



Maryland State Retirement and Pension System

September 23, 2025

Performance Report

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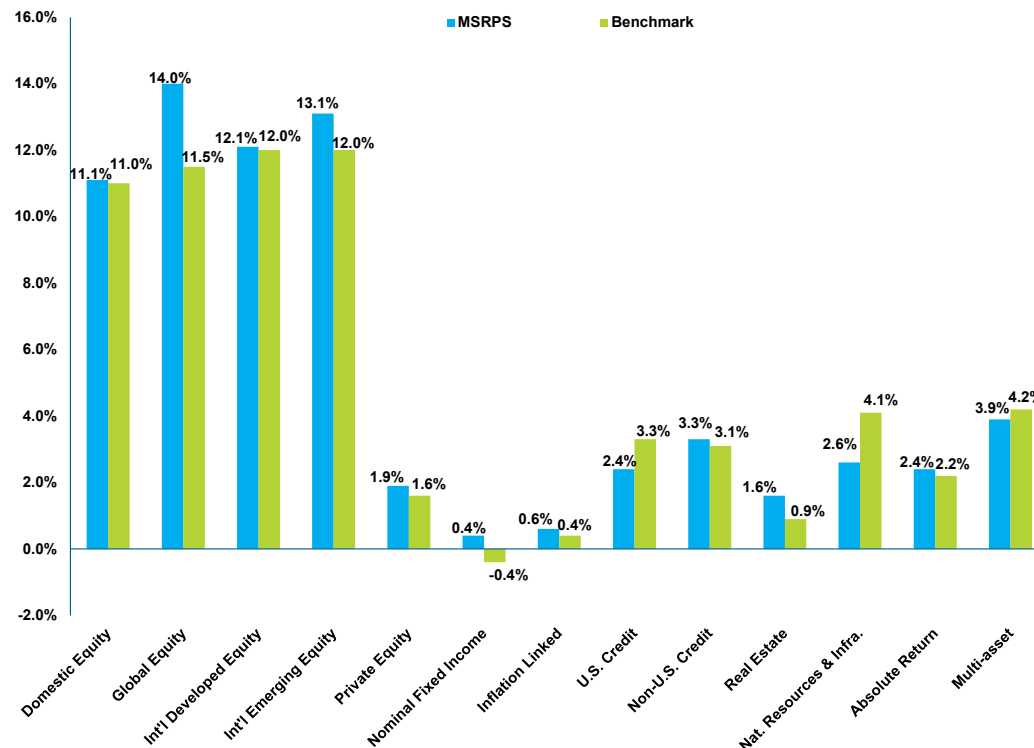
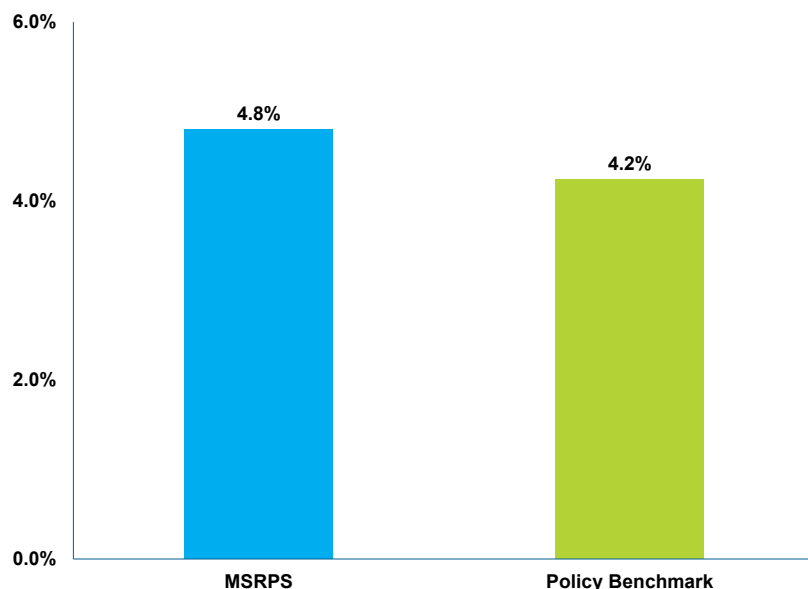
Executive Summary

Market Value & Performance

- At the end of the second quarter, the System was valued at \$73,594 million, an increase of \$3,331 million from the end of the first quarter.
 - The increase was mostly the result of positive investment performance, as net cash outflows totaled \$40 million for the quarter.
- The System returned 4.8%, net of fees, during the second quarter of 2025, outperforming the policy benchmark by 0.6%.
 - All asset classes were positive for the quarter.
 - Global equity had the strongest absolute return, up 14.0% for the quarter, while inflation linked was the weakest performer in absolute terms, up 0.6%.
- At quarter end, all asset classes were within their respective target allocation ranges.

Q2 System and Asset Class Performance

→ The System outperformed the Policy Benchmark during the second quarter, returning 4.8%, net of fees.



→ During the quarter, global equity delivered the best absolute performance returning 14.0%.

→ On a relative basis, global equity was also the best performing asset class, outpacing its benchmark by 2.5%.

Note: For some asset classes, there is a lack of publicly available index data which at times can introduce greater tracking error in the short-term (e.g. natural resources & infrastructure) when a market proxy is used.

Total System Q2 Attribution¹

	Total System			Policy Benchmark			Attribution Analysis			
	Average Weight	Total Return ²	Contribution to Return	Average Weight ³	Total Return ²	Contribution to Return	Allocation Effect	Active Management Effect ⁴	Interaction Effect	Total Effect
Public Equity	30.6	11.9	3.6	28.8	11.5	3.3	0.12	0.07	0.05	0.24
<i>Domestic Equity</i>	13.4	11.3	1.5	14.4	11.0	1.6	-0.07	0.04	0.00	-0.04
<i>International Developed</i>	8.8	11.7	1.0	9.3	12.0	1.1	-0.04	-0.03	0.00	-0.08
<i>International Emerging</i>	4.6	13.3	0.6	5.1	12.0	0.6	-0.03	0.06	-0.01	0.03
<i>Global Equity</i>	3.8	13.1	0.5	0.0	11.5	0.0	0.27	0.00	0.05	0.32
Private Equity	21.2	1.9	0.4	21.2	1.6	0.3	0.00	0.07	0.00	0.06
Nominal Fixed Income	13.1	0.5	0.1	16.2	-0.4	-0.1	0.13	0.14	-0.03	0.25
Inflation Linked	3.4	0.6	0.0	4.1	0.4	0.0	0.02	0.01	0.00	0.03
US Credit	8.2	2.3	0.2	8.0	3.3	0.3	0.00	-0.08	0.00	-0.08
Non- US Credit	1.1	3.3	0.0	1.0	3.1	0.0	0.00	0.00	0.00	0.00
Real Estate	9.7	1.6	0.2	9.7	0.9	0.1	0.00	0.06	0.00	0.06
Natural Resources & Infrastructure	5.3	2.6	0.1	5.0	4.1	0.2	0.00	-0.08	0.00	-0.08
Absolute Return	5.6	2.4	0.1	6.0	2.2	0.1	0.01	0.01	0.00	0.02
Multi-Asset	0.4	3.9	0.0	0.0	4.2	0.0	0.00	0.00	0.00	0.00
Cash	1.3	1.3	0.0	0.0	1.1	0.0	-0.04	0.00	0.00	-0.04
Total (excl. overlay)	-	-	4.74	-	-	4.24	0.24	0.20	0.02	0.46
Currency Overlay							-0.05			
Structural/Tactical Overlay							0.11			
Total (incl. overlay)	100.0	-	4.80	100.0	-	4.24	0.30	0.20	0.02	0.52

¹ Numbers may not sum due to rounding. Attribution calculated on a monthly basis, using average month end market values and targets. As a result, there can be discrepancies from custodian data due to intra-month transfers.

² "Total Return" and "Contribution to Return" reflects asset class and System performance excluding the currency hedging and structural/tactical overlay programs.

³ Based on the transitional target allocations.

⁴ In cases where the policy weight is zero, the active management effect will in turn be zero. The interaction effect will capture any contributions made by active management where the policy weight is zero as it factors in the portfolio weight.

Total System 1-Year Attribution¹

	Total System			Policy Benchmark			Attribution Analysis			
	Average Weight	Total Return ²	Contribution to Return	Average Weight ³	Total Return ²	Contribution to Return	Allocation Effect	Active Management Effect ⁴	Interaction Effect	Total Effect
Public Equity	30.9	15.7	4.9	28.7	16.4	4.7	0.08	-0.20	0.05	-0.08
Domestic Equity	14.3	14.3	2.0	14.4	15.3	2.2	-0.05	-0.11	-0.01	-0.16
International Developed	8.3	17.2	1.4	9.3	18.7	1.7	-0.06	-0.13	0.02	-0.17
International Emerging	4.7	16.0	0.8	5.1	15.3	0.8	-0.04	0.03	0.00	-0.01
Global Equity	3.7	17.0	0.6	0.0	16.2	0.0	0.24	0.00	0.03	0.27
Private Equity	21.2	6.4	1.4	21.3	7.0	1.5	0.01	-0.13	0.00	-0.12
Nominal Fixed Income	13.3	5.1	0.7	16.4	3.5	0.6	0.15	0.24	-0.04	0.35
Inflation Linked	3.4	6.0	0.2	4.1	5.7	0.2	0.02	0.01	0.00	0.03
US Credit	8.2	9.0	0.7	8.0	9.7	0.8	0.00	-0.05	0.00	-0.05
Non- US Credit	1.1	10.9	0.1	1.0	9.8	0.1	0.00	0.01	0.00	0.01
Real Estate	9.5	3.0	0.3	9.5	3.1	0.3	0.00	0.00	0.00	0.00
Natural Resources & Infrastructure	5.1	17.1	0.9	5.0	19.2	1.0	-0.01	-0.10	0.01	-0.11
Absolute Return	5.7	10.7	0.6	6.0	7.2	0.4	0.01	0.20	-0.01	0.19
Multi-Asset	0.4	14.4	0.1	0.0	9.5	0.0	0.00	0.00	0.02	0.02
Cash	1.2	5.0	0.1	0.0	4.9	0.0	-0.06	0.00	0.00	-0.06
Total (excl. overlay)	-	-	9.72	-	-	9.54	0.20	-0.03	0.02	0.18
Currency Overlay							-0.04			
Structural/Tactical Overlay							0.16			
Total (incl. overlay)	100.0	-	9.83	100.0	-	9.54	0.32	-0.03	0.02	0.31

¹ Numbers may not sum due to rounding. Attribution calculated on a monthly basis, using average month end market values and targets. As a result, there can be discrepancies from custodian data due to intra-month transfers.

² "Total Return" reflects asset class performance excluding the currency hedging and structural/tactical overlay programs.

³ Based on the transitional target allocations.

⁴ In cases where the policy weight is zero, the active management effect will in turn be zero. The interaction effect will capture any contributions made by active management where the policy weight is zero as it factors in the portfolio weight.

Attribution Commentary

Second Quarter

- In the second quarter, the System outperformed the policy benchmark by 0.56%.
- Inclusive of the overlay programs, asset allocation had a positive effect on the relative performance.
 - An overweight to public equity and underweight to nominal fixed income helped performance.
- The interaction effect and active management were additive to relative performance.
 - Selection within nominal fixed income (ex. the overlay) and private equity were the most additive while selection within U.S. credit and natural resources and infrastructure detracted the most.

Trailing 1-Year

- Over the trailing one-year period, the System outperformed the Policy Benchmark by 0.30%.
- Inclusive of the overlay programs, the asset allocation effect was additive to relative performance.
- Manager selection (e.g., active management) slightly detracted while interaction effects was slightly additive.
 - Manager selection within absolute return and nominal fixed income (ex. the overlay) were the most additive to relative performance while selection within private equity, domestic equity, international developed equity, and natural resources and infrastructure detracted the most from relative performance.

Attribution Details

Returns Based Attribution Definition:

- Attribution is an analytical evaluation of a portfolio's performance relative to its benchmark. Attribution can portray where portfolio decisions were additive or detracted from relative performance. The three main attribution effects are the following:
- *Allocation Effect*: how the overweight or underweight of an asset class relative to the benchmark contributes to or detracts from performance.
 - *Active Management Effect*: attributes relative performance to managers' stock selection decisions, relative to the benchmark.
 - *Interaction Effect*: captures the portion of active management that is responsible for the cross interaction between the allocation and active management effects.
 - For example, if the System is overweight an underperforming asset class, it will have a negative interaction effect.

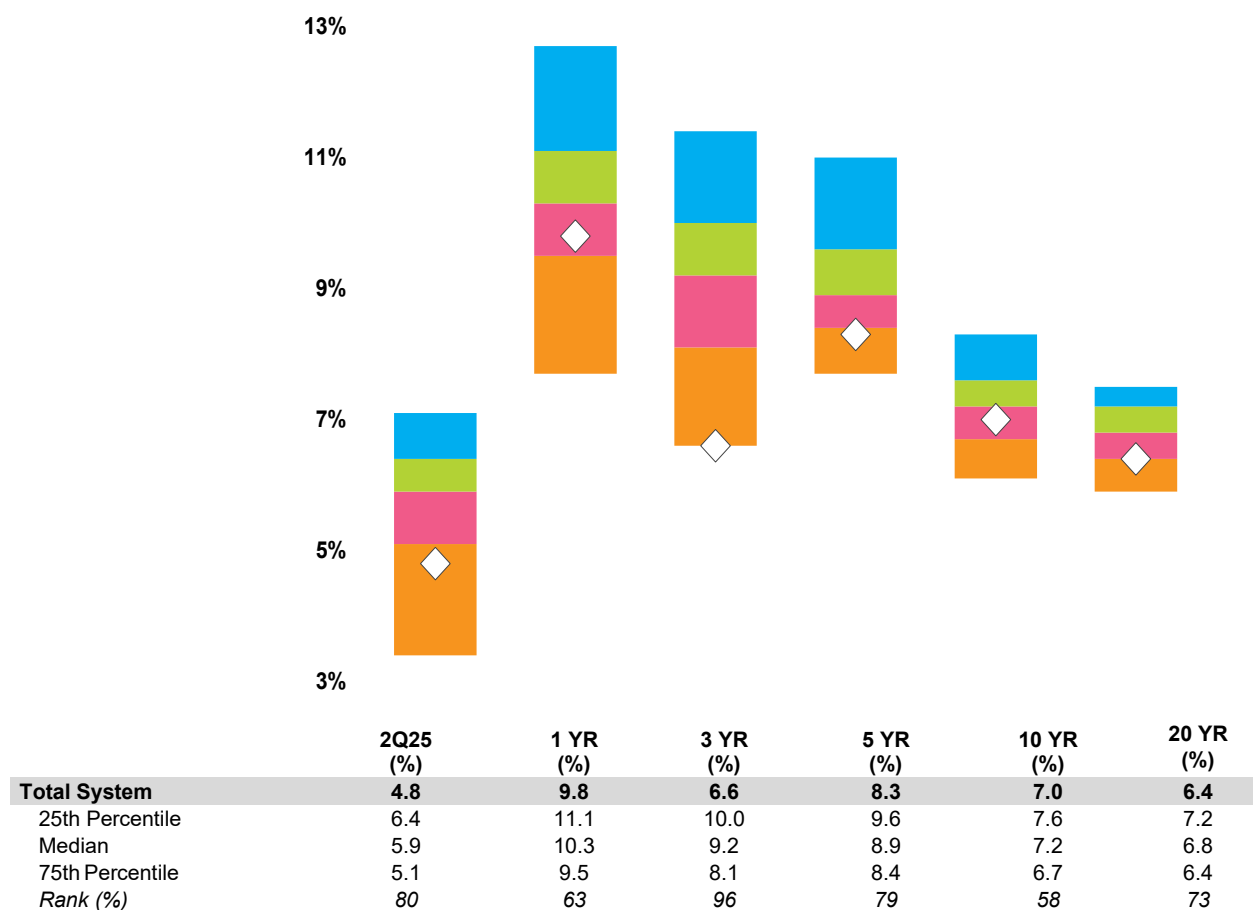
Calculations¹:

- The Brinson Fachler attribution methodology is widely accepted within the industry. Using this methodology, the components are calculated as follows:
- *Allocation Effect*: $(R_{ab} - R_{pb}) \times (W_p - W_b)$
 - *Active Management Effect*²: $W_b \times (R_p - R_{ab})$
 - *Interaction Effect*: $(W_p - W_b) \times (R_p - R_{ab})$

¹ R_{pb} = Policy Benchmark
 R_{ab} = Asset Class Benchmark
 W_p = Portfolio Weight
 W_b = Policy Weight
 R_p = Asset Class Return
 R_b = Policy Benchmark Return

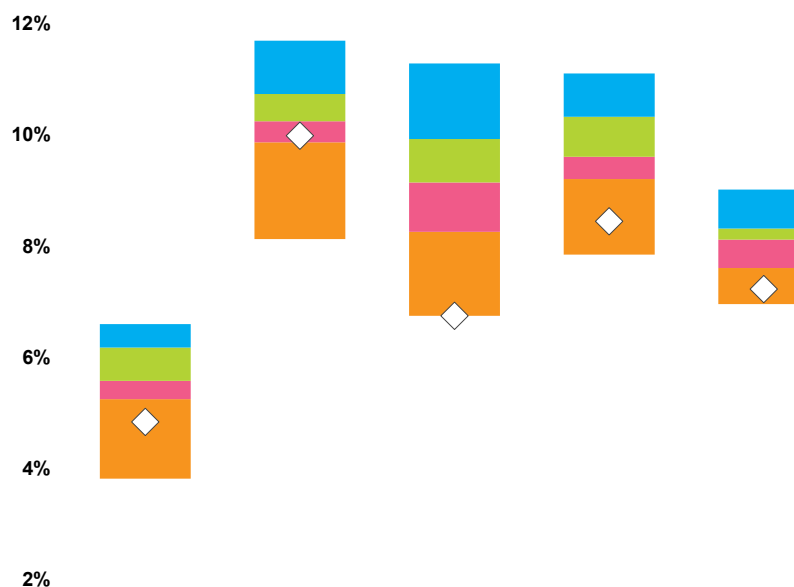
² In cases where the policy weight is zero, the active management effect will in turn be zero. The interaction effect will capture any contributions made by active management where the policy weight is zero as it factors in the portfolio weight.

Total System vs. Public Plans >\$1 Billion Universe¹ As of June 30, 2025



¹ Represents a final release of the InvMetrics Public DB >\$1 bn peer group as of June 30, 2025. Total System performance is net of fees. Includes 110 plans.

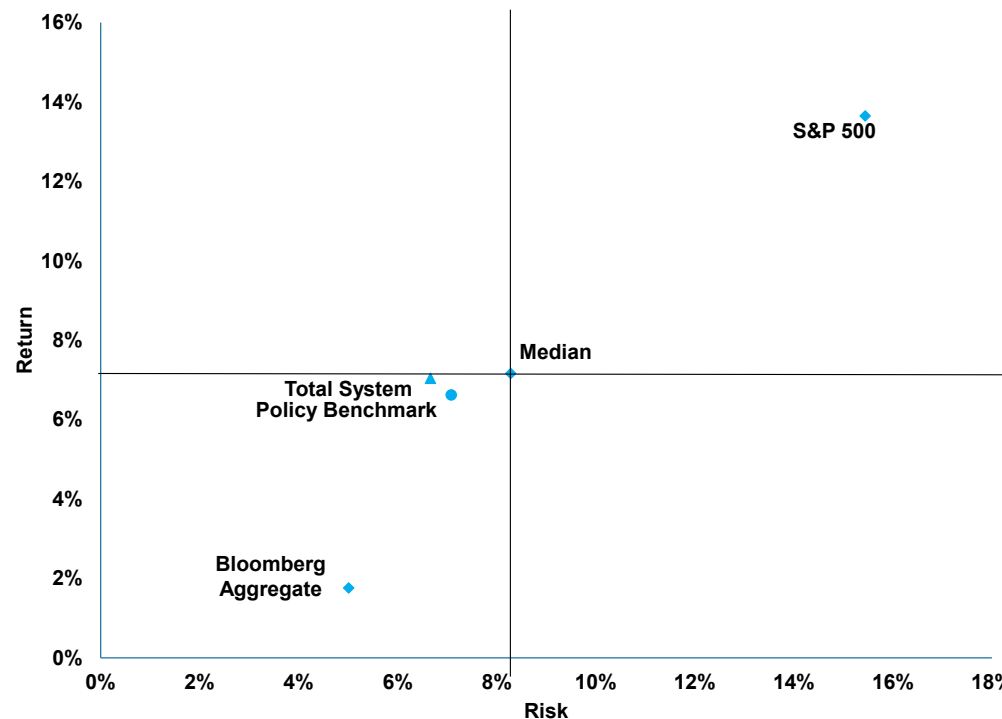
Total System vs. Public Plans >\$25 Billion Universe¹ As of June 30, 2025



	2Q25 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total System	4.8	10.0	6.8	8.5	7.2
25th Percentile	6.2	10.7	9.9	10.3	8.3
Median	5.6	10.3	9.2	9.6	8.1
75th Percentile	5.3	9.9	8.3	9.2	7.6
Rank (%)	85	65	95	88	92
<i>Policy Benchmark</i>	4.2	9.4	5.9	7.3	6.6
<i>Rank (%)</i>	92	81	99	99	95

¹ Represents the TUCS Public >\$25 bn peer group as of June 30, 2025. Total System performance is gross of fees. Includes 33 plans.

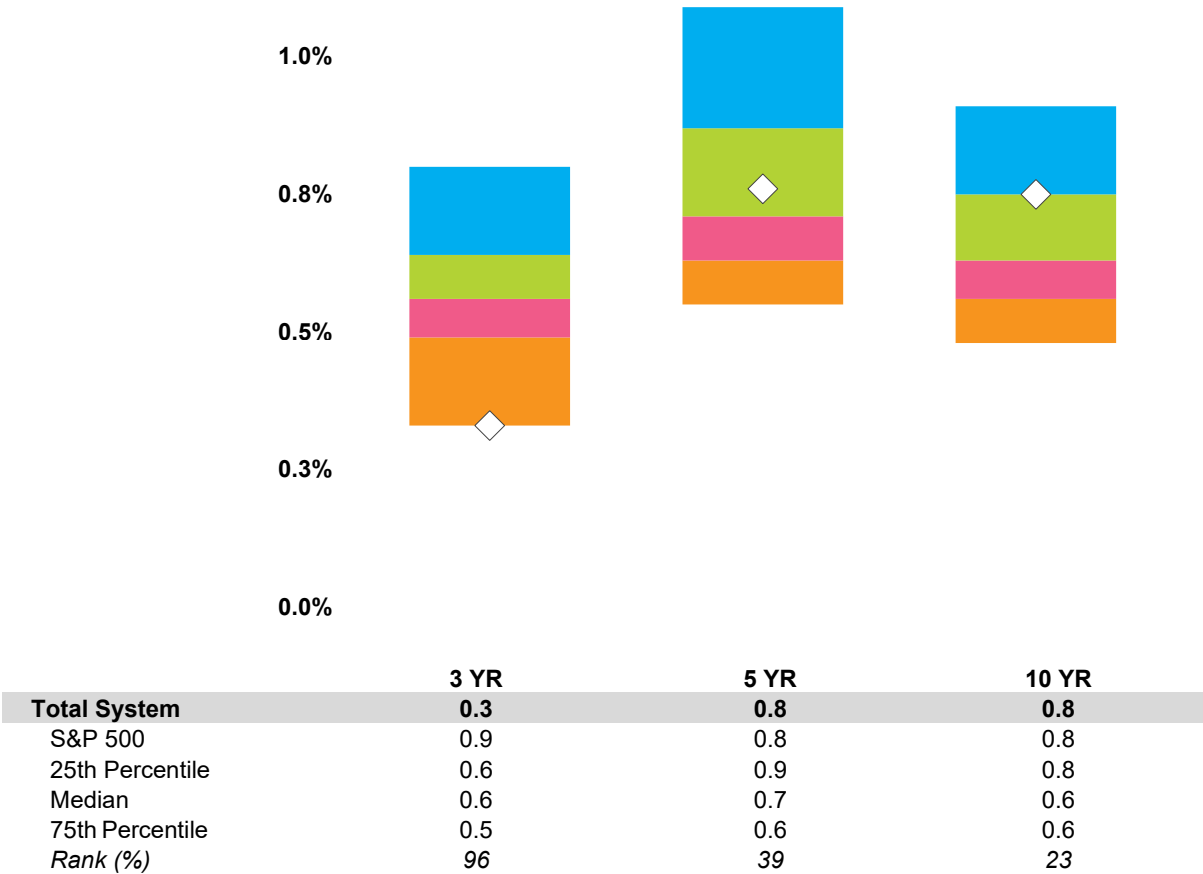
Total System Trailing 10-Year Risk vs Return¹ As of June 30, 2025



	Risk (%)	Return (%)
Total System	6.7	7.0
Policy Benchmark	7.1	6.6
Median	8.3	7.2

¹ Represents a final cut of InvMetrics Public DB >\$1 bn Net peer group as of June 30, 2025. Includes 110 plans.

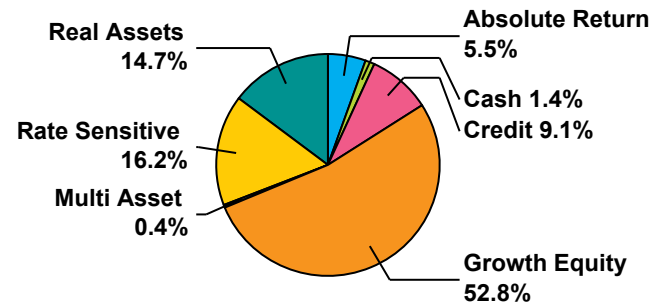
Total System vs. Public Plans >\$1 Billion Universe Sharpe Ratio Comparison¹
As of June 30, 2025



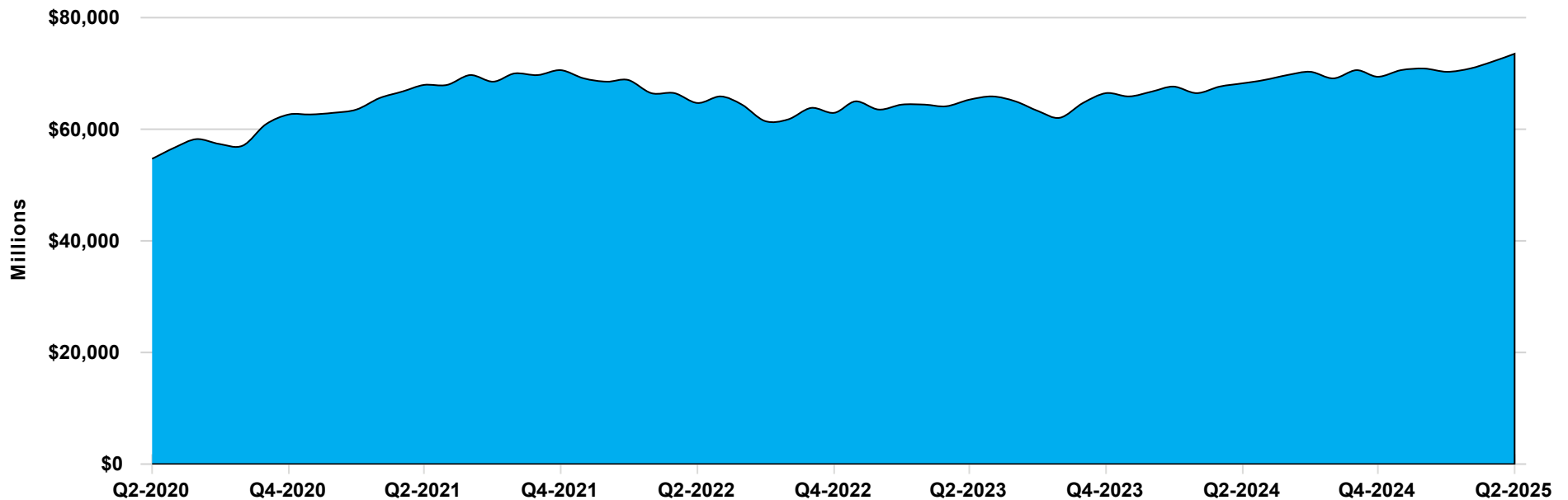
¹ Represents a final cut of InvMetrics Public DB >\$1 bn Net peer group as of June 30, 2025. Includes 110 plans. The risk-free rate is the 90-day T-bill.

Performance Summary

Actual Allocation



Market Value History 5 Years Ending June 30, 2025



Allocation vs. Targets and Policy					
	Current Balance	Current Allocation	Transitional Targets	Policy	Policy Range
Growth Equity	\$38,833,818,781	53%	50%	50%	43% - 57%
Domestic Equities	\$10,457,165,105	14%	15%	17%	--
International Developed Market Equity	\$6,689,250,595	9%	10%	11%	--
International Emerging Market Equity	\$3,670,149,922	5%	5%	6%	--
Global Equity	\$2,942,526,053	4%	0%	0%	--
Private Equity	\$15,058,700,321	21%	21%	16%	--
Stock Distributions	\$16,026,786	0%	0%	0%	--
Rate Sensitive	\$11,887,547,767	16%	21%	20%	15% - 25%
Nominal Fixed Income	\$9,440,105,912	13%	16%	16%	--
Inflation-Linked Bonds	\$2,447,441,855	3%	4%	4%	--
Credit	\$6,721,750,750	9%	9%	9%	5% - 13%
U.S. Credit	\$5,906,511,397	8%	8%	8%	--
Non-U.S. Credit	\$815,239,353	1%	1%	1%	--
Real Assets	\$10,840,286,509	15%	15%	15%	11% - 19%
Real Estate	\$6,994,688,522	10%	10%	10%	--
Commodities	\$142,795,974	0%	0%	0%	--
Natural Resources and Infrastructure	\$3,702,802,012	5%	5%	5%	--
Absolute Return	\$4,016,457,817	6%	6%	6%	2% - 10%
Absolute Return	\$4,016,457,817	6%	6%	6%	--
Multi Asset	\$296,894,080	0%	0%	0%	0% - 2%
Multi Asset	\$296,894,080	0%	0%	0%	--
Cash	\$997,139,176	1%	0%	0%	0% - 2%
Cash	\$997,139,176	1%	0%	0%	--
Total	73,593,894,881	100%	100%	100%	

Trailing Net Performance | As of June 30, 2025

Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total System	73,593,894,881	100.0	4.8	6.5	9.8	6.6	8.3	7.0	7.9	Jul-86
System Policy Benchmark			<u>4.2</u>	<u>6.0</u>	<u>9.5</u>	<u>6.0</u>	<u>7.4</u>	<u>6.6</u>	--	
Over/Under			0.6	0.5	0.3	0.6	0.9	0.4	--	
System Strategic Policy Benchmark			<u>4.4</u>	<u>6.1</u>	<u>9.7</u>	<u>6.1</u>	<u>7.7</u>	<u>6.8</u>	--	
Over/Under			0.4	0.4	0.1	0.5	0.6	0.3	--	
Growth Equity	38,833,818,781	52.8	7.9	7.9	12.3	10.8	13.7	10.5	7.3	Jan-98
Public Equity	23,759,091,675	32.3	12.0	11.2	16.3	16.0	12.7	9.3	8.6	Apr-94
Public Equity Custom Benchmark			<u>11.6</u>	<u>11.7</u>	<u>16.7</u>	<u>15.9</u>	<u>12.4</u>	<u>9.2</u>	--	
Over/Under			0.5	-0.4	-0.4	0.1	0.3	0.1	--	
Domestic Equity	10,457,165,105	14.2	11.1	5.7	14.6	19.4	16.2	12.7	10.0	Apr-94
U.S. Equity Custom Benchmark			<u>11.0</u>	<u>5.8</u>	<u>15.3</u>	<u>19.1</u>	<u>16.0</u>	<u>13.0</u>	--	
Over/Under			0.1	-0.1	-0.7	0.3	0.2	-0.3	--	
International Developed Market Equity	6,689,250,595	9.1	12.1	18.6	18.2	15.8	11.8	6.8	6.8	Jan-95
MSRA Custom International Index			<u>12.0</u>	<u>19.0</u>	<u>18.7</u>	<u>15.7</u>	<u>11.5</u>	<u>6.5</u>	<u>5.9</u>	
Over/Under			0.0	-0.4	-0.5	0.0	0.3	0.3	0.9	
International Emerging Markets Equity	3,670,149,922	5.0	13.1	16.1	15.3	9.3	7.6	--	6.9	Nov-15
MSCI Emerging Markets (Net)			<u>12.0</u>	<u>15.3</u>	<u>15.3</u>	<u>9.7</u>	<u>6.8</u>	--	<u>6.4</u>	
Over/Under			1.1	0.8	0.0	-0.4	0.8	--	0.5	
Global Equity	2,931,032,849	4.0	14.0	10.4	17.8	17.5	12.4	9.8	8.3	Oct-05
Global Equity Custom Benchmark			<u>11.5</u>	<u>10.0</u>	<u>16.2</u>	<u>17.3</u>	<u>13.7</u>	<u>10.0</u>	<u>8.0</u>	
Over/Under			2.4	0.3	1.6	0.1	-1.2	-0.2	0.3	
Private Equity	15,058,700,321	20.5	1.9	3.1	6.4	3.9	16.3	14.2	9.3	Mar-94
State Street Private Equity Index			<u>1.6</u>	<u>2.7</u>	<u>7.0</u>	<u>3.4</u>	<u>16.0</u>	<u>12.1</u>	--	
Over/Under			0.3	0.4	-0.6	0.5	0.3	2.1	--	

Trailing Net Performance | As of June 30, 2025

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Rate Sensitive	11,887,547,767	16.2	0.5	5.3	5.0	0.0	-3.7	1.4	5.8	Jul-86
<i>Custom Rate Sensitive Benchmark</i>			<u>-0.2</u>	<u>3.7</u>	<u>4.0</u>	<u>-0.3</u>	<u>-3.8</u>	<u>1.3</u>	--	
Over/Under			0.7	1.5	1.1	0.3	0.1	0.1	--	
Nominal Fixed Income	9,440,105,912	12.8	0.4	5.4	4.7	-0.8	-5.4	0.9	5.7	Jul-86
<i>Custom Nominal Fixed Income Benchmark</i>			<u>-0.4</u>	<u>3.5</u>	<u>3.5</u>	<u>-1.0</u>	<u>-5.2</u>	<u>0.8</u>	--	
Over/Under			0.8	1.8	1.2	0.2	-0.1	0.1	--	
Inflation-Linked Bonds	2,447,441,855	3.3	0.6	5.0	6.2	2.7	1.7	2.9	3.5	Jul-08
<i>Custom Inflation Sensitive Benchmark</i>			<u>0.4</u>	<u>4.6</u>	<u>5.7</u>	<u>2.2</u>	<u>1.4</u>	<u>2.7</u>	<u>3.2</u>	
Over/Under			0.2	0.4	0.5	0.5	0.3	0.1	0.2	
Credit	6,721,750,750	9.1	2.5	4.6	9.3	8.4	6.8	5.4	7.7	Mar-09
U.S. Credit	5,906,511,397	8.0	2.4	4.5	9.1	8.2	7.6	6.1	8.0	Mar-09
<i>U.S. Credit Custom Benchmark</i>			<u>3.3</u>	<u>4.2</u>	<u>9.7</u>	<u>9.9</u>	<u>6.3</u>	<u>5.4</u>	<u>7.2</u>	
Over/Under			-0.9	0.3	-0.6	-1.7	1.3	0.6	0.8	
Non-U.S. Credit	815,239,353	1.1	3.3	5.3	10.9	9.8	3.0	2.8	1.2	Oct-10
<i>Non-U.S. Credit Custom Benchmark</i>			<u>3.1</u>	<u>5.7</u>	<u>9.8</u>	<u>7.9</u>	<u>1.2</u>	<u>2.3</u>	<u>1.1</u>	
Over/Under			0.1	-0.4	1.1	1.8	1.8	0.5	0.2	
Real Assets	10,840,286,509	14.7	1.7	4.2	7.0	0.1	7.7	4.9	4.6	Feb-06
<i>Custom Real Assets Benchmark</i>			<u>2.0</u>	<u>5.0</u>	<u>8.2</u>	<u>-1.6</u>	<u>5.9</u>	<u>4.8</u>	<u>3.9</u>	
Over/Under			-0.2	-0.8	-1.2	1.7	1.8	0.1	0.8	
Real Estate	6,994,688,406	9.5	1.6	2.7	3.0	-4.5	4.4	5.6	6.4	Jul-87
<i>Real Estate Custom Benchmark</i>			<u>0.9</u>	<u>1.9</u>	<u>3.1</u>	<u>-5.8</u>	<u>2.9</u>	<u>5.3</u>	<u>7.4</u>	
Over/Under			0.6	0.8	0.0	1.3	1.4	0.3	-1.0	
Commodities	142,795,974	0.2								

Trailing Net Performance | As of June 30, 2025

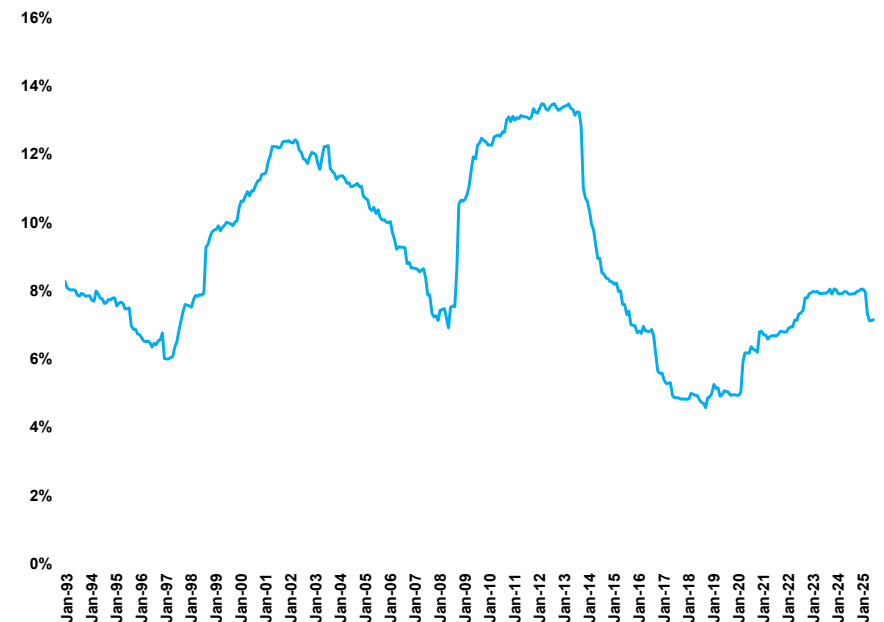
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Natural Resources and Infrastructure	3,702,802,012	5.0	2.6	8.4	17.1	10.9	14.6	5.6	9.0	Aug-09
<i>Natural Resources and Infrastructure Benchmark</i>			<u>4.1</u>	<u>11.6</u>	<u>19.2</u>	<u>8.4</u>	<u>12.3</u>	<u>8.0</u>	<u>7.5</u>	
Over/Under			-1.5	-3.3	-2.0	2.5	2.3	-2.4	1.4	
Absolute Return	4,016,457,817	5.5	2.4	5.7	10.7	5.0	6.2	3.5	3.7	Apr-08
<i>Absolute Return Custom Benchmark</i>			<u>2.2</u>	<u>2.9</u>	<u>7.2</u>	<u>5.6</u>	<u>7.1</u>	<u>4.7</u>	<u>3.2</u>	
Over/Under			0.2	2.8	3.5	-0.7	-0.9	-1.3	0.5	
Multi Asset	296,894,080	0.4	3.9	9.5	14.4	7.4	4.4	--	4.2	Jul-18
<i>System Policy Benchmark</i>			<u>4.2</u>	<u>6.0</u>	<u>9.5</u>	<u>6.0</u>	<u>7.4</u>	<u>--</u>	<u>6.7</u>	
Over/Under			-0.4	3.6	4.8	1.4	-3.0	--	-2.5	
Cash	997,139,176	1.4	1.3	2.7	5.0	5.6	3.7	4.5	3.8	Jul-08
<i>FTSE 3 Month T-Bill</i>			<u>1.1</u>	<u>2.2</u>	<u>4.9</u>	<u>4.8</u>	<u>2.9</u>	<u>2.0</u>	<u>1.2</u>	
Over/Under			0.2	0.5	0.1	0.8	0.8	2.5	2.5	

Risk Dashboard

Total System Risk

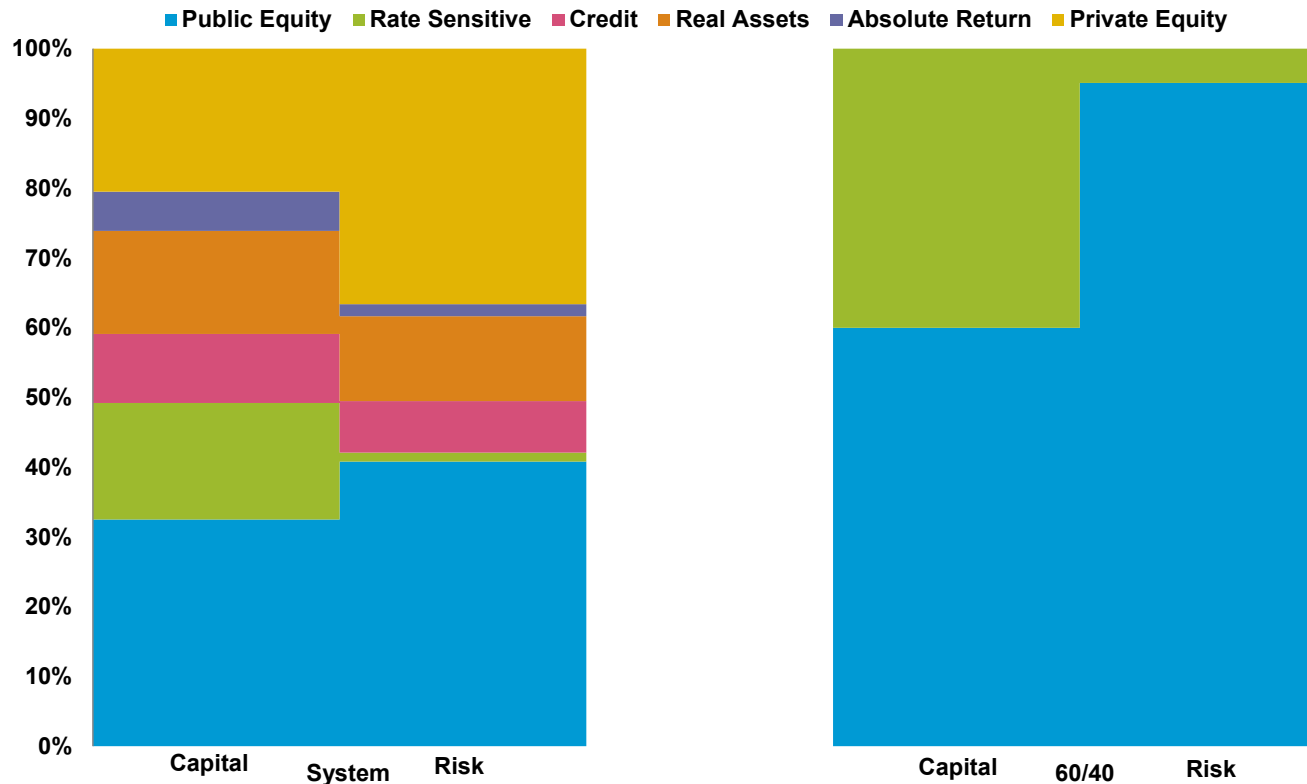
Risk: (sixty months)	Total System 6/30/2025	Policy Benchmark 6/30/2025
Annualized Return (%)	8.3	7.4
Standard Deviation (%)	7.2	7.6
Best Monthly Return (%)	6.9	6.9
Worst Monthly Return (%)	-6.4	-6.4
Beta	0.92	1.00
Correlation (R^2) to Index	0.98	NA
Sharpe Measure	0.76	0.62
Information Ratio	0.62	NA
Excess Return (%)	0.88	NA
Tracking Error (%)	1.27	NA

Rolling 5-Year Standard Deviation



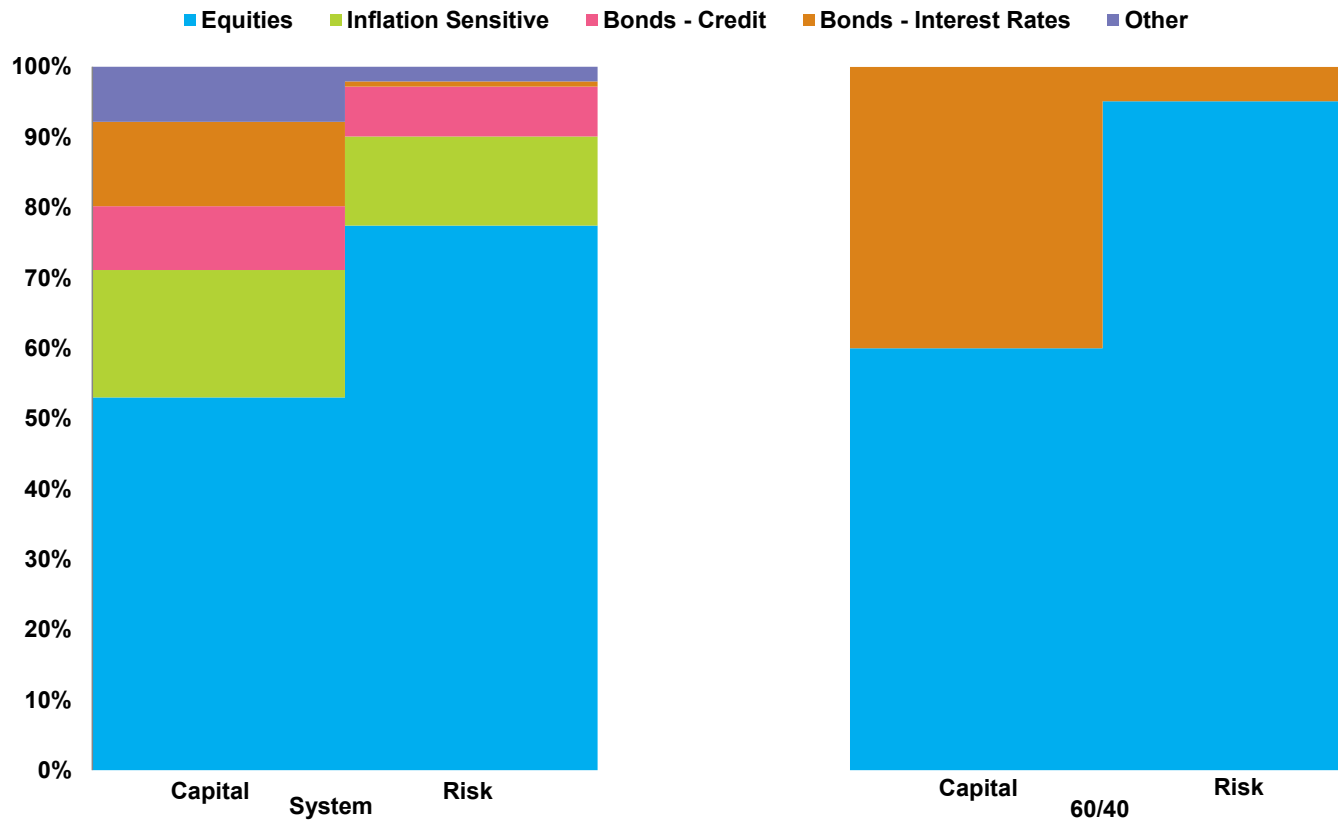
→ Over the trailing 5-years, the System has exhibited lower risk, as measured by standard deviation, than its Policy Benchmark while achieving slightly higher annualized returns.

Capital Allocation vs. Risk Allocation By Asset Class



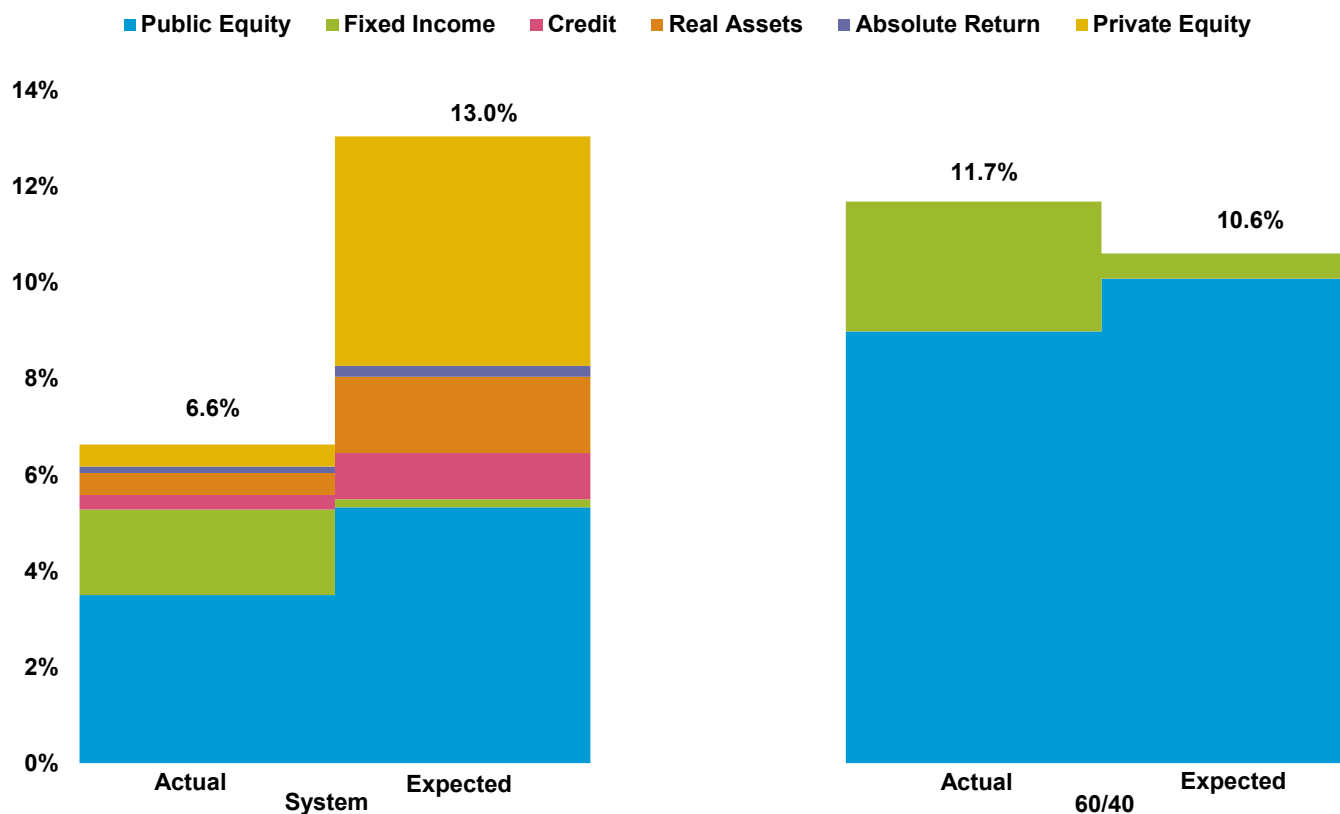
- Public equity makes up close to 33% of the current asset allocation; however, it comprises about 41% of the risk allocation.
- By contrast, in a 60/40 portfolio equity comprises 60% of the capital allocation but nearly 95% of the risk.

Capital Allocation vs. Risk Allocation By Factor Exposure



→ Based on five broad risk exposures, equity (i.e. growth) risk dominates the risk composition of the System.

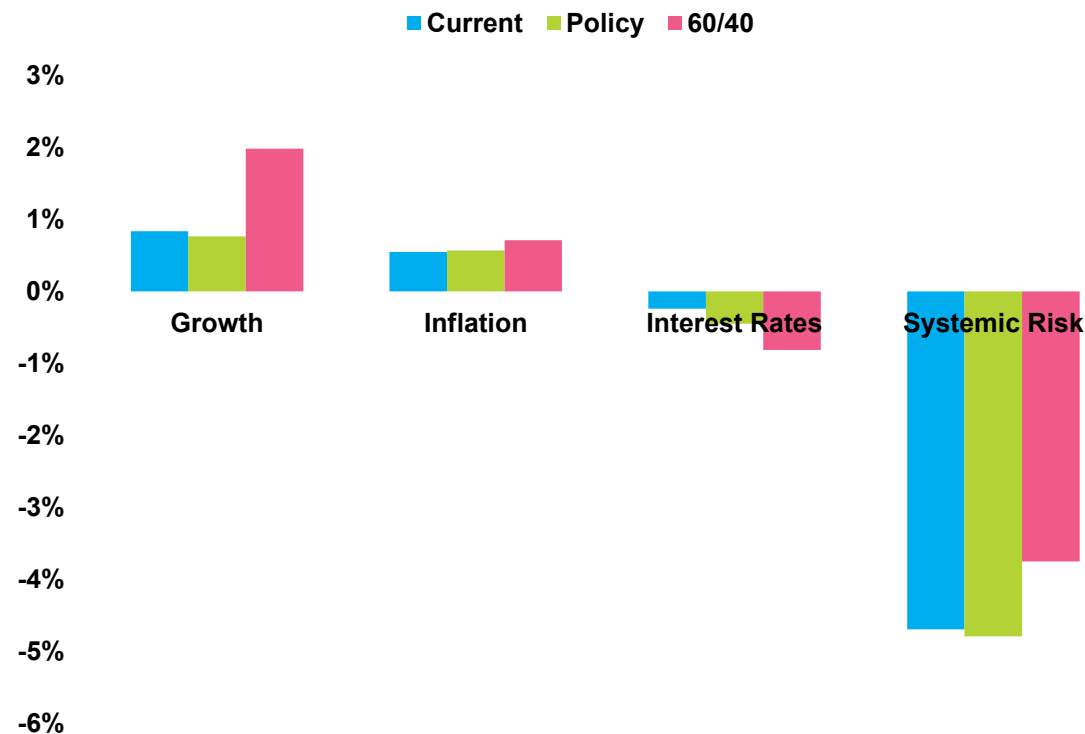
Risk Decomposition Actual vs. Expected



→ The System's trailing 3-year standard deviation, as a measure of risk, has been lower than expected.

- Public equities, which make up over 41% of the expected risk composition, have made up over 53% of the actual risk over the last three years.

Portfolio Sensitivity Comparison



- The chart above shows the resulting change in portfolio return given a one standard deviation event in the respective risk factor.
- There is more concentration in Growth and Systematic Risk because these sources of risk tend to pay better (have higher expected returns) than the other risk factors.

Look Through Analysis Matrix^{1,2}

	Manager Allocation	Public Equity	Fixed Income	Credit	Cash	Hedge Funds	Risk Parity/Multi Asset	Closed-End Private Markets	Real Estate (Private)
Growth Equity	53%	31%				1%		21%	
Rate Sensitive	16%		16%			<1%			
Credit	9%			4%				5%	
Real Assets	15%	2%						3%	10%
Absolute Return	6%					6%			
Multi Asset	<1%						<1%		
Cash	1%				1%				
Look Through Allocation	100%	33%	16%	4%	1%	7%	<1%	29%	10%

¹ Numbers may not sum to 100% due to rounding.

² Numbers do not reflect the impact of overlay investing.

Asset Allocation Target Range Compliance

Asset Class	Target Range (%)	In Compliance?
Growth Equity	+/- 7	Yes
Rate Sensitive	+/- 5	Yes
Credit	+/- 4	Yes
Real Assets	+/- 4	Yes
Absolute Return	+/- 4	Yes

Sub-Asset Class Allocation Target Range Compliance

Asset Class	Sub-Asset Class	Target Range (%)	In Compliance?
Public Equity	Hedge Funds	0-20	Yes
Private Equity	Buyout	60-90	Yes
	Venture/Growth	10-25	Yes
	Special Situations	10-30	Yes
Rate Sensitive	L-T Government	30-70	Yes
	Securitized Corp	10-50	Yes
	Inflation Linked	0-40	Yes
Credit	Hedge Funds	0-30	Yes
	Private Credit	0-80	Yes
Real Assets	Real Estate- Core	50-100	Yes
	Real Estate – Value Added	0-25	Yes
	Real Estate- Opportunistic	0-25	Yes
	REITS	0-30	Yes
	Commodities	0-25	Yes

Activity Update

Summary of Work to Date

Ongoing Work

- Completed and submitted comprehensive quarterly reporting for the System.
 - Collect and reconcile data from State Street Bank and investment managers, run holdings analysis and performance calculations.
 - Completed quarterly since second quarter 2014.
- Completed numerous System-related reporting requirements.
 - Iran/Sudan and Russia divestment analysis (semi-annually in January and July).
 - Attribution and cost analysis of identified companies and potential impact on performance resulting from divestment.
- Annually, meet and review all public market managers (video conference calls) and make recommendations to staff on potential changes. Initial review of all managers has been completed.
 - Annually, over 40 meetings completed via conference call or in person.
 - Manager analyses written on all public market managers.
- Annually, work with investment staff to assist with the Maryland Pension Risk Mitigation Act assessment report.
- Regularly participate and contribute to the annual Board education sessions.

Summary of Work to Date

Investment Topics

- Discussed general investment topics with Staff, and in some instances the Board.
- The topics listed are covered through sharing white papers, holding conference calls, or in person meetings:
 - Benchmarking for private markets and hedge funds
 - Fund Governance survey of best practices
 - Real estate and emerging market debt benchmarking
 - Asset allocation and the impact of the inability to rebalance private markets on long-term returns
 - Investing in a Low Interest Rate Environment
 - Chinese Restricted List Divestment Impact Analysis
 - Researching and drafting a responsible contractor policy
 - Involvement with the ad hoc committee in the assumed rate of return
 - Asset allocation including more detailed liability analysis and climate scenario analysis
 - Implementation of asset allocation changes and benchmark changes
 - Absolute return program review
 - System exposure to China
 - Investment manager due diligence process
 - Investment Staff incentive compensation – risk metric
 - Risk survey
 - The Art of Patient Investing
 - Leverage and portable alpha education
 - *Asset-Liability modeling*
 - *Emerging managers*
 - *Total System Benchmarking*

Current Agenda Topics

→ Performance Review

Economic and Market Update

Data as of June 30, 2025

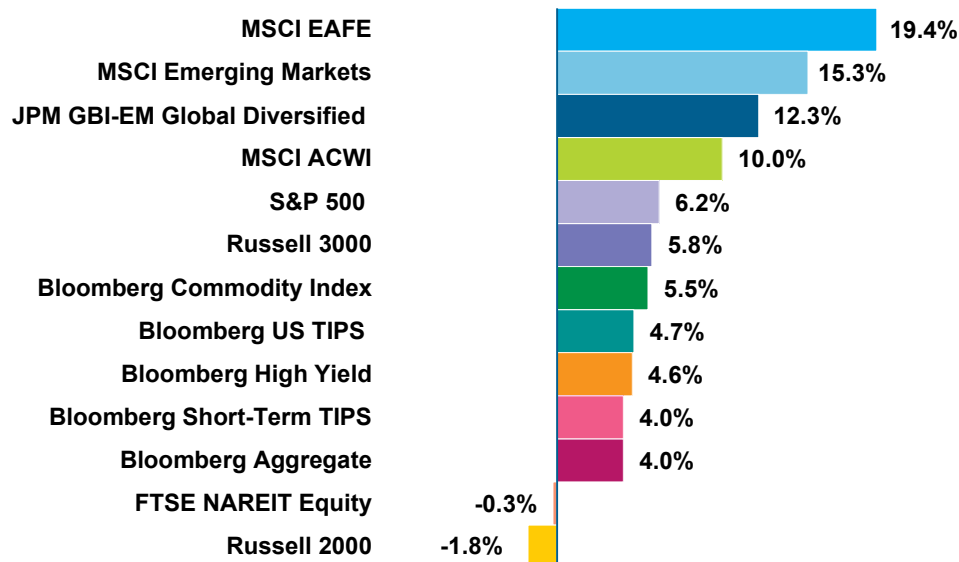
Commentary

During the quarter, US trade policy drove market dynamics. Significant volatility in early April after the initial tariff announcement was followed by a recovery in risk assets on their later temporary suspension. In fixed income markets, fiscal policy uncertainty and growing debt levels shaped market sentiment.

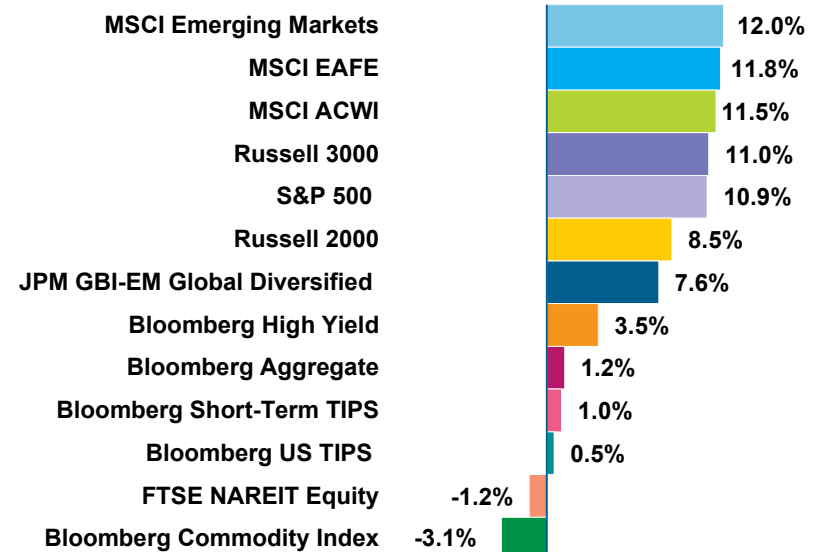
- Domestic equities rose during the quarter (Russell 3000: +11.0%) and growth stocks, particularly technology, led the way.
- Non-US developed-market stocks (MSCI EAFE: +11.8%) beat US markets, extending their outperformance over most asset classes year-to-date by returning +19.4%.
- Emerging market equities were the best performers, returning +12.0% for the quarter, despite a modest +2.0% return in China.
- In mid-June, the Federal Reserve held rates steady (but messaging was perceived as more accommodative by market participants compared to earlier in the year), with inflation, while improving, remaining above target and the unemployment rate still low.
- Outside of longer dated government bonds, most fixed income markets rose for the quarter as yields generally remained stable or declined. The broad Bloomberg Aggregate Index returned +1.2%, while long-term Treasuries fell -1.5%. Riskier bonds did better as risk sentiment improved with emerging market debt increasing +7.6% and high yield bonds gaining +3.5%.
- Looking ahead, continued uncertainty related to the US administration's tariff policies and their impact on the economy, inflation, and Fed policy will be key. The track of the US deficit, China's economy and relations with the US, as well as concerns over elevated valuations and weakening earnings in the US equity market, will also be important focuses for the rest of this year.

Index Returns¹

YTD



Q2



- After tariff-related market volatility in April, global equity markets rallied in May and June on the general pausing of tariffs. Bond markets performed well with short-term yields declining in the US and intermediate-term yields remaining stable. Growing debt levels remained a key concern for major global economies.
- US equity markets continued to provide strong gains year-to-date, returning to record levels after a weak start to 2025. International equities still lead the way in 2025, particularly developed markets, supported by a weakening US dollar.

¹ Source: Bloomberg. Data is as of June 30, 2025.

Domestic Equity Returns¹

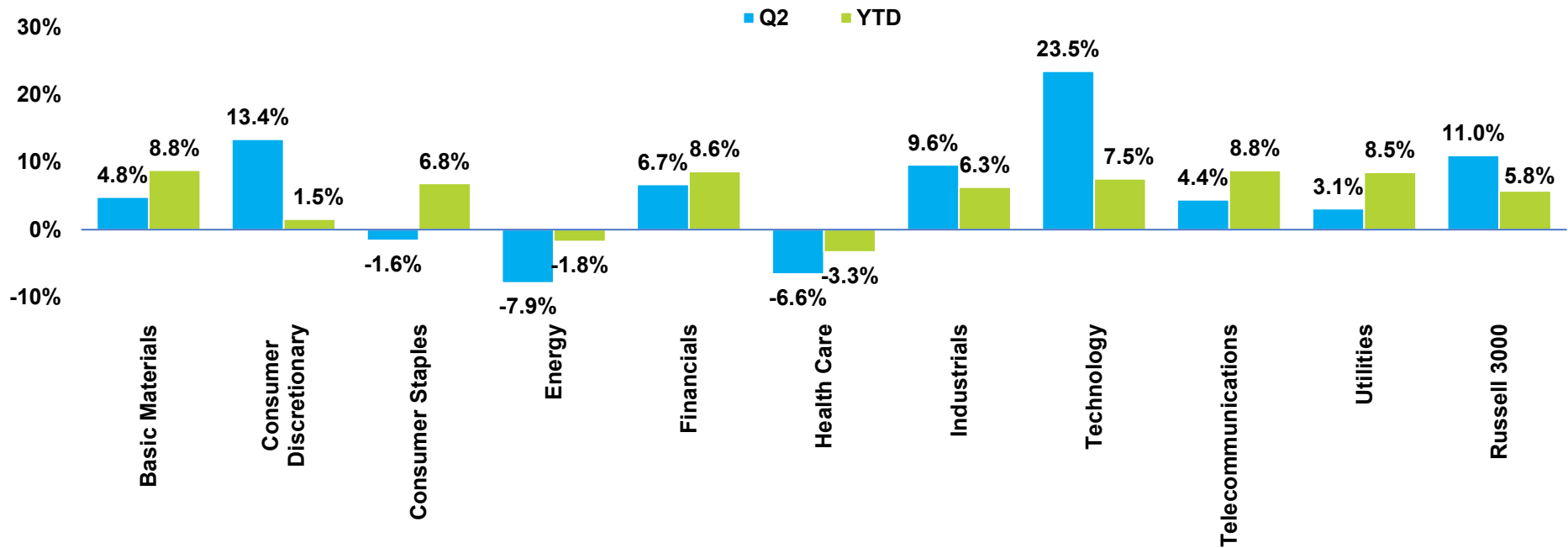
Domestic Equity	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	5.1	10.9	6.2	15.2	19.7	16.6	13.6
Russell 3000	5.1	11.0	5.8	15.3	19.1	15.9	12.9
Russell 1000	5.1	11.1	6.1	15.7	19.6	16.3	13.3
Russell 1000 Growth	6.4	17.8	6.1	17.2	25.7	18.1	17.0
Russell 1000 Value	3.4	3.8	6.0	13.7	12.8	13.9	9.2
Russell MidCap	3.7	8.5	4.8	15.2	14.3	13.1	9.9
Russell MidCap Growth	4.4	18.2	9.8	26.5	21.4	12.6	12.1
Russell MidCap Value	3.5	5.3	3.1	11.5	11.3	13.7	8.4
Russell 2000	5.4	8.5	-1.8	7.7	10.0	10.0	7.1
Russell 2000 Growth	5.9	12.0	-0.5	9.7	12.4	7.4	7.1
Russell 2000 Value	4.9	5.0	-3.2	5.5	7.4	12.5	6.7

US Equities: The Russell 3000 index returned +5.1% in June and +11.0% in the second quarter.

- US stocks rose during the second quarter as tariff concerns stabilized after the early April volatility. Strong corporate earnings, particularly in the technology sector, and a relatively resilient US economy also drove results.
- Growth stocks outpaced value stocks across the market cap spectrum during the quarter, particularly in large cap (+17.8% versus +3.8%) due to strong gains in the large-cap companies focused on AI.
- Small cap stocks (Russell 2000) had strong results (+8.5%) in Q2 but trailed large cap stocks (Russell 1000), which gained +11.1%. Gains in the large cap technology sector, elevated interest rates, and overall uncertainty related to the path of the US economy drove the underperformance.

¹ Source: Bloomberg. Data is as of June 30, 2025.

Russell 3000 Sector Returns¹



- Technology stocks led the way in the second quarter. This sector contributed more than half of the quarter's gains in the Russell 3000 index. AI favorites, including NVIDIA and Broadcom, rebounded amid strong earnings reports.
- Consumer discretionary stocks performed well for the quarter (+13.4%) given the slight easing of tariff concerns.
- Energy (-7.9%) and Health Care (-6.6%) were the largest detractors among sectors for the second quarter. Increased supply and weakening demand and plans by the new administration to lower drug prices, respectively, weighed on the two sectors.

¹ Source: Bloomberg. Data is as of June 30, 2025.

Foreign Equity Returns¹

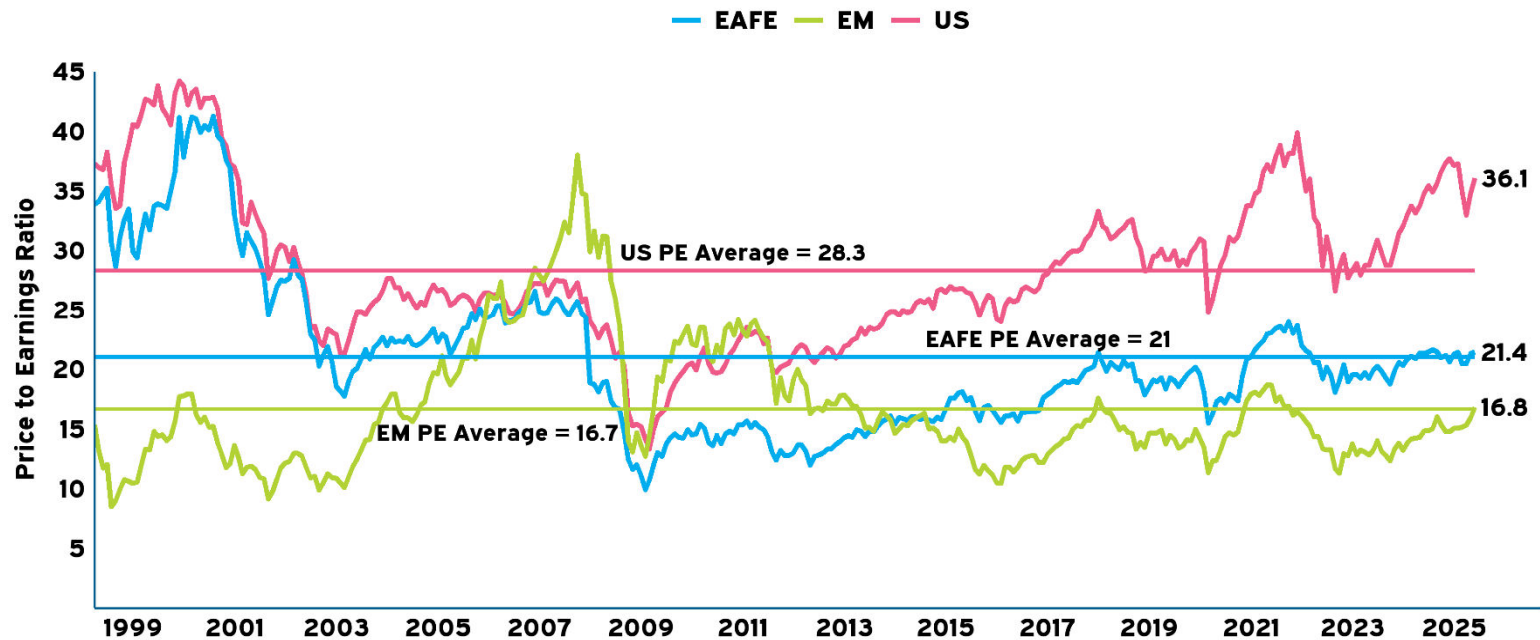
Foreign Equity	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI Ex US	3.4	12.0	17.9	17.7	14.0	10.1	6.1
MSCI EAFE	2.2	11.8	19.4	17.7	16.0	11.1	6.5
MSCI EAFE (Local Currency)	0.2	4.8	7.8	8.0	13.5	11.6	7.0
MSCI EAFE Small Cap	4.3	16.6	20.9	22.5	13.3	9.3	6.5
MSCI Emerging Markets	6.0	12.0	15.3	15.3	9.7	6.8	4.8
MSCI Emerging Markets (Local Currency)	4.9	7.9	10.8	12.9	10.4	7.9	6.5
MSCI EM ex China	7.0	16.5	14.5	9.4	13.2	11.3	6.2
MSCI China	3.7	2.0	17.3	33.8	3.1	-1.0	2.1

Foreign Equity: Developed international equities (MSCI EAFE) returned +2.2% in June and +11.8% in the second quarter and emerging market equities (MSCI Emerging Markets) rose +6.0% in June and +12.0% in the second quarter.

- Developed markets outpaced US peers as continued weakness in the US dollar (USD) acted as a significant tailwind adding +7.0% to local returns. Eurozone equities had strong results, led by real estate and industrials (particularly defense) and benefiting from two rate cuts over the quarter as inflation fell below the ECB target of 2%. Japan also saw strong returns led by growth stocks after initial tariff-related declines.
- Emerging markets ended the quarter slightly ahead of developed peers, also benefiting from the weakening USD. After the pronounced “Liberation Day” selloff, the 90-day tariff pause, and US-China dialogue eased many fears. Korea and Taiwan tech stocks benefited from continued AI optimism. China posted a small gain for the quarter as domestic consumption data continued to weigh on sentiment, and trade uncertainty lingered. India underperformed, as growth expectations were tempered, and valuations remained high.

¹ Source: Bloomberg. Data is as of June 30, 2025.

Equity Cyclically Adjusted P/E Ratios¹



- After a considerable pullback in April, US stock valuations rallied and finished the quarter above where they started. They continue to trade well above their long-run cyclically adjusted P/E average of 28.3.
- While non-US developed stocks have performed very well this year, at the end of June their valuations remain close to their long-run P/E ratio of 21.
- Emerging market stocks continued to rally this year and are now trading at valuations near their long-run average.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E Source: Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of June 2025. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end, respectively.

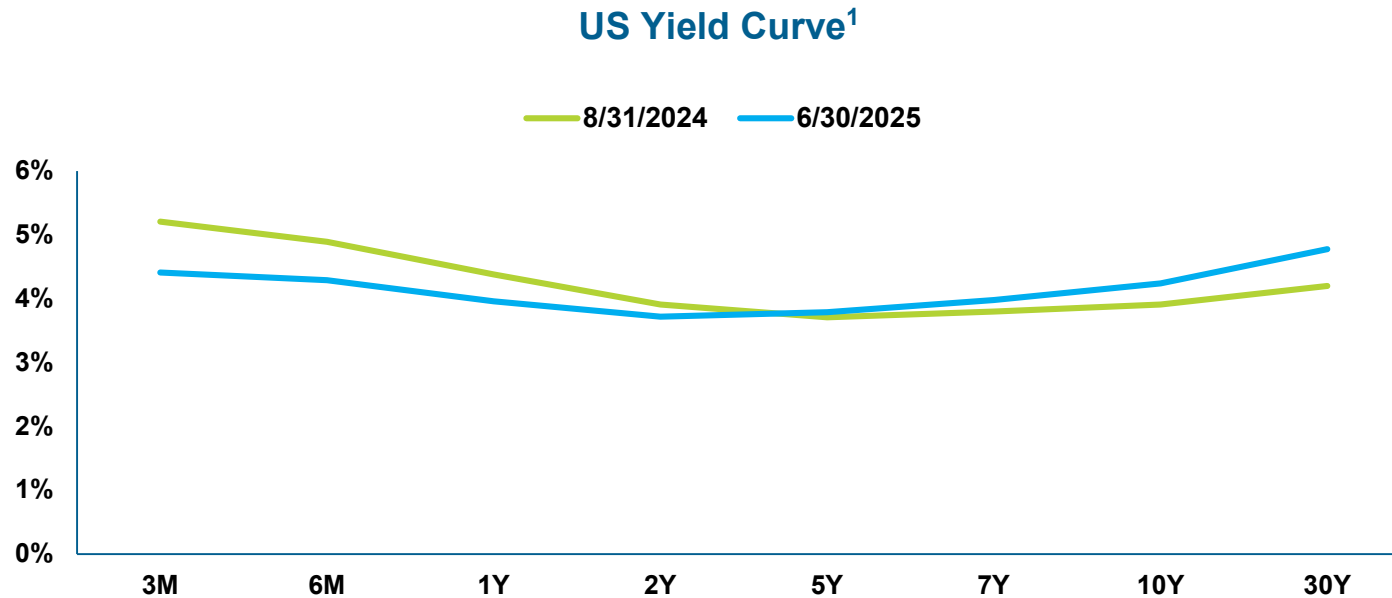
Fixed Income Returns¹

Fixed Income	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	1.6	1.4	4.1	6.5	3.3	-0.1	2.1	4.7	5.9
Bloomberg Aggregate	1.5	1.2	4.0	6.1	2.5	-0.7	1.8	4.5	6.1
Bloomberg US TIPS	1.0	0.5	4.7	5.8	2.3	1.6	2.7	4.1	6.5
Bloomberg Short-term TIPS	0.5	1.0	4.0	6.5	3.9	3.8	2.9	3.9	2.4
Bloomberg US Long Treasury	2.5	-1.5	3.1	1.6	-3.7	-8.2	0.1	4.8	14.7
Bloomberg High Yield	1.8	3.5	4.6	10.3	9.9	6.0	5.4	7.1	3.2
JPM GBI-EM Global Diversified (USD)	2.8	7.6	12.3	13.8	8.5	1.9	2.1	--	--

Fixed Income: The Bloomberg Universal index rose +1.6% in June and +1.4% in the second quarter.

- In the bond market, easing of trade tensions post early-April and rising concerns over expansionary US fiscal policies drove results.
- Outside the long-end of the yield curve, declining or stable Treasury yields supported the broad US bond market, with the Bloomberg Aggregate rising +1.2% for the quarter. Long-term Treasuries (-1.5%) underperformed as fiscal concerns in the US drove rates higher, particularly for 30-year Treasuries (+20 basis points).
- Short (+1.0%) and longer dated (+0.5%) Treasury Inflation-Protected Securities (“TIPS”) also provided positive performance as inflation risks remained.
- Given the improving risk sentiment, emerging market debt (+7.6%) and high yield (+3.5%) led the way for the quarter.

¹ Source: Bloomberg. Data is as of June 30, 2025. The yield and duration data from Bloomberg is defined as the index’s yield to worst and modified duration, respectively. JPM GBI-EM data is from J.P. Morgan. Current yield and duration data is not available.

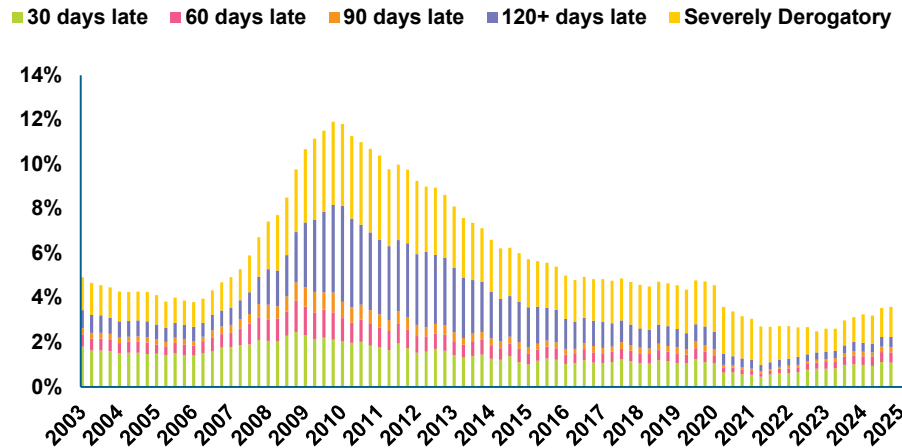


- Fiscal concerns related to a growing US government debt load and interest expense dominated headlines and market participant concerns, as did ongoing inflation-related uncertainty.
- The policy sensitive 2-year nominal Treasury yield was volatile but ultimately declined by 16 basis points to close near 3.7% as market participants factored in a greater likelihood of lower policy rates going forward.
- The 10-year nominal Treasury was also volatile but ended the period largely unchanged (4.2%), while the 30-year nominal Treasury increased by 0.2% over the quarter to 4.8% on growing debt concerns.
- These dynamics led to a continued steepening of the yield curve over the quarter.

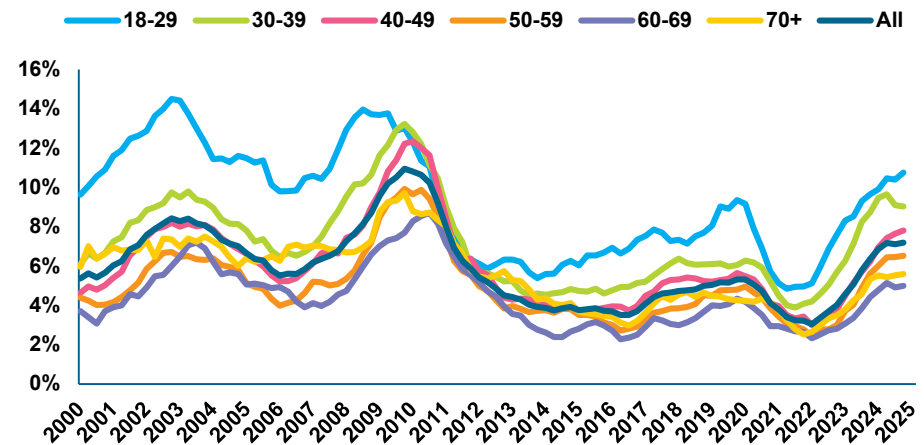
¹ Source: Bloomberg. Data is as of June 30, 2025. The August 2024 Treasury yields are shown as a reference before the first interest rate cut.

Stress is Building on US Consumers

Total Balance by Delinquency Status¹



Transition into Serious Delinquency for Credit Cards by Age²

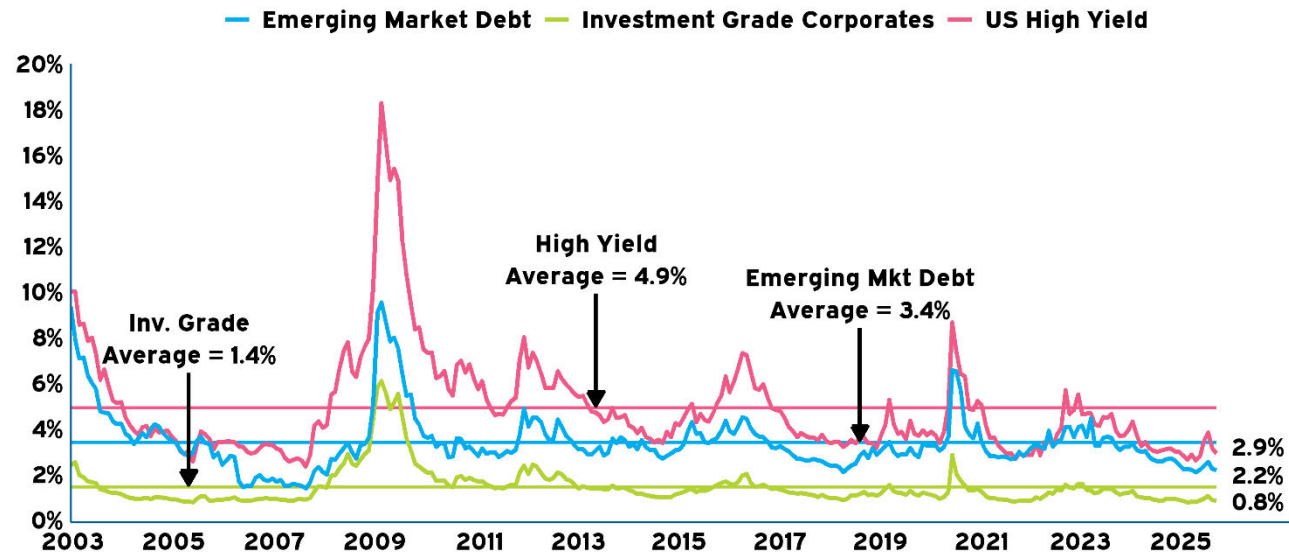


- Signs of stress on the US consumer have started to emerge given persistently higher prices and interest rates.
- After falling to historic lows during the pandemic, loan delinquencies recently started to increase.
- Parts of the credit card market, particularly for younger cohorts, have begun to show stress as borrowers are subject to variable and higher borrowing costs. Total delinquencies are well below pre-pandemic levels though.
- The restarting of student loan payments and reporting for those in default could add pressures to consumers going forward.

¹ Source: New York Federal Reserve, Quarterly Household Debt and Credit Report, February 2025. See also FRED. Data is as of April 30, 2025.

² Source: FRED. Data is as of April 30, 2025.

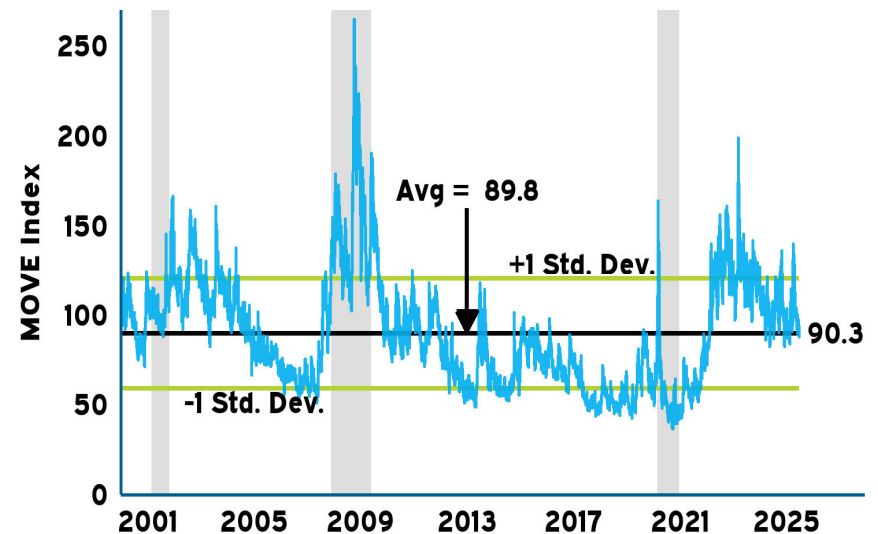
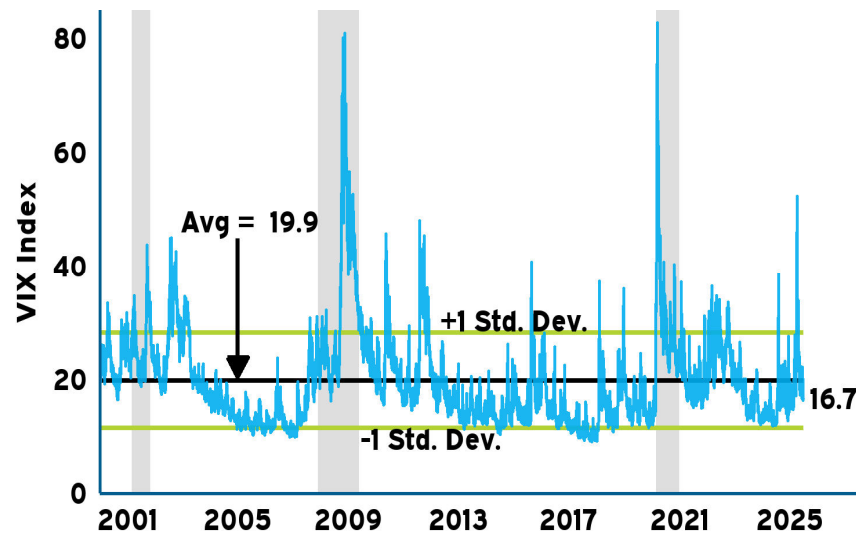
Credit Spreads vs. US Treasury Bonds¹



- Despite considerable uncertainty about the looming impact of tariffs and fiscal policy, credit spreads tightened in the second quarter.
- Investment grade spreads (the difference in yield from a comparable Treasury) spiked in the risk-off environment in April but have since declined to levels below the start of the quarter.
- High yield spreads moved the most (3.5% to 2.9%) over the quarter. At the peak of uncertainty in April, they crossed above 4.5%. Emerging market spreads held steady (2.2%).
- All yield spreads remained below their respective long-run averages, especially high yield (2.9% versus 4.9%).

¹ Source: Bloomberg. Data is as of June 30, 2025. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

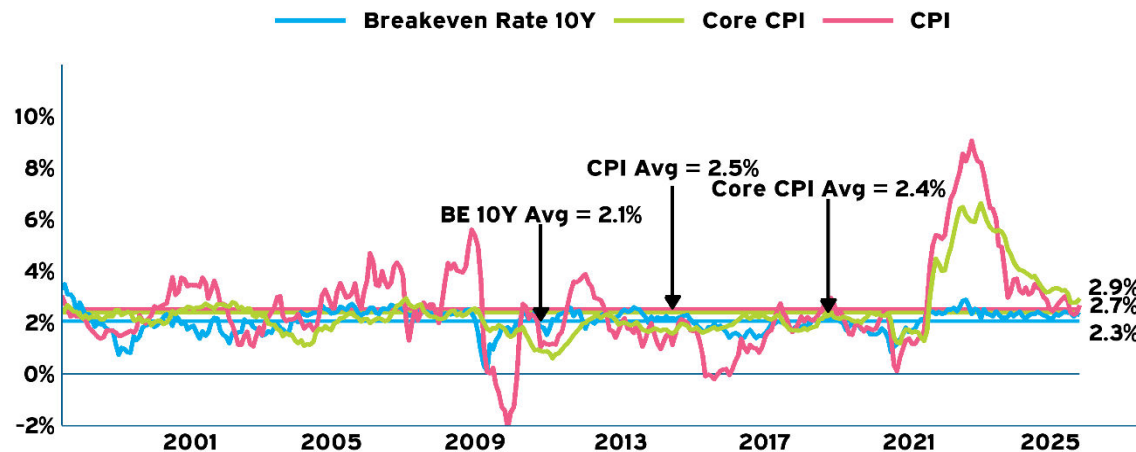
Equity and Fixed Income Volatility¹



- Bond and equity volatility spiked in April after the “Liberation Day” tariff announcement. Volatility levels finished the quarter well off highs, though, and below starting levels, as the tariff uncertainty seemed to ease.
- Volatility levels (VIX) in the US stock market finished the quarter below its long-run average while bond market (MOVE) volatility ended the quarter slightly above its long-run average.

¹ Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of June 30, 2025. The average line indicated is the average of the VIX and MOVE values between January 2000 and June 2025.

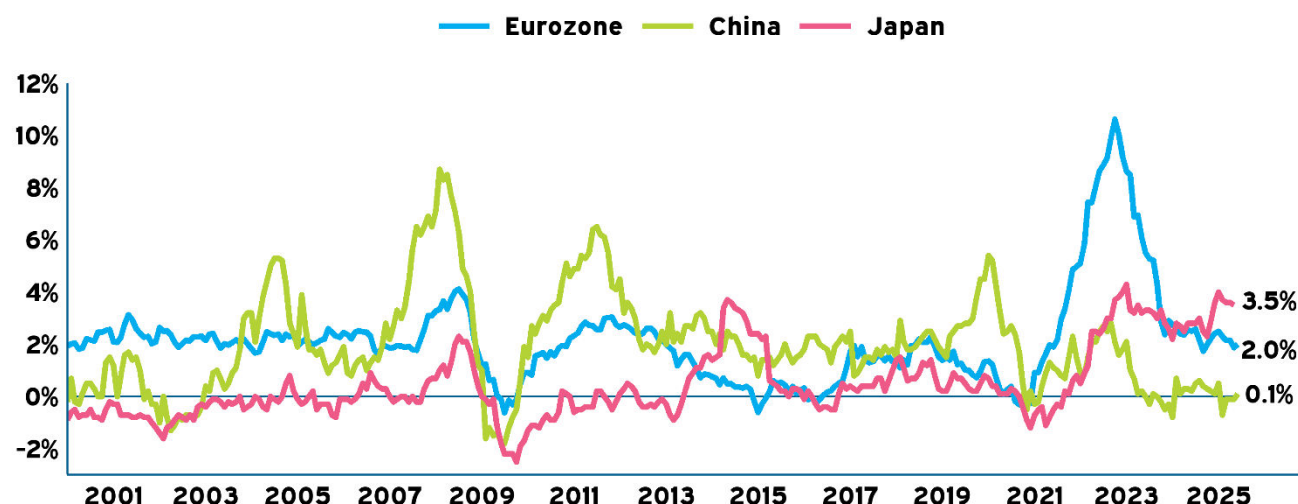
US Ten-Year Breakeven Inflation and CPI¹



- Inflation has been slow to return to the Fed's 2% average target, with headline twelve-month inflation rising from 2.4% to 2.7% over the quarter. In the June report, goods facing tariffs saw increases in prices, while a measurable decline in auto inflation, easing of cyclical services prices, and continued housing sector disinflation served as counters.
- Core inflation year-over-year also rose over the quarter, reaching 2.9%. For the month it increased 0.2%, and most core sectors outside of new and used cars saw prices increase.
- Market participants continued to highlight the dynamic of what appears to be disinflationary pressures in non-tariff exposed prices driven by weakening growth expectations, versus prices rising for those assets and sectors likely to see tariff policies solidified in the coming weeks.
- Longer-dated inflation expectations (breakevens) declined slightly over the quarter (2.4% to 2.3%) amidst on-going tariff and fiscal policy uncertainty. However, shorter-dated inflation swap pricing and survey-based measures suggest continued upside risk to prices.

¹ Source: FRED. Data is as of June 2025. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

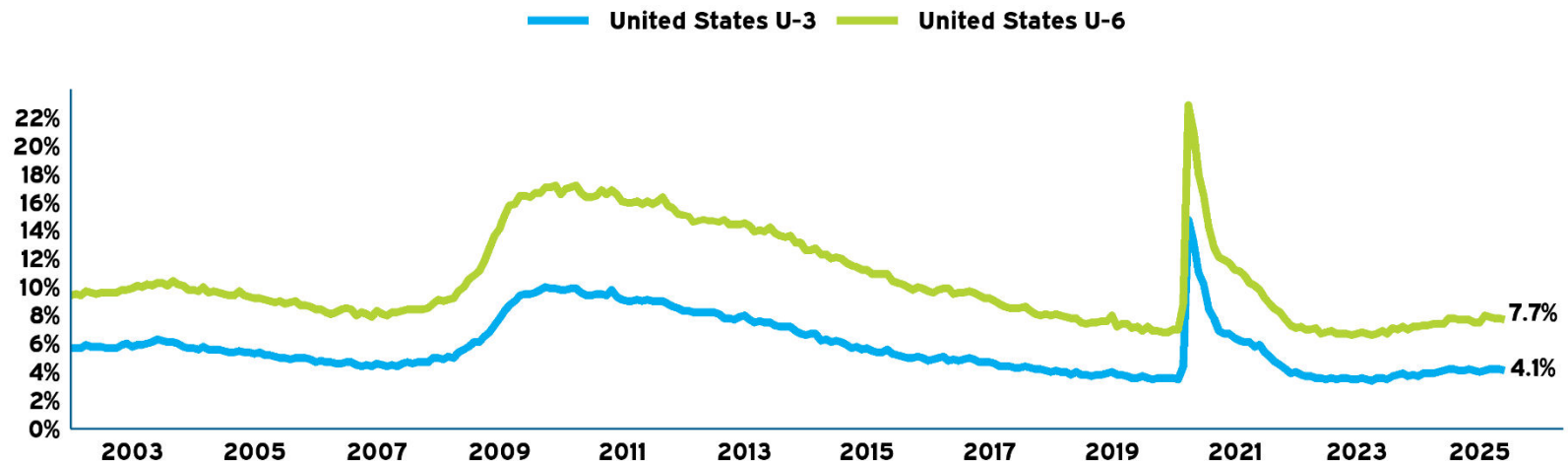
Global Inflation (CPI Trailing Twelve Months)¹



- After its recent decline, inflation in the eurozone rose to 2% in June. Still, given reduced inflation pressures, many expect the ECB to cut interest rates once more by early next year.
- The potential impact of future tariffs has complicated the inflation outlook for the Bank of Japan. Inflation rose 3.5% in May driven by food prices with the cost of rice up over 100% year-over-year given weak harvests.
- In China, and amidst record policy stimulus, consumer prices rose for the first time since January. Still, some sectors are continuing to see deflationary pressures given the widespread weakness of the economy and ongoing trade uncertainty related to the US.

¹ Source: Bloomberg. Data is as of June 2025, except Japan which is as of May 2025.

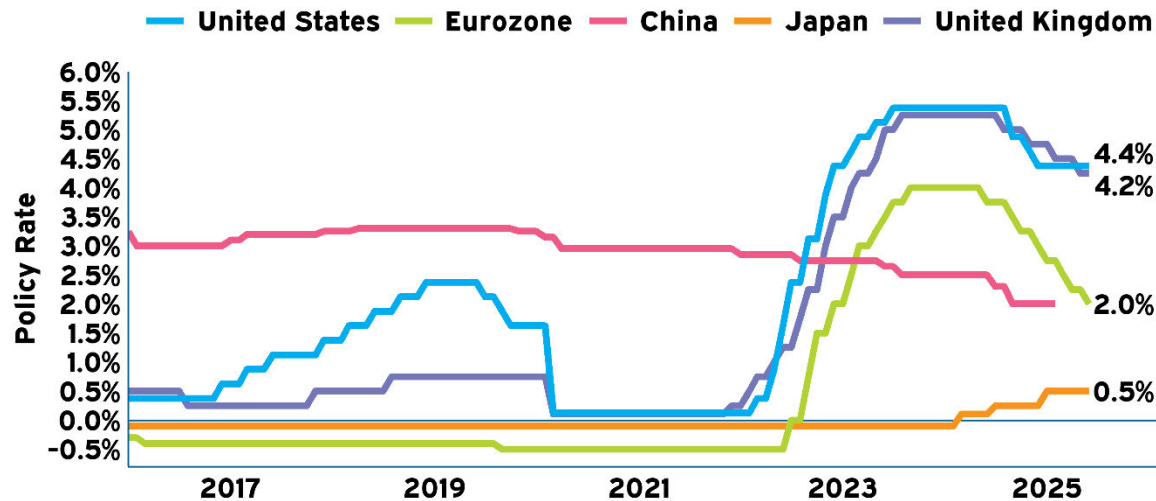
US Unemployment¹



- In June, the US added 147,000 jobs in line with the average monthly gain of 146,000 a month over the past year. The unemployment rate of 4.1% remained in the tight range of 4.0% to 4.2% since May 2024.
- Government employment saw the largest job gains (+73,000 jobs) largely driven by education jobs in state government. The federal government lost 7,000 jobs in June bringing the total decline to 69,000 jobs this year.
- Hires (5.6M) outnumbered separations (5.2M) with quits (3.3M) exceeding layoffs (1.6M).
- Initial claims for unemployment remain relatively low and annual wage growth, although trending down, came in at 3.7% year-over-year for June.

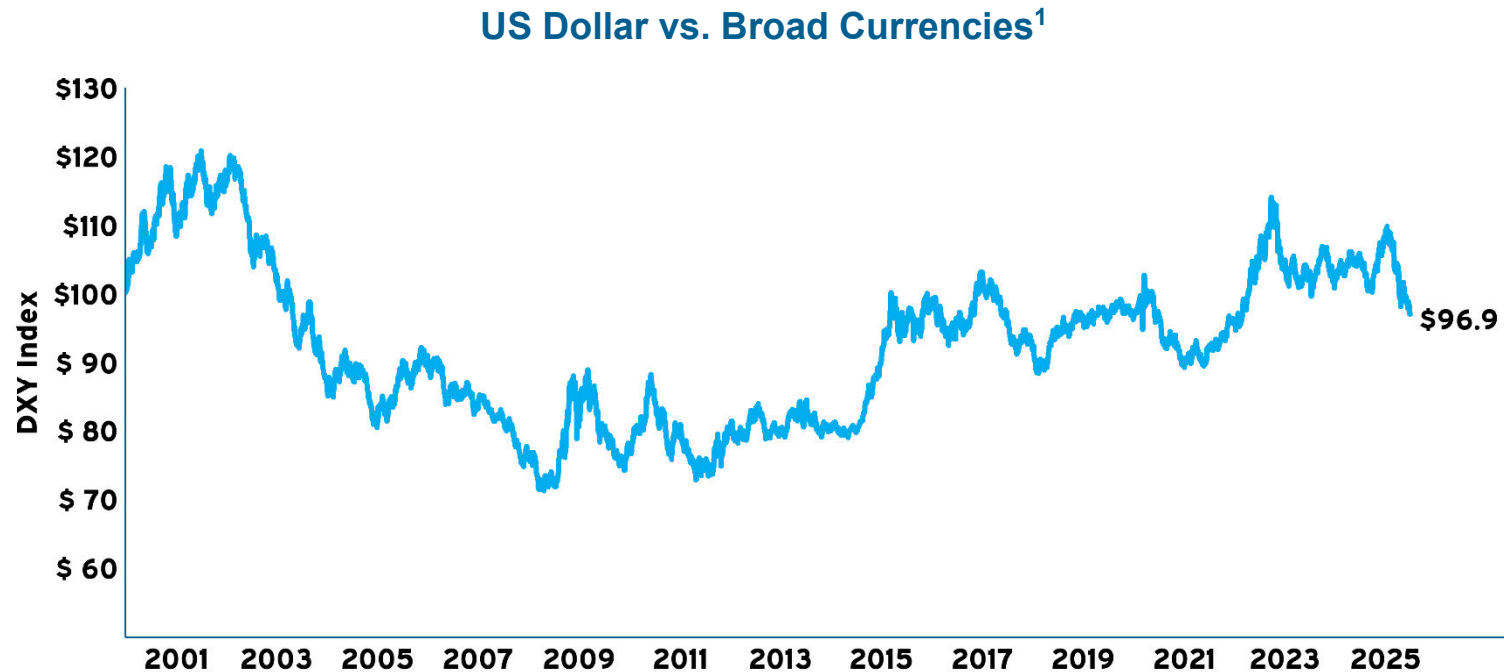
¹ Source: FRED and BLS. Data is as of June 30, 2025.

Global Policy Rates¹



- While the Fed remains on hold, other central banks have continued to ease policy rates. Expectations are now for the Fed to cut rates slightly less than two times (1.9 cuts based on futures prices), down from four expected cuts during the heart of growth concerns.
- The ECB cut its policy rate for the 8th time in June, with inflation matching the 2% target supported by a stronger euro. The Bank of England held rates steady in June at +4.25% as inflation reaccelerated to 3.4% in May as regulated energy prices rose. After cutting rates in September of last year, China's PBOC has held rates steady although disinflationary pressures continue to be a concern.
- Japan kept rates at current levels in the face of an uncertain inflationary and trade pressures but voted to slow its purchase of JGBs in a continuing retreat from quantitative easing.

¹ Source: Bloomberg. Data is as of June 30, 2025, except China which is as of February 28, 2025. United States rate is the mid-point of the Federal Funds Target Rate range. Eurozone rate is the ECB Deposit Facility Announcement Rate. Japan rate is the Bank of Japan Unsecured Overnight Call Rate Expected. China rate is the China Central Bank 1-Year Medium Term Interest Rate. UK rate is the UK Bank of England Official Bank Rate.



- Over the quarter, the US dollar declined an additional -7% bringing its year-to-date drop to close to -11%.
- Typically, higher interest rates support the US dollar but recent concerns over changing US administration policies, potentially slower growth, non-US investor currency hedging, and fiscal concerns, all led to investors shedding US assets.

¹ Source: Bloomberg. Data as of June 30, 2025.

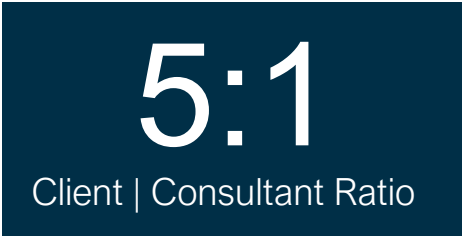
Summary

Key Trends:

- According to the International Monetary Fund's (IMF) April annual report, global growth in 2025 was downgraded from +3.3% to +2.8%, 0.5% lower than 2024. Concerns related to tariffs and their impact on growth drove the reduction. The US growth forecast saw one of the larger declines for 2025 (+2.7% to +1.8%). China's growth forecast was also substantially lowered for this year (+4.6% to +4.0%), while growth in the EU is projected to be slightly higher (+1.3%) in 2025.
- Despite the recent pause and negotiations related to tariffs, many questions remain. Overall, higher tariff levels and continued uncertainty could weigh on growth while increasing prices. Inflation levels and recent developments with tariffs will likely lead to a slower pace of interest rate cuts by the Fed. Uncertainty in the US and the potential for slower growth could continue the rotation out of US assets and put continued downward pressure on the dollar.
- Some signs of stress have started to emerge on the US consumer with sentiment weakening since the start of the year. Consumers are particularly concerned about losing their jobs and the potential for higher prices. Overall, risk to economic growth and to inflation from tariffs, as well as elevated borrowing costs, could put further pressure on consumers and lead to a weaker job market. The recent resumption of collecting and reporting delinquent student loans could be a further headwind to consumption.
- US equities recovered from losses experienced during the first week of April and ended the quarter at all-time highs. A focus going forward will be whether earnings can remain resilient if growth slows. Also, the future paths of the large technology companies that have driven market gains will continue to be important.
- Trade tensions between the US and China will remain a key focus. Recently, the two countries agreed on a 90-day truce with the US lowering its maximum tariff rate on Chinese goods from 145% to 30%, with a 10% baseline level. China agreed to lower its 125% tariff on American goods to 10%. Questions remain about what will happen after the 90-day period. Notably, tariff levels on China remain higher than where they previously were.

Appendices

Corporate Update



UPCOMING EVENTS
Q1 Investment Perspectives Webcast
April 2025

Client and employee counts as of March 31, 2025; assets under advisement as of December 31, 2024; assets in alternative investments as of December 31, 2024.

Client retention rate is one minus the number of clients lost divided by the number of clients at prior year-end. Average over the previous five years.

THOUGHT LEADERSHIP



Converging Paths or Persistent Gaps? Understanding Valuations Across Public and Private Equity

Valuations play a critical role in shaping long-term investment outcomes and are often considered to be an important determinant of future performance. Therefore, it is natural for allocators of large pools of assets to examine valuations across different markets. An area that has drawn attention in recent years is the comparison of valuations for the stock market and private equity, as both public and private equity valuations are near all-time highs. In this research note, we aim to evaluate where private equity valuations are relative to public markets, with a focus on North American buyout strategies and US equities, and what implications this may have.

Read more here:

<https://meketa.com/leadership/converging-paths-or-persistent-gaps-understanding-valuations-across-public-and-private-equity/>



Sustaining Missions and Navigating Markets: Frameworks for Endowment and Foundation Spending Policies

Our focus in this paper is on endowments and foundations that aim to maintain intergenerational equity, and how best to maintain this goal through spending policy development.

Read more here:

<https://meketa.com/leadership/sustaining-missions-and-navigating-markets-frameworks-for-endowment-and-foundation-spending-policies/>



AI Infrastructure Investment

Since OpenAI launched its generative artificial intelligence application, ChatGPT, in late 2022, AI has catapulted to the forefront of technology companies in the US.

The growing competition in AI development has driven a significant surge in investments in technological research and innovation. In the US, the so-called “Magnificent Seven” companies have each developed their own proprietary large language models (LLMs).

Read more here:

<https://meketa.com/leadership/ai-infrastructure-investment>

ANNOUNCING OUR NEWEST SHAREHOLDER



Matt Curran
Research Consultant

HONORS AND AWARDS FOR MEKETA'S DECORATED LEADERS

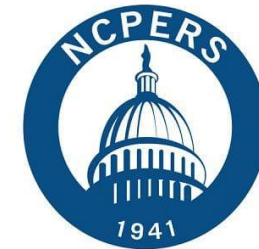


Congratulations to Meketa's Mika Malone, CAIA on being named to Chief Investment Officer magazine's 2025 Knowledge Brokers list!

The annual Knowledge Brokers list honors influential and insightful investment consultants, recognizing them for their strategic counsel and success in connecting asset owners with impactful investment opportunities. Mika's leadership, thoughtful guidance, and client-first mindset continue to make a lasting impact both at Meketa and across the industry.

View the full story here:

<https://www.linkedin.com/feed/update/urn:li:activity:7330986008714383361>



The Voice for Public Pensions

Meketa is proud to have received a 2025 Pension Partners of the Year Award from the National Conference on Public Employee Retirement Systems (NCPERS).

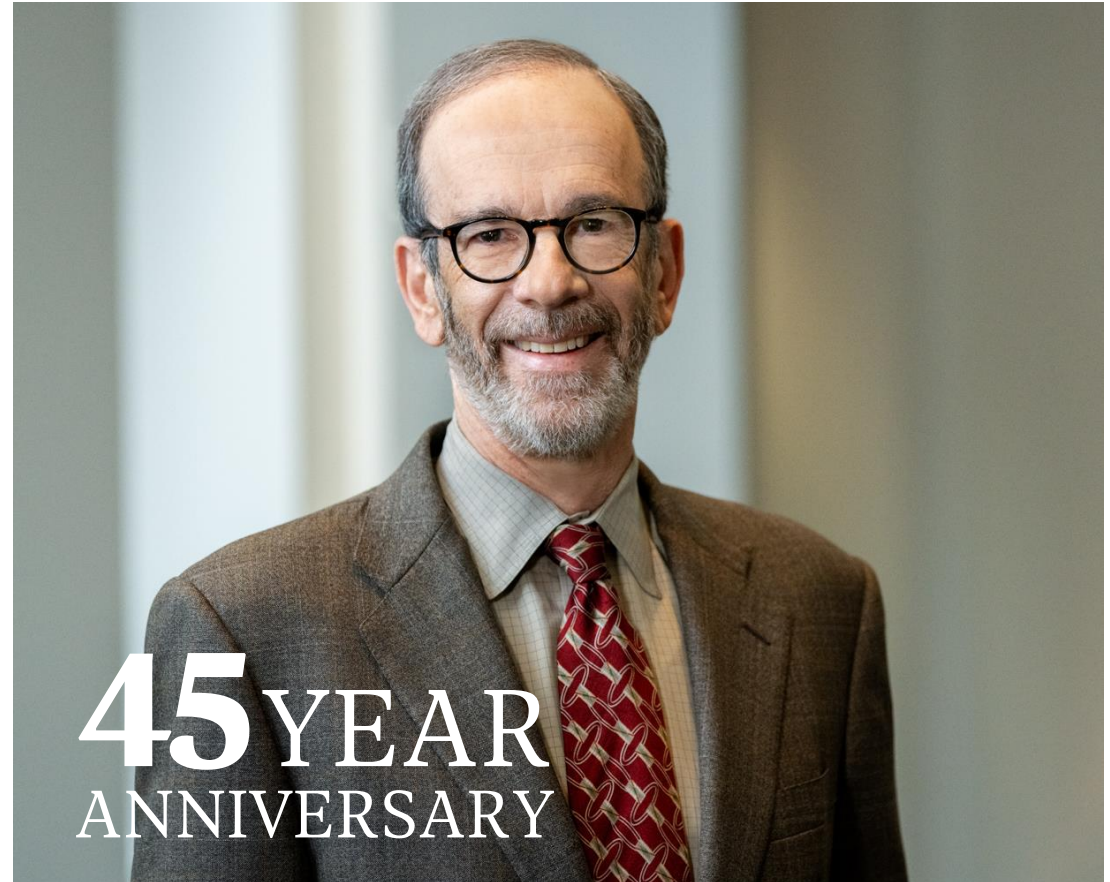
"Education is a crucial component of our service to clients and the wider pension fund industry" said Stephen McCourt, co-CEO, Meketa Investment Group. "We're honored to be recognized by NCPERS, and we're especially proud of the contributions of our colleagues Judy Chambers and David Sancewich, whose efforts have helped trustees navigate an increasingly complex investment landscape."

View full story here:

<https://www.linkedin.com/feed/update/urn:li:activity:7343354503682768897>

CONGRATULATIONS TO ALAN SPATRICK ON CELEBRATING 45 YEARS WITH MEKETA

Alan's journey at Meketa Investment Group spans an incredible 45 years, making him a living archive of the firm's history, evolution, and ethos. As employee number three, he has witnessed and influenced Meketa's transformation from a small operation to a sophisticated institutional investment advisory firm.



View the full story here: **[Celebrating 45 Years of Inspiration Insights from the Archive of Alan Spatrick, Meketa Consultant, from His Journey Along the Way](https://meketa.com/wp-content/uploads/2025/03/MEKETA_Anniversary-Alan-Spatrick.pdf)**
https://meketa.com/wp-content/uploads/2025/03/MEKETA_Anniversary-Alan-Spatrick.pdf

MEKETA IN THE WILD



IPEM Conference

Meketa's **Balaj Singh, CFA, CAIA** enjoyed moderating a panel at April's Pensions & Investments x IPEM conference, 2025 Private Markets: The LP Perspective. Balaj and his fellow panelists discussed the state of private equity and how LPs are monitoring their private equity portfolios to ensure they meet investment objectives, noting "private equity investing is not about a "set it and forget it" mentality."



Talking Hedge

It was great to hear Meketa's **Zachary Driscoll, CFA** moderate the panel, Leveraging Total Portfolio Principles to Compound Better, at last month's Talking Hedge Austin conference. The discussion offered valuable insights and was a great kick-off to the event.



PREA Institute

Christy Fields from Meketa had the pleasure of leading the session, The Performance of Real Estate and Other Alternatives, at the conference in Chicago, with **Rajeev Ranade** joining as well. The Institute is dedicated to exploring real estate investment where theory meets practice, fostering insightful discussions and innovative ideas.

MEKETA IN THE NEWS

Pensions&Investments

Expanding the Playbook – Private Equity's
Evolving Opportunities in Sports | April 30, 2025
Commentary by Balaj Singh, Senior Private Markets Analyst

"For private equity investors, the sports sector offers the allure of cultural relevance, anticipated steady demand and growing institutional acceptance. But it also requires patience, creativity and an understanding that this is not your typical PE asset class. The playbook is still being written."

EQDerivatives

Long Volatility Gains Momentum, Trend Strategies Show Resilience Amid Market Corrections

By Quratulain Tejani | May 7, 2025

Meketa said risk mitigating strategies helped institutional clients navigate volatility as markets tumbled in April. Long volatility strategies proved effective in mitigating risk, and should a drawdown or inflationary themes continue to extend, trend following strategies will be ready to take the baton.

Meketa's risk management framework, which is categorized into first responders, such as long volatility, second responders, such as trend following and diversifiers, is helping investors weather equity drawdowns and potentially benefit from bear market conditions. Ryan Lobdell, head of marketable alternatives, highlighted that many of these strategies have stood their ground during the recent market selloffs, despite liquidity concerns expressed by some.

"The vast majority of these [systematic strategies] trade futures contracts on different types of assets, such as equity, equity indices, rates, currencies [and] commodities," said Zack Driscoll, research consultant at Meketa.

"Many first responder strategies, [such as long volatility], did quite well over the first week to 10 days of April," said Lobdell. "There has been an uptick in interest, but in terms of people actually putting dollars to work, I think that's been a hit or miss because of liquidity constraints within private markets allocations."

Second responder strategies, such as trend following, tend to perform well during bear markets or prolonged drawdowns — especially when asset managers take long and short positions across macro markets within a six-week to six-month time horizon, Lobdell said. "This played out during the global financial crisis and again in 2022, when persistent market trends created favorable conditions for these approaches. But in times like the mid-April market selloffs, or the beginning of COVID-19, when trends rapidly reverse, the performance of the strategy can suffer in the short term as it repositions. If equities are trending down, trend followers will likely be net sellers, leading to negative correlations to equities." This, Lobdell said, may produce an attractive profile, such as convexity.

Diversifiers, such as global macro, equity market neutral, relative value, event-driven, insurance-linked securities, alternative risk premia and multistrategies, act as hedges and contribute to returns during bull and flat equity markets, particularly when bonds might be failing to deliver the required portfolio protection, Lobdell and Driscoll highlighted. "[These] diversified sets of hedges or protection in a portfolio tend to not do as well when there's no trend. When markets move sideways and are choppy, like we've seen, that's a harder environment for them to succeed in," Driscoll said. **"Ultimately, no single group of a risk management functional framework, or a single strategy within a group, is likely to effectively fulfill all objectives. We work hard to educate clients on the role of the framework and how each strategy within interacts, to manage their expectations."**

chief investment officer

How Companies With Frozen, Overfunded Pensions Approach the Future

By Matt Toledo | May 1, 2025

Corporations are increasingly evaluating de-risking options for their pension funds, while also adding risk to their portfolios.

"The majority of plans that are frozen and just a little bit overfunded are still targeting termination," says Jonathan Camp, a managing principal at Meketa. "But we have seen an uptick in companies that are opening back up their plans. ... Some of these frozen plans that have excess assets—let's say they are 5% or 10% overfunded—that's when [the sponsors] start to have to think to [themselves]: Are we going to terminate the plan and then use those assets for some other purpose?"

How Frozen, Surplus-Asset Plans Are Investing

"If you're 100% or over 100% funded, you're going to have a heavier allocation to bonds—the higher quality, the better," says Camp. "So typically Treasuries, AAA bonds, AA bonds...you're generally focused on investment-grade, high-quality corporate bonds."

Will More Plans Like IBM Reopen?

"The plans that I see that are frozen and using their assets to open back up and offer new benefits, from what I've seen, they tend to be cash balance plans," Camp says, noting that other types of plans are not unfreezing their pensions.

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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security).

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta*(market return-Risk Free Rate)].

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about its future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a “basis book.” For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

NCREIF Property Index (NPI): Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.
The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.