Maryland State Retirement and Pension System

Performance Report
June 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 second quarter, the System was valued at $68,245 million, an increase of $484 million from the end of the first quarter.

- The increase was the result of positive investment performance, as net cash outflows totaled $313 million for the quarter.

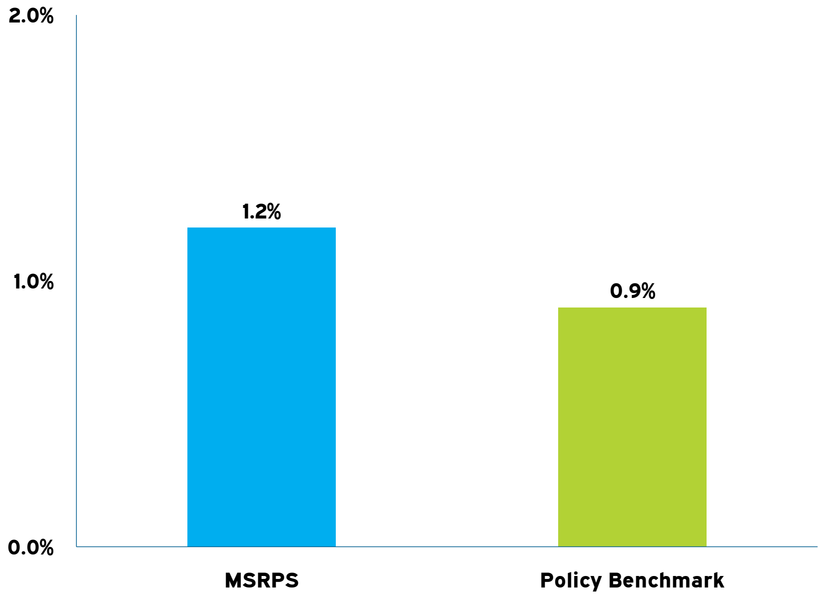
→ The System returned 1.2%, net of fees, during the second quarter of 2024, outperforming the policy benchmark by 0.3%.

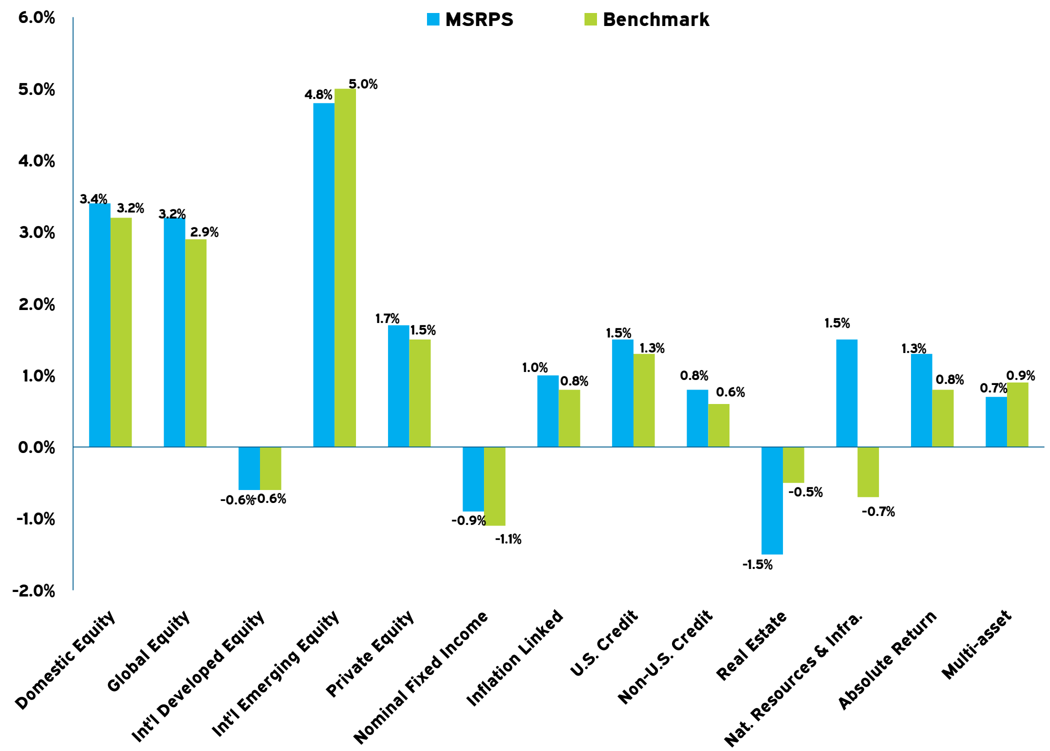
- Most asset class returns were positive for the quarter except for real estate, nominal fixed income, and international developed equities.
- International emerging equities had the strongest absolute return, up 4.8% for the quarter, while real estate was the weakest performer in absolute terms, down 1.5%.

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

Q2 System and Asset Class Performance

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





→ During the quarter, international emerging equities delivered the best absolute performance returning 4.8%.

→ On a relative basis, natural resources and infrastructure were the best performing asset class, outpacing its benchmarks by 2.2%.

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

Total System Q2 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	30.4	2.3	0.7	28.2	2.4	0.7	0.06	-0.04	0.00	0.02
Domestic Equity	13.8	2.9	0.4	14.1	3.2	0.5	-0.01	-0.05	0.00	-0.05
International Developed	8.2	-0.6	0.0	9.1	-0.6	-0.1	0.01	0.00	0.00	0.02
International Emerging	4.7	5.0	0.2	5.0	5.0	0.2	-0.01	0.00	0.00	-0.02
Global Equity	3.6	3.0	0.1	0.0	2.9	0.0	0.07	0.00	0.00	0.08
Private Equity	21.9	1.7	0.4	21.8	1.5	0.3	0.00	0.05	0.00	0.05
Nominal Fixed Income	13.2	-0.4	0.0	16.3	-1.1	-0.2	0.05	0.11	-0.02	0.14
Inflation Linked	3.3	1.0	0.0	4.1	0.8	0.0	0.00	0.01	0.00	0.01
US Credit	8.6	1.6	0.1	8.0	1.3	0.1	0.00	0.03	0.00	0.03
Non- US Credit	1.1	0.7	0.0	1.0	0.6	0.0	0.00	0.00	0.00	0.00
Real Estate	9.6	-1.5	-0.1	9.7	-0.5	-0.1	0.00	-0.09	0.00	-0.09
Natural Resources & Infrastructure	4.9	1.5	0.1	5.0	-0.7	0.0	0.00	0.11	0.00	0.10
Absolute Return	5.8	1.4	0.1	6.0	0.8	0.0	-0.01	0.03	0.00	0.03
Multi-Asset	0.4	0.7	0.0	0.0	0.9	0.0	0.00	0.00	0.00	0.00
Cash	0.9	1.4	0.0	0.0	1.4	0.0	0.01	0.00	0.00	0.01
Total (excl. overlay)	-	-	1.20	-	-	0.90	0.12	0.20	-0.02	0.30
Currency Overlay							0.01			
Structural/Tactical Overlay							-0.02			
Total (incl. overlay)	**100.0**	**-**	**1.19**	**100.0**	**-**	**0.90**	**0.11**	**0.20**	**-0.02**	**0.29**

[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	29.7	17.2	5.1	28.0	17.8	5.0	0.14	-0.12	-0.03	-0.02
Domestic Equity	12.9	22.9	3.0	13.6	23.1	3.1	-0.14	-0.02	0.00	-0.17
International Developed	7.7	11.0	0.8	8.7	11.2	1.0	-0.08	-0.02	0.01	-0.10
International Emerging	5.6	11.2	0.6	5.8	12.5	0.7	-0.05	-0.08	0.01	-0.12
Global Equity	3.5	18.0	0.6	0.0	19.4	0.0	0.42	0.00	-0.04	0.37
Private Equity	22.0	5.2	1.2	22.0	5.3	1.2	0.00	-0.01	0.00	-0.01
Nominal Fixed Income	13.5	0.3	0.0	15.9	-2.2	-0.3	0.17	0.35	-0.05	0.47
Inflation Linked	3.4	2.8	0.1	4.0	2.5	0.1	0.02	0.01	0.00	0.03
US Credit	8.3	10.0	0.8	7.9	10.6	0.8	0.01	-0.06	0.00	-0.05
Non- US Credit	1.1	10.6	0.1	1.0	8.1	0.1	0.00	0.02	0.00	0.02
Real Estate	10.2	-7.7	-0.8	10.2	-9.6	-1.0	0.00	0.23	0.00	0.23
Natural Resources & Infrastructure	4.8	7.2	0.3	5.0	4.6	0.2	0.00	0.10	-0.01	0.09
Absolute Return	5.9	5.9	0.3	6.0	8.4	0.5	-0.02	-0.14	0.00	-0.16
Multi-Asset	0.4	9.9	0.0	0.0	6.1	0.0	0.00	0.00	0.01	0.01
Cash	0.8	6.4	0.1	0.0	5.6	0.0	-0.02	0.00	0.00	-0.01
Total (excl. overlay)	-	-	6.90	-	-	6.34	0.29	0.37	-0.06	0.60
Currency Overlay							0.03			
Structural/Tactical Overlay							0.02			
Total (incl. overlay)	**100.0**	**-**	**6.93**	**100.0**	**-**	**6.34**	**0.34**	**0.37**	**-0.06**	**0.65**

[1] Numbers may not sum due to rounding. Attribution calculated on a monthly basis, using average month end market values and targets. As a result, there can be discrepancies from custodian data due to intra-month transfers.
[2] "Total Return" reflects asset class performance excluding the currency hedging and structural/tactical overlay programs.
[3] Based on the transitional target allocations.
[4] In cases where the policy weight is zero, the active management effect will in turn be zero. The interaction effect will capture any contributions made by active management where the policy weight is zero as it factors in the portfolio weight.

Attribution Commentary

Second Quarter

→ In the Second quarter, the System outperformed the policy benchmark by 0.28%.

→ Inclusive of the overlay programs, asset allocation had a positive effect on the relative performance. Specifically, an overweight to public equity and underweight to nominal fixed income.

→ The interaction effect slightly detracted while active management was additive to relative performance.

- Selection within nominal fixed income and natural resources and infrastructure was most additive while selection within real estate and domestic equities detracted from relative performance.

Trailing 1-Year

→ Over the trailing one-year period, the System outperformed the Policy Benchmark by 0.59%.

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

→ Interaction effects detracted from performance while manager selection (e.g., active management) was additive over the trailing year.

- Manager selection within real estate and nominal fixed income were the most additive to relative performance while selection within absolute return and international emerging equites detracted 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.

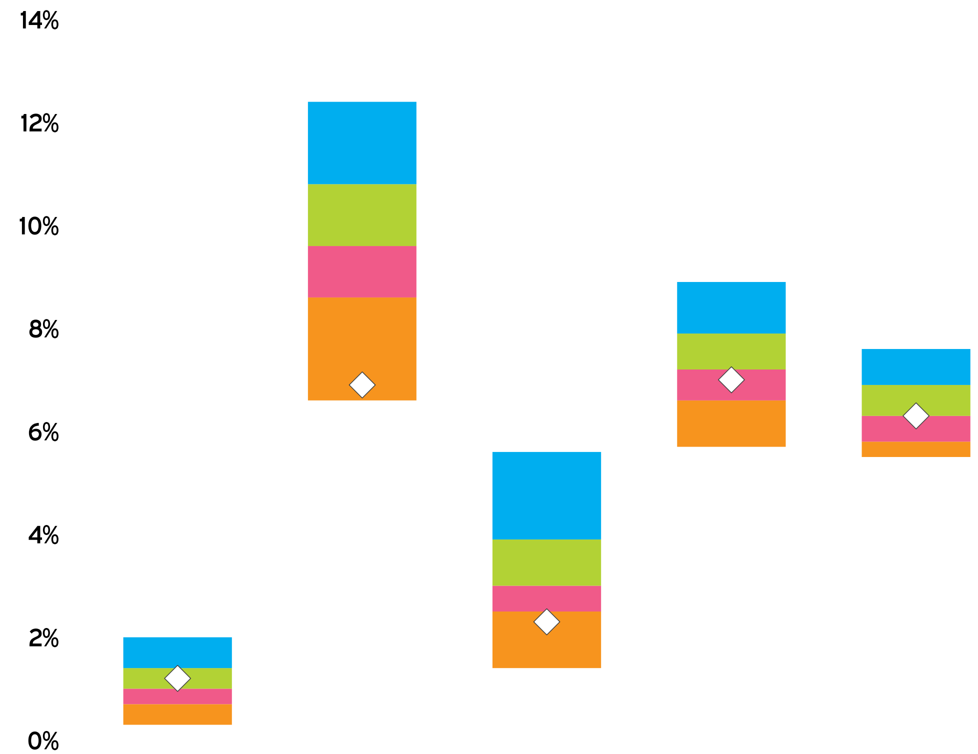
Calculations[1]:

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

- *Allocation Effect:* $(Rab - Rpb) \times (Wp - Wb)$
- *Active Management Effect*[2]*:* $Wb \times (Rp - Rab)$
- *Interaction Effect:* $(Wp - Wb) \times (Rp - Rab)$

[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.

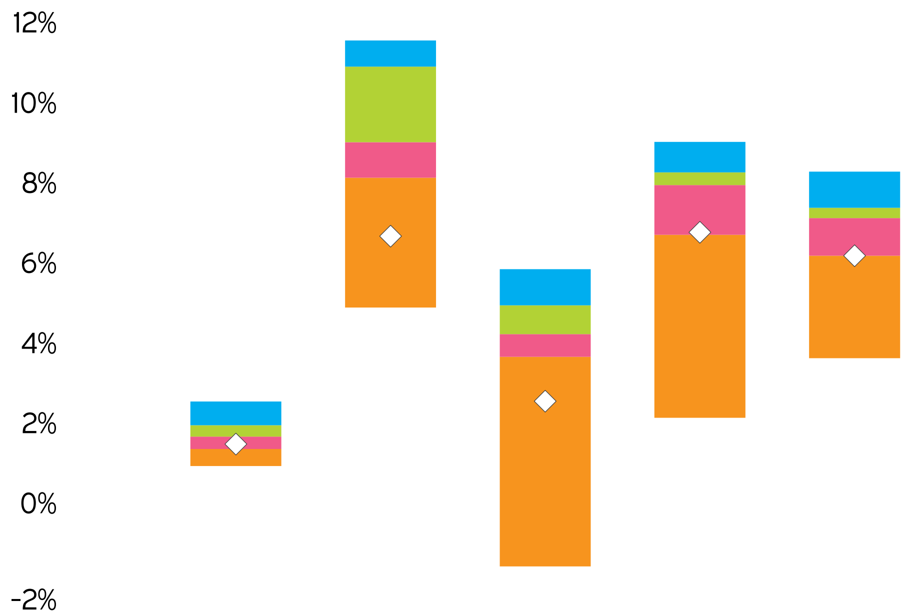
Total System vs. Public Plans >$1 Billion Universe[1]
As of June 30, 2024



	2Q24 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total System	1.2	6.9	2.3	7.0	6.3
25th Percentile	1.4	10.8	3.9	7.9	6.9
Median	1.0	9.6	3.0	7.2	6.3
75th Percentile	0.7	8.6	2.5	6.6	5.8
Rank (%)	*43*	*91*	*79*	*56*	*49*

[1] Represents a final release of the InvMetrics Public DB >$1 bn peer group as of June 30, 2024. Total System performance is net of fees. Includes 95 plans.

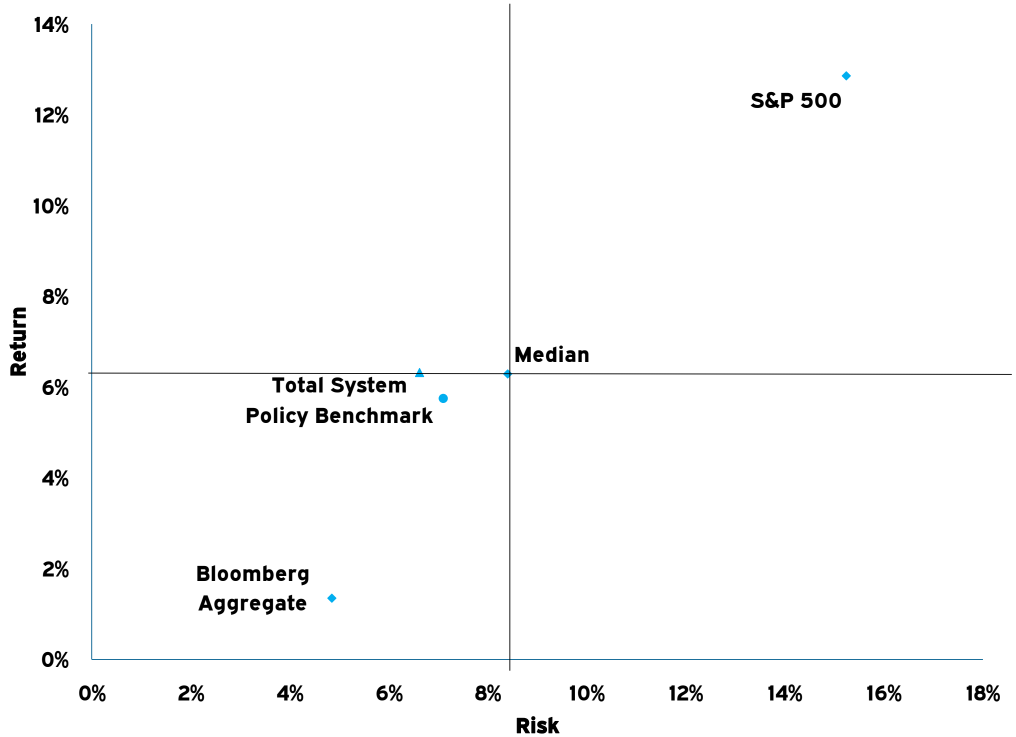
Total System vs. Public Plans >$25 Billion Universe[1]
As of June 30, 2024



	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.

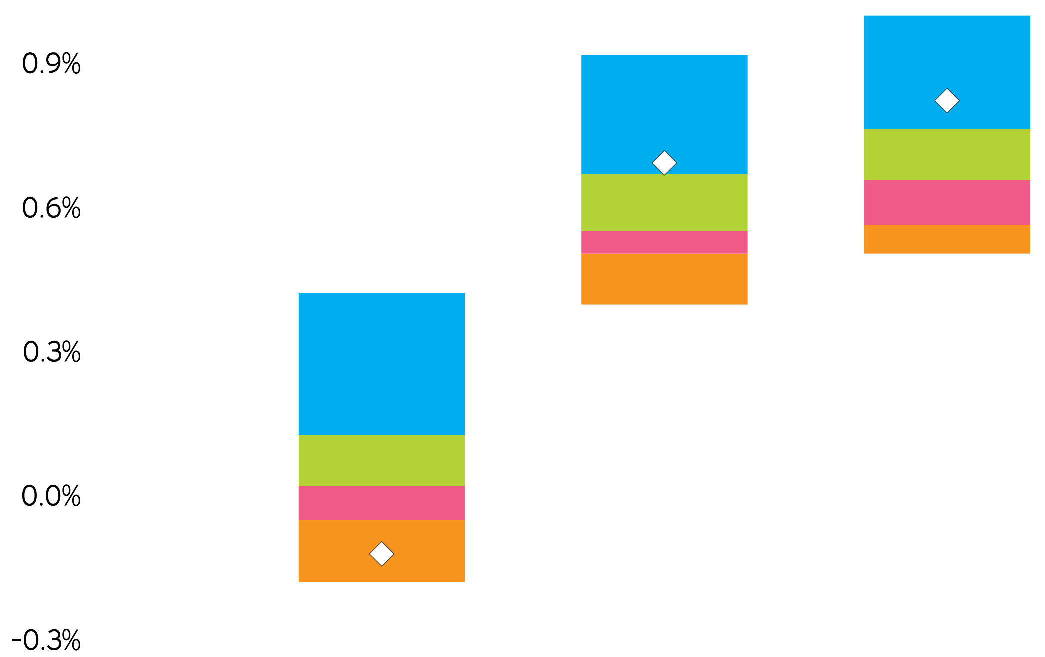
Total System Trailing 10-Year Risk vs Return[1]
As of June 30, 2024



	Risk (%)	Return (%)
Total System	6.6	6.3
Policy Benchmark	7.1	5.8
Median	8.4	6.3

[1] Represents a final cut of InvMetrics Public DB >$1 bn Net peer group as of June 30, 2024. Includes 95 plans.

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

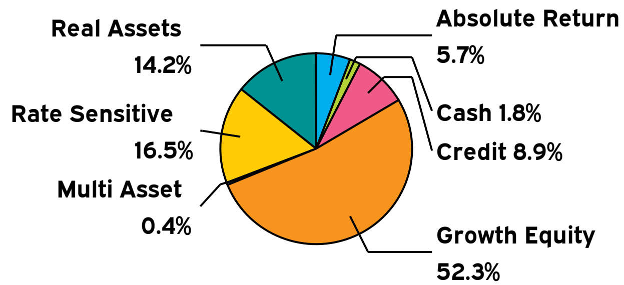


	3 YR	5 YR	10 YR
Total System	**-0.1**	**0.6**	**0.7**
S&P 500	0.4	0.7	0.7
25th Percentile	0.1	0.6	0.7
Median	0.1	0.5	0.6
75th Percentile	0.0	0.5	0.5
Rank (%)	*88*	*21*	*20*

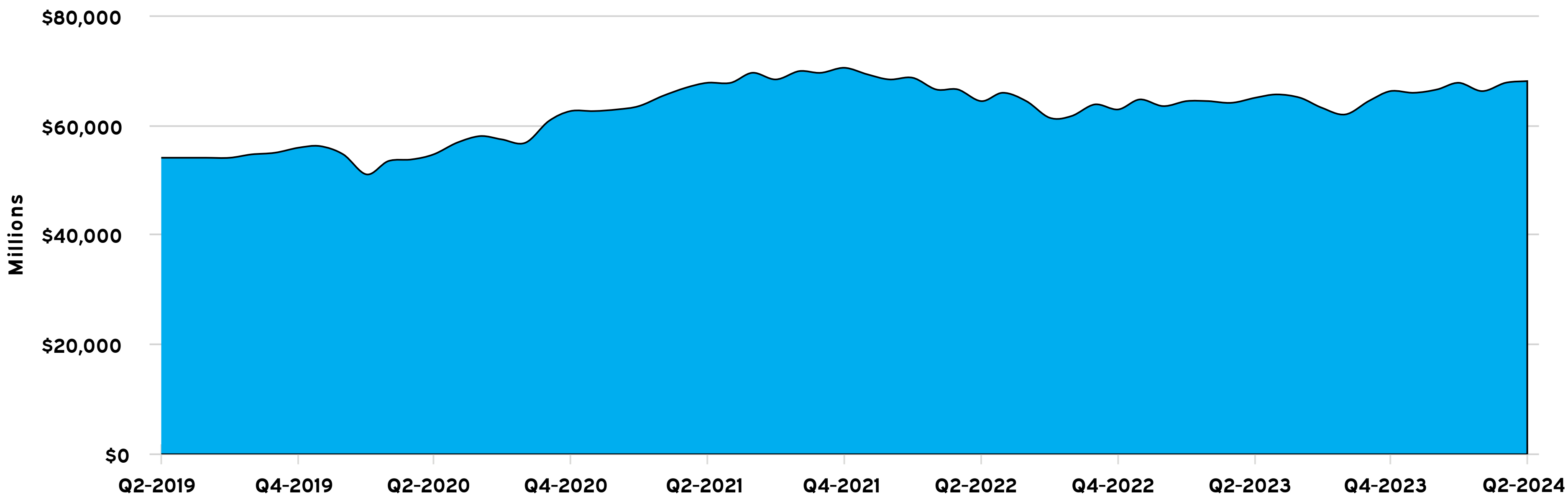
[1] Represents a final cut of InvMetrics Public DB >$1 bn Net peer group as of June 30, 2024. Includes 95 plans. The risk-free rate is the 90-day T-bill.

Performance Summary

Actual Allocation



Market Value History
5 Years Ending June 30, 2024



Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Transitional Targets	Policy	Policy Range
Growth Equity	**$35,726,894,575**	**52%**	**50%**	**50%**	**43% - 57%**
Domestic Equities	$9,656,761,280	14%	14%	17%	--
Global Equity	$2,443,702,300	4%	0%	0%	--
International Developed Market Equity	$5,530,518,542	8%	9%	11%	--
International Emerging Market Equity	$3,320,782,709	5%	5%	6%	--
Private Equity	$14,761,407,790	22%	22%	16%	--
Stock Distributions	$13,721,954	0%	0%	0%	--
Rate Sensitive	**$11,263,912,959**	**17%**	**21%**	**20%**	**15% - 25%**
Nominal Fixed Income	$8,985,548,110	13%	16%	16%	--
Inflation-Linked Bonds	$2,278,364,849	3%	4%	4%	--
Credit	**$6,090,431,785**	**9%**	**9%**	**9%**	**5% - 13%**
U.S. Credit	$5,354,919,386	8%	8%	8%	--
Non-U.S. Credit	$735,512,399	1%	1%	1%	--
Real Assets	**$9,722,290,764**	**14%**	**14%**	**15%**	**11% - 19%**
Real Estate	$6,442,560,805	9%	9%	10%	--
Commodities	$192,043,586	0%	0%	0%	--
Natural Resources and Infrastructure	$3,087,686,263	5%	5%	5%	--
Absolute Return	**$3,959,755,720**	**6%**	**6%**	**6%**	**2% - 10%**
Absolute Return	$3,959,755,720	6%	6%	6%	--
Multi Asset	**$259,605,054**	**0%**	**0%**	**0%**	**0% - 2%**
Multi Asset	$259,605,054	0%	0%	0%	--
Cash	**$1,221,859,922**	**2%**	**0%**	**0%**	**0% - 2%**
Cash	$1,221,859,922	2%	0%	0%	--
Total	**68,244,750,779**	**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	**68,244,750,779**	**100.0**	**1.2**	**3.4**	**6.9**	**2.3**	**7.0**	**6.3**	**7.9**	**Jul-86**
System Policy Benchmark			*0.9*	*3.3*	*6.3*	*1.6*	*6.1*	*5.7*	--	
Over/Under			0.3	0.1	0.6	0.7	0.9	0.6	--	
System Strategic Policy Benchmark			*0.9*	*3.3*	*6.4*	*1.8*	*6.3*	*5.9*	--	
Over/Under			0.3	0.1	0.5	0.5	0.7	0.4	--	
Growth Equity	**35,726,894,575**	**52.4**	**2.2**	**7.3**	**12.3**	**4.8**	**11.5**	**9.8**	**7.1**	**Jan-98**
Public Equity	**20,951,764,831**	**30.7**	**2.5**	**10.0**	**17.9**	**2.7**	**9.8**	**8.0**	**8.3**	**Apr-94**
Public Equity Custom Benchmark			*2.3*	*9.6*	*17.2*	*3.0*	*9.1*	*7.6*	--	
Over/Under			0.2	0.4	0.7	-0.3	0.7	0.4	--	
Domestic Equity	**9,656,761,280**	**14.2**	**3.4**	**14.1**	**24.6**	**8.8**	**14.2**	**11.8**	**9.8**	**Apr-94**
U.S. Equity Custom Benchmark			*3.2*	*13.6*	*23.1*	*8.1*	*14.1*	*12.1*	--	
Over/Under			0.2	0.5	1.5	0.7	0.1	-0.3	--	
Global Equity	**2,443,702,300**	**3.6**	**3.2**	**13.0**	**19.6**	**1.1**	**11.0**	**8.5**	**7.8**	**Oct-05**
Global Equity Custom Benchmark			*2.9*	*11.3*	*19.4*	*5.4*	*10.8*	*8.4*	*7.5*	
Over/Under			0.3	1.7	0.2	-4.3	0.2	0.1	0.3	
International Developed Market Equity	**5,530,518,542**	**8.1**	**-0.6**	**5.0**	**12.6**	**2.5**	**7.5**	**5.0**	**6.4**	**Jan-95**
MSRA Custom International Index			*-0.6*	*5.0*	*11.2*	*2.8*	*6.6*	*4.1*	*5.5*	
Over/Under			0.0	0.0	1.4	-0.3	0.9	0.9	0.9	
International Emerging Markets Equity	**3,320,782,709**	**4.9**	**4.8**	**5.8**	**9.9**	**-5.5**	**3.6**	**--**	**5.9**	**Nov-15**
MSCI Emerging Markets (Net)			*5.0*	*7.5*	*12.5*	*-5.1*	*3.1*	*2.8*	*5.4*	
Over/Under			-0.2	-1.7	-2.6	-0.4	0.5	--	0.5	

Asset Allocation & Performance | As of June 30, 2024

	Market Value ($)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	**14,761,407,790**	**21.6**	**1.7**	**3.6**	**5.2**	**9.5**	**15.4**	**14.9**	**9.4**	**Mar-94**
State Street Private Equity Index			*1.5*	*4.4*	*6.3*	*8.6*	*14.0*	*12.2*	--	
Over/Under			0.2	-0.8	-1.1	0.9	1.4	2.7	--	
Rate Sensitive	**11,263,912,959**	**16.5**	**-0.5**	**-2.4**	**-1.1**	**-6.9**	**-1.5**	**1.1**	**5.8**	**Jul-86**
Custom Rate Sensitive Benchmark			*-0.7*	*-2.6*	*-1.2*	*-6.3*	*-1.5*	*1.1*	--	
Over/Under			0.2	0.2	0.1	-0.6	0.0	0.0	--	
Nominal Fixed Income	**8,985,548,110**	**13.2**	**-0.9**	**-3.3**	**-2.1**	**-8.5**	**-2.7**	**0.7**	**5.7**	**Jul-86**
Custom Nominal Fixed Income Benchmark			*-1.1*	*-3.4*	*-2.2*	*-7.6*	*-2.5*	*0.7*	--	
Over/Under			0.2	0.1	0.1	-0.9	-0.2	0.0	--	
Inflation-Linked Bonds	**2,278,364,849**	**3.3**	**1.0**	**1.1**	**3.0**	**-1.3**	**2.3**	**2.3**	**3.3**	**Jul-08**
Custom Inflation Sensitive Benchmark			*0.8*	*0.7*	*2.5*	*-1.6*	*2.0*	*2.2*	*3.1*	
Over/Under			0.2	0.4	0.5	0.3	0.3	0.1	0.2	
Credit	**6,090,431,785**	**8.9**	**1.4**	**3.4**	**9.8**	**3.6**	**4.8**	**4.4**	**7.6**	**Mar-09**
U.S. Credit	**5,354,919,387**	**7.8**	**1.5**	**3.3**	**9.7**	**4.5**	**5.6**	**5.3**	**8.0**	**Mar-09**
U.S. Credit Custom Benchmark			*1.3*	*2.9*	*10.6*	*2.6*	*4.3*	*4.5*	*7.1*	
Over/Under			0.2	0.4	-0.9	1.9	1.3	0.8	0.9	
Non-U.S. Credit	**735,512,399**	**1.1**	**0.8**	**3.9**	**10.6**	**-1.3**	**1.0**	**0.0**	**0.6**	**Oct-10**
Non-U.S. Credit Custom Benchmark			*0.6*	*2.5*	*8.1*	*-3.2*	*-0.5*	*-0.3*	*0.5*	
Over/Under			0.2	1.4	2.5	1.9	1.5	0.3	0.1	
Real Assets	**9,722,290,764**	**14.2**	**-0.6**	**-2.8**	**-2.8**	**5.7**	**5.1**	**3.6**	**4.5**	**Feb-06**
Custom Real Assets Benchmark			*-0.6*	*-2.0*	*-5.4*	*1.9*	*3.7*	*3.3*	*3.6*	
Over/Under			0.0	-0.8	2.6	3.8	1.4	0.3	0.9	

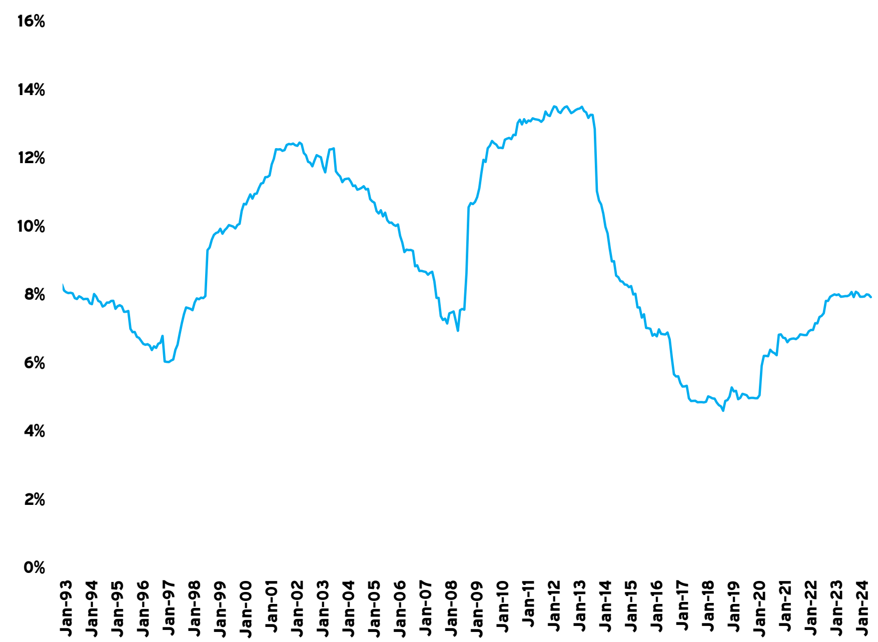
	Market Value ($)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Estate	**6,442,560,805**	**9.4**	**-1.5**	**-5.9**	**-7.7**	**3.4**	**4.0**	**6.5**	**6.5**	**Jul-87**
Real Estate Custom Benchmark			*-0.5*	*-3.0*	*-9.6*	*1.4*	*3.0*	*6.1*	*7.5*	
Over/Under			-1.0	-2.9	1.9	2.0	1.0	0.4	-1.0	
Commodities	**192,043,586**	**0.3**								
Natural Resources and Infrastructure	**3,087,686,263**	**4.5**	**1.5**	**3.9**	**7.2**	**9.8**	**6.4**	**3.6**	**8.4**	**Aug-09**
Natural Resources and Infrastructure Benchmark			*-0.7*	*0.3*	*4.6*	*3.0*	*5.1*	*6.7*	*6.8*	
Over/Under			2.2	3.6	2.6	6.8	1.3	-3.1	1.6	
Absolute Return	**3,959,755,720**	**5.8**	**1.3**	**3.8**	**5.9**	**1.9**	**3.6**	**2.5**	**3.3**	**Apr-08**
Absolute Return Custom Benchmark			*0.8*	*4.7*	*8.4*	*4.2*	*5.7*	*4.3*	*3.0*	
Over/Under			0.5	-0.9	-2.5	-2.3	-2.1	-1.8	0.3	
Multi Asset	**259,605,054**	**0.4**	**0.7**	**3.0**	**9.9**	**-4.3**	**2.3**	**--**	**2.6**	**Jul-18**
System Policy Benchmark			*0.9*	*3.3*	*6.3*	*1.6*	*6.1*	*5.7*	*6.3*	
Over/Under			-0.2	-0.3	3.6	-5.9	-3.8	--	-3.7	
Cash	**1,221,859,922**	**1.8**	**1.4**	**2.7**	**6.4**	**3.8**	**2.8**	**4.2**	**3.7**	**Jul-08**
FTSE 3 Month T-Bill			*1.4*	*2.8*	*5.6*	*3.2*	*2.2*	*1.5*	*1.0*	
Over/Under			0.0	-0.1	0.8	0.6	0.6	2.7	2.7	

Risk Dashboard

Total System Risk

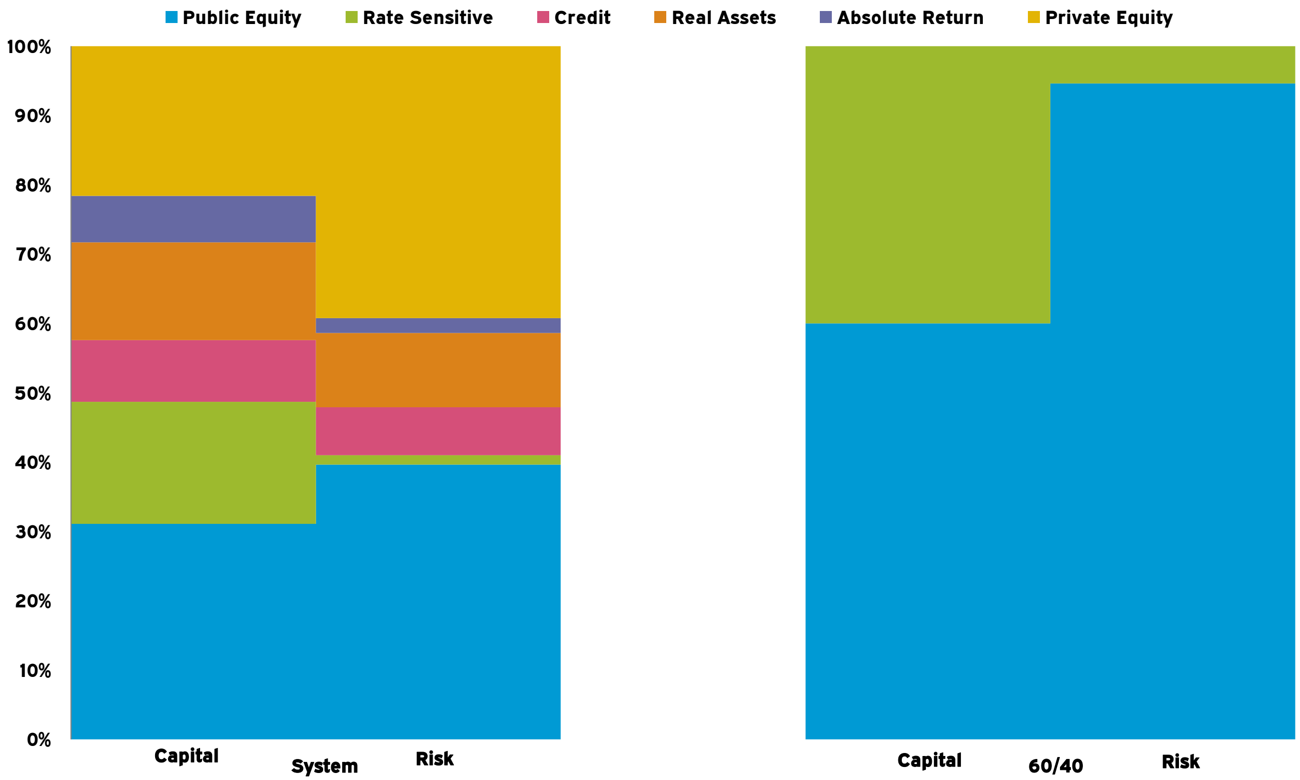
Risk: (sixty months)	Total System 6/30/2024	Policy Benchmark 6/30/2024
Annualized Return (%)	7.0	6.1
Standard Deviation (%)	7.9	8.4
Best Monthly Return (%)	6.9	6.9
Worst Monthly Return (%)	-6.4	-6.4
Beta	0.93	1.00
Correlation (R^2) to Index	0.98	NA
Sharpe Measure	0.62	0.49
Information Ratio	0.63	NA
Excess Return (%)	0.90	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.

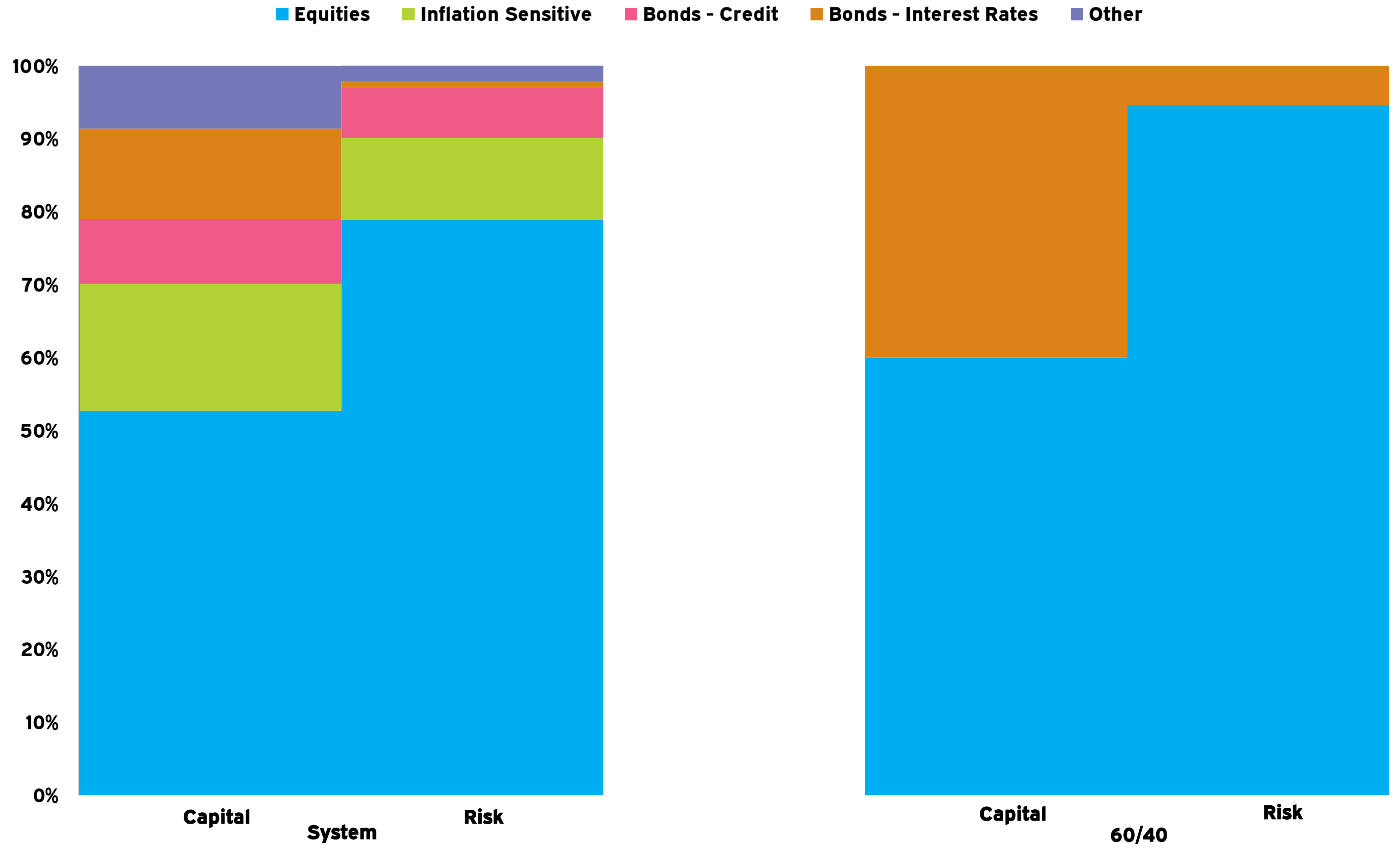
Capital Allocation vs. Risk Allocation
By Asset Class



→ Public equity makes up close to 31% of the current asset allocation; however, it comprises about 40% of the risk allocation.

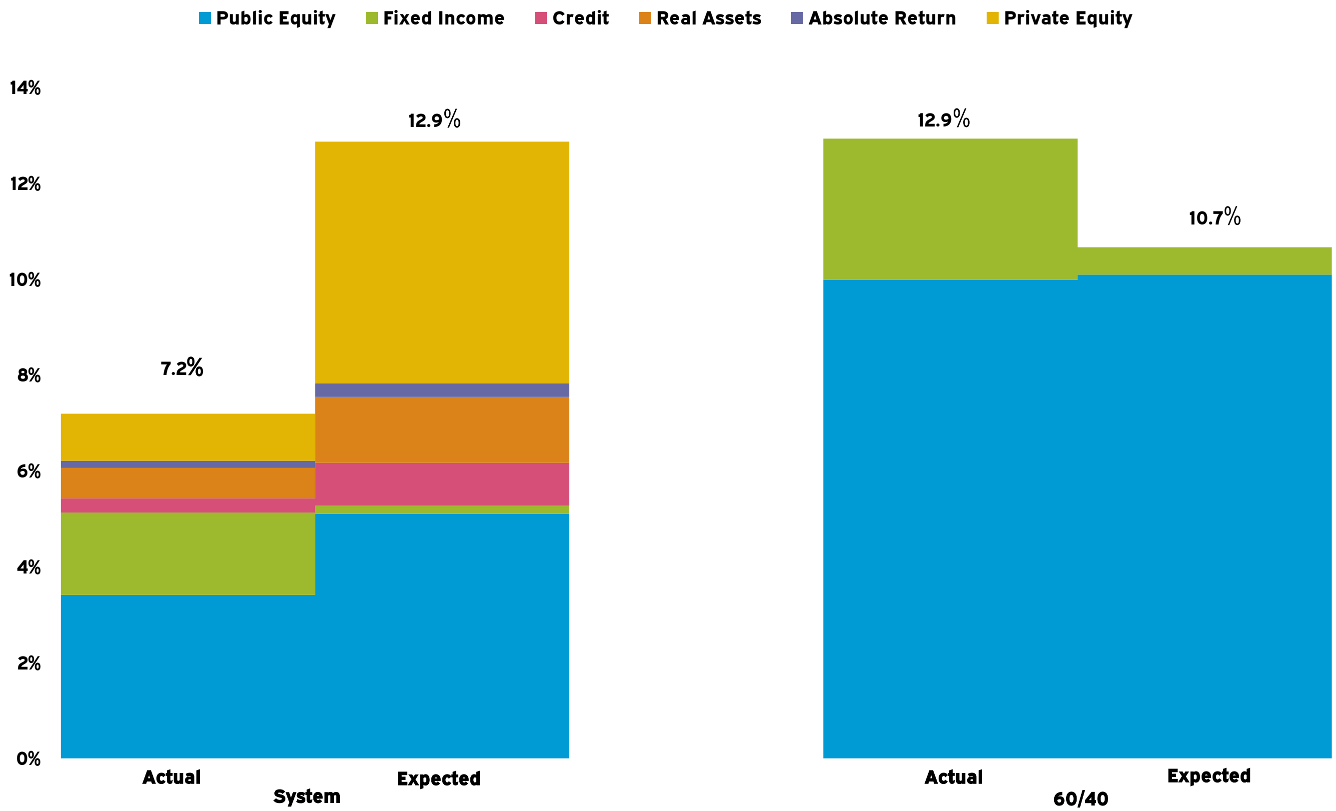
→ By contrast, in a 60/40 portfolio equity comprises 60% of the capital allocation but nearly 95% of the risk.

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.

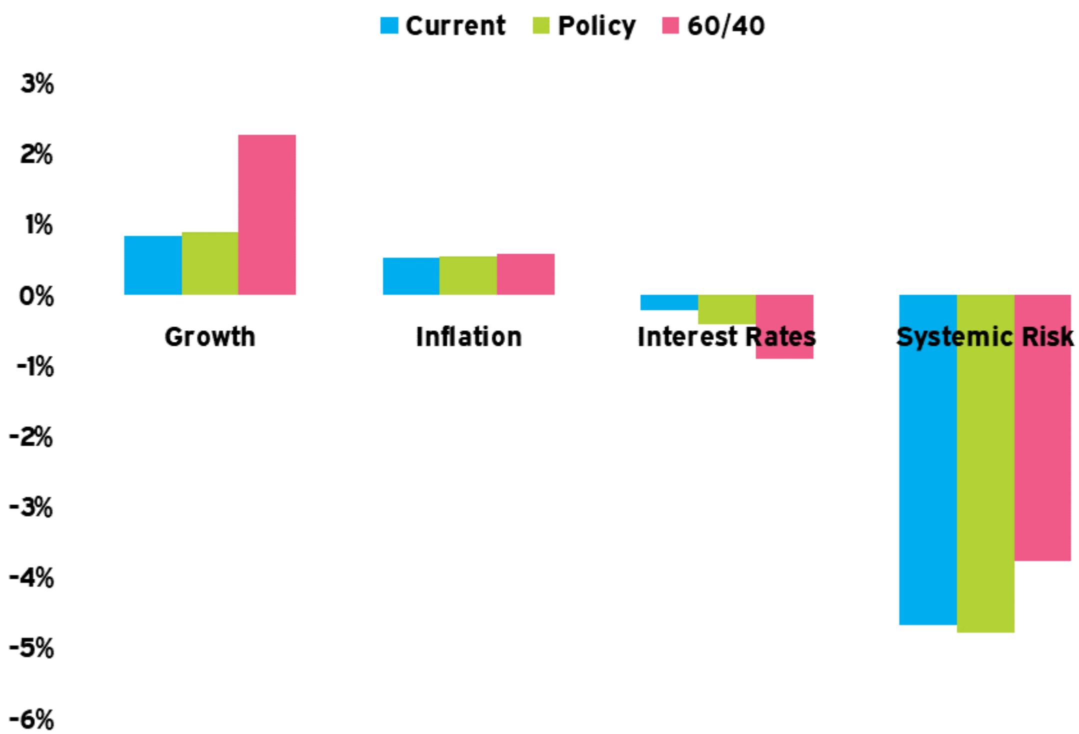
Risk Decomposition
Actual vs. Expected



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

- Public equities, which make up over 40% of the expected risk composition, have made up over 47% of the actual risk over the last three years .

Portfolio Sensitivity Comparison



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

Look Through Analysis Matrix[1,2]

	Manager Allocation	Public Equity	Fixed Income	Credit	Cash	Hedge Funds	Risk Parity/Multi -Asset	Closed-End Private Markets	Real Estate (Private)
Growth Equity	52%	29%				1%		22%	
Rate Sensitive	17%		16%			<1%			
Credit	9%			4%				5%	
Real Assets	14%	3%						2%	9%
Absolute Return	6%					6%			
Multi Asset	0%						<1%		
Cash	2%				2%				
Look Through Allocation	100%	32%	16%	4%	2%	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
- Absolute return program review
- Investment manager due diligence process
- Investment Staff incentive compensation – risk metric
- Risk survey

Current Agenda Topics

→ Performance Review

Economic and Market Update

As of June 30, 2024

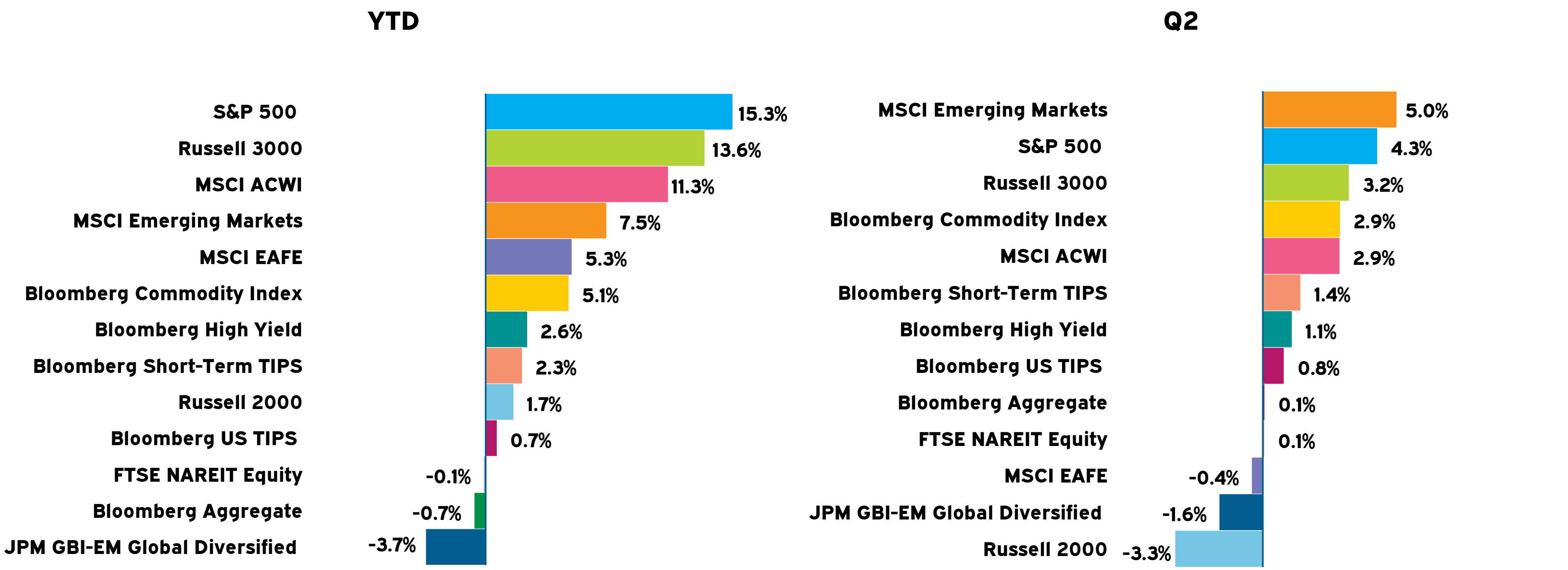
Commentary

→ Softening economic data, increased hopes of interest rate cuts, and ongoing AI optimism drove most asset classes higher in the second quarter.

- While the Fed remains data dependent, improvements in inflation and a cooling labor market may clear the way for several rate cuts this year.
- Inflation pressures have eased in most countries from their pandemic peaks, but some uncertainty remains and levels are still above most central bank targets. In the second quarter, headline and core inflation measures in the US both fell, with most readings coming in below expectations.
- The US equity markets (Russell 3000 index) added to its gains in the second quarter, rising 3.2%. Technology continued to drive results in the quarter due to AI demand and investment.
- Non-US developed equity markets fell in the second quarter (-0.4%) on continued strength in the US dollar and political uncertainty in Europe.
- Emerging market equities rallied (5.0%), for the quarter. Chinese stocks were up 7.1% as coordinated buying of Chinese exchange traded funds (ETFs) by state-backed financial services companies helped boost stock prices.
- US interest rates rose over the quarter but finished off their highs. Income offset capital losses though, leading to the broad US bond market rising 0.1% in the second quarter.

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

Index Returns[1]



→ Declining inflation, resilient growth, and strong corporate earnings supported most asset classes in the second quarter.

→ Mid-way through 2024, US stocks have significantly outperformed other asset classes on a year-to-date basis.

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

Domestic Equity Returns[1]

Domestic Equity	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	3.6	4.3	15.3	24.6	10.0	15.1	12.9
Russell 3000	3.1	3.2	13.6	23.1	8.1	14.2	12.1
Russell 1000	3.3	3.6	14.2	23.9	8.8	14.6	12.5
Russell 1000 Growth	6.7	8.3	20.7	33.5	11.3	19.4	16.3
Russell 1000 Value	-0.9	-2.2	6.6	13.1	5.5	9.0	8.2
Russell MidCap	-0.7	-3.3	5.0	12.9	2.4	9.5	9.0
Russell MidCap Growth	1.7	-3.2	6.0	15.1	-0.1	9.9	10.5
Russell MidCap Value	-1.6	-3.4	4.5	12.0	3.7	8.5	7.6
Russell 2000	-0.9	-3.3	1.7	10.1	-2.6	6.9	7.0
Russell 2000 Growth	-0.2	-2.9	4.4	9.1	-4.9	6.2	7.4
Russell 2000 Value	-1.7	-3.6	-0.8	10.9	-0.5	7.1	6.2

US Equities: The Russell 3000 rose 3.2% in the second quarter, bringing the year-to-date results to 13.6%.

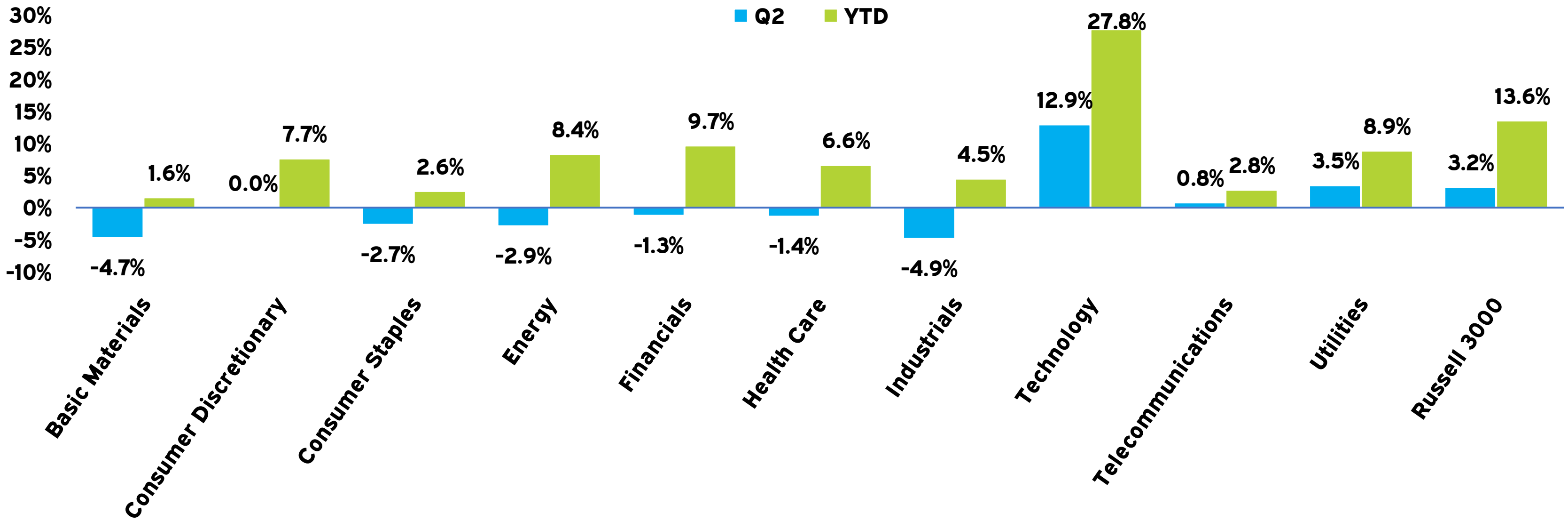
→ US stocks continued their rise in June driven by on-going AI optimism. Nearly all the quarterly market gains in the S&P 500 were driven by large cap technology stocks, with the S&P 500 equal weighted index down 3.1% for the quarter.

→ US large cap stocks continue to outperform small cap stocks. This dynamic is driven by the large technology stocks like NVIDIA, Apple, and Alphabet and the underperformance of small cap biopharma companies and banks.

→ Growth outperformed value for the quarter, with the most pronounced outperformance in the large cap space (8.3% versus -2.2%).

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

Russell 3000 Sector Returns[1]



→ Unlike first quarter performance, where all sectors gained, the second quarter saw mixed results across the major sectors.

→ Technology (+12.9%) continued to drive results fueled by on-going AI optimism. Utilities where a distant second increasing 3.5%, on expectations of increased demand from AI-related companies.

→ Many other sectors fell, including financials (-1.3%), health care (-1.4%), consumer staples (-2.7%), energy (-2.9%), materials (-4.7%), and industrials (-4.9%).

→ All sectors have positive returns for the year-to-date period. Technology stocks (+27.8%) continue to lead the broader market, followed by financials (9.7%).

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

Foreign Equity Returns[1]

Foreign Equity	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-0.1	1.0	5.7	11.6	0.5	5.6	3.8
MSCI EAFE	-1.6	-0.4	5.3	11.5	2.9	6.5	4.3
MSCI EAFE (Local Currency)	-0.6	1.0	11.1	15.1	8.1	9.0	7.4
MSCI EAFE Small Cap	-3.0	-1.8	0.5	7.8	-3.4	4.2	4.3
MSCI Emerging Markets	3.9	5.0	7.5	12.5	-5.1	3.1	2.8
MSCI Emerging Markets (Local Currency)	4.3	6.2	11.0	15.5	-1.6	5.6	5.8
MSCI EM ex. China	6.1	4.2	8.4	18.5	1.4	6.7	3.9
MSCI China	-1.9	7.1	4.7	-1.6	-17.7	-4.3	1.4

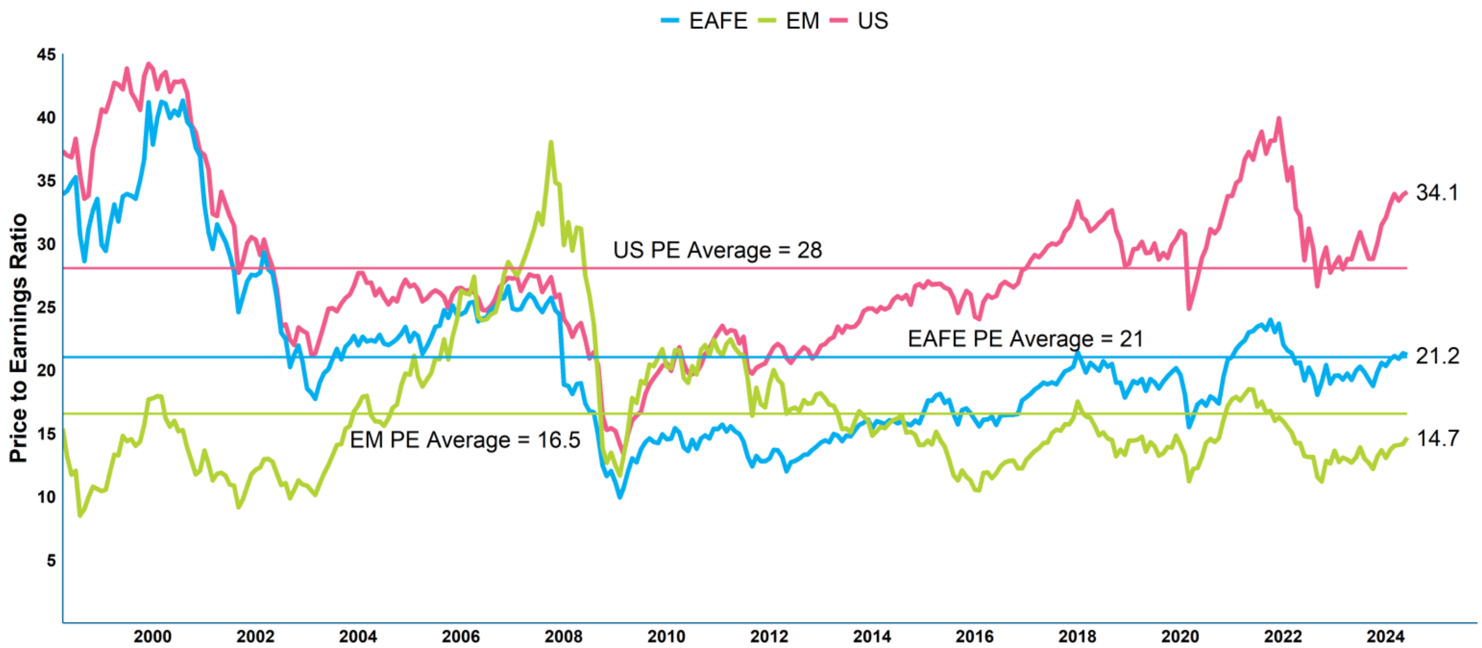
Foreign Equity: Developed international equities (MSCI EAFE) fell 0.4% in the second quarter, while emerging market equities (MSCI Emerging Markets) gained 5.0%.

→ For the second quarter, developed market equities declined driven by continued strength in the US dollar and regional political risks particularly in France. UK and Japanese equities made new all-time highs during the quarter, but this was not enough to offset losses in Europe.

→ Emerging market equities outpaced developed market equities during the quarter given strong results in China (7.1%). China equities moved into positive territory for the year (4.7%) due to government purchases of shares, improving economic data, and returning foreign investors.

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

Equity Cyclically Adjusted P/E Ratios[1]



→ At the end of the second quarter, the US equity price-to-earnings ratio remained elevated and above its 21st century average.

→ International equity market valuations remain well below the US. International developed market valuations have increased to slightly above their long-term average, while emerging market equities remain below their long-term average despite 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 June 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	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	0.9	0.2	-0.3	3.5	-2.7	0.1	1.6	5.3	6.0
Bloomberg Aggregate	0.9	0.1	-0.7	2.6	-3.0	-0.2	1.3	5.0	6.2
Bloomberg US TIPS	0.8	0.8	0.7	2.7	-1.3	2.1	1.9	4.8	6.6
Bloomberg Short-term TIPS	0.6	1.4	2.3	5.4	2.2	3.2	2.0	5.1	2.4
Bloomberg High Yield	0.9	1.1	2.6	10.4	1.6	3.9	4.3	7.9	3.7
JPM GBI-EM Global Diversified (USD)	-1.1	-1.6	-3.7	0.7	-3.3	-1.3	-0.9	--	--

Fixed Income: The Bloomberg Universal index rose 0.2% in the second quarter, reducing the year-to-date decline to -0.3%.

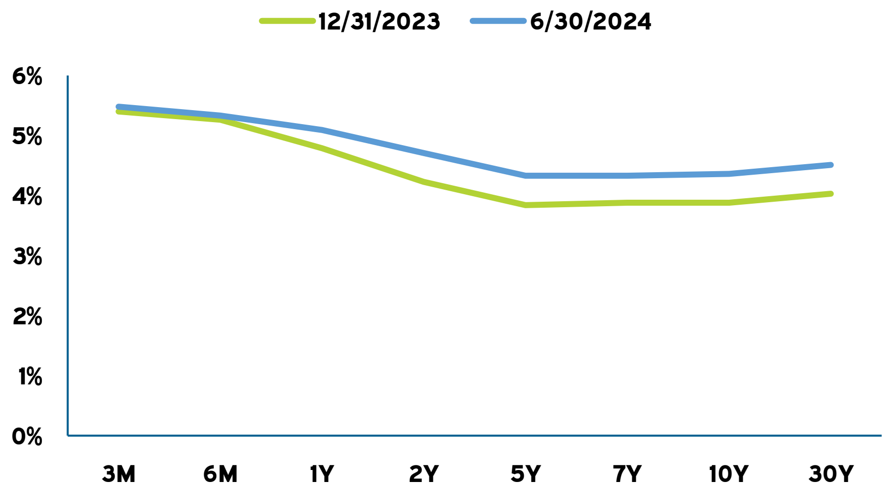
→ Bonds finished the quarter slightly up as May and June gains offset the April declines.

→ The broad US bond market (Bloomberg Aggregate) rose 0.1% in the second quarter, with the broad TIPS market gaining 0.8%. The less interest rate sensitive short-term TIPS index increased 1.4% for the quarter, leading to the best results.

→ High yield bonds (1.1%) also rose, as risk appetite remains strong.

[1] Source: Bloomberg. Data is as of June 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]



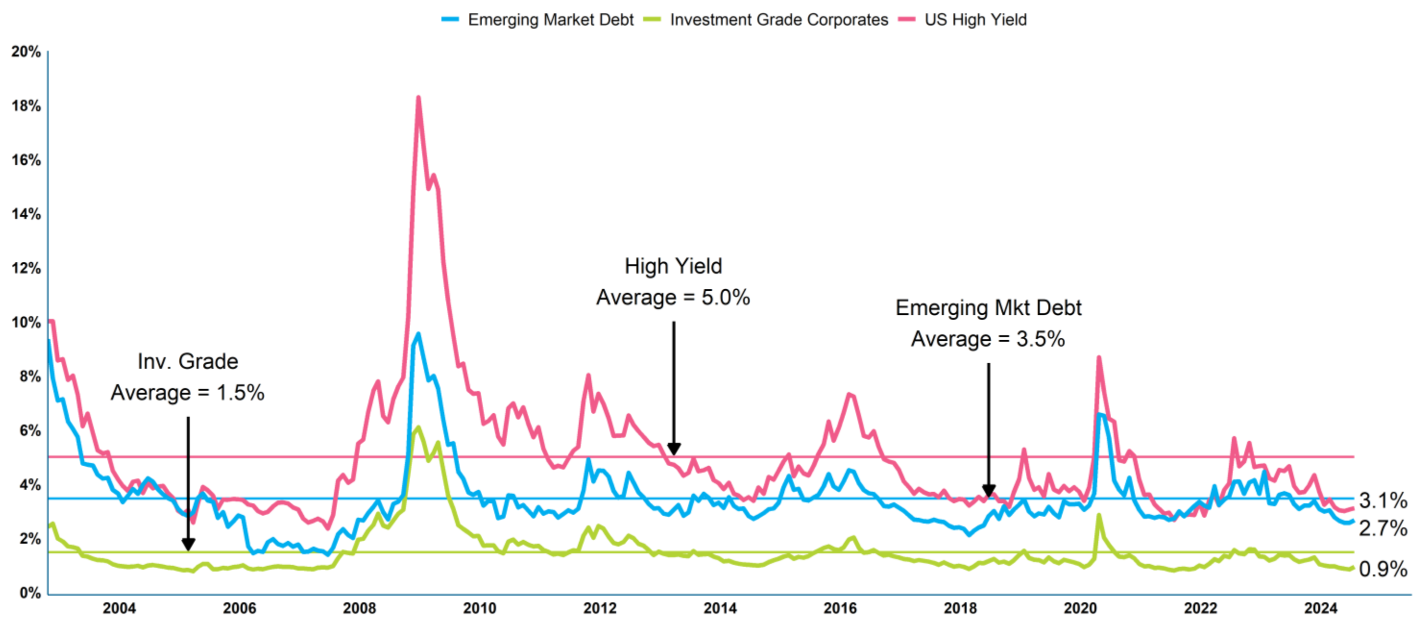
→ After rates significantly increased in April on strong inflation data, they then declined in May and June. Chair Powell confirming that the FOMC would not raise rates again this year as economic data appears to be returning to long-run trends led to rates declining from the April highs.

→ The more policy sensitive 2-year Treasury yield finished the quarter roughly 0.2% higher at 4.76% but well off its peak of over 5.0%. The 10-year Treasury rose by a similar amount during the quarter finishing at 4.39%; also, off its April peak of 4.68%.

→ The yield curve remained inverted at month-end, with the spread between the 2-year and 10-year Treasury at roughly -35 basis points.

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

Credit Spreads vs. US Treasury Bonds[1]



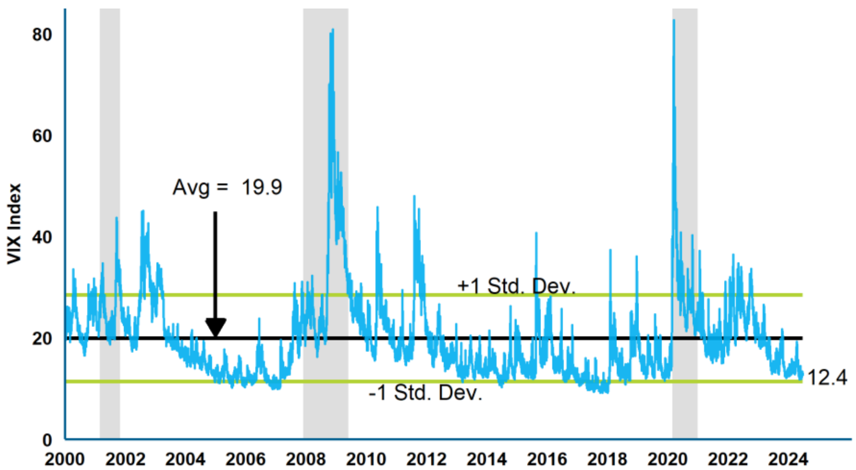
→ Despite rising rates, investor demand for risk exposure in credit markets remained strong in Q2 given measured weakness in the economic outlook and expectations of lower interest rates by year-end.

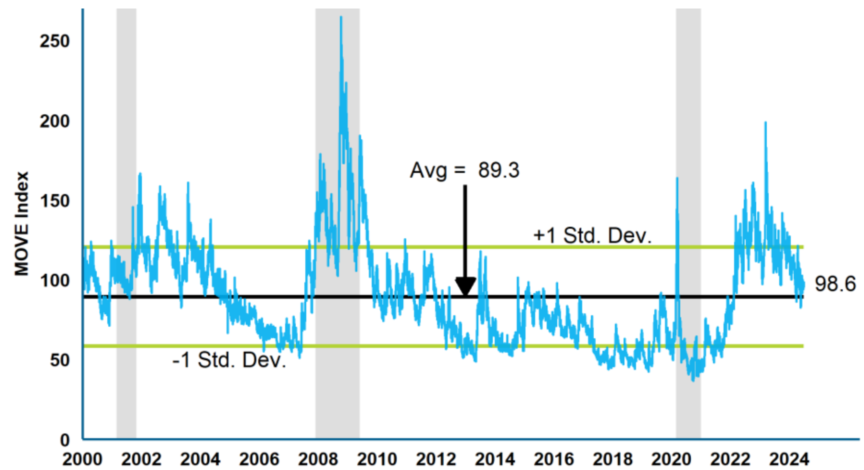
→ Spreads (the yield above a comparable maturity Treasury) stayed relatively steady over the quarter, near post-pandemic lows. All spreads remained below their respective long-run averages, particularly high yield.

→ 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 of June 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]



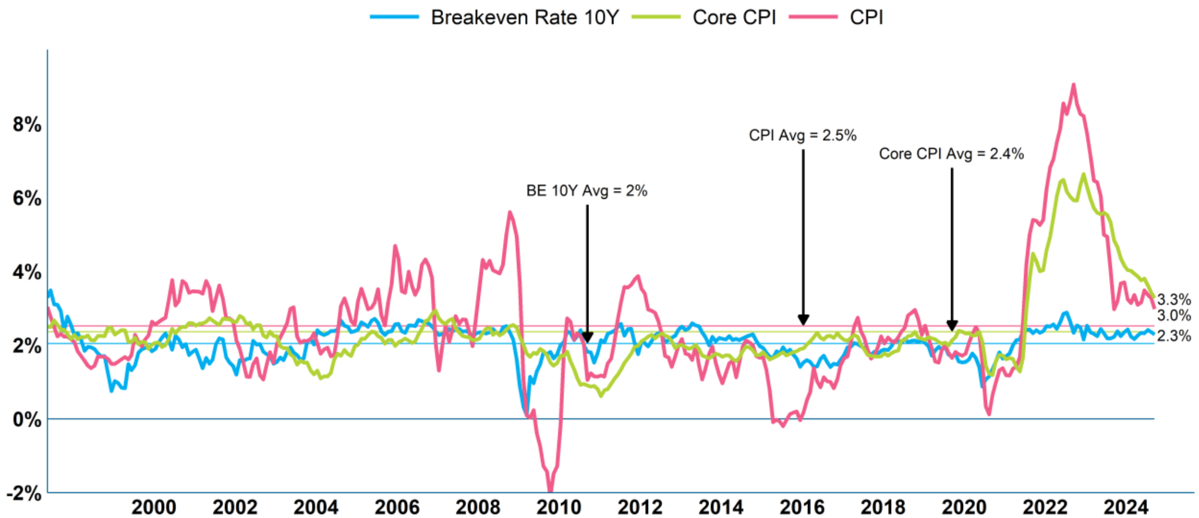


→ Volatility in equities was around one standard deviation below its long-term average at the end of the quarter as continued strength in technology stocks and weakening economic data has moderated fear in the markets.

→ Volatility in bonds (MOVE) ended June higher than where it started the quarter (98.6 versus 86.4) and above its long-run average.

[1] Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of June 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and June 2024.

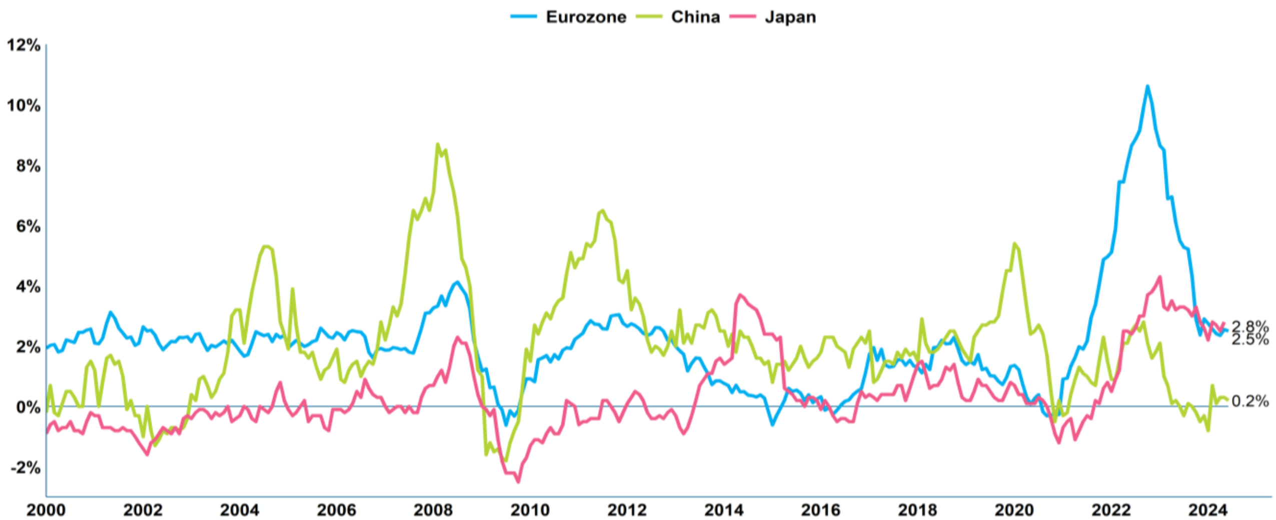
US Ten-Year Breakeven Inflation and CPI[1]



- → Year-over-year headline inflation continued to fall in June (3.3% to 3.0%) and again came in below expectations. Over the quarter, inflation fell by a total of 0.5%.
- → Month-over-month inflation was negative for the first time since March 2020, largely because of price declines in energy and core goods.
- → Core inflation (excluding food and energy) also declined in June (3.4% to 3.3%) and came in below expectations. A drop in used car prices, transportation services, and a slowing of the pace of shelter price increases all contributed to the decline.
- → Inflation expectations (breakevens) have been volatile, but they finished the quarter largely where they started.

[1] Source: FRED. Data is as June 2024. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

Global Inflation (CPI Trailing Twelve Months)[1]



→ Outside the US, inflation is also easing from the recent peaks.

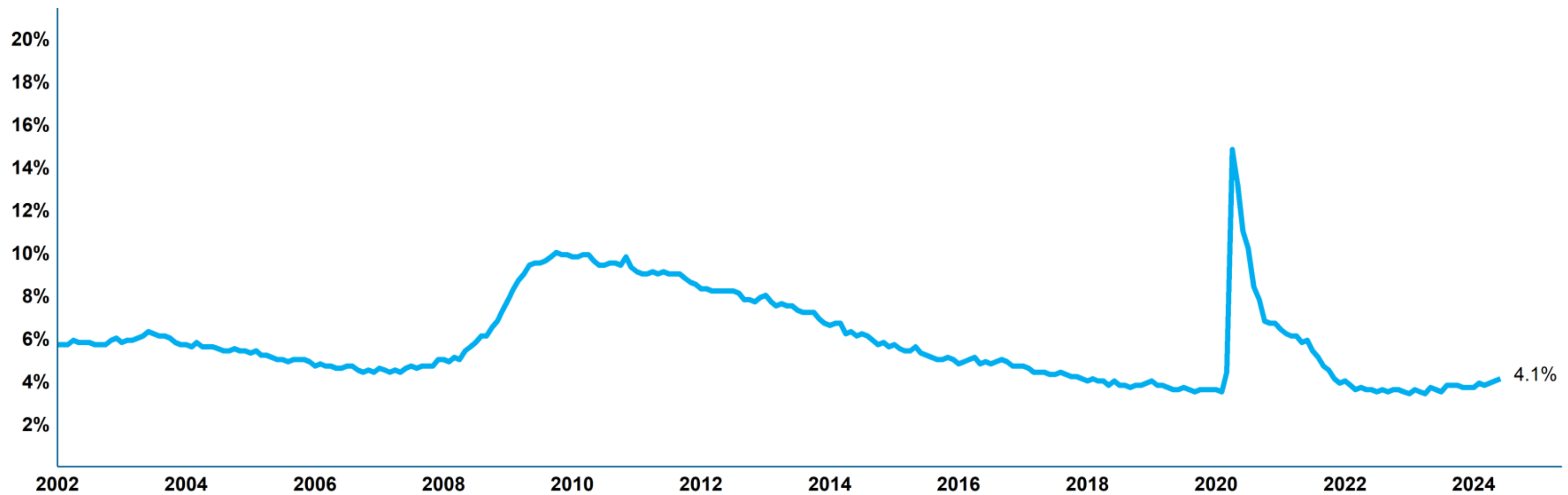
→ In the eurozone, inflation experienced a dramatic decline last year but remains above the central bank's 2% target. In June, inflation fell slightly from 2.6% to 2.5% year-over-year.

→ Inflation in Japan has slowly dropped from the early 2023 peak of 4.3%, but it remains near levels not seen in a decade. In the most recent reading (May), inflation rose modestly from 2.5% to 2.8% as fuel and utility prices increased.

→ China appears to have emerged from deflationary pressures, but inflation levels remain well below other major economies due to slowing economic growth. Annual inflation levels have been positive for the last five readings signaling improvement in domestic demand. The June year-over-year number came in at 0.2%, slightly lower than the prior reading of 0.3%.

[1] Source: Bloomberg. Data is June 30, 2024, except Japan which is as of May 31, 2024.

US Unemployment[1]

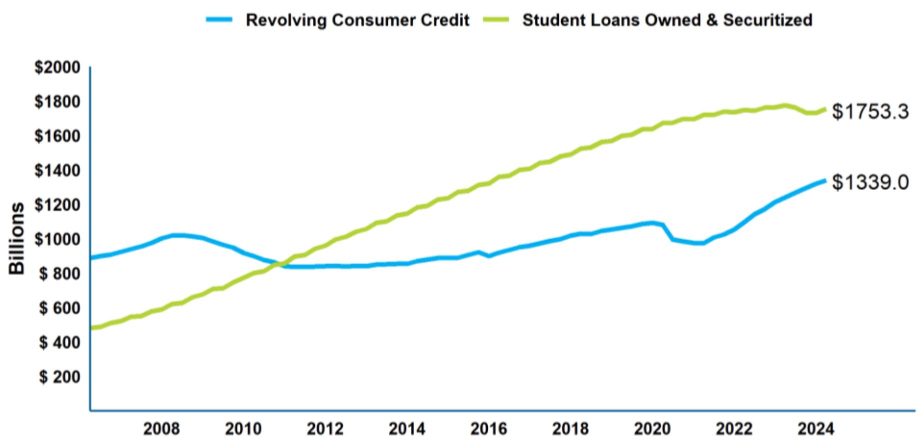


- → Overall, the US labor market remains healthy, but there have been some recent signs of softening.
- → The unemployment rate came in above expectations in June reaching 4.1%, a level not seen since early 2022. Over the second quarter unemployment increased 0.3%.
- → Wage growth remains strong though (around 3.9% annually), and initial claims for unemployment are still subdued.
- → Despite significant downward revisions to job gains in April and May, in June the economy added 206,000 jobs (above expectations). The government added the most jobs (70,000), followed by the healthcare sector (49,000).

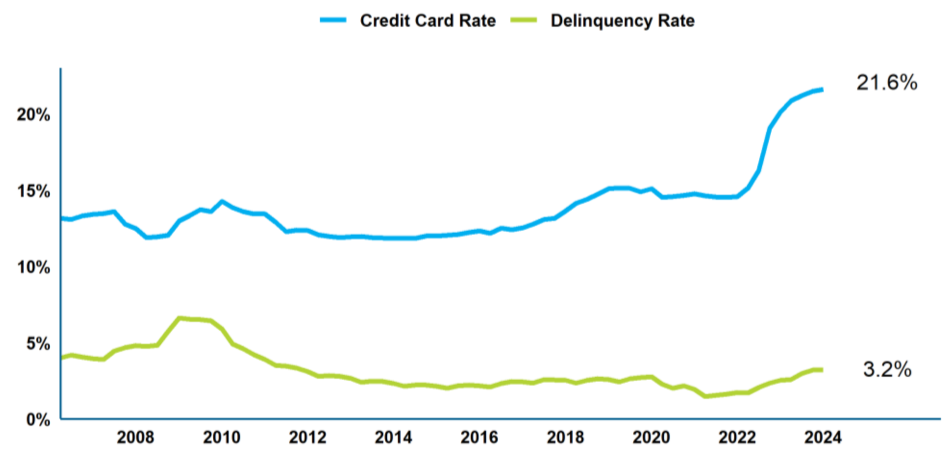
[1] Source: FRED. Data is as June 30, 2024.

US Consumer Under Stress?[1]

Revolving Consumer Credit & Student Loans ($B)



Consumer Credit Card Interest Rates (%)



→ Despite the strong labor market and higher wages, pressures are building on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.

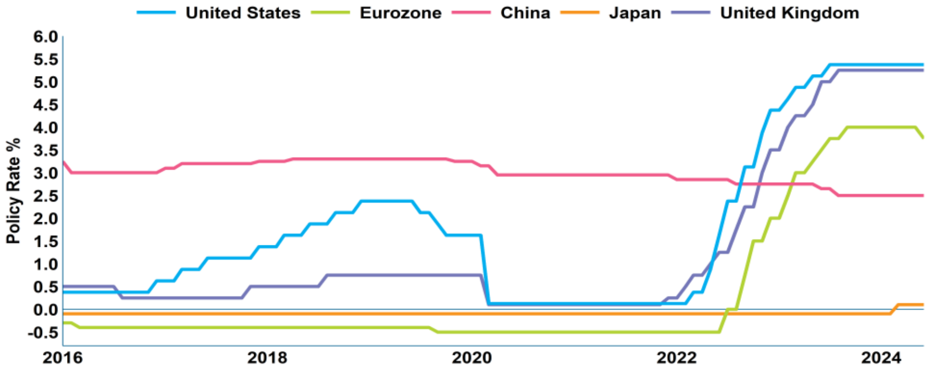
→ Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s). Recently, we have also seen payment delinquencies on credit cards and auto loans start to increase, particularly for younger people.

→ The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially mitigated by recently initiated repayment and forgiveness programs.

→ It is worth noting though that many people locked in low-rate fixed mortgages before rates increased and many corporations issued debt at extremely low levels, reducing the sensitivity to higher rates.

[1] Source: FRED. Data is as of March 31, 2024. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.

Policy Rates[1]



→ In the US interest rates have remained at current levels (5.25%-5.50%) for a year now. The most recent "dot plot" (the Fed's expectation on the path of rates) showed a median expectation of roughly one rate cut this year. Markets are now pricing in two to three rate cuts in 2024 given the improving inflation data with the probability of a cut around 100% in September and slightly over 90% for December.

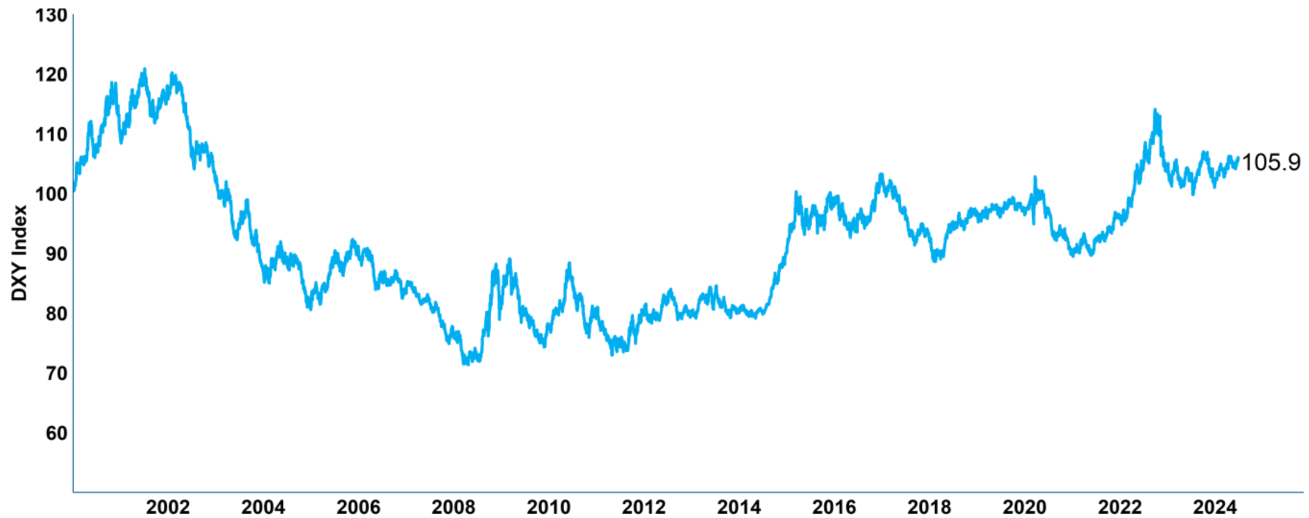
→ The European Central Bank (ECB) cut its policy rate by 25 basis points at the beginning of June, as expected. Like the US, cuts are also anticipated at the September and December meetings.

→ After ending the last negative interest rate policy given higher inflation levels, the Bank of Japan (BOJ) has since kept rates at slightly above 0%. Policy is expected to tighten going forward with the BOJ announcing at their recent meeting they would also start reducing their bond purchases. Interest rate futures markets are pricing in roughly two rate hikes (of 10 basis points) through the end of the year.

→ The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, to support economic growth.

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



→ Overall, the dollar rose in the second quarter (104.5 to 105.9) versus a basket of currencies of major trading partners.

→ China and the ECB cutting policy rates, stronger relative growth, and the weakening of the Japanese yen, have all collectively helped strengthen the dollar.

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

Summary

Key Trends:

→ According to the International Monetary Fund's (IMF) April 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. Continued strong economic growth does run the risk of inflation and interest rates staying higher for longer.

→ Key economic data in the US has largely weakened and come in below expectations, causing markets to expect between two and three rate cuts this year. Uncertainty remains though regarding the timing and pace of interest rate cuts in the coming year.

→ We have started to see some divergences in monetary policy with other central banks, such as the European Central Bank (ECB), starting to cut interest rates while the Fed remains on hold. This disparity will likely influence investment flows and currencies.

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

→ A focus for US equities going forward will be whether earnings can remain resilient if growth slows. Also, the future paths of the large technology companies that have driven market gains will be important.

→ Equity valuations remain lower in emerging and developed markets, but risks remain, including China's economic uncertainty and ongoing weakness in the real estate sector. Japan's recent tightening of monetary policy along with changes in corporate governance in the country could influence relative results.

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

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

UPCOMING EVENTS

Q3 Investment Perspectives Webcast
October 2024

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

Client and employee counts as of June 30, 2024; assets 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.

THOUGHT LEADERSHIP

Read our Research Note “Exploring the Backbone of Digital Communications: Towers”

Digital infrastructure refers to the robust communications system of assets that connect, transmit, process, and store data.

There are three primary subsectors: wireless, wired fiber networks, and data centers. This research note, focuses on the wireless sector, specifically the macro cell tower subsector of the digital infrastructure environment.

Read more here:
https://meketa.com/leadership/exploring-the-backbone-of-digital-communications-towers/

Read our recent primer on “Growth Equity”

Growth equity is often overshadowed by its cousins in buyouts and venture capital, but it should not be overlooked.

This paper discusses the characteristics of the asset class and reasons for investing in growth equity. It presents an analysis of major return, risk, and implementation considerations for institutional investors..

Read more here:
https://meketa.com/leadership/growth-equity-primer/

Cash balance comeback

There has been recent news of a plan sponsor announcing a new cash balance provision for their active employees. This bucks the trend of the last few decades when it was common for companies to announce pension plan closures and freezing future benefit accruals.

This has resulted in many companies asking the following questions:

What is a cash balance pension plan?

Why would a plan sponsor have interest in implementing a new cash balance provision in the existing defined benefit plan?

Should other companies with frozen pension plans consider this approach?

What are some investment considerations for any cash balance pension plan?

Read more here:
https://meketa.com/leadership/cash-balance-comebacks/

MEKETA VALUES COMMUNITY AND SERVICE

Brad Walker, the head of technology at Meketa, recently gave the keynote address to graduates of Per Scholas Boston.

These hardworking students completed a 13-week intensive training to kick-start their tech careers. Brad shared insights from his experiences in the Marine Corps and working in the IT field.

Per Scholas, a non-profit organization, offers free IT training for careers in IT support, cybersecurity, cloud engineering, and software development. Their mission is to advance economic equity through rigorous training for tech careers and to connect skilled talent to leading businesses.

CELEBRATING THIS QUARTER

Meketa employees take part in Habitat for Humanity Build Days on both coasts!

As part of Meketa's volunteer opportunities, each employee is given 8 hours to volunteer in their local communities. During the summer, our Carlsbad office in San Diego and our Boston office in Westwood hosts Habitat for Humanity Build Days.

In Carlsbad, employees traveled to San Diego to help a homeowner with repairs on a home that had suffered from fire damages.

In Boston, our employees traveled to Malden, MA to help with the Greater Boston Build Day.










MEKETA IN THE NEWS

Infrastructure Investor

As GP consolidation wave grows, LPs brace for impact

By Zak Bently | 4.2.24

Read full article here

A fear of the unknown will be prevalent for many LPs across private markets, but it may be that conservative infrastructure investors are the most cautious in this respect.

"In all cases, there's a little bit of trepidation about what it means, whether there'll be pressure to launch bigger funds or charge higher fees or go into riskier assets to target more carry," outlines Lisa Bacon, managing principal of Meketa's infrastructure programme.

PERE Credit

Brookfield's Brian Kingston: The future is debt

Randy Plavajka and Samantha Rowan | 6.3..24

Read full article here

Meketa Investment Group, a Westwood, Massachusetts-based advisory, has indeed seen more of its clientele shifting toward real estate private credit as part of their overall strategy.

"Real estate credit investments potentially offer a very good risk-adjusted return and now, as property values have come down and traditional lenders are capital-constrained, it is possible to earn attractive returns," says Colin Hill, managing principal.

Investors include large credit funds [like those offered by Brookfield] within their debt allocations, Hill notes.

The shift toward private real estate credit has been happening gradually over the past 18 to 24 months, Hill adds. "We have seen some investors moving out of equities and moving into debt as a way to better match liabilities and get returns with lower volatility and more current income. I wouldn't say it is a pendulum swing, but there has been a shift for a lot of our clients to take a couple of points out of equity and reallocate to fixed income," Hill says.

WSJ PRO PRIVATE EQUITY

Venture Capital

The Search for Venture Funds That Don't Do AI

By YULIYA CHERNOVA | 2024

Read full article here

"They "talk about AI 90% of the time now," said Ethan Samson, managing principal and private markets consultant and counsel at Meketa Investment Group, referring to venture fund managers that are pitching their funds. Meketa advises large institutional investors such as endowments and pension funds on making venture-fund and other investments.

Samson said Meketa is considering venture funds that specialize in defense, consumer products and life sciences to reach sectors with less generative AI reliance.

"We want to be sure we are not overexposed in that area," Samson said.

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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%.

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

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.