



Employees' Retirement System of the City of Norfolk

As of April 30, 2025

Performance Update

Agenda

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Economic and Market Update

Data as of April 30, 2025

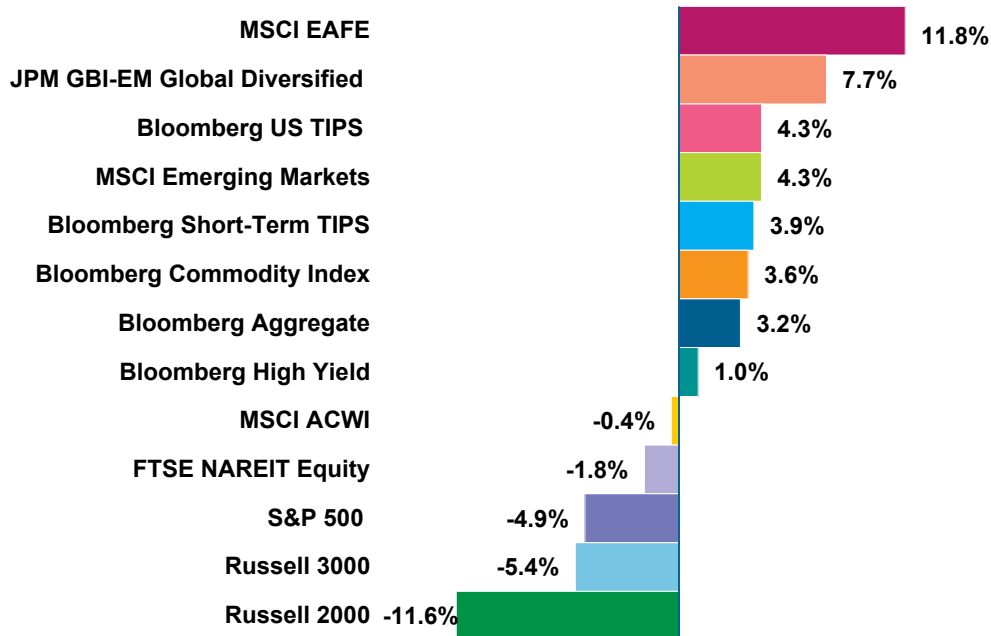
Commentary

April was a highly volatile month in capital markets in the wake of the April 2nd tariff announcement in the US and subsequent 90-day pause for many.

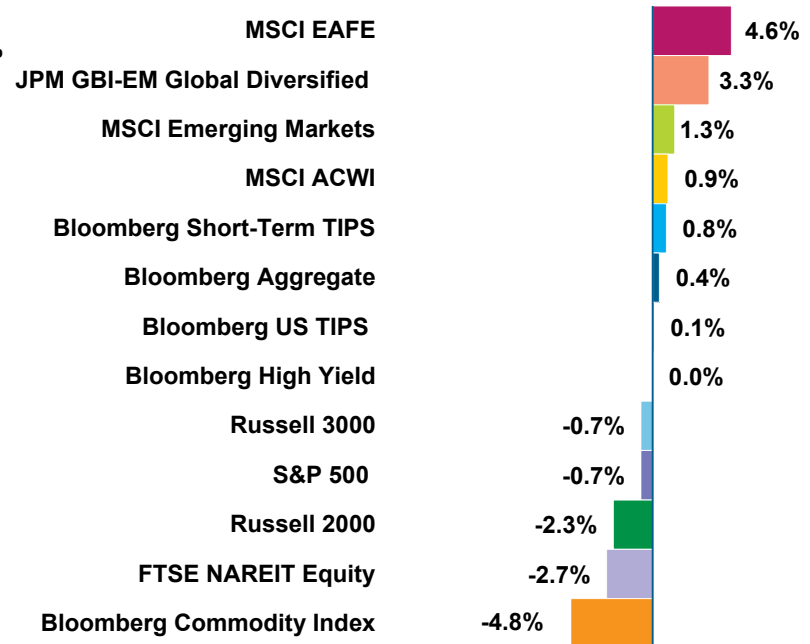
- Domestic equities declined in April (Russell 3000: -0.7%) but finished the month far above its lows.
- Non-US developed market stocks (MSCI EAFE: +4.6%) outperformed US markets in April, with gains entirely coming from the decline in the US dollar.
- Emerging market equities returned +1.3% for the month, despite a decline in Chinese stocks (-4.3%).
- In early May, the Federal Reserve held rates steady, with inflation, while improving, remaining above target and with the unemployment rate at near historic lows.
- Fixed income markets were mixed in April, with the broad Bloomberg Aggregate Index up 0.4%, long Treasuries falling -1.1%, and high yield bonds flat.
- Looking ahead, continued uncertainty related to the US administration's tariff policies and their impact on the economy, inflation, and Fed policy will be key. The path of China's economy and relations with the US, as well as concerns over elevated valuations and technology-driven concentration in the US equity market will also be important focuses of 2025.

Index Returns¹

YTD



April



- April was marked by volatility in financial markets as growth and inflation outlooks were repriced in response to the “Liberation Day” tariffs and their subsequent pause.
- Non-US assets led the way with developed market equities returning 4.6% in April, driven by the weakened US dollar.
- Extreme volatility in US stocks early in the month subsided with most of the month’s losses being erased by month-end. The Russell 3000 finished down 0.7% for the month.

¹ Source: Bloomberg. Data is as of April 30, 2025.

Domestic Equity Returns¹

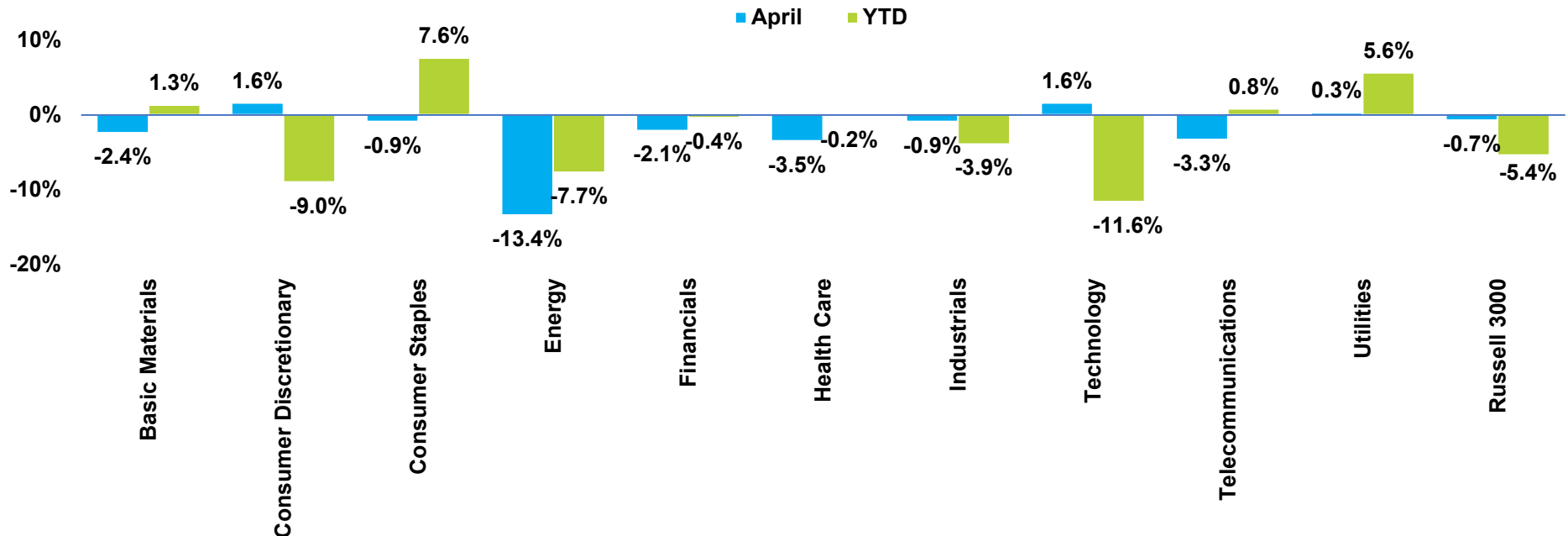
Domestic Equity	April (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-0.7	-4.9	12.1	12.2	15.6	12.3
Russell 3000	-0.7	-5.4	11.4	11.4	15.1	11.7
Russell 1000	-0.6	-5.1	11.9	11.8	15.4	12.0
Russell 1000 Growth	1.8	-8.4	14.5	15.6	17.2	15.3
Russell 1000 Value	-3.0	-1.0	8.6	7.6	13.0	8.3
Russell MidCap	-1.0	-4.4	7.3	7.1	12.9	8.8
Russell MidCap Growth	3.4	-4.0	13.7	11.7	12.3	10.6
Russell MidCap Value	-2.5	-4.5	5.2	5.0	13.2	7.5
Russell 2000	-2.3	-11.6	0.9	3.3	9.9	6.3
Russell 2000 Growth	-0.6	-11.7	2.4	5.0	7.6	6.4
Russell 2000 Value	-4.0	-11.4	-0.7	1.4	11.7	5.9

US Equities: The Russell 3000 declined 0.7% in April.

- US stocks fell 0.7% in April during a volatile month for equities. Investors reacted harshly to the April 2nd “Liberation Day” tariff announcement in the US, with the Russell 3000 index declining more than 12% over the following two days. Equities rebounded sharply after the Trump administration announced a 90-day pause on some tariffs on April 9th.
- Growth stocks outperformed value stocks across the market cap spectrum. In the large cap space, this dynamic was driven by the strong performance of technology stocks, such as Microsoft, Broadcom, NVIDIA, and Netflix. In the small cap market, the divergence was more dispersed and driven by industrials and health care instead of technology.
- With economic growth concerns persisting, small cap stocks trailed mid cap and large cap stocks, continuing the year-to-date trend.

¹ Source: Bloomberg. Data is as of April 30, 2025.

Russell 3000 Sector Returns¹



- Energy stocks declined over 13% in April, and 7.7% year-to-date. Oil prices fell sharply, given slower growth expectations and after OPEC announced a plan to increase oil production.
- Health care stocks dropped 3.5% in April. UnitedHealth Group's stock declined precipitously after the company reported a weaker than expected quarter and lowered guidance.
- Technology and consumer discretionary were both bright spots in the Russell 3000 index, gaining 1.6% each for the month.
- Year-to-date through April, defensive sectors like consumer staples and utilities led the way while cyclical sectors like technology and consumer discretionary trailed.

¹ Source: Bloomberg. Data is as of April 30, 2025.

Foreign Equity Returns¹

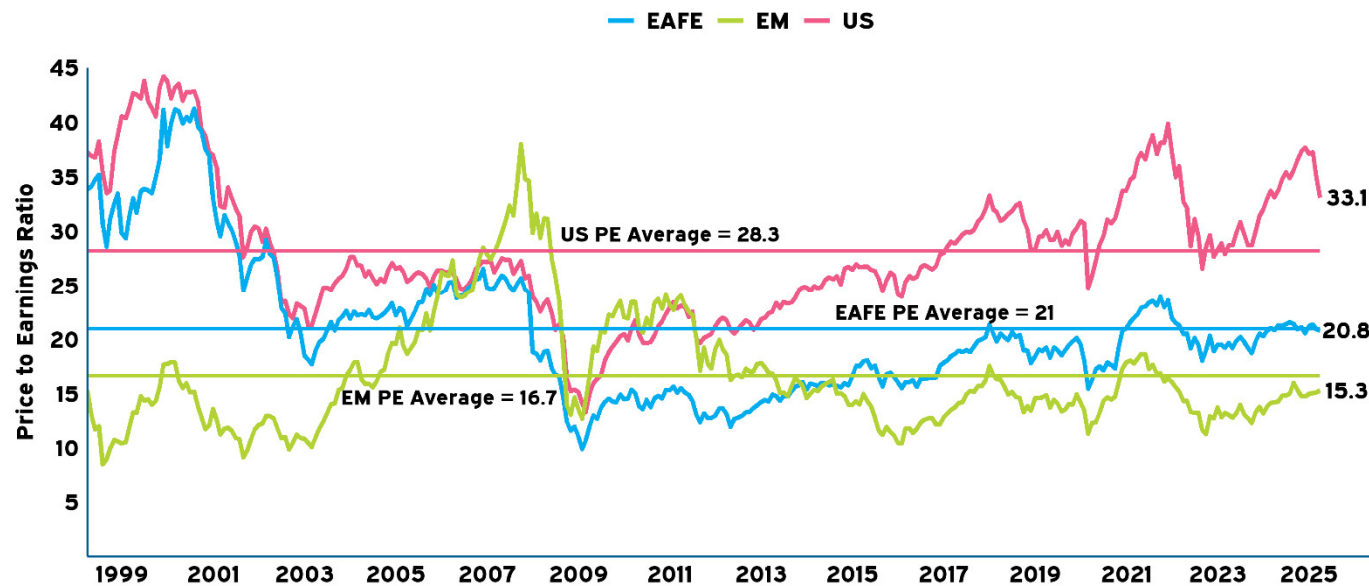
Foreign Equity	April (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI Ex US	3.6	9.0	11.9	8.0	10.1	4.8
MSCI EAFE	4.6	11.8	12.6	10.1	11.4	5.4
MSCI EAFE (Local Currency)	-0.1	2.8	5.0	9.2	12.0	6.2
MSCI EAFE Small Cap	5.8	9.7	12.4	5.3	9.0	5.5
MSCI Emerging Markets	1.3	4.3	9.0	3.8	6.3	3.1
MSCI Emerging Markets (Local Currency)	-0.2	2.4	9.4	5.9	7.7	5.1
MSCI EM ex China	3.9	2.1	3.3	4.2	10.5	4.4
MSCI China	-4.3	10.1	26.1	3.5	-0.6	0.5

Foreign Equity: Developed international equities (MSCI EAFE) returned 4.6% in April and emerging market equities (MSCI Emerging Markets) rose 1.3%.

- Most developed markets saw slight losses in local terms, although they grew in dollar terms, given the USD's notable depreciation of ~4%. In the Eurozone and UK, trade tensions and the stalling of Ukraine peace talks led to a decline in consumer confidence and lower PMIs, although the EU's suspension of many retaliatory tariffs softened losses. Japan saw small gains, with a rebound in service sectors mitigating losses in manufacturing and export-focused companies. The announcement of historic levels of share buybacks also drove results.
- Emerging markets had a similar dynamic, with slight losses in local terms and gains in USD, although performance varied by country. The significant tariffs on China (up to 145% at the time) led to losses, although the country's promising Q1 GDP growth and continued AI enthusiasm moderated declines. Mexico and Brazil had positive returns in April because of less-punitive tariffs from the US while South Korea saw gains benefitting from strong earnings.

¹ Source: Bloomberg. Data is as of April 30, 2025.

Equity Cyclically Adjusted P/E Ratios¹



- Valuations in the US continued to decline in April on market weakness but at 33.1 times earnings they remain well above their long-run P/E average of 28.3.
- Despite a strong rally in April in dollar terms, non-US developed stock valuations remain close to the long-run average.
- Emerging market equities continue to trade below their long-run P/E average of 15.3.

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 April 2025. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end, respectively.

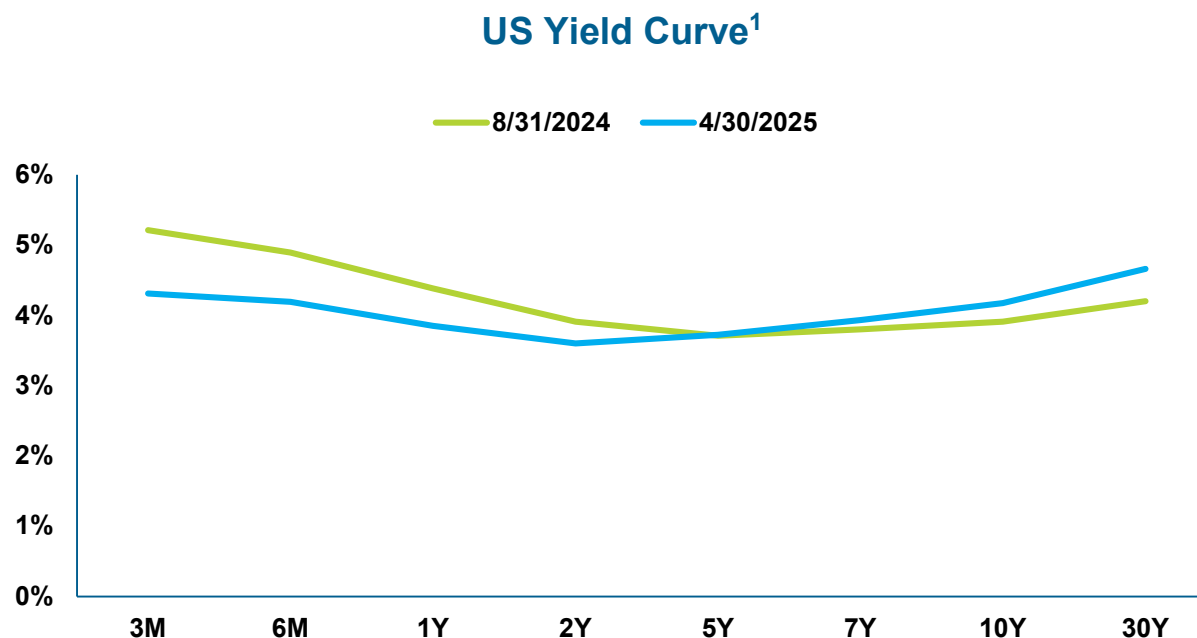
Fixed Income Returns¹

Fixed Income	April (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	0.4	3.0	8.1	2.4	0.0	1.9	4.8	5.9
Bloomberg Aggregate	0.4	3.2	8.0	2.0	-0.7	1.5	4.5	6.1
Bloomberg US TIPS	0.1	4.3	8.1	0.8	1.8	2.4	4.1	6.7
Bloomberg Short-term TIPS	0.8	3.9	8.0	3.5	4.0	2.8	3.8	2.5
Bloomberg US Long Treasury	-1.1	3.5	6.7	-4.6	-8.4	-0.4	4.7	14.8
Bloomberg High Yield	0.0	1.0	8.7	6.2	6.3	4.9	7.9	3.5
JPM GBI-EM Global Diversified (USD)	3.3	7.7	9.8	6.0	2.2	1.3	--	--

Fixed Income: The Bloomberg Universal index rose 0.4% in April.

- Uncertainty related to tariffs and growing worries about economic growth drove rate volatility higher. The yield curve from ten years and below ultimately declined over the month on the repricing of growth and monetary policy expectations.
- The broad US bond market (Bloomberg Aggregate) rose 0.4% while both short (+0.8%) and longer dated (+0.1%) TIPS also gained for the month despite rising real yields. Long-term Treasuries (-1.1%) underperformed as rates at the long end of the yield curve rose given the uncertainty and related lack of desire to be exposed to US assets.
- Emerging market bonds led the way for the month (+3.3%) while high yield bonds (0.0%) lagged as spreads widened modestly.

¹ Source: Bloomberg. Data is as of April 30, 2025. 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.



- Bond market volatility rose to near historic levels in the first half of April, as markets struggled to price the growth, inflation, and monetary policy impacts from potential US tariffs.
- In April, the more policy sensitive 2-year Treasury yield fell from 3.88% to 3.60%, given expectations for additional interest rate cuts by the Fed. The 10-year Treasury fell from 4.21% to 4.17% but spiked close to 4.5% mid-month due to tariff related inflation concerns.
- These dynamics caused the Treasury yield curve to steepen over the month with the difference between the 2-year and 10-year maturity moving from 0.33% to 0.56%.

¹ Source: Bloomberg. Data is as of April 30, 2025. The August 2024 Treasury yields are shown as a reference before the first interest rate cut.

Tariffs¹

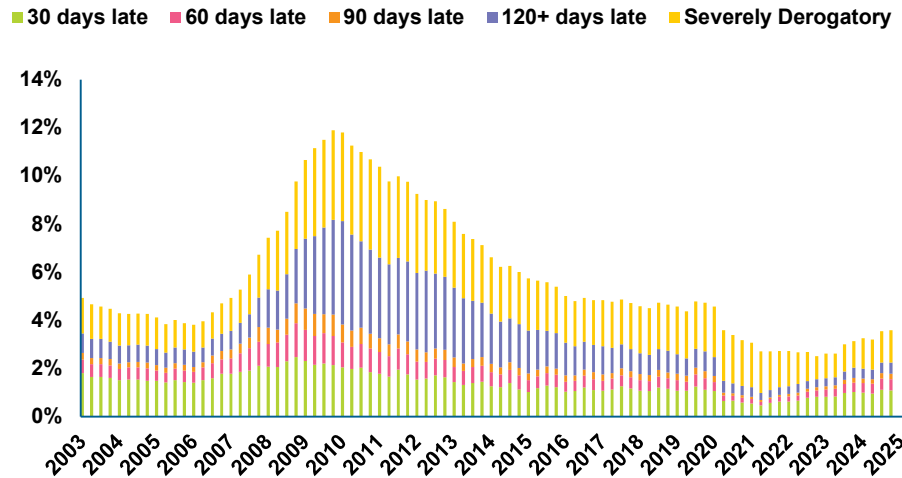
	Autos	Steel & Aluminum	Other Imports
Canada	25% on non-US content (52.5% non-USMCA compliant)	25% (excludes derivative articles melted and poured/cast and smelted in the US); 50% on non-USMCA compliant imports	25% on non-USMCA goods; 10% on energy & potash
Mexico	25% on non-US content (52.5% non-USMCA compliant)	25% (excludes derivative articles melted and poured/cast and smelted in the US); 50% on non-USMCA compliant imports	25% on non-USMCA goods
China	47.5%	50%	30% on all other goods
Rest of World (excluding China, Canada, and Mexico)	25%	25%	10% tariff on imports from all countries except Canada & Mexico

- On the April 2nd so-called “Liberation Day”, the new US administration announced reciprocal tariffs on many countries at levels much higher than expected leading to the recent market volatility.
- Since April 2nd, most reciprocal tariffs above 10% are currently suspended and imports from Mexico and Canada that comply with existing trade agreements are not subject to reciprocal tariffs at this time.
- In early May, China and the US also agreed on a 90-day pause on their 100%+ tariffs on each other. The US dropped its maximum tariff rate on Chinese goods from 145% to 30% with a 10% minimum level, while China agreed to reduce its 125% tariff on American goods to 10%.
- Despite the recent pause, questions remain about what will happen after the 90-day period and what the overall impact of tariffs will be on growth and inflation.

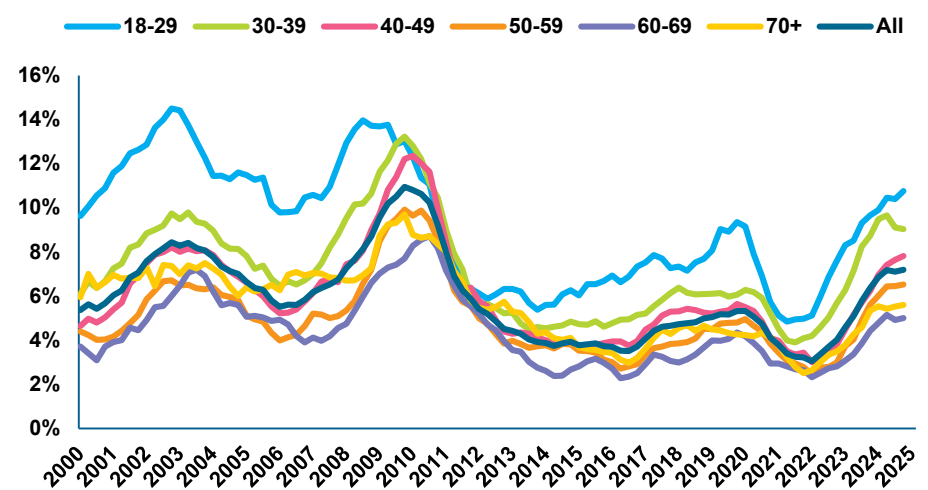
¹ Source: Brookings, J.P. Meltzer, “The Impact of US Tariffs on North American Auto Manufacturing and Implications for USMCA,” May 13, 2025. USMCA is the tri-lateral trade agreement between the US, Mexico and Canada which modernized its predecessor NAFTA on July 1, 2020.

Stress is Building on US Consumers

Total Balance by Delinquency Status¹



Transition into Serious Delinquency for Credit Cards by Age²

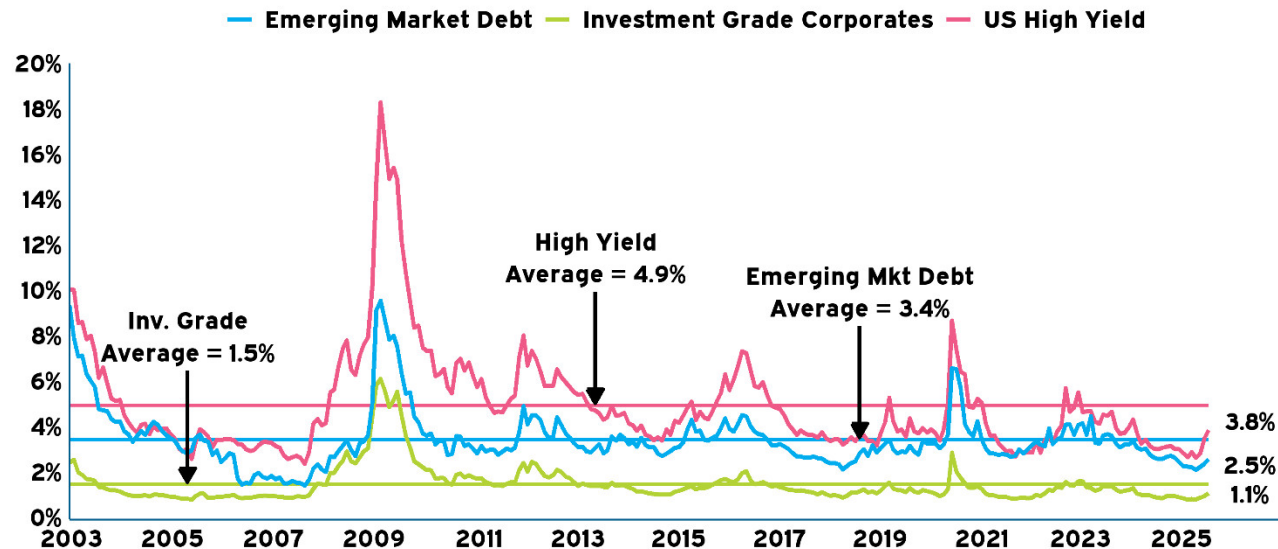


- Signs of stress on the US consumer have started to emerge given persistently higher prices and interest rates.
- After falling to historic lows during the pandemic, loan delinquencies recently started rising.
- Segments of the credit market have started to show stress, but total delinquencies remain well below pre-pandemic levels.
- While total delinquency rates are below pre-pandemic levels, the credit card segment is showing more signs of distress where borrowers are subject to variable and higher borrowing costs.
- Credit card delinquencies are rising rapidly, especially for borrowers under the age of forty.

¹ Source: New York Federal Reserve, Quarterly Household Debt and Credit Report, February 2025. See also FRED. Data is as of April 30, 2025.

² Source: FRED. Data is as of April 30, 2025.

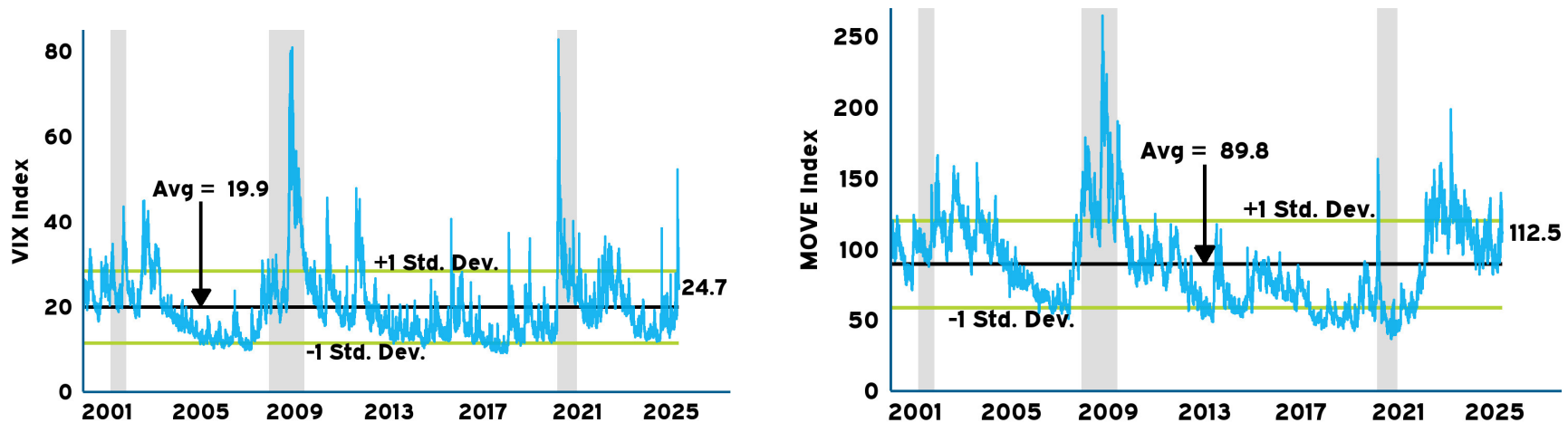
Credit Spreads vs. US Treasury Bonds¹



- Like other areas there were major fluctuations in the credit markets in April due to the new tariffs and the subsequent announcement of a 90-day pause.
- Investment grade spreads (the difference in yield from a comparable Treasury) spiked in the risk-off environment after the tariff announcement but narrowed as risk sentiment improved. For the month, investment grade spreads moved from 0.9% to 1.1%.
- High yield spreads moved the most (3.5% to 3.8%) due to concerns related to the US economy. At the peak of uncertainty, they crossed above 4.5%. Emerging market spreads climbed slightly (2.4% to 2.5%) over the month.
- All yield spreads remained below their respective long-run averages, particularly high yield (3.8% versus 4.9%).

¹ Source: Bloomberg. Data is as April 30, 2025. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

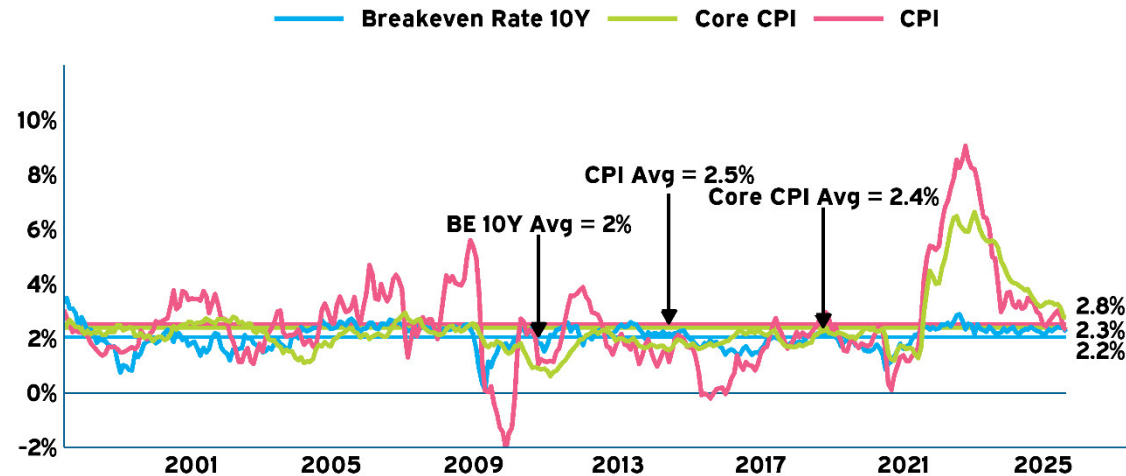
Equity and Fixed Income Volatility¹



- Bond and equity volatility spiked in April after the “Liberation Day” tariff announcement. Volatility levels finished well off their highs though, as the new tariffs were subsequently put on hold for 90 days for many countries to allow time for negotiations.
- Volatility levels (VIX) in the US stock market and bond market (MOVE) finished April above their respective long-run averages.

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 April 30, 2025. The average line indicated is the average of the VIX and MOVE values between January 2000 and April 2025.

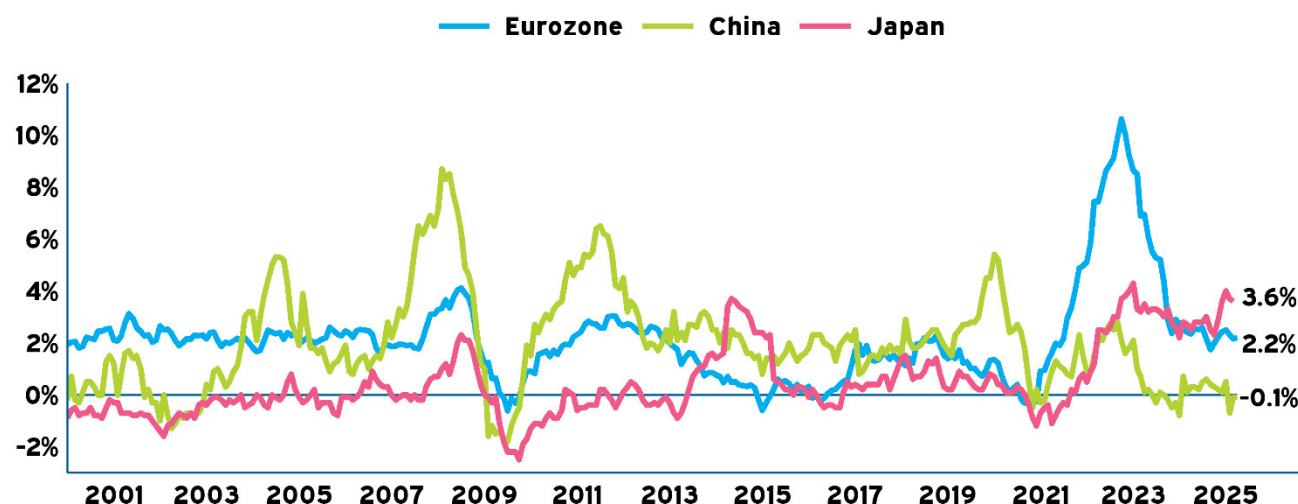
US Ten-Year Breakeven Inflation and CPI¹



- While inflation has been slow to return to the Fed's 2% average target, annual headline inflation declined slightly from 2.4% to 2.3%, coming in below expectations. The month-over-month rate rose from a 0.1% decline in March to 0.2% in April with gains in shelter accounting for more than half of the month's rise. Energy prices rose 0.7% for the month while food prices fell 0.1%.
- Core inflation year-over-year held steady at 2.8% as expected with the month-over-month rate accelerating from 0.1% to 0.2%. Price increases in household furniture, medical care, education, and insurance offset declines in airline prices, used cars, and apparel.
- Inflation expectations (breakevens) fell from 2.37% to 2.24% in April as investors continued to evaluate the potential inflationary impacts of the new US administration's evolving policies.

¹ Source: FRED. Data is as of April 2025. 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.

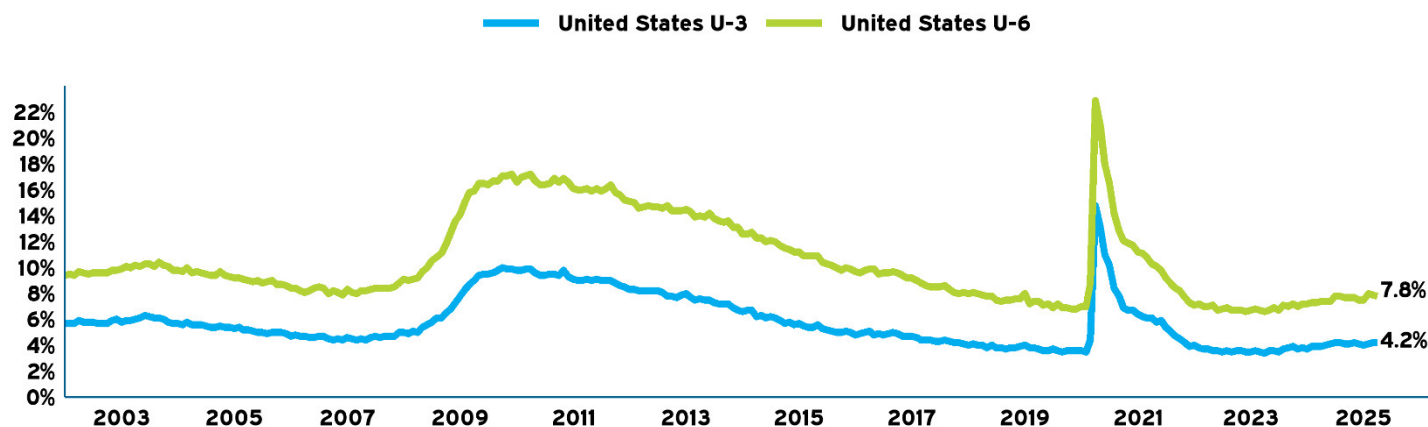
Global Inflation (CPI Trailing Twelve Months)¹



- Inflation in the eurozone remained at 2.2% in April (slightly above expectations), a level marginally below the US.
- The latest reading of inflation in Japan dropped from 3.7% to 3.6% as food price increases slowed as well as the cost of electricity and gas amid energy subsidies.
- In China, despite record policy stimulus consumer prices declined for the third consecutive month in April. During the month, prices fell by 0.1% compared to a year prior, like in March, due to ongoing weak domestic demand and growing trade tensions with the US.

¹ Source: Bloomberg. Data is as April 2025, except Japan which is as of March 2025.

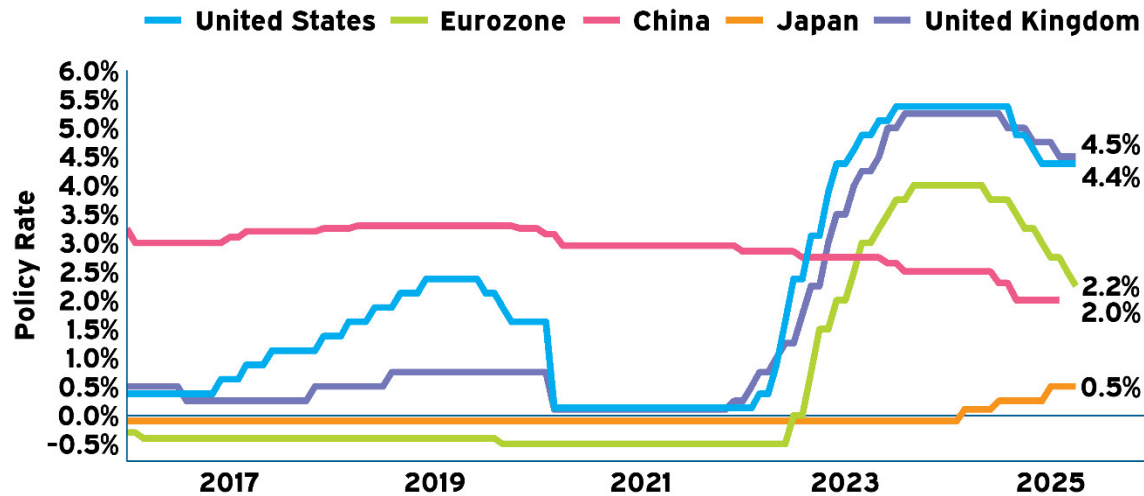
US Unemployment¹



- In April, the US added 177,000 jobs compared to expectations for 138,000. The unemployment rate remained at 4.2%; there were 7.2 million jobseekers of which 1.7 million were without work for more than 27 weeks.
- A broader measure of total unemployed (U-6) that includes those marginally attached to the labor force and employed part-time for economic reasons, fell slightly from 7.9% to 7.8%.
- The health care (+51,000), transportation/warehousing (+29,000), and financial activities (+14,000) sectors all added jobs for the month. Federal employees lost 9,000 positions in April and 26,000 since the start of the year; however, employees that chose paid leave or on-going severance pay are not yet included in the unemployed.
- The labor market continues to return to balance with the number of job openings falling from 7.6 million to 7.2 million in April, a ratio of roughly 1:1 compared to those not working.
- Separations declined from 5.3 to 5.1 million while hires remained steady at 5.4 million; average hourly wage growth continued to slow (4.0% to 3.8%) year-on-year in April.

¹ Source: FRED and BLS. Data is as of April 30, 2025.

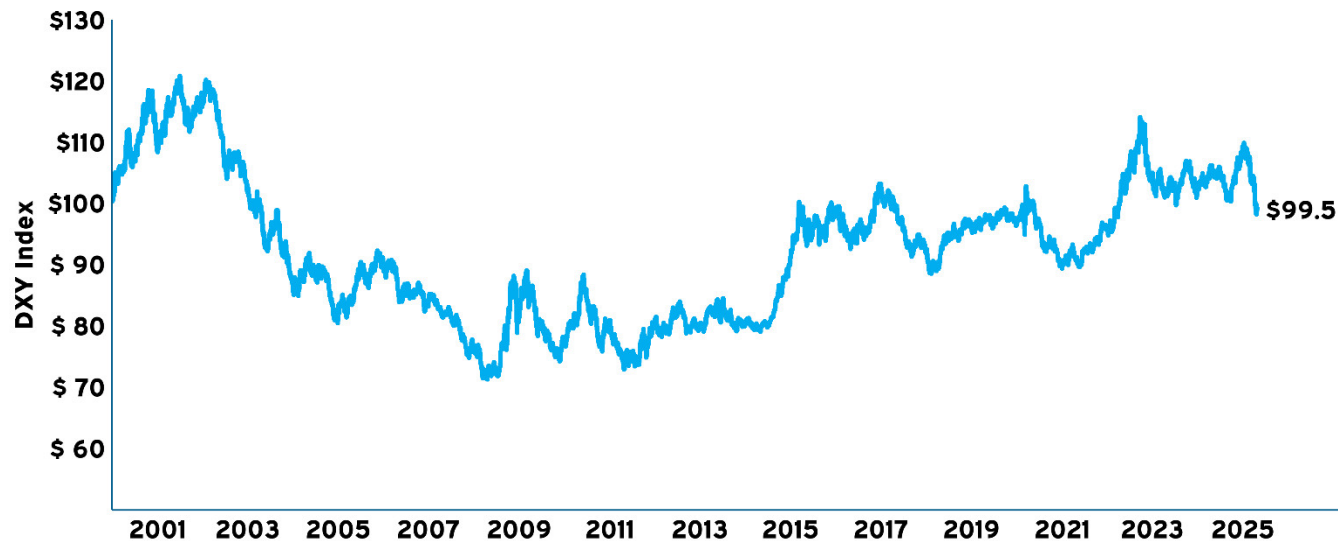
Global Policy Rates¹



- While the Fed remains on hold, other central banks have continued to ease policy rates. Expectations are now for the Fed to cut rates two times this year, down from four expected cuts during the heart of growth concerns.
- In February, the Bank of England cut interest rates for the third time, by 0.25% to 4.5% (the Bank also made an additional 0.25% cut after month-end), while in March the European Central Bank cut rates by another 0.25% to 2.25%. In addition to cutting interest rates, the People's Bank of China has also reduced reserve requirements, lowered mortgage rates, and supported the stock market.
- In contrast to many other central banks, the Bank of Japan increased interest rates in January to 0.5% in the face of persistent inflation. Rate cutting by other major central banks are complicating prospects for further policy rate hikes in Japan.

¹ Source: Bloomberg. Data is as of April 30, 2025, except China which is as of February 28, 2025. 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 Currencies¹



- After several years of appreciation against a basket of currencies, the US dollar weakened rapidly (-8.3%) at the start of 2025 but remains above pre-pandemic levels.
- Concerns over changing US administration policies, slower growth, and corresponding lower yields have recently weighed on the value of the dollar.

¹ Source: Bloomberg. Data as of April 30, 2025.

Summary

Key Trends:

- According to the International Monetary Fund's (IMF) April annual report, global growth in 2025 was downgraded from 3.3% to 2.8%, 0.5% lower than 2024. Concerns related to tariffs and their impact on growth drove the reduction. Growth forecast in the US saw one of the larger declines for 2025 (+2.7% to +1.8%). China's growth forecast was also substantially lowered for this year (4.6% to 4.0%), while growth in the EU is projected to be slightly lower (1.0% to 0.8%) in 2025.
- Despite the recent pause and negotiations related to tariffs, uncertainty remains. Overall higher tariff levels and continued uncertainty could weigh on growth while at the same time fan inflation. Inflation levels and recent developments with tariffs will likely lead to a slower pace of interest rate cuts by the Fed. Uncertainty in the US and the potential for slower growth could continue the rotation out of US assets and the pressure on the dollar.
- Signs of stress have started to emerge on the US consumer with sentiment weakening. Consumers are particularly concerned about losing their jobs and the potential for higher prices. Overall risk to economic growth and to inflation from tariffs, as well as elevated borrowing costs, could put further pressure on consumers and lead to a weaker job market.
- By the end of April US equities largely recovered from the losses during the first week of the month. A focus 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 continue to be important.
- Trade tensions between the US and China will remain a key focus. Recently the two countries agreed on a 90-day truce with the US lowering its maximum tariff rate on Chinese goods from 145% to 30% with a 10% baseline level. China will lower its 125% tariff on American goods to 10%. Questions remain about what will happen after the 90-day period and notably tariff levels on China remain higher than where they previously were.

Executive Summary

→ In April, US equities lagged behind global equities, weighed down by the April 2nd tariff announcement. Fixed income markets delivered mixed results, as heightened tariff-related uncertainty fueled increased rate volatility.

→ The table below reflects the latest valuation data through April 2025.

NERS	April 30, 2025	March 31, 2025	February 28, 2025	June 30, 2024
Total Fund Balance	\$1.35 Billion	\$1.35 Billion	\$1.38 Billion	\$1.32 Billion
Funded Status	87%	87%	89%	85%
NERS Assumed Rate of Return	6.75%	6.75%	6.75%	6.75%
FYTD Rate of Return	5.0%	4.6%	5.9%	10.4%
12 Months Trailing Rate of Return	8.7%	6.0%	10.0%	10.4%
Monthly Rate of Return	0.4%	-1.2%	0.2%	0.9%
Monthly Gains/Losses	\$5.3 million	-\$16.6 million	\$2.8 million	\$12.0 million
Monthly Net Cash Flow	-\$8.2 million	-\$8.5 million	-\$8.2 million	-\$8.2 million

→ The Actuarial Determined Contribution rates for Fiscal Year 2025 are:

- NERS: \$34.4 million
- VRS: 7.84%

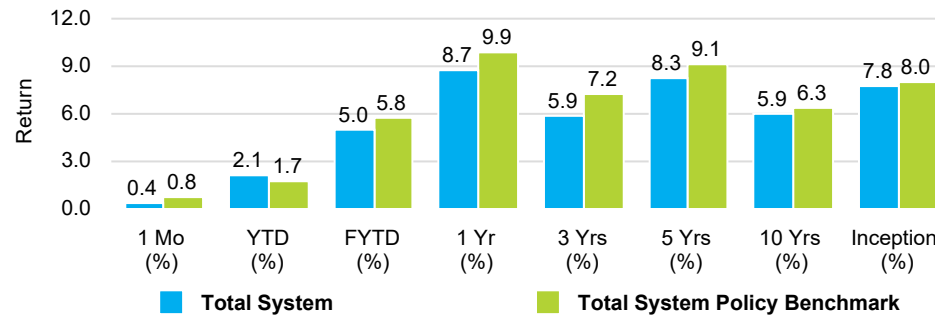
→ As of April 30, the System was inside of its target asset allocation ranges for all asset classes.

Performance Update as of April 30, 2025

Portfolio Objective

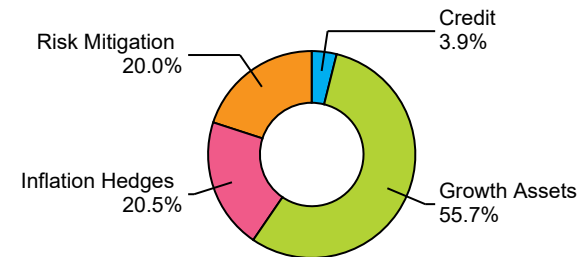
The Employees' Retirement System of the City of Norfolk is a long-term investor whose objective is to enable the System to provide retirement income for plan participants and beneficiaries. The System's strategy is to generate a return that meets the long-term return objective, while minimizing volatility.

Return Summary



	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Total System	0.4	2.1	5.0	8.7	5.9	8.3	5.9	7.8	10/01/1990
Total System Policy Benchmark	0.8	1.7	5.8	9.9	7.2	9.1	6.3	8.0	

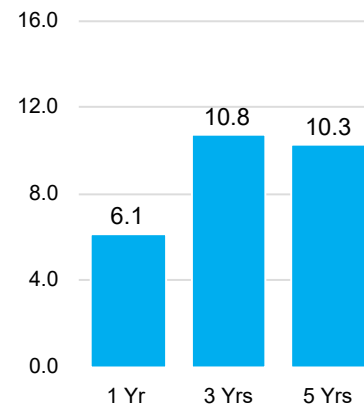
Current Allocation



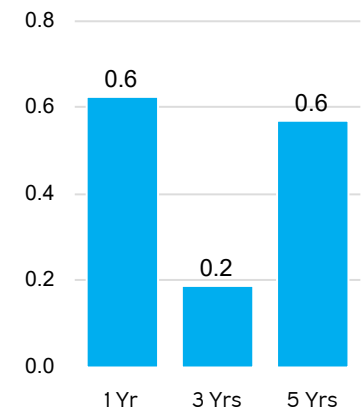
Summary of Cash Flows

	Last Month	Year-To-Date	One Year
Total System			
Beginning Market Value	1,353,918,672	1,354,588,745	1,290,829,874
Net Cash Flow	-8,200,894	-32,911,617	-54,837,040
Net Investment Change	5,279,926	29,320,576	114,914,236
Ending Market Value	1,350,997,704	1,350,997,704	1,350,997,704

Annualized Standard Deviation

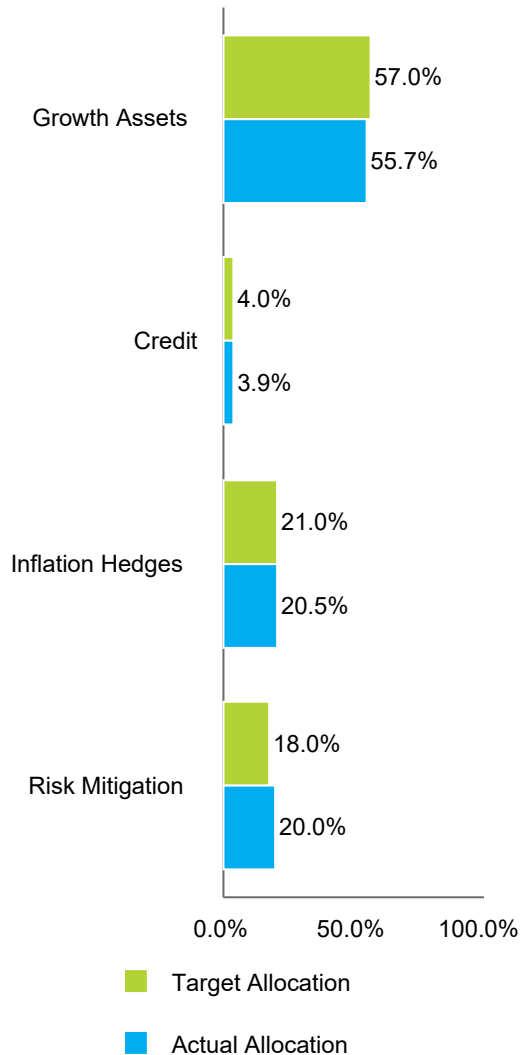


Sharpe Ratio



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Actual vs. Target Allocation

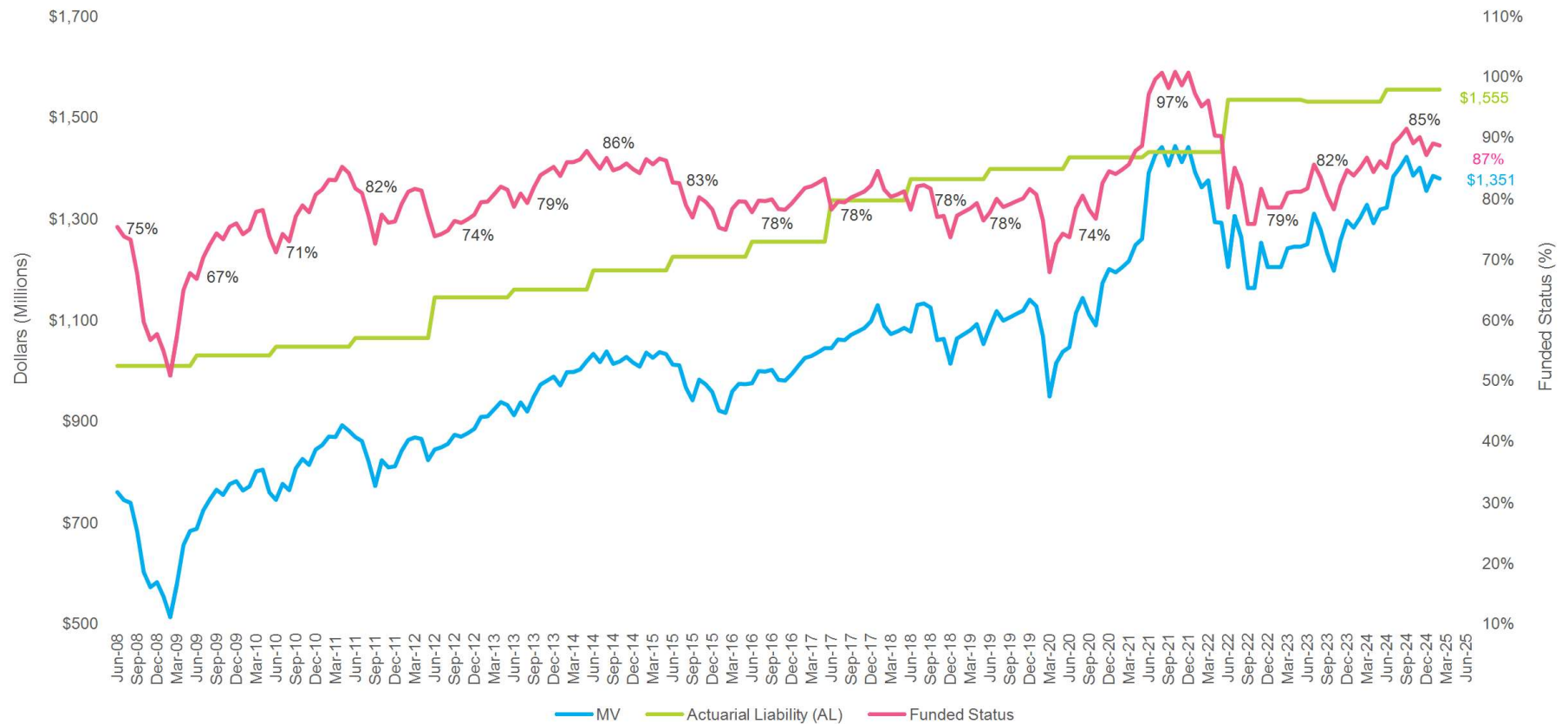


Allocation vs. Targets and Policy

	Current Balance	Current Allocation (%)	Policy (%)	Policy Range (%)	Within IPS Range?
Growth Assets	\$752,067,695	55.7	57.0	47.0 - 67.0	Yes
Global Equity	\$745,254,125	55.2	52.0	42.0 - 62.0	Yes
Private Equity	\$6,813,570	0.5	5.0	0.0 - 10.0	Yes
Credit	\$52,214,055	3.9	4.0	0.0 - 9.0	Yes
High Yield & Bank Loans	\$52,214,055	3.9	4.0	0.0 - 9.0	Yes
Inflation Hedges	\$276,773,233	20.5	21.0	14.0 - 28.0	Yes
Real Estate	\$105,102,668	7.8	8.0	3.0 - 13.0	Yes
Natural Resources & Infrastructure	\$70,833,633	5.2	5.0	0.0 - 10.0	Yes
Gold	\$35,923,963	2.7	3.0	0.0 - 6.0	Yes
Short-Term TIPS	\$64,912,969	4.8	5.0	0.0 - 10.0	Yes
Risk Mitigation	\$269,942,721	20.0	18.0	11.0 - 25.0	Yes
Investment Grade Fixed Income	\$201,259,430	14.9	14.0	7.0 - 21.0	Yes
Hedge Funds	\$51,368,373	3.8	4.0	0.0 - 9.0	Yes
Cash	\$17,314,918	1.3	0.0	0.0 - 3.0	Yes
Total	\$1,350,997,704	100.0	100.0		

Cash balance reflects First Eagle Institutional Gold Fund proceeds that will be reinvested in May.

Assets, Liabilities and Funded Status Over Time



As of June 30, 2024, Total Plan Actuarial Liability (AL) is \$1.555 billion and the Actuarial Value of Assets (AVA) is \$1.324 billion for an Actuarial Funded Ratio (AVA/AL) of 85%. Using the Market Value of Assets (MVA), the Market Funded Ratio (MVA/AL) was approximately 87% in March 2025 and 87% in April 2025.

Performance Update | As of April 30, 2025

Asset Class Performance Summary											
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total System	1,350,997,704	100.0	0.4	2.1	5.0	8.7	5.9	8.3	5.9	7.8	Oct-90
Total System Policy Benchmark			0.8	1.7	5.8	9.9	7.2	9.1	6.3	8.0	
Total Fund Actual Allocation Benchmark			0.7	1.8	5.4	9.3	--	--	--	--	
Total Fund Public Benchmark			0.8	0.3	5.0	10.3	7.7	8.3	6.3	8.0	
Growth Assets	752,067,695	55.7	0.6	0.2	3.9	9.2	--	--	--	12.3	Dec-22
Growth Assets Custom Benchmark			1.2	-0.3	5.7	12.3	--	--	--	14.1	
Global Equity	745,254,125	55.2	0.6	0.2	3.9	9.2	8.9	12.6	8.6	9.1	Oct-90
Global Equity Policy Benchmark			0.9	-0.7	4.8	11.1	9.6	12.8	8.4	9.4	
Private Equity	6,813,570	0.5									
MSCI ACWI + 3% 1Q Lag			3.6	3.3	15.0	24.3	--	--	--	20.9	
Credit	52,214,055	3.9	-0.3	1.9	5.5	7.2	--	--	--	8.7	May-23
Credit Custom Benchmark			0.0	0.8	5.8	7.5	--	--	--	9.0	
High Yield & Bank Loans	52,214,055	3.9	-0.3	1.9	5.5	7.2	--	--	--	8.7	May-23
High Yield & Bank Loans Custom Benchmark			0.0	0.8	5.8	7.5	--	--	--	9.0	
Inflation Hedges	276,773,233	20.5	0.5	6.7	9.4	10.9	--	--	--	1.3	Dec-22
Inflation Hedges Custom Benchmark			0.5	7.1	7.6	7.7	--	--	--	1.5	
Real Estate	105,102,668	7.8	-0.2	0.9	5.5	8.3	-5.1	0.3	3.0	5.5	Apr-11
NCREIF ODCE (Net)			0.0	0.8	1.8	1.2	-5.1	2.0	4.7	6.7	
Natural Resources & Infrastructure	70,833,633	5.2	-2.0	4.7	0.5	-0.2	--	--	--	1.6	Apr-23
S&P Global LargeMidcap Resources & Commodities NR USD			-2.6	5.4	-1.7	-3.3	--	--	--	-0.3	
Gold	35,923,963	2.7	5.7	32.7	43.8	45.9	--	--	--	24.1	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			6.3	34.0	44.8	47.6	--	--	--	26.7	
Short-Term TIPS	64,912,969	4.8	0.8	3.9	6.4	8.0	--	--	--	5.5	Mar-23
Blmbg. U.S. TIPS 0-5 Year			0.8	3.9	6.3	8.0	--	--	--	6.0	

Total Fund Public Benchmark consists of 74% MSCI ACWI IMI / 26% Bloomberg US Aggregate. Historical varies. See benchmark history page for additional benchmark detail.

Performance Update | As of April 30, 2025

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Risk Mitigation	269,942,721	20.0	-0.5	2.2	2.8	4.7	--	--	--	2.7	Dec-22
<i>Risk Mitigation Custom Benchmark</i>			0.3	2.3	3.6	5.3	--	--	--	3.3	
Investment Grade Fixed Income	201,259,430	14.9	-0.1	3.1	4.7	8.1	1.4	-0.8	1.5	5.1	Oct-90
<i>Blmbg. U.S. Aggregate Index</i>			0.4	3.2	5.2	8.0	2.0	-0.7	1.5	5.0	
Intermediate-Term Bonds	151,935,178	11.2	0.3	3.0	5.5	8.5	2.3	-0.2	1.8	5.1	Oct-90
<i>Blmbg. U.S. Aggregate Index</i>			0.4	3.2	5.2	8.0	2.0	-0.7	1.5	5.0	
Long-Term Bonds	49,324,252	3.7	-1.1	3.6	2.0	6.6	--	--	--	-0.7	Mar-23
<i>Blmbg. U.S. Treasury: Long</i>			-1.1	3.5	2.0	6.7	--	--	--	-0.7	
Hedge Funds	51,368,373	3.8	-2.2	-1.1	-4.1	-6.0	--	--	--	-0.9	Apr-23
<i>Hedge Fund Custom Benchmark</i>			-0.2	-1.0	-1.9	-4.1	--	--	--	2.1	
Cash	17,314,918	1.3									

Performance Update | As of April 30, 2025

Trailing Net Performance											
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total System	1,350,997,704	100.0	0.4	2.1	5.0	8.7	5.9	8.3	5.9	7.8	Oct-90
Total System Policy Benchmark			0.8	1.7	5.8	9.9	7.2	9.1	6.3	8.0	
Total Fund Actual Allocation Benchmark			0.7	1.8	5.4	9.3	--	--	--	--	
Total Fund Public Benchmark			0.8	0.3	5.0	10.3	7.7	8.3	6.3	8.0	
Growth Assets	752,067,695	55.7	0.6	0.2	3.9	9.2	--	--	--	12.3	Dec-22
Growth Assets Custom Benchmark			1.2	-0.3	5.7	12.3	--	--	--	14.1	
Global Equity	745,254,125	55.2	0.6	0.2	3.9	9.2	8.9	12.6	8.6	9.1	Oct-90
Global Equity Policy Benchmark			0.9	-0.7	4.8	11.1	9.6	12.8	8.4	9.4	
SSgA Russell 1000 Growth Index	23,919,416	1.8	1.8	-8.4	1.2	14.4	--	--	--	25.2	Mar-23
Russell 1000 Growth Index			1.8	-8.4	1.2	14.5	--	--	--	25.2	
SSgA Russell 1000 Value Index	41,795,448	3.1	-3.1	-1.0	6.1	8.5	--	--	--	10.6	Mar-23
Russell 1000 Value Index			-3.0	-1.0	6.2	8.6	--	--	--	10.6	
DF Dent Small Cap Growth Fund	12,440,746	0.9	-1.7	-9.1	0.4	--	--	--	--	-0.5	Jun-24
Russell 2000 Growth Index			-0.6	-11.7	-2.6	--	--	--	--	-2.8	
DFA U.S. Small Cap Value Portfolio	4,382,748	0.3	-5.3	-13.1	--	--	--	--	--	-11.6	Nov-24
Russell 2000 Value Index			-4.0	-11.4	--	--	--	--	--	-11.0	
SSgA Russell 3000 Index	217,587,240	16.1	-0.7	-5.4	3.1	11.3	--	--	--	17.3	Mar-23
Russell 3000 Index			-0.7	-5.4	3.2	11.4	--	--	--	17.3	
SSgA MSCI EAFE	73,719,813	5.5	4.7	12.0	10.3	12.8	--	--	--	13.0	Mar-23
MSCI EAFE			4.6	11.8	10.1	12.6	--	--	--	12.7	
SSgA Emerging Markets Index	18,335,467	1.4	0.7	4.4	4.0	9.2	--	--	--	9.2	Mar-23
MSCI Emerging Markets			1.3	4.3	4.3	9.0	--	--	--	9.6	
ABS China Direct	9,375,129	0.7	-3.1	7.1	16.1	15.7	--	--	--	0.2	Mar-23
MSCI China			-4.3	10.1	25.5	26.1	--	--	--	7.3	
ABS EM ex China Direct	21,300,237	1.6	3.4	0.0	-6.2	0.0	--	--	--	10.3	Mar-23
MSCI EM ex China			3.9	2.1	-2.5	3.3	--	--	--	11.0	
Kopernik Global All-Cap	36,331,754	2.7	3.0	18.0	16.4	14.8	--	--	--	13.3	Apr-23
MSCI AC World Index			0.9	-0.4	5.1	11.8	--	--	--	14.8	
First Eagle Global Equity	117,270,386	8.7	-0.1	4.5	8.4	12.3	--	--	--	11.6	Apr-23
MSCI AC World Index			0.9	-0.4	5.1	11.8	--	--	--	14.8	
Artisan Global Opportunities	85,298,528	6.3	2.2	-2.4	0.3	4.9	--	--	--	12.7	Apr-23
MSCI AC World Index			0.9	-0.4	5.1	11.8	--	--	--	14.8	
J. Stern & Co. World Stars Global Equity Fund	83,497,213	6.2	0.9	-2.5	-2.1	5.2	--	--	--	8.8	Feb-24
MSCI AC World IMI Index			0.9	-0.7	4.8	11.1	--	--	--	12.1	

Performance Update | As of April 30, 2025

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	6,813,570	0.5									
MSCI ACWI + 3% 1Q Lag			3.6	3.3	15.0	24.3	--	--	--	20.9	
NexPhase Capital Fund V, L.P.	253,913	0.0									
Vitruvian Investment Partnership V	381,249	0.0									
Lexington Capital Partners X, L.P.	5,026,473	0.4									
Flagship Pioneering Fund VIII, L.P.	333,038	0.0									
Gauge Capital IV, L.P.	356,929	0.0									
KPS Special Situations Fund VI, L.P.	367,356	0.0									
Oakley Capital VI	94,613	0.0									
Credit	52,214,055	3.9	-0.3	1.9	5.5	7.2	--	--	--	8.7	May-23
Credit Custom Benchmark			0.0	0.8	5.8	7.5	--	--	--	9.0	
High Yield & Bank Loans	52,214,055	3.9	-0.3	1.9	5.5	7.2	--	--	--	8.7	May-23
High Yield & Bank Loans Custom Benchmark			0.0	0.8	5.8	7.5	--	--	--	9.0	
Sculptor Credit Opportunities Overseas Fund	26,773,614	2.0	0.2	3.6	2.8	3.6	--	--	--	5.8	May-23
Blmbg. Global High Yield Index			0.9	2.7	8.7	10.8	--	--	--	11.0	
Brigade High Income Fund	25,440,441	1.9	-0.7	0.5	7.7	10.0	--	--	--	10.9	May-23
60% Bloomberg U.S. Corporate High Yield & 40% S&P UBS Lev Loans			0.0	0.8	5.9	7.7	--	--	--	9.0	
Inflation Hedges	276,773,233	20.5	0.5	6.7	9.4	10.9	--	--	--	1.3	Dec-22
Inflation Hedges Custom Benchmark			0.5	7.1	7.6	7.7	--	--	--	1.5	
Real Estate	105,102,668	7.8	-0.2	0.9	5.5	8.3	-5.1	0.3	3.0	5.5	Apr-11
NCREIF ODCE			0.0	0.8	1.8	1.2	-5.1	2.0	4.7	6.7	
JP Morgan Asset Management Strategic Property Fund	44,980,729	3.3	0.2	1.0	3.2	4.0	-7.1	0.6	3.7	6.3	Apr-11
NCREIF ODCE			0.0	0.8	1.8	1.2	-5.1	2.0	4.7	6.7	
UBS Trumbull Property Fund	19,879,731	1.5	0.0	1.3	1.8	0.7	-6.6	-0.9	1.8	3.6	Dec-11
NCREIF ODCE			0.0	0.8	1.8	1.2	-5.1	2.0	4.7	6.5	
Morgan Stanley Prime Property Fund	40,242,208	3.0	0.0	1.1	--	--	--	--	--	1.1	Jan-25
NCREIF ODCE			0.0	0.8	--	--	--	--	--	0.8	
Natural Resources & Infrastructure	70,833,633	5.2	-2.0	4.7	0.5	-0.2	--	--	--	1.6	Apr-23
S&P Global LargeMid Commodity & Resources			-2.6	5.4	-1.7	-3.3	--	--	--	-0.3	
SSgA S&P Global LargeMidCap Natural Resources Index	53,306,643	3.9	-2.6	5.5	-1.6	-3.2	--	--	--	-0.2	Apr-23
S&P Global LargeMid Commodity & Resources			-2.6	5.4	-1.7	-3.3	--	--	--	-0.3	
JP Morgan Infrastructure Investments Fund	17,526,990	1.3	0.0	2.3	7.7	10.2	--	--	--	10.3	Oct-23
Dow Jones Brookfield Global Infrastructure			3.2	10.9	22.8	26.0	--	--	--	21.8	

Private Equity asset market values are based on December 31, 2024 fair market values and adjusted for subsequent cash flows.

Performance Update | As of April 30, 2025

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Gold	35,923,963	2.7	5.7	32.7	43.8	45.9	--	--	--	24.1	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			6.3	34.0	44.8	47.6	--	--	--	26.7	
First Eagle Institutional Gold Fund, LP	35,923,963	2.7	5.7	32.7	43.8	45.9	--	--	--	24.1	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			6.3	34.0	44.8	47.6	--	--	--	26.7	
Short-Term TIPS	64,912,969	4.8	0.8	3.9	6.4	8.0	--	--	--	5.5	Mar-23
Blmbg. U.S. TIPS 0-5 Year			0.8	3.9	6.3	8.0	--	--	--	6.0	
Vanguard Short-Term TIPS Index	64,912,969	4.8	0.8	3.9	6.4	8.0	--	--	--	5.3	Apr-23
Blmbg. U.S. TIPS 0-5 Year			0.8	3.9	6.3	8.0	--	--	--	5.3	
Risk Mitigation	269,942,721	20.0	-0.5	2.2	2.8	4.7	--	--	--	2.7	Dec-22
Risk Mitigation Custom Benchmark			0.3	2.3	3.6	5.3	--	--	--	3.3	
Investment Grade Fixed Income	201,259,430	14.9	-0.1	3.1	4.7	8.1	1.4	-0.8	1.5	5.1	Oct-90
Blmbg. U.S. Aggregate Index			0.4	3.2	5.2	8.0	2.0	-0.7	1.5	5.0	
Intermediate-Term Bonds	151,935,178	11.2	0.3	3.0	5.5	8.5	2.3	-0.2	1.8	5.1	Oct-90
Blmbg. U.S. Aggregate Index			0.4	3.2	5.2	8.0	2.0	-0.7	1.5	5.0	
SSgA US Aggregate Bond	38,636,188	2.9	0.4	3.1	5.2	8.0	1.9	-0.7	1.5	2.7	Jan-09
Blmbg. U.S. Aggregate Index			0.4	3.2	5.2	8.0	2.0	-0.7	1.5	2.7	
Wellington Core Bond	85,346,730	6.3	0.2	2.9	5.2	8.1	--	--	--	4.0	May-23
Blmbg. U.S. Aggregate Index			0.4	3.2	5.2	8.0	--	--	--	3.2	
Brandywine U.S. Fixed Income	27,952,260	2.1	0.6	3.0	6.5	10.4	--	--	--	3.2	Jun-23
Blmbg. U.S. Aggregate Index			0.4	3.2	5.2	8.0	--	--	--	3.9	
Long-Term Bonds	49,324,252	3.7	-1.1	3.6	2.0	6.6	--	--	--	-0.7	Mar-23
Blmbg. U.S. Treasury: Long			-1.1	3.5	2.0	6.7	--	--	--	-0.7	
SSgA Long US Treasury Index	49,324,252	3.7	-1.1	3.6	2.0	6.6	--	--	--	-0.7	Mar-23
Blmbg. U.S. Treasury: Long			-1.1	3.5	2.0	6.7	--	--	--	-0.7	
Hedge Funds	51,368,373	3.8	-2.2	-1.1	-4.1	-6.0	--	--	--	-0.9	Apr-23
Hedge Fund Custom Benchmark			-0.2	-1.0	-1.9	-4.1	--	--	--	2.1	
36 South Kohinoor Series (Cayman) Fund	13,940,776	1.0	2.0	4.3	3.4	3.7	--	--	--	2.6	Apr-23
HFR / EurekaHedge Long Volatility Blended Benchmark			6.6	9.1	12.0	11.9	--	--	--	2.4	
BH-DG Systematic Trading Master Fund	14,328,766	1.1	-4.3	-7.8	-17.9	-21.8	--	--	--	-7.1	Apr-23
SG Trend Index			-5.0	-9.4	-14.5	-18.7	--	--	--	-1.9	
Lombard Odier Bear Convexity	6,142,208	0.5	1.5	6.0	6.7	7.8	--	--	--	1.6	Apr-23
HFR / EurekaHedge Long Volatility Blended Benchmark			6.6	9.1	12.0	11.9	--	--	--	2.4	
Alpstone Global Macro Fund	16,956,622	1.3	-4.9	-1.8	0.3	-3.0	--	--	--	0.8	May-23
HFRI Macro (Total) Index			-2.3	-2.2	-2.2	-3.8	--	--	--	2.2	
Cash	17,314,918	1.3									
Cash	17,314,918	1.3									

Annual Investment Expense Analysis As of April 30, 2025				
	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee (%)
Total System		\$1,350,997,704	\$4,716,626	0.35
Growth Assets		\$752,067,695	\$2,237,639	0.30
Global Equity		\$745,254,125	\$2,205,034	0.30
SSgA Russell 1000 Growth Index	0.02 % of Assets	\$23,919,416	\$4,784	0.02
SSgA Russell 1000 Value Index	0.02 % of Assets	\$41,795,448	\$8,359	0.02
DF Dent Small Cap Growth Fund	0.95 % of Assets	\$12,440,746	\$118,187	0.95
DFA U.S. Small Cap Value Portfolio	0.31 % of Assets	\$4,382,748	\$13,587	0.31
SSgA Russell 3000 Index	0.02 % of Assets	\$217,587,240	\$43,517	0.02
SSgA MSCI EAFE	0.04 % of Assets	\$73,719,813	\$29,488	0.04
SSgA Emerging Markets Index	0.08 % of Assets	\$18,335,467	\$14,668	0.08
ABS China Direct	0.65 % of Assets	\$9,375,129	\$60,938	0.65
ABS EM ex China Direct	0.50 % of Assets	\$21,300,237	\$106,501	0.50
Kopernik Global All-Cap	0.75 % of Assets	\$36,331,754	\$272,488	0.75
First Eagle Global Equity	0.55 % of Assets	\$117,270,386	\$644,987	0.55
Artisan Global Opportunities	0.60 % of Assets	\$85,298,528	\$511,791	0.60
J. Stern & Co. World Stars Global Equity Fund	0.45 % of Assets	\$83,497,213	\$375,737	0.45
Private Equity		\$6,813,570	\$32,606	0.48
NexPhase Capital Fund V, L.P.	2.00 % of Assets	\$253,913	\$5,078	2.00
Vitruvian Investment Partnership V	1.90 % of Assets	\$381,249	\$7,244	1.90
Lexington Capital Partners X, L.P.	1.00% on committed capital.	\$5,026,473	-	-
Flagship Pioneering Fund VIII, L.P.	2.00 % of Assets	\$333,038	\$6,661	2.00
Gauge Capital IV, L.P.	2.00 % of Assets	\$356,929	\$7,139	2.00
KPS Special Situations Fund VI, L.P.	1.25 % of Assets	\$367,356	\$4,592	1.25
Oakley Capital VI	2.00 % of Assets	\$94,613	\$1,892	2.00

Performance Update | As of April 30, 2025

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee (%)
Credit		\$52,214,055	\$400,026	0.77
High Yield & Bank Loans		\$52,214,055	\$400,026	0.77
Sculptor Credit Opportunities Overseas Fund	Performance Based 1.00 % and 20.00 %	\$26,773,614	\$267,736	1.00
Brigade High Income Fund	0.52 % of Assets	\$25,440,441	\$132,290	0.52
Inflation Hedges		\$276,773,233	\$1,325,312	0.48
Real Estate		\$105,102,668	\$924,367	0.88
JP Morgan Asset Management Strategic Property Fund	0.91 % of Assets	\$44,980,729	\$409,325	0.91
UBS Trumbull Property Fund	0.96 % of First \$10 M 0.83 % of Next \$15 M 0.81 % of Next \$25 M 0.79 % of Next \$50 M 0.67 % of Next \$150 M 0.60 % of Next \$150 M 0.56 % of Next \$200 M 0.52 % Thereafter	\$19,879,731	\$177,008	0.89
Morgan Stanley Prime Property Fund	0.84 % of Assets	\$40,242,208	\$338,035	0.84
Natural Resources & Infrastructure		\$70,833,633	\$219,813	0.31
SSgA S&P Global LargeMidCap Natural Resources Index	0.10 % of Assets	\$53,306,643	\$53,307	0.10
JP Morgan Infrastructure Investments Fund	0.95 % of Assets	\$17,526,990	\$166,506	0.95
Gold		\$35,923,963	\$161,658	0.45
First Eagle Institutional Gold Fund, LP	0.45 % of Assets	\$35,923,963	\$161,658	0.45
Short-Term TIPS		\$64,912,969	\$19,474	0.03
Vanguard Short-Term TIPS Index	0.03 % of Assets	\$64,912,969	\$19,474	0.03
Risk Mitigation		\$269,942,721	\$753,648	0.28
Investment Grade Fixed Income		\$201,259,430	\$206,002	0.10
Intermediate-Term Bonds		\$151,935,178	\$191,205	0.13
SSgA US Aggregate Bond	0.02 % of Assets	\$38,636,188	\$7,727	0.02
Wellington Core Bond	0.12 % of Assets	\$85,346,730	\$102,416	0.12
Brandywine U.S. Fixed Income	0.29 % of Assets	\$27,952,260	\$81,062	0.29
Long-Term Bonds		\$49,324,252	\$14,797	0.03
SSgA Long US Treasury Index	0.03 % of Assets	\$49,324,252	\$14,797	0.03

Performance Update | As of April 30, 2025

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee (%)
Hedge Funds		\$51,368,373	\$547,646	1.07
36 South Kohinoor Series (Cayman) Fund	Performance Based 1.00 % and 20.00 %	\$13,940,776	\$139,408	1.00
BH-DG Systematic Trading Master Fund	0.93 % of Assets	\$14,328,766	\$133,258	0.93
Lombard Odier Bear Convexity	Performance Based 0.75 % and 27.50 %	\$6,142,208	\$46,067	0.75
Alpstone Global Macro Fund	Performance Based 1.35 % and 20.00 %	\$16,956,622	\$228,914	1.35
Cash		\$17,314,918	-	-
Cash		\$17,314,918	-	-

Benchmark History		
From Date	To Date	Benchmark
Total System		
01/01/2024	Present	14.0% Blmbg. U.S. Aggregate Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 4.0% Hedge Fund Custom Benchmark, 8.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 52.0% MSCI AC World IMI Index (Net), 5.0% Blmbg. U.S. TIPS 0-5 Year, 5.0% S&P Global LargeMid Commodity & Resources (Net), 2.0% S&P UBS Leveraged Loan Index, 3.0% 60% Gold (Spot)/ 40% FTSE Gold Mines, 5.0% MSCI ACWI + 3% 1Q Lag
12/01/2022	01/01/2024	14.0% Blmbg. U.S. Aggregate Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 4.0% HFRI Macro (Total) Index, 8.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 52.0% MSCI AC World IMI Index (Net), 5.0% Blmbg. U.S. TIPS 0-5 Year, 5.0% S&P Global LargeMid Commodity & Resources (Net), 2.0% S&P UBS Leveraged Loan Index, 3.0% 60% Gold (Spot)/ 40% FTSE Gold Mines, 5.0% MSCI ACWI + 3% 1Q Lag
05/01/2016	12/01/2022	30.0% Blmbg. U.S. Aggregate Index, 7.5% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 7.5% Alerian MLP Index, 55.0% MSCI AC World IMI Index (Net)
03/01/2016	05/01/2016	33.0% Russell 3000 Index, 30.0% Blmbg. U.S. Aggregate Index, 7.5% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 22.0% MSCI AC World ex USA (Net), 7.5% Alerian MLP Index
02/01/2013	03/01/2016	33.0% Russell 3000 Index, 35.0% Blmbg. U.S. Aggregate Index, 5.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 22.0% MSCI AC World ex USA (Net), 5.0% Alerian MLP Index
03/01/2011	02/01/2013	36.0% Russell 3000 Index, 35.0% Blmbg. U.S. Aggregate Index, 5.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 24.0% MSCI AC World ex USA (Net)
09/01/2009	03/01/2011	36.0% Russell 3000 Index, 40.0% Blmbg. U.S. Aggregate Index, 24.0% MSCI AC World ex USA (Net)
06/01/2009	09/01/2009	42.0% Russell 3000 Index, 40.0% Blmbg. U.S. Aggregate Index, 18.0% MSCI AC World ex USA (Net)
06/01/2006	06/01/2009	42.0% Russell 3000 Index, 40.0% Blmbg. U.S. Aggregate Index, 18.0% MSCI EAFE (Net)
07/01/2003	06/01/2006	60.0% S&P 500 Index, 40.0% Blmbg. U.S. Aggregate Index
10/01/2002	07/01/2003	55.0% S&P 500 Index, 45.0% Blmbg. U.S. Aggregate Index
10/01/1990	10/01/2002	50.0% S&P 500 Index, 50.0% Blmbg. U.S. Aggregate Index

Total Fund Public benchmark consists of 74% MSCI ACWI IMI / 26% Bloomberg US Aggregate. Historical Varies.

Total Fund Actual Allocation Benchmark reflects the asset classes set fourth in the Fund's investment policy statement, weighted for the Fund's actual investments and performance of the indexes referenced above.

Benchmark History		
From Date	To Date	Benchmark
Growth Assets		
12/01/2022	Present	91.0% MSCI AC World IMI Index (Net), 9.0% MSCI ACWI + 3% 1Q Lag
Global Equity		
05/01/2016	Present	100.0% MSCI AC World IMI Index (Net)
09/01/2009	05/01/2016	60.0% Russell 3000 Index, 40.0% MSCI AC World ex USA (Net)
06/01/2009	09/01/2009	70.0% Russell 3000 Index, 30.0% MSCI AC World ex USA (Net)
01/01/2006	06/01/2009	70.0% Russell 3000 Index, 30.0% MSCI EAFE (Net)
10/01/1990	01/01/2006	100.0% S&P 500 Index
Credit		
12/01/2022	Present	50.0% Blmbg. U.S. Corp: High Yield Index, 50.0% S&P UBS Leveraged Loan Index
High Yield & Bank Loans		
12/31/1992	Present	50.0% Blmbg. U.S. Corp: High Yield Index, 50.0% S&P UBS Leveraged Loan Index
Inflation Hedges		
12/01/2022	Present	38.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 24.0% Blmbg. U.S. TIPS 1-5 Year Index, 24.0% S&P Global LargeMid Commodity & Resources (Net), 14.0% 60% Gold (Spot)/ 40% FTSE Gold Mines
Risk Mitigation		
01/01/2024	Present	78.0% Blmbg. U.S. Aggregate Index, 22.0% Hedge Fund Custom Benchmark
12/01/2022	01/01/2024	78.0% Blmbg. U.S. Aggregate Index, 22.0% HFRI Macro (Total) Index
Hedge Funds		
01/01/2025	Present	33.3% HFRI Macro (Total) Index, 33.3% SG Trend Index, 33.3% HFR / EurekaHedge Long Volatility Blended Benchmark
01/01/2024	01/01/2025	33.3% HFRI Macro (Total) Index, 33.3% SG Trend Index, 33.3% CBOE EurekaHedge Long Volatility Hedge Fund Index
03/01/2023	01/01/2024	100.0% HFRI Macro (Total) Index

Appendix

Disclaimer, Glossary, and Notes

THIS REPORT (THE “REPORT”) HAS BEEN PREPARED FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE “RECIPIENT”).

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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security).

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} * (\text{market return} - \text{Risk Free Rate})]$.

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about its future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a “basis book.” For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

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

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

NCREIF Property Index (NPI): Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.
The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.