Maryland State Retirement and Pension System

Performance Report
December 31, 2024

Fund Evaluation Report

Agenda

Executive Summary

Market Value & Performance

→ At the end of the fourth quarter, the System was valued at $69,527 million, a decrease of $872 million from the end of the third quarter.

- The decrease was mostly the result of negative investment performance, as net cash outflows totaled $38 million for the quarter.

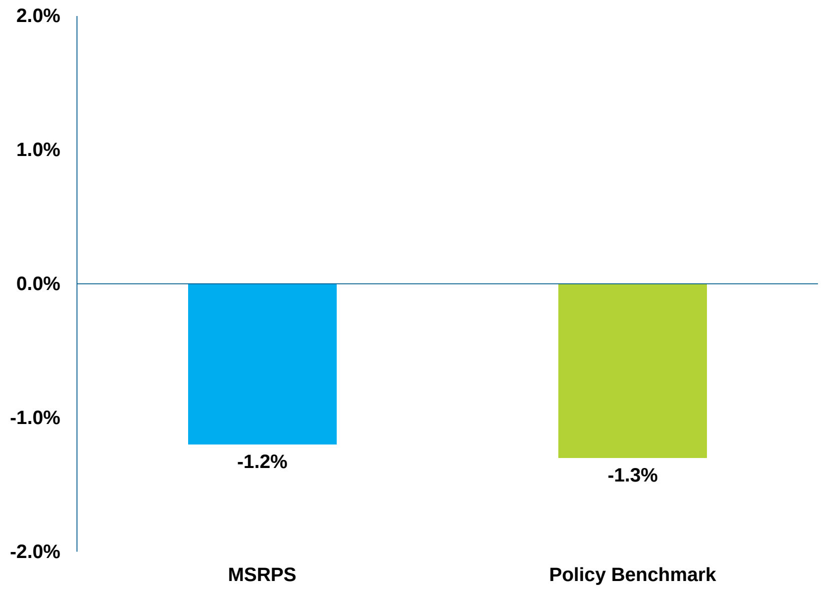
→ The System returned -1.2%, net of fees, during the fourth quarter of 2024, outperforming the policy benchmark by 0.1%.

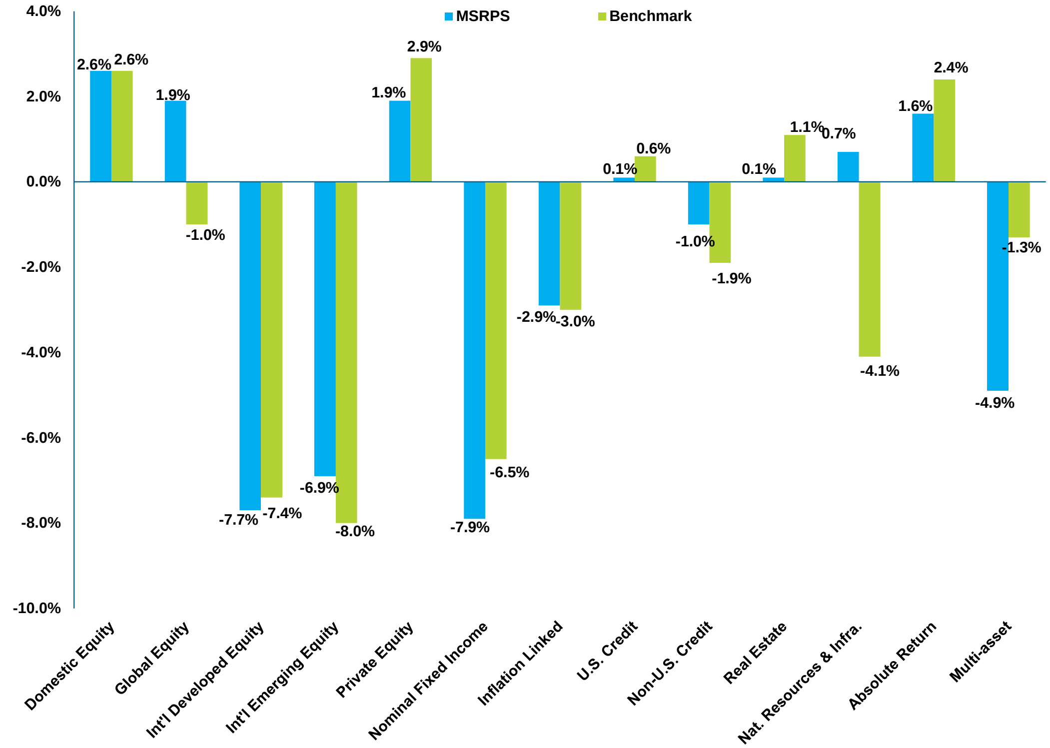
- Asset class returns were mixed for the quarter with international developed equity, emerging market equity, nominal fixed income, inflation linked, non-US credit, and multi-asset all negative while the remaining asset classes were positive.
- Domestic equity had the strongest absolute return, up 2.6% for the quarter, while nominal fixed income was the weakest performer in absolute terms, down 7.9%.

→ At quarter end, all asset classes were within their respective target allocation ranges.

Q4 System and Asset Class Performance

→ The System slightly outperformed the Policy Benchmark during the fourth quarter, returning -1.2%, net of fees.





→ During the quarter, domestic equity delivered the best absolute performance returning 2.6%.

→ On a relative basis, natural resources and infrastructure was the best performing asset class, outpacing its benchmark by 4.8%.

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 Q4 Attribution[1]

	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	31.3	-1.5	-0.5	29.0	-2.0	-0.6	0.10	0.05	0.13	0.28
Domestic Equity	14.8	2.5	0.4	14.5	2.6	0.4	0.00	-0.01	0.00	-0.01
International Developed	8.0	-7.7	-0.6	9.4	-7.4	-0.7	0.08	-0.03	0.00	0.05
International Emerging	4.9	-6.4	-0.3	5.1	-8.0	-0.4	0.00	0.08	0.00	0.09
Global Equity	3.7	2.7	0.1	0.0	-1.0	0.0	0.01	0.00	0.13	0.14
Private Equity	21.0	1.9	0.4	21.0	2.9	0.6	0.00	-0.20	0.00	-0.20
Nominal Fixed Income	13.4	-5.2	-0.7	16.6	-6.5	-1.1	0.16	0.23	-0.04	0.35
Inflation Linked	3.4	-3.0	-0.1	4.1	-3.0	-0.1	0.01	0.00	0.00	0.01
US Credit	8.3	1.2	0.1	8.0	0.6	0.0	0.00	0.05	0.00	0.05
Non- US Credit	1.1	-1.0	0.0	1.0	-1.9	0.0	0.00	0.01	0.00	0.01
Real Estate	9.3	0.1	0.0	9.3	1.1	0.1	0.00	-0.09	0.00	-0.09
Natural Resources & Infrastructure	5.1	0.8	0.0	5.0	-4.1	-0.2	-0.01	0.25	0.01	0.24
Absolute Return	5.8	1.6	0.1	6.0	2.4	0.1	-0.01	-0.05	0.00	-0.06
Multi-Asset	0.4	-4.9	0.0	0.0	-1.3	0.0	0.00	0.00	-0.01	-0.01
Cash	0.8	0.8	0.0	0.0	1.2	0.0	0.02	0.00	0.00	0.02
Total (excl. overlay)	-	-	-0.65	-	-	-1.28	0.28	0.24	0.08	0.61
Currency Overlay							0.13			
Structural/Tactical Overlay							-0.66			
Total (incl. overlay)	**100.0**	**-**	**-1.19**	**100.0**	**-**	**-1.28**	**-0.25**	**0.24**	**0.08**	**0.07**

[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 Attribution[1]

	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	30.5	15.0	4.6	28.5	15.7	4.5	0.27	-0.26	0.08	0.09
Domestic Equity	14.0	22.9	3.2	14.2	23.8	3.4	-0.07	-0.11	0.00	-0.18
International Developed	8.1	3.8	0.3	9.2	4.7	0.4	0.03	-0.08	0.01	-0.04
International Emerging	4.9	6.1	0.3	5.1	7.5	0.4	-0.02	-0.08	0.01	-0.09
Global Equity	3.6	19.6	0.7	0.0	17.5	0.0	0.34	0.00	0.06	0.40
Private Equity	21.5	7.0	1.5	21.5	8.8	1.9	0.00	-0.36	0.00	-0.36
Nominal Fixed Income	13.5	-0.9	-0.1	16.3	-3.3	-0.5	0.25	0.38	-0.06	0.57
Inflation Linked	3.4	2.2	0.1	4.1	1.8	0.1	0.04	0.02	0.00	0.05
US Credit	8.3	8.8	0.7	8.0	8.4	0.7	0.00	0.03	0.00	0.04
Non- US Credit	1.1	9.4	0.1	1.0	6.3	0.1	0.00	0.03	0.00	0.03
Real Estate	9.5	-5.5	-0.5	9.6	-1.8	-0.2	0.01	-0.37	0.00	-0.36
Natural Resources & Infrastructure	4.9	12.1	0.6	5.0	7.0	0.4	-0.01	0.21	0.01	0.20
Absolute Return	5.8	8.7	0.5	6.0	9.0	0.5	-0.01	-0.01	0.00	-0.03
Multi-Asset	0.4	7.5	0.0	0.0	6.8	0.0	0.00	0.00	0.00	0.00
Cash	1.1	5.0	0.1	0.0	5.4	0.0	-0.03	0.00	0.00	-0.03
Total (excl. overlay)	-	-	7.02	-	-	6.79	0.51	-0.33	0.03	0.21
Currency Overlay							0.11			
Structural/Tactical Overlay							-0.39			
Total (incl. overlay)	**100.0**	**-**	**6.69**	**100.0**	**-**	**6.79**	**0.22**	**-0.33**	**0.03**	**-0.08**

[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

Fourth Quarter

→ In the fourth quarter, the System outperformed the policy benchmark by 0.10%.

→ Inclusive of the overlay programs, asset allocation had a negative effect on the relative performance.

→ The interaction effect and active management were both additive to relative performance.

- Selection within natural resources and infrastructure, nominal fixed income (ex. the overlay), and global equity were most additive while selection within private equity and real estate detracted most from relative performance.

Trailing 1-Year

→ Over the trailing one-year period, the System underperformed the Policy Benchmark by -0.10%.

→ Inclusive of the overlay programs, the asset allocation effect was additive to relative performance.

→ Manager selection (e.g., active management) detracted over the trailing year while interaction effect was slightly additive.

- Manager selection within nominal fixed income (ex. the overlay) and natural resources and infrastructure were the most additive to relative performance while selection within real estate and private equity 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.

Calculations[1]:

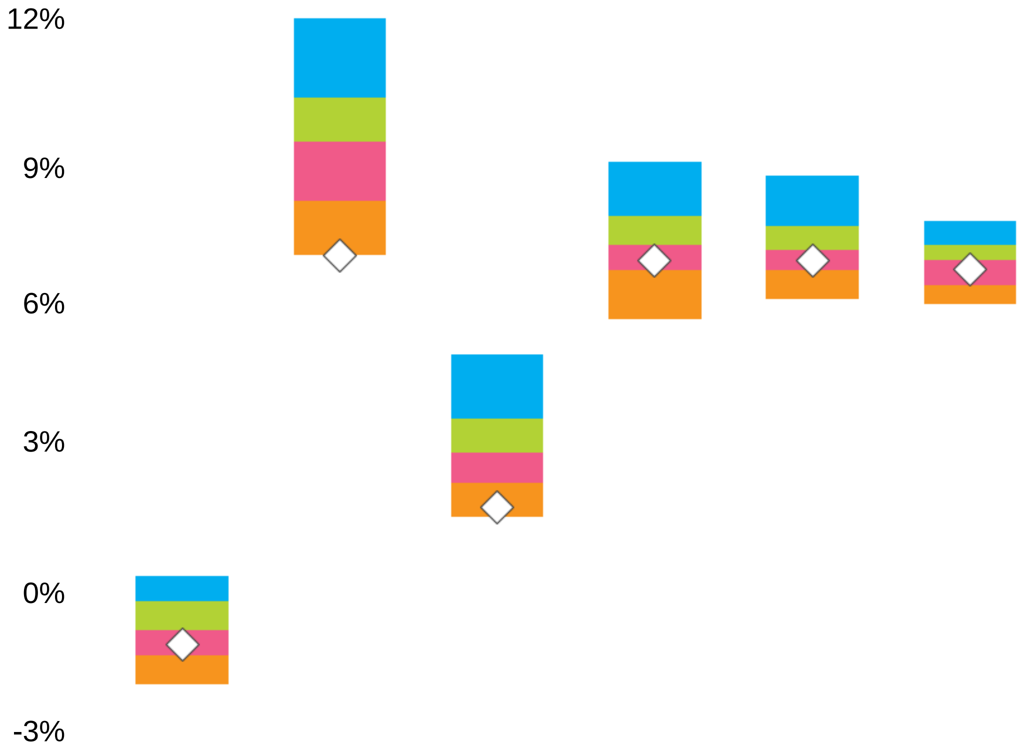
→ The Brinson Fachler attribution methodology is widely accepted within the industry. Using this methodology, the components are calculated as follows:

- *Allocation Effect:* (Rab - Rpb) × (Wp - Wb)
- *Active Management Effect*[2]*:* Wb × (Rp - Rab)
- *Interaction Effect:* (Wp - Wb) x (Rp - Rab)

[1]Rpb= 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.

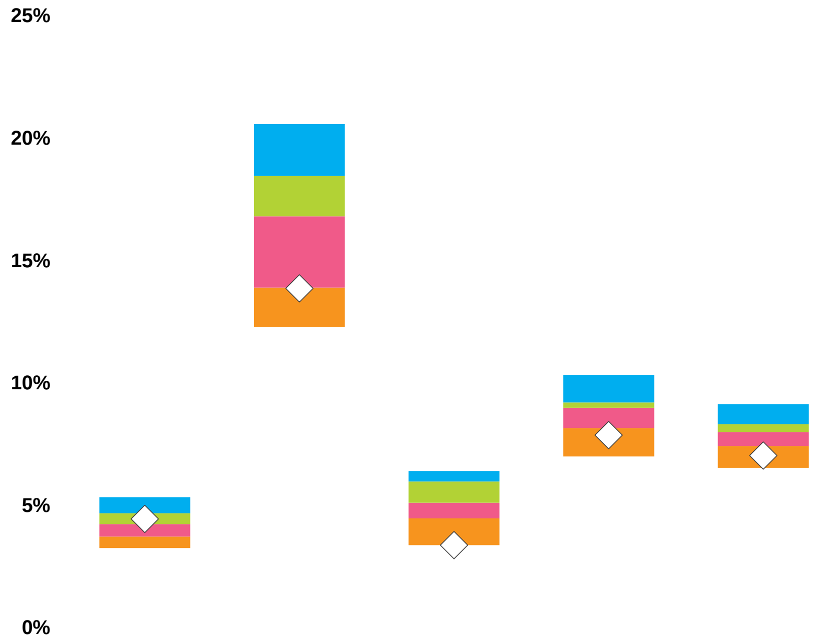
Total System vs. Public Plans >$1 Billion Universe[1]
As of December 31, 2024



	4Q24 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	20 YR (%)
Total System	**-1.2**	**6.7**	**1.6**	**6.6**	**6.6**	**6.1**
25th Percentile	-0.3	9.9	3.4	7.5	7.3	6.9
Median	-0.9	9.0	2.7	6.9	6.8	6.6
75th Percentile	-1.4	7.8	2.1	6.4	6.4	6.1
Rank (%)	*62*	*95*	*89*	*61*	*66*	*75*

[1] Represents a final release of the InvMetrics Public DB >$1 bn peer group as of December 31, 2024. Total System performance is net of fees. Includes 69 plans.

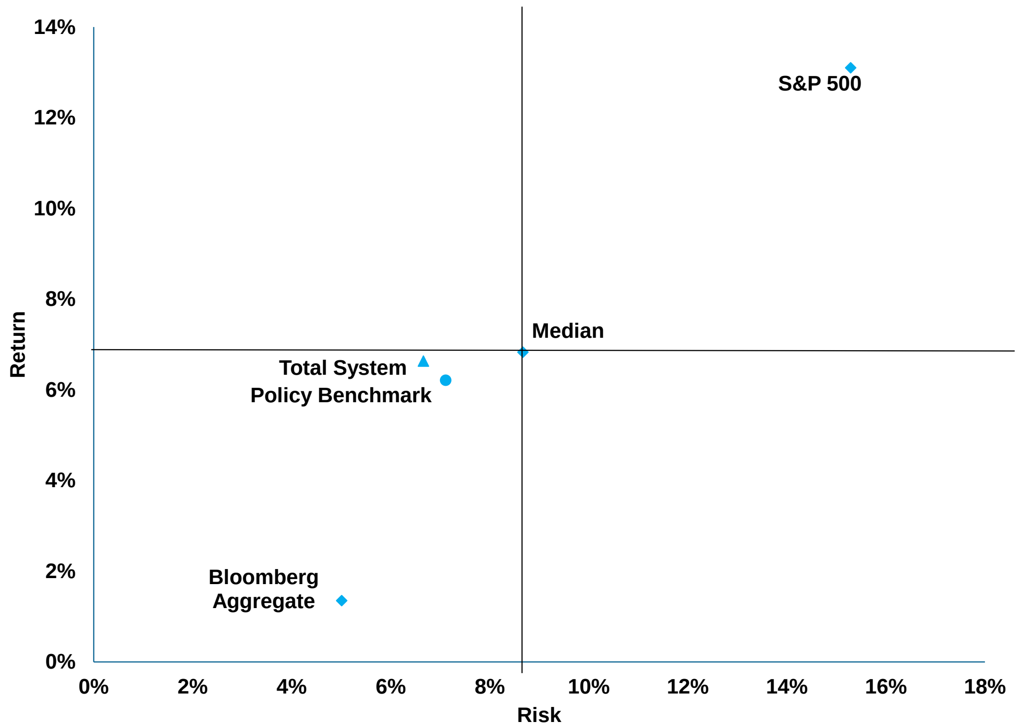
Total System vs. Public Plans >$25 Billion Universe[1]
As of September 30, 2024



	3Q24 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total System	**4.5**	**13.9**	**3.4**	**7.9**	**7.0**
25th Percentile	4.7	18.5	6.0	9.2	8.3
Median	4.2	16.8	5.1	9.0	8.0
75th Percentile	3.7	13.9	4.5	8.2	7.4
Rank (%)	44	78	95	78	81
Policy Benchmark	*4.7*	*13.7*	*2.5*	*6.8*	*6.3*
Rank (%)	*22*	*84*	*95*	*95*	*95*

[1] Represents the TUCS Public >$25 bn peer group as of September 30, 2024. Total System performance is gross of fees. Includes 35 plans.

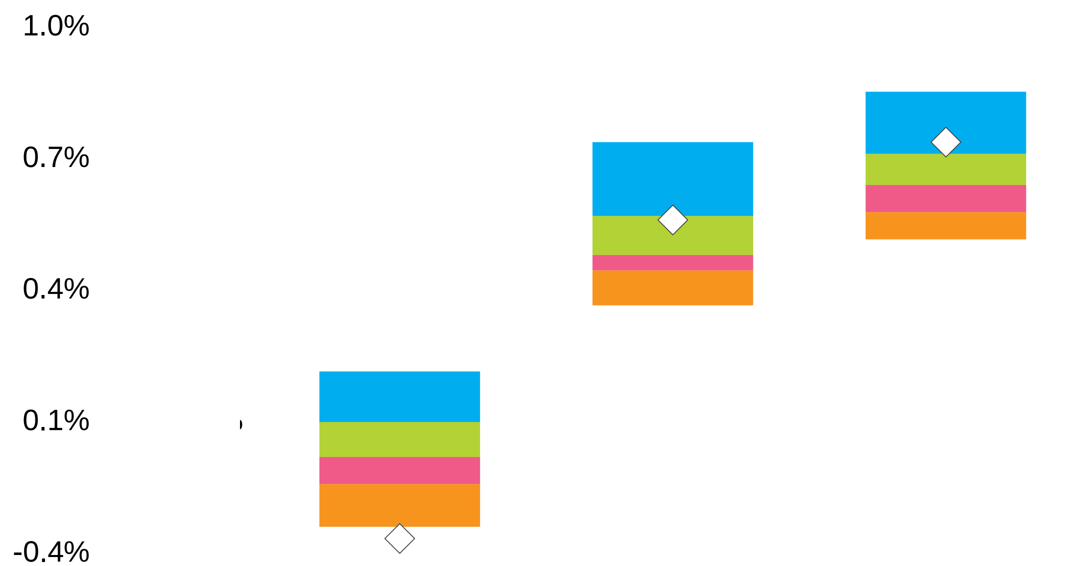
Total System Trailing 10-Year Risk vs Return[1]
As of December 31, 2024



	Risk (%)	Return (%)
Total System	**6.7**	**6.6**
Policy Benchmark	7.1	6.2
Median	8.7	6.8

[1] Represents a final cut of InvMetrics Public DB >$1 bn Net peer group as of December 31, 2024. Includes 69 plans.

Total System vs. Public Plans >$1 Billion Universe Sharpe Ratio Comparison[1]
As of December 31, 2024

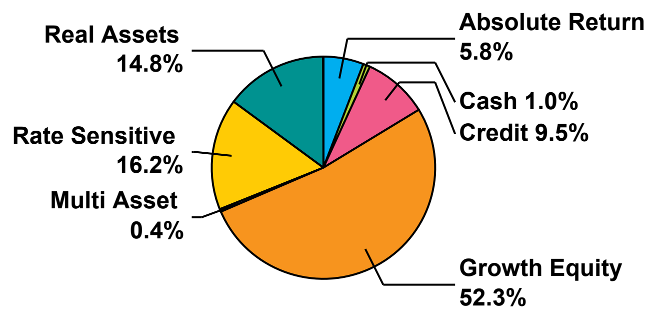


	3 YR	5 YR	10 YR
Total System	**-0.3**	**0.5**	**0.7**
S&P 500	0.3	0.7	0.7
25th Percentile	0.0	0.5	0.7
Median	-0.1	0.4	0.6
75th Percentile	-0.2	0.4	0.6
Rank (%)	*99*	*28*	*18*

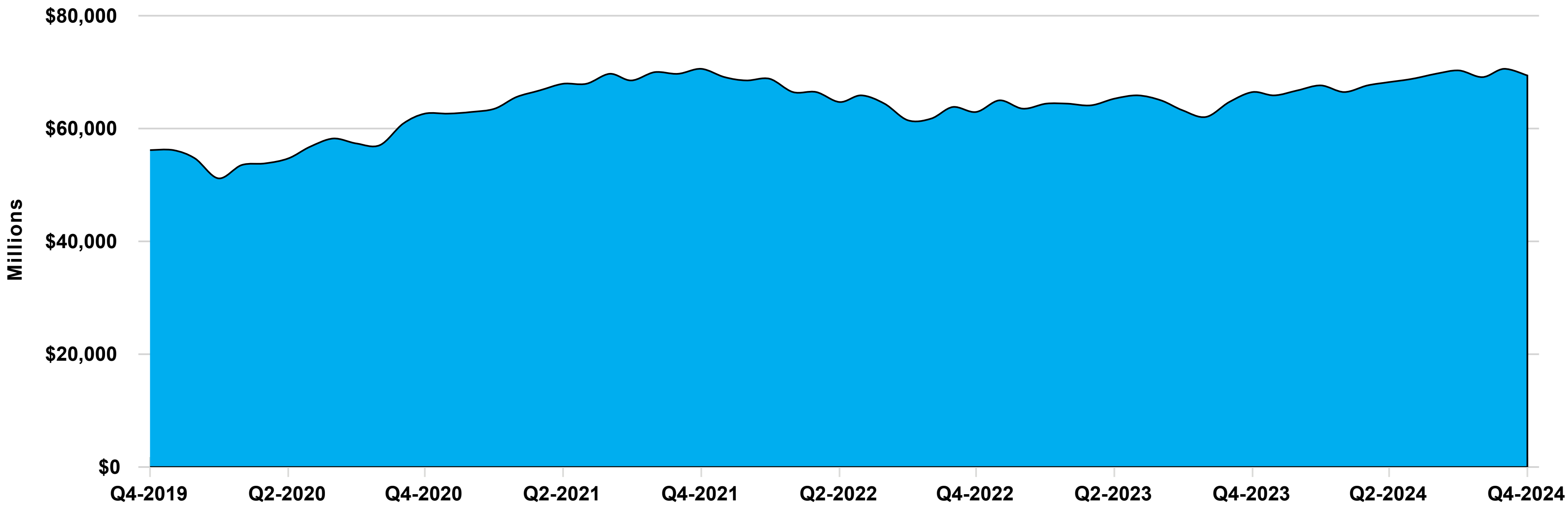
[1] Represents a final cut of InvMetrics Public DB >$1 bn Net peer group as of December 31, 2024. Includes 69 plans. The risk-free rate is the 90-day T-bill.

Performance Summary

Actual Allocation



Market Value History
5 Years Ending December 31, 2024



Allocation vs. Targets and Policy	Current Balance	Current Allocation	Transitional Targets	Policy	Policy Range
Growth Equity	**$36,345,250,689**	**52%**	**50%**	**50%**	**43% - 57%**
Domestic Equities	$10,271,645,602	15%	14%	17%	--
Global Equity	$2,594,460,096	4%	0%	0%	--
International Developed Market Equity	$5,286,913,366	8%	9%	11%	--
International Emerging Market Equity	$3,229,278,855	5%	5%	6%	--
Private Equity	$14,949,372,932	22%	22%	16%	--
Stock Distributions	$13,579,837	0%	0%	0%	--
Rate Sensitive	**$11,277,093,626**	**16%**	**20%**	**20%**	**15% - 25%**
Nominal Fixed Income	$8,972,806,770	13%	16%	16%	--
Inflation-Linked Bonds	$2,304,286,856	3%	4%	4%	--
Credit	**$6,573,155,126**	**9%**	**9%**	**9%**	**5% - 13%**
U.S. Credit	$5,798,903,482	8%	8%	8%	--
Non-U.S. Credit	$774,251,644	1%	1%	1%	--
Real Assets	**$10,286,674,343**	**15%**	**15%**	**15%**	**11% - 19%**
Real Estate	$6,752,909,242	10%	10%	10%	--
Commodities	$167,495,159	0%	0%	0%	--
Natural Resources and Infrastructure	$3,366,269,942	5%	5%	5%	--
Absolute Return	**$4,089,062,773**	**6%**	**6%**	**6%**	**2% - 10%**
Absolute Return	$4,089,062,773	6%	6%	6%	--
Multi Asset	**$271,031,572**	**0%**	**0%**	**0%**	**0% - 2%**
Multi Asset	$271,031,572	0%	0%	0%	--
Cash	**$685,314,597**	**1%**	**0%**	**0%**	**0% - 2%**
Cash	$685,314,597	1%	0%	0%	--
Total	**69,527,582,727**	**100%**	**100%**	**100%**	

Asset Class Performance Summary

	Market Value ($)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total System	**69,527,582,727**	**100.0**	**-1.2**	**3.2**	**6.7**	**1.6**	**6.6**	**6.6**	**7.9**	**Jul-86**
System Policy Benchmark			-1.3	3.4	6.8	0.8	5.8	6.2	--	
Over/Under			0.1	-0.2	-0.1	0.8	0.9	0.4	--	
System Strategic Policy Benchmark			-1.2	3.4	6.8	1.0	5.9	6.4	--	
Over/Under			0.1	-0.2	-0.1	0.6	0.7	0.2	--	
Growth Equity	**36,345,250,689**	**52.3**	**-0.2**	**4.0**	**11.6**	**3.8**	**10.8**	**10.1**	**7.1**	**Jan-98**
Public Equity	**21,382,297,919**	**30.8**	**-1.7**	**4.5**	**15.0**	**3.8**	**8.9**	**8.5**	**8.3**	**Apr-94**
Public Equity Custom Benchmark			-2.5	4.5	14.5	4.0	8.2	8.3	--	
Over/Under			0.8	0.1	0.5	-0.2	0.7	0.2	--	
Domestic Equity	**10,271,645,602**	**14.8**	**2.6**	**8.5**	**23.8**	**8.8**	**14.0**	**12.3**	**10.0**	**Apr-94**
U.S. Equity Custom Benchmark			2.6	9.0	23.8	8.0	13.9	12.5	--	
Over/Under			0.0	-0.6	0.0	0.8	0.1	-0.3	--	
Global Equity	**2,583,748,128**	**3.7**	**1.9**	**6.7**	**20.6**	**3.1**	**10.5**	**9.1**	**7.9**	**Oct-05**
Global Equity Custom Benchmark			-1.0	5.6	17.5	5.4	10.1	9.2	7.6	
Over/Under			2.9	1.1	3.1	-2.3	0.4	-0.1	0.3	
International Developed Market Equity	**5,286,913,366**	**7.6**	**-7.7**	**-0.4**	**4.6**	**1.7**	**5.8**	**5.5**	**6.3**	**Jan-95**
MSRA Custom International Index			-7.4	-0.2	4.7	1.9	5.1	5.0	5.4	
Over/Under			-0.3	-0.1	-0.1	-0.2	0.7	0.4	0.9	
International Emerging Markets Equity	**3,229,278,855**	**4.6**	**-6.9**	**-0.6**	**5.1**	**-2.9**	**1.9**	**--**	**5.5**	**Nov-15**
MSCI Emerging Markets (Net)			-8.0	0.0	7.5	-1.9	1.7	--	5.1	
Over/Under			1.1	-0.7	-2.4	-0.9	0.2	--	0.4	
Private Equity	**14,949,372,932**	**21.5**	**1.9**	**3.2**	**7.0**	**4.6**	**14.9**	**14.7**	**9.3**	**Mar-94**
State Street Private Equity Index			2.9	4.2	8.8	4.2	13.9	12.2	--	
Over/Under			-1.0	-1.0	-1.8	0.4	1.0	2.5	--	

Asset Allocation & Performance | As of December 31, 2024

	Market Value ($)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Rate Sensitive	**11,277,093,626**	**16.2**	**-6.9**	**-0.2**	**-2.7**	**-7.8**	**-2.1**	**1.0**	**5.7**	**Jul-86**
Custom Rate Sensitive Benchmark			*-5.8*	*0.2*	*-2.3*	*-7.1*	*-2.1*	*1.0*	--	
Over/Under			-1.1	-0.5	-0.4	-0.8	0.0	0.0	--	
Nominal Fixed Income	**8,972,806,770**	**12.9**	**-7.9**	**-0.6**	**-3.9**	**-9.4**	**-3.4**	**0.5**	**5.6**	**Jul-86**
Custom Nominal Fixed Income Benchmark			*-6.5*	*0.0*	*-3.3*	*-8.3*	*-3.2*	*0.5*	--	
Over/Under			-1.4	-0.6	-0.6	-1.1	-0.3	0.0	--	
Inflation-Linked Bonds	**2,304,286,856**	**3.3**	**-2.9**	**1.2**	**2.4**	**-2.3**	**2.0**	**2.4**	**3.3**	**Jul-08**
Custom Inflation Sensitive Benchmark			*-3.0*	*1.1*	*1.8*	*-2.6*	*1.8*	*2.3*	*3.1*	
Over/Under			0.0	0.1	0.6	0.3	0.3	0.1	0.2	
Credit	**6,573,155,126**	**9.5**	**0.0**	**4.5**	**8.0**	**4.2**	**5.0**	**5.0**	**7.6**	**Mar-09**
U.S. Credit	**5,798,903,482**	**8.3**	**0.1**	**4.3**	**7.8**	**4.6**	**5.8**	**5.8**	**8.0**	**Mar-09**
U.S. Credit Custom Benchmark			*0.6*	*5.3*	*8.4*	*3.8*	*4.6*	*5.2*	*7.2*	
Over/Under			-0.5	-0.9	-0.5	0.8	1.2	0.6	0.8	
Non-U.S. Credit	**774,251,644**	**1.1**	**-1.0**	**5.3**	**9.4**	**1.4**	**1.3**	**1.9**	**0.9**	**Oct-10**
Non-U.S. Credit Custom Benchmark			*-1.9*	*3.8*	*6.3*	*-0.8*	*-0.4*	*1.2*	*0.7*	
Over/Under			1.0	1.5	3.1	2.2	1.6	0.6	0.2	
Real Assets	**10,286,674,343**	**14.8**	**0.3**	**2.7**	**-0.2**	**4.0**	**5.3**	**4.2**	**4.5**	**Feb-06**
Custom Real Assets Benchmark			*-0.7*	*3.0*	*0.9*	*-0.7*	*3.8*	*4.3*	*3.7*	
Over/Under			1.0	-0.3	-1.1	4.8	1.6	0.0	0.8	
Real Estate	**6,752,909,129**	**9.7**	**0.1**	**0.4**	**-5.5**	**1.0**	**3.7**	**6.1**	**6.4**	**Jul-87**
Real Estate Custom Benchmark			*1.1*	*1.2*	*-1.8*	*-2.7*	*2.7*	*5.6*	*7.4*	
Over/Under			-0.9	-0.8	-3.7	3.7	0.9	0.5	-1.0	
Commodities	**167,495,159**	**0.2**								

Asset Allocation & Performance | As of December 31, 2024

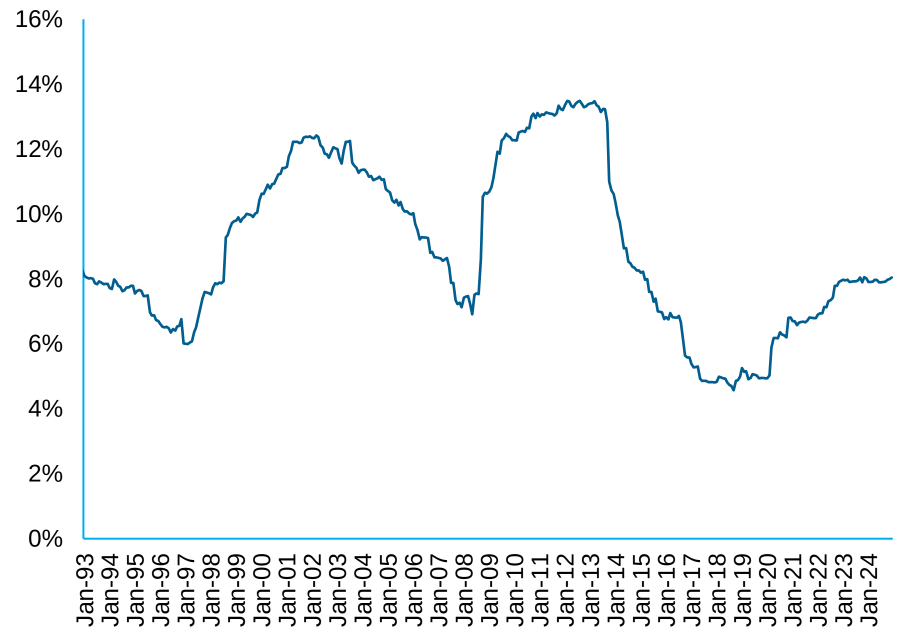
	Market Value ($)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Natural Resources and Infrastructure	**3,366,269,942**	**4.8**	**0.7**	**8.1**	**12.3**	**10.3**	**8.1**	**3.9**	**8.7**	**Aug-09**
Natural Resources and Infrastructure Benchmark			*-4.1*	*6.7*	*7.0*	*3.7*	*5.7*	*7.3*	*7.0*	
Over/Under			4.8	1.4	5.3	6.6	2.3	-3.4	1.7	
Absolute Return	**4,089,062,773**	**5.9**	**1.6**	**4.7**	**8.7**	**3.0**	**4.2**	**3.0**	**3.5**	**Apr-08**
Absolute Return Custom Benchmark			*2.4*	*4.1*	*9.0*	*4.8*	*6.2*	*4.7*	*3.1*	
Over/Under			-0.8	0.6	-0.3	-1.7	-1.9	-1.7	0.4	
Multi Asset	**271,031,572**	**0.4**	**-4.9**	**4.4**	**7.5**	**-4.2**	**2.2**	**--**	**3.1**	**Jul-18**
System Policy Benchmark			*-1.3*	*3.4*	*6.8*	*0.8*	*5.8*	--	*6.3*	
Over/Under			-3.6	1.0	0.7	-5.0	-3.6	--	-3.2	
Cash	**685,314,597**	**1.0**	**0.8**	**2.2**	**5.0**	**4.5**	**2.9**	**4.4**	**3.7**	**Jul-08**
FTSE 3 Month T-Bill			*1.2*	*2.6*	*5.4*	*4.1*	*2.5*	*1.8*	*1.2*	
Over/Under			-0.5	-0.4	-0.5	0.5	0.4	2.6	2.6	

Risk Dashboard

Total System Risk

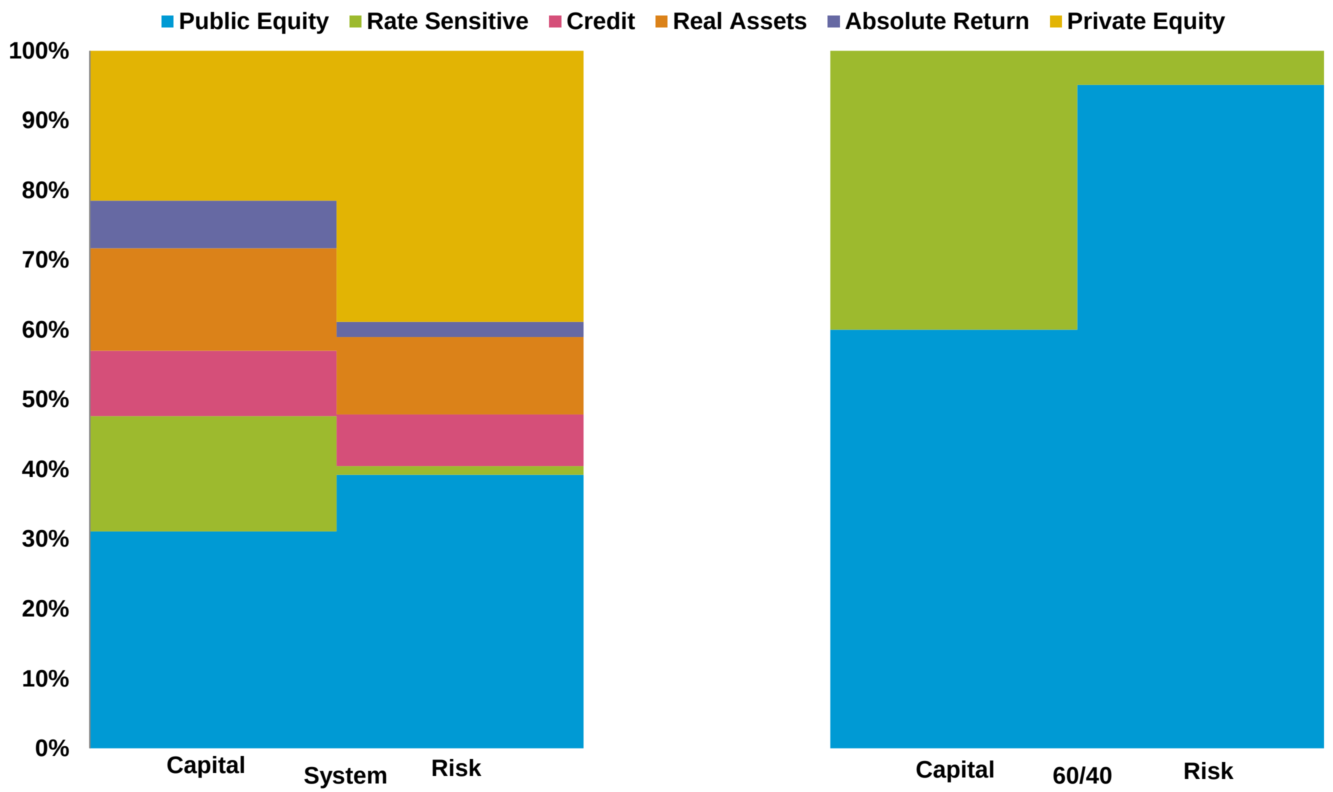
Risk: (sixty months)	Total System 12/31/2024	Policy Benchmark 12/31/2024
Annualized Return (%)	6.6	5.8
Standard Deviation (%)	8.1	8.5
Best Monthly Return (%)	6.9	6.9
Worst Monthly Return (%)	-6.4	-6.4
Beta	0.94	1.00
Correlation (R^2) to Index	0.98	NA
Sharpe Measure	0.53	0.41
Information Ratio	0.61	NA
Excess Return (%)	0.87	NA
Tracking Error (%)	1.28	NA

Rolling 5-Year Standard Deviation



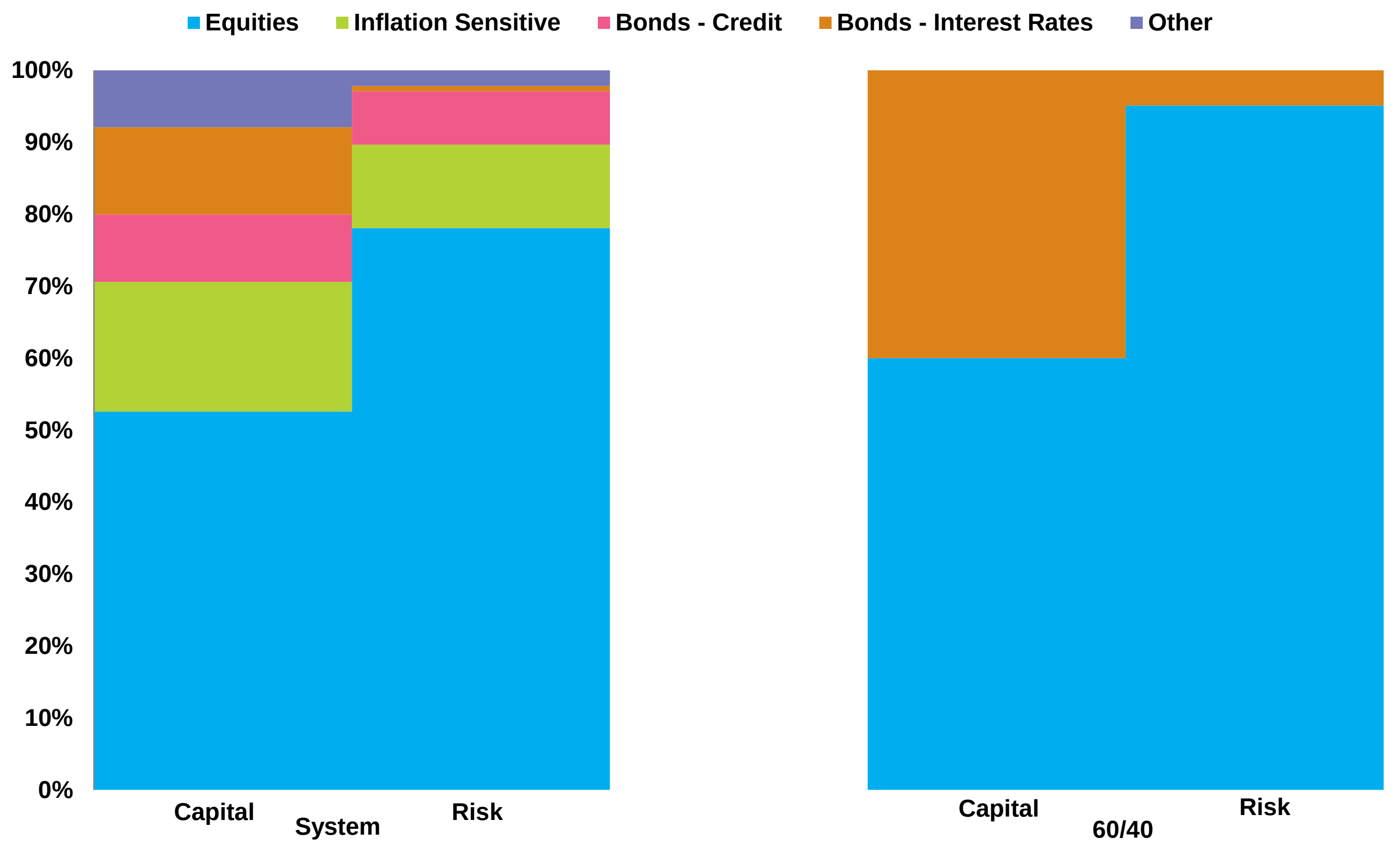
→ Over the trailing 5-years, the System has exhibited lower risk, as measured by standard deviation, than its Policy Benchmark while achieving slightly higher annualized returns.

Capital Allocation vs. Risk Allocation
By Asset Class



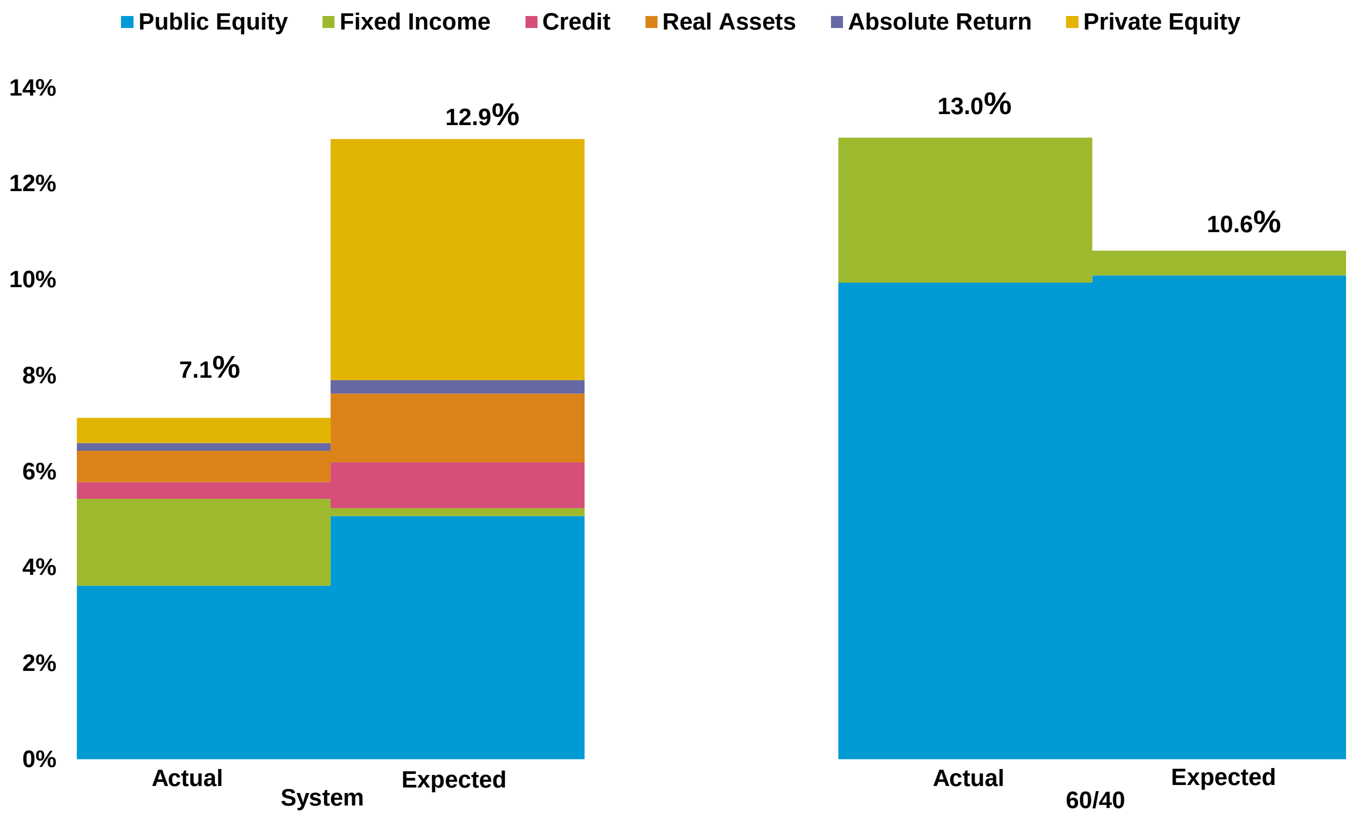
- → Public equity makes up close to 31% of the current asset allocation; however, it comprises about 39% of the risk allocation.
- → By contrast, in a 60/40 portfolio equity comprises 60% of the capital allocation but nearly 95% of the risk.

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.

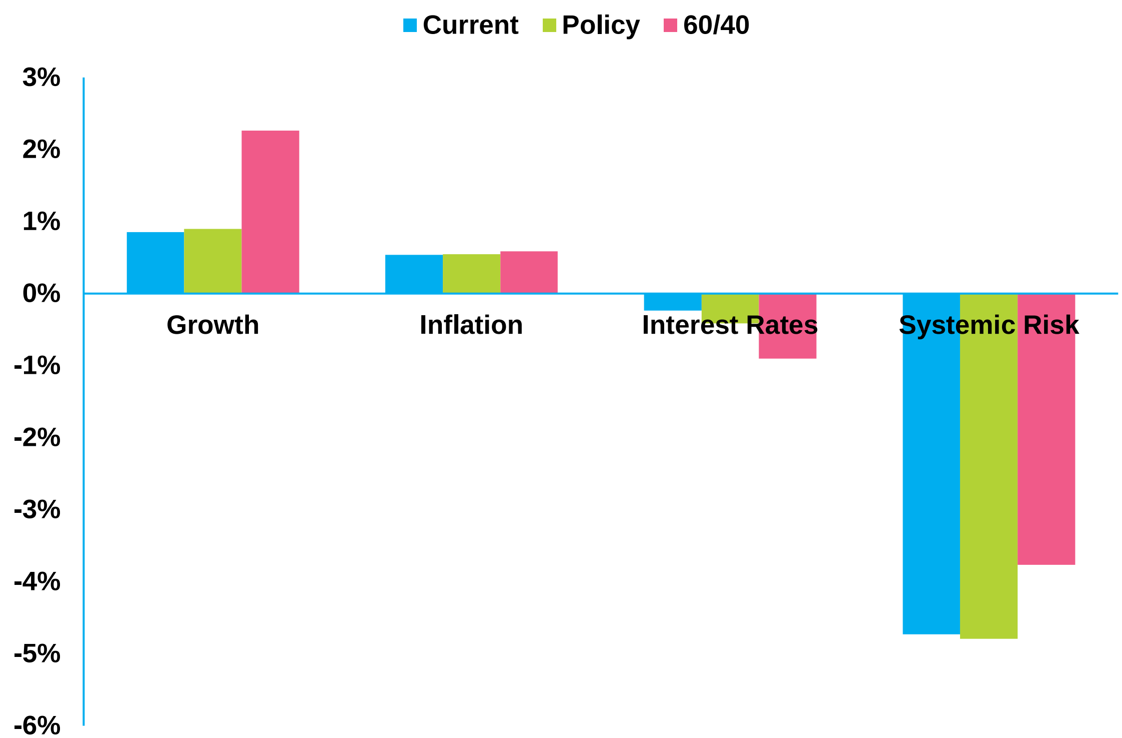
Risk Decomposition
Actual vs. Expected



→ 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 51% 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%		21%	
Rate Sensitive	**16%**		16%			<1%			
Credit	**10%**			4%				6%	
Real Assets	**15%**	2%						3%	10%
Absolute Return	**6%**					6%			
Multi Asset	**0%**						<1%		
Cash	**1%**				1%				
Look Through Allocation	**100%**	**31%**	**16%**	**4%**	**1%**	**8%**	**<1%**	**30%**	**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 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:

- 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
- 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

Current Agenda Topics

- → 2025 Capital Market Expectations
- → Preliminary Asset-Allocation Policy Options
- → Performance Review

Economic and Market Update

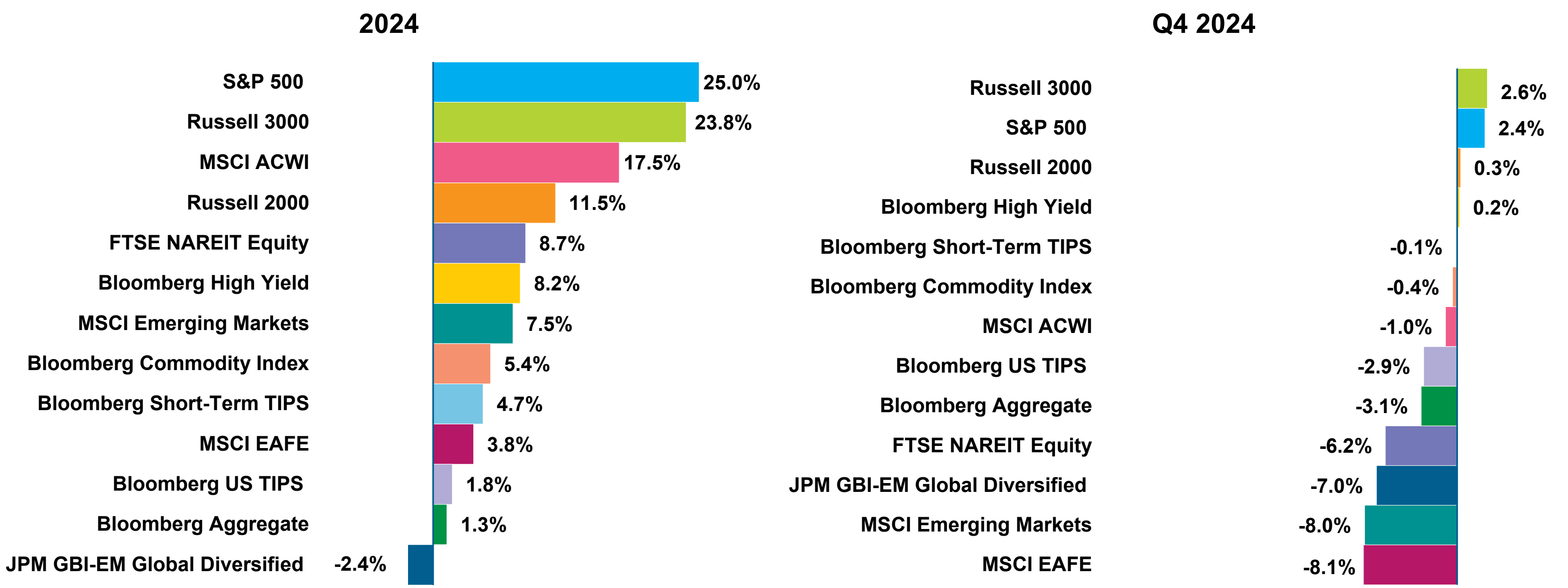
Data as of December 31, 2024

Commentary

Although most major markets finished 2024 in positive territory, in the fourth quarter, with the exception of US stocks, the majority of markets declined.

- Trump's victory along with a now Republican controlled Congress, supported US equity markets in the fourth quarter on anticipation of pro-growth policies. Domestic equity markets (Russell 3000) posted a return of 2.6% in the quarter and an impressive 23.8% for the year driven by large cap technology stocks.
- Non-US developed stocks sold-off in the fourth quarter (MSCI EAFE: -8.1%) largely driven by the strength of the US dollar, as well as slowing growth in Europe and the potential for trade wars. For the year, they trailed US equities by a wide 20% margin (3.8% versus 23.8%).
- Emerging market stocks also fell (MSCI Emerging Markets: -8.0%) in the fourth quarter, again driven by the strong dollar and concerns about US tariffs. In 2024, emerging markets beat developed international markets (7.5% versus 3.8%) but significantly trailed the US.
- The Federal Reserve cut its policy rate another 0.25% in December, but its Summary of Economic Projections and hawkish comments provoked a repricing of future rate cuts and their timing.
- Most fixed income markets fell for the quarter with interest rates rising given fears of inflation from the proposed policies of the incoming US administration. The broad US bond market (Bloomberg Aggregate) declined 3.1% for the quarter, reducing its 2024 gain to 1.3%. For the year, most major bond markets delivered positive returns on cooling global inflation.
- Looking ahead, uncertainty related to the policies of the new Trump Administration and its impact on the economy, inflation, and Fed policy will be key. The path of China's economy and concerns over elevated valuations and technology driven concentration in the US equity market will also be important focuses of 2025.

Index Returns[1]



→ In 2024, most major assets classes posted gains, led by the S&P 500's 25.0% return.

→ Markets had mixed returns in the fourth quarter. US equities rose on optimism over potential pro-growth policies from the incoming administration while inflation concerns and a strong dollar, respectively, weighed on bonds and international equities.

[1] Source: Bloomberg. Data is as of December 31, 2024.

Domestic Equity Returns[1]

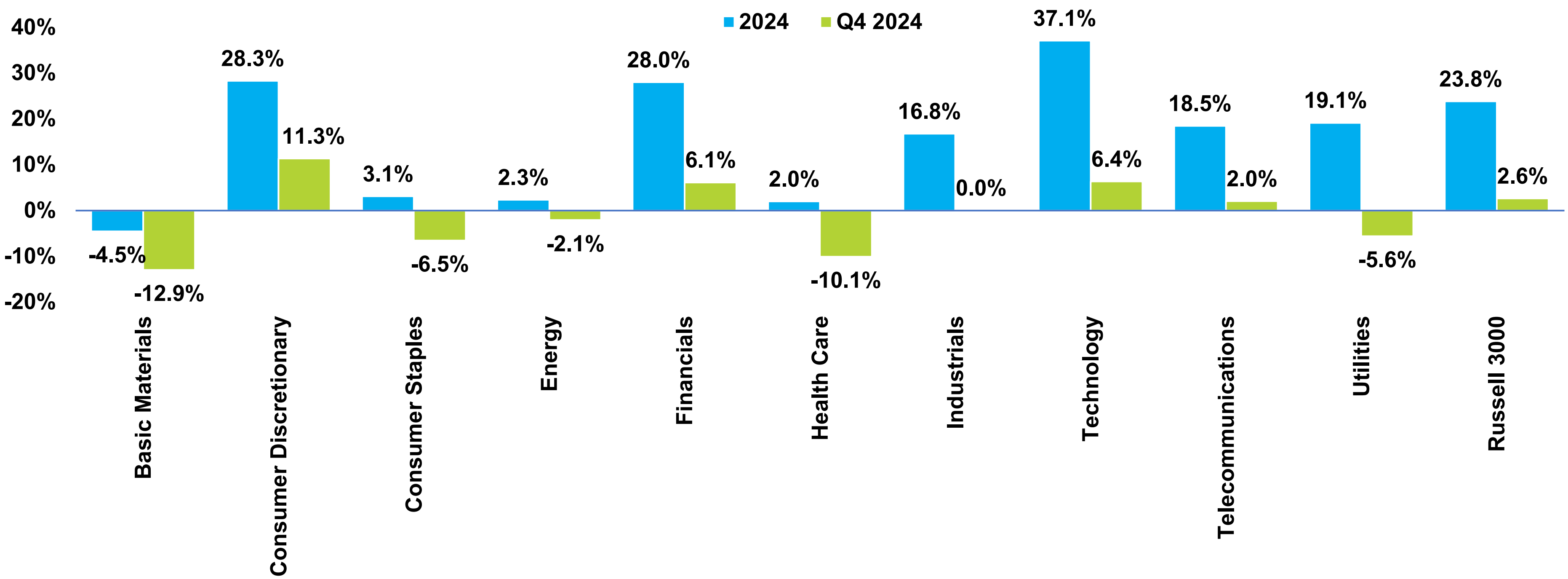
Domestic Equity	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-2.4	2.4	25.0	8.9	14.5	13.1
Russell 3000	-3.1	2.6	23.8	8.0	13.9	12.5
Russell 1000	-2.8	2.7	24.5	8.4	14.3	12.9
Russell 1000 Growth	0.9	7.1	33.4	10.5	19.0	16.8
Russell 1000 Value	-6.8	-2.0	14.4	5.6	8.7	8.5
Russell MidCap	-7.0	0.6	15.3	3.8	9.9	9.6
Russell MidCap Growth	-6.2	8.1	22.1	4.0	11.5	11.5
Russell MidCap Value	-7.3	-1.7	13.1	3.9	8.6	8.1
Russell 2000	-8.3	0.3	11.5	1.2	7.4	7.8
Russell 2000 Growth	-8.2	1.7	15.2	0.2	6.9	8.1
Russell 2000 Value	-8.3	-1.1	8.1	1.9	7.3	7.1

US Equities: The Russell 3000 rose 2.6% in the fourth quarter, bringing the year-to-date results to +23.8%.

- → US stocks rose broadly in the fourth quarter on a post-election rally. However, value stocks did not participate and ended the quarter lower. In the large cap space, the Russell 1000 Value index's omission of several "Magnificent 7" stocks, such as NVIDIA, Amazon, and Tesla, drove much of the divergence.
- → For the full year, US equities gained 23.8%. NVIDIA was the leading contributor among all stocks in the Russell 3000 index. The stock appreciated 171% during the year and was responsible for 20% of total index gains. The "Magnificent 7" stocks contributed just under 50% of the 2024 index gains.
- → Growth stocks outperformed value stocks across the market cap spectrum in 2024, which was more pronounced in the large cap space. Larger companies (Russell 1000) produced more than double the returns of smaller companies (Russell 2000) for the year.

[1] Source: Bloomberg. Data is as of December 31, 2024.

Russell 3000 Sector Returns[1]



- US equity sectors experienced mixed results in the final quarter of the year but all sectors except materials, experienced gains in 2024.
- Technology stocks rose 37.1% last year, which led all sectors. Within technology, NVIDIA and Broadcom accounted for more than half of the sector's contribution to overall index gains.
- After technology, consumer discretionary (+28.3%) and financials (+28.0%) were next driven by Amazon and Tesla and a steepening yield curve/strong economy, respectively.

[1] Source: Bloomberg. Data is as of December 31, 2024.

Foreign Equity Returns[1]

Foreign Equity	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI Ex US	-1.9	-7.6	5.5	0.8	4.1	4.8
MSCI EAFE	-2.3	-8.1	3.8	1.6	4.7	5.2
MSCI EAFE (Local Currency)	0.4	-0.6	11.3	6.3	7.5	7.1
MSCI EAFE Small Cap	-2.3	-8.4	1.8	-3.2	2.3	5.5
MSCI Emerging Markets	-0.1	-8.0	7.5	-1.9	1.7	3.6
MSCI Emerging Markets (Local Currency)	1.2	-4.4	13.1	1.6	4.5	6.0
MSCI EM ex China	-1.2	-8.1	3.6	0.1	4.4	4.7
MSCI China	2.7	-7.7	19.4	-6.1	-3.4	1.9

Foreign Equity: Developed international equities (MSCI EAFE) fell -8.1% in the fourth quarter but rose 3.8% for the year, while emerging market equities (MSCI Emerging Markets) fell -8.0% in the quarter but returned 7.5% for the year.

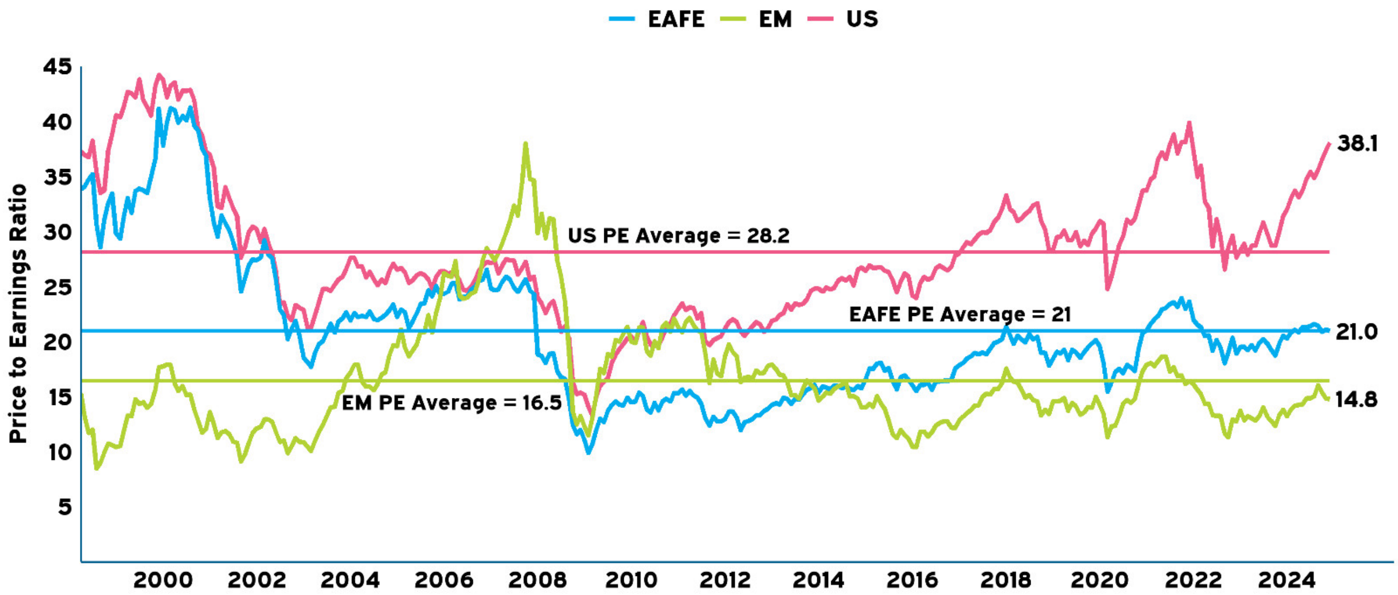
→ Continued strength in the US dollar weighed on developed market shares, with declines in local terms significantly lower (-0.6% versus -8.1%). An unstable political environment, potential tariffs from the US, and weak growth all weighed on eurozone equities. Japan was a bright spot, outperforming the US for the quarter, with renewed yen weakness boosting the outlook for exporters.

→ Emerging markets reacted poorly to Mr. Trump's win in the fourth quarter, due largely to tariff fears and the Fed's decreased likelihood of reducing rates in 2025. A strong dollar also weighed on results but not as much as in developed markets. China declined less than the broader index for the quarter (-7.7% versus -8.0%).

→ Over the full 2024 calendar year, international equities significantly trailed US equities.

[1] Source: Bloomberg. Data is as of December 31, 2024.

Equity Cyclically Adjusted P/E Ratios[1]



- → Valuations in US stocks continued to move higher over the quarter while valuations for international equities fell.
- → US stocks, priced at 38.1 times earnings, continue to trade well above their long-run PE average of 28.2.
- → Non-US developed market valuations are trading at their long-term average. Emerging market stock valuations declined the most over the quarter (16.1 to 14.8) and remain below their 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 December 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 Returns[1]

Fixed Income	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-1.5	-2.7	2.0	-1.9	0.1	1.7	5.1	5.9
Bloomberg Aggregate	-1.6	-3.1	1.3	-2.4	-0.3	1.3	4.9	6.1
Bloomberg US TIPS	-1.6	-2.9	1.8	-2.3	1.9	2.2	4.6	6.5
Bloomberg Short-term TIPS	-0.1	-0.1	4.7	2.1	3.3	2.6	4.4	2.4
Bloomberg US Long Treasury	-5.3	-8.6	-6.4	-12.0	-5.2	-0.6	4.9	14.9
Bloomberg High Yield	-0.4	0.2	8.2	2.9	4.2	5.2	7.5	3.5
JPM GBI-EM Global Diversified (USD)	-1.9	-7.0	-2.4	-1.0	-1.9	-0.4	--	--

Fixed Income: The Bloomberg Universal index fell 2.7% in the quarter, bringing the year-to-date return to +2.0%.

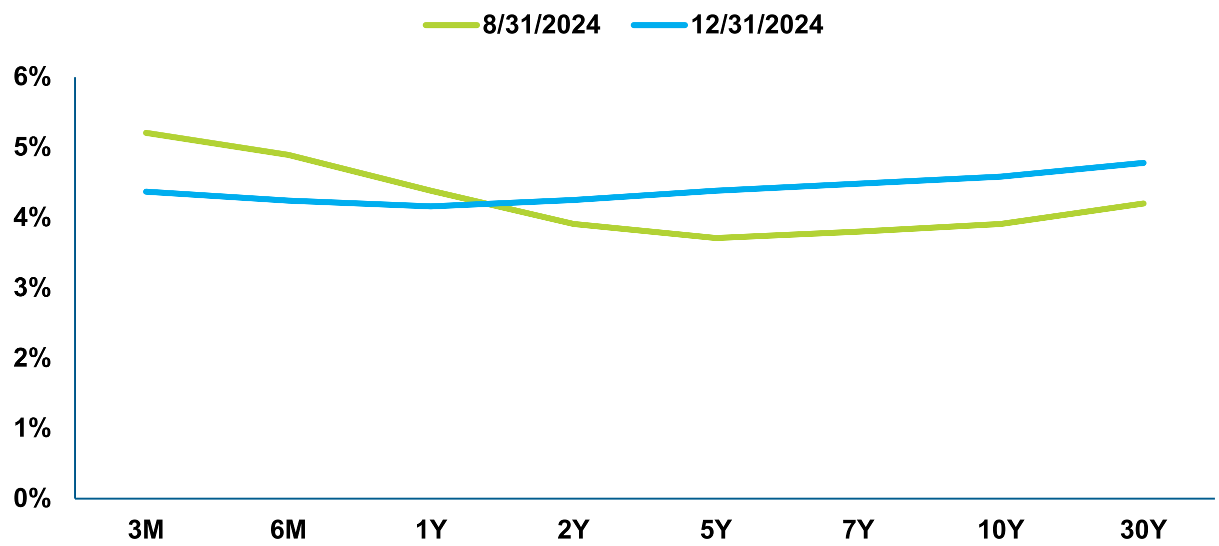
→ Fixed income indexes largely declined over the quarter due to rising interest rates as investors considered proposed policies like tariffs and deportations and their respective risks to inflation.

→ The broad US bond market (Bloomberg Aggregate) fell 3.1% over the quarter, with TIPS performing similarly at longer maturities. Long-term Treasury bonds experienced the largest declines, with a drop of 8.6%.

→ High yield bonds outperformed as investor risk appetite remained robust, while emerging market debt weakened on uncertainty about the path of proposed US tariffs by the incoming administration as well as by higher US interest rates.

[1] Source: Bloomberg. Data is as of December 31, 2024. 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.

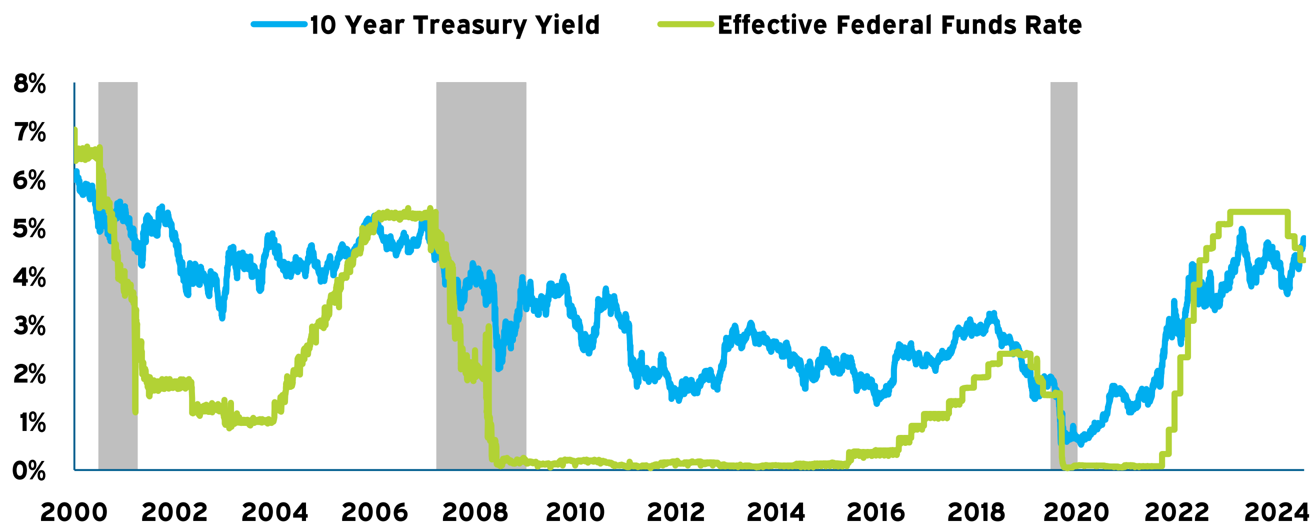
US Yield Curve[1]



- With the exception of the very shortest maturities, US Treasury yields rose in the fourth quarter driven by resilient growth and increased inflation expectations. Term premium (a measure of interest rate uncertainty) spiking over the quarter was a key driver of higher rates.
- Over the quarter, the more policy sensitive 2-year Treasury yield rose from 3.64% to 4.24%, while the 10-year Treasury yield rose from 3.78% to 4.57%.
- The yield curve was no longer inverted (short-term interest rates higher than long-term interest rates) at year-end given expectations for the Fed to continue to reduce rates and resilient economic growth and persistent inflation.

[1] Source: Bloomberg. Data is as of December 31, 2024. The August 2024 Treasury yields are shown as a reference before the first interest rate cut.

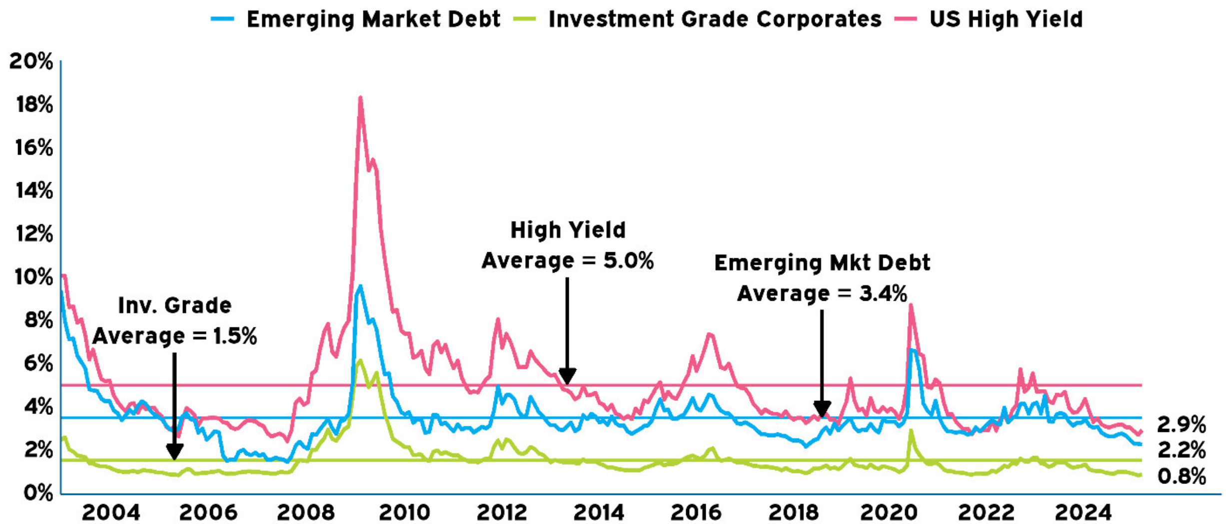
10-Year Treasury Yield versus Fed Funds Rate[1]



- Typically, when the Fed cuts interest rates, the yield on the ten-year Treasury follows as rate cuts often come in an environment of falling inflation and rising unemployment.
- The recent dynamic has been very unusual with the Fed cutting interest rates by a total of 1.0% since September and the ten-year Treasury increasing by a similar amount over the same time period.
- Questions remain about why this is happening with some saying it is related to fiscal concerns and others pointing to lower demand for our debt from overseas. It is also possible the market feels the Fed has overcut rates already.

[1] Source: FRED. Data is as of January 15, 2025.

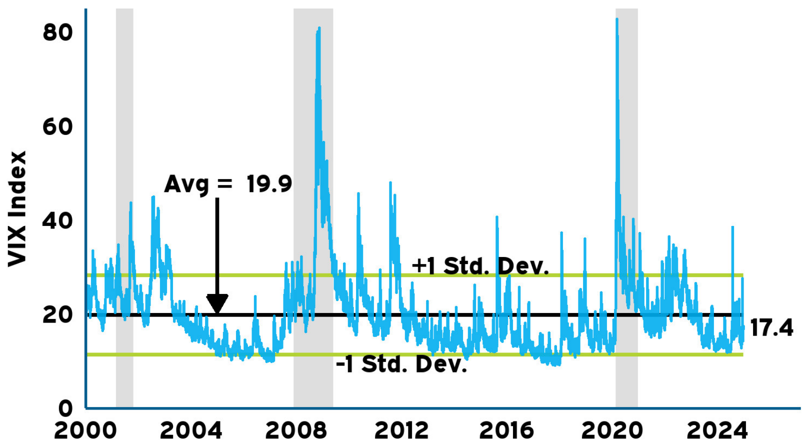
Credit Spreads vs. US Treasury Bonds[1]

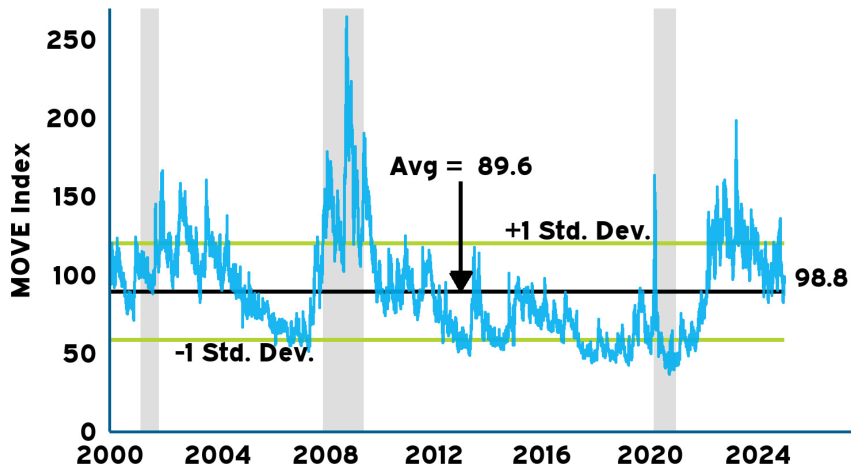


- Spreads (the yield above a comparable maturity Treasury) all continued to tighten over the quarter.
- All yield spreads remained below their respective long-run averages, particularly high yield (2.9% versus 5.0%).
- Although spreads are tight, absolute yields remain at above-average levels compared to the last two decades.

[1] Source: Bloomberg. Data is as December 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 Volatility[1]

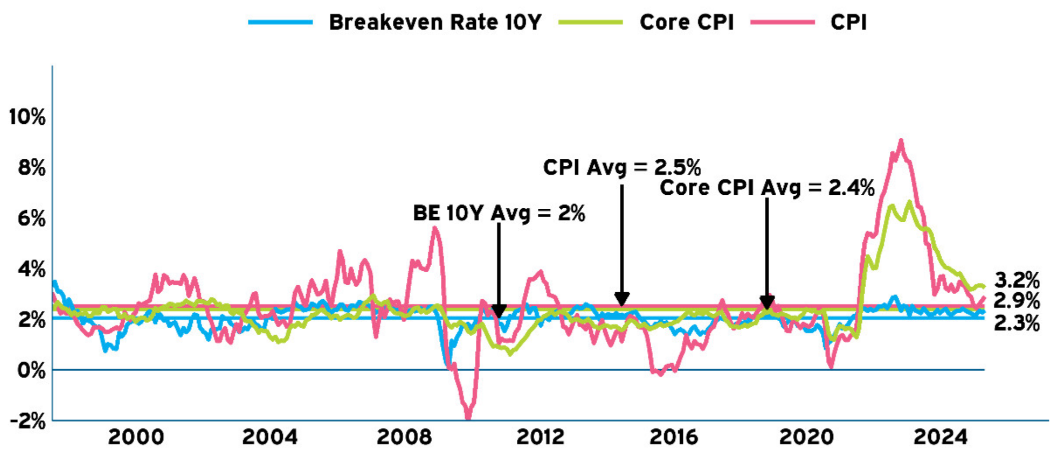




- Bond and equity volatility experienced several spikes over the quarter ahead of the election but finished lower after the clear results.
- Volatility levels (VIX) in the US stock market finished the quarter below its long-run average, while volatility in the bond market (MOVE) ended December above 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 December 31, 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and December 2024.

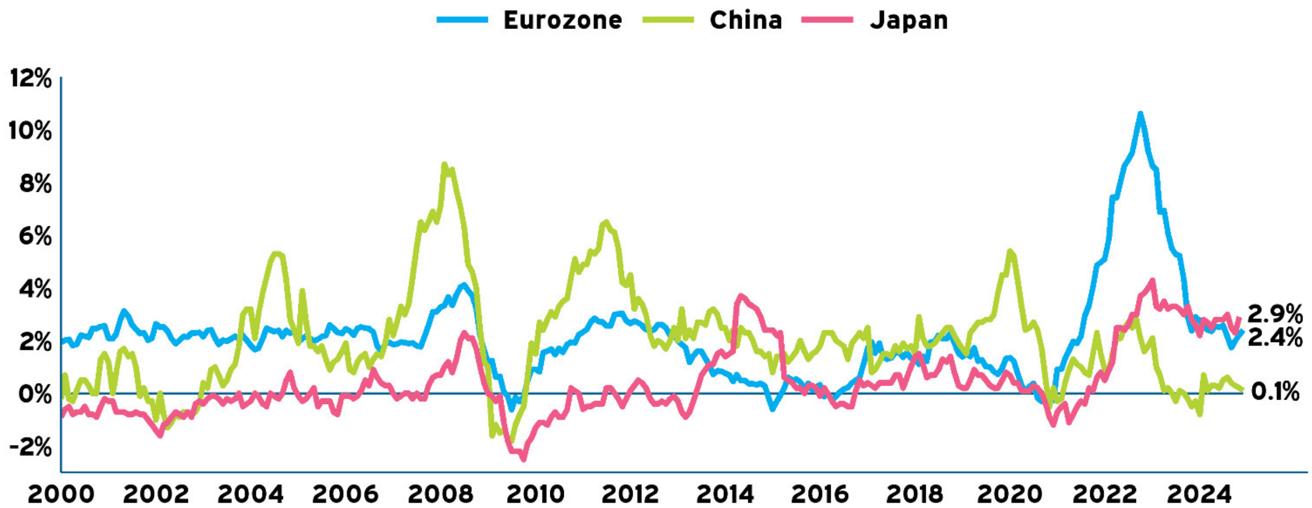
US Ten-Year Breakeven Inflation and CPI[1]



- In December, inflation rose 0.4% month-over-month with energy prices accounting for 40% of the monthly increase.
- Year-over-year inflation increased from 2.4% to 2.9% over the quarter largely driven by base year effects. In the December reading shelter (+4.6%), transportation (+7.3%), and medical care (+3.4%) contributed to the annual gain while energy prices (-0.5%) fell over the past year despite the December (+2.6%) gains.
- Year-over-year core inflation (excluding food and energy) fell slightly over the quarter (3.3% to 3.2%).
- Inflation expectations (breakevens) rose over the quarter from the September lows of 2.0%, on continued uncertainty regarding the likelihood and magnitude of potential policies of the next US president.

[1] Source: FRED. Data is as of December 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.

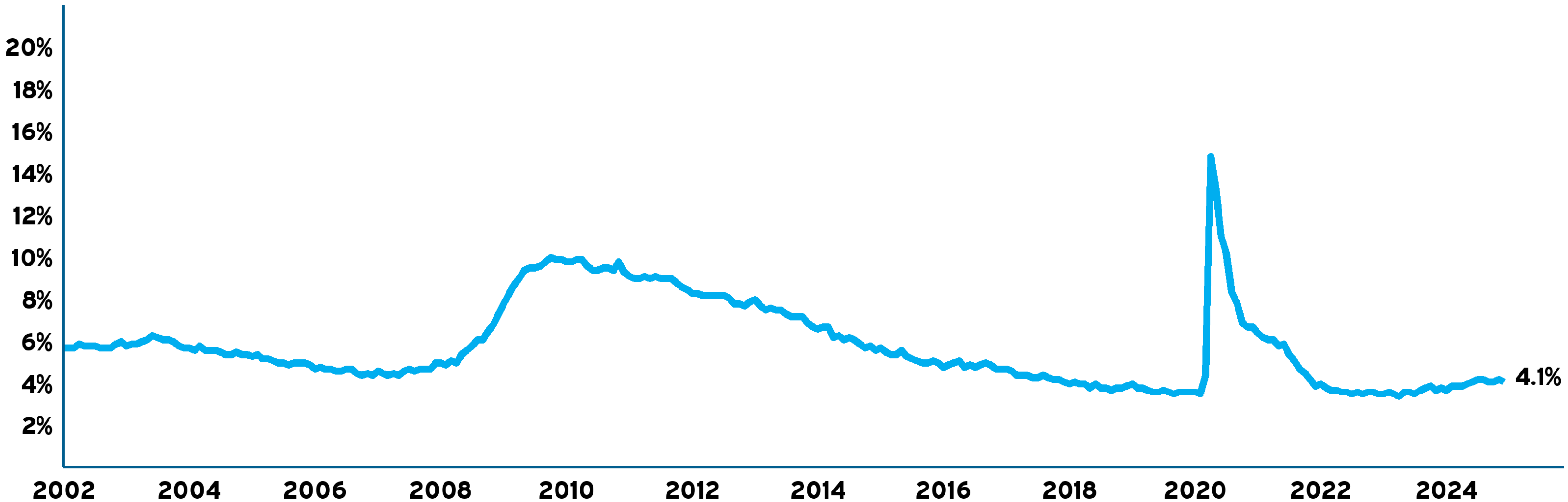
Global Inflation (CPI Trailing Twelve Months)[1]



- In the eurozone, inflation rose each month over the quarter (1.7% to 2.4%) but levels remain below the US. The increase was largely driven by last year's significant fall in energy prices no longer being included in the calculation.
- Inflation in Japan rose over the quarter due in part to an increase in food prices and the end of energy subsidies driving electricity and gas prices higher.
- Inflation in China grinded lower in the fourth quarter (0.4% to 0.1%). China continues to experience deflationary pressures despite recent stimulus measures.

[1] Source: Bloomberg. Data is as December 2024, except Japan which is as of November 2024.

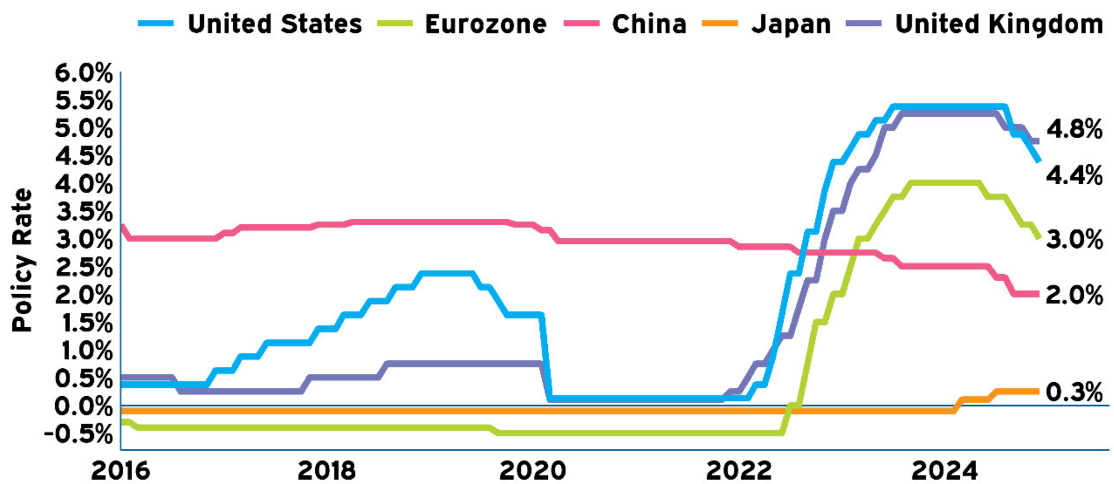
US Unemployment[1]



- The unemployment rate stayed stable over the quarter at 4.1% with close to 500k jobs added to the economy since the end of September.
- In December, the heath care (+46K), retail (+43k), and government (+33K) sectors added jobs, while retail – which lost jobs in November – rebounded (+43K) jobs.
- Job openings (8.1M) rose over last month's openings (7.7M) but are well below pandemic highs (>12M); the number of openings exceeds the number of unemployed workers looking for work (6.9M).
- Separations (5.1M) and hires (5.3M) remain steady and average hourly wages continue to grow at approximately 3.9% a year.

[1] Source: FRED and BLS. Data is as of December 31, 2024.

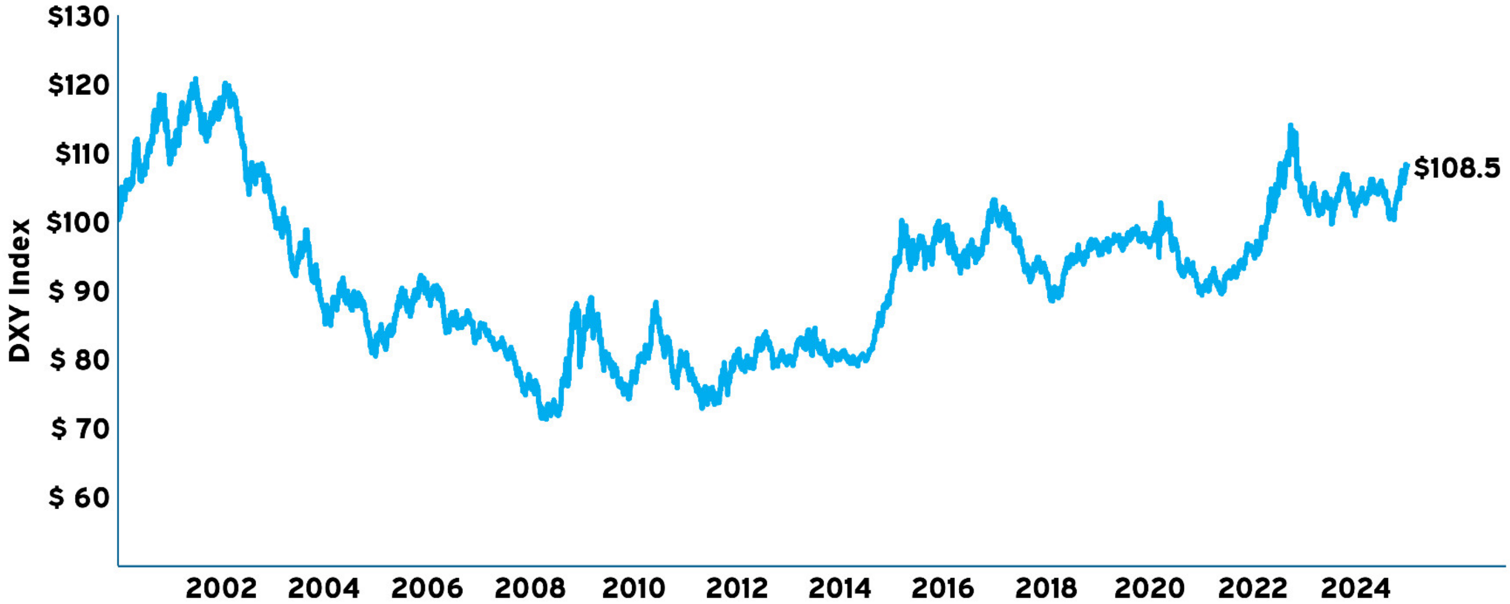
Policy Rates[1]



- In the US, the Fed reduced interest rates by 0.25% twice over the quarter to a range of 4.25% to 4.50%, in moves largely expected by investors. Going forward, questions remain about the timing and amount of additional cuts given the strength of the economy and persistent above-target inflation.
- The Bank of England left rates unchanged in December after their November 0.25% cut, while the European Central Bank cut rates by another 0.25% in early December.
- After exiting negative interest rates in 2024 and making several rate increases, rate cutting by other major central banks are complicating prospects for further policy rate hikes in Japan.

[1] Source: Bloomberg. Data is as of December 31, 2024. 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.

US Dollar vs. Broad Currencies[1]



→ Over the quarter, the US dollar sharply strengthened (+8.0%) versus other currencies.

→ A rise in interest rates driven by potential inflationary impacts of proposed higher tariffs, lower taxes, and immigration policies from candidate, and now president-elect Trump, drove the dollar's gains.

[1] Source: Bloomberg. Data as of December 31, 2024.

Summary

Key Trends:

→ According to the International Monetary Fund's (IMF) October report, global growth in 2025 is expected to be similar to 2024 at around 3.2% with most major economies predicted to avoid a recession.

→ Questions remain about what policies will be implemented by the new administration in the US. Although deregulation and tax cuts could support growth, these policies, along with higher tariffs and restrictive immigration, could fan inflation. This will likely lead to additional uncertainty regarding the timing and pace of interest rate cuts in the coming year.

→ US consumers could feel pressure as certain components of inflation (e.g., shelter) remain high, borrowing costs stay elevated, and the job market may weaken further.

→ 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.

→ We have started to see divergences in monetary policy. Some central banks, such as the Fed, European Central Bank, and the Bank of England, have started to cut interest rates and others, like the Bank of Japan, have increased interest rates. This disparity will likely influence capital flows and currencies.

→ China appears to have shifted focus to more policy support for the economy/asset prices with a suite of fiscal and financial policy stimulus measures. Thus far, these efforts have not increased weak consumer spending or helped the lingering trouble in the real estate sector. It is still not clear what the long-term impact of these policies will be on the economy and if policy makers will remain committed to these efforts.

Appendices

Corporate Update

6
Offices

240+
Employees

250+
Clients

$2T
Assets Under Advisement

$340B
Assets in Alternative Investments

98%
Client Retention Rate

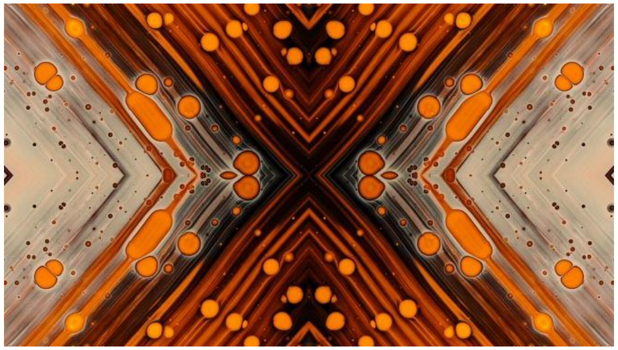
5:1
Client | Consultant Ratio

UPCOMING EVENTS

Meketa Investment Group is proud to work for over 25 million American families everyday!

Client and employee counts as of December 31, 2024; assets under advisement as of June 30, 2024; assets in alternative investments as of December 31, 2023.
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



The X Factor: China or ex-China?

Meketa invites you to join our latest webinar as we unpack China's recent economic stimulus and reveal the potential impact on emerging markets, including opportunities in India and other growth economies.

In this 45-minute session, our experts discuss portfolio strategies for capitalizing on China's latest moves, offering insights on diversification within China and ex-China, and exploring the evolving landscape of emerging market investments. Whether you're looking to adjust your current portfolio or explore new avenues for growth, this session provides perspectives on navigating today's dynamic global market.

Read more here:
https://meketa.com/leadership/the-x-factor-china-or-ex-china/

Risk Budgeting Primer

For CIOs, investment staff, and trustees tasked with assessing the risk of a capital pool, risk budgeting provides a structured approach. This practice involves setting a "budget" for risk and then allocating and monitoring that risk across the portfolio.

This paper focuses on risk budgeting at the active risk level, examining how active risk is allocated and managed within a portfolio. We will explore the concept of active risk, why it exists in portfolios, and the expected outcomes for investors based on different levels of active risk exposure.

Read more here:
https://meketa.com/leadership/risk-budgeting-primer/

Cash Flow Gridlock: Understanding the PE Distribution Challenge

Over the last three years, many investors have experienced a considerable decline in the distributions they had grown accustomed to receiving from their private market investments.

The liquidity that fueled a robust cycle of exits and distributions slowed dramatically beginning in 2022, coinciding with the rise in interest rates. Many general partners (GPs) responded by extending hold periods and seeking alternative sources of liquidity, leading to a collective bottleneck in distribution activity in private equity.

Read more here:
https://meketa.com/leadership/cash-flow-gridlock-understanding-the-private-equity-distribution-challenge/

MEKETA ESSENTIALS: PORTFOLIO BUILDER LAUNCH AND NEW LANDING PAGE

Meketa Essentials provides an advanced asset allocation and risk management toolset designed to empower chief investment officers, investment staff, and trustees to make data-driven decisions with confidence.

What is the probability of achieving our target returns?

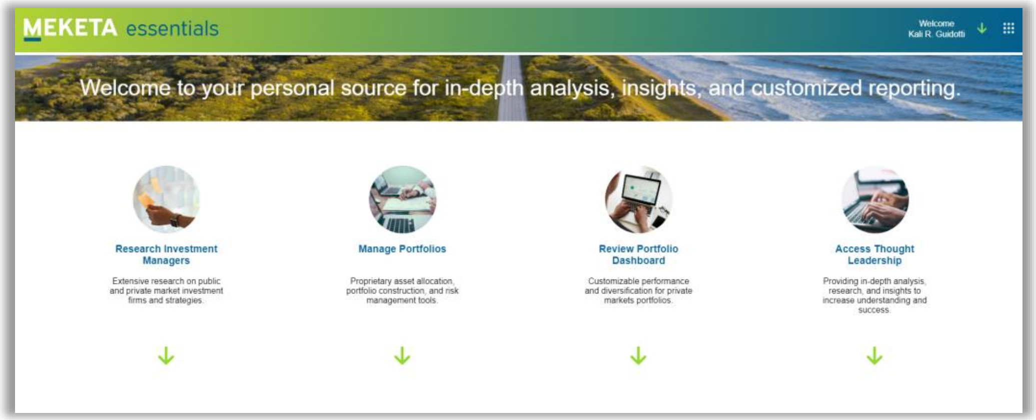
The asset allocation tool within Meketa Essentials uses sophisticated modeling to estimate the likelihood of reaching your target returns over multiple time periods. By providing insights through probability distributions, it enables decision-makers to gauge if their current strategy is aligned with long-term financial goals.

How might our portfolio respond to economic and market shifts?

With capabilities like stress testing and economic regime modeling, Meketa Essentials allows clients to simulate the effects of different growth, inflation, and interest rate scenarios on their portfolios. This helps in understanding potential vulnerabilities and preparing for various market conditions.

Are we effectively managing portfolio risk?

The platform's risk decomposition tool breaks down overall portfolio risk by asset class, helping stakeholders pinpoint which areas contribute most to volatility. Additionally, tools like tracking error analysis provide insights into deviations from benchmarks, enabling a clearer view of whether risks are within acceptable limits.



New this quarter is the release of our **Portfolio Builder** module. With **Portfolio Builder**, users are able to review manager specific information when building portfolios and see how these managers interact when combined in a portfolio. The tool includes a broad array of public markets and liquid alternatives managers, as well as provides the ability for a user to upload managers. It allows for both analysis and optimization of portfolios.

The tool can answer questions such as:

- What is the information ratio of my current global equity allocation? What changes to my portfolio would optimize that information ratio?
- If I were to change the allocations to the managers in my US equity allocation, how would that impact my factor exposures?
- What impact would a change to my fixed income portfolio have had during the recent increase in interest rates?
- How would introducing a new manager affect the tracking error versus my benchmark and my overall risk exposure?

MEKETA IN THE COMMUNITY

32
Employees Participated

$9,640
Total Donations

THE COMMUNITY FOUNDATION of WESTERN NORTH CAROLINA

In late September of 2024, a devastating tropical cyclone (Hurricane Helene) made landfall. It caused widespread catastrophic damage and numerous fatalities across the Southeast.

To show our support for the region (which is the location of one of our clients, Warren Wilson College), Meketa encouraged employees to donate to The Community Foundation of Western North Carolina's "Emergency and Disaster Response Fund", matching all donations. We had $4,820 from 32 employees, and then a 100% match from Meketa for a total of $9,640 donated.

When families can't afford enough to eat, they often can't meet other basic needs as well, including housing, employment, healthcare, and more. Feeding America helps provide meals to people in need through a network of food banks and helps address root causes of hunger.

As we entered into the last few weeks of the year, we recognized that food insecurity remains a challenge for many in our local communities. During the month of November, the Corporate Responsibility Committee focused on our company value of **Community Influence** by sponsoring a donation matching challenge in support of Feeding America, to which Meketa and its employees have donated close to $40,000 over the past few years. Again this year, any donations made by employees to Feeding America in the month of November were matched 100% by Meketa.

45 Employees Participated

$7,587 Total Donations

MEKETA IN THE NEWS

fin|news

Not Investing In China: More Of A Political Decision Than A Financial One

By Zack Cziryak | October 15, 2024

The industry is constantly shifting, with landscapes changing and investment managers and consultants determined to keep up, however, a May 2024 whitepaper from investment consultant **Meketa Investment Group** noted that "there has been a clear pivot towards EM exChina."

Emerging markets ex-China searches have seemed to gather enough traction at this point, with a cyclicality around that trend line depending on the ebbs and flows of Chinese equities performance, according to **Hayley Tran**, managing principal and head of global equity at Meketa. "This dates back to the discussions leading up to and final decision to add China A shares in the MSCI EM Index which has contributed to the subsequent domination of the Index by the country." "It's just such a significant concentration in that Index which is a real headwind to active management … So, the talk of exclusion started then, but I think over time it has sustained further interest especially from the geopolitical front," she said.

"It is more practical to try to limit China exposure by excluding China listed names versus attempting to minimize China revenue exposure," Hayley Tran, Meketa.

Read Full Article Here

Buyouts

Too Big to Exit? GPs seek Alternatives

By Chris Witkowsky | October 1, 2024

With slow exit activity, including public filings, several GPs are facing a challenge: What to do with portfolio companies that, after years of successful growth, have become challenging to sell?

"It may be a material consideration: as firms raise larger and larger funds and conduct larger deals, the opportunity set of potential buyers generally grows smaller," says Mr. Fergusson.

"That can make it more challenging to exit deals and ultimately makes you more reliant on the IPO market, which we know has not been very favorable recently." – Tad Fergusson, Meketa

Read Full Article Here

Private Equity International

PE Poised for a Comeback

By Alex Lynn | December 2, 2024

"US public equities, certainly, but also global equities, have been in a very positive performance trend, and that's helped the denominator effect," says Steve Hartt, managing principal at investment consultancy Meketa Investment Group. "Folks generally just aren't feeling so much of that overallocation issue. I think it's really been the expansion of the denominator that has helped them, that when you do the math, they end up being not so overallocated."

"Distributions have continued to be on the lighter side, and just not hitting what historical averages have been," Meketa's Hartt notes. "I think that it's been a busier time for transactions in the second half of 2024, but maybe still being a little below what people would hope for. What I'm hearing is 2025 is supposed to be a big year for exits."

"What I'm hearing is 2025 is supposed to be a big year for exits" – Steven Hartt, Meketa.

Read Full Article Here

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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 is 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%.

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

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.