

Maryland State Retirement and Pension System

Performance Report

March 31, 2024

Fund Evaluation Report

Agenda

1. Executive Summary
2. Performance Summary
3. Risk Dashboard
4. Activity Update
5. Economic and Market Update
6. Appendices
 - Corporate Update
 - Disclaimer, Glossary, and Notes

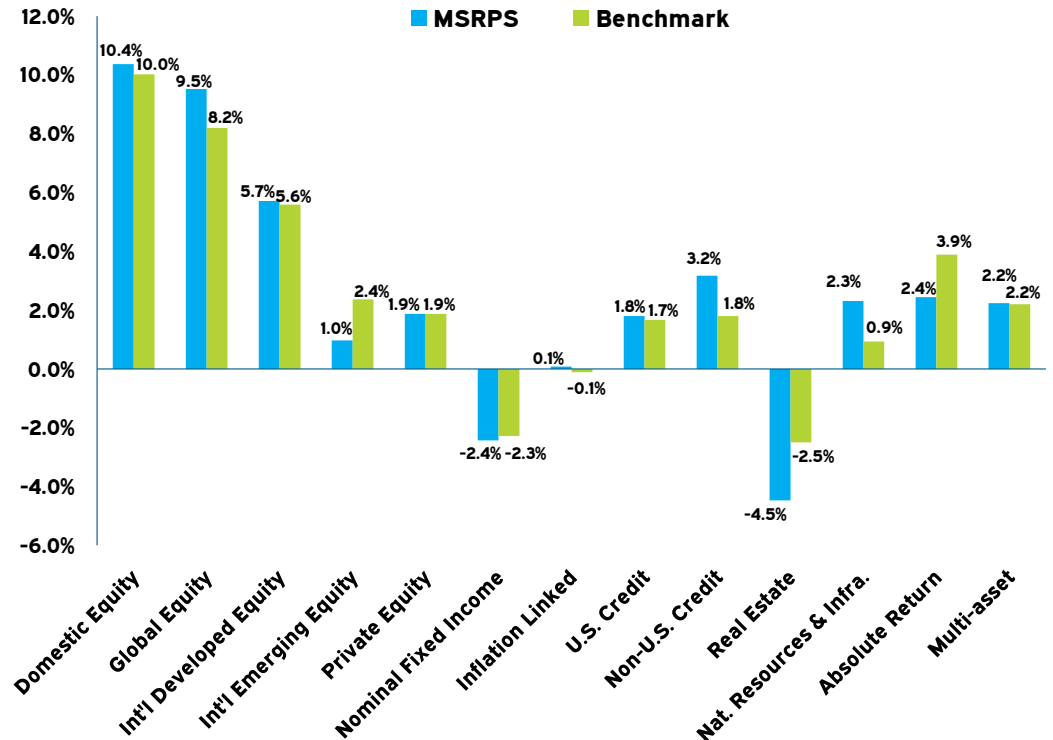
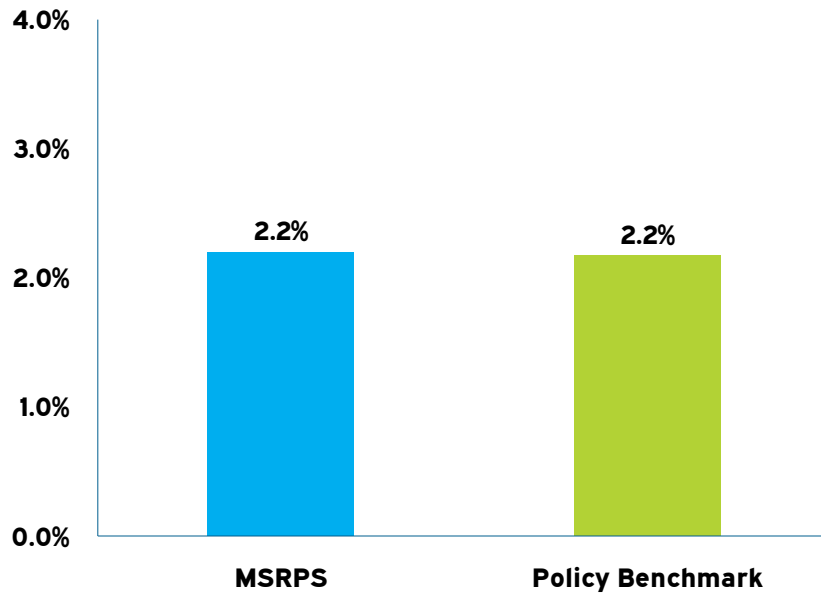
Executive Summary

Market Value & Performance

- At the end of the first quarter, the System was valued at \$67,761 million, an increase of \$1,319 million from the end of the fourth quarter.
- The increase was the result of positive investment performance, as net cash outflows totaled \$108 million for the quarter.
- The System returned 2.20%, net of fees, during the first quarter of 2024, slightly outperforming the policy benchmark by 0.03%.
- Most asset class returns were positive for the quarter except for real estate and nominal fixed income.
 - Domestic equities had the strongest absolute return, up 10.4% for the quarter, while real estate was the weakest performer in absolute terms, down 4.5%.
- At quarter end, all asset classes were within their respective target allocation ranges.

Q1 System and Asset Class Performance

→ The System slightly outperformed the Policy Benchmark during the first quarter, returning 2.2%, net of fees.



→ During the quarter, domestic equities delivered the best absolute performance returning 10.4%.

→ On a relative basis, natural resources and infrastructure and non-U.S. credit were the best performing asset class, outpacing their benchmarks by 1.4%.

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 Q1 Attribution¹

	Total System			Policy Benchmark			Attribution Analysis Active			
	Average Weight	Total Return ²	Contribution to Return	Average Weight ³	Total Return ²	Contribution to Return	Allocation Effect	Management Effect ⁴	Interaction Effect	Total Effect
Public Equity	29.5	7.0	2.1	28.4	7.3	2.1	0.09	-0.12	0.03	-0.01
<i>Domestic Equity</i>	13.2	9.9	1.3	14.0	10.0	1.4	-0.07	-0.02	0.00	-0.09
<i>International Developed</i>	7.9	5.0	0.4	9.0	5.6	0.5	-0.04	-0.05	0.01	-0.08
<i>International Emerging</i>	5.0	1.3	0.1	5.3	2.4	0.1	0.00	-0.06	0.00	-0.06
<i>Global Equity</i>	3.4	8.8	0.3	0.0	8.2	0.0	0.20	0.00	0.02	0.22
Private Equity	21.6	1.9	0.4	21.6	1.9	0.4	0.00	0.00	0.00	0.00
Nominal Fixed Income	13.9	-1.4	-0.2	16.1	-2.3	-0.4	0.10	0.14	-0.01	0.22
Inflation Linked	3.4	0.0	0.0	4.0	-0.1	0.0	0.02	0.01	0.00	0.02
US Credit	8.3	2.0	0.2	8.0	1.7	0.1	0.00	0.03	0.00	0.03
Non- US Credit	1.1	3.2	0.0	1.0	1.8	0.0	0.00	0.01	0.00	0.01
Real Estate	9.9	-4.5	-0.4	9.9	-2.5	-0.2	0.00	-0.20	0.00	-0.20
Natural Resources & Infrastructure	4.8	2.3	0.1	5.0	0.9	0.0	0.00	0.06	0.00	0.06
Absolute Return	5.7	2.4	0.1	6.0	3.9	0.2	0.00	-0.08	0.00	-0.08
Multi-Asset	0.4	2.2	0.0	0.0	2.2	0.0	0.00	0.00	0.00	0.00
Cash	1.3	1.3	0.0	0.0	1.4	0.0	-0.02	0.00	0.00	-0.02
Total (excl. overlay)	-	-	2.23	-	-	2.17	0.17	-0.16	0.02	0.03
Currency Overlay							0.02			
Structural/Tactical Overlay							-0.05			
Total (incl. overlay)	100.0	-	2.20	100.0	-	2.17	0.14	-0.16	0.02	0.00

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 Active			
	Average Weight	Total Return ²	Contribution to Return	Average Weight ³	Total Return ²	Contribution to Return	Allocation Effect	Management Effect ⁴	Interaction Effect	Total Effect
Public Equity	29.5	20.7	6.1	28.1	21.3	6.0	0.15	-0.08	-0.06	0.00
<i>Domestic Equity</i>	12.4	29.2	3.6	13.3	29.3	3.9	-0.21	-0.01	0.00	-0.21
<i>International Developed</i>	7.4	15.2	1.1	8.4	15.3	1.3	-0.11	-0.01	0.01	-0.12
<i>International Emerging</i>	6.3	7.0	0.4	6.4	8.2	0.5	-0.04	-0.06	0.01	-0.09
<i>Global Equity</i>	3.4	20.8	0.7	0.0	23.2	0.0	0.51	0.00	-0.08	0.43
Private Equity	21.9	6.6	1.4	21.9	5.9	1.3	0.00	0.14	0.00	0.14
Nominal Fixed Income	13.6	-0.6	-0.1	15.6	-2.6	-0.4	0.17	0.29	-0.03	0.43
Inflation Linked	3.5	0.3	0.0	4.1	0.3	0.0	0.03	0.00	0.00	0.03
US Credit	8.0	9.5	0.8	7.8	11.4	0.9	0.01	-0.16	0.00	-0.14
Non- US Credit	1.0	12.2	0.1	1.0	8.7	0.1	0.00	0.03	0.00	0.03
Real Estate	10.5	-9.9	-1.0	10.5	-11.6	-1.2	0.00	0.21	0.00	0.21
Natural Resources & Infrastructure	4.9	4.5	0.2	5.0	4.1	0.2	-0.01	-0.01	0.00	-0.03
Absolute Return	5.9	5.8	0.3	6.0	9.0	0.5	-0.01	-0.18	0.00	-0.19
Multi-Asset	0.4	5.6	0.0	0.0	6.6	0.0	0.00	0.00	0.00	0.00
Cash	0.8	6.8	0.1	0.0	5.5	0.0	-0.02	0.00	0.00	-0.02
Total (excl. overlay)	-	-	7.31	-	-	6.65	0.31	0.24	-0.09	0.45
Currency Overlay							0.02			
Structural/Tactical Overlay							-0.05			
Total (incl. overlay)	100.0	-	7.26	100.0	-	6.65	0.28	0.24	-0.09	0.43

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

First Quarter

- In the first quarter, the System outperformed the policy benchmark by 0.03%.
- Inclusive of the overlay programs, asset allocation had a positive effect on the relative performance. Specifically, an overweight to public equity and underweight to nominal fixed income.
- The interaction effect was slightly additive while active management detracted from relative performance.
 - Selection within nominal fixed income and natural resources and infrastructure was most additive while selection within real estate, absolute return, international developed and emerging market equities detracted from relative performance.

Trailing 1-Year

- Over the trailing one-year period, the System outperformed the Policy Benchmark by 0.61%.
- Inclusive of the overlay programs, the asset allocation effect was additive to relative performance.
- Interaction effects detracted from performance while manager selection (e.g., active management) was additive over the trailing year.
 - Manager selection within real estate, nominal fixed income, and private equity were the most additive to 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:

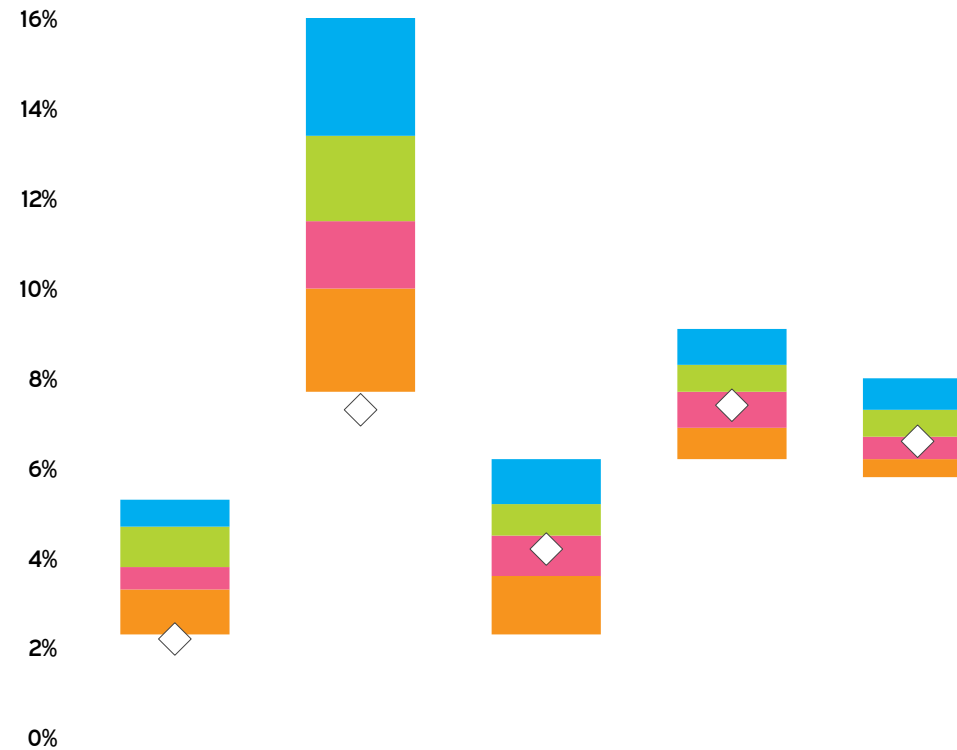
→ The Brinson Fachler attribution methodology is widely accepted within the industry. Using this methodology, the components are calculated as follows:

- *Allocation Effect*: $(R_{ab} - R_{pb}) \times (W_p - W_b)$
- *Active Management Effect*²: $W_b \times (R_p - R_{ab})$
- *Interaction Effect*: $(W_p - W_b) \times (R_p - R_{ab})$

¹Rpb= Policy Benchmark
Rab = Asset Class Benchmark
Wp = Portfolio Weight
Wb = Policy Weight
Rp = Asset Class Return
Rb = 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.

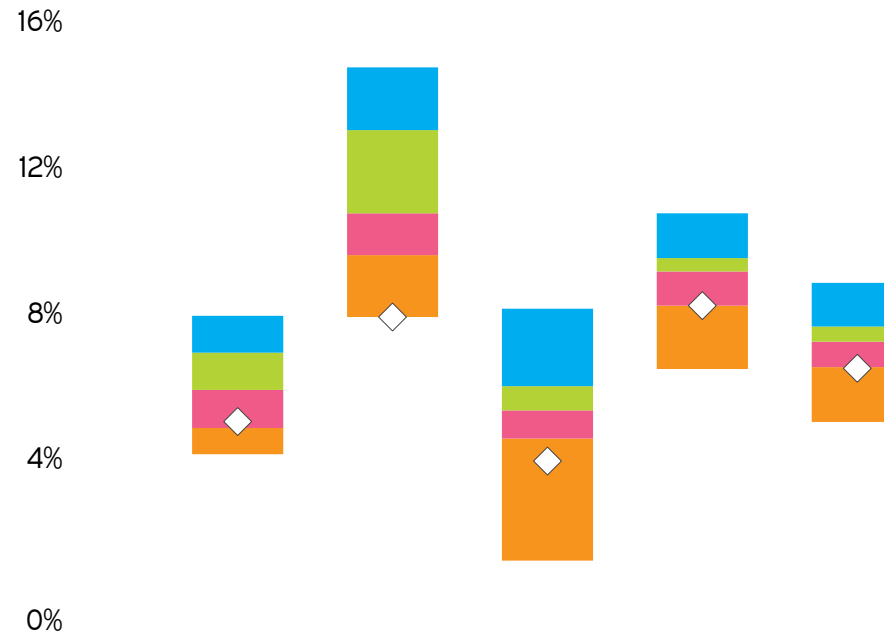
Total System vs. Public Plans >\$1 Billion Universe¹ As of March 31, 2024



	1Q24 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total System	2.2	7.3	4.2	7.4	6.6
25th Percentile	4.7	13.4	5.2	8.3	7.3
Median	3.8	11.5	4.5	7.7	6.7
75th Percentile	3.3	10.0	3.6	6.9	6.2
Rank (%)	99	98	64	61	60

¹ Represents a final release of the InvMetrics Public DB >\$1 bn peer group as of March 31, 2024. Total System performance is net of fees. Includes 68 plans.

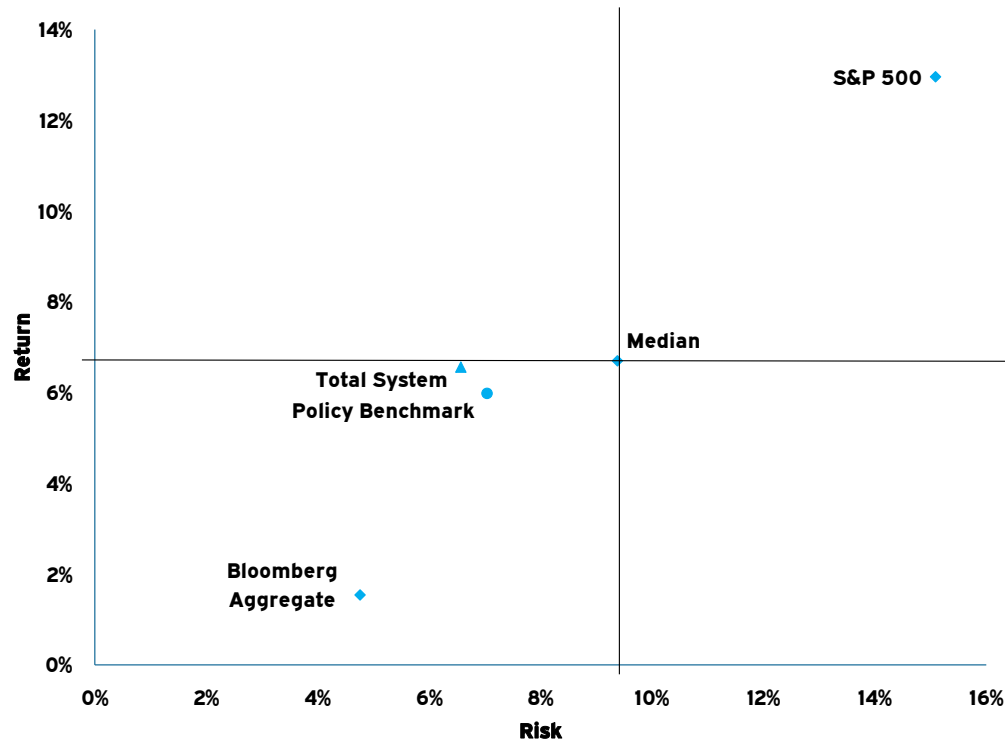
Total System vs. Public Plans >\$25 Billion Universe¹ As of December 31, 2023



	4Q23 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total System	5.4	8.1	4.3	8.4	6.8
25th Percentile	7.2	13.0	6.3	9.7	7.9
Median	6.2	10.8	5.6	9.3	7.5
75th Percentile	5.2	9.7	4.9	8.4	6.8
Rank (%)	66	96	87	75	81
Policy Benchmark	5.4	7.5	3.3	7.5	6.0
Rank (%)	66	99	93	92	92

¹ Represents the TUCS Public >\$25 bn peer group as of December 31, 2023. Total System performance is gross of fees. Includes 36 plans.

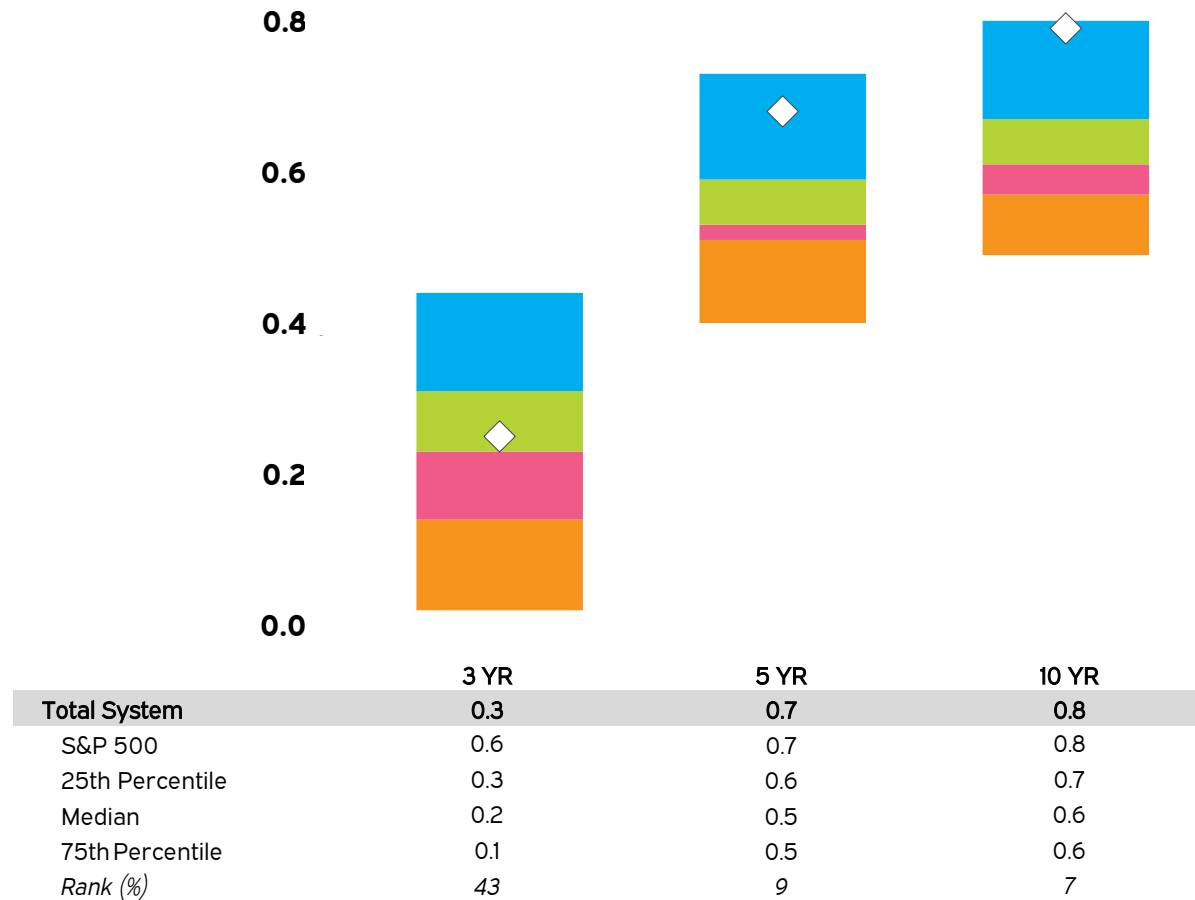
Total System Trailing 10-Year Risk vs Return¹ As of March 31, 2024



	Risk (%)	Return (%)
Total System	6.6	6.6
Policy Benchmark	7.0	6.0
Median	9.4	6.7

¹ Represents a final cut of InvMetrics Public DB >\$1 bn Net peer group as of March 31, 2024. Includes 68 plans.

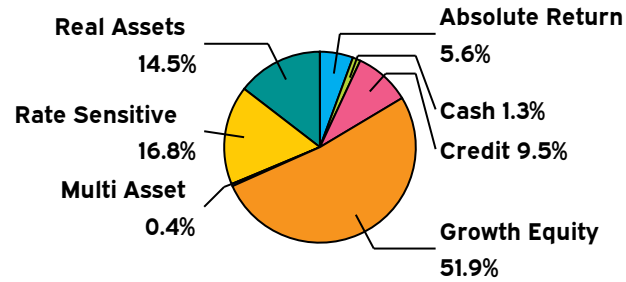
Total System vs. Public Plans >\$1 Billion Universe Sharpe Ratio Comparison¹ As of March 31, 2024



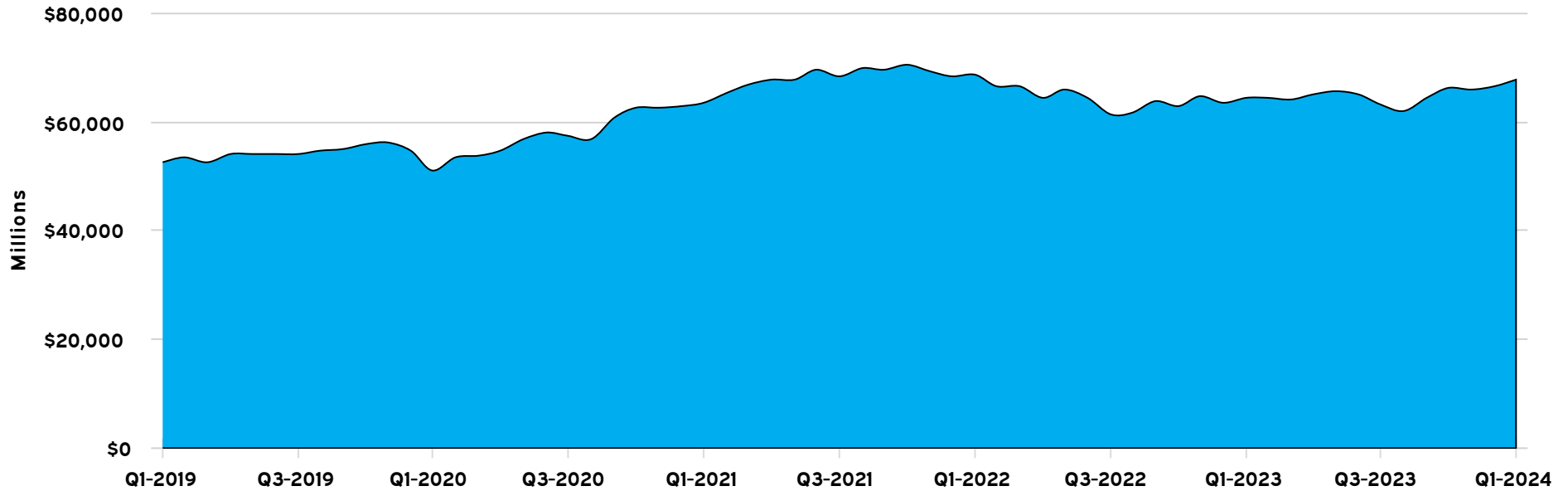
¹ Represents a final cut of InvMetrics Public DB >\$1 bn Net peer group as of March 31, 2024. Includes 68 plans. The risk-free rate is the 90-day T-bill.

Performance Summary

Actual Allocation



Market Value History 5 Years Ending March 31, 2024



Allocation vs. Targets and Policy					
	Current Balance	Current Allocation	Transitional Targets	Policy	Policy Range
Growth Equity	\$35,193,475,861	52%	50%	50%	43% - 57%
Domestic Equities	\$9,416,718,403	14%	14%	17%	--
Global Equity	\$2,417,163,257	4%	0%	0%	--
International Developed Market Equity	\$5,561,626,480	8%	9%	11%	--
International Emerging Market Equity	\$3,160,588,246	5%	5%	6%	--
Private Equity	\$14,622,707,601	22%	22%	16%	--
Stock Distributions	\$14,671,874	0%	0%	0%	--
Rate Sensitive	\$11,361,563,766	17%	20%	20%	15% - 25%
Nominal Fixed Income	\$9,105,725,006	13%	16%	16%	--
Inflation-Linked Bonds	\$2,255,838,760	3%	4%	4%	--
Credit	\$6,430,054,597	9%	9%	9%	5% - 13%
U.S. Credit	\$5,699,958,906	8%	8%	8%	--
Non-U.S. Credit	\$730,095,692	1%	1%	1%	--
Real Assets	\$9,828,357,846	15%	15%	15%	11% - 19%
Real Estate	\$6,558,846,218	10%	10%	10%	--
Commodities	\$203,981,259	0%	0%	0%	--
Natural Resources and Infrastructure	\$3,065,530,369	5%	5%	5%	--
Absolute Return	\$3,808,283,157	6%	6%	6%	2% - 10%
Absolute Return	\$3,808,283,157	6%	6%	6%	--
Multi Asset	\$257,749,288	0%	0%	0%	0% - 2%
Multi Asset	\$257,749,288	0%	0%	0%	--
Cash	\$881,180,487	1%	0%	0%	0% - 2%
Cash	\$881,180,487	1%	0%	0%	--
Total	67,760,665,001	100%	100%	0%	

Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total System	67,760,665,001	100.0	2.2	5.7	7.3	4.2	7.4	6.6	7.9	Jul-86
System Policy Benchmark			<u>2.2</u>	<u>5.2</u>	<u>6.7</u>	<u>3.2</u>	<u>6.6</u>	<u>6.0</u>	--	
Over/Under			0.0	0.5	0.6	1.0	0.8	0.6	--	
System Strategic Policy Benchmark			<u>2.2</u>	<u>5.3</u>	<u>6.8</u>	<u>3.4</u>	<u>6.8</u>	<u>6.2</u>	--	
Over/Under			0.0	0.4	0.5	0.8	0.6	0.4	--	
Growth Equity	35,193,475,861	51.9	5.0	9.9	14.5	7.0	11.8	10.0	7.1	Jan-98
Public Equity Custom Benchmark			<u>7.1</u>	<u>14.6</u>	<u>20.2</u>	<u>4.4</u>	<u>9.2</u>	<u>7.8</u>	--	
Over/Under			0.2	0.5	0.6	-0.2	0.7	0.4	--	
Domestic Equity	9,416,718,404	13.9	10.4	20.5	30.3	10.3	14.3	12.0	9.8	Apr-94
U.S. Equity Custom Benchmark			<u>10.0</u>	<u>19.3</u>	<u>29.3</u>	<u>9.8</u>	<u>14.3</u>	<u>12.3</u>	--	
Over/Under			0.4	1.2	1.0	0.5	0.0	-0.3	--	
Global Equity	2,417,163,257	3.6	9.5	15.9	22.7	3.0	10.7	8.6	7.7	Oct-05
Global Equity Custom Benchmark			<u>8.2</u>	<u>16.0</u>	<u>23.2</u>	<u>7.0</u>	<u>10.9</u>	<u>8.7</u>	<u>7.5</u>	
Over/Under			1.3	-0.1	-0.5	-4.0	-0.2	-0.1	0.2	
International Developed Market Equity	5,561,626,480	8.2	5.7	13.3	17.0	4.7	8.5	5.5	6.5	Jan-95
MSRA Custom International Index			<u>5.6</u>	<u>11.9</u>	<u>15.3</u>	<u>4.9</u>	<u>7.5</u>	<u>4.7</u>	<u>5.5</u>	
Over/Under			0.1	1.4	1.7	-0.2	1.0	0.8	1.0	
International Emerging Markets Equity	3,160,588,246	4.7	1.0	4.9	5.9	-5.1	2.9	--	5.5	Nov-15
MSCI Emerging Markets (Net)			<u>2.4</u>	<u>7.2</u>	<u>8.2</u>	<u>-5.1</u>	<u>2.2</u>	2.9	<u>5.0</u>	
Over/Under			-1.4	-2.3	-2.3	0.0	0.7	--	0.5	

Asset Allocation & Performance | As of March 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	14,622,707,601	21.6	1.9	3.5	6.6	13.3	15.9	14.9	9.4	Mar-94
<i>State Street Private Equity Index</i>			<u>1.9</u>	<u>3.8</u>	<u>5.9</u>	<u>11.1</u>	<u>14.4</u>	<u>12.3</u>	--	
Over/Under			0.0	-0.3	0.7	2.2	1.5	2.6	--	
Rate Sensitive	11,361,563,766	16.8	-1.9	-0.6	-2.4	-5.0	-0.5	1.3	5.9	Jul-86
<i>Custom Rate Sensitive Benchmark</i>			<u>-1.8</u>	<u>-0.5</u>	<u>-2.0</u>	<u>-4.6</u>	<u>-0.5</u>	<u>1.3</u>	--	
Over/Under			-0.1	-0.1	-0.4	-0.4	0.0	0.0	--	
Nominal Fixed Income	9,105,725,006	13.4	-2.4	-1.2	-3.2	-6.3	-1.5	0.9	5.8	Jul-86
<i>Custom Nominal Fixed Income Benchmark</i>			<u>-2.3</u>	<u>-1.1</u>	<u>-2.6</u>	<u>-5.7</u>	<u>-1.3</u>	<u>0.9</u>	--	
Over/Under			-0.1	-0.1	-0.6	-0.6	-0.2	0.0	--	
Inflation-Linked Bonds	2,255,838,760	3.3	0.1	1.9	0.5	-0.5	2.6	2.6	3.3	Jul-08
<i>Custom Inflation Sensitive Benchmark</i>			<u>-0.1</u>	<u>1.7</u>	<u>0.3</u>	<u>-0.7</u>	<u>2.4</u>	<u>2.5</u>	<u>3.1</u>	
Over/Under			0.2	0.2	0.2	0.2	0.2	0.1	0.2	
Credit	6,430,054,597	9.5	1.9	8.3	9.7	4.2	5.0	4.6	7.6	Mar-09
U.S. Credit	5,699,958,906	8.4	1.8	8.1	9.4	5.0	5.7	5.5	8.0	Mar-09
<i>U.S. Credit Custom Benchmark</i>			<u>1.7</u>	<u>9.2</u>	<u>11.4</u>	<u>3.0</u>	<u>4.5</u>	<u>4.6</u>	<u>7.1</u>	
Over/Under			0.1	-1.1	-2.0	2.0	1.2	0.9	0.9	
Non-U.S. Credit	730,095,692	1.1	3.2	9.8	12.2	-0.4	1.6	0.3	0.5	Oct-10
<i>Non-U.S. Credit Custom Benchmark</i>			<u>1.8</u>	<u>7.4</u>	<u>8.7</u>	<u>-2.4</u>	<u>0.1</u>	<u>0.0</u>	<u>0.4</u>	
Over/Under			1.4	2.4	3.5	2.0	1.5	0.3	0.1	
Real Assets	9,828,357,846	14.5	-2.2	-2.2	-5.0	8.4	5.5	4.0	4.6	Feb-06
<i>Custom Real Assets Benchmark</i>			<u>-1.4</u>	<u>-4.9</u>	<u>-7.0</u>	<u>3.7</u>	<u>4.2</u>	<u>3.6</u>	<u>3.7</u>	
Over/Under			-0.8	2.7	2.0	4.7	1.3	0.4	0.9	

Asset Allocation & Performance | As of March 31, 2024

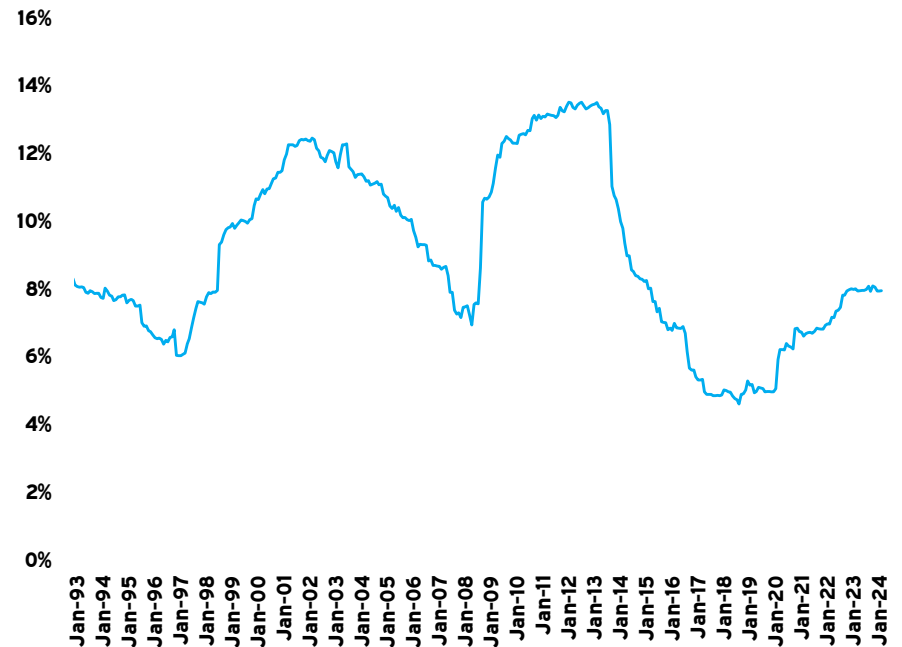
	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Estate	6,558,846,109	9.7	-4.5	-6.3	-9.9	5.9	4.6	7.2	6.6	Jul-87
<i>Real Estate Custom Benchmark</i>			<u>-2.5</u>	<u>-9.1</u>	<u>-11.6</u>	<u>2.9</u>	<u>3.3</u>	<u>6.5</u>	<u>7.6</u>	
Over/Under			-2.0	2.8	1.7	3.0	1.3	0.7	-1.0	
Commodities	203,981,259	0.3								
Natural Resources and Infrastructure	3,065,530,369	4.5	2.3	5.6	4.5	12.7	6.5	3.9	8.5	Aug-09
<i>Natural Resources and Infrastructure Benchmark</i>			<u>0.9</u>	<u>5.3</u>	<u>4.1</u>	<u>5.7</u>	<u>5.7</u>	<u>7.0</u>	<u>7.0</u>	
Over/Under			1.4	0.3	0.4	7.0	0.8	-3.1	1.5	
Absolute Return	3,808,283,157	5.6	2.4	4.5	5.8	2.3	3.6	2.7	3.3	Apr-08
<i>Absolute Return Custom Benchmark</i>			<u>3.9</u>	<u>7.6</u>	<u>9.0</u>	<u>4.8</u>	<u>5.9</u>	<u>4.4</u>	<u>3.0</u>	
Over/Under			-1.5	-3.1	-3.2	-2.5	-2.3	-1.7	0.3	
Multi Asset	257,749,288	0.4	2.2	9.1	5.6	-2.7	2.8	--	2.6	Jul-18
<i>System Policy Benchmark</i>			<u>2.2</u>	<u>5.2</u>	<u>6.7</u>	<u>3.2</u>	<u>6.6</u>	<u>6.0</u>	<u>6.4</u>	
Over/Under			0.0	3.9	-1.1	-5.9	-3.8	--	-3.8	
Cash	881,180,486	1.3	1.3	5.0	6.8	3.3	3.3	4.2	3.7	Jul-08
<i>FTSE 3 Month T-Bill</i>			<u>1.4</u>	<u>4.2</u>	<u>5.5</u>	<u>2.7</u>	<u>2.1</u>	<u>1.4</u>	<u>1.0</u>	
Over/Under			-0.1	0.8	1.3	0.6	1.2	2.8	2.7	

Risk Dashboard

Total System Risk

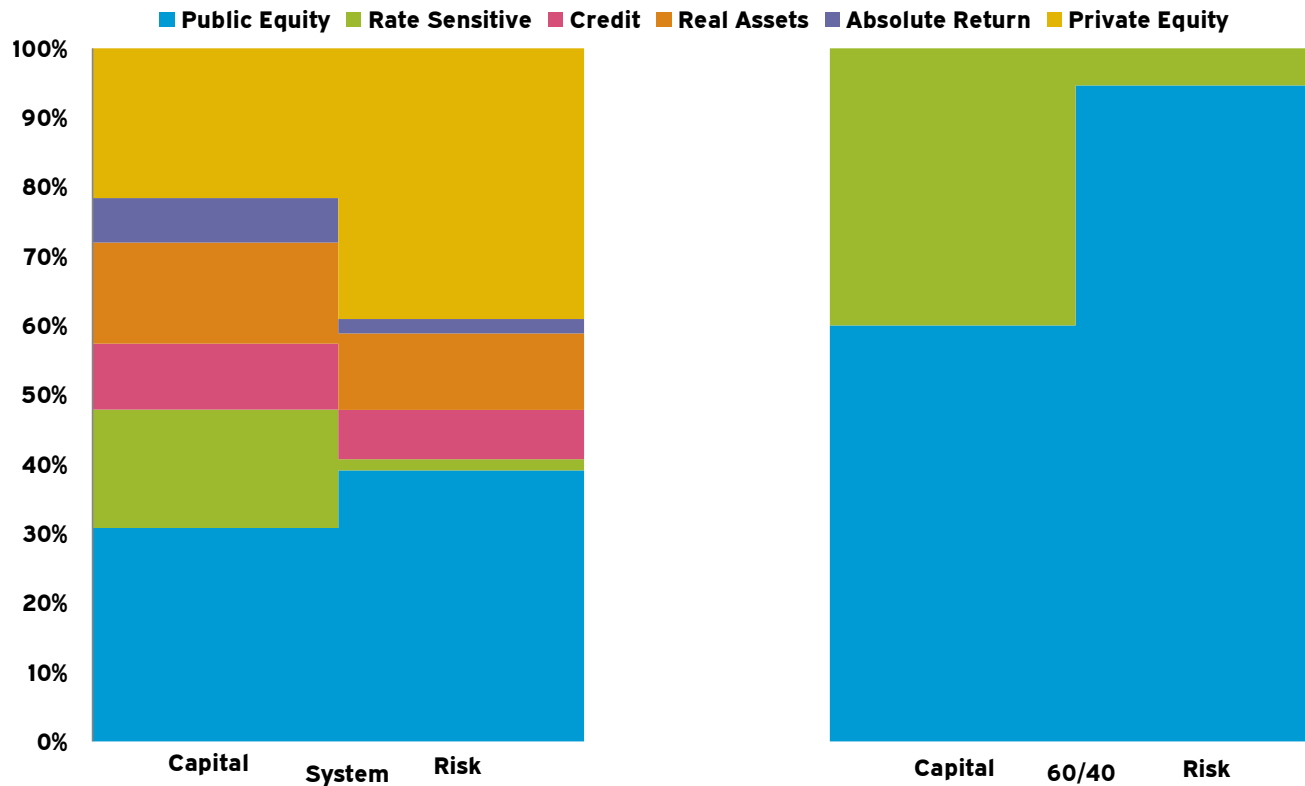
Risk: (sixty months)	Total System 3/31/2024	Policy Benchmark 3/31/2024
Annualized Return (%)	7.4	6.6
Standard Deviation (%)	7.9	8.4
Best Monthly Return (%)	6.9	6.9
Worst Monthly Return (%)	-6.4	-6.4
Beta	0.93	1.00
Correlation (R ²) to Index	0.98	NA
Sharpe Measure	0.68	0.56
Information Ratio	0.57	NA
Excess Return (%)	0.81	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.

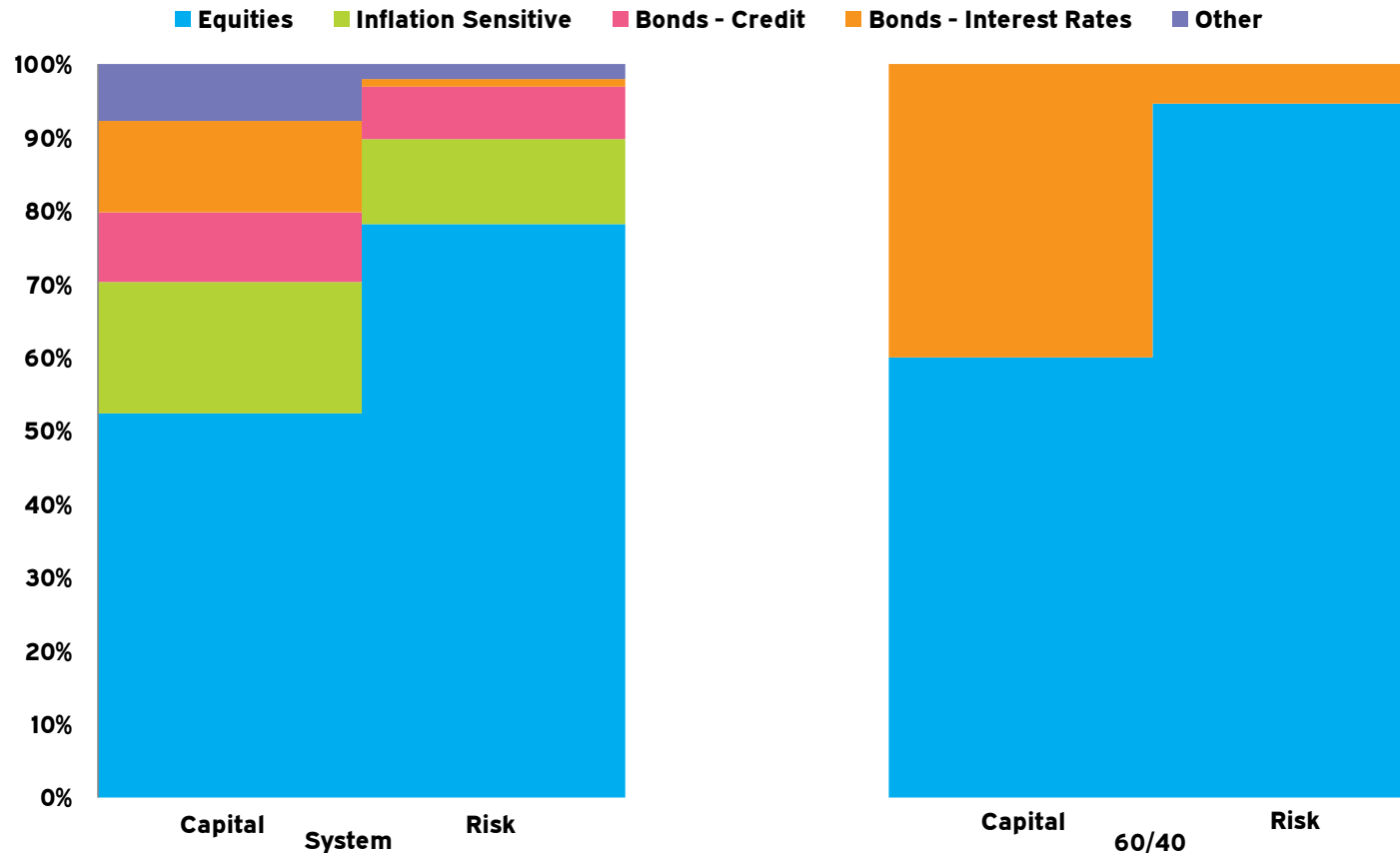
Capital Allocation vs. Risk Allocation By Asset Class



→ Public equity makes up close to 31% of the current asset allocation; however, it comprises about 39% of the risk allocation.

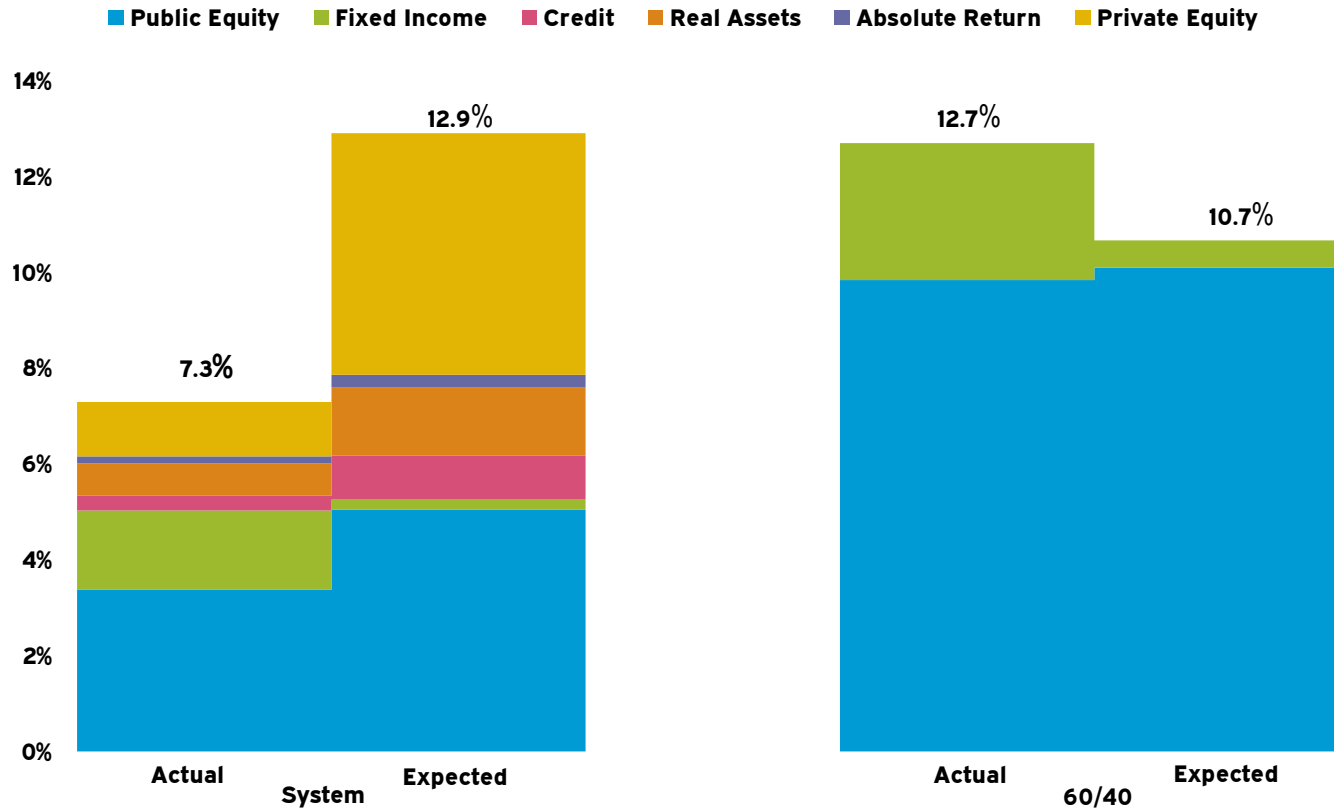
→ By contrast, in a 60/40 portfolio equity comprises 60% of the capital allocation but nearly 95% of the risk.

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.

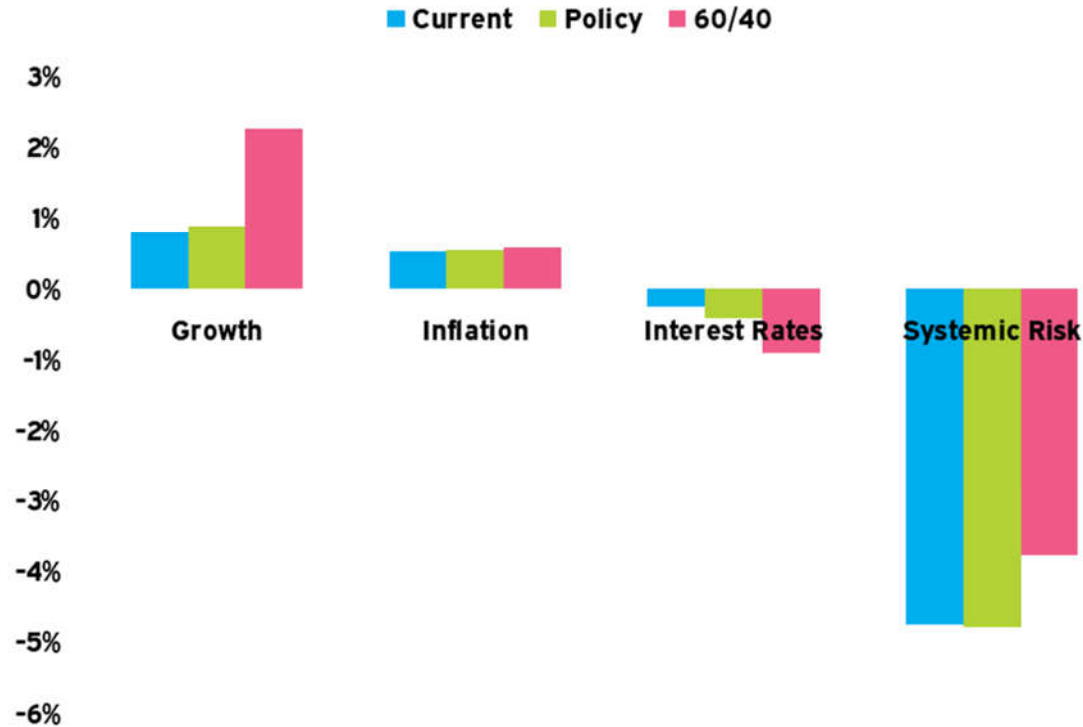
Risk Decomposition Actual vs. Expected



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

- Public equities, which make up over 39% of the expected risk composition, have made up over 46% 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	52%	29%				1%		22%	
Rate Sensitive	17%		16%			<1%			
Credit	9%			5%				4%	
Real Assets	15%	3%						2%	10%
Absolute Return	6%					6%			
Multi Asset	0%						<1%		
Cash	1%				1%				
Look Through Allocation	100%	32%	16%	5%	1%	8%	<1%	26%	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 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 have 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:
 - Emerging market sensitivity
 - Inflation risk
 - 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
 - Emerging managers
 - Absolute return program review
 - Investment manager due diligence process
 - Investment Staff incentive compensation – risk metric
 - Risk survey

Current Agenda Topics

→ Performance Review

Economic and Market Update

Data as of March 31, 2024

Commentary

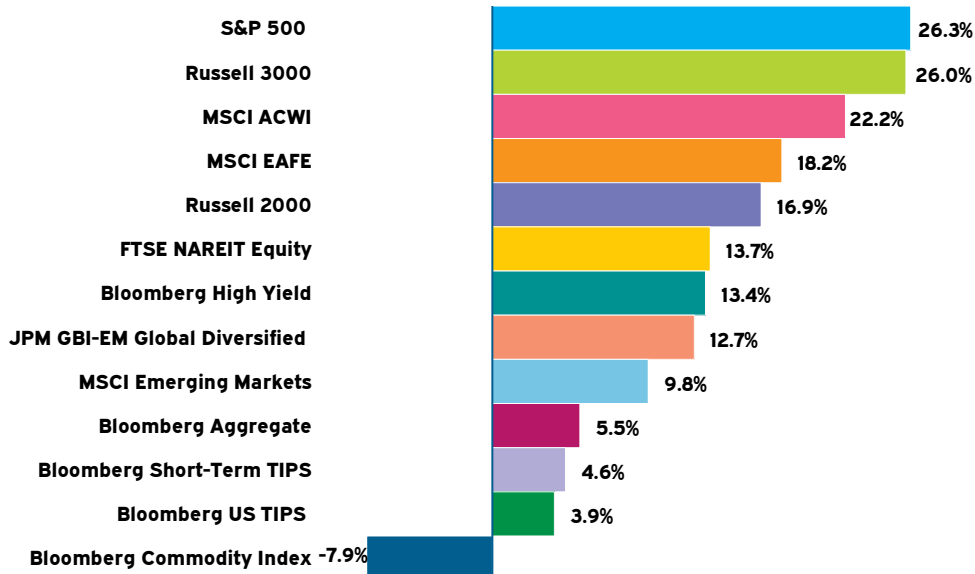
→ Resilient economic data drove global equities higher and pushed out the timing of the expected first Fed rate cut, weighing on bonds.

- Major central banks have largely paused interest rate hikes with expectations that many will still cut rates, but the uneven pace of falling inflation and economic growth could desynchronize the pace of rate cuts.
- In general, inflation pressures have eased in most countries from their pandemic peaks, but some uncertainty remains and levels are still above most central bank targets. Headline inflation in the US rose in March (3.2% to 3.5%) by more than expected, while core inflation was unchanged (3.8%) when it was predicted to decline to 3.7%. Notably, prices in China were up only slightly in March, as the impacts of the recent holiday faded.
- US equity markets (Russell 3000 index) rose 10.0% in the first quarter after a very strong 2023 (+26.0%). The technology sector continued to perform well, with energy gaining on geopolitical tensions.
- Non-US developed equity markets increased 5.8% in the quarter, helped by Japanese equities which hit multi-decade highs. A strengthening US dollar drove the weaker relative results for US investors with returns in local currency terms 4.2% higher (10.0% versus 5.8%).
- Emerging market equities (+2.4%) had the weakest equity returns, depressed by China (-2.2%). While policy efforts to support mainland stock prices helped to stabilize Chinese equities, recent efforts by the US to discourage investments in China weighed on results. The stronger dollar also hurt performance in emerging markets for US investors with returns in local currency terms 2.1% higher.
- Rising interest rates weighed on bonds with the broad US bond market declining 0.8% for the quarter.

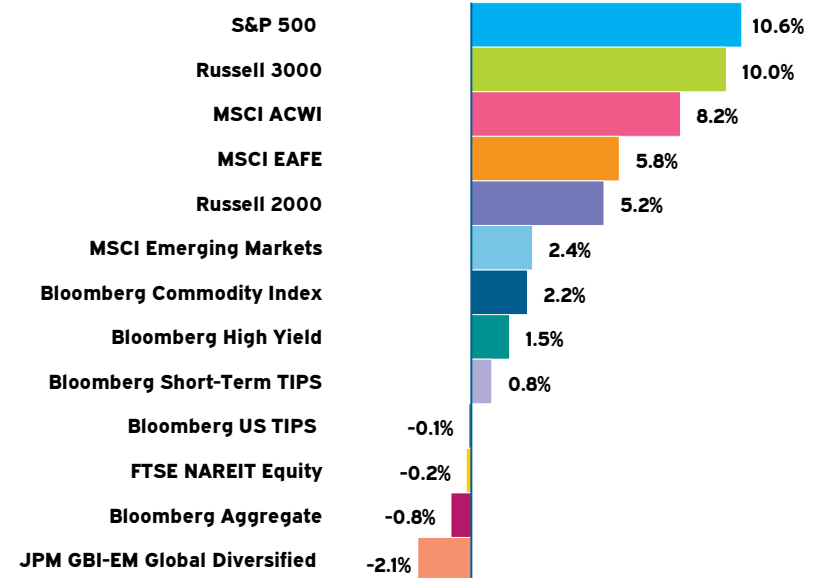
→ Looking to the rest of this year, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, the many looming elections, and the wars in Ukraine and Israel will be key.

Index Returns¹

2023



Q1 2024



→ In the first quarter, global equity markets continued their strong performance from 2023 with the US leading the way.

→ Resilient economic data weighed on bond markets domestically and dashed hopes of a near-term cut in interest rates.

¹ Source: Bloomberg. Data is as of March 31, 2024.

Domestic Equity Returns¹

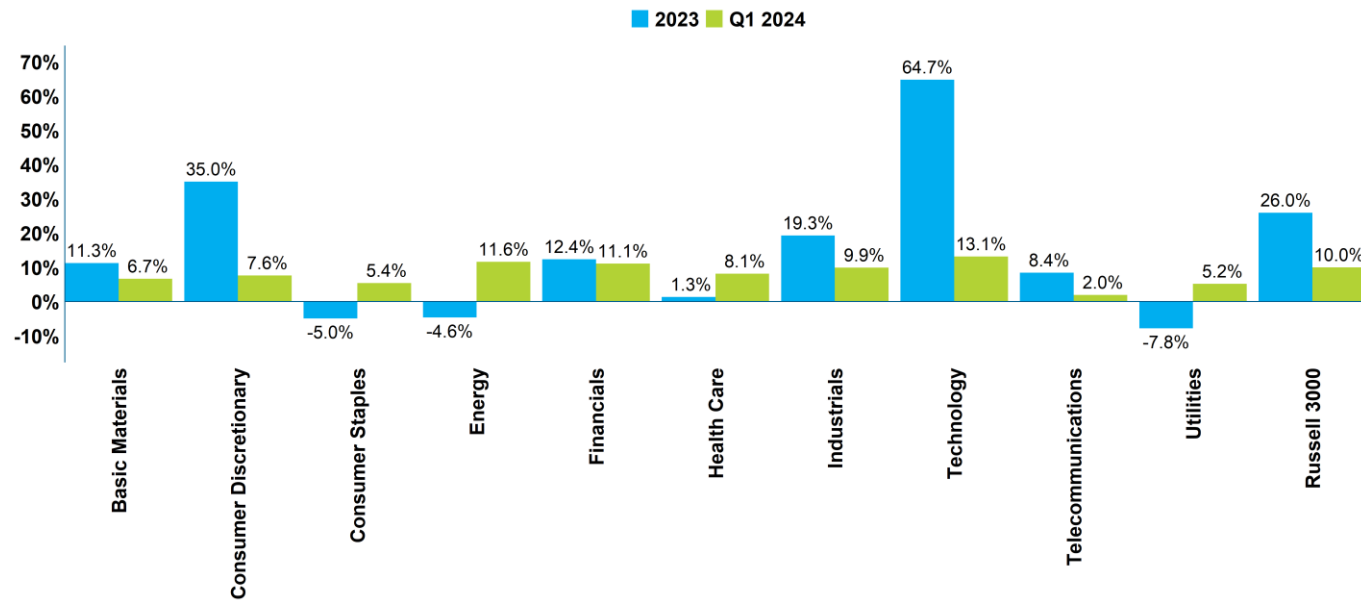
Domestic Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	3.2	10.6	29.9	11.5	15.1	13.0
Russell 3000	3.2	10.0	29.3	9.8	14.3	12.3
Russell 1000	3.2	10.3	29.9	10.5	14.8	12.7
Russell 1000 Growth	1.8	11.4	39.0	12.5	18.5	16.0
Russell 1000 Value	5.0	9.0	20.3	8.1	10.3	9.0
Russell MidCap	4.3	8.6	22.3	6.1	11.1	9.9
Russell MidCap Growth	2.4	9.5	26.3	4.6	11.8	11.4
Russell MidCap Value	5.2	8.2	20.4	6.8	9.9	8.6
Russell 2000	3.6	5.2	19.7	-0.1	8.1	7.6
Russell 2000 Growth	2.8	7.6	20.3	-2.7	7.4	7.9
Russell 2000 Value	4.4	2.9	18.8	2.2	8.2	6.9

US Equities: The Russell 3000 increased an impressive 10.0% in the first quarter of the year.

- US equities continued their ascent after a strong finish to 2023. The gains were driven by strong economic data and corporate earnings, despite signs of interest rates remaining higher for longer.
- Growth stocks outperformed value stocks across the market cap spectrum. Technology stocks continued to be a key driver of results, with NVIDIA and Microsoft alone contributing nearly 30% of the quarter's gains.
- Large cap stocks produced almost double the return of their small cap peers during the first quarter. The underperformance of small cap financials contributed to this dynamic as fear of further turmoil for regional banks resurfaced.

¹ Source: Bloomberg. Data is as of March 31, 2024.

Russell 3000 Sector Returns¹



- All sectors posted positive returns in the first quarter. The technology sector (13.1%) continued to lead the way due to the influence of the so-called “Magnificent Seven”.
- Technology was followed by energy (11.6%) and financials (11.1%), driven respectively by increased geopolitical tensions and the strong economic environment. Traditionally defensive sectors like consumer staples (5.4%) and utilities (5.2%) joined the rally but trailed other sectors.

¹ Source: Bloomberg. Data is as of March 31, 2024.

Foreign Equity Returns¹

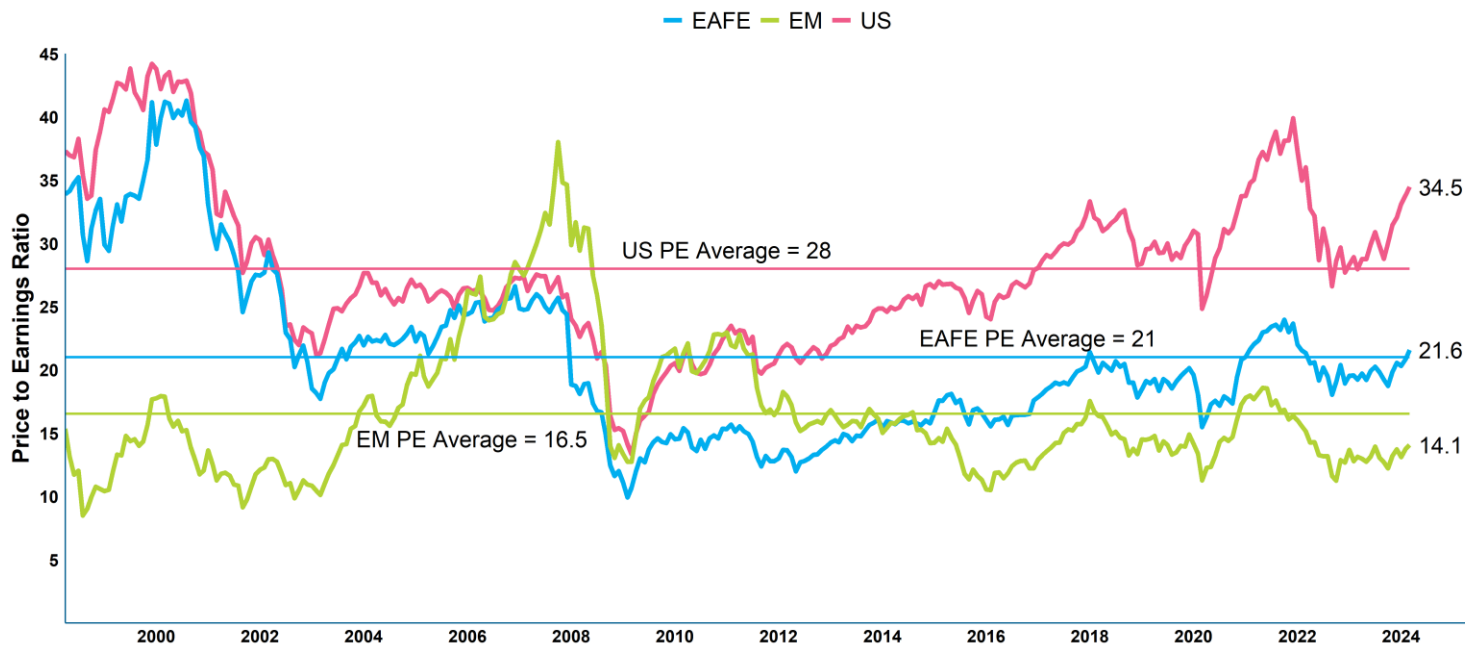
Foreign Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	3.1	4.7	13.3	1.9	6.0	4.3
MSCI EAFE	3.3	5.8	15.3	4.8	7.3	4.8
MSCI EAFE (Local Currency)	4.0	10.0	18.8	9.4	9.4	7.7
MSCI EAFE Small Cap	3.7	2.4	10.4	-1.4	4.9	4.7
MSCI Emerging Markets	2.5	2.4	8.2	-5.1	2.2	2.9
MSCI Emerging Markets (Local Currency)	3.0	4.5	10.6	-2.4	4.4	5.7
MSCI EM ex. China	3.0	4.0	20.5	2.2	6.4	4.2
MSCI China	0.9	-2.2	-17.1	-18.9	-6.3	1.2

Foreign Equity: Developed international equities (MSCI EAFE) gained 5.8% during the quarter and emerging market equities (MSCI EM) rose 2.4%.

- Developed international equity markets matched the US for the quarter in local terms but the appreciation of the dollar decreased returns for US investors by over 4.0% (5.8% versus 10.0%). Eurozone and UK equities had gains for the quarter, but Japan was the real standout performer, with the TOPIX returning 18.1% in local terms and the Nikkei breaking the 40,000 level for the first time.
- Emerging market equities again trailed developed markets largely due to China falling 2.2%. Slowing growth, issues in the property sector, and recent efforts by the US to discourage investments into China all weighed on results. Outside of China, interest rate sensitive markets like Brazil were particularly impacted by expectations of delayed interest rate cuts by the Fed. Stripping out China, emerging markets returned 4.0% in the quarter.

¹ Source: Bloomberg. Data is as of March 31, 2024.

Equity Cyclically Adjusted P/E Ratios¹



- At the end of the first quarter, the US equity price-to-earnings ratio increased further above its 21st century average, as price appreciation exceeded earnings growth.
- International market valuations also rose in the quarter and remain well below the US. In the case of developed markets, valuations are now slightly above the long-term average, while emerging market valuations remain well below its long-term 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 March 2024. 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.

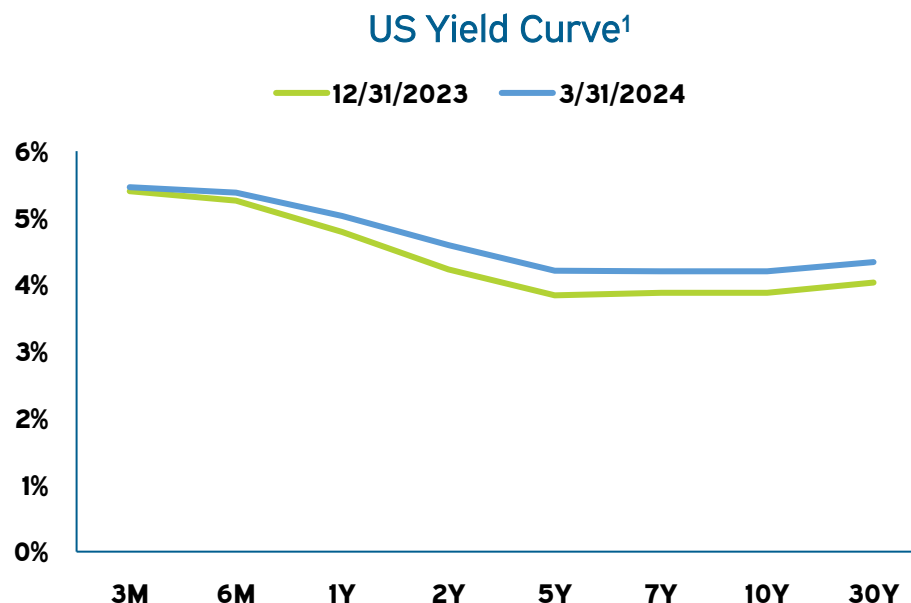
Fixed Income Returns¹

Fixed Income	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	1.0	-0.5	2.7	-2.1	0.7	1.8	5.1	6.0
Bloomberg Aggregate	0.9	-0.8	1.7	-2.5	0.4	1.5	4.8	6.2
Bloomberg US TIPS	0.8	-0.1	0.5	-0.5	2.5	2.2	4.6	6.8
Bloomberg Short-term TIPS	0.6	0.8	3.2	2.3	3.2	2.1	4.8	2.4
Bloomberg High Yield	1.2	1.5	11.2	2.2	4.2	4.4	7.7	3.7
JPM GBI-EM Global Diversified (USD)	0.0	-2.1	4.9	-1.6	0.1	-0.3	6.4	5.0

Fixed Income: The Bloomberg Universal index fell 0.5% in the first quarter.

- Strong economic growth and inflation readings above forecasts shifted interest rate expectations pushing back the anticipated start date of rate cuts as well as the number of cuts for 2024.
- In this environment the broad US bond market (Bloomberg Aggregate) fell 0.8% with TIPS declining only slightly (0.1%).
- High yield bonds (1.5%) led the way for the quarter as risk appetite continues to be robust and overall yields remain attractive despite the recent tightening of spreads to Treasury equivalents.

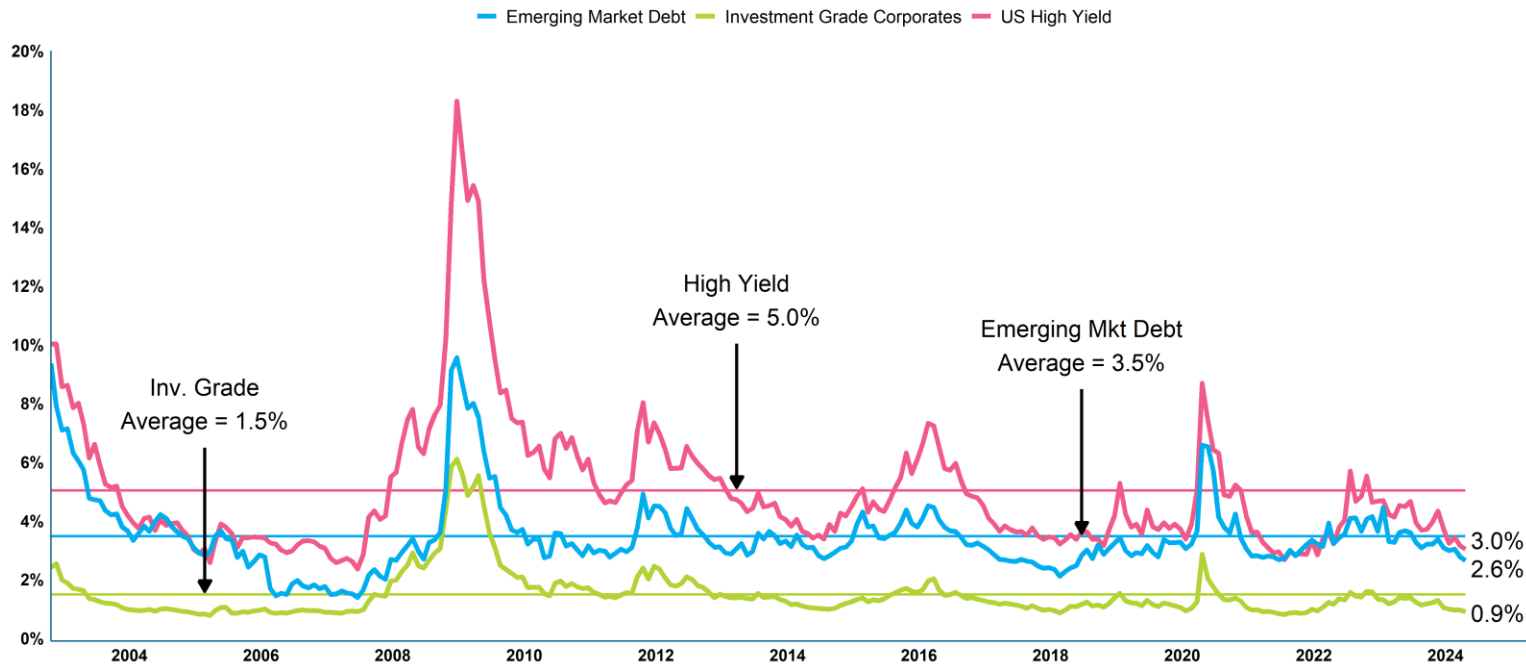
¹ Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of March 31, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



- Overall interest rates moved higher over the quarter due to the strong economic data and the related shifts in monetary policy expectations.
- The more policy sensitive two-year Treasury yield rose from 4.3% to 4.6% in the first quarter while the ten-year Treasury yield increased from 3.9% to 4.2%.
- The yield curve remained inverted at quarter-end despite a recent flattening trend. The yield spread between the two-year and ten-year Treasury was -0.4% at the end of the quarter.

¹ Source: Bloomberg. Data is as of March 31, 2024.

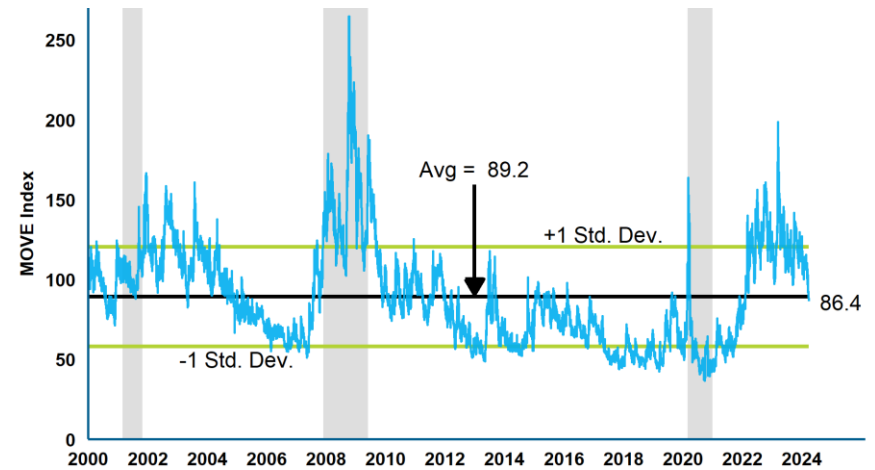
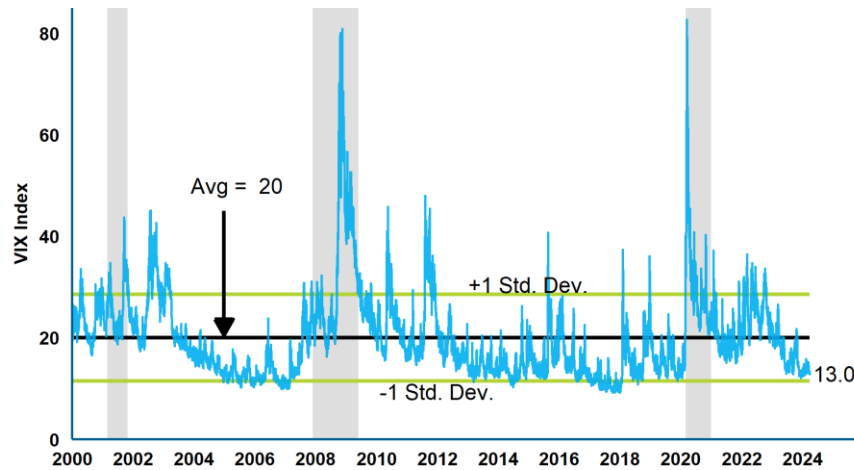
Credit Spreads vs. US Treasury Bonds¹



- A positive economic outlook along with expectations of lower interest rates has led to an increased risk appetite. This has benefited credit, with spreads (the added yield above a comparable maturity Treasury) narrowing.
- This trend continued in the first quarter particularly for riskier bonds. High yield spreads fell from 3.2% to 3.0% and emerging market spreads dropped from 3.0% to 2.6%. Spreads for investment grade corporate bonds fell only slightly over the quarter (1.0% to 0.9%).
- All spreads remain below their respective long-run averages, particularly within high yield.

¹ Source: Bloomberg. Data is as of March 31, 2024. 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.

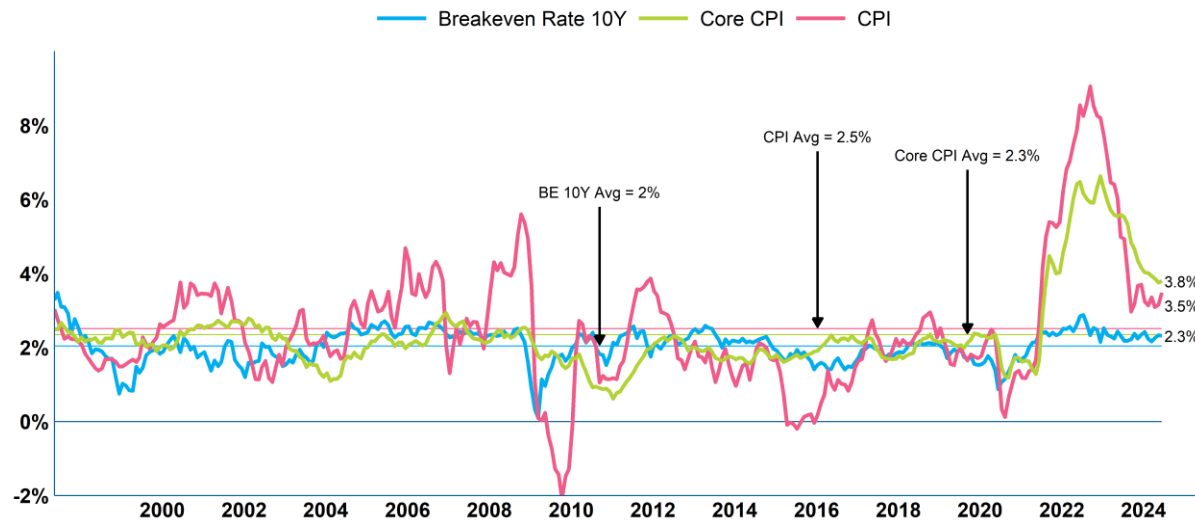
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) finished the quarter close to one standard deviation below the long-term average as the focus shifted late last year to peaking policy rates and the potential for a soft landing.
- Volatility in the bond market (MOVE) fell significantly over the quarter to a level below the long run average (86.4 versus 89.2). Declining volatility surrounding policy expectations and the more positive growth outlook both contributed to lower volatility in the bond market.

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 March 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and March 2024.

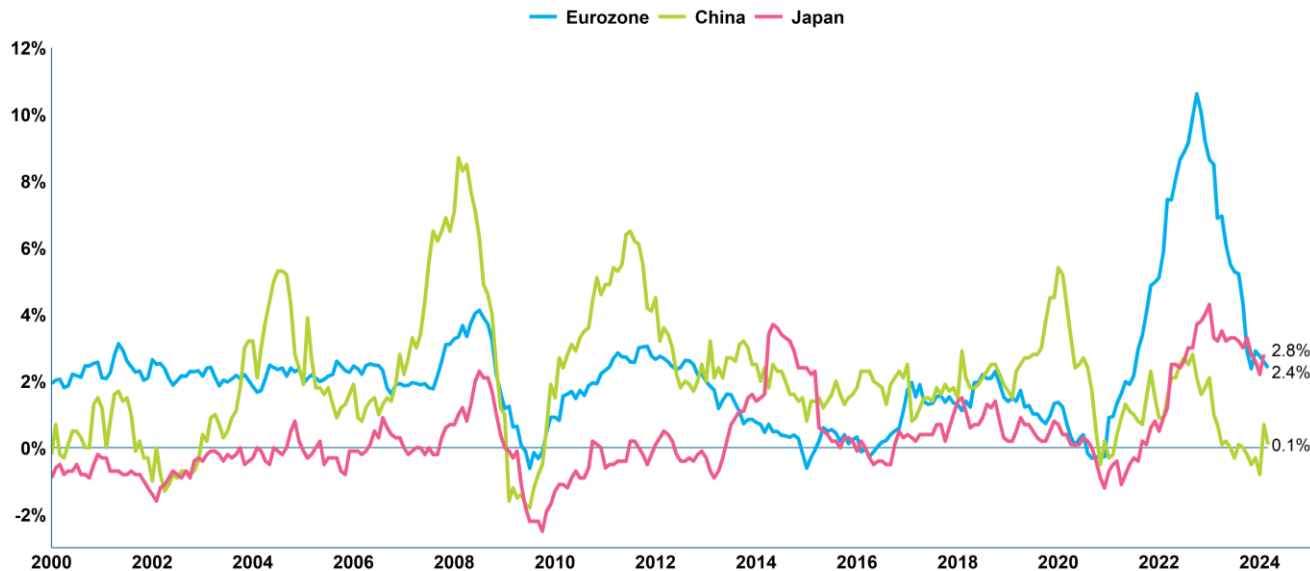
US Ten-Year Breakeven Inflation and CPI¹



- Year-over-year headline inflation rose in March (3.2% to 3.5%) and came in slightly above expectations. Prices in service sectors, particularly shelter, remain a key driver of inflation staying above the Fed’s 2% average target, with a recent rise in energy prices contributing too.
- Month-over-month inflation rose 0.4% which was the same as February, but above expectations of a 0.3% reading.
- Core inflation (excluding food and energy) remained at 3.8% but also came in above expectations. Core goods prices dropped, while core services including shelter and transportation prices continued to show persistence.
- Inflation expectations (breakevens) have remained relatively stable despite the significant volatility in inflation.

¹ Source: FRED. Data is as March 2024. 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.

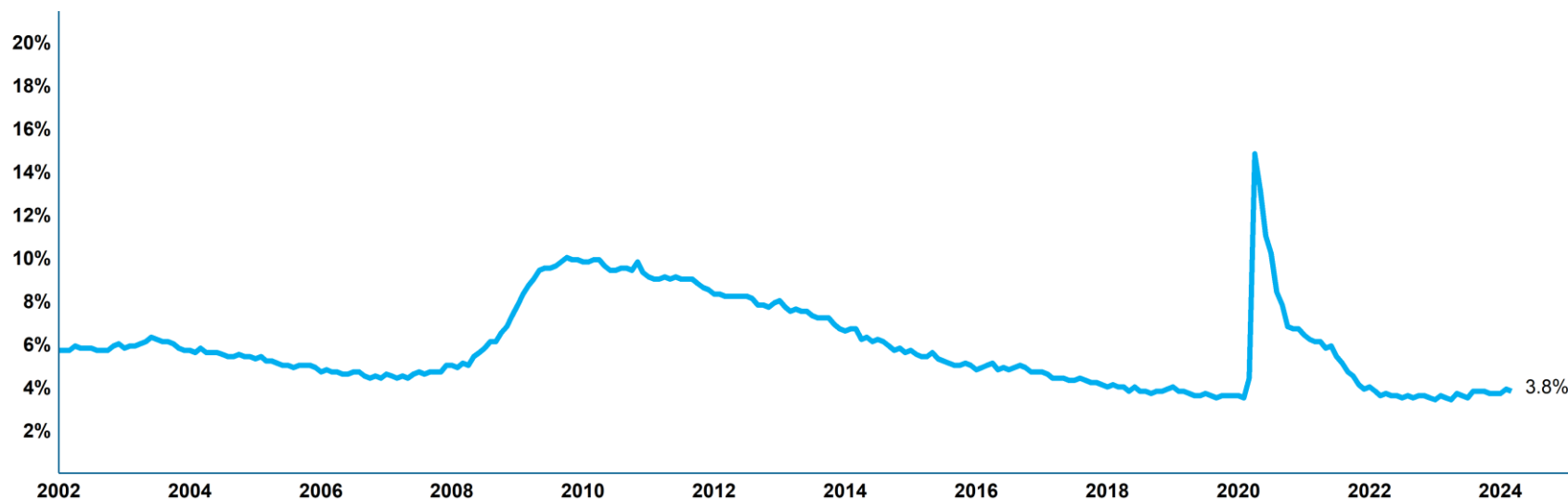
Global Inflation (CPI Trailing Twelve Months)¹



- Outside the US, inflation is also easing across major economies from the recent peaks.
- In the eurozone, prices experienced a dramatic decline last year but remain above the central bank’s 2% target. In March, inflation fell further (2.6% to 2.4%), a level below the 3.5% year-over-year reading in the US.
- Inflation in Japan has slowly declined from the early 2023 peak of 4.3%, but it remains near levels not seen in a decade. In the most recent reading, inflation rose from 2.4% to 2.8% largely due to the falling impact of government energy subsidies introduced at the same time last year.
- The impacts from spending during the Lunar New Year holiday in China waned in March with inflation falling to just about 0%.

¹ Source: Bloomberg. Data is March 31, 2024, except Japan which is as of February 28, 2024.

US Unemployment¹

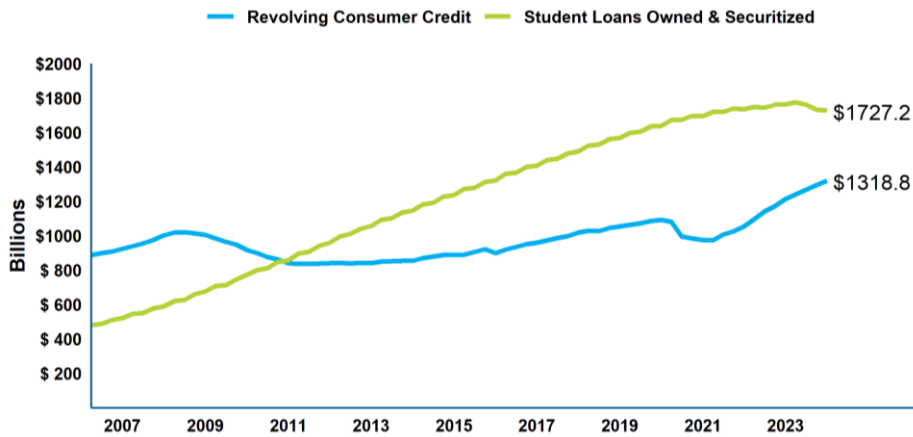


- Overall, the US labor market remains healthy, with the unemployment rate low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- Each of the payroll readings over the quarter exceeded expectations. In March, the number of jobs added in the US was 303,000 compared to a 214,000 forecast. The healthcare (72,000), government (71,000), and construction (39,000) sectors added the most jobs.
- The unemployment rate fell from 3.9% to 3.8%, while wage growth dropped slightly from 4.3% to 4.1% compared to a year prior, a level well off the 6.0% peak but above inflation levels.
- Quit rates have declined, and layoffs are stable, with 1.4 job openings per unemployed worker.

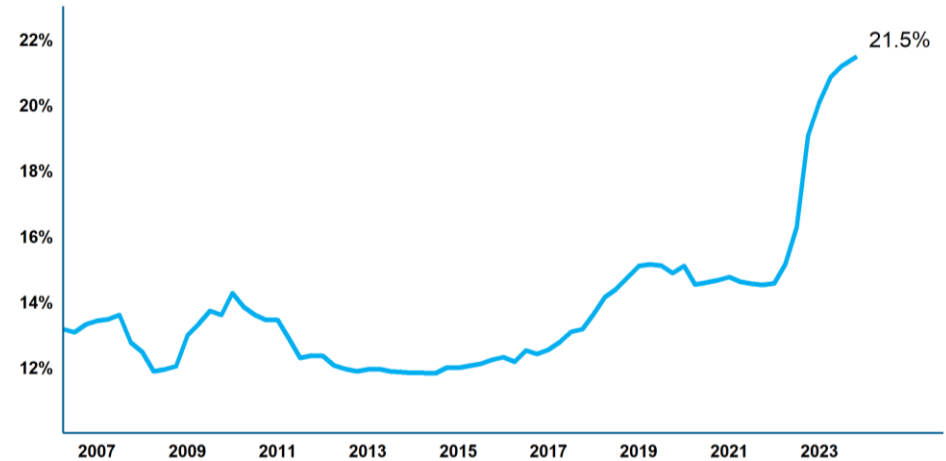
¹ Source: FRED. Data is as March 31, 2024.

US Consumer Under Stress?¹

Revolving Consumer Credit & Student Loans (\$B)



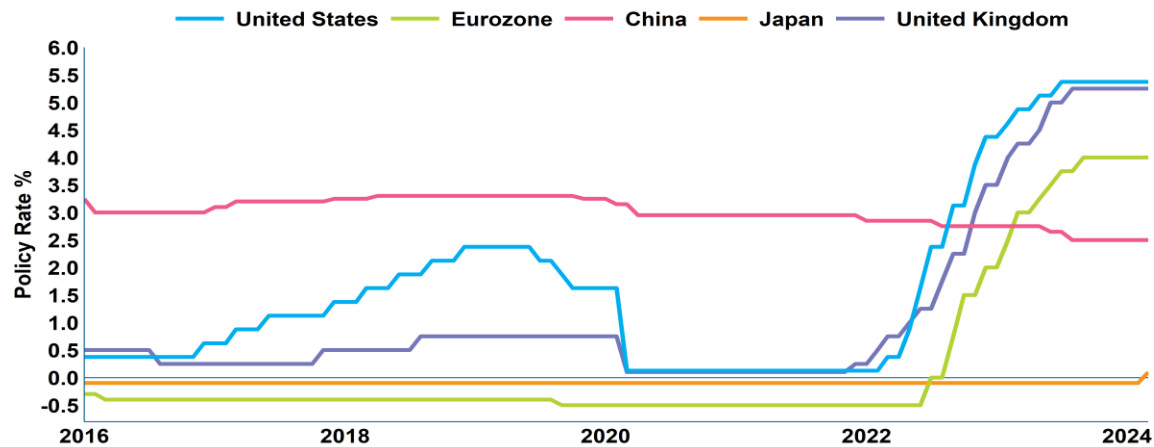
Consumer Credit Card Interest Rates (%)



- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s). Recently, we have also seen payment delinquencies on credit cards and auto loans start to increase, particularly for younger people.
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially mitigated by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

¹ Source: FRED. Data is as of December 31, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.

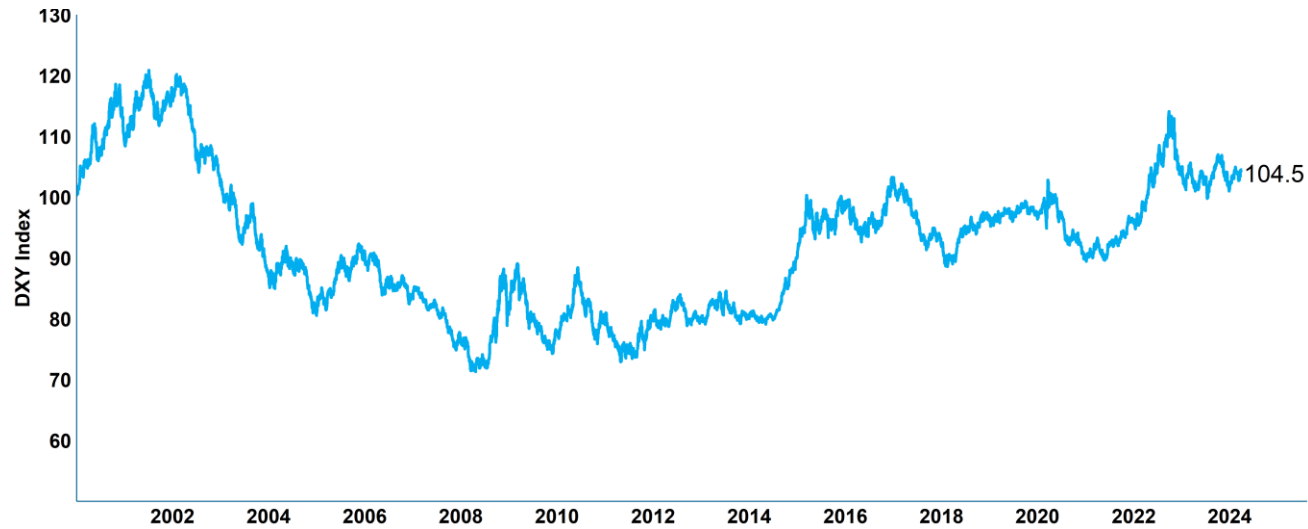
Policy Rates¹



- The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are now pricing in fewer than two rate cuts this year down from close to seven late last year, as economic data has come in better than expectations and inflation persists. Market pricing for the first rate cut has also dramatically changed from an original expectation of a March cut to the probability priced below 50% for a rate cut at all remaining Fed meetings in 2024.
- The European and UK central banks also recently paused their rate increases on slowing inflation. It appears that the ECB could be one of the first central banks to cut rates with expectations close to 90% for a June cut.
- Given the return of inflation driven by wage growth the Bank of Japan (BOJ) recently ended the final negative interest rate policy, stopped purchasing ETFs, and moved away from its yield curve control.
- The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker-than-expected economic data appears to indicate a widespread slowdown.

¹ Source: Bloomberg. Data is as of March 31, 2024.

US Dollar vs. Broad Currencies¹



- The dollar increased by close to 3% over the quarter versus a basket of major trading partners.
- Strong economic data in the US may delay policy rate cuts this year, which could contribute to continued upward pressure on the dollar as other countries pivot to rate cuts.

¹ Source: Bloomberg. Data as of March 31, 2024.

Summary

Key Trends:

- According to the IMF, global growth this year is expected to match the 2023 estimate at around 3.1% with most major economies predicted to avoid a recession. Continued strong economic growth does run the risk of inflation and interest rates staying higher for longer.
- Key economic data in the US is still coming in above forecasts with expectations dramatically evolving for the timing and pace of interest rate cuts. If data remains strong the Federal Reserve may keep rates elevated increasing the risk of an economic slowdown.
- Outside the US we could see other central banks start cutting rates ahead of the Fed, with the ECB particularly in focus. The risk of policy errors remains elevated as central banks try to further reduce inflation toward targets while not tipping their economies into recession.
- US consumers could feel pressure as certain components of inflation (e.g., shelter) remain high, borrowing costs are elevated, and the job market may weaken.
- A focus for US equities 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 be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including China's economic uncertainty and on-going weakness in the real estate sector which could spill over into key trading partners' economies. Japan's recent tightening of monetary policy along with changes in corporate governance in the country could influence relative results.

Appendices

Corporate Update | 1Q.2024





7
Offices



240+
Employees



250+
Clients



\$1.8T
Assets Under Advisement



\$300B
Assets in Alternative Investments



98%
Client Retention Rate



5:1
Client | Consultant Ratio

Meketa Investment Group is proud to work for over 20 million American families everyday!

UPCOMING EVENTS



Q2 Investment Perspectives Webcast
July 2024



Evolving Asia: Japan, India and EM Ex-China
September 2024

Client and employee counts as of March 31, 2024; assets as of September 30, 2023.
Client retention rate is one minus the number of clients lost divided by the number of clients at prior year-end.

THOUGHT LEADERSHIP



Read our February Connectives “From Philosophy to Fees”

As an institutional investor, venturing into the realm of outsourcing investment management responsibilities to an Outsourced Chief Investment Officer (OCIO), the decision carries significant weight and must align with the institutional investor’s overarching goal: ensuring the sustainability of long-term promises to beneficiaries or constituents.

In this paper we discuss five questions that the institution may ask during the selection process of an OCIO provider. It is important for an entity to answer from their unique perspective. These questions not only reflect the depth of due diligence required but also encourage alignment with a fund’s strategic objectives and risk appetite.

Read more here:

<https://meketa.com/news/meketa-connectives-from-philosophy-to-fees/>



Read our recent white paper “European Buyouts”

The European buyout market possesses characteristics that are unique from the US market, which may present a different set of opportunities to investors. Having one broad geographical basket that encompasses the numerous countries in Europe may bring potential challenges, but might also offer opportunities to develop competitive advantages for managers who are ingrained in the ecosystem and have access to local networks.

In this research note, we focus on the buyout market, as it tends to be the most prominent private equity strategy in Europe. While there are venture capital and growth equity strategies that focus on Europe, they comprise only a small portion of Europe’s private equity market.

Read more here:

<https://meketa.com/leadership/european-buyouts/>



Read the second installment in our Japan 2.0 series “The Case for Japanese Equities”

Part one of this series (“[Japan 2.0: A New Paradigm?](#)”) discussed the history of the Japanese economy, summarizing the evolution of Japan’s economic boom of the 1980s through the decades of weak economic growth and low inflation from the 1990s to the present.

In this paper, we focus on equity market reforms in Japan designed to boost shareholder returns, activism, raise stock market valuations, promote mergers and acquisitions (“M&A”), and unlock trillions of household savings held in cash.

Read more here:

<https://meketa.com/leadership/japan-2-0-the-case-for-japanese-equities-part-ii/>

MEKETA VALUES COMMUNITY

On February 3, Meketa East participated in *Cycle for Survival*. This is the 5th year that Team Meketa has participated in this event, where 100% of the proceeds go directly to cancer research.

Cycle for Survival is the official rare cancer fundraising program of Memorial Sloan Kettering Cancer Center (MSK). Since 2007, the community has raised more than \$376M for rare cancer research at MSK, fueling countless lifesaving advances benefiting people around the world.



MEMORIAL SLOAN KETTERING | EQUINOX



MEKETA IN THE NEWS

Infrastructure Investor

Going deep on due diligence

By Amy Carroll | 2.1.24

[Read full article here](#)

Lisa Bacon, principal at Meketa Investment Group, adds: “Succession planning is something that we have always paid a lot of attention to, but a number of funds have recently either had a third party come in to take a passive stake as a way of supporting a transition or have sold the whole firm.

“We are starting to see a lot more examples of how this can play out and so it is an area we are looking at very closely.”

Bacon also points to inflation linkage as an important aspect of due diligence in the current environment. Gordon Bajnai, head of global infrastructure at Campbell Lutyens agrees: “Resilience to high inflation is something LPs are examining carefully, and I have to say most quality managers are standing up to that scrutiny well.”

Despite an understanding that firms need fees to operate, Infrastructure Investor’s LP Perspectives 2024 Study shows management fees are coming under pressure. “We always try to get the best deals we can for our clients, including a first close discount,” says Bacon.

Pensions&Investments

US retirement plans recover half of 2022 losses amid no-show recession Douglas Appell | 2.12.24

[Read full article here](#)

That dispersion is unsurprising, given corporate sponsors' various mixes of growth assets and liability-driven investment hedges, noted Jonathan Camp, a Chicago-based managing principal with consulting firm Meketa Investment Group advising clients on LDI programs.

In the wake of last year's big rebound in equity markets, corporate clients with large exposures to growth assets would have reported relatively strong gains. But even clients with large LDI programs — liable to suffer a decline in assets in a rising rate environment — had reason to be "very, very happy with their results in 2023," as higher discount rates reduced their liabilities, leaving funded status intact, Camp said.

Many big corporate plans, meanwhile, have taken additional steps in recent years — such as pension risk transfers to insurance companies — to accelerate the drop in their DB assets, Camp noted.

WSJ PRO PRIVATE EQUITY

Liquidity Chase: Funds and Investors Create Their Own Path to Exits

Some fund investors are taking matters into their own hands

By JENNIFER ROSSA | 2024

[Read full article here](#)

“Leverage on top of leverage should always get people’s attention,” said John Haggerty, director of private-markets investments at Meketa Investment Group. However, Haggerty added that when he sees GPs use these facilities, they generally think carefully about how much debt is healthy for the portfolio. Meketa has six or seven debt-related items in a roughly 90-item checklist for limited partnership agreements related to issues that include use case, amount and the permission required for debt, he said, up from two or three a few years ago.

Celebrating this Quarter

Meketa expands employee ownership with new shareholders.

Principals Zachary Driscoll and Stephanie Sorg have joined the firm's ownership group, bringing the total number to more than 70 shareholders.



Zachary Driscoll, CFA



Stephanie Sorg, CAIA

Read the full article here:

<https://meketa.com/news/meketa-investment-group-expands-employee-ownership-team-2/>

"Meketa is a people-first organization and our employee ownership is a testament to our commitment to not only recognize but also reward the hard work, dedication, and innovation our team continues to bring to the table every day. As we continue to grow and evolve, our employees remain our most valuable asset," said Stephen McCourt, Managing Principal and Co-Chief Executive Officer, Meketa.

"Last year provided an incredible opportunity for us to continue connecting with clients and offering our hand in partnership. Our success is directly linked to our clients entrusting us with the stewardship of their assets. I am incredibly optimistic about what Meketa and our clients can accomplish as we continue to focus on helping them achieve their long-term financial goals," said Peter Woolley, Managing Principal and Co-Chief Executive Officer, Meketa.



Meketa releases our 2024 diversity, equity, and inclusion ("DEI") annual questionnaire results summary

In 2020 as a next step in our commitment to Diversity, Equity, and Inclusion (DEI), Meketa Investment Group formally launched a new initiative to gather data from public and private market asset management firms within our proprietary database. The initiative focused on evaluating asset management firm's efforts to understand DEI more thoroughly within their organizations. 2023 marks the fourth year in a row we have asked firms to complete our questionnaire to report on their work in this area, and we are excited to share with you the results of these findings today.

We are pleased to report that our 2024 questionnaire was more extensive and garnered a higher participation rate from asset managers, further deepening the insights gleaned from last year's analysis. As we remain committed to making the institutional investment industry more resilient and equitable, we look forward to continuing this initiative on an annual basis and sharing the results with our clients and the marketplace for years to come.

Read the full article here:

<https://meketa.com/leadership/2023-diversity-equity-and-inclusion-annual-questionnaire-results-summary/>

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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. $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} * (\text{market return} - \text{Risk Free Rate})]$.

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.