Maryland State Retirement and Pension System

Performance Report
September 30, 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 third quarter, the System was valued at $70,400 million, an increase of $2,155 million from the end of the second quarter.

- The increase was the result of positive investment performance, as net cash outflows totaled $815 million for the quarter.

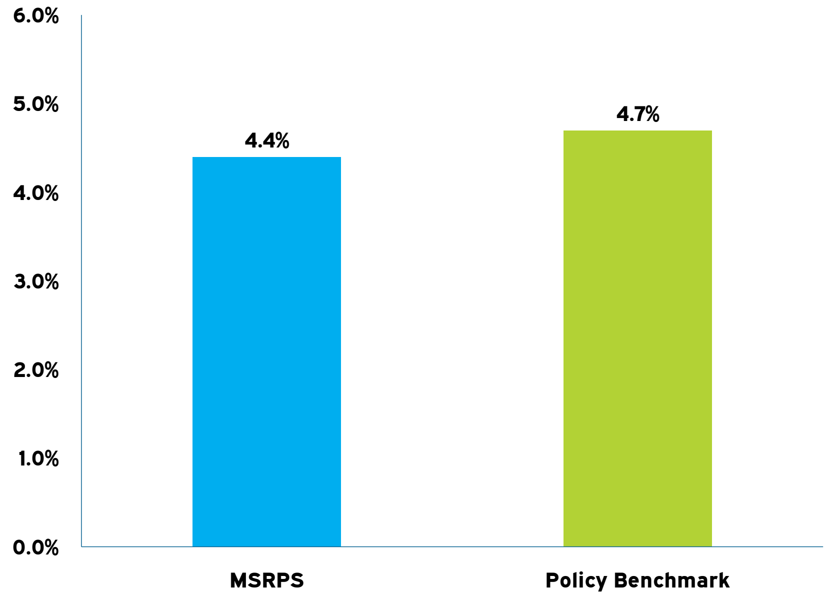
→ The System returned 4.4%, net of fees, during the third quarter of 2024, underperforming the policy benchmark by 0.3%.

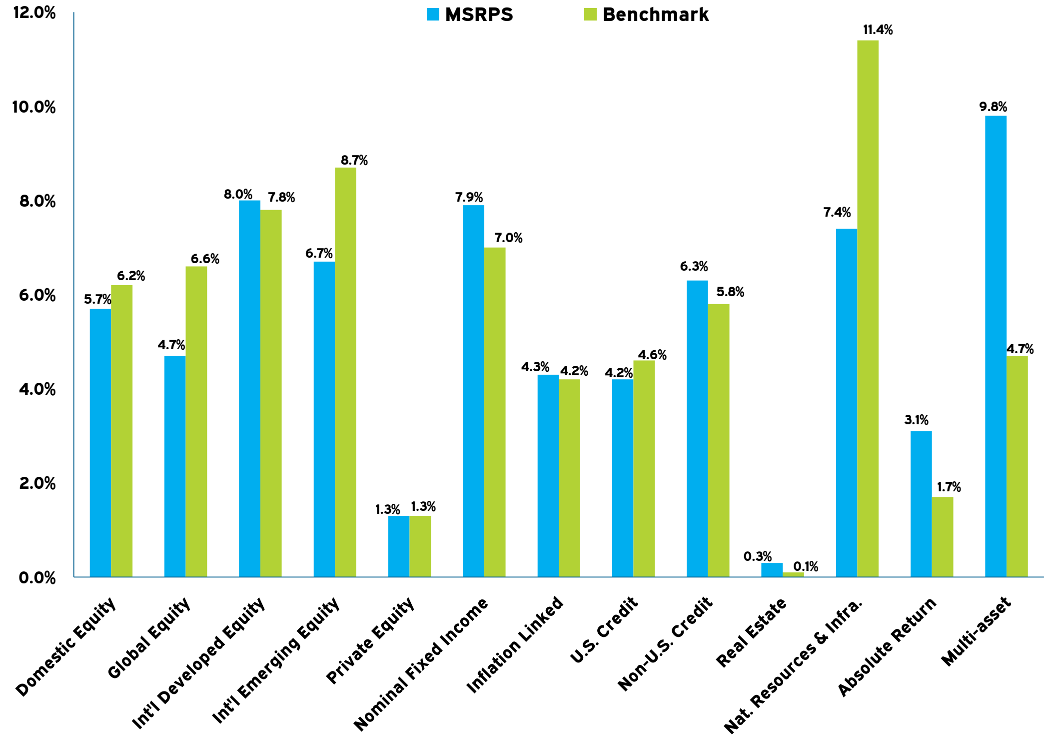
- All asset class returns were positive for the quarter.
- Multi-asset had the strongest absolute return, up 9.8% for the quarter, while real estate was the weakest performer in absolute terms, up 0.3%.

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

Q3 System and Asset Class Performance

→ The System slightly underperformed the Policy Benchmark during the third quarter, returning 4.4%, net of fees.





→ During the quarter, multi-asset delivered the best absolute performance returning 9.8%.

→ On a relative basis, multi-asset was the best performing asset class, outpacing its benchmarks by 5.1%.

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 Q3 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	30.9	6.3	2.0	28.4	7.1	2.0	0.03	-0.14	-0.09	-0.20
Domestic Equity	14.3	6.0	0.9	14.2	6.2	0.9	0.00	-0.03	0.00	-0.03
International Developed	8.2	7.7	0.6	9.2	7.8	0.7	-0.03	0.00	0.00	-0.03
International Emerging	4.8	6.6	0.3	5.0	8.7	0.4	-0.01	-0.10	0.00	-0.11
Global Equity	3.6	4.0	0.1	0.0	6.6	0.0	0.07	0.00	-0.09	-0.02
Private Equity	21.4	1.3	0.3	21.6	1.3	0.3	0.01	0.00	0.00	0.01
Nominal Fixed Income	13.5	6.4	0.9	16.4	7.0	1.1	-0.07	-0.10	0.02	-0.15
Inflation Linked	3.4	4.2	0.1	4.1	4.2	0.2	0.00	0.00	0.00	0.01
US Credit	8.0	3.7	0.3	8.0	4.6	0.4	0.00	-0.07	0.00	-0.07
Non- US Credit	1.1	6.3	0.1	1.0	5.8	0.1	0.00	0.00	0.00	0.01
Real Estate	9.4	0.3	0.0	9.5	0.1	0.0	0.01	0.01	0.00	0.02
Natural Resources & Infrastructure	4.9	7.4	0.4	5.0	11.4	0.6	-0.01	-0.19	0.01	-0.19
Absolute Return	5.8	3.1	0.2	6.0	1.7	0.1	0.01	0.08	0.00	0.09
Multi-Asset	0.4	9.8	0.0	0.0	4.7	0.0	0.00	0.00	0.02	0.02
Cash	1.3	1.5	0.0	0.0	1.4	0.0	-0.04	0.00	0.00	-0.04
Total (excl. overlay)	-	-	4.12	-	-	4.71	-0.07	-0.39	-0.05	-0.51
Currency Overlay							-0.05			
Structural/Tactical Overlay							0.33			
Total (incl. overlay)	**100.0**	**-**	**4.41**	**100.0**	**-**	**4.71**	**0.22**	**-0.39**	**-0.05**	**-0.22**

[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	29.8	28.8	8.6	28.1	30.6	8.6	0.21	-0.31	-0.15	-0.25
Domestic Equity	13.4	34.5	4.6	13.9	35.2	4.9	-0.15	-0.07	0.00	-0.22
International Developed	7.9	24.1	1.9	8.9	25.0	2.2	-0.13	-0.06	0.01	-0.19
International Emerging	5.1	21.9	1.1	5.3	26.1	1.4	-0.02	-0.18	0.01	-0.20
Global Equity	3.4	25.8	0.9	0.0	31.8	0.0	0.52	0.00	-0.17	0.35
Private Equity	21.9	5.3	1.2	21.9	4.7	1.0	0.00	0.12	0.00	0.12
Nominal Fixed Income	13.5	14.5	2.0	16.0	14.7	2.4	-0.04	-0.06	0.01	-0.08
Inflation Linked	3.4	10.0	0.3	4.0	9.8	0.4	0.02	0.01	0.00	0.03
US Credit	8.3	11.6	1.0	8.0	14.5	1.2	-0.01	-0.21	-0.01	-0.23
Non- US Credit	1.1	19.6	0.2	1.0	17.2	0.2	0.00	0.02	0.00	0.02
Real Estate	9.9	-7.1	-0.7	9.9	-7.6	-0.8	0.01	0.07	0.00	0.08
Natural Resources & Infrastructure	4.8	18.6	0.9	5.0	22.4	1.1	-0.01	-0.18	0.00	-0.20
Absolute Return	5.8	7.1	0.4	6.0	7.4	0.4	-0.01	-0.01	0.00	-0.03
Multi-Asset	0.4	27.4	0.1	0.0	13.7	0.0	0.00	0.00	0.04	0.04
Cash	1.1	5.8	0.1	0.0	5.6	0.0	-0.07	0.00	0.00	-0.07
Total (excl. overlay)	-	-	13.02	-	-	13.96	0.11	-0.56	-0.11	-0.56
Currency Overlay							-0.07			
Structural/Tactical Overlay							0.71			
Total (incl. overlay)	100.0	-	13.72	100.0	-	13.96	0.75	-0.56	-0.11	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

Third Quarter

→ In the third quarter, the System underperformed the policy benchmark by 0.30%.

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

→ The interaction effect and active management detracted from relative performance.

- Selection within absolute return was most additive while selection within public equity, natural resources and infrastructure and nominal fixed income (ex. the overlay) detracted from relative performance.

Trailing 1-Year

→ Over the trailing one-year period, the System underperformed the Policy Benchmark by 0.24%.

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

→ Interaction effects and manager selection (e.g., active management) detracted over the trailing year.

- Manager selection within private equity and real estate were the most additive to relative performance while selection within public equity, U.S. credit, and natural resources and infrastructure detracted the most from relative performance.

Attribution Details

Returns Based Attribution Definition:

→ Attribution is an analytical evaluation of a portfolio's performance relative to its benchmark. Attribution can portray where portfolio decisions were additive or detracted from relative performance. The three main attribution effects are the following:

- *Allocation Effect:* how the overweight or underweight of an asset class relative to the benchmark contributes to or detracts from performance.
- *Active Management Effect:* attributes relative performance to managers' stock selection decisions, relative to the benchmark.
- *Interaction Effect:* captures the portion of active management that is responsible for the cross interaction between the allocation and active management effects.
  - For example, if the System is overweight an underperforming asset class, it will have a negative interaction effect.

Calculations[1]:

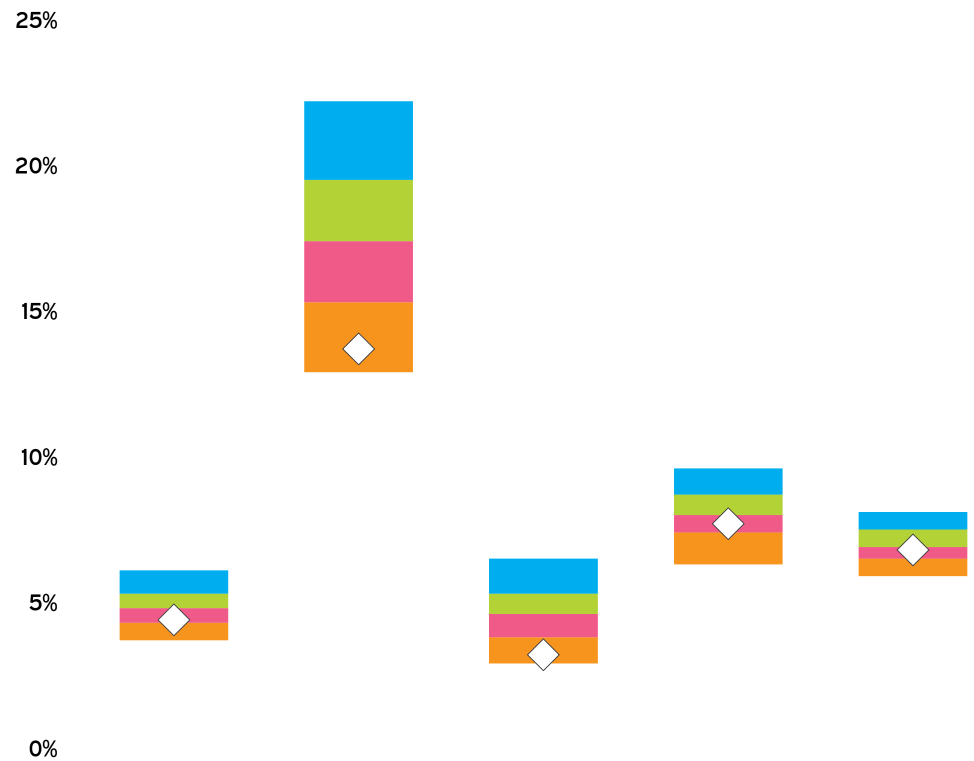
→ The Brinson Fachler attribution methodology is widely accepted within the industry. Using this methodology, the components are calculated as follows:

- *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.

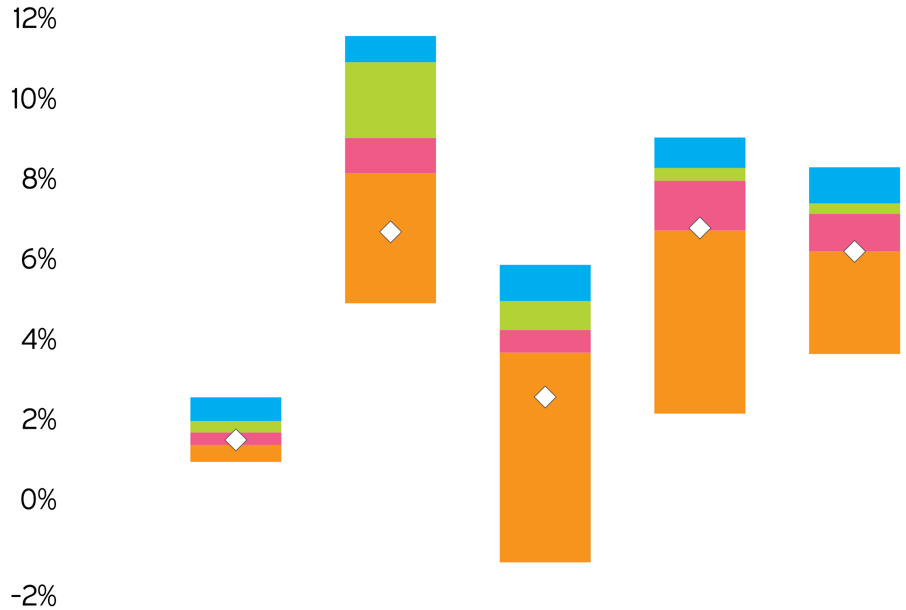
Total System vs. Public Plans >$1 Billion Universe[1]
As of September 30, 2024



	3Q24 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total System	4.4	13.7	3.2	7.7	6.8
25th Percentile	5.3	19.5	5.3	8.7	7.5
Median	4.8	17.4	4.6	8.0	6.9
75th Percentile	4.3	15.3	3.8	7.4	6.5
Rank (%)	*69*	*90*	*89*	*63*	*54*

[1] Represents a final release of the InvMetrics Public DB >$1 bn peer group as of September 30, 2024. Total System performance is net of fees. Includes 71 plans.

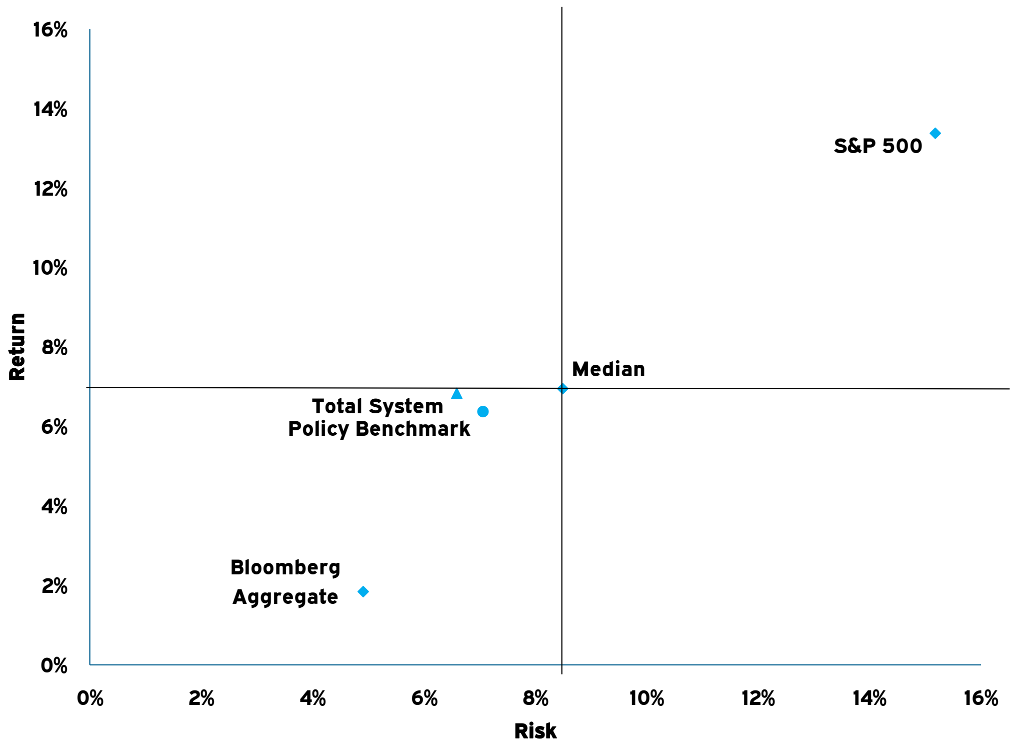
Total System vs. Public Plans >$25 Billion Universe[1]
As of June 30, 2024



	2Q24 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total System	1.2	7.1	2.4	7.2	6.5
25th Percentile	1.8	11.9	5.1	8.9	7.9
Median	1.4	9.7	4.3	8.5	7.6
75th Percentile	1.1	8.7	3.7	7.1	6.5
Rank (%)	60	94	89	70	75
Policy Benchmark	*0.9*	*6.1*	*1.5*	*6.1*	*5.7*
Rank (%)	*89*	*94*	*89*	*87*	*87*

[1] Represents the TUCS Public >$25 bn peer group as of June 30, 2024. Total System performance is gross of fees. Includes 23 plans.

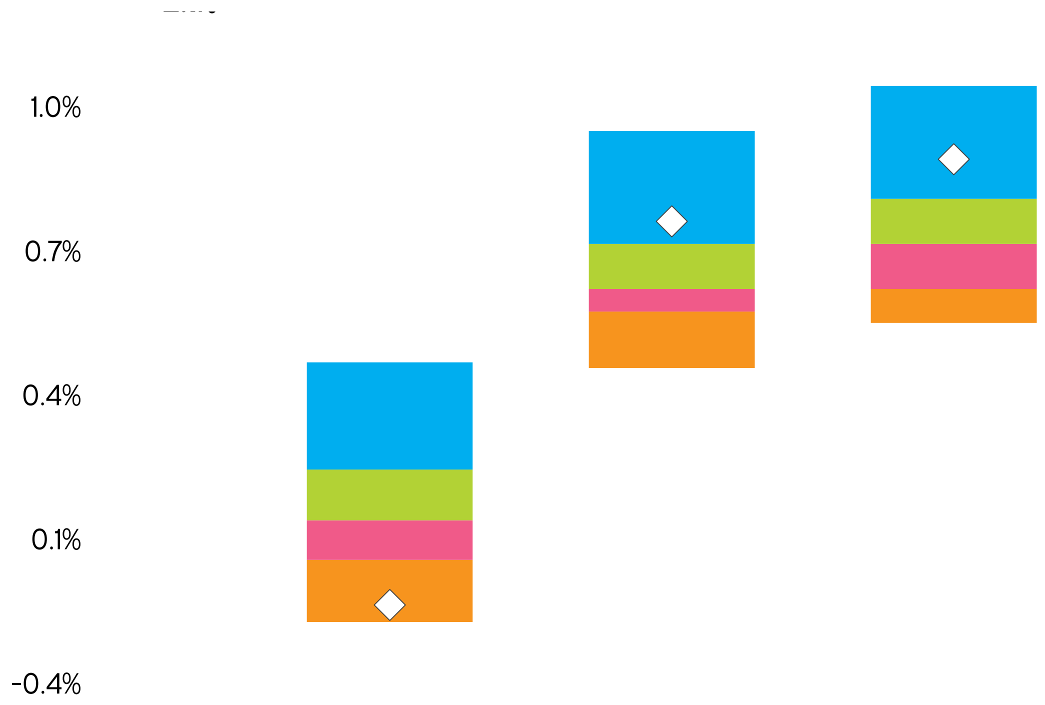
Total System Trailing 10-Year Risk vs Return[1]
As of September 30, 2024



	Risk (%)	Return (%)
Total System	6.6	6.8
Policy Benchmark	7.1	6.4
Median	8.5	7.0

[1] Represents a final cut of InvMetrics Public DB >$1 bn Net peer group as of September 30, 2024. Includes 71 plans.

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

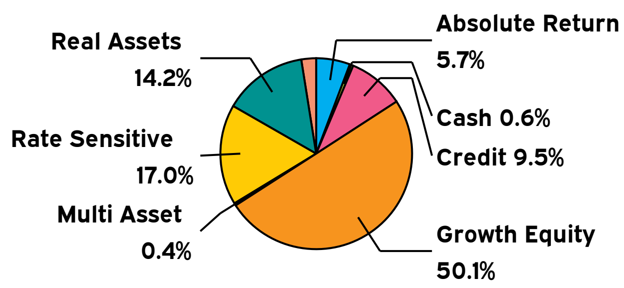


	3 YR	5 YR	10 YR
Total System	**0.0**	**0.7**	**0.8**
S&P 500	0.5	0.8	0.8
25th Percentile	0.2	0.6	0.7
Median	0.2	0.6	0.6
75th Percentile	0.1	0.5	0.6
Rank (%)	*93*	*20*	*19*

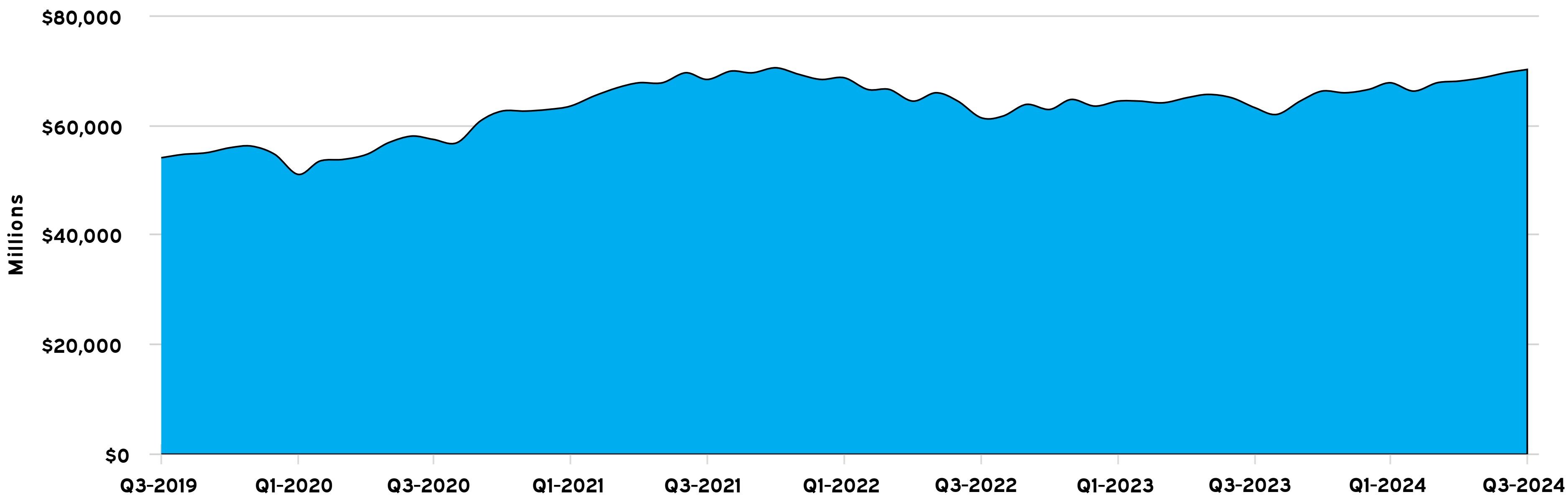
[1] Represents a final cut of InvMetrics Public DB >$1 bn Net peer group as of September 30, 2024. Includes 71 plans. The risk-free rate is the 90-day T-bill.

Performance Summary

Actual Allocation



Market Value History
5 Years Ending September 30, 2024



Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Transitional Targets	Policy	Policy Range
Growth Equity	**$36,997,858,119**	**53%**	**50%**	**50%**	**43% - 57%**
Domestic Equities	$10,330,093,376	15%	15%	17%	--
Global Equity	$2,553,062,836	4%	0%	0%	--
International Developed Market Equity	$5,855,812,879	8%	9%	11%	--
International Emerging Market Equity	$3,561,385,884	5%	5%	6%	--
Private Equity	$14,683,914,403	21%	21%	16%	--
Stock Distributions	$13,588,742	0%	0%	0%	--
Rate Sensitive	**$11,994,223,295**	**17%**	**21%**	**20%**	**15% - 25%**
Nominal Fixed Income	$9,619,040,062	14%	17%	16%	--
Inflation-Linked Bonds	$2,375,183,232	3%	4%	4%	--
Credit	**$6,685,240,367**	**9%**	**9%**	**9%**	**5% - 13%**
U.S. Credit	$5,903,454,482	8%	8%	8%	--
Non-U.S. Credit	$781,785,885	1%	1%	1%	--
Real Assets	**$9,969,278,077**	**14%**	**14%**	**15%**	**11% - 19%**
Real Estate	$6,462,446,424	9%	9%	10%	--
Commodities	$174,945,184	0%	0%	0%	--
Natural Resources and Infrastructure	$3,331,886,470	5%	5%	5%	--
Absolute Return	**$4,060,135,042**	**6%**	**6%**	**6%**	**2% - 10%**
Absolute Return	$4,060,135,042	6%	6%	6%	--
Multi Asset	**$285,001,407**	**0%**	**0%**	**0%**	**0% - 2%**
Multi Asset	$285,001,407	0%	0%	0%	--
Cash	**$408,310,515**	**1%**	**0%**	**0%**	**0% - 2%**
Cash	$408,310,515	1%	0%	0%	--
Total	**70,400,046,822**	**100%**	**100%**	**100%**	

Asset Class Performance Summary

	Market Value ($)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total System	**70,400,046,822**	**100.0**	**4.4**	**8.0**	**13.7**	**3.2**	**7.7**	**6.8**	**8.0**	**Jul-86**
System Policy Benchmark			*4.7*	*8.2*	*14.0*	*2.6*	*6.8*	*6.4*	--	
Over/Under			-0.3	-0.2	-0.3	0.6	0.9	0.4	--	
System Strategic Policy Benchmark			*4.7*	*8.2*	*14.0*	*2.8*	*7.0*	*6.5*	--	
Over/Under			-0.3	-0.2	-0.3	0.4	0.7	0.3	--	
Growth Equity	**36,997,858,119**	**52.6**	**4.3**	**11.8**	**18.5**	**5.4**	**12.4**	**10.3**	**7.2**	**Jan-98**
Public Equity	**22,300,354,974**	**31.7**	**6.3**	**17.0**	**29.1**	**5.7**	**11.3**	**8.9**	**8.5**	**Apr-94**
Public Equity Custom Benchmark			*7.2*	*17.4*	*30.0*	*6.4*	*10.8*	*8.6*	--	
Over/Under			-0.9	-0.4	-0.9	-0.7	0.5	0.3	--	
Domestic Equity	**10,330,093,376**	**14.7**	**5.7**	**20.6**	**35.4**	**10.8**	**15.1**	**12.5**	**9.9**	**Apr-94**
U.S. Equity Custom Benchmark			*6.2*	*20.6*	*35.2*	*10.3*	*15.3*	*12.8*	--	
Over/Under			-0.5	0.0	0.2	0.5	-0.2	-0.3	--	
Global Equity	**2,542,973,136**	**3.6**	**4.7**	**18.3**	**29.4**	**3.4**	**12.2**	**9.1**	**7.9**	**Oct-05**
Global Equity Custom Benchmark			*6.6*	*18.7*	*31.8*	*8.1*	*12.2*	*9.4*	*7.8*	
Over/Under			-1.9	-0.4	-2.4	-4.7	0.0	-0.3	0.1	
International Developed Market Equity	**5,855,812,879**	**8.3**	**8.0**	**13.4**	**25.7**	**5.2**	**9.3**	**6.1**	**6.6**	**Jan-95**
MSRA Custom International Index			*7.8*	*13.1*	*25.0*	*5.6*	*8.4*	*5.4*	*5.7*	
Over/Under			0.2	0.3	0.7	-0.4	0.9	0.7	0.9	
International Emerging Markets Equity	**3,561,385,884**	**5.1**	**6.7**	**12.9**	**20.4**	**-1.0**	**5.7**	**--**	**6.5**	**Nov-15**
MSCI Emerging Markets (Net)			*8.7*	*16.9*	*26.1*	*0.4*	*5.7*	--	*6.2*	
Over/Under			-2.0	-4.0	-5.7	-1.4	0.0	--	0.3	

	Market Value ($)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	**14,683,914,403**	**20.9**	**1.3**	**4.9**	**5.3**	**5.9**	**14.9**	**14.6**	**9.3**	**Mar-94**
State Street Private Equity Index			*1.3*	*5.7*	*5.8*	*5.3*	*13.5*	*11.8*	--	
Over/Under			0.0	-0.8	-0.5	0.6	1.4	2.8	--	
Rate Sensitive	**11,994,223,295**	**17.0**	**7.2**	**4.6**	**15.3**	**-4.9**	**-1.0**	**1.8**	**6.0**	**Jul-86**
Custom Rate Sensitive Benchmark			*6.4*	*3.7*	*13.8*	*-4.5*	*-1.3*	*1.7*	--	
Over/Under			0.8	0.9	1.5	-0.4	0.3	0.1	--	
Nominal Fixed Income	**9,619,040,062**	**13.7**	**7.9**	**4.4**	**16.6**	**-6.2**	**-2.2**	**1.4**	**5.9**	**Jul-86**
Custom Nominal Fixed Income Benchmark			*7.0*	*3.4*	*14.7*	*-5.6*	*-2.3*	*1.3*	--	
Over/Under			0.9	1.0	1.9	-0.6	0.1	0.1	--	
Inflation-Linked Bonds	**2,375,183,232**	**3.4**	**4.3**	**5.5**	**10.2**	**-0.5**	**2.8**	**2.8**	**3.5**	**Jul-08**
Custom Inflation Sensitive Benchmark			*4.2*	*4.9*	*9.8*	*-0.8*	*2.5*	*2.7*	*3.3*	
Over/Under			0.1	0.6	0.4	0.3	0.3	0.1	0.2	
Credit	**6,685,240,367**	**9.5**	**4.5**	**8.0**	**12.7**	**4.7**	**5.5**	**5.0**	**7.8**	**Mar-09**
U.S. Credit	**5,903,454,482**	**8.4**	**4.2**	**7.7**	**11.9**	**5.2**	**6.2**	**5.8**	**8.1**	**Mar-09**
U.S. Credit Custom Benchmark			*4.6*	*7.7*	*14.5*	*3.8*	*4.9*	*5.1*	*7.3*	
Over/Under			-0.4	0.0	-2.6	1.4	1.3	0.7	0.8	
Non-U.S. Credit	**781,785,885**	**1.1**	**6.3**	**10.5**	**19.7**	**1.3**	**2.2**	**1.2**	**1.0**	**Oct-10**
Non-U.S. Credit Custom Benchmark			*5.8*	*8.4*	*17.2*	*-0.6*	*0.7*	*0.8*	*0.9*	
Over/Under			0.5	2.1	2.5	1.9	1.5	0.4	0.1	
Real Assets	**9,969,278,077**	**14.2**	**2.3**	**-0.5**	**0.2**	**6.0**	**5.6**	**4.0**	**4.6**	**Feb-06**
Custom Real Assets Benchmark			*3.7*	*1.6*	*1.0*	*1.9*	*4.5*	*4.1*	*3.8*	
Over/Under			-1.4	-2.1	-0.8	4.1	1.1	-0.1	0.8	

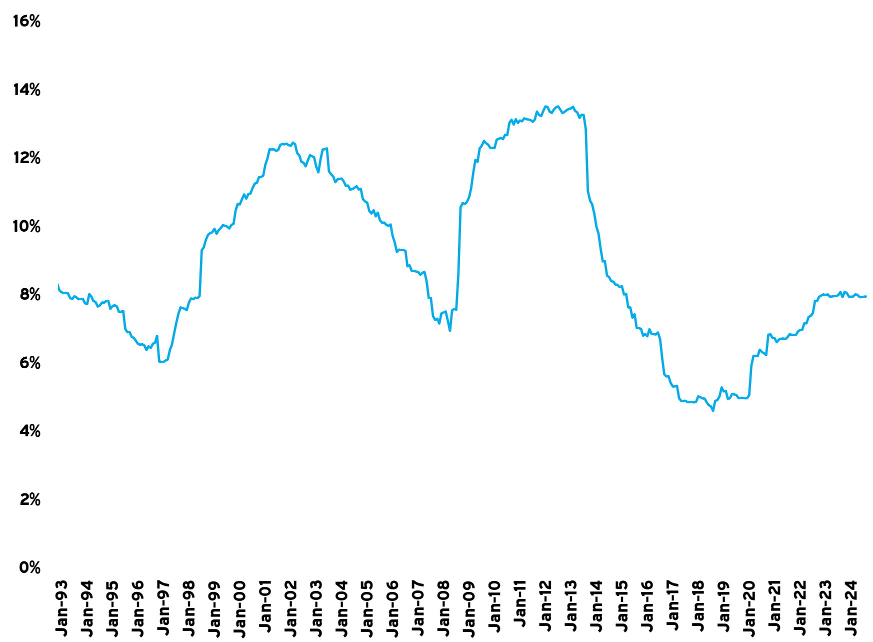
	Market Value ($)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Estate	**6,462,446,312**	**9.2**	**0.3**	**-5.6**	**-7.1**	**3.3**	**4.0**	**6.5**	**6.4**	**Jul-87**
Real Estate Custom Benchmark			*0.1*	*-2.9*	*-7.6*	*-0.6*	*2.8*	*5.9*	*7.4*	
Over/Under			0.2	-2.7	0.5	3.9	1.2	0.6	-1.0	
Commodities	**174,945,184**	**0.2**								
Natural Resources and Infrastructure	**3,331,886,470**	**4.7**	**7.4**	**11.5**	**18.6**	**11.3**	**8.4**	**3.7**	**8.8**	**Aug-09**
Natural Resources and Infrastructure Benchmark			*11.4*	*11.7*	*22.4*	*7.6*	*8.1*	*7.7*	*7.4*	
Over/Under			-4.0	-0.2	-3.8	3.7	0.3	-4.0	1.4	
Absolute Return	**4,060,135,042**	**5.8**	**3.1**	**7.0**	**7.1**	**3.0**	**4.1**	**2.8**	**3.5**	**Apr-08**
Absolute Return Custom Benchmark			*1.7*	*6.5*	*7.4*	*4.4*	*6.1*	*4.4*	*3.1*	
Over/Under			1.4	0.5	-0.3	-1.4	-2.0	-1.6	0.4	
Multi Asset	**285,001,407**	**0.4**	**9.8**	**13.1**	**27.4**	**-1.3**	**3.9**	**--**	**4.1**	**Jul-18**
System Policy Benchmark			*4.7*	*8.2*	*14.0*	*2.6*	*6.8*	--	*6.8*	
Over/Under			5.1	4.9	13.4	-3.9	-2.9	--	-2.7	
Cash	**408,310,515**	**0.6**	**1.5**	**4.2**	**5.8**	**4.3**	**3.1**	**4.4**	**3.7**	**Jul-08**
FTSE 3 Month T-Bill			*1.4*	*4.2*	*5.6*	*3.6*	*2.4*	*1.7*	*1.1*	
Over/Under			0.1	0.0	0.2	0.7	0.7	2.7	2.6	

Risk Dashboard

Total System Risk

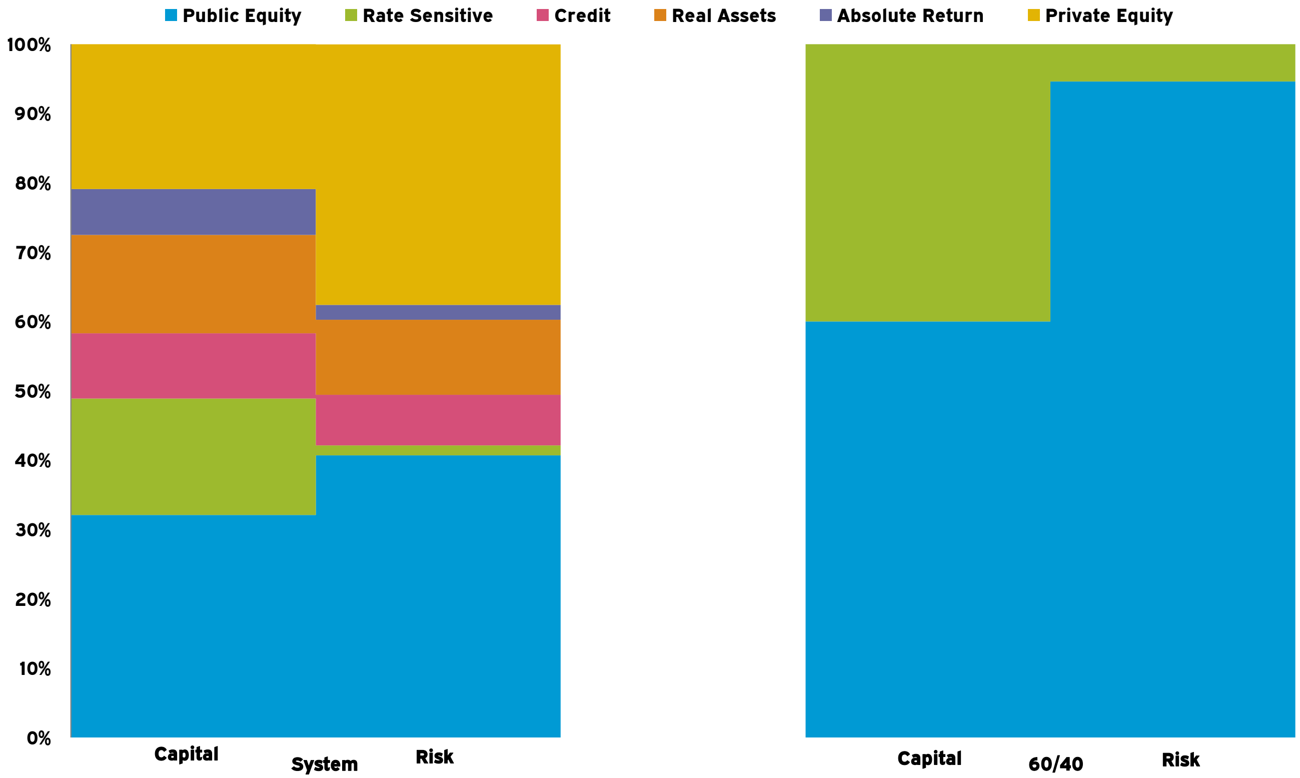
Risk: (sixty months)	Total System 9/30/2024	Policy Benchmark 9/30/2024
Annualized Return (%)	7.7	6.8
Standard Deviation (%)	7.9	8.4
Best Monthly Return (%)	6.9	6.9
Worst Monthly Return (%)	-6.4	-6.4
Beta	0.93	1.00
Correlation (R^2) to Index	0.98	NA
Sharpe Measure	0.68	0.55
Information Ratio	0.60	NA
Excess Return (%)	0.86	NA
Tracking Error (%)	1.28	NA

Rolling 5-Year Standard Deviation



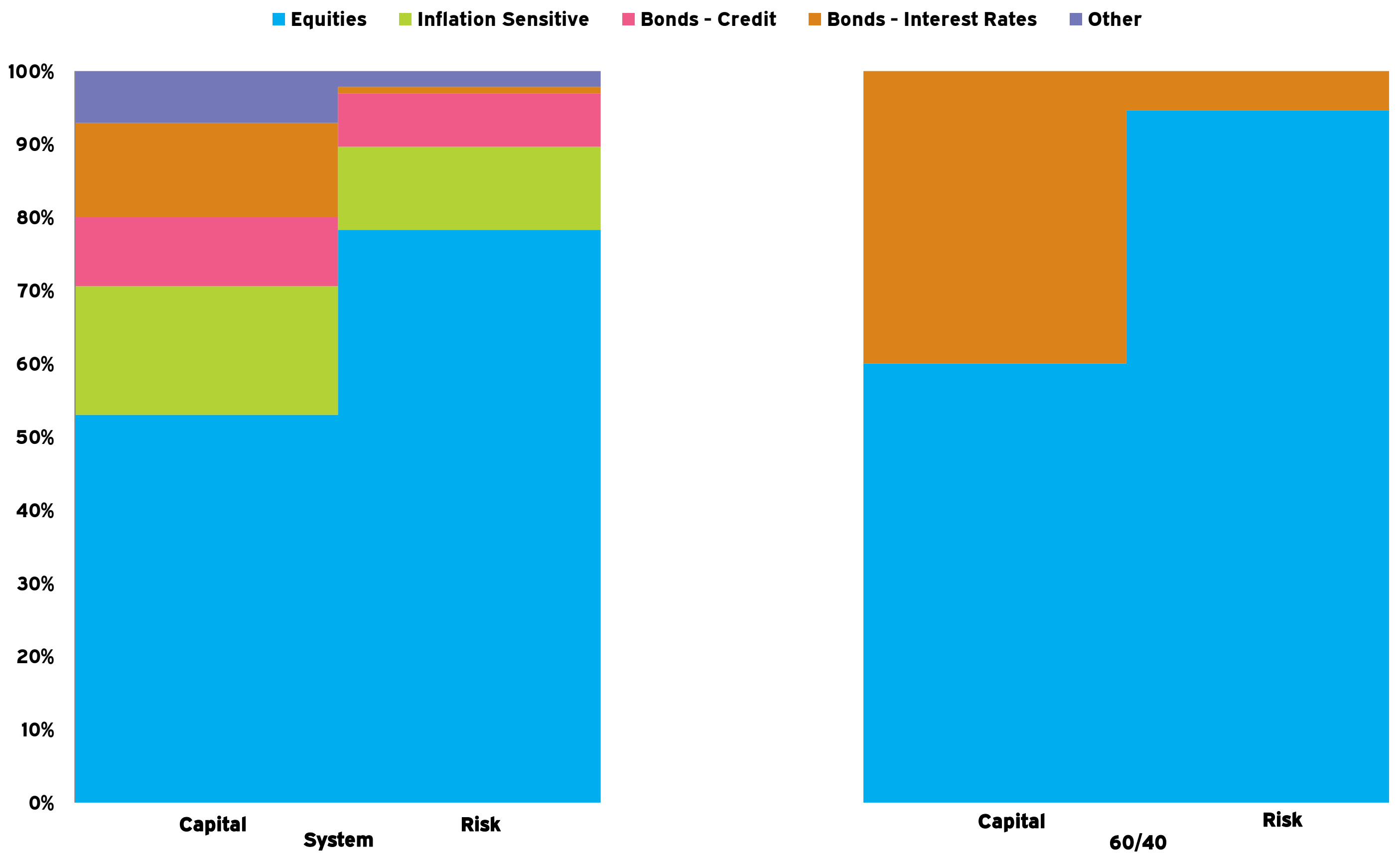
→ Over the trailing 5-years, the System has exhibited lower risk, as measured by standard deviation, than its Policy Benchmark while achieving slightly higher annualized returns.

Capital Allocation vs. Risk Allocation
By Asset Class



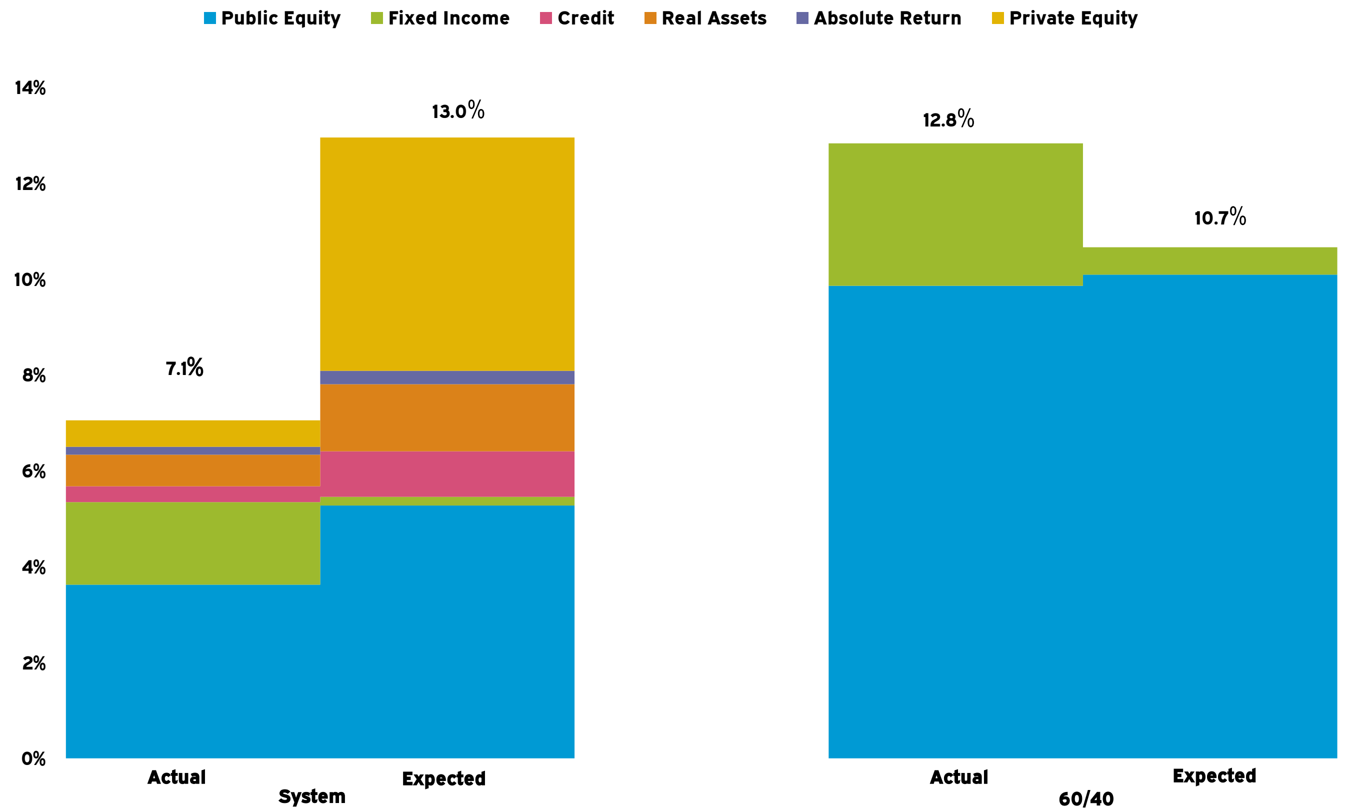
- → Public equity makes up close to 32% of the current asset allocation; however, it comprises about 41% of the risk allocation.
- → By contrast, in a 60/40 portfolio equity comprises 60% of the capital allocation but nearly 95% of the risk.

Capital Allocation vs. Risk Allocation
By Factor Exposure



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

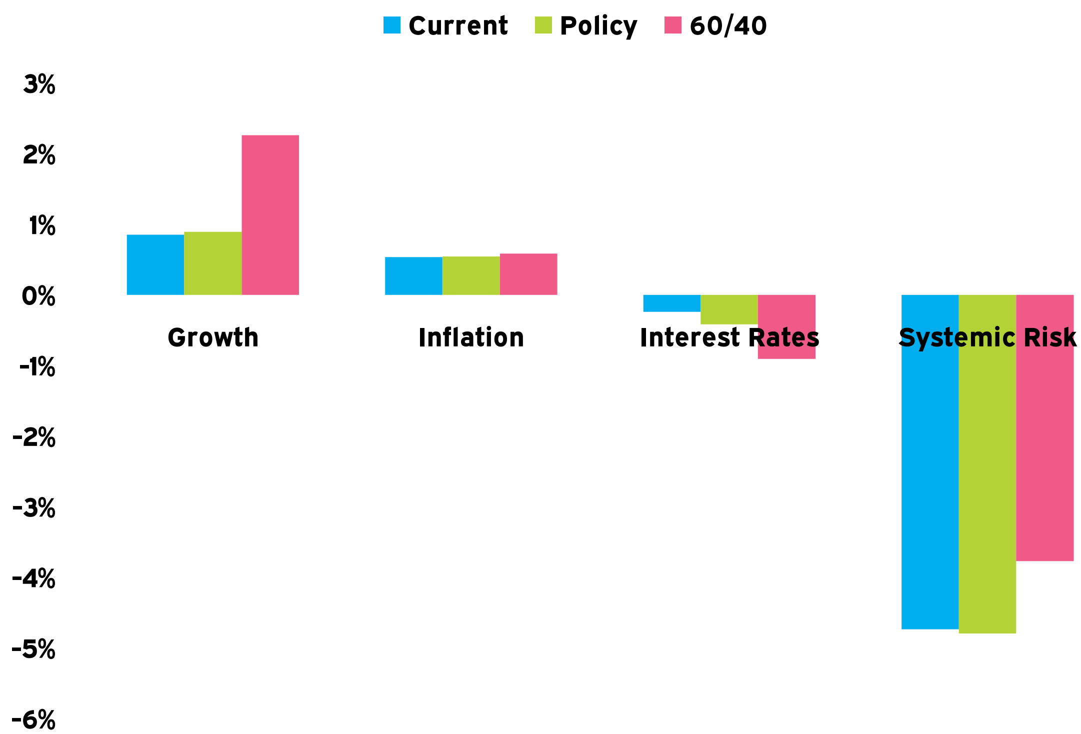
Risk Decomposition
Actual vs. Expected



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

- Public equities, which make up over 41% of the expected risk composition, have made up over 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	53%	31%				1%		21%	
Rate Sensitive	17%		16%			<1%			
Credit	9%			4%				5%	
Real Assets	14%	2%						3%	9%
Absolute Return	6%					6%			
Multi Asset	0%						<1%		
Cash	<1%				<1%				
Look Through Allocation	100%	33%	16%	4%	<1%	8%	<1%	29%	9%

[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:

- 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
- Investment manager due diligence process
- Investment Staff incentive compensation – risk metric
- Risk survey
- The Art of Patient Investing
- Asset-Liability modeling

Current Agenda Topics

→ Performance Review

→ Preliminary Asset-Liability Analysis

Economic and Market Update

Data as of September 30, 2024

Commentary

In the third quarter, stock and bond markets rallied despite heightened volatility. Central bank indications of future interest rate cuts given declining inflation pressures was a key driver of gains.

→ In September, the Federal Reserve surprised many in the markets with a 50 basis point interest rate cut while the US economy and employment picture remains quite healthy.

→ In the third quarter, US equities (Russell 3000) rose 6.2%. The US equity rally broadened, with value and small cap stocks outperforming large cap growth stocks, reversing the narrow leadership trend earlier this year.

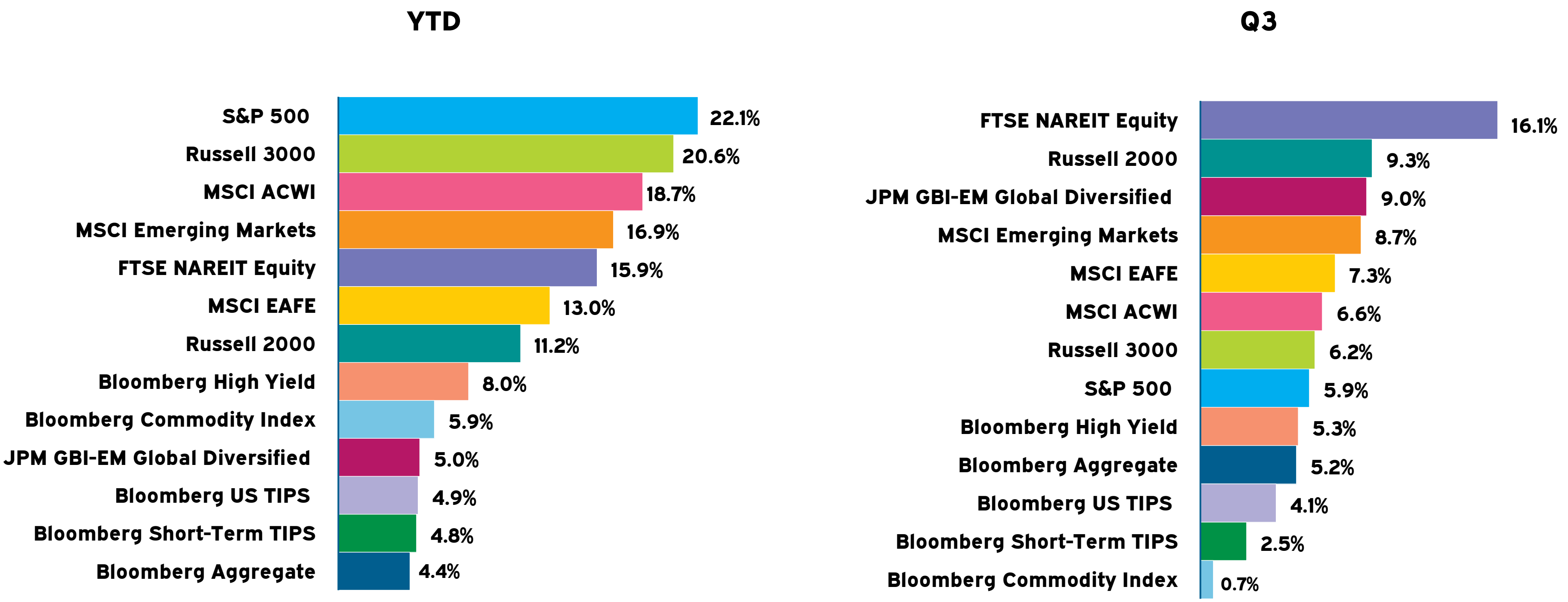
→ Emerging market stocks (+8.7%) outperformed developed market stocks in the third quarter; in non-US developed markets (+7.3%) value and small cap stocks also beat the broad market.

→ After two years of piecemeal policy stimulus, China's policy makers rolled out a significant stimulus package to support equity prices, reduce bank reserve requirements and funding rates, and support current and future mortgage borrowers. In particular, bank loans for listed company share buybacks and purchases drove the MSCI China equity index to rally 23.9% in September and 23.5% for the entire third quarter.

→ Fixed income markets also posted positive returns on expectations for additional policy rate cuts this year and next, as inflation pressures recede, and the economy slows.

→ Looking ahead, the paths of inflation, labor markets, and monetary policy, China's slowing economy and potential policy stimulus benefits, increased geopolitical tensions, and the looming US election will be key factors.

Index Returns[1]



→ Major markets finished the third quarter in positive territory despite several spikes in volatility. Falling inflation, resilient growth in the US, and dovish central banks supported stocks and bonds. Rate sensitive sectors, like REITs, particularly benefited from lower interest rates.

→ Year-to-date through September, all major asset classes were positive, led by US equities.

[1] Source: Bloomberg. Data is as of September 30, 2024.

Domestic Equity Returns[1]

Domestic Equity	September (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	2.1	5.9	22.1	36.4	11.9	16.0	13.4
Russell 3000	2.1	6.2	20.6	35.2	10.3	15.3	12.8
Russell 1000	2.1	6.1	21.2	35.7	10.8	15.6	13.1
Russell 1000 Growth	2.8	3.2	24.5	42.2	12.0	19.7	16.5
Russell 1000 Value	1.4	9.4	16.7	27.8	9.0	10.7	9.2
Russell MidCap	2.2	9.2	14.6	29.3	5.7	11.3	10.2
Russell MidCap Growth	3.3	6.5	12.9	29.3	2.3	11.5	11.3
Russell MidCap Value	1.9	10.1	15.1	29.0	7.4	10.3	8.9
Russell 2000	0.7	9.3	11.2	26.8	1.8	9.4	8.8
Russell 2000 Growth	1.3	8.4	13.2	27.7	-0.4	8.8	8.9
Russell 2000 Value	0.1	10.2	9.2	25.9	3.8	9.3	8.2

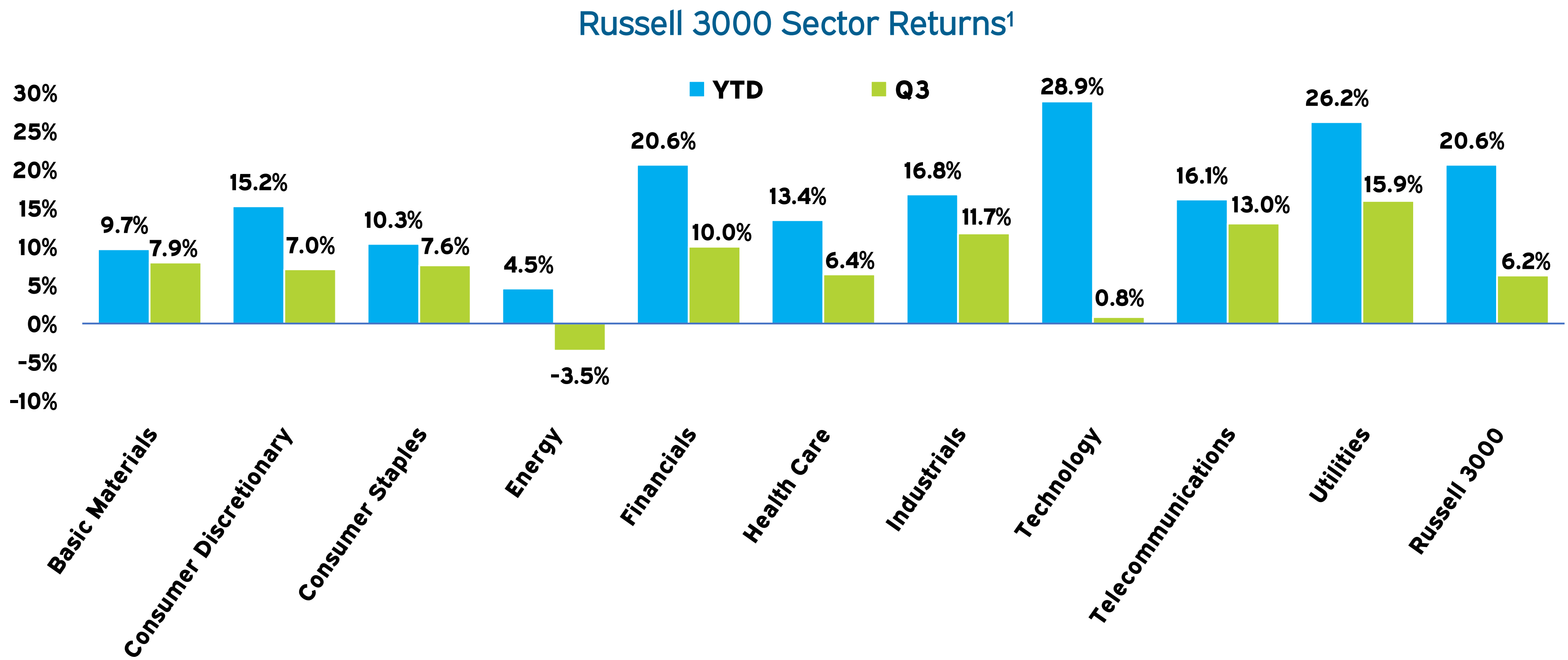
US Equities: The Russell 3000 rose +6.2% in the third quarter, bringing the year-to-date results to +20.6%.

→ In the third quarter, the previously technology-driven stock rally broadened out as optimism grew over the potential for a “soft landing” of the US economy and as investors reexamined the future of AI-related stocks.

→ In this environment, value outperformed growth across the capitalization spectrum and small cap stocks (Russell 2000: +9.3%) outperformed large cap stocks (Russell 1000: +6.1%).

→ Despite the third quarter’s rally in value and small cap stocks, large cap growth stocks are the best performing asset class (R1000 Growth: +24.5%) for the year-to-date 2024 due to on-going enthusiasm for AI.

[1] Source: Bloomberg. Data is as of September 30, 2024.



→ With the notable exception of energy stocks, all sectors posted positive returns in the third quarter.

→ On the prospect of growing energy demand for cloud computing for AI, utilities were the best performing sector in the third quarter (+15.9%) followed by telecom (+13.0%) and industrials (+11.7%).

→ All sectors feature positive returns for the year-to-date period. Technology stocks (+28.9%) continue to lead the broader market, followed by utilities (+26.2%), and financials (+20.6%).

[1] Source: Bloomberg. Data is as of September 30, 2024.

Foreign Equity Returns[1]

Foreign Equity	September (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	2.7	8.1	14.2	25.4	4.1	7.6	5.2
MSCI EAFE	0.9	7.3	13.0	24.8	5.5	8.2	5.7
MSCI EAFE (Local Currency)	-0.4	0.8	12.0	17.5	7.9	8.8	7.4
MSCI EAFE Small Cap	2.6	10.5	11.1	23.5	-0.4	6.4	6.2
MSCI Emerging Markets	6.7	8.7	16.9	26.1	0.4	5.7	4.0
MSCI Emerging Markets (Local Currency)	5.6	6.6	18.3	25.0	2.9	7.4	6.5
MSCI EM ex. China	1.3	4.0	12.7	27.4	3.4	8.4	4.8
MSCI China	23.9	23.5	29.3	23.9	-5.6	0.8	3.4

Foreign Equity: Developed international equities (MSCI EAFE) rose +7.3% in the third quarter, while emerging market equities (MSCI Emerging Markets) gained 8.7%.

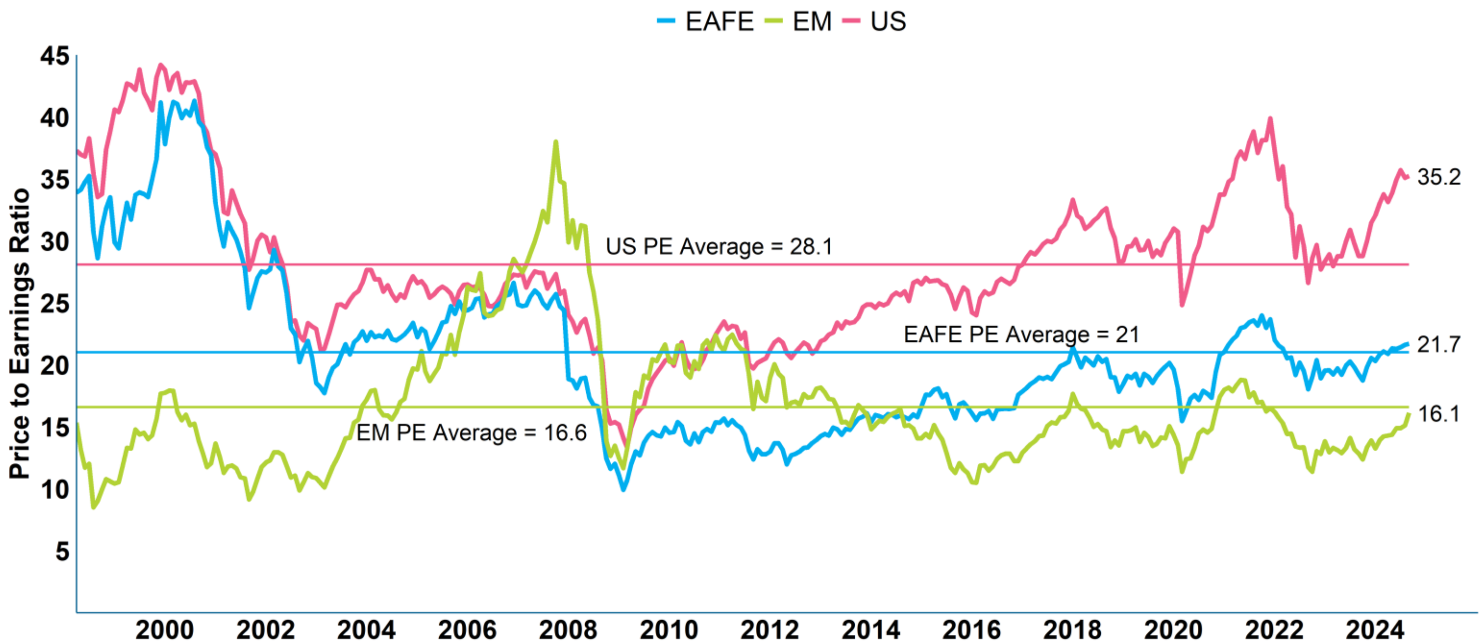
→ Non-US developed market stocks saw similar themes as the US, with value and small cap stocks outperforming large cap stocks in the third quarter, as investors anticipated further rate cuts from the European Central Bank and the Bank of England. Japan's TOPIX index experienced an over 20% decline at the start of August due to the Bank of Japan's (BoJ) unexpected rate increase and related pressures on the yen carry trade. It subsequently recovered, though, as the BoJ signaled that further rate increases were not likely.

→ In late September, China announced significant stimulus measures to support asset prices resulting in Chinese stocks rallying +23.9% just in September. This led to emerging markets having the best quarterly results (+8.7%).

→ The weakening US dollar further supported international stocks, particularly in developed markets.

[1] Source: Bloomberg. Data is as September 30, 2024.

Equity Cyclically Adjusted P/E Ratios[1]



→ The broad global equity rally lifted stocks' cyclically adjusted price/earnings ratios over the quarter, with US stock valuations finishing well above their long-term 28.1 average.

→ Non-US developed market valuations increased to slightly above their long-term average while emerging market stocks are now trading close to their long-term average given the strong recent gains.

[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 September 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	September (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	1.4	5.2	4.9	12.1	-1.0	0.7	2.1	4.5	6.0
Bloomberg Aggregate	1.3	5.2	4.4	11.6	-1.4	0.3	1.8	4.2	6.2
Bloomberg US TIPS	1.5	4.1	4.9	9.8	-0.6	2.6	2.5	3.8	6.9
Bloomberg Short-term TIPS	1.0	2.5	4.8	7.5	2.5	3.6	2.4	3.9	2.4
Bloomberg US Long Treasury	2.0	7.8	2.4	15.4	-8.3	-4.3	1.1	4.2	15.5
Bloomberg High Yield	1.6	5.3	8.0	15.7	3.1	4.7	5.0	7.0	3.4
JPM GBI-EM Global Diversified (USD)	3.4	9.0	5.0	13.4	0.6	0.6	0.6	--	--

Fixed Income: The Bloomberg Universal index rose 5.2% in the third quarter, bringing the year-to-date return into positive territory (+4.9%).

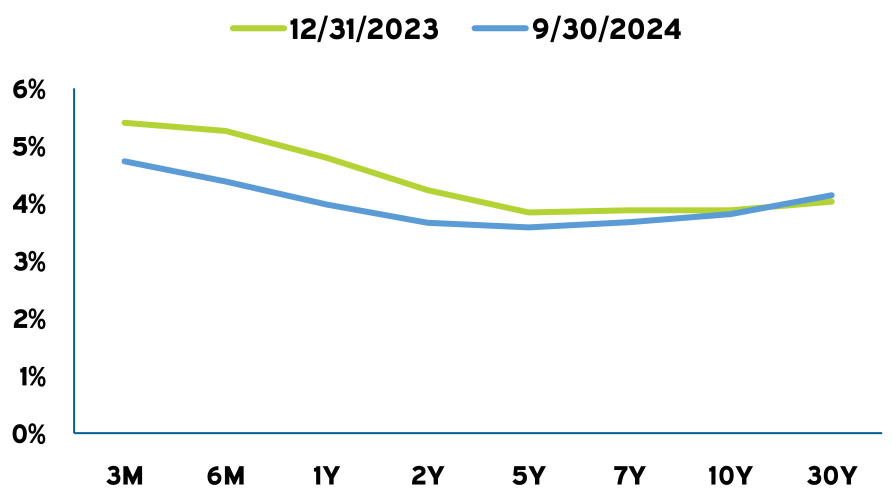
→ Fixed income indexes rose in the quarter as rates fell, driven by a continued decline in inflation. This and the weakening labor market led to the Fed cutting interest rates with more cuts expected.

→ The broad US bond market (Bloomberg Aggregate) rose 5.2% over the quarter, with the broad TIPS market gaining 4.1%. The less interest rate sensitive short-term TIPS index increased 2.5%.

→ Riskier bonds experienced volatility during the quarter but ultimately posted strong results as risk appetite remained strong. Emerging market debt gained 9.0% and high yield rose 5.3%.

[1] Source: Bloomberg. Data is as of September 30, 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.

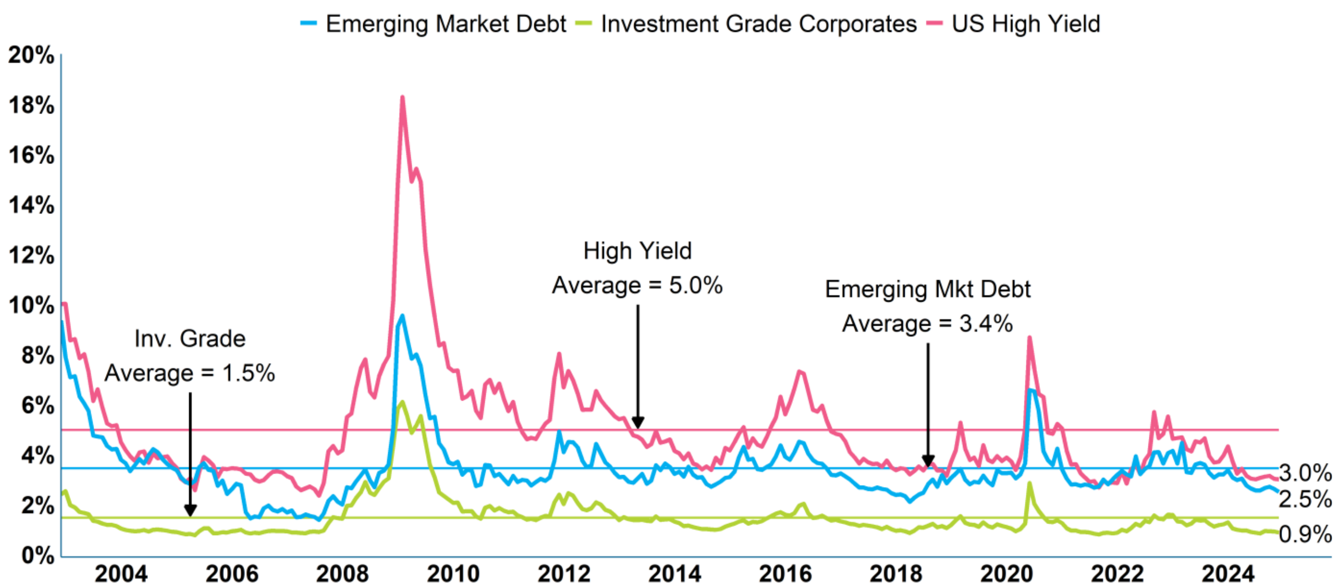
US Yield Curve[1]



- → US interest rates fell over the quarter as economic data continued to soften and the Fed started its rate cutting cycle.
- → The more policy sensitive 2-year Treasury yield declined from 4.75% to 3.64% over the quarter, while the 10-year Treasury yield fell from 4.40% to 3.78% over the same period.
- → Notably, the portion of the yield curve from 2-years to 10-years was no longer inverted at the end of September, given policy rate cuts and resilient growth. This trend could continue as the Fed likely continues to cut interest rates.

[1] Source: Bloomberg. Data is as of September 30, 2024.

Credit Spreads vs. US Treasury Bonds[1]



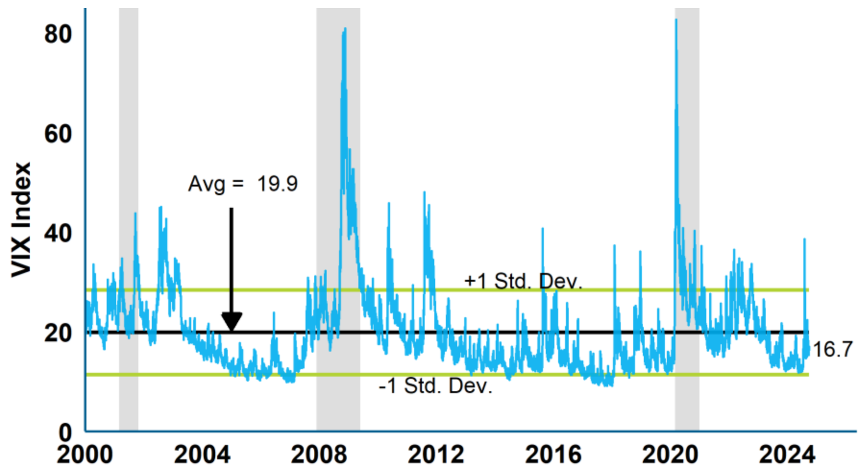
→ Spreads (the yield above a comparable maturity Treasury) widened significantly at the start of the quarter in the volatile environment but declined after, largely finishing where they started.

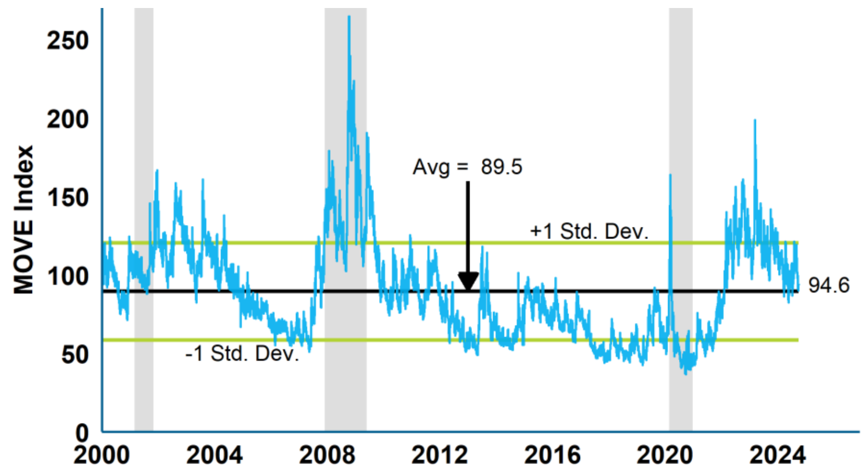
→ All yield spreads remained below their respective long-run averages, particularly high yield.

→ Although spreads are relatively tight, yields remain at above-average levels compared to the last two decades, particularly for short-term issues.

[1] Source: Bloomberg. Data is as September 30, 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]





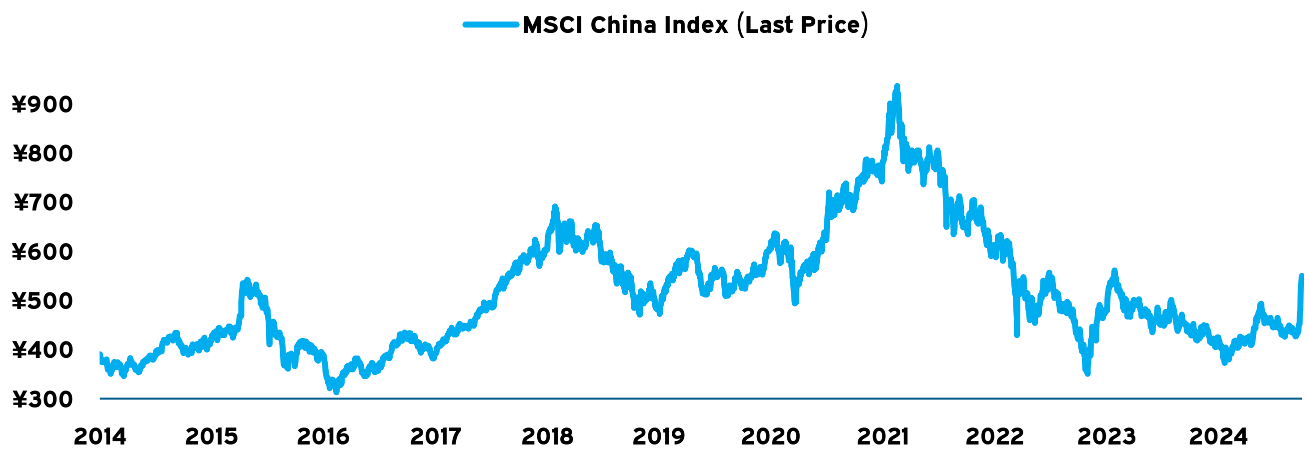
→ In the third quarter, equity and bond market volatility experienced periods of elevation due to concerns over the US labor market, the unwinding of the yen-carry trade, and increased geopolitical tensions. Ultimately, both settled well below their respective peaks as additional economic data and the easing of monetary policy calmed investors.

→ Volatility levels (VIX) in the stock market spiked above one standard deviation of its long-term average in early August but finished below the long-term average.

→ Bond market volatility (MOVE) also fluctuated through the quarter. Uncertainty in the bond market remains above the long-run average as markets continue to reprice the pace of interest rate cuts.

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

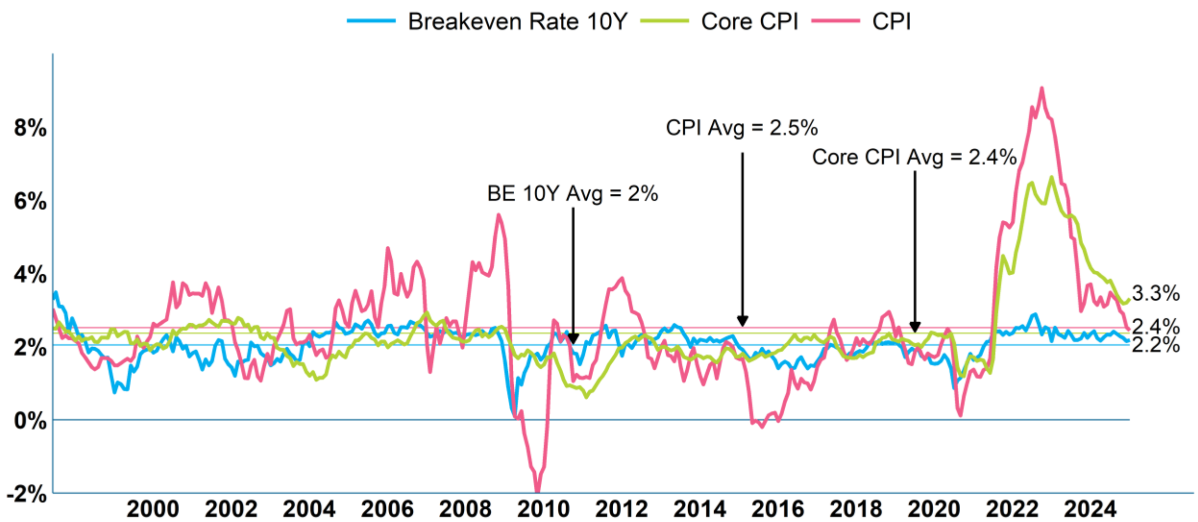
Recent Market Strength: China[1]



- → On September 24th, Chinese policy makers surprised markets with a suite of policy stimulus measures designed to support stock prices, banks, and mortgage borrowers.
- → Banks were asked to extend loans to publicly traded companies for share purchases and buybacks, contributing to significant equity market gains in the last week of the quarter. These policies also contributed to increased foreign demand for Chinese shares.
- → The banking sector benefited from a cut to the 1-year medium term lending rate and to their reserve requirement rate.
- → Homeowners may also benefit from changes to downpayment minimums and mortgage rate reductions.
- → Despite the recent gains in the stock market, questions remain about the ultimate impact of these policies on longer-term growth in China, as well as policy makers' commitment to continue supporting the economy.

[1] Source: Bloomberg. Data as of September 30, 2024.

US Ten-Year Breakeven Inflation and CPI[1]



→ Over the quarter, year-over-year headline inflation continued to decline (3.0% to 2.4%) supporting the Fed's start to cutting policy rates. The 2.4% September level was the lowest since early 2021.

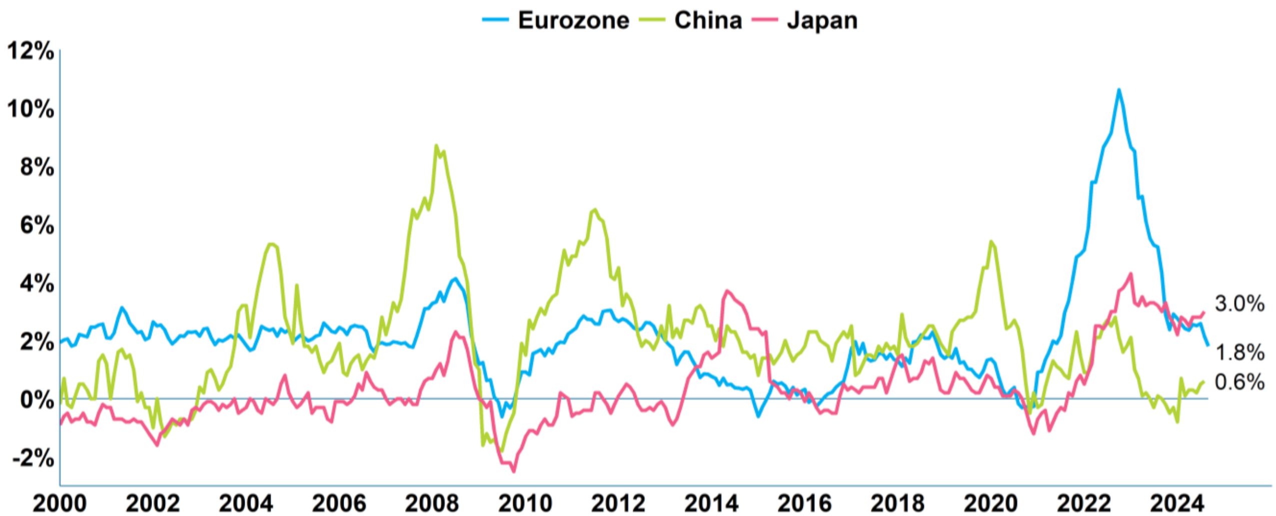
→ Month-over-month inflation increased 0.2% each month over the quarter. Food and shelter costs saw monthly increases, while energy prices largely fell.

→ Year-over-year core inflation (excluding food and energy) finished the quarter where it started (3.3%). Shelter (+4.9% YoY) and transportation (+8.5% YoY) remain key drivers of stickier core inflation.

→ Inflation expectations (breakevens) have been relatively stable over the last several years. They remain below current inflation levels.

[1] Source: FRED. Data is as September 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]



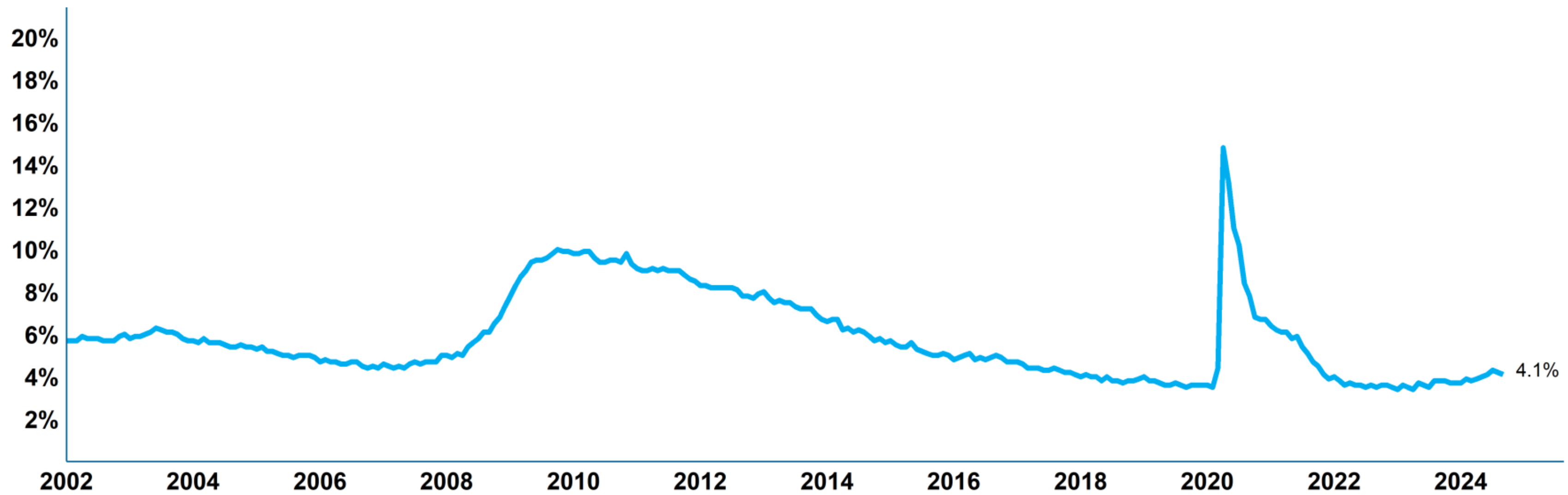
→ In the eurozone, inflation fell from 2.5% to 1.8% over the quarter (a level below the US), potentially clearing the way for further rate cuts from the European Central Bank.

→ By contrast, inflation in Japan recently increased (2.8% to 3.0%) due in part to higher food, electricity, and gas prices supporting the case for additional interest rate increases by the Bank of Japan.

→ In China, inflation increased each of the last seven months, after declines late last year. Recent extreme weather has caused supply issues and contributed to higher prices. Inflation in China remains much lower than in other countries, due to weak consumer spending and as issues in the real estate sector continue to weigh on sentiment.

[1] Source: Bloomberg. Data is as of September 30, 2024, except Japan and China which are as of August 31, 2024.

US Unemployment[1]



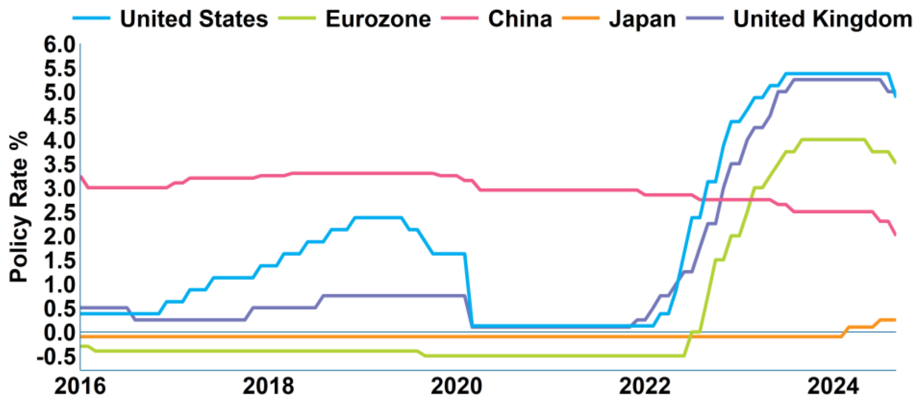
→ The US labor market has softened but remains relatively strong. After reaching 4.3% in July, the unemployment rate finished the quarter at the level it started (4.1%), with 6.8 million people looking for work.

→ After job gains came in below expectations in July (114k versus 175k) and August (142k versus 165k), contributing to some of the market volatility, they finished strong in September, beating estimates (254k versus 150k). Food services (+69K) and healthcare (+45K) were the largest contributors to the September gains.

→ Initial claims for unemployment remain relatively low and year-over-year wage gains remain strong (+4.0%). The number of job openings increased slightly (7.9 to 8.0 million) over the quarter.

[1] Source: FRED. Data is as of September 30, 2024.

Policy Rates[1]



→ In the US, the Fed reduced interest rates by 0.5% after holding them at a 5.25%-5.50% level for over a year. In their statement they highlighted that they would make additional interest rate cut decisions based on incoming data. Market participants are pricing in roughly two additional cuts in 2024.

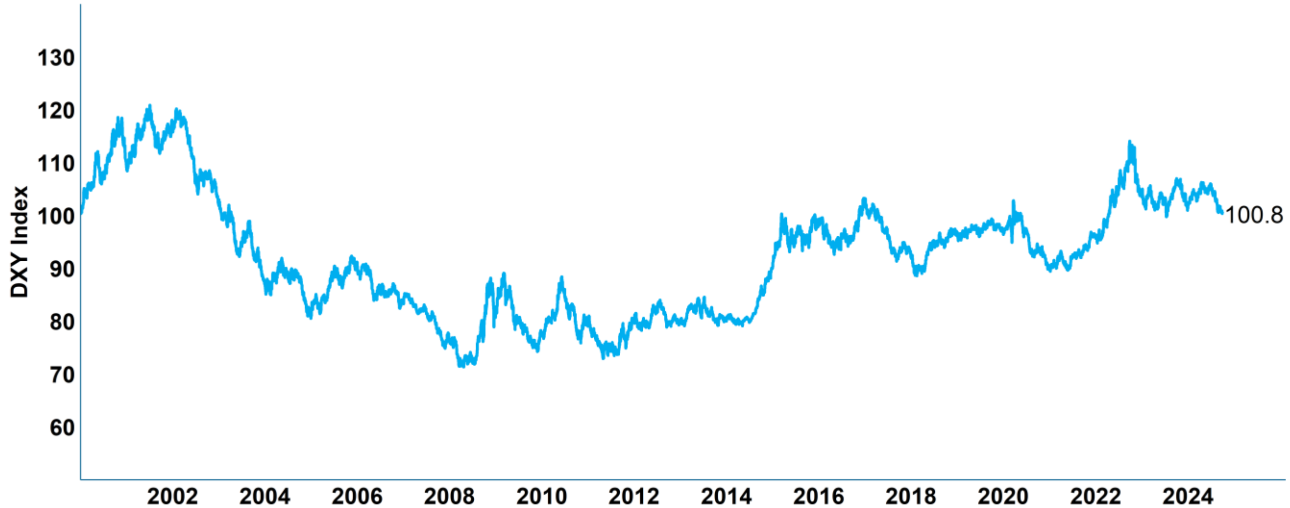
→ The Bank of England (BoE) and the European Central Bank (ECB) have both started cutting rates. The BoE made a 25 basis points interest rate cut in July while the ECB made two similar cuts in June and September.

→ Inflation in Japan remains elevated, prompting Bank of Japan officials to raise the policy rate 0.15% to 0.25% over the quarter after decades at near-zero rates.

→ China announced a broad based unexpected stimulus package that included lower interest rates, a reduction in bank reserve requirements, and liquidity for stock investors.

[1] Source: Bloomberg. Data is as of September, 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]



- → The US dollar weakened in the third quarter by 4.7% versus other major currencies, influenced by the decline in interest rates and expectations for slower growth.
- → It remains at historically strong levels, though, given relatively stronger growth, higher interest rates, and on the prospects of other central banks, potentially easing policy faster than the Fed.
- → Looking ahead, the track of policy rates across major central banks will be key for the path of the US dollar from here. If the US economy slows more than expected and the Fed relatedly lowers rates at a faster pace, we could see the dollar weaken further.

[1] Source: Bloomberg. Data as of September 30, 2024.

Summary

Key Trends:

→ According to the International Monetary Fund's (IMF) July report, global growth this year is expected to match the 2023 estimate at around 3.2% with most major economies predicted to avoid a recession.

→ Key economic data in the US has largely weakened and come in below expectations, causing markets to expect an additional two rate cuts this year after the Fed's initial 0.5% reduction. Uncertainty remains 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 new suite of policy stimulus and signals for more support ahead. 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

7
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 September 30, 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 art of patient investing

In recent years, large cap US stocks and private equity have dramatically outperformed most asset classes. Almost every other asset class in a diversified portfolio has served as a drag on portfolio returns. This is testing many investors' patience with diversification.

This research note is intended to remind investors of the benefits of taking a patient approach to investing. The first half focuses on the long-term case for a diversified portfolio. The second half explores various areas where investors may want to remain patient in the current market.

Read more here:
https://meketa.com/leadership/the-art-of-patient-investing/

The decreasing number of public companies

In this note, we examine the drivers behind the decline in the number of publicly traded stocks.

Our analysis reviews IPOs and delistings, regulatory burdens, the growth and availability of private capital, and the role of mergers and acquisitions. We also consider factors like the rise of propriety technology and intellectual property. Finally, we explore the implications of this change for institutional investors.

Read more here:
https://meketa.com/leadership/the-decreasing-number-of-public-companies/

Can governments really pay for everything they promise?

This paper examines the current rise in debt levels, higher interest rates, and inflationary pressures in some sectors of the economy in the context of MMT.

It considers whether advanced economies have reached a tipping point where high levels of debt push inflation higher and suppress economic growth, or whether higher deficits may not spell economic disaster after all. It also contemplates what impact higher deficits and higher borrowing costs could have on investor portfolios.

Read more here:
https://meketa.com/leadership/can-governments-really-pay-for-everything-they-promise/

MEKETA ESSENTIALS

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?

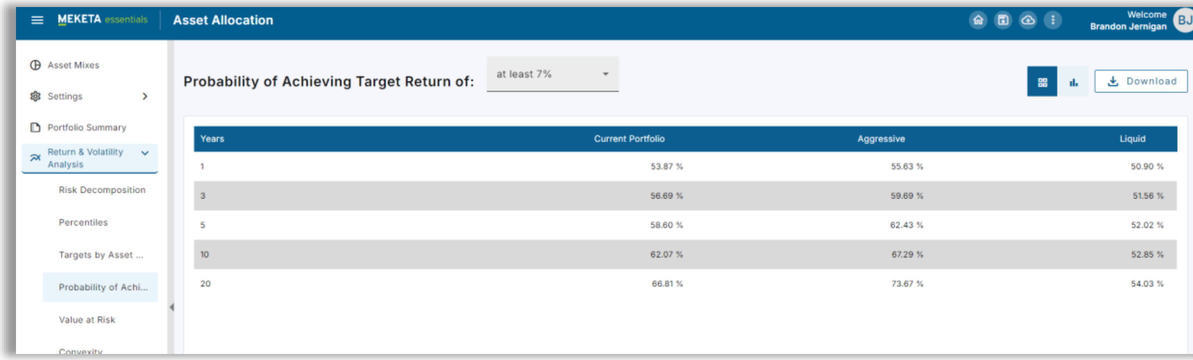
The asset allocation tool within Meketa Essentials uses sophisticated modeling to estimate the likelihood of reaching your target returns over multiple time periods. By providing insights through probability distributions, it enables decision-makers to gauge if their current strategy is aligned with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

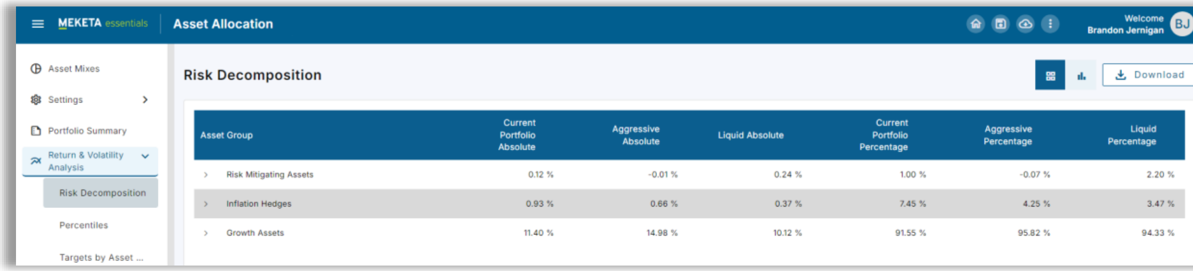
How might our portfolio respond to economic and market shifts?

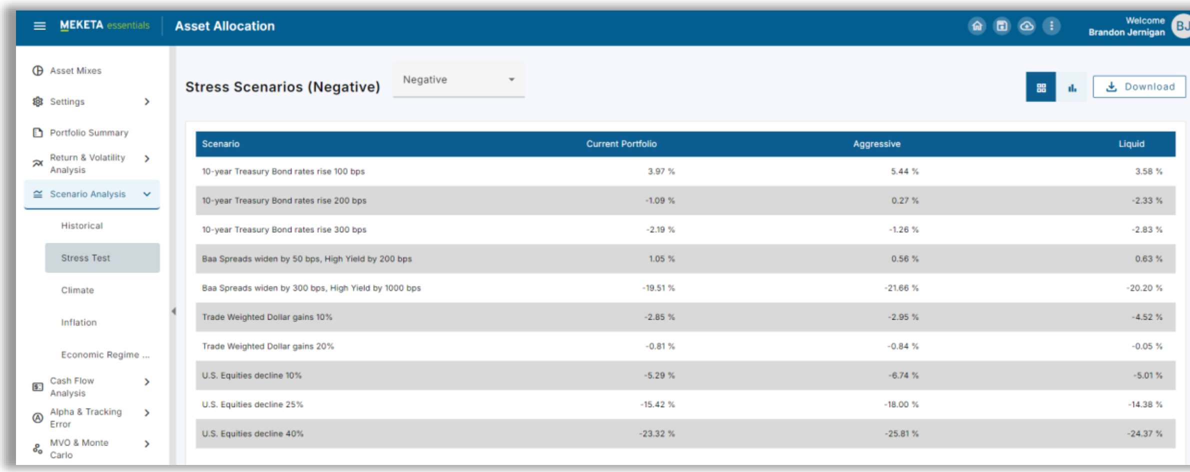
With capabilities like stress testing and economic regime modeling, Meketa Essentials allows clients to simulate the effects of different growth, inflation, and interest rate scenarios on their portfolios. This helps in understanding potential vulnerabilities and preparing for various market conditions.

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.







MEKETA'S WEEK OF SERVICE

Each year, Meketa dedicates a week to giving back to our communities. This year, we focused on homelessness, partnering with Blanchet House, Sarah's Circle, and United Way to volunteer our time and resources.

Blanchet House: Established in 1952 by University of Portland alumni, Blanchet House provides meals, clothing, hygiene items, and transitional recovery programs to those in need in Old Town and on its farm.. (Portland, OR)

Sarah's Circle: Founded in 1979, Sarah's Circle offers a safe space and essential services, such as shelter, meals, and community support, to women experiencing homelessness in the Uptown neighborhood. (Chicago, IL)

United Way: United Way connects communities worldwide to close gaps, open opportunities, and ensure that everyone can thrive. (Carlsbad, CA)

MEKETA IN THE NEWS

The Institutional Appetite for Private Equity and Deal Activity | August 13, 2023

Tim Toska, Global Head of Private Equity at Alter Domus, John Haggerty, Managing Principal & Director of Private Market Investments at Meketa Investment Group, Bart Molloy, Partner at Monument Group, join Jill Malandrino on Nasdaq TradeTalks to discuss the institutional appetite for private equity and deal activity.

Watch Full Video Here

Pensions&Investments

Read Full Article Here

Pensions & Investments' 60 Influential Women in Institutional Investing 2024
Judy Chambers, managing principal, private markets consultant, Meketa

By Arleen Jacobius | September 9, 2024

Judy Chambers' finance career began early, working in a bank during the summer from age 15. She continued working at banks while earning her bachelor's degree and an MBA, the latter from Northwestern University's Kellogg School of Management.

Chambers left banking and a job in Lehman Brothers' finance department for private equity consulting in 2002, after meeting Allan Emkin, a managing principal and founder of consulting firm Pension Consulting Alliance. Meketa merged with PCA in 2019.

Chambers is now a managing principal and private markets consultant at Meketa. Fostering women's growth starts with "one, recruiting them and then keeping them" by sponsoring them, ensuring they get the proper exposure in front of the rest of the team, she said.

Female executives who are just starting out need time to get on the right path, she said. "Everyone is smart," but they may not know what to do because they hadn't done it before, she said.

Mentors have been key in her own career, with sponsorship being key, Chambers said. Sponsorship means that there is always someone at the table that is fighting for you even if you're not in the room, Chambers said. "What keeps you at a firm is sponsorship," she added.

The industry has become more inclusive, better reflecting society than 20 or so years ago, Chambers said. "But it's still not 50-50," she said. "I go to a lot of meetings where I'm the only woman that has come through the room all day long. That shouldn't be at this point in 2024."

Disclaimer, Glossary, and Notes

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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%.

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

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

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.