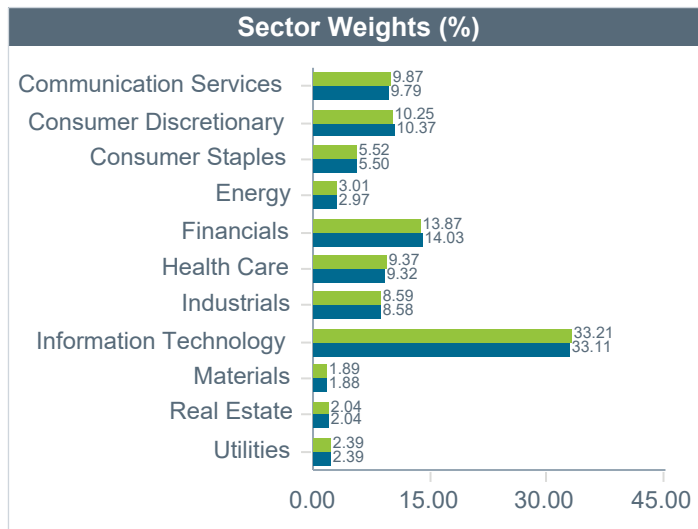
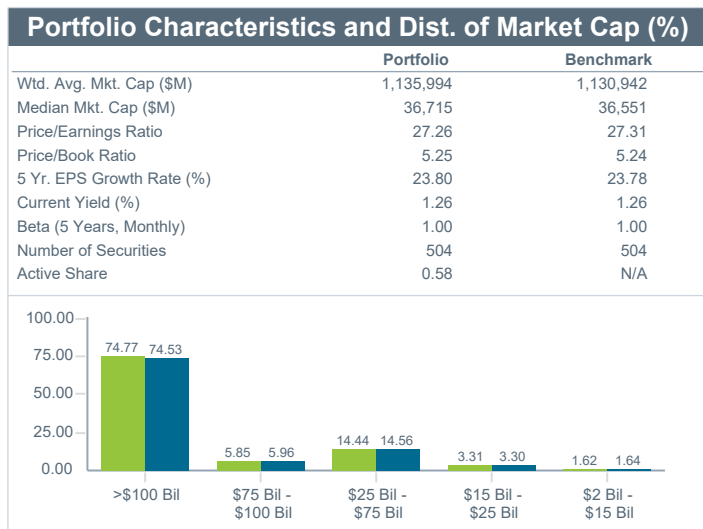
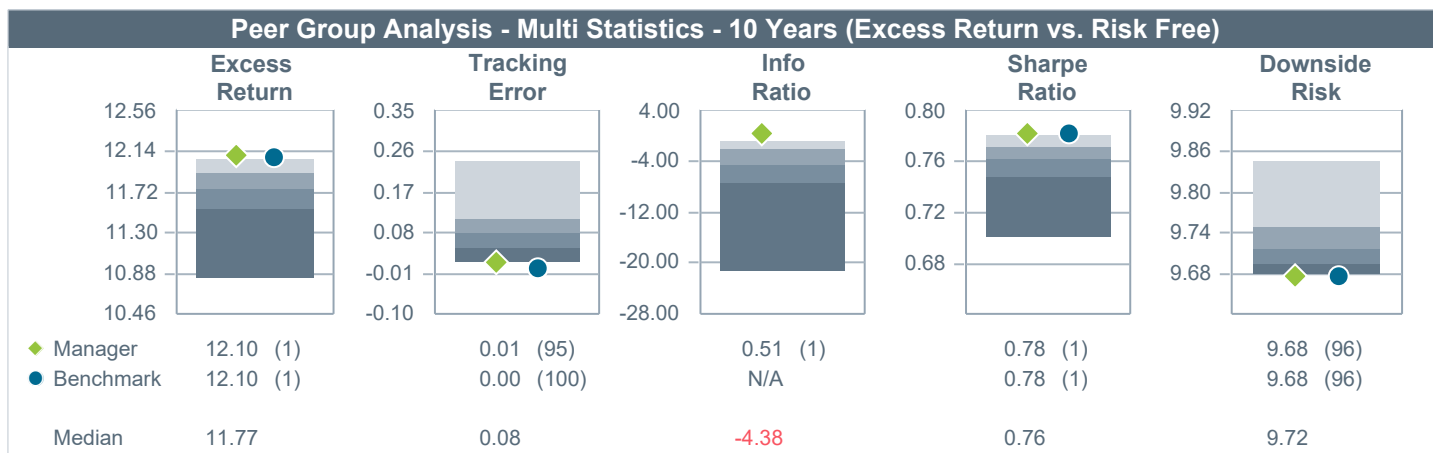
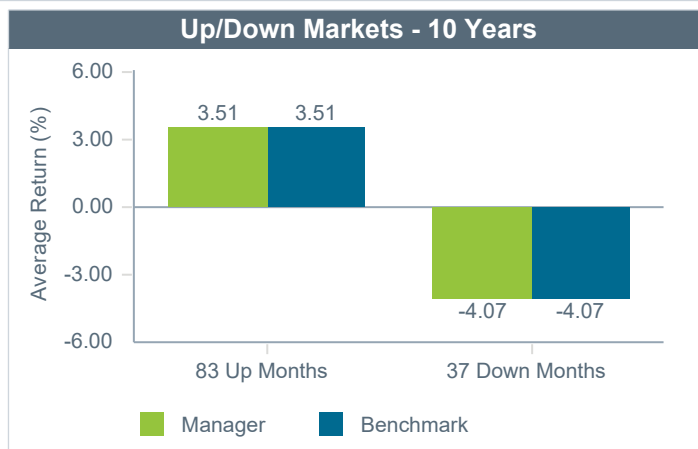
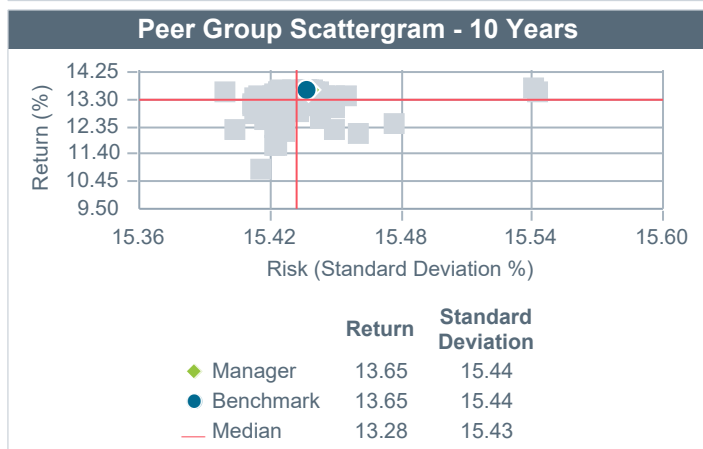




	2070	2065	2060	2055	2050	2045	2040	2035	2030	Ret
US Equity	60.04	60.04	60.01	59.49	56.37	50.13	43.55	37.21	30.26	23.32
Developed International Equity	26.84	26.84	26.85	26.66	25.29	22.59	19.22	16.20	12.71	9.02
Emerging Markets Equity	11.17	11.17	11.17	11.09	10.52	9.40	8.00	6.74	5.29	3.75
REITs	0.95	0.95	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

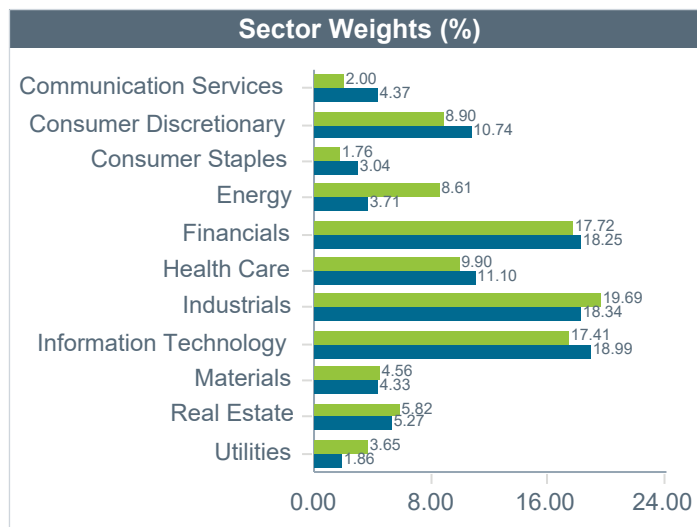
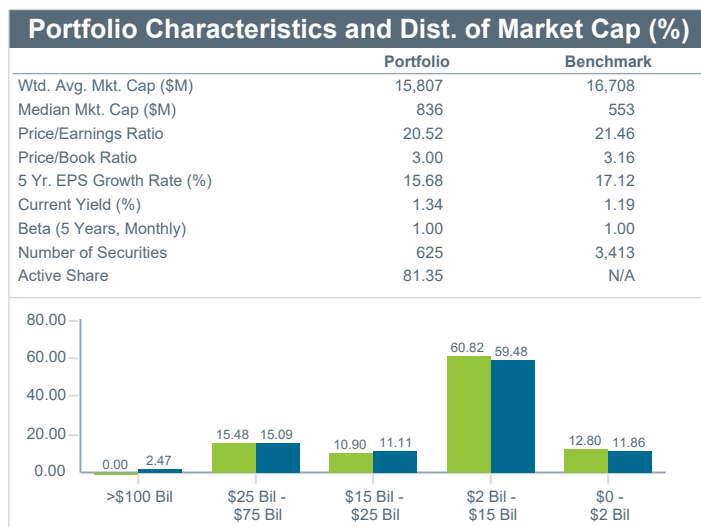
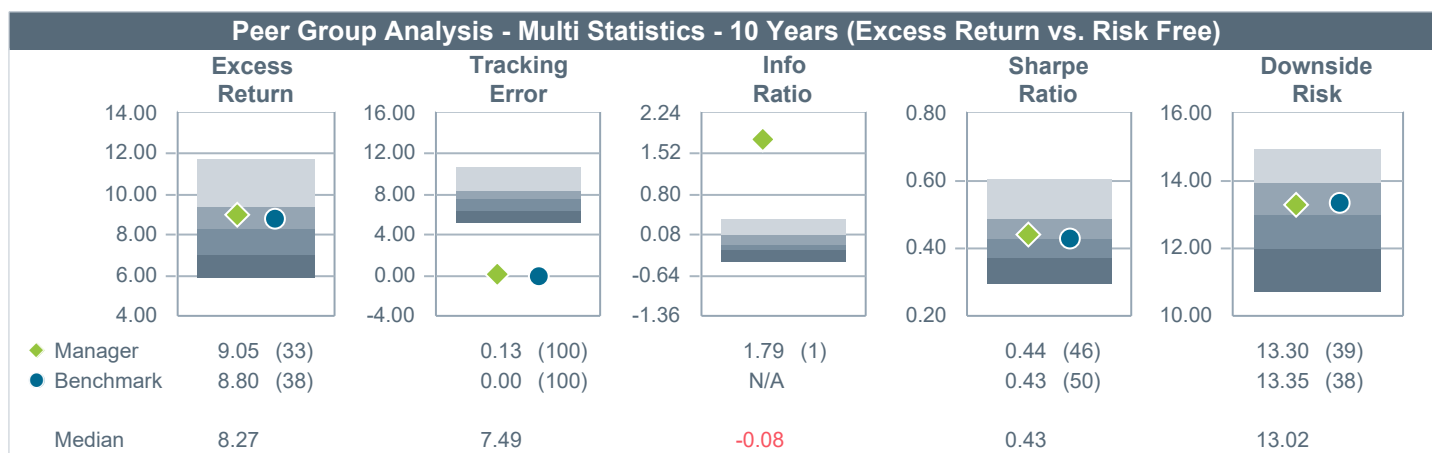
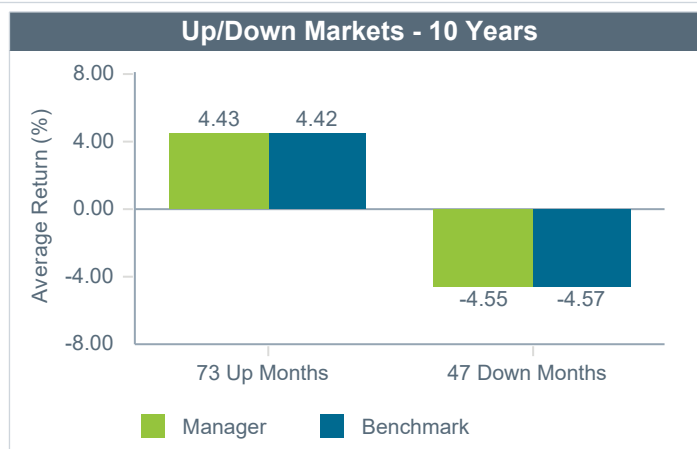
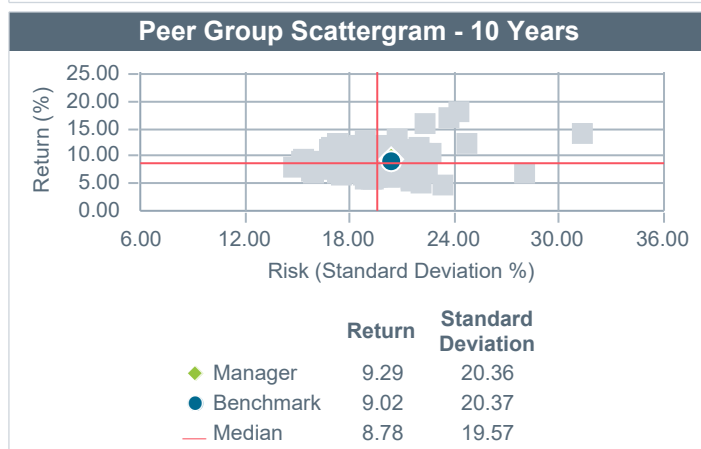
Allocations shown may not sum up to 100% exactly due to rounding. Allocation to "Other" contains unmapped securities or derivatives including swaps, options/forwards, futures, and T-Bills. Due to chart limitations, allocations less than 0.15% will not appear in the chart.

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



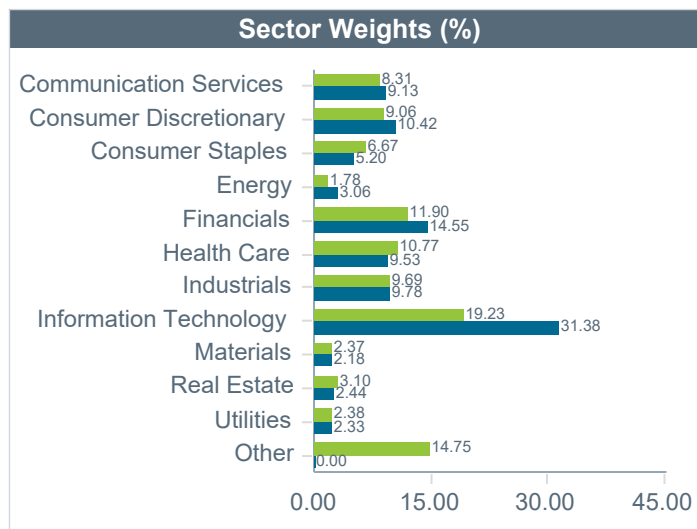
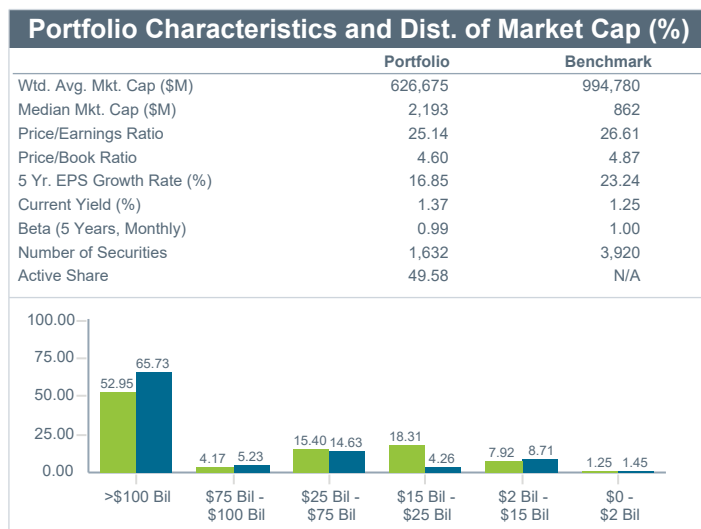
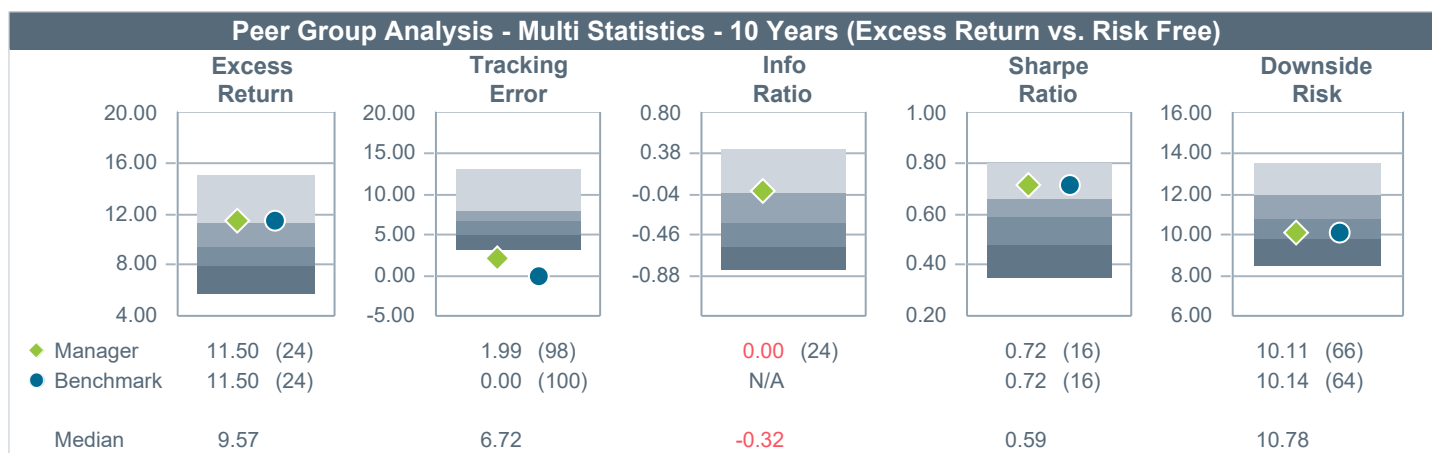
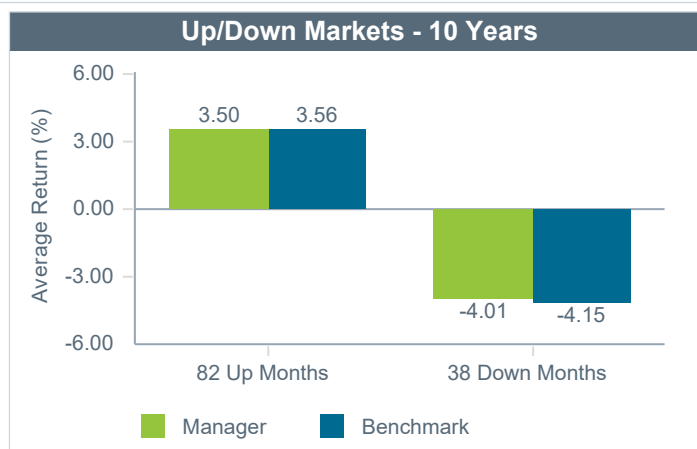
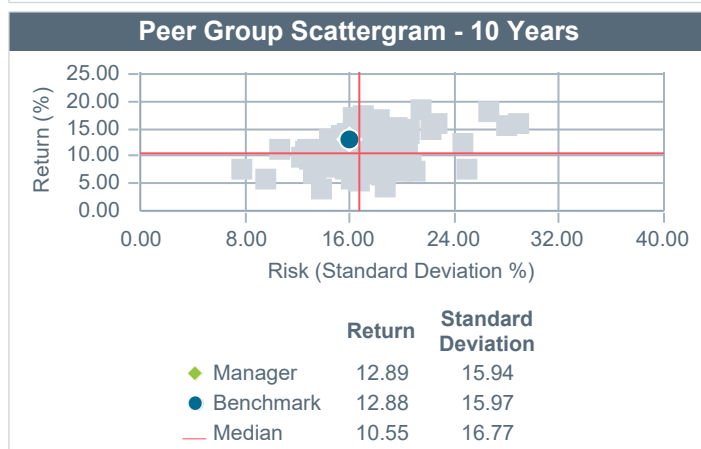
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

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	6.98	8.01	11.28	11.66	8.16	8.78	12.40	16.38	-17.60	22.39	16.53
Rank	19	9	10	48	39	36	21	8	78	78	27
Population	181	181	179	172	152	126	191	200	205	207	213



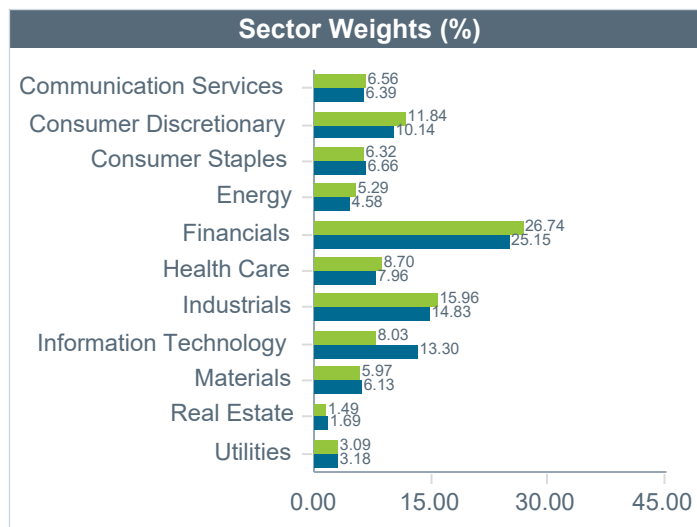
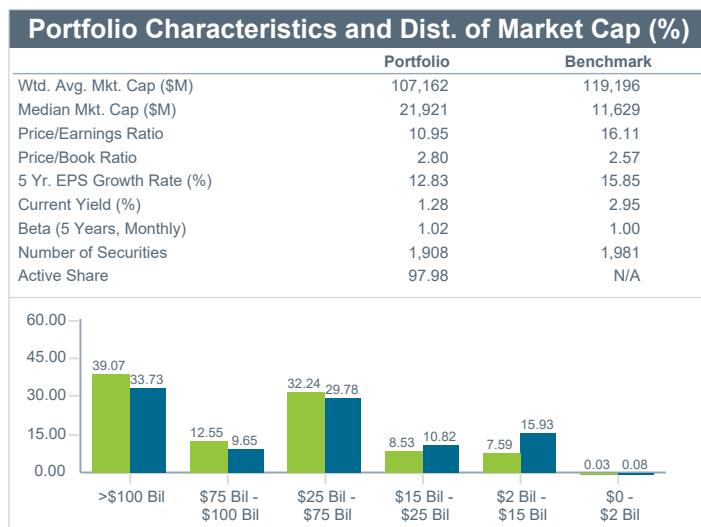
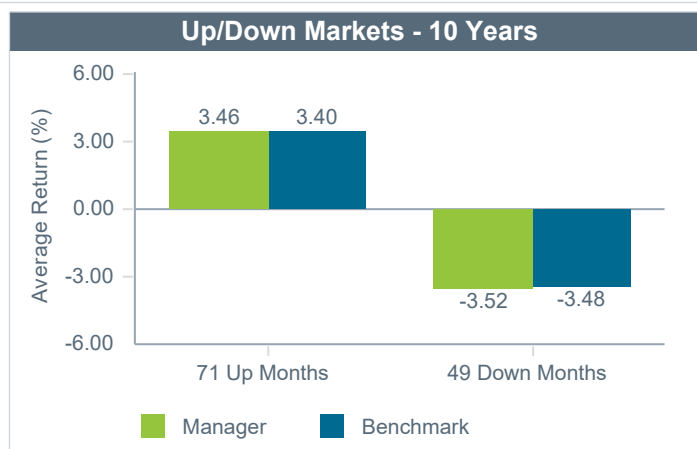
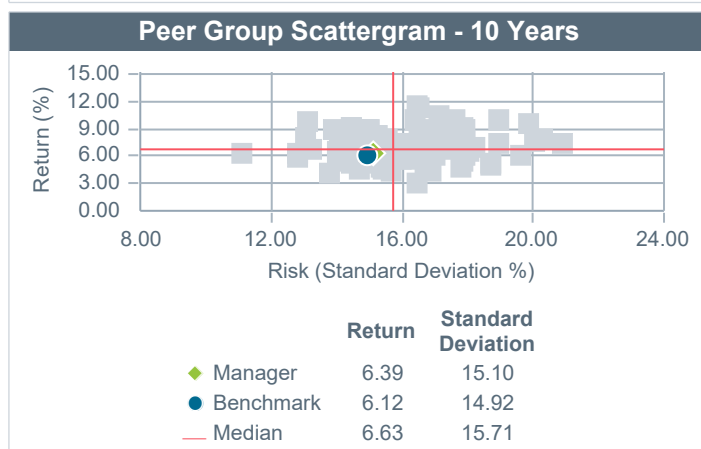
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2024	2023	2022	2021	2020
Manager	10.90	15.12	18.95	15.85	13.46	12.89	23.49	25.96	-19.23	25.61	21.20
Benchmark	11.09	15.23	19.07	15.87	13.46	12.88	23.88	26.06	-19.53	25.66	20.79
Difference	-0.19	-0.11	-0.12	-0.02	0.00	0.00	-0.39	-0.10	0.30	-0.05	0.41
Peer Group Median	8.35	13.69	15.56	13.85	11.37	10.55	17.22	20.59	-17.46	24.20	14.21
Rank	33	39	25	29	22	23	25	31	63	41	35
Population	195	194	190	182	173	160	200	212	213	221	246



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	12.34	18.87	14.96	10.47	6.89	6.63	5.97	16.45	-17.50	8.49	14.66
Rank	59	61	63	52	51	57	53	53	41	58	57
Population	127	127	125	124	124	122	128	131	138	143	152



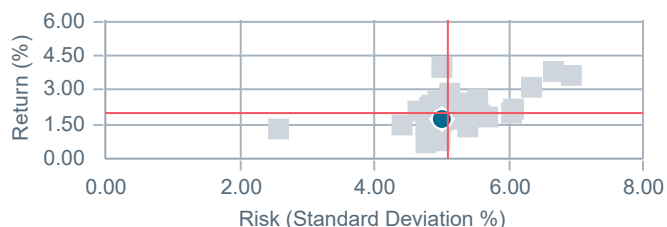
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: U.S. Bond Index Fund

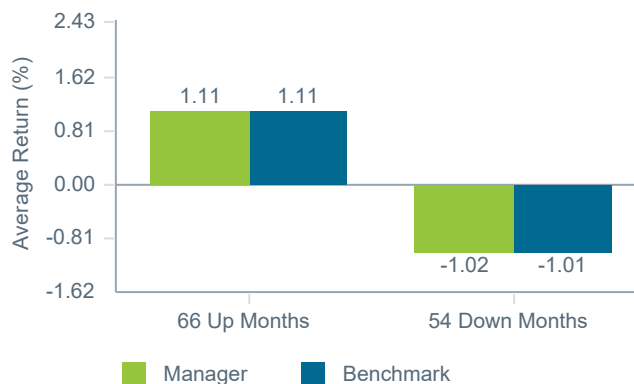
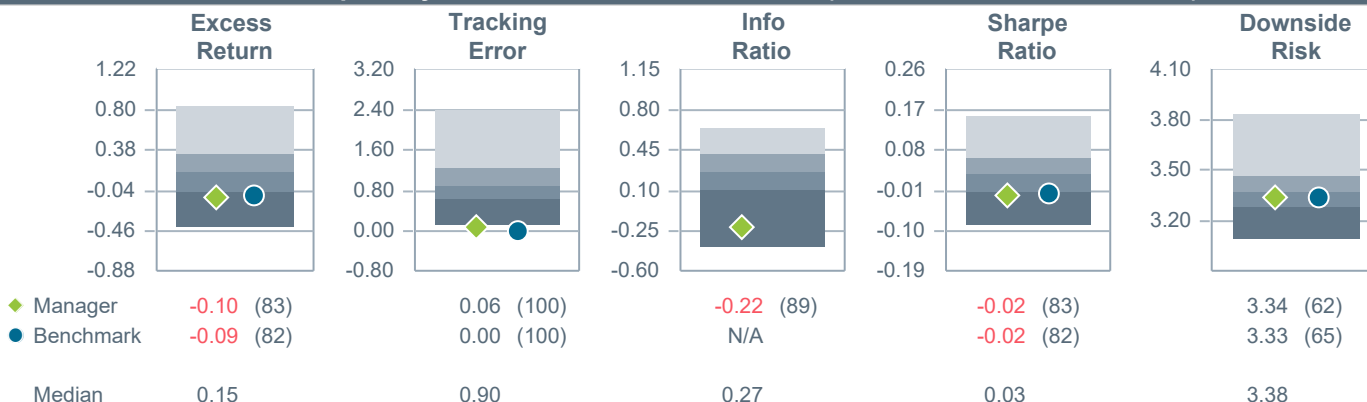
As of June 30, 2025

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

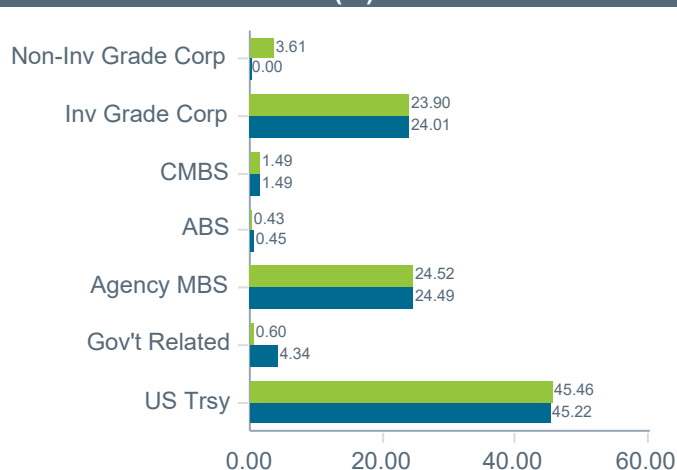
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2024	2023	2022	2021	2020
Manager	1.21	6.09	2.57	-0.74	1.78	1.74	1.25	5.54	-12.94	-1.65	7.56
Benchmark	1.21	6.08	2.55	-0.73	1.77	1.76	1.25	5.53	-13.01	-1.55	7.51
Difference	0.01	0.02	0.02	-0.01	0.01	-0.01	0.00	0.01	0.07	-0.10	0.05
Peer Group Median	1.23	6.15	2.79	-0.40	2.02	1.99	1.64	5.79	-13.13	-1.47	8.02
Rank	61	55	71	81	75	83	82	68	37	65	67
Population	119	118	112	106	101	95	128	133	137	135	137

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

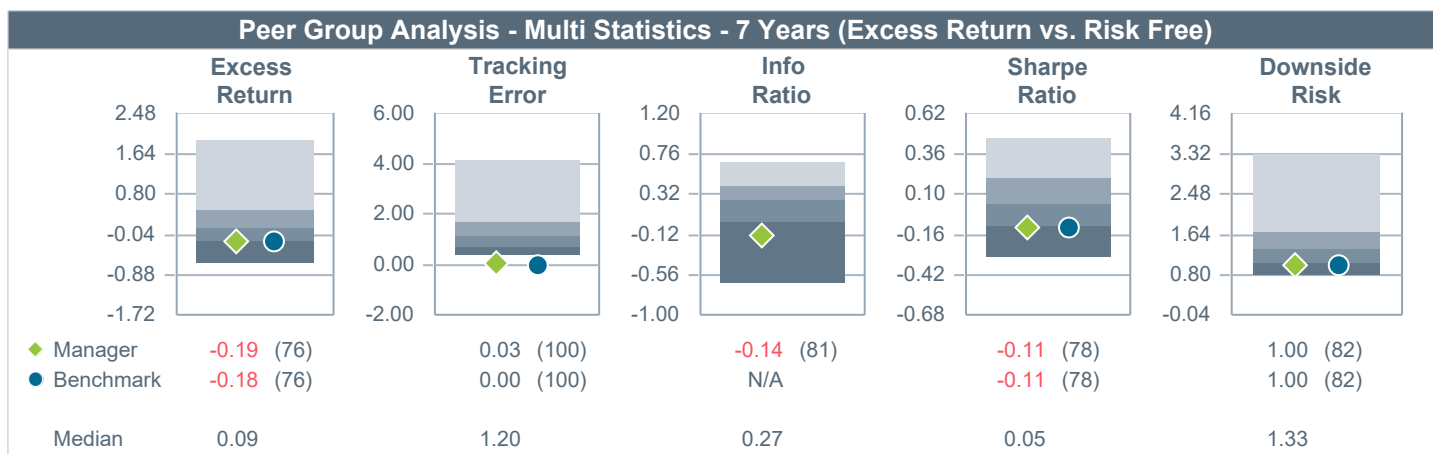
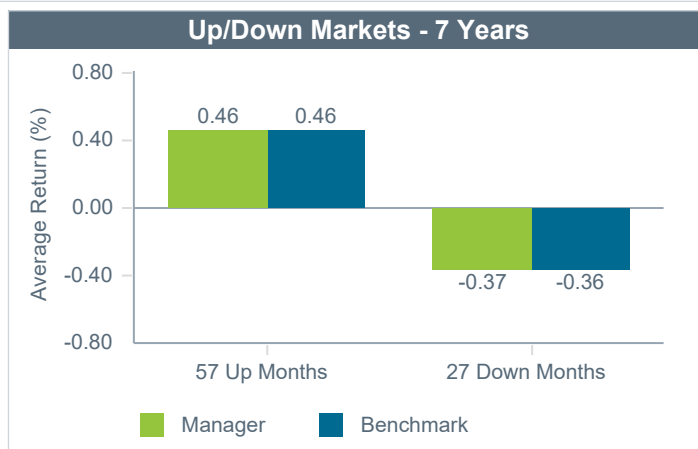
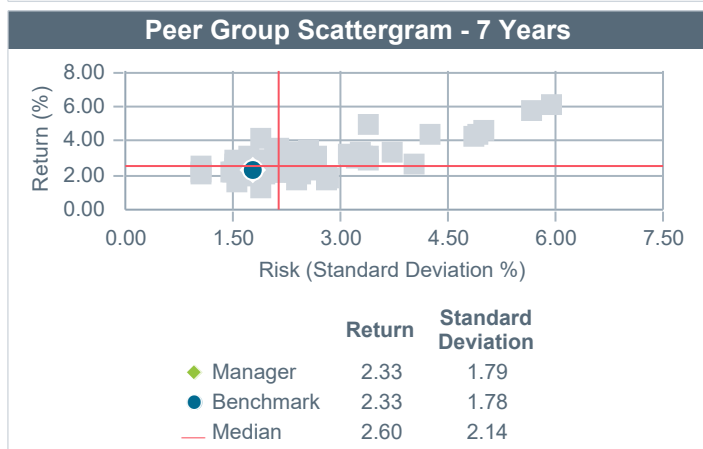
Sector Distribution (%) - As of 06/30/2025

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

Manager: U.S. Short Term Bond Index Fund
As of June 30, 2025
Benchmark: Bloomberg US Govt Crdt 1-3 Yr Bond Index

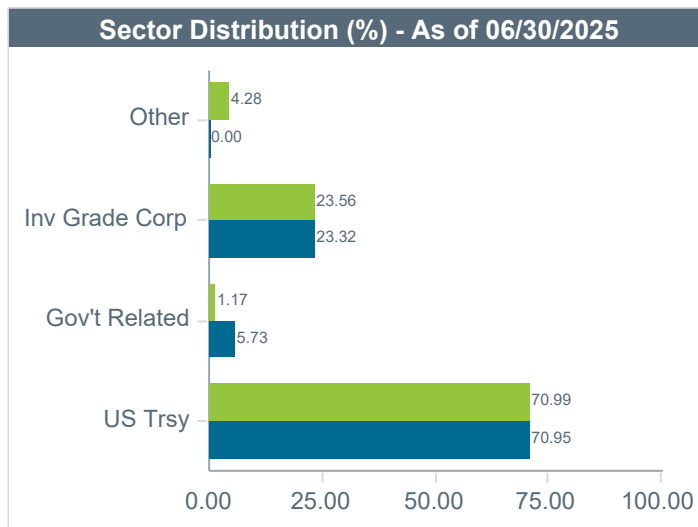
Peer Group: IM U.S. Short Duration Fixed Income (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2024	2023	2022	2021	2020
Manager	1.27	5.97	3.75	1.57	2.33	N/A	4.39	4.59	-3.69	-0.52	3.36
Benchmark	1.27	5.94	3.75	1.58	2.33	1.84	4.36	4.61	-3.69	-0.47	3.33
Difference	0.00	0.03	0.00	-0.01	0.00	N/A	0.03	-0.02	0.00	-0.05	0.03
Peer Group Median	1.42	6.24	4.27	2.09	2.60	2.07	4.81	5.08	-3.66	-0.37	3.62
Rank	89	76	79	77	76	N/A	72	87	52	62	68
Population	114	112	109	100	98	85	118	129	131	130	133



Portfolio Characteristics (%) - As of 06/30/2025

	Portfolio	Benchmark
Effective Duration	1.88	1.87
Spread Duration	0.57	1.89
Avg. Maturity	2.08	1.99
Avg. Quality	Aa2	Aa2/Aa3
Yield To Maturity (%)	4.00	3.92
Coupon Rate (%)	3.34	3.19
Current Yield (%)	3.39	N/A
Holdings Count	437	2,053

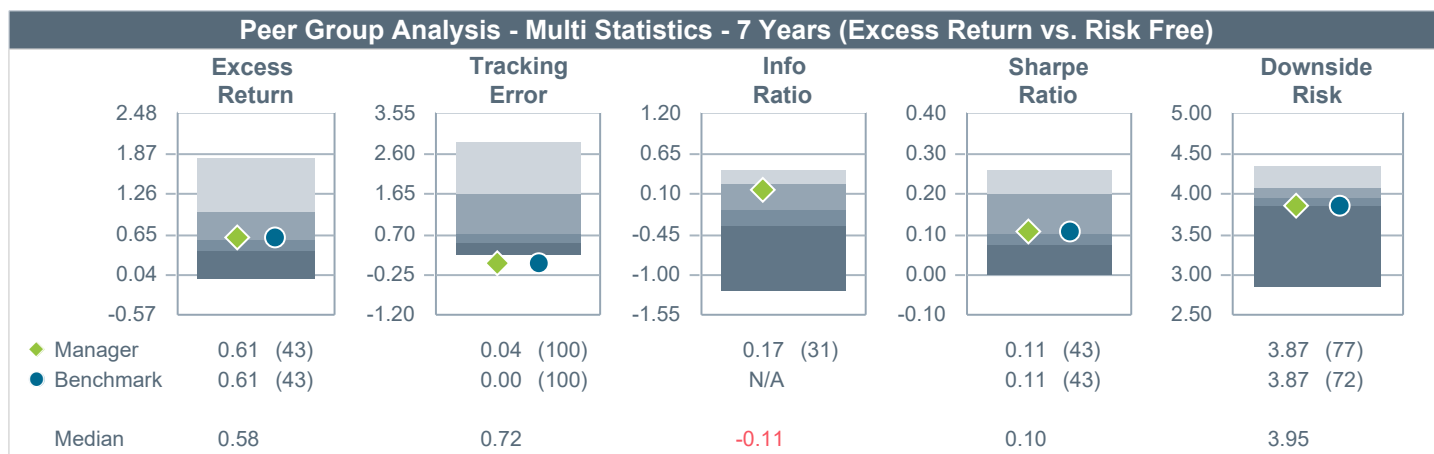
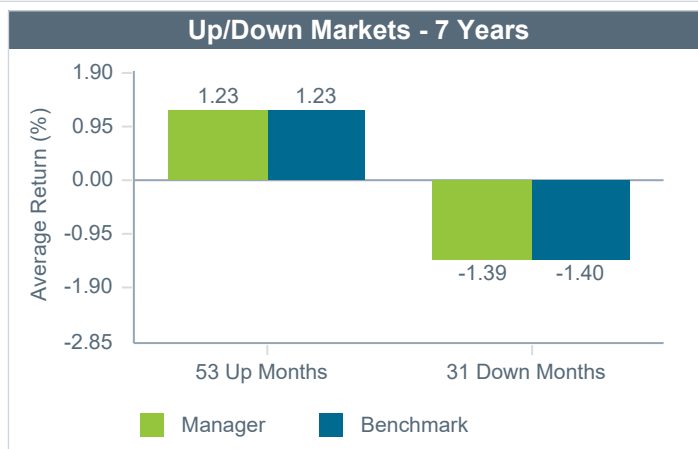
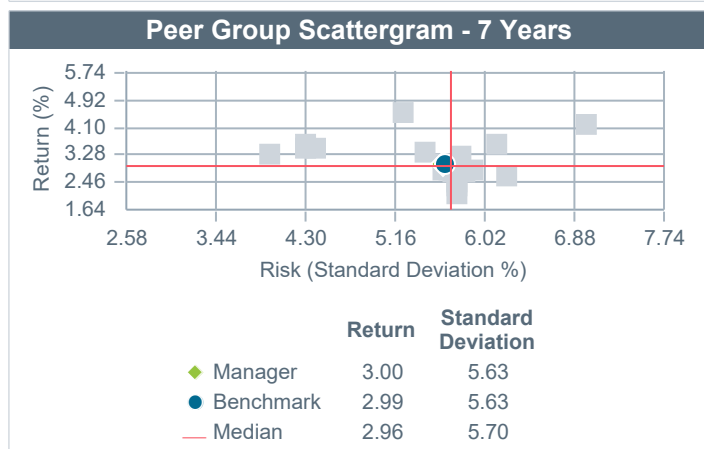


Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: U.S. Treasury Inflat Protected Sec Index Fund
As of June 30, 2025
Benchmark: Bloomberg US Trsy US TIPS Index

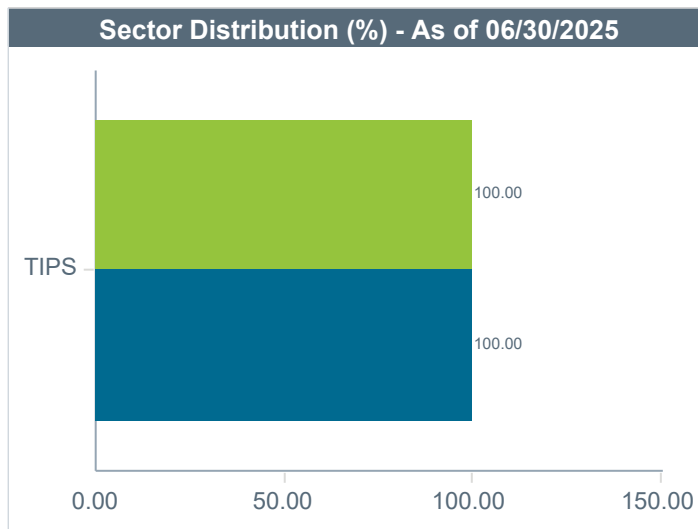
Peer Group: IM U.S. TIPS (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2024	2023	2022	2021	2020
Manager	0.50	5.88	2.37	1.62	3.00	N/A	1.84	3.90	-11.76	5.87	11.00
Benchmark	0.48	5.84	2.34	1.61	2.99	2.67	1.84	3.90	-11.85	5.96	10.99
Difference	0.02	0.04	0.03	0.01	0.01	N/A	0.00	0.01	0.08	-0.08	0.01
Peer Group Median	0.49	5.87	2.39	1.61	2.96	2.65	1.87	3.80	-11.87	5.71	10.61
Rank	44	45	52	49	43	N/A	53	38	41	31	29
Population	27	27	23	23	22	19	32	31	30	29	29



Portfolio Characteristics (%) - As of 06/30/2025

	Portfolio	Benchmark
Effective Duration	6.37	4.88
Spread Duration	0.00	4.88
Avg. Maturity	7.09	7.09
Avg. Quality	Aa1	Aa1
Yield To Maturity (%)	3.97	4.13
Coupon Rate (%)	1.09	1.10
Current Yield (%)	1.15	N/A
Holdings Count	48	48



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

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.

Performance Comments

- Performance shown is gross 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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