MEKETA

Maryland State Retirement and Pension System

Performance Report
December 31, 2023

Fund Evaluation Report

Agenda

Executive Summary

Market Value & Performance

→ At the end of the fourth quarter, the System was valued at $66,441 million, an increase of $3,172 million from the end of the third quarter.

- The increase was the result of positive investment performance, as net cash outflows totaled $184.4 million for the quarter.

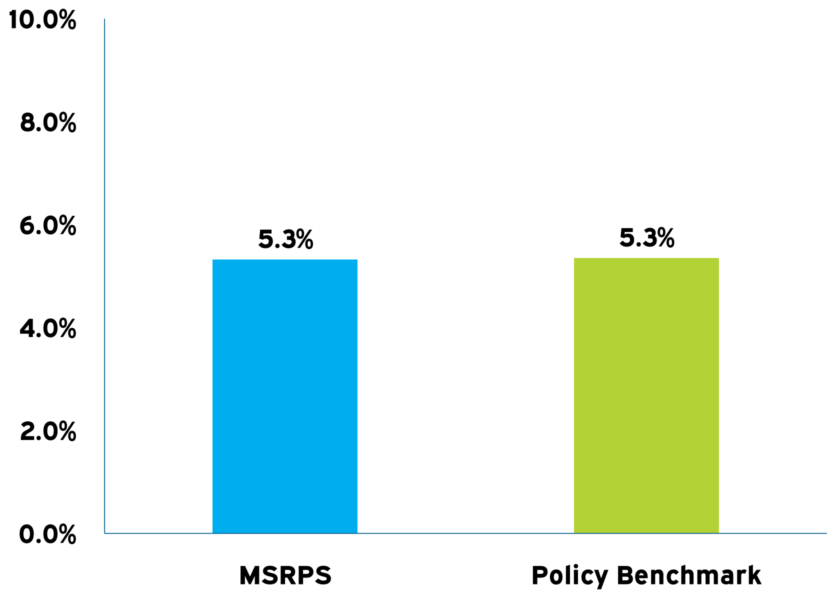
→ The System returned 5.3%, net of fees, during the fourth quarter of 2023, slightly underperforming the policy benchmark by 0.03%.

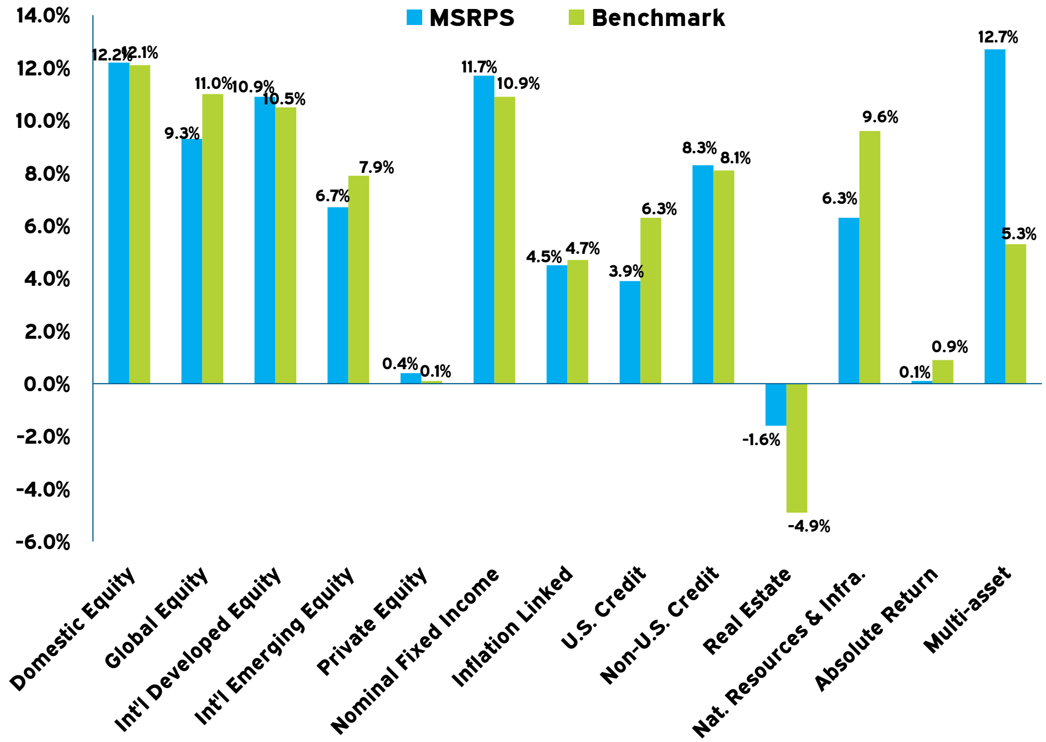
- Most asset class returns were positive for the quarter except for real estate.
- Multi-asset had the strongest absolute return, up 12.7% for the quarter, while real estate was the weakest performer in absolute terms, down 1.6%.

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

Q4 System and Asset Class Performance

→ The System slightly underperformed the Policy Benchmark during the third quarter, returning 5.3%, net of fees.





→ During the quarter, multi-asset, while a small allocation, delivered the best absolute performance returning 12.7%.

→ On a relative basis, multi-asset was the best performing asset class, outpacing its benchmark by 7.4%.

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

Total System Q4 Attribution[1]

	Total System			Policy Benchmark			Attribution Analysis			
	Average Weight	Total Return[2]	Contribution to Return	Average Weight[3]	Total Return[2]	Contribution to Return	Allocation Effect	Active Management Effect[4]	Interaction Effect	Total Effect
Public Equity	28.5	10.3	2.9	27.4	10.7	2.9	0.03	0.00	-0.10	-0.07
Domestic Equity	12.2	12.2	1.5	13.2	12.1	1.6	-0.07	0.03	0.00	-0.05
International Developed	7.2	10.3	0.7	8.3	10.5	0.9	-0.08	-0.01	0.00	-0.09
International Emerging	5.9	7.6	0.4	5.9	7.9	0.5	0.00	-0.02	0.00	-0.01
Global Equity	3.2	8.0	0.3	0.0	11.0	0.0	0.18	0.00	-0.10	0.08
Private Equity	22.6	0.4	0.1	22.6	0.1	0.0	0.00	0.07	0.00	0.07
Nominal Fixed Income	13.3	9.6	1.3	15.4	10.9	1.7	-0.11	-0.21	0.03	-0.30
Inflation Linked	3.4	4.5	0.2	3.9	4.7	0.2	0.00	-0.01	0.00	-0.01
US Credit	8.4	3.8	0.3	8.0	6.3	0.5	0.00	-0.20	-0.01	-0.21
Non- US Credit	1.0	8.3	0.1	1.0	8.1	0.1	0.00	0.00	0.00	0.00
Real Estate	10.7	-1.6	-0.2	10.7	-4.9	-0.5	0.00	0.35	0.00	0.35
Natural Resources & Infrastructure	4.7	6.3	0.3	5.0	9.6	0.5	-0.01	-0.16	0.00	-0.17
Absolute Return	6.1	0.1	0.0	6.0	0.9	0.1	-0.01	-0.05	0.00	-0.06
Multi-Asset	0.4	12.7	0.0	0.0	5.3	0.0	0.00	0.00	0.03	0.03
Cash	0.8	1.6	0.0	0.0	1.4	0.0	-0.02	0.00	0.00	-0.02
Total (excl. overlay)	-	-	4.93	-	-	5.35	-0.11	-0.21	-0.06	-0.38
Currency Overlay							-0.05			
Structural/Tactical Overlay							0.44			
Total (incl. overlay)	100.0	-	5.32	100.0	-	5.35	0.28	-0.21	-0.06	0.01

[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	29.5	20.2	6.0	28.2	20.2	5.7	0.08	0.18	-0.14	0.11
Domestic Equity	11.9	26.3	3.1	13.0	26.0	3.4	-0.20	0.05	-0.01	-0.16
International Developed	7.2	18.7	1.3	8.0	17.9	1.4	-0.11	0.05	0.00	-0.06
International Emerging	7.0	10.8	0.8	7.2	9.8	0.7	-0.06	0.08	0.00	0.02
Global Equity	3.4	17.7	0.6	0.0	22.2	0.0	0.45	0.00	-0.14	0.32
Private Equity	21.8	5.7	1.2	21.8	5.3	1.1	0.00	0.09	0.00	0.09
Nominal Fixed Income	13.5	6.1	0.8	15.3	4.6	0.7	0.04	0.18	-0.02	0.20
Inflation Linked	3.7	3.9	0.1	4.3	3.8	0.2	0.01	0.00	0.00	0.01
US Credit	7.8	10.2	0.8	7.5	13.4	1.0	0.01	-0.25	0.00	-0.24
Non- US Credit	1.0	10.4	0.1	1.0	9.0	0.1	0.00	0.01	0.00	0.01
Real Estate	10.8	-10.9	-1.2	10.8	-12.3	-1.3	0.00	0.14	0.00	0.14
Natural Resources & Infrastructure	4.9	5.5	0.3	5.0	5.8	0.3	-0.01	-0.05	0.00	-0.06
Absolute Return	6.0	2.4	0.1	6.0	4.8	0.3	-0.03	-0.14	0.00	-0.17
Multi-Asset	0.4	11.6	0.0	0.0	7.5	0.0	0.00	0.00	0.02	0.02
Cash	0.5	6.4	0.0	0.0	5.3	0.0	-0.01	0.00	0.00	0.00
Total (excl. overlay)	-	-	7.78	-	-	7.50	0.09	0.16	-0.14	0.11
Currency Overlay							-0.02			
Structural/Tactical Overlay							0.21			
Total (incl. overlay)	**100.0**	**-**	**7.96**	**100.0**	**-**	**7.50**	**0.28**	**0.16**	**-0.14**	**0.30**

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

Attribution Commentary

Fourth Quarter

→ In the fourth quarter, the System underperformed the policy benchmark by 0.03%.

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

→ Active management and the interaction effect detracted to relative performance.

- Selection within real estate and private equity was most additive while selection within nominal fixed income, US credit, and natural resources and infrastructure detracted from relative performance.

Trailing 1-Year

→ Over the trailing one-year period, the System outperformed the Policy Benchmark by 0.46%.

→ 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 nominal fixed income, real estate, and private equity were the most additive while selection within US credit, absolute return, and global equity detracted.

Attribution Details

Returns Based Attribution Definition:

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

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

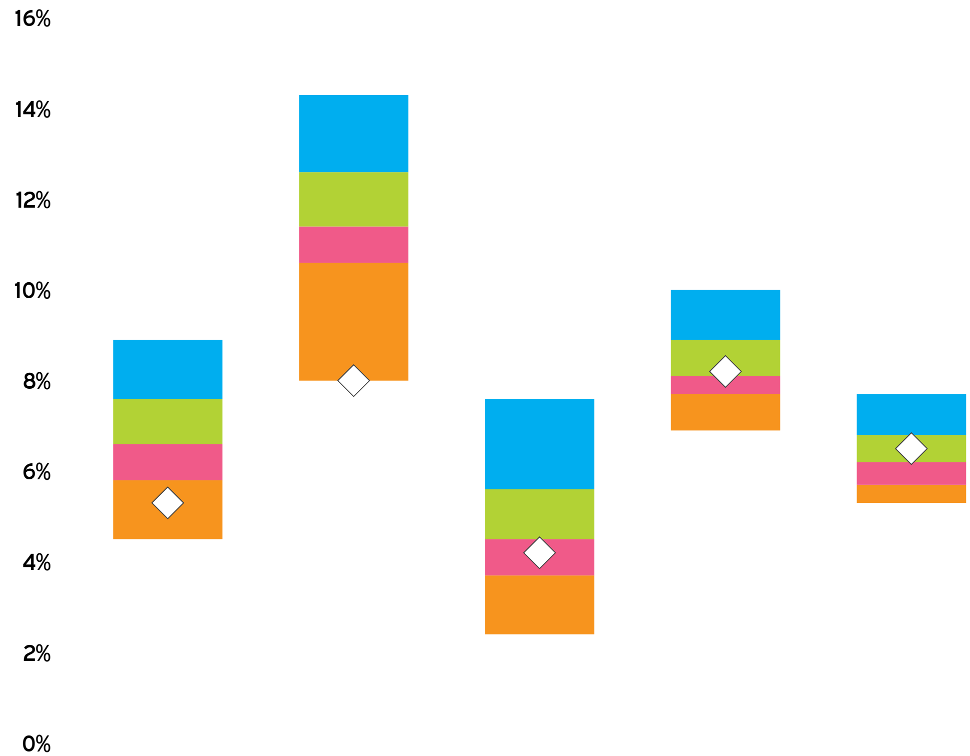
Calculations[1]:

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

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

[1]Rpb= Policy Benchmark
Rab = Asset Class Benchmark
Wp = Portfolio Weight
Wb = Policy Weight
Rp = Asset Class Return
Rb = Policy Benchmark Return
[2] In cases where the policy weight is zero, the active management effect will in turn be zero. The interaction effect will capture any contributions made by active management where the policy weight is zero as it factors in the portfolio weight.

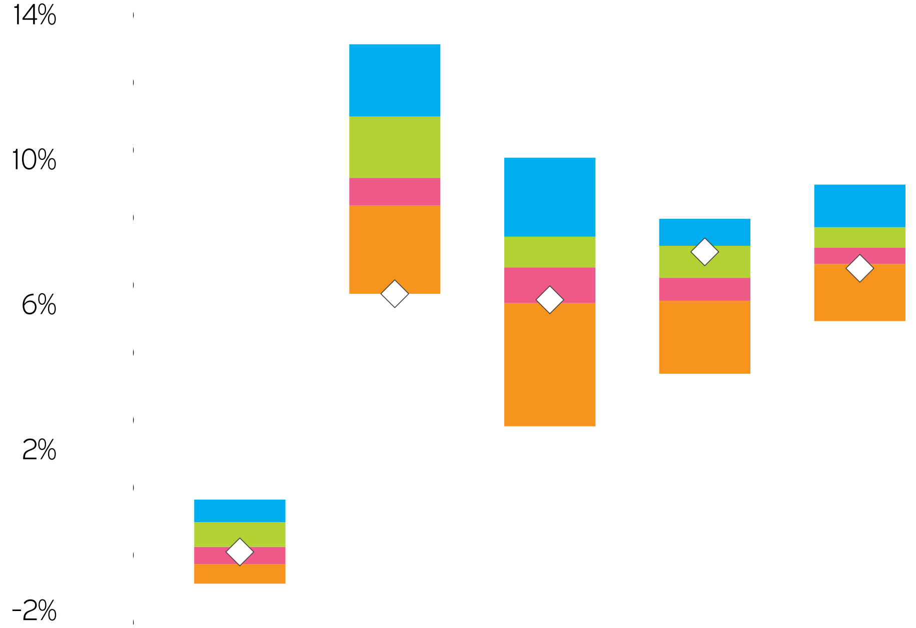
Total System vs. Public Plans >$1 Billion Universe[1]
As of December 31, 2023



	4Q23 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total System	5.3	8.0	4.2	8.2	6.5
25th Percentile	7.6	12.6	5.6	8.9	6.8
Median	6.6	11.4	4.5	8.1	6.2
75th Percentile	5.8	10.6	3.7	7.7	5.7
Rank (%)	*84*	*97*	*58*	*46*	*32*

[1] Represents a preliminary release of the InvMetrics Public DB >$1 bn peer group as of December 31, 2023. Total System performance is net of fees. Includes 67 plans.

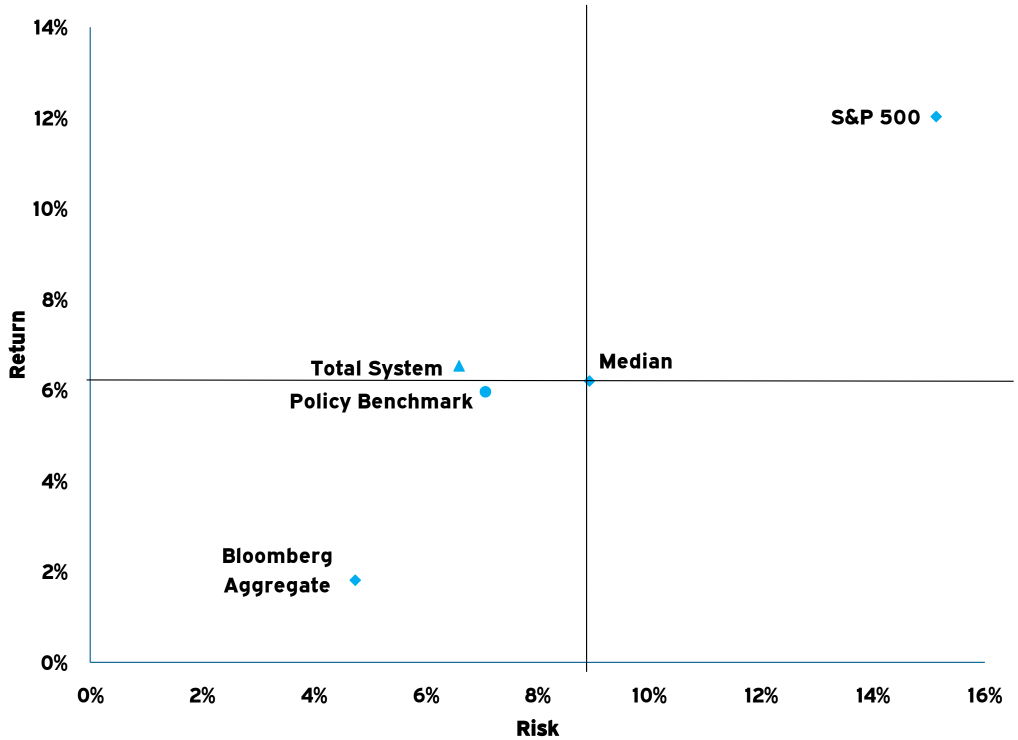
Total System vs. Public Plans >$25 Billion Universe[1]
As of September 30, 2023



	3Q23 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total System	-1.8	5.9	5.7	6.3	6.6
25th Percentile	-0.9	11.1	7.6	7.3	7.8
Median	-1.6	9.3	6.7	6.3	7.2
75th Percentile	-2.4	8.5	5.6	5.7	6.8
Rank (%)	59	95	71	50	78
Policy Benchmark	*-2.3*	*5.2*	*4.5*	*5.4*	*5.8*
Rank (%)	*81*	*95*	*85*	*88*	*92*

[1] Represents the TUCS Public >$25 bn peer group as of September 30, 2023. Total System performance is gross of fees. Includes 34 plans.

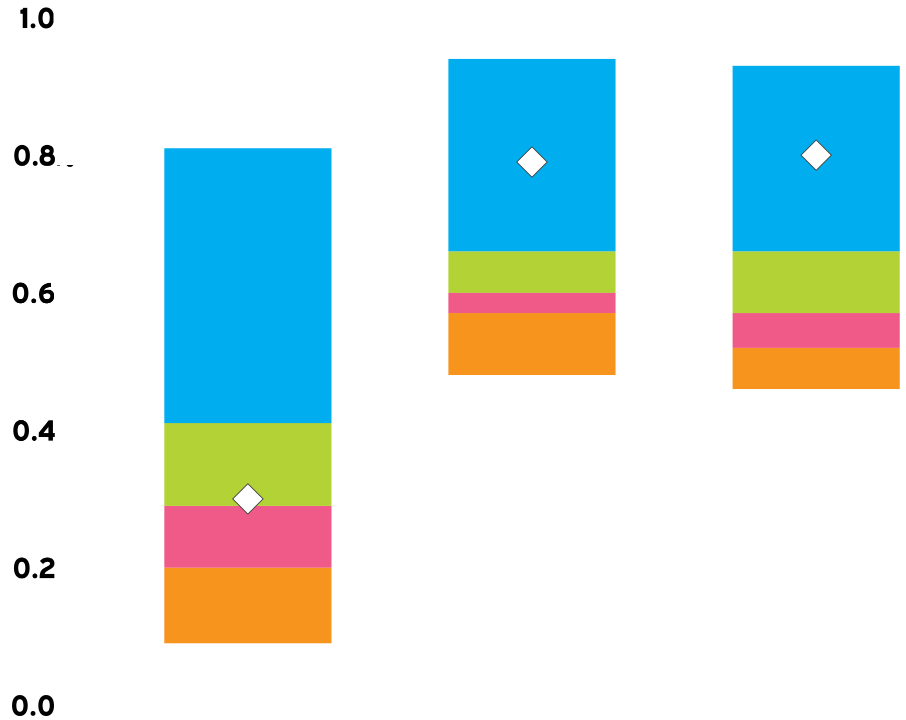
Total System Trailing 10-Year Risk vs Return[1]
As of December 31, 2023



	Risk (%)	Return (%)
Total System	6.6	6.5
Policy Benchmark	7.1	6.0
Median	8.9	6.2

[1] Represents a preliminary cut of InvMetrics Public DB >$1 bn Net peer group as of December 31, 2023. Includes 67 plans.

Total System vs. Public Plans >$1 Billion Universe Sharpe Ratio Comparison[1]
As of December 31, 2023

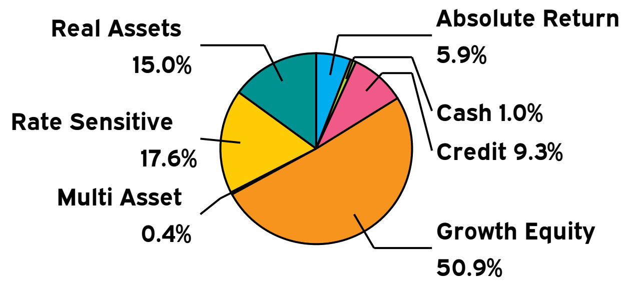


	3 YR	5 YR	10 YR
Total System	0.3	0.8	0.8
S&P 500	0.5	0.8	0.7
25th Percentile	0.4	0.7	0.7
Median	0.3	0.6	0.6
75th Percentile	0.2	0.6	0.5
Rank (%)	*44*	*16*	*11*

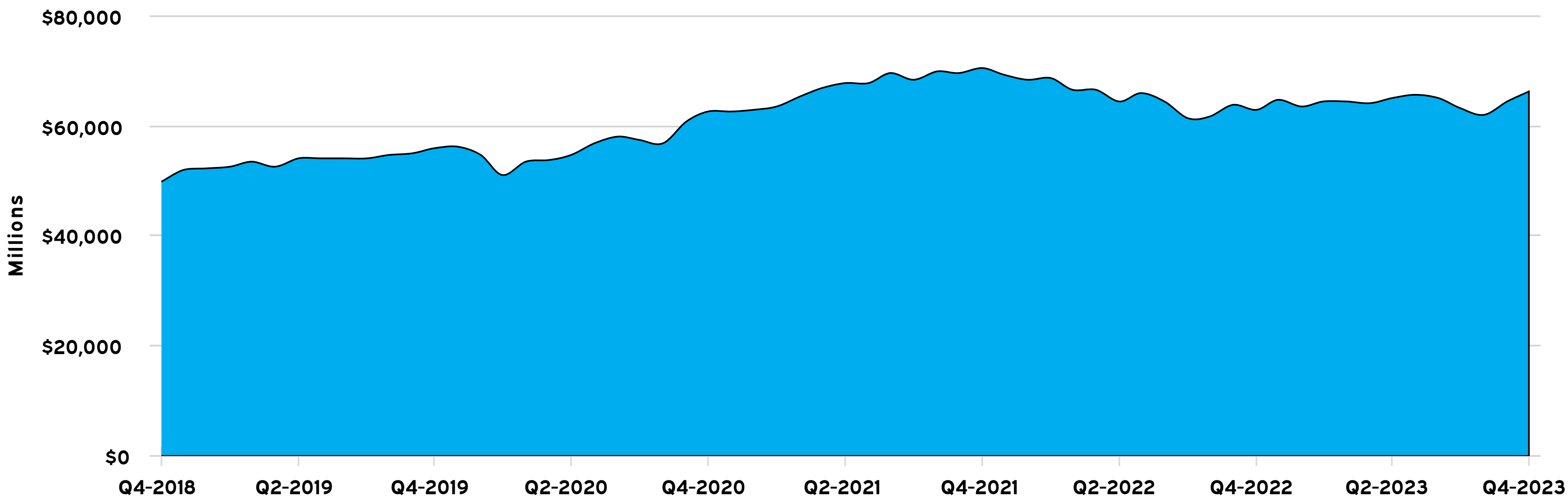
[1] Represents a preliminary cut of InvMetrics Public DB >$1 bn Net peer group as of December 31, 2023. Includes 67 plans. The risk-free rate is the 90-day T-bill.

Performance Summary

Actual Allocation



Market Value History
5 Years Ending December 31, 2023



Allocation vs. Targets and Policy					
	Current Balance	Current Allocation	Transitional Targets	Policy	Policy Range
Growth Equity	**$33,859,210,077**	**51%**	**50%**	**50%**	**43% - 57%**
Domestic Equities	$8,520,823,630	13%	14%	16%	--
Global Equity	$2,207,374,711	3%	0%	0%	--
International Developed Market Equity	$5,039,975,633	7%	9%	11%	--
International Emerging Market Equity	$3,787,046,576	6%	6%	7%	--
Private Equity	$14,291,323,041	22%	22%	16%	--
Stock Distributions	$12,666,486	0%	0%	0%	--
Rate Sensitive	**$11,691,623,091**	**18%**	**20%**	**20%**	**15% - 25%**
Nominal Fixed Income	$9,436,452,349	14%	16%	16%	--
Inflation-Linked Bonds	$2,255,170,742	4%	4%	4%	--
Credit	**$6,187,195,865**	**9%**	**9%**	**9%**	**5% - 13%**
U.S. Credit	$5,479,429,886	8%	8%	8%	--
Non-U.S. Credit	$707,765,980	1%	1%	1%	--
Real Assets	**$9,938,358,359**	**15%**	**15%**	**15%**	**11% - 19%**
Real Estate	$6,742,239,168	10%	10%	10%	--
Commodities	$188,588,536	0%	0%	0%	--
Natural Resources and Infrastructure	$3,007,530,656	5%	5%	5%	--
Absolute Return	**$3,892,601,910**	**6%**	**6%**	**6%**	**2% - 10%**
Absolute Return	$3,892,601,910	6%	6%	6%	--
Multi Asset	**$252,095,956**	**0%**	**0%**	**0%**	**0% - 2%**
Multi Asset	$252,095,956	0%	0%	0%	--
Cash	**$620,025,473**	**1%**	**0%**	**0%**	**0% - 2%**
Cash	$620,025,473	1%	0%	0%	--
Total	**66,441,110,732**	**100%**	**100%**	**0%**	

Asset Class Performance Summary

	Market Value ($)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total System	**66,441,110,732**	**100.0**	**5.3**	**3.4**	**8.0**	**4.2**	**8.2**	**6.5**	**7.9**	**Jul-86**
System Policy Benchmark			5.3	2.9	7.5	3.3	7.5	6.0	--	
Over/Under			0.0	0.5	0.5	0.9	0.7	0.5	--	
System Strategic Policy Benchmark			5.4	3.0	7.7	3.7	7.7	6.2	--	
Over/Under			-0.1	0.4	0.3	0.5	0.5	0.3	--	
Growth Equity	**33,859,210,077**	**51.0**	**5.9**	**4.7**	**13.9**	**7.4**	**12.6**	**9.6**	**7.0**	**Jan-98**
Public Equity	**19,555,220,551**	**29.4**	**10.4**	**7.2**	**20.4**	**3.2**	**10.8**	**7.6**	**8.1**	**Apr-94**
Public Equity Custom Benchmark			10.7	6.9	19.4	3.6	10.1	7.2	--	
Over/Under			-0.3	0.3	1.0	-0.4	0.7	0.4	--	
Domestic Equity	**8,520,823,631**	**12.8**	**12.2**	**9.2**	**27.4**	**8.8**	**15.1**	**11.1**	**9.5**	**Apr-94**
U.S. Equity Custom Benchmark			12.1	8.4	26.0	8.5	15.2	11.5	--	
Over/Under			0.1	0.8	1.4	0.3	-0.1	-0.4	--	
Global Equity	**2,207,374,711**	**3.3**	**9.3**	**5.8**	**19.7**	**1.1**	**11.0**	**7.7**	**7.3**	**Oct-05**
Global Equity Custom Benchmark			11.0	7.3	22.2	5.7	11.7	7.9	7.1	
Over/Under			-1.7	-1.5	-2.5	-4.6	-0.7	-0.2	0.2	
International Developed Market Equity	**5,039,975,633**	**7.6**	**10.9**	**7.2**	**19.1**	**4.3**	**9.5**	**5.0**	**6.3**	**Jan-95**
MSRA Custom International Index			10.5	6.0	17.9	4.4	8.5	4.1	5.4	
Over/Under			0.4	1.2	1.2	-0.1	1.0	0.9	0.9	
International Emerging Markets Equity	**3,787,046,576**	**5.7**	**6.7**	**3.9**	**10.5**	**-4.6**	**4.9**	**--**	**5.6**	**Nov-15**
MSCI Emerging Markets (Net)			7.9	4.7	9.8	-5.1	3.7	2.7	4.8	
Over/Under			-1.2	-0.8	0.7	0.5	1.2	--	0.8	

Asset Allocation & Performance | As of December 31, 2023

	Market Value ($)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	**14,291,323,041**	**21.5**	**0.4**	**1.6**	**5.7**	**16.3**	**15.6**	**15.4**	**9.4**	**Mar-94**
State Street Private Equity Index			*0.1*	*1.9*	*5.3*	*15.8*	*13.8*	*12.8*	--	
Over/Under			0.3	-0.3	0.4	0.5	1.8	2.6	--	
Rate Sensitive	**11,691,623,091**	**17.6**	**10.3**	**1.4**	**4.8**	**-7.4**	**0.7**	**1.7**	**6.0**	**Jul-86**
Custom Rate Sensitive Benchmark			*9.7*	*1.4*	*4.5*	*-6.8*	*0.7*	*1.6*	--	
Over/Under			0.6	0.0	0.3	-0.6	0.0	0.1	--	
Nominal Fixed Income	**9,436,452,349**	**14.2**	**11.7**	**1.3**	**5.0**	**-9.4**	**-0.2**	**1.4**	**5.9**	**Jul-86**
Custom Nominal Fixed Income Benchmark			*10.9*	*1.2*	*4.6*	*-8.3*	*0.0*	*1.3*	--	
Over/Under			0.8	0.1	0.4	-1.1	-0.2	0.1	--	
Inflation-Linked Bonds	**2,255,170,742**	**3.4**	**4.5**	**1.8**	**4.2**	**-1.1**	**3.3**	**2.8**	**3.3**	**Jul-08**
Custom Inflation Sensitive Benchmark			*4.7*	*1.8*	*3.8*	*-1.3*	*3.1*	*2.8*	*3.1*	
Over/Under			-0.2	0.0	0.4	0.2	0.2	0.0	0.2	
Credit	**6,187,195,865**	**9.3**	**4.4**	**6.2**	**10.3**	**3.9**	**5.5**	**4.7**	**7.6**	**Mar-09**
U.S. Credit	**5,479,429,886**	**8.2**	**3.9**	**6.2**	**10.3**	**5.3**	**6.2**	**5.6**	**8.0**	**Mar-09**
U.S. Credit Custom Benchmark			*6.3*	*7.4*	*13.4*	*2.8*	*5.5*	*4.7*	*7.1*	
Over/Under			-2.4	-1.2	-3.1	2.5	0.7	0.9	0.9	
Non-U.S. Credit	**707,765,980**	**1.1**	**8.3**	**6.4**	**10.4**	**-3.0**	**1.8**	**0.2**	**0.3**	**Oct-10**
Non-U.S. Credit Custom Benchmark			*8.1*	*5.5*	*9.0*	*-4.7*	*0.5*	*0.0*	*0.3*	
Over/Under			0.2	0.9	1.4	1.7	1.3	0.2	0.0	
Real Assets	**9,938,358,359**	**15.0**	**0.7**	**0.0**	**-5.8**	**10.5**	**6.8**	**4.6**	**4.8**	**Feb-06**
Custom Real Assets Benchmark			*-0.7*	*-3.5*	*-7.2*	*5.7*	*5.8*	*4.1*	*3.9*	
Over/Under			1.4	3.5	1.4	4.8	1.0	0.5	0.9	

Asset Allocation & Performance | As of December 31, 2023

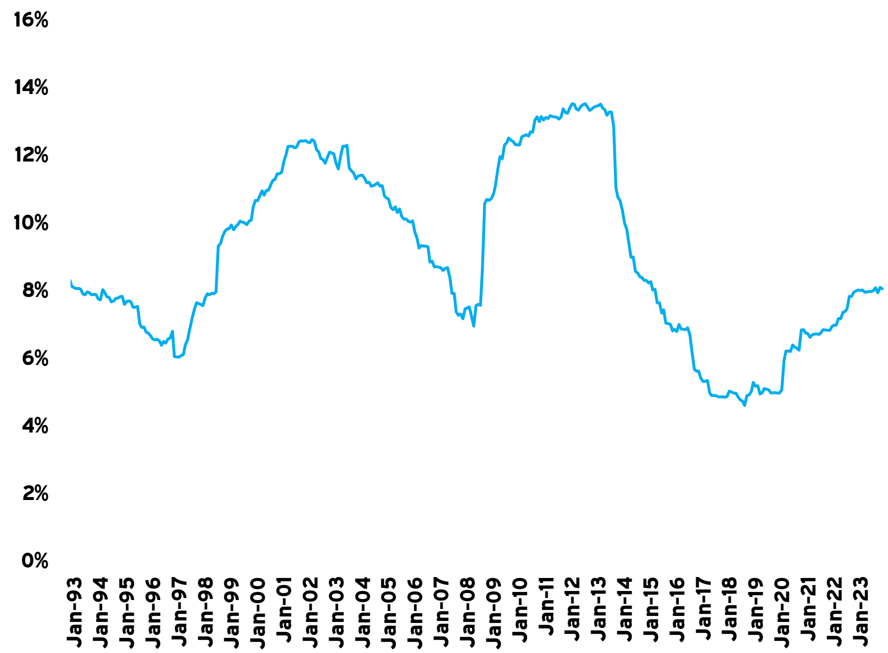
	Market Value ($)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Estate	**6,742,239,060**	**10.1**	**-1.6**	**-1.9**	**-10.9**	**8.1**	**6.3**	**8.1**	**6.7**	**Jul-87**
Real Estate Custom Benchmark			*-4.9*	*-6.8*	*-12.3*	*4.4*	*4.6*	*7.1*	*7.7*	
Over/Under			3.3	4.9	1.4	3.7	1.7	1.0	-1.0	
Commodities	**188,588,536**	**0.3**								
Natural Resources and Infrastructure	**3,007,530,656**	**4.5**	**6.3**	**3.2**	**5.5**	**14.7**	**7.2**	**4.2**	**8.5**	**Aug-09**
Natural Resources and Infrastructure Benchmark			*9.6*	*4.3*	*5.8*	*8.6*	*8.3*	*7.1*	*7.0*	
Over/Under			-3.3	-1.1	-0.3	6.1	-1.1	-2.9	1.5	
Absolute Return	**3,892,601,910**	**5.9**	**0.1**	**2.0**	**2.4**	**2.2**	**3.3**	**2.5**	**3.2**	**Apr-08**
Absolute Return Custom Benchmark			*0.9*	*3.6*	*4.8*	*4.8*	*5.8*	*4.0*	*2.8*	
Over/Under			-0.8	-1.6	-2.4	-2.6	-2.5	-1.5	0.4	
Multi Asset	**252,095,956**	**0.4**	**12.7**	**6.7**	**11.6**	**-2.9**	**3.8**	**--**	**2.3**	**Jul-18**
System Policy Benchmark			*5.3*	*2.9*	*7.5*	*3.3*	*7.5*	*6.0*	*6.2*	
Over/Under			7.4	3.8	4.1	-6.2	-3.7	--	-3.9	
Cash	**620,025,473**	**0.9**	**1.6**	**3.6**	**6.4**	**3.0**	**3.6**	**4.1**	**3.6**	**Jul-08**
FTSE 3 Month T-Bill			*1.4*	*2.8*	*5.3*	*2.2*	*1.9*	*1.3*	*0.9*	
Over/Under			0.2	0.8	1.1	0.8	1.7	2.8	2.7	

Risk Dashboard

Total System Risk

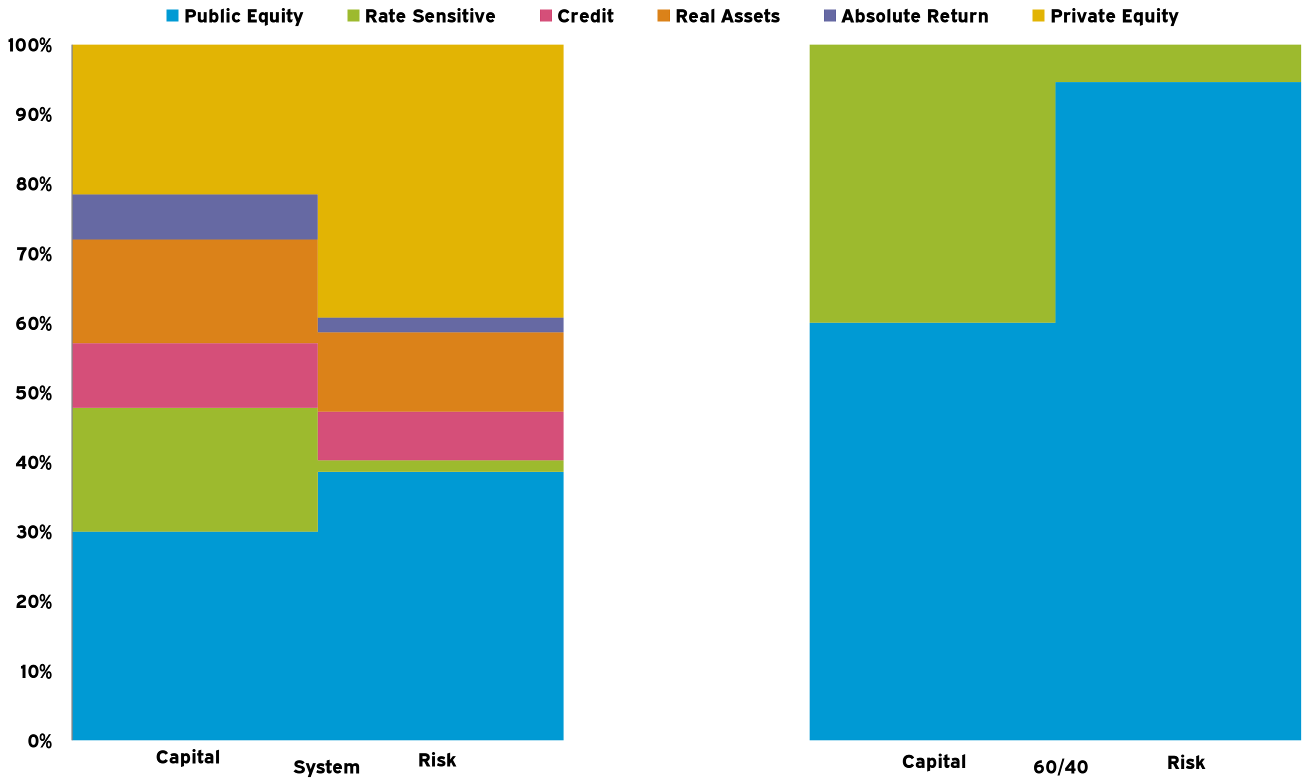
Risk: (sixty months)	Total System 12/31/2023	Policy Benchmark 12/31/2023
Annualized Return (%)	8.2	7.5
Standard Deviation (%)	8.0	8.5
Best Monthly Return (%)	6.9	6.9
Worst Monthly Return (%)	-6.4	-6.4
Beta	0.93	1.00
Correlation (R^2) to Index	0.98	NA
Sharpe Measure	0.79	0.67
Information Ratio	0.48	NA
Excess Return (%)	0.72	NA
Tracking Error (%)	1.29	NA

Rolling 5-Year Standard Deviation



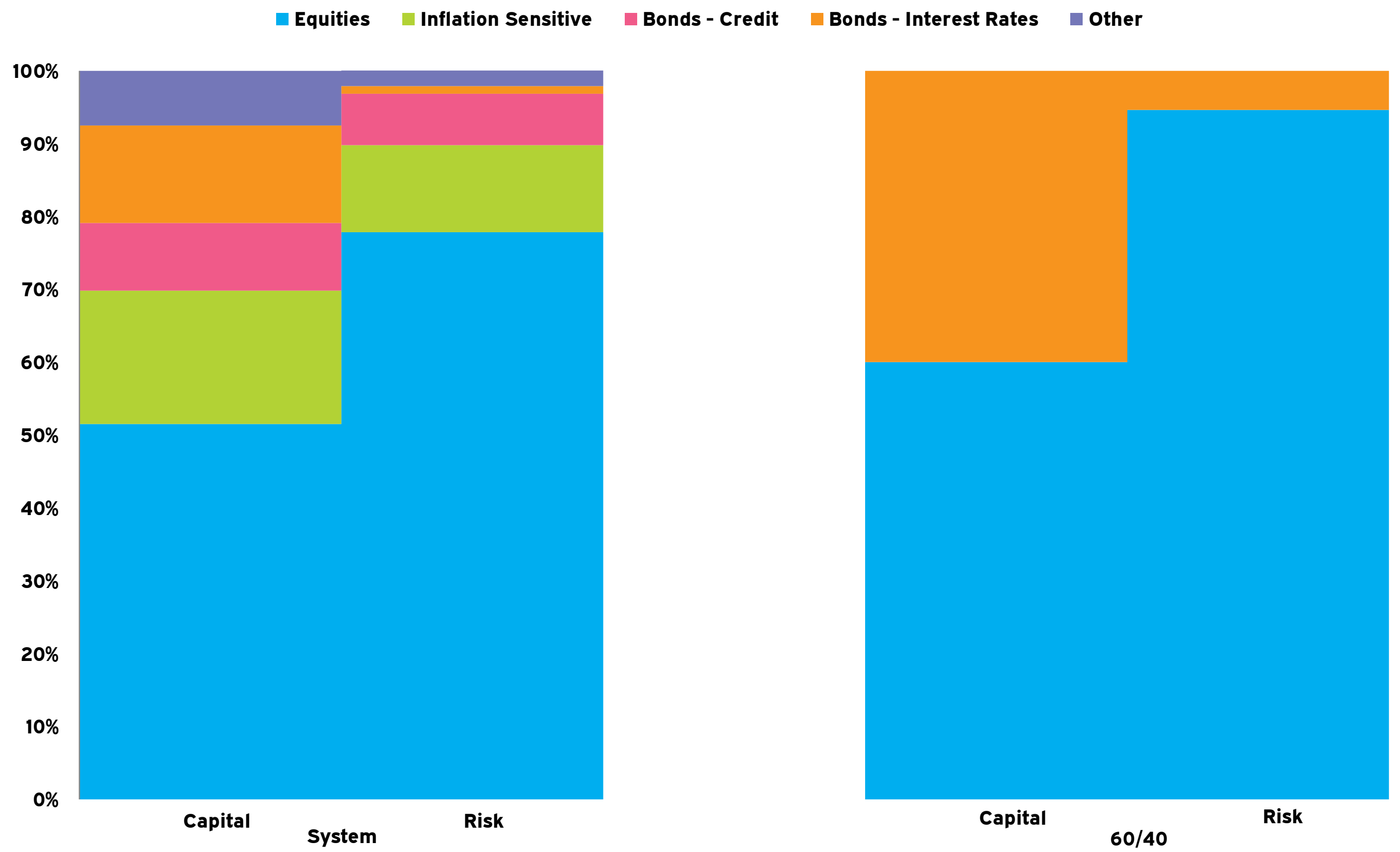
→ Over the trailing 5-years, the System has exhibited lower risk, as measured by standard deviation, than its Policy Benchmark while achieving slightly higher annualized returns.

Capital Allocation vs. Risk Allocation
By Asset Class



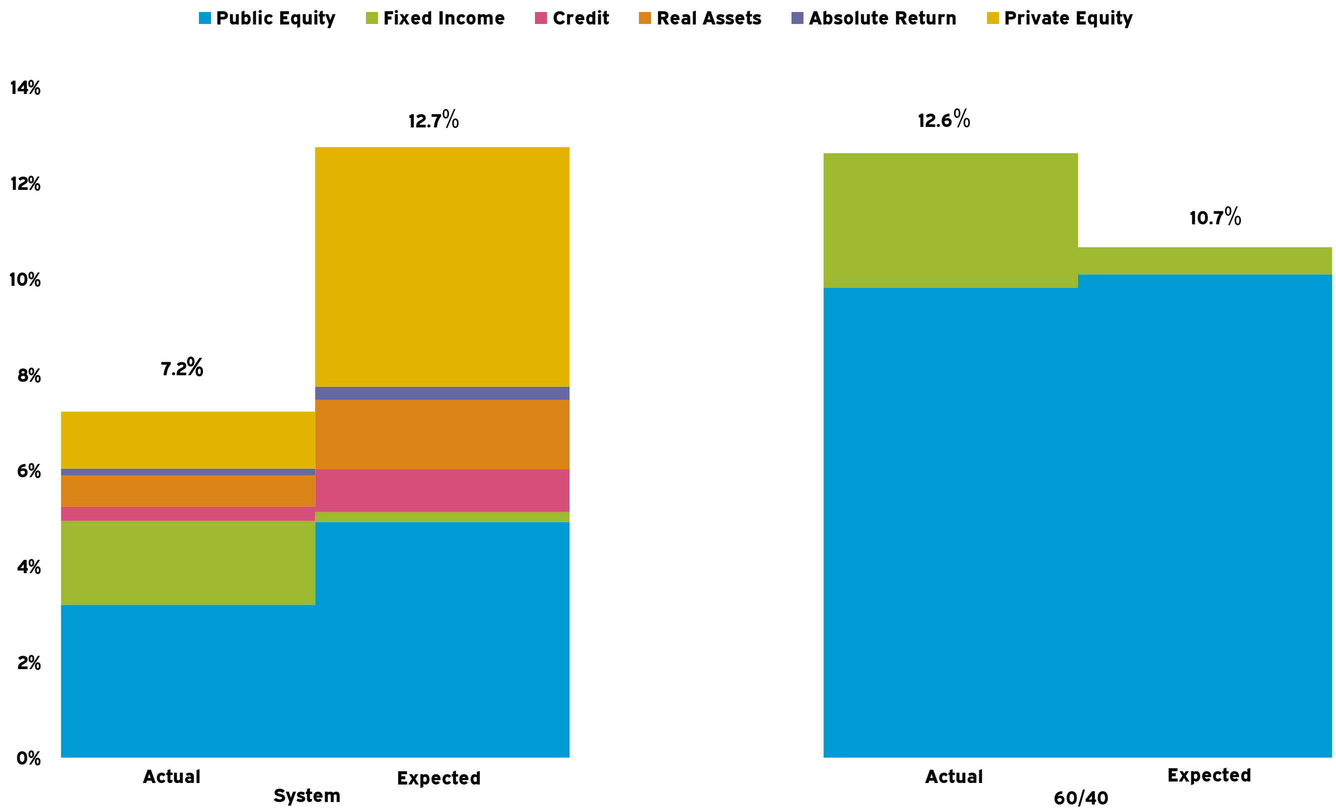
- → Public equity makes up close to 30% of the current asset allocation; however, it comprises about 39% of the risk allocation.
- → By contrast, in a 60/40 portfolio equity comprises 60% of the capital allocation but nearly 95% of the risk.

Capital Allocation vs. Risk Allocation
By Factor Exposure



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

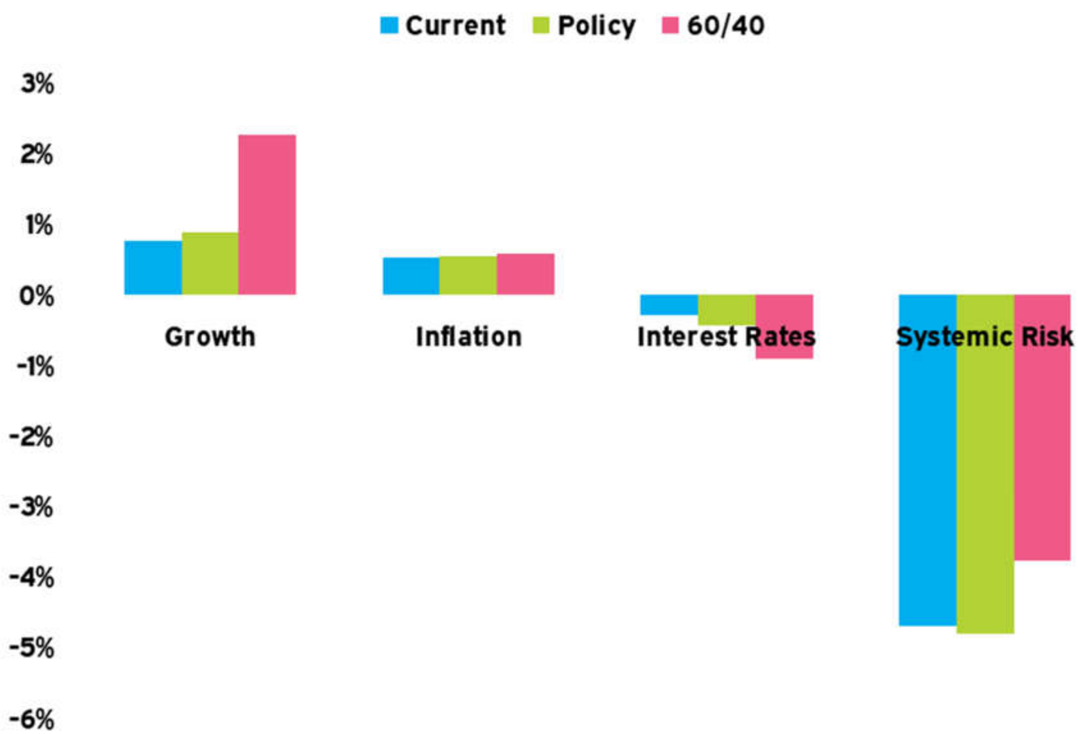
Risk Decomposition
Actual vs. Expected



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

- Public equities, which make up over 39% of the expected risk composition, have made up over 44% 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	51%	29%				1%		21%	
Rate Sensitive	18%		17%			<1%			
Credit	9%			5%				4%	
Real Assets	15%	3%						2%	10%
Absolute Return	6%					6%			
Multi Asset	0%						<1%		
Cash	1%				<1%				
Look Through Allocation	100%	32%	17%	5%	<1%	8%	<1%	27%	10%

[1] Numbers may not sum to 100% due to rounding.
[2] Numbers do not reflect the impact of overlay investing.

Asset Allocation Target Range Compliance

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

Sub-Asset Class Allocation Target Range Compliance

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

Activity Update

Summary of Work to Date

Ongoing Work

→ Completed and submitted comprehensive quarterly reporting for the System.

- Collect and reconcile data from State Street Bank and investment managers, run holdings analysis and performance calculations.
  - Completed quarterly since second quarter 2014.

→ Completed numerous System-related reporting requirements.

- Iran/Sudan divestment analysis (semi-annually in January and July).
  - Attribution and cost analysis of identified companies and potential impact on performance resulting from divestment.

→ Annually, meet and review all public market managers (video conference calls) and make recommendations to staff on potential changes. Initial review of all managers have been completed.

- Annually, over 40 meetings completed via conference call or in person.
  - Manager analyses written on all public market managers.

→ Annually, work with investment staff to assist with the Maryland Pension Risk Mitigation Act assessment report.

→ Regularly participate and contribute to the annual Board education sessions.

Summary of Work to Date

Investment Topics

→ Discussed general investment topics with Staff, and in some instances the Board.

→ The topics listed are covered through sharing white papers, holding conference calls, or in person meetings:

- Total fund fee analysis
- Survey & presentation of asset allocation best practices
- 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

Current Agenda Topics

→ Performance Review

→ Asset Allocation Review

Economic and Market Update

Data as of December 31, 2023

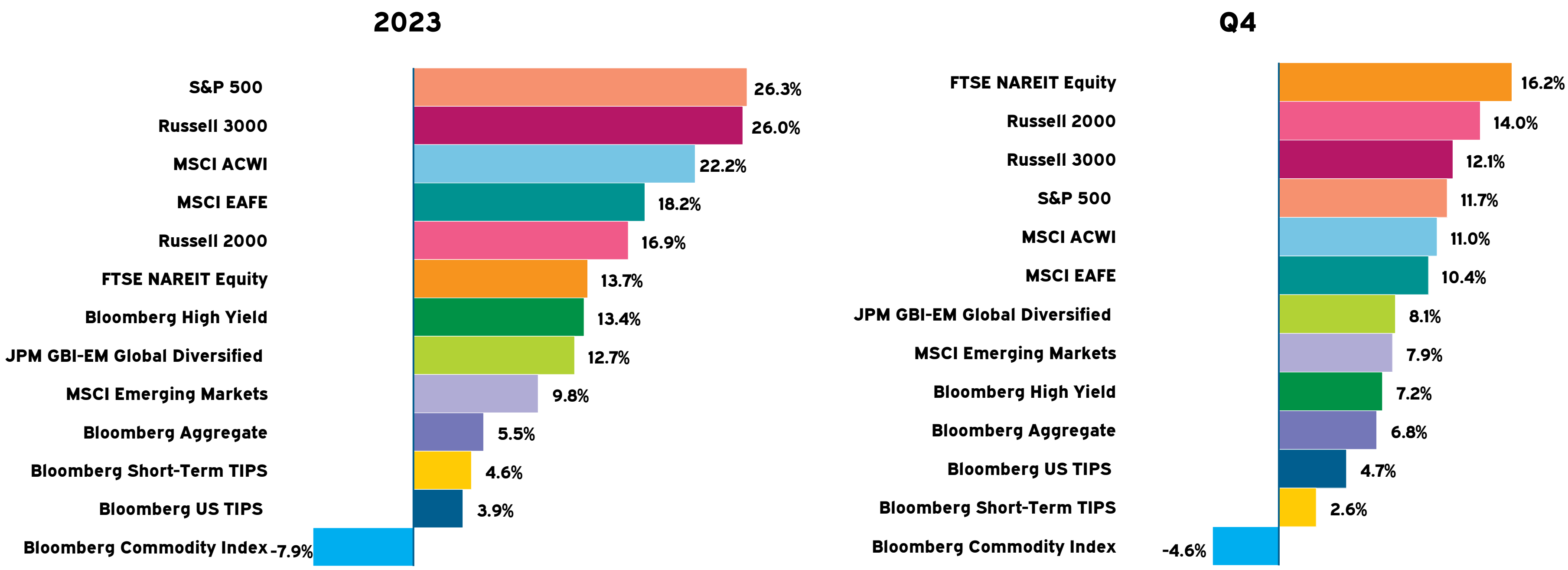
Commentary

→ Most markets rallied in the fourth quarter in anticipation that policy rates cuts were ahead in 2024.

- Major central banks have largely paused interest rates hikes. Markets are now largely expecting the FOMC to maintain interest rates at the current levels and begin cutting rates as soon as Q1 2024.
- Inflation rose in December in the US and Europe, but both finished the year much lower than where they started. China remained in deflationary territory (-0.3%) at year-end.
- US equity markets (Russell 3000 index) posted strong gains for the quarter (12.1%), raising full year results to +26.0%. Most sectors rallied, with more defensive sectors lagging.
- Non-US developed equity markets also rallied in the fourth quarter (MSCI EAFE 10.4%), with the weakening of the US dollar contributing meaningfully (10.4% versus 5.0% ex.-US dollar influence). The performance difference between US and international developed equities for the year remained wide (26.0% versus 18.2%).
- Emerging market equities were up 7.9% in the fourth quarter and 9.8% for calendar 2023 but trailed developed markets due to lagging returns in China (-4.2% Q4/-11.2% one-year). Emerging market equities ex.-China returned 20% in 2023.
- Interest rates generally fell in the fourth quarter, particularly for longer-dated maturities. The broad US bond market rallied (6.8%) for the quarter, lifting 2023 returns into positive territory (5.5%).

→ Looking to 2024, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, and the wars in Ukraine and Israel, will be key.

Index Returns[1]



→ After a tough start to the quarter on lingering fears that the Federal Reserve might keep interest rates "higher for longer", markets rallied in November and December. Economic data generally coming in below expectations sparked expectations that the Federal Reserve might really be done raising policy rates for this cycle.

→ Strong results for the quarter built on gains for the year with all asset classes finishing in positive territory in 2023, except commodities.

[1] Source: Bloomberg. Data is as of December 31, 2023.

Domestic Equity Returns[1]

Domestic Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	4.5	11.7	26.3	10.0	15.7	12.0
Russell 3000	5.3	12.1	26.0	8.6	15.2	11.5
Russell 1000	4.9	12.0	26.5	9.0	15.5	11.8
Russell 1000 Growth	4.4	14.2	42.7	8.9	19.5	14.9
Russell 1000 Value	5.5	9.5	11.5	8.9	10.9	8.4
Russell MidCap	7.7	12.8	17.2	5.9	12.7	9.4
Russell MidCap Growth	7.6	14.5	25.9	1.3	13.8	10.6
Russell MidCap Value	7.8	12.1	12.7	8.4	11.2	8.3
Russell 2000	12.2	14.0	16.9	2.2	10.0	7.2
Russell 2000 Growth	12.0	12.7	18.7	-3.5	9.2	7.2
Russell 2000 Value	12.4	15.3	14.6	8.0	10.0	6.8

US Equities: The Russell 3000 rallied 5.3% in December, bringing fourth quarter results to +12.1%. US stocks were up 26.0% in 2023.

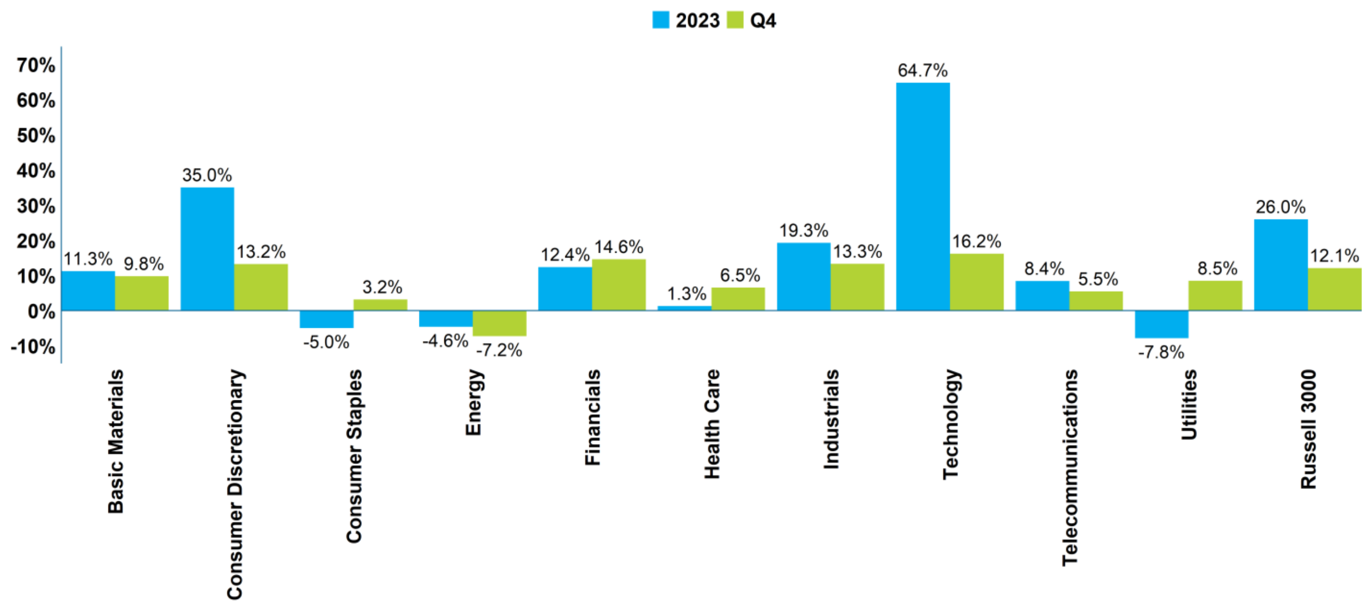
→ US equities had a strong final quarter of the year, driven by expectations that rate cuts may be ahead in 2024.

→ Small cap stocks outperformed their large cap peers for the quarter while growth outpaced value with the exception of small cap. Large cap stocks outperformed small cap stocks by a wide margin for the calendar year and growth outpaced value across market caps.

→ Calendar year results were clearly driven by large cap technology stocks. Within the S&P 500 index, the “Magnificent 7” stocks generated more than 50% of the total gains.

[1] Source: Bloomberg. Data is as of December 31, 2023. Magnificent Seven stocks include: Apple, Microsoft, Alphabet, Amazon, Nvidia, Tesla, and Meta.

Russell 3000 Sector Returns[1]



→ All sectors posted gains for the fourth quarter, except for energy (-7.2%) given oil's recent declines. Technology (+16.2%) led the way for the quarter followed by financials (+14.6%).

→ In 2023, technology (+64.7%) and consumer discretionary (+35.0%) sectors had the best results, helped respectively by artificial intelligence optimism and a healthy US consumer. Traditionally defensive sectors like utilities (-7.8%) and consumer staples (-5.0%) trailed.

[1] Source: Bloomberg. Data is as of December 31, 2023.

Foreign Equity Returns[1]

Foreign Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	5.0	9.8	15.6	1.5	7.1	3.8
MSCI EAFE	5.3	10.4	18.2	4.0	8.2	4.3
MSCI EAFE (Local Currency)	2.9	5.0	16.2	8.7	9.5	6.6
MSCI EAFE Small Cap	7.3	11.1	13.2	-0.7	6.6	4.8
MSCI Emerging Markets	3.9	7.9	9.8	-5.1	3.7	2.7
MSCI Emerging Markets (Local Currency)	3.1	5.6	9.9	-2.5	5.4	5.2
MSCI China	-2.4	-4.2	-11.2	-18.5	-2.8	0.9

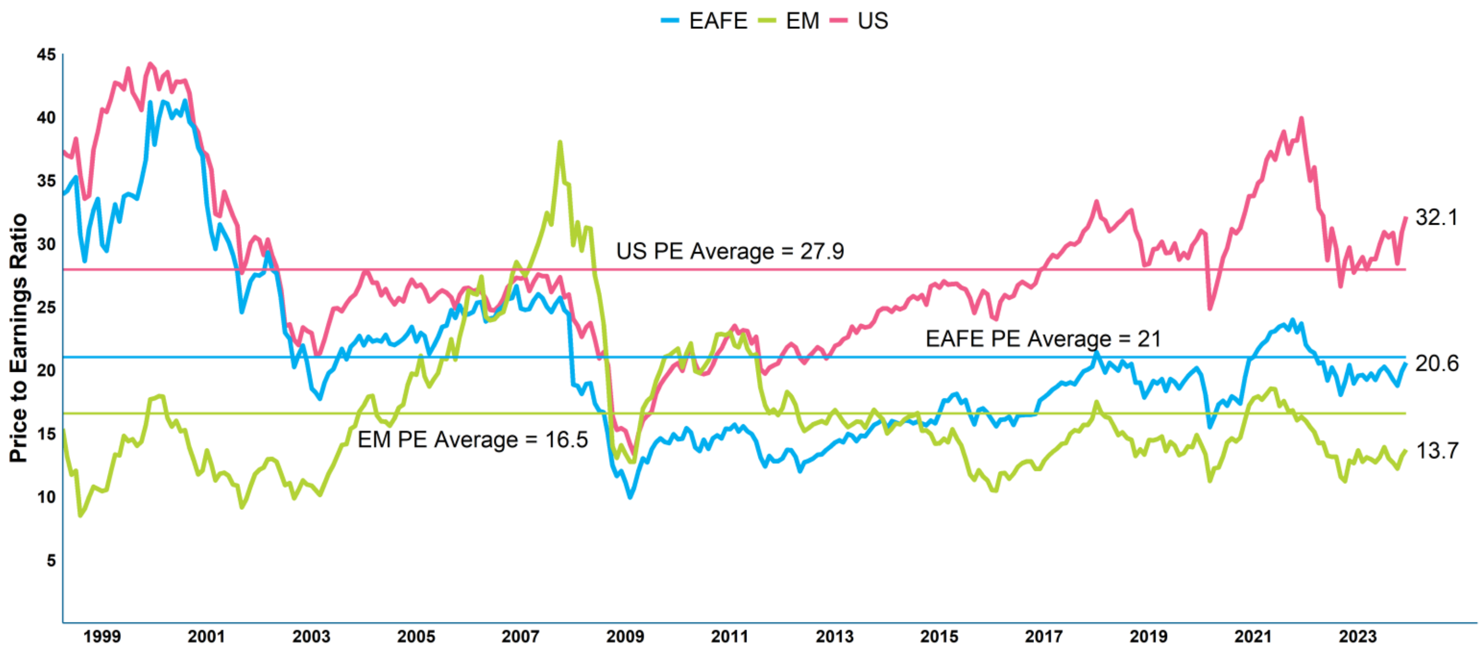
Foreign Equity: Developed international equities (MSCI EAFE) gained 5.3% in December and 10.4% in the fourth bringing calendar year results to 18.2%. Emerging market equities (MSCI EM) rose 3.9% in December, 7.9% for the quarter, and 9.8% for the year.

→ Optimism around lower inflation and potentially peaking and declining policy rates drove gains in the UK and Europe. Japan had weaker results for the quarter as concerns over a strengthening yen weighed on returns in December. Overall weakness in the US dollar also contributed to quarterly and full year results across developed markets.

→ Emerging markets also experienced strong performance in the fourth quarter but trailed developed markets. China weighed on relative results for the quarter and year, declining 4.2% and 11.2%, respectively. Slowing growth, issues in the property sector, and on-going tensions with the US all weighed on results.

[1] Source: Bloomberg. Data is as of December 31, 2023.

Equity Cyclically Adjusted P/E Ratios[1]



→ Given the strong technology-driven rally last year, the US equity price-to-earnings ratio increased above its 21st century average. Fourth quarter gains brought valuations to their highest level for the year.

→ International market valuations also increased in the fourth quarter, but remain below the US. In the case of developed markets, valuations finished the year close to the their long-term average, while emerging markets remained well below their average.

[1] US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of December 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.

Fixed Income Returns[1]

Fixed Income	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	3.8	6.8	6.2	-3.0	1.4	2.1	4.8	6.1
Bloomberg Aggregate	3.8	6.8	5.5	-3.3	1.1	1.8	4.5	6.3
Bloomberg US TIPS	2.7	4.7	3.9	-1.0	3.2	2.4	4.2	6.7
Bloomberg Short-term TIPS	1.1	2.6	4.6	2.3	3.4	2.0	4.5	2.4
Bloomberg High Yield	3.7	7.2	13.4	2.0	5.4	4.6	7.6	3.8
JPM GBI-EM Global Diversified (USD)	3.2	8.1	12.7	-3.2	1.1	0.1	6.5	5.0

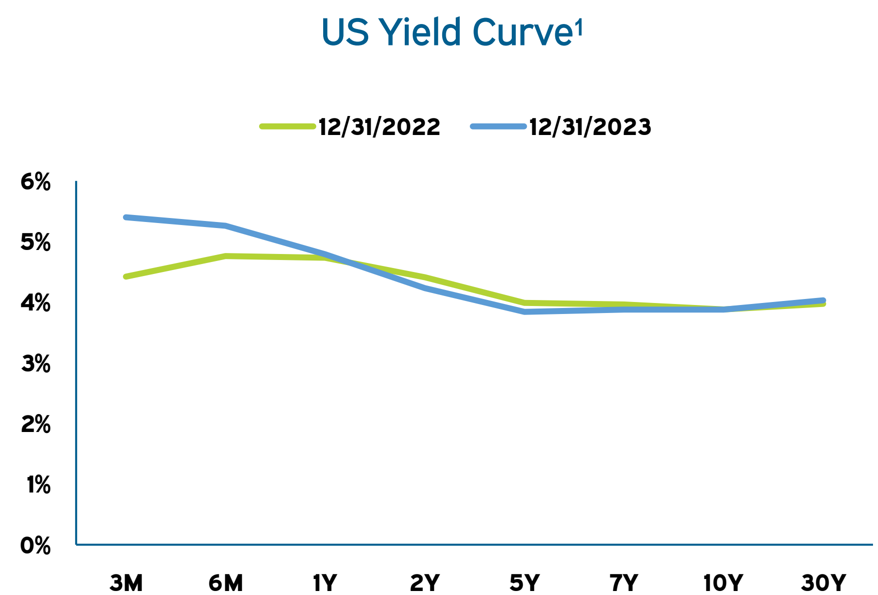
Fixed Income: The Bloomberg Universal index rose 3.8% in December, 6.8% for the quarter, and 6.2% for the year.

→ Policy rate expectations swung from pessimism to optimism in November and December. Signs of the labor market cooling and improving inflation led investors to bring forward expectations for interest rate cuts to early 2024, leading to one of the best quarterly results in over twenty years.

→ The broad US bond market (Bloomberg Aggregate) rallied 6.8% for the quarter, lifting full-year performance into positive territory (+5.5%). The broader TIPS index rose 4.7% for the quarter and 3.9% for the year, while the less interest-rate-sensitive short-term TIPS index rose 2.6% and 4.6% over the same periods.

→ High yield bonds rallied on better risk sentiment (+7.2%), as did emerging market bonds (+8.1%). Both asset classes produced double-digit results last year.

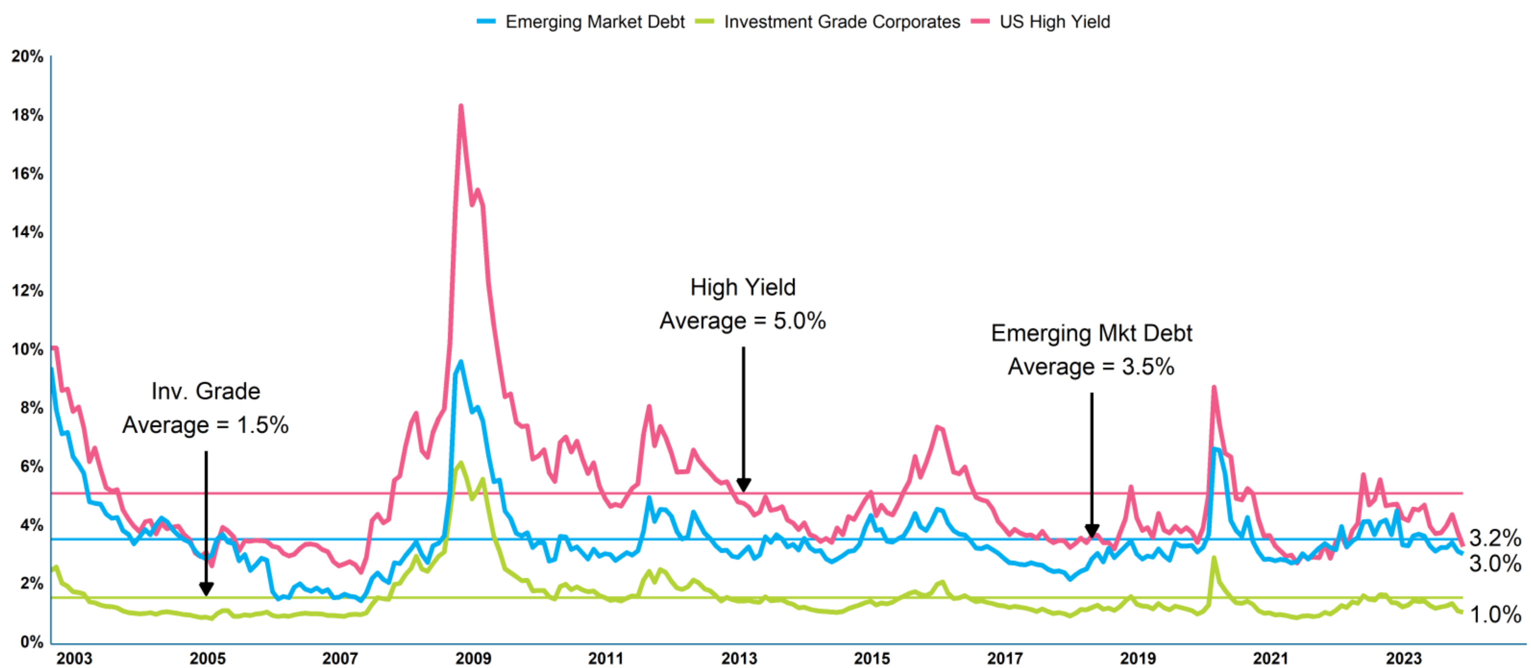
[1] Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of December 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



- → The more policy sensitive short-term maturities were higher this year while longer-term maturities finished the year where they started.
- → Still, rates declined sharply over the quarter, particularly at the longer end of the yield curve on continued easing of inflation-related risks and speculation that the Federal Reserve is done with their policy rate increases for this cycle.
- → For the quarter, two-year Treasury yields fell from 5.05% to 4.24% while ten-year Treasury yields declined from 4.56% to 3.88%.
- → The yield curve remained inverted at year-end despite a recent flattening trend. The spread between the 2-year and 10-year Treasury was -0.37% at the end of December.

[1] Source: Bloomberg. Data is as of December 31, 2023.

Credit Spreads vs. US Treasury Bonds[1]

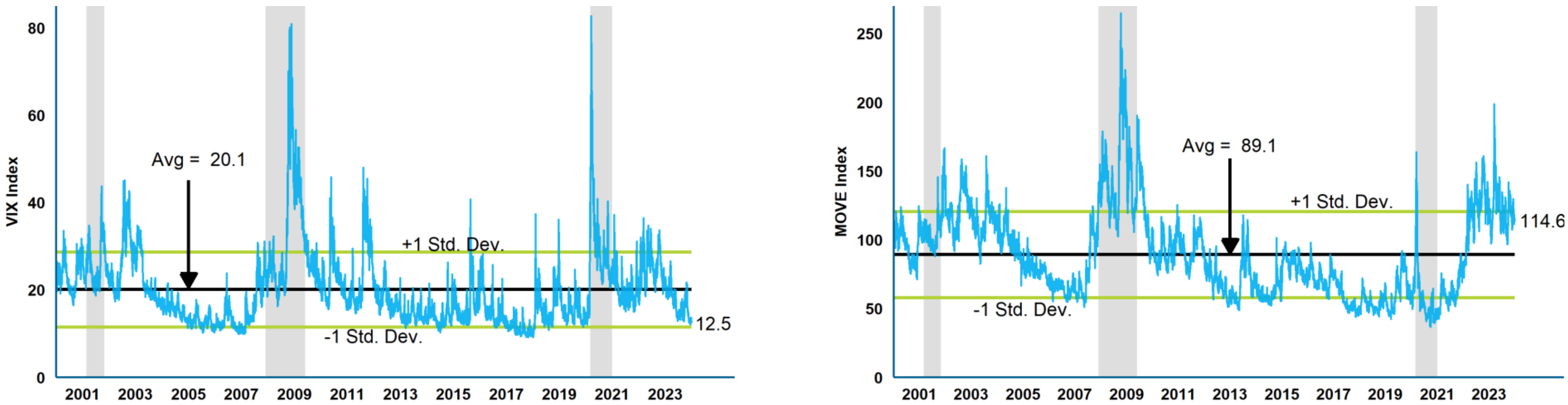


→ Expectations of peaking policy rates and the corresponding increase in risk appetite benefited credit in the fourth quarter with spreads (the added yield above a comparable maturity Treasury) narrowing. All spreads remain below their respective long run averages.

→ High yield spreads continue to be the furthest below their long-term average given the overall risk appetite last year and lower duration. Investment-grade corporate and emerging market spreads are also below their respective long-term averages, but by smaller margins.

[1] Sources: Bloomberg. Data is as of December 31, 2023. 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]

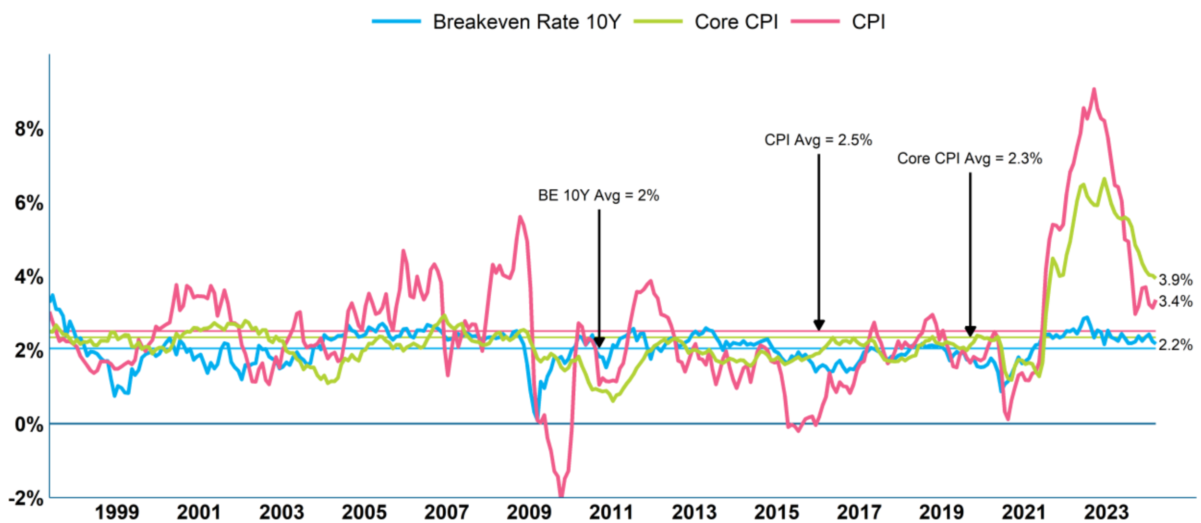


→ Volatility in equities (VIX) finished the year close to its lows, remaining well below the long-term average as the focus shifted to peaking policy rates and the potential for a soft landing.

→ Volatility in the bond market (MOVE) remained elevated to close out 2023 and is well above its long-run average (89.1). The bond market remained on edge for most of 2024 largely driven by uncertainty about the ultimate path of monetary policy.

[1] Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of December 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and December 2023.

US Ten-Year Breakeven Inflation and CPI[1]



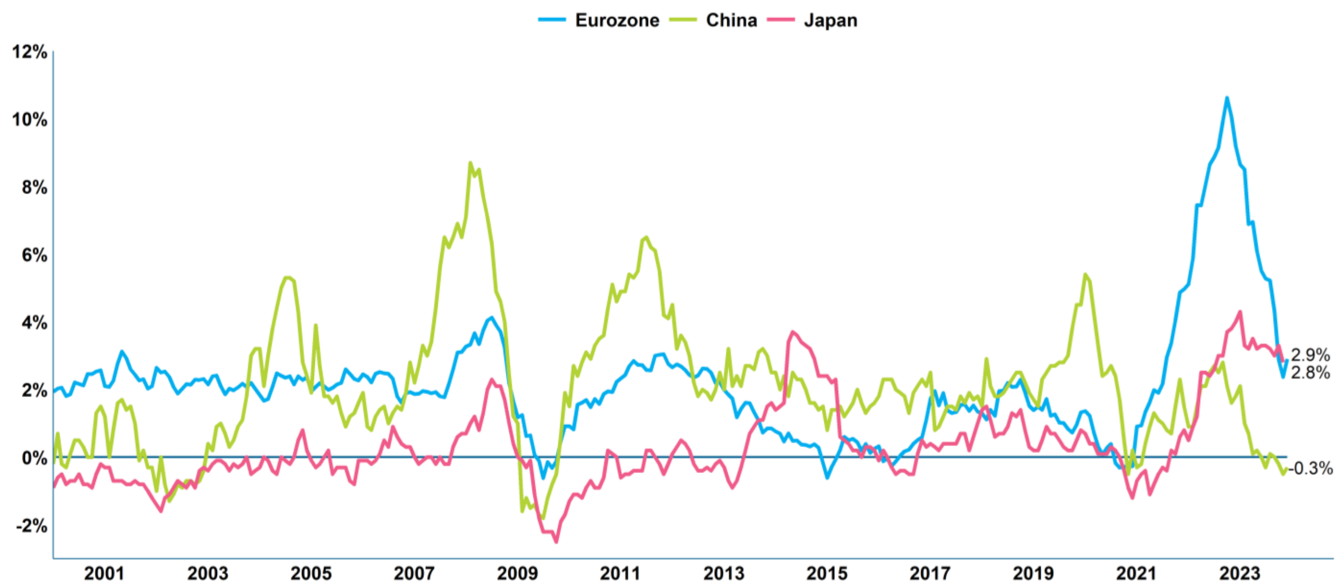
→ Year-over-year headline inflation rose from 3.1% to 3.4% in December, coming in above expectations of 3.2%. An increase in shelter (+6.2%) drove results, with food also increasing from a year prior (+2.7%) and energy prices falling (-2.0%). Month-over-month inflation came in at 0.3%, above expectations of 0.2% and the prior reading of 0.1%.

→ Core inflation - excluding food and energy – declined in December (3.9% versus 4.0%) year-over-year, with shelter costs again driving the total core index increase.

→ Inflation expectations (breakevens) have remained relatively stable despite the recent significant volatility in inflation.

[1] Source: FRED. Data is as December 2023. 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]



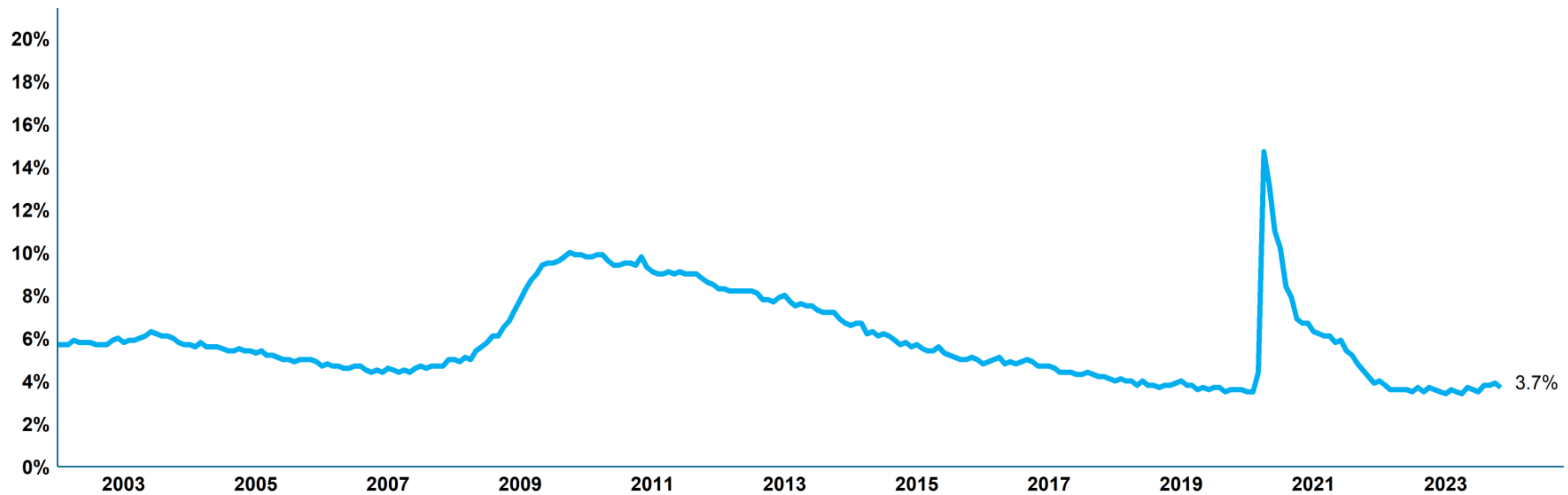
→ Outside the US, inflation is also falling across major economies with China slipping into deflation.

→ In the eurozone, inflation experienced a dramatic decline last year. Despite a small increase in December (2.9% versus 2.4%) it finished the year below the 3.4% year-over-year reading in the US.

→ Inflation in Japan remains near levels not seen in almost a decade, driven by food and home related items.

[1] Source: FRED for United States CPI and Eurozone CPI. Source: Bloomberg for Japan CPI, China CPI, and Eurozone December flash estimate. Data is as December 31, 2023, except Japan which is as of November 30, 2023.

US Unemployment[1]

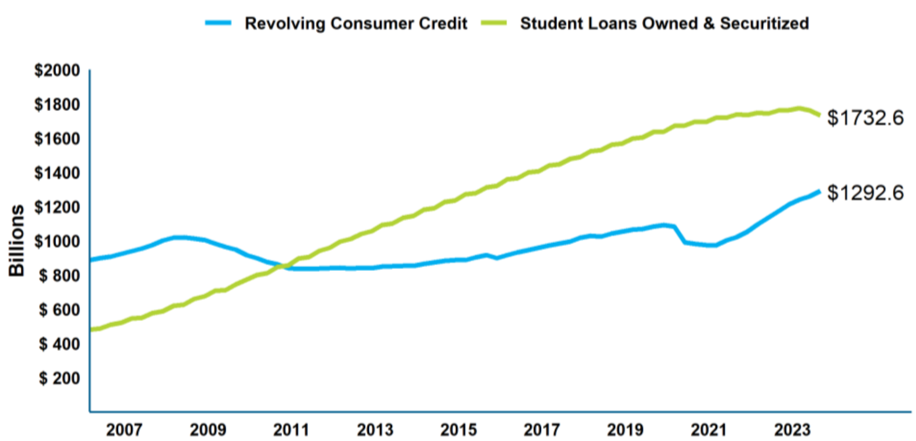


- → Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- → In December, US unemployment remained unchanged (3.7%) and came in slightly below expectations of an increase to 3.8%. The number of jobs added did come in above expectations (216k versus 175k) though with the most jobs added in the government, leisure and hospitality, and health care sectors.
- → The labor force participation remained relatively stable at 62.5%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%).
- → The pace of hourly wage growth has declined from its peak of close to 6.0% finishing 2023 at 4.1% yoy. Wage growth remains positive in real terms though.

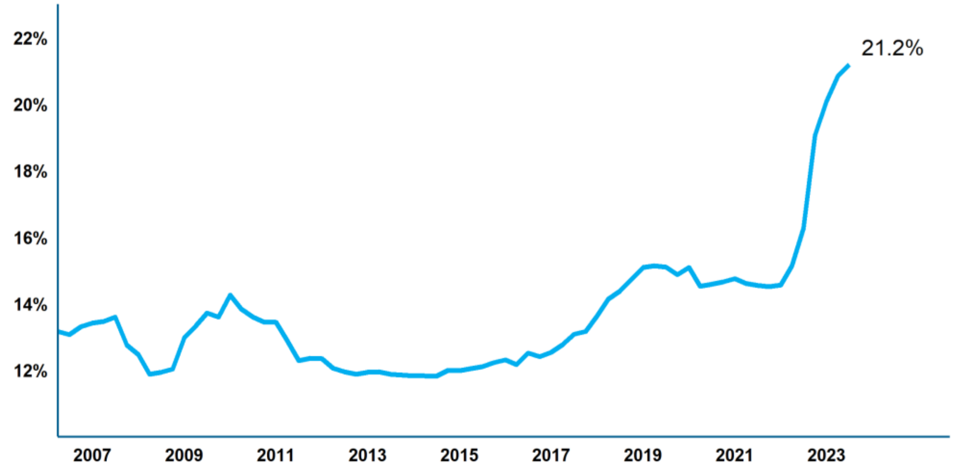
Source: FRED. Data is as December 31, 2023.

US Consumer Under Stress?[1]

Revolving Consumer Credit & Student Loans ($B)



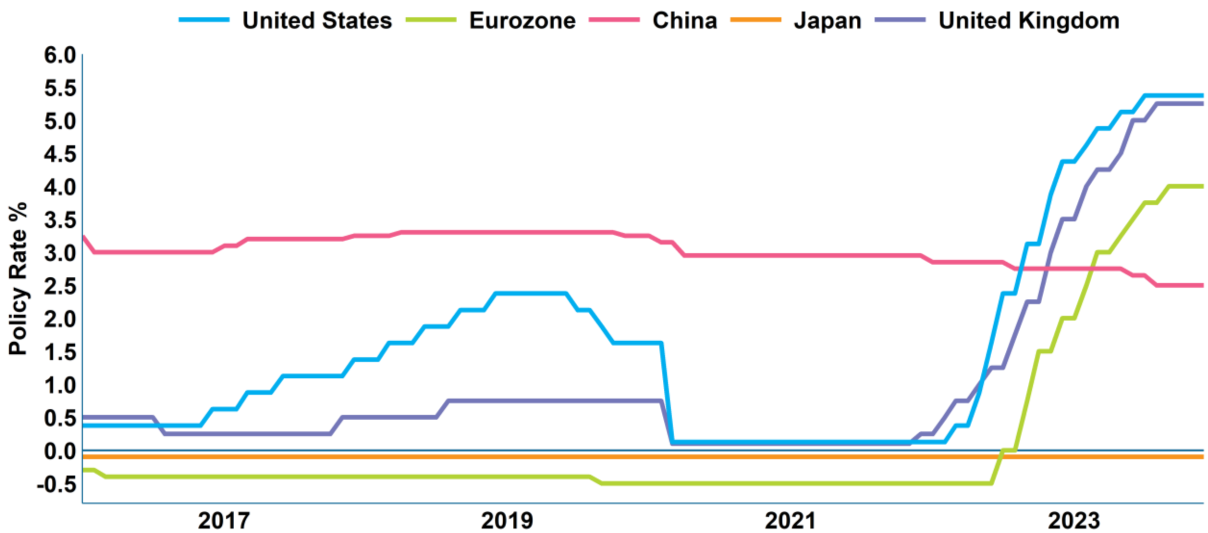
Consumer Credit Card Interest Rates (%)



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

[1] Source: FRED. Data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.

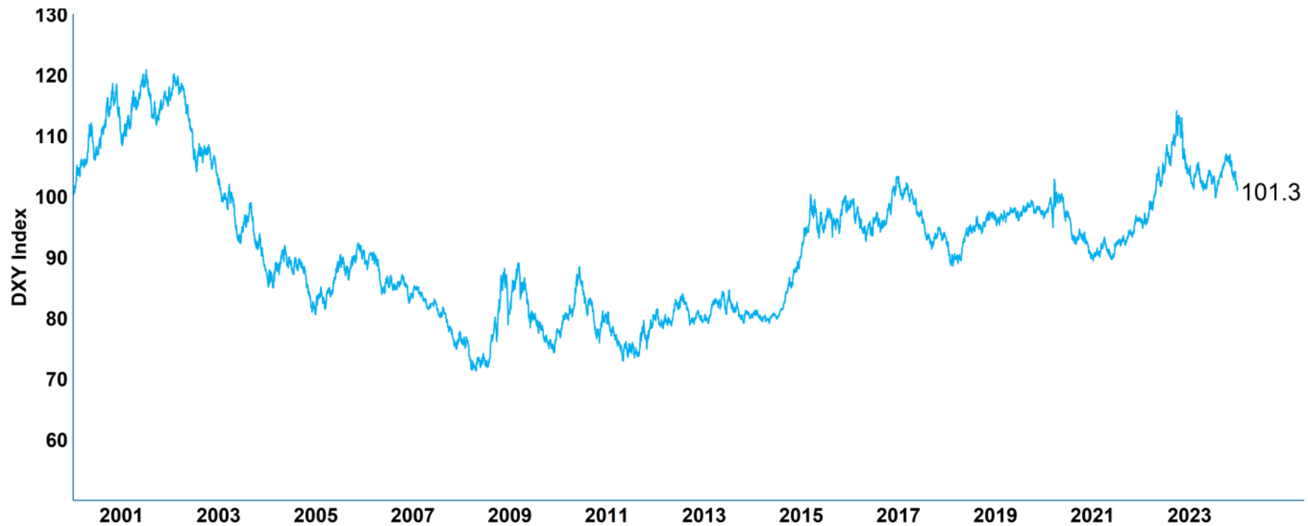
Policy Rates[1]



- → Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.
- → The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are pricing in six rate cuts next year given the track of economic data and recent comments from the Fed, while the Fed itself is only predicting three. How this discrepancy is resolved will be key this year.
- → The European and UK central banks also recently paused their rate increases on slowing inflation. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- → The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.

[1] Source: Bloomberg. Data is as of December 2023.

US Dollar vs. Broad Currencies[1]



- → The US dollar declined around 5% in the fourth quarter as generally weaker economic data led investors to anticipate the end of FOMC tightening and interest rate cuts in 2024.
- → Overall, the dollar finished the year only slightly below where it started but it was a volatile year for the US currency as expectations related to monetary policy evolved.

[1] Source: Bloomberg. Data as of December 31, 2023.

Summary

Key Trends:

→ The impact of inflation still above policy targets will remain important, with bond market volatility likely to stay high.

→ Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to further reduce inflation toward targets while not tipping their economies into recession. In the case of the US the resolution of the disparity between market expectations for the path of interest rates versus the Fed's dot plot will be key.

→ Global growth is expected to slow next year, with some economies forecasted to tip into recession. However, optimism has been building that certain economies could experience soft landings. Inflation, monetary policy, and geopolitical issues will remain key in 2024.

→ 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 continues to slow. 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 the potential for China's economic slowdown and on-going weakness in the real estate sector could spill over into key trading partners' economies. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.

→ Recent, heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

Appendices

Corporate Update

7
Offices

235+
Employees

245+
Clients

$1.8T
Assets Under Advisement

$200B
Assets in Alternative Investments

98%
Client Retention Rate

5:1
Client | Consultant Ratio

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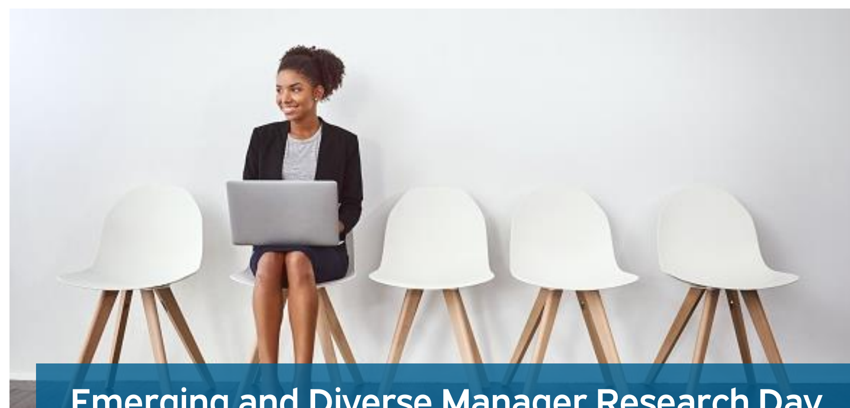
UPCOMING EVENTS

Q4 Investment Perspectives Webcast
April 2024



Emerging and Diverse Manager Research Day
April 2024

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

THOUGHT LEADERSHIP

Read our December Connectives “Navigating US China Tensions with Dynamic Portfolio Levers”

Sifting through economic, financial, and political factors is proving to be increasingly challenging for institutional investors as sentiment toward China continues to turn negative in western governments.

While some US investors have decided to actively underweight or even exit China altogether, others are seeking dynamic portfolio and manager solutions.

Read more here:
https://meketa.com/news/meketa-connectives-navigating-us-china-tensions-with-dynamic-portfolio-levers/

Read our recent white paper “Opportunities in Critical Minerals”

The push toward net-zero emissions has expedited the need for green energy and technology. At the forefront of this green energy boom are critical minerals, the essential inputs to all types of green technologies, especially electric vehicles (“EVs”) and EV batteries.

This research note provides an overview of critical minerals, their uses, current market size, as well as describes the unique opportunity that critical minerals may provide for investors.

Read more here:
https://meketa.com/leadership/the-opportunity-in-critical-minerals/

Watch our recent webinar “Mission Driven Investing Manager Research Day Roundtable”

As part of Meketa’s first Public and Private Markets Mission Driven Investing Manager Research Day, we hosted a one-hour roundtable discussion with a panel of institutional investors speaking about their experiences with mission driven investing. The panel includes perspectives from investors who invest broadly in mission-driven investments, as well as specifically for economic development in a particular state or region and as informed by religious values. Discussion topics include impact and return goals, mission related investment structures, best practices in manager due diligence and other areas relevant for the mission driven investor.

Read more here:
https://meketa.com/leadership/december-2023-mission-driven-investing-manager-research-day-roundtable/

MEKETA VALUES CULTURE

Whether looking for new team members or getting to know our current fellow team mates better, Meketa values the people we work with.

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MEKETA IN THE NEWS

Pensions&Investments

Asset owners lean on consultants to be educated about ESG

By Palash Ghosh | 11.20.23

Read full article here

Meketa assists clients in understanding different approaches to sustainability, including focusing on integrating material sustainability financial risks and opportunities, seeking investments that also offer impact on a given environmental or social themes, and investing in products for socially responsible ends that do not include a performance expectation to meet or exceed a market beta, said Sarah Bernstein, head of sustainability. "Some pension funds have specific requests, for example how to respond to ESG and/or anti-ESG legislation; provide analysis on options to address climate risks and opportunities; or address diversity, equity and inclusion concerns," she added.

One area that is seeing a lot of interest from investors is opportunities around the energy transition. Lisa Bacon, managing principal, private markets consultant and infrastructure program lead at Meketa, said deploying capital into renewables and related infrastructure has been going on for a number of years even before "energy transition" and "decarbonization" became common terms.

In fact, "as both governmental entities and corporates in the U.S. and abroad have established more ambitious goals for reducing greenhouse gases and reaching net-zero carbon emissions, demand for private capital to support investments in assets and companies that will help meet these goals has also increased," Bacon said. "Opportunities have also arisen in the natural resources sector involving alternative fuels, metals and minerals for batteries and electric chargers, and other sustainable inputs and activities." Bacon added that Meketa and its clients want to be investing in the areas "where economic activity is increasing and where growth potential supports attractive risk-adjusted returns."

Impact of higher rates top of mind for institutions

By Palash Ghosh | 11.20.23

Read full article here

Aside from rising interest rates, noted Frank Benham, director of research at Meketa, his firm's clients are also concerned about the potential for an economic hard landing, as well as both political and economic risks in China.

Regarding China, Amy Hsiang, director of public markets manager research at Meketa, said clients are interested in learning more about emerging markets. "Whether or not translates to actually increasing allocations to emerging markets, only time will tell," Hsiang said. "We have not seen clients actively avoid China."

"Clients are increasing exposure to select alternatives like private credit and private equity. This needs to be balanced with an understanding of each clients' liquidity needs to ensure the portfolio can deliver on all commitments through a market cycle." John A. Haggerty, director of private market investments at Meketa, noted that in times of uncertainty and market volatility, the issue of placing value on alternative assets naturally receives more scrutiny. "Private market performance lags public market performance in both up markets and down markets," he said. "So, the gaps have been greater in recent years with the stock market swings, negative in 2022 and positive for much of 2023."

FUNDfire

Corporate Pensions at 'Inflection Point' as Funded Statuses Improve

By Bridget Hickey 11.28.23

Read full article here

Corporate pension sponsors are at an "inflection point" when it comes to deciding about the future of their plans, said Jonathan Camp, a managing principal at investment consultant Meketa.

Companies may choose to hedge their liabilities or transfer risk. Almost 90% of corporate pension respondents to a recent survey by MetLife said they were interested in completely divesting all their defined benefit plan liabilities.

However, the news earlier this month that International Business Machines, better known as IBM, is reopening its defined benefit pension as a cash balance plan has sparked a conversation within the industry about whether other companies will follow suit.

Companies that are over-funded may opt to follow in IBM's stead, Camp suggested. He added that one client, (unnamed), re-opened its pension plan more than a year ago.

"The benefit of just keeping your frozen pension plan on your books is that it's very easy to open it back up in a different form in the future, versus if you terminate your plan," he said. "It will be interesting to see, if now that we have this first mover publicly, if other companies think to themselves, 'well, you know, I can do that too'."

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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.