Employees’ Retirement System of the City of Norfolk

July 16, 2025

Investment Committee Meeting

Agenda

1. **Economic and Market Update**
2. **Executive Summary**
3. **Performance Summary**
   - May 31, 2025
4. **Asset Allocation Review**
5. **Appendices**
   - Artisan Termination
   - Private Credit Primer
   - Corporate Update
   - Disclaimer, Glossary, and Notes

Economic and Market Update

Data as of May 31, 2025

Commentary

Tariff related uncertainty declined in May and lifted global equity markets, but renewed concerns over the level of national debt emerged as a headwind for fixed income markets.

→ Domestic equities rallied in May (Russell 3000: +6.3%), with growth stocks particularly in the technology sector leading the way.

→ Non-US developed market stocks (MSCI EAFE: +4.6%) lagged US markets in May but led most asset classes year-to-date returning +16.9%.

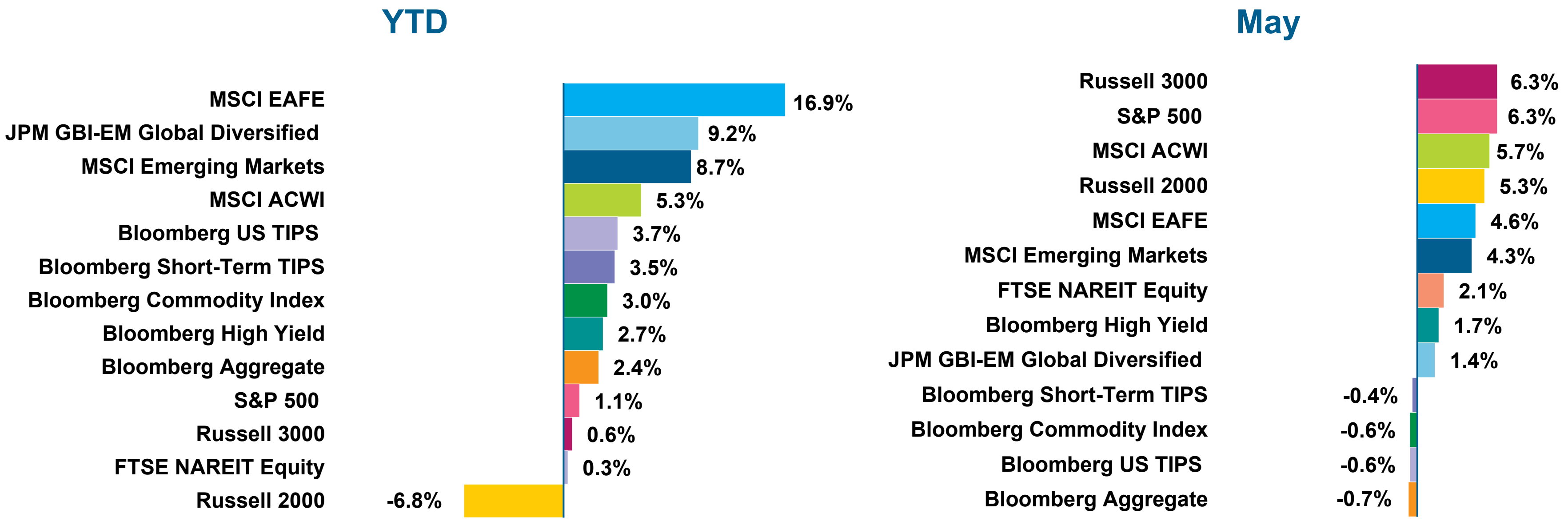
→ Emerging market equities returned +4.3% for the month, with a +2.7% return in China weighing on overall results.

→ In early May, the Federal Reserve held rates steady, with inflation, while improving, remaining above target and the unemployment rate remaining low.

→ Most fixed income markets dropped in May, with the broad Bloomberg Aggregate Index returning -0.7%, long Treasuries falling 2.9%, and TIPS declining 0.6%. Riskier bonds did better as risk sentiment improved with high yield bonds gaining 1.7% and emerging market debt increasing 1.4%.

→ 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 track of the US deficit, China’s economy and relations with the US, as well as concerns over elevated valuations and weakening earnings in the US equity market, will also be important focuses for the rest of this year.

Index Returns[1]



- After tariff-related market volatility in April, global equity markets rallied in May on the announcement of a 90-day agreement between the US and China to pause reciprocal tariffs. Bond markets fell on concerns over growing debt levels globally.
- US equity markets delivered the strongest returns in May, returning year-to-date performance to positive territory after a very weak start to 2025. International equities, particularly developed markets, added to their strong results for the year, supported by a weakening US dollar.

[1] Source: Bloomberg. Data is as of May 31, 2025.

Domestic Equity Returns[1]

Domestic Equity	May (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	6.3	5.6	1.1	13.5	14.4	15.9	12.8
Russell 3000	6.3	5.6	0.6	13.1	13.8	15.3	12.2
Russell 1000	6.4	5.8	1.0	13.7	14.3	15.6	12.6
Russell 1000 Growth	8.8	10.8	-0.3	17.6	19.8	17.7	16.1
Russell 1000 Value	3.5	0.4	2.5	8.9	8.2	13.0	8.6
Russell MidCap	5.7	4.6	1.1	10.3	9.1	12.7	9.2
Russell MidCap Growth	9.6	13.3	5.2	23.2	16.7	12.2	11.5
Russell MidCap Value	4.4	1.8	-0.4	6.0	5.9	13.2	7.7
Russell 2000	5.3	2.9	-6.8	1.2	5.0	9.6	6.6
Russell 2000 Growth	6.4	5.7	-6.0	3.5	7.9	7.0	6.7
Russell 2000 Value	4.2	0.0	-7.7	-1.1	2.1	12.0	6.2

US Equities: The Russell 3000 returned 6.3% in May.

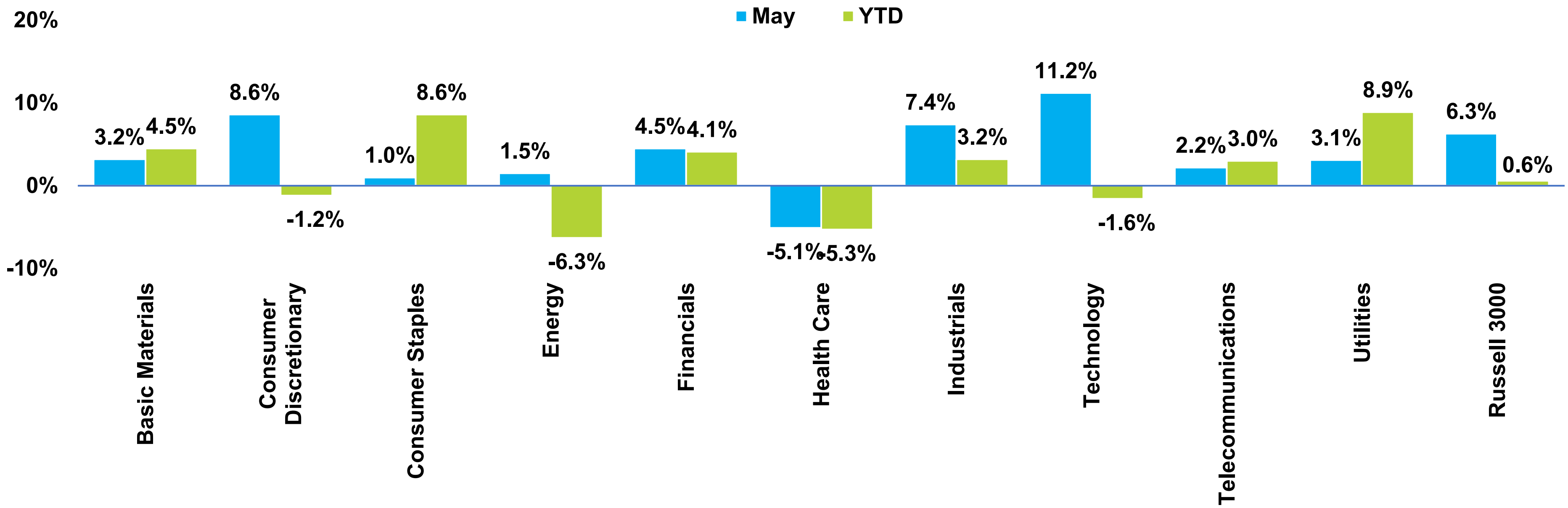
→ US stocks rallied 6.3% in May as trade tensions eased. The bulk of the gains came after an agreement between the US and China to temporarily suspend their tariffs on May 12. The Russell 3000 index appreciated 3.3% on that day alone.

→ Except for Apple, the “Magnificent 7” stocks drove the broad indices higher. NVIDIA was the top contributor in the Russell 3000 index: the stock appreciated 24% in May, powered by a strong first quarter earnings report.

→ Growth stocks outperformed value stocks across the market capitalization spectrum for the month, a continuation of the year-to-date trend in large and small capitalization markets. In the mid cap space, growth stocks have outperformed value stocks year to date, largely due to a single stock: Palantir Technologies.

[1] Source: Bloomberg. Data is as of May 31, 2025.

Russell 3000 Sector Returns[1]



- In a reversal of the trend so far in 2025 technology stocks led the way in May driven by the so-called "Magnificent 7" stocks. According to FactSet, the first quarter earnings of these companies exceeded estimates by 14.9%, compared to 8.2% for the remainder of the S&P 500.
- Consumer discretionary was the next leading sector, almost exclusively due to gains by Tesla and Amazon.
- Health Care had the weakest results. Eli Lilly, despite reporting a reasonably strong first quarter, was the sector's largest detractor. Investors became wary of the competition in the GLP-1 space, mainly from Novo Nordisk.
- For the year, defensive sectors like utilities and consumer staples continued to lead the way.

[1] Source: Bloomberg. Data is as of May 31, 2025.

Foreign Equity Returns[1]

Foreign Equity	May (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI Ex US	4.6	8.4	14.0	13.8	9.4	10.4	5.5
MSCI EAFE	4.6	9.4	16.9	13.3	11.5	11.4	6.0
MSCI EAFE (Local Currency)	4.7	4.6	7.6	7.2	10.9	12.2	6.5
MSCI EAFE Small Cap	5.6	11.7	15.9	13.8	7.5	8.6	5.9
MSCI Emerging Markets	4.3	5.6	8.7	13.0	5.1	7.1	3.9
MSCI Emerging Markets (Local Currency)	3.1	2.9	5.6	12.2	7.0	8.3	5.7
MSCI EM ex China	4.9	9.0	7.1	8.5	5.9	11.2	5.3
MSCI China	2.7	-1.6	13.1	26.5	4.0	0.0	1.2

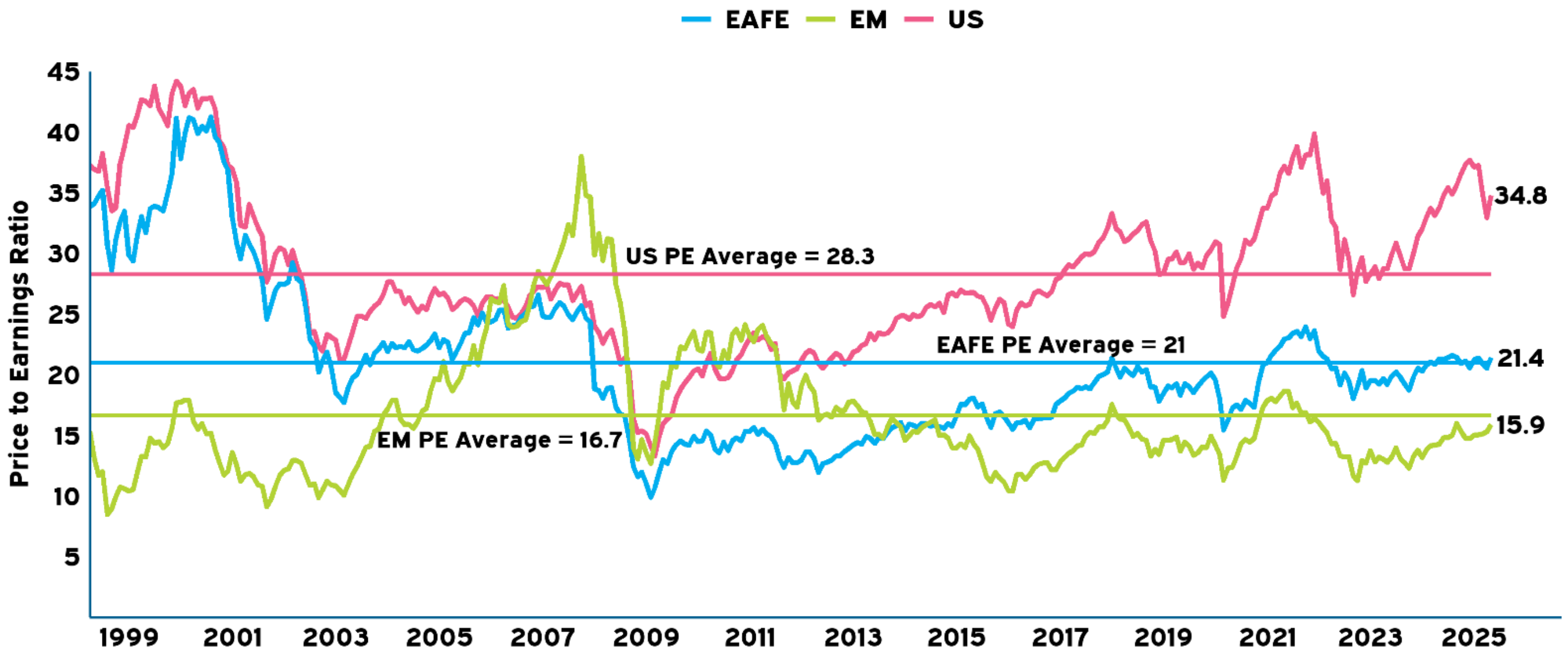
Foreign Equity: Developed international equities (MSCI EAFE) returned 4.6% in May and emerging market equities (MSCI Emerging Markets) rose 4.3%.

→ Developed markets saw solid returns in May but lagged their US peers. Eurozone equities benefitted from expectations of fiscal support and positive earnings revisions, although a drop in PMIs and continued US trade uncertainty weighed on returns. The UK lagged Eurozone peers, benefitting early in the month from a rate cut before a jump in inflation dampened excitement. Japan saw the strongest performance among developed ex- US markets, bolstered by strong earnings for large cap exporters and promising US-China trade negotiations.

→ Emerging markets also performed well particularly in dollar terms but lagged developed counterparts slightly. While Chinese equities benefitted from a temporary tariff agreement they continued to face headwinds from a slowing economy. India underperformed emerging market peers after several months of strong returns, while Korea and Taiwan were among the strongest performers in May on renewed enthusiasm around AI.

[1] Source: Bloomberg. Data is as of May 31, 2025.

Equity Cyclically Adjusted P/E Ratios[1]



- After a considerable pullback to start the year, US stock valuations rose in May and continued to trade well above their long-run cyclically adjusted P/E average of 28.3.
- While non-US developed stocks performed very well at the start of 2025, at the end of May their valuations remain close to their long-run P/E ratio of 21.
- Emerging market equities continue to trade below their long-run P/E average of 16.7 despite the recent rally.

[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 May 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 Returns[1]

Fixed Income	May (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-0.5	-0.2	2.5	5.8	2.1	-0.3	1.8	4.9	5.9
Bloomberg Aggregate	-0.7	-0.3	2.4	5.5	1.5	-0.9	1.5	4.7	6.1
Bloomberg US TIPS	-0.6	-0.5	3.7	5.7	0.9	1.6	2.5	4.3	6.6
Bloomberg Short-term TIPS	-0.4	0.4	3.5	6.6	3.3	3.8	2.8	4.1	2.4
Bloomberg US Long Treasury	-2.9	-3.9	0.6	0.7	-5.0	-8.6	-0.5	4.9	14.7
Bloomberg High Yield	1.7	1.7	2.7	9.3	6.8	5.8	5.0	7.5	3.3
JPM GBI-EM Global Diversified (USD)	1.4	4.7	9.2	9.5	5.9	1.4	1.7	--	--

Fixed Income: The Bloomberg Universal index declined 0.5% in May.

→ In the bond market easing trade tensions were offset by rising concerns over expansionary US fiscal policies in May.

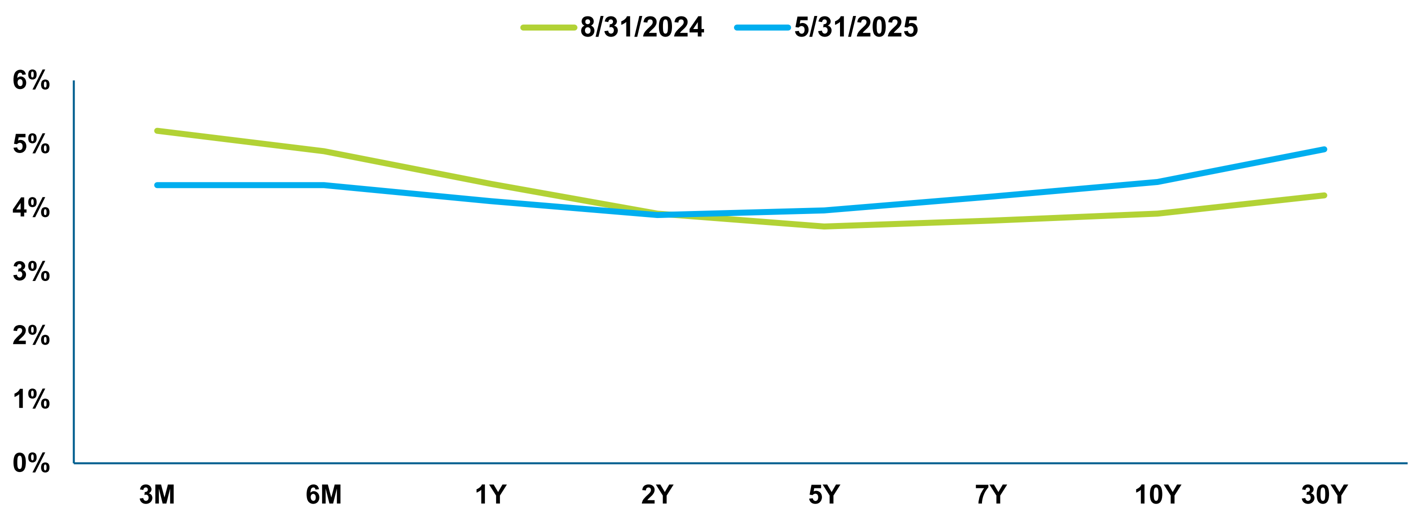
→ Rising Treasury yields weighed on the broad US bond market with the Bloomberg Aggregate declining 0.7% for the month. Long-term Treasuries (-2.9%) were the worst performer in the rising rate environment.

→ Short (-0.4%) and longer dated (-0.6%) TIPS also fell as economic uncertainty remained elevated, but growth expectations improved.

→ Given the improving risk sentiment high yield (+1.7%) and emerging market debt (+1.4%) had the best results in May.

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

US Yield Curve[1]

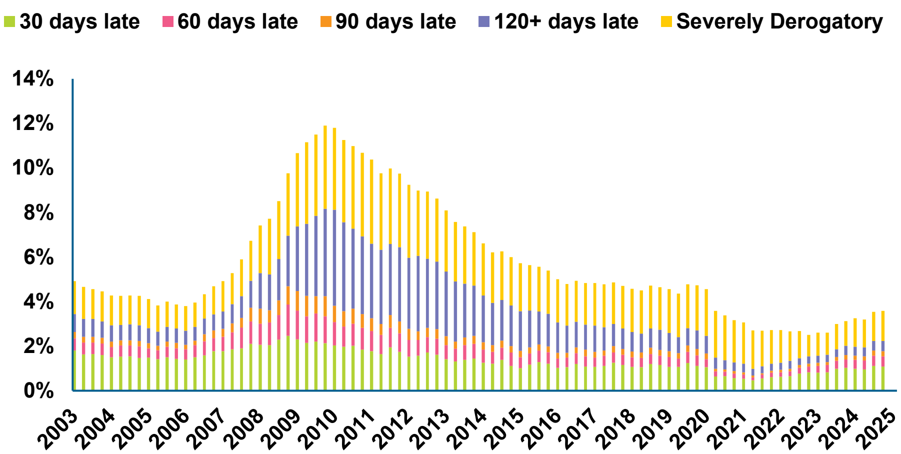


- In the bond market, relief over a de-escalation in tariff tensions quickly switched to fiscal concerns related to a growing US government debt load and interest expense. The related headline of Moody's cutting the US credit rating added to bond market volatility during the month.
- In May the policy sensitive two-year Treasury yield increased to 3.9% by month end on reduced Fed rate cute expectations. Longer dated bonds were particularly impacted by fiscal concerns with both ten-year (4.2% to 4.4%) and thirty-year (4.7% to 4.9%) Treasury yields rising over the month.
- After the Fed started reducing interest rates in September 2024, the yield curve stopped being inverted (short-term interest rates higher than long-term interest rates) as this reduced short-term rates while long-term rates have been influenced by growth and inflation expectations and recently concerns over the US fiscal situation.

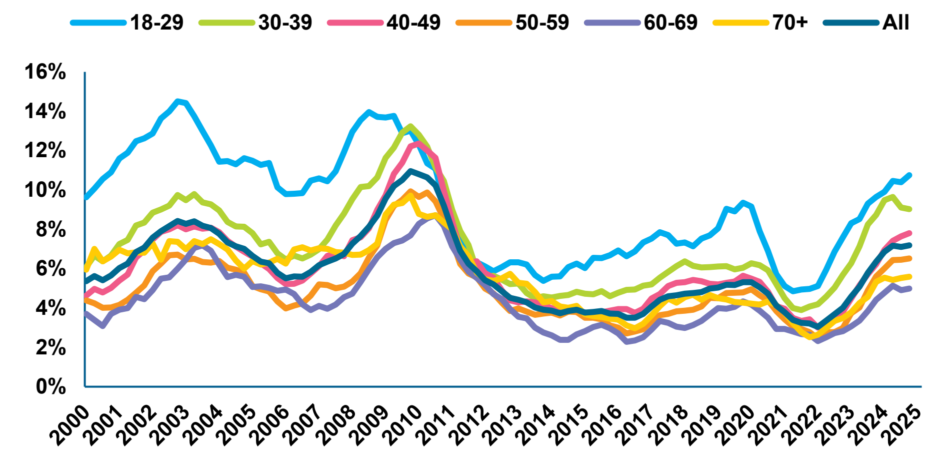
[1] Source: Bloomberg. Data is as of May 31, 2025. The August 2024 Treasury yields are shown as a reference before the first interest rate cut.

Stress is Building on US Consumers

Total Balance by Delinquency Status[1]



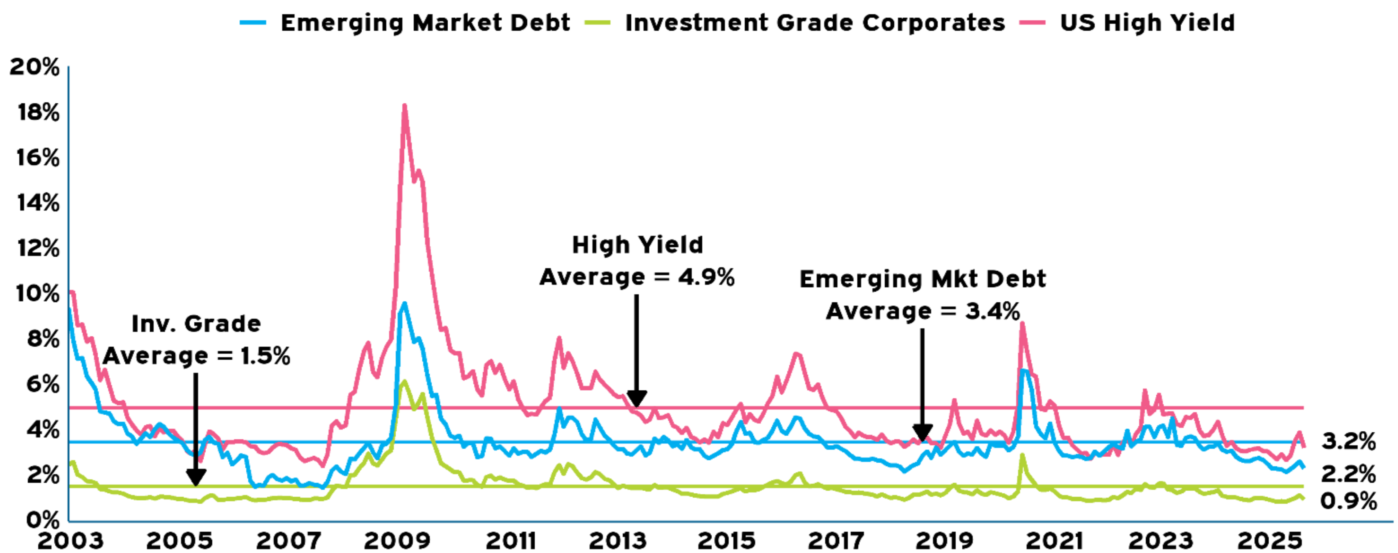
Transition into Serious Delinquency for Credit Cards by Age[2]



- → 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.
- → Parts of the credit market have started to show stress, but total delinquencies are well below pre-pandemic levels.
- → While total delinquency rates are below pre-pandemic levels, the credit card segment is showing more signs of distress as borrowers are subject to variable and higher borrowing costs.
- → Credit card delinquencies are rising rapidly, especially for borrowers under the age of forty.
- → The restarting of student loan payments and reporting for those in default could add additional pressures to consumers going forward.

[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.

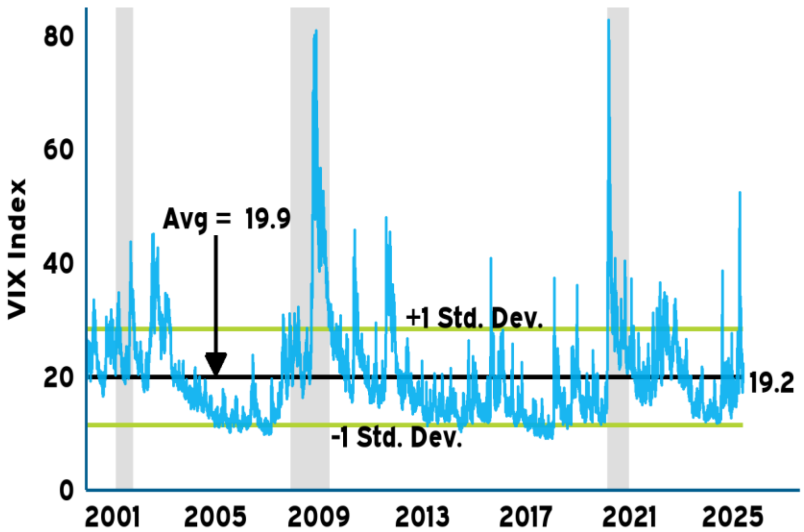
Credit Spreads vs. US Treasury Bonds[1]

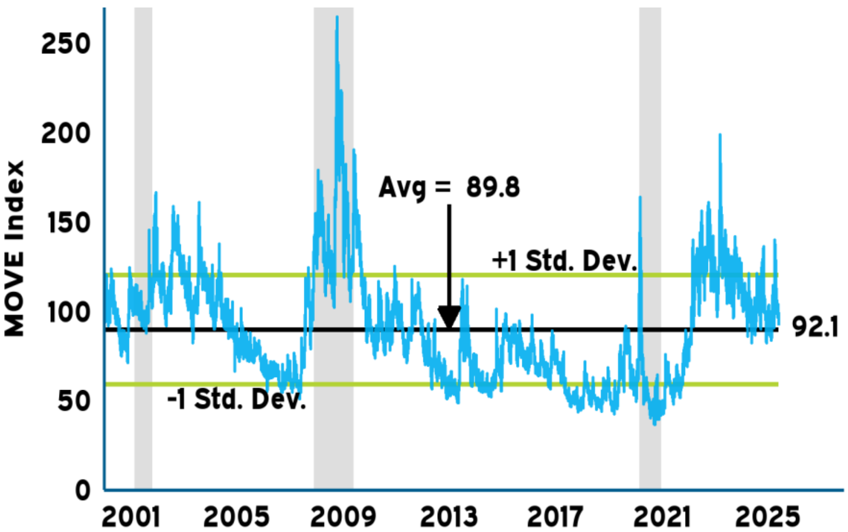


- As Treasury yields rose and risk sentiment improved credit spreads narrowed in May.
- Investment grade spreads (the difference in yield from a comparable Treasury) spiked in the risk-off environment in April but have largely returned to prior levels.
- High yield spreads moved the most (3.8% to 3.2%) in May. At the peak of uncertainty in April, they crossed above 4.5%. Emerging market spreads declined (2.5% to 2.2%) over the month of May.
- All yield spreads remained below their respective long-run averages, particularly high yield (3.2% versus 4.9%).

[1] Source: Bloomberg. Data is as May 31, 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 Volatility[1]

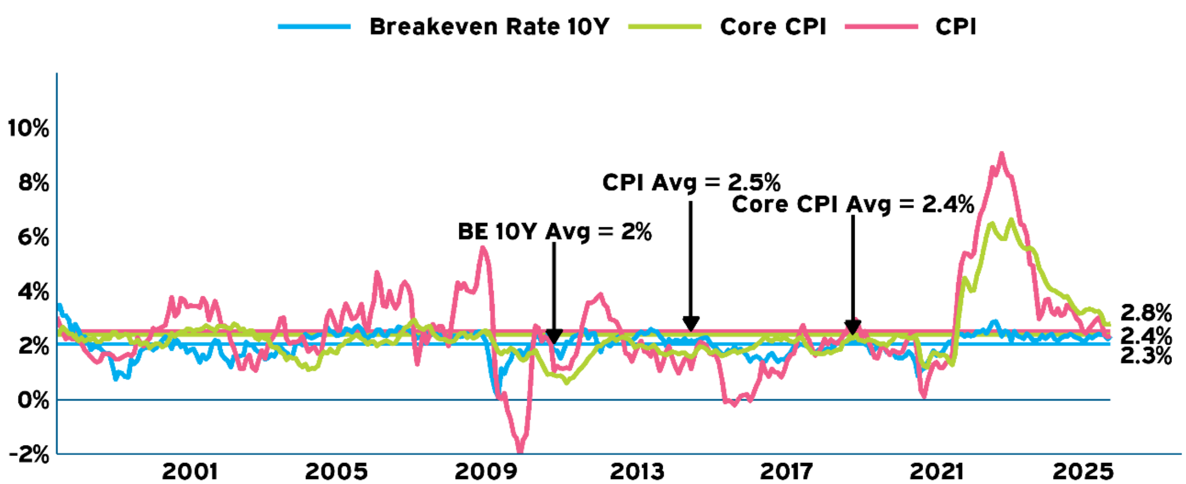




- Bond and equity volatility spiked in April after the "Liberation Day" tariff announcement. Volatility levels finished well off their highs, though, in May, as the new tariffs were subsequently put on hold for 90 days for many countries to allow time for negotiations.
- Volatility levels (VIX) in the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

[1] Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of May 31, 2025. The average line indicated is the average of the VIX and MOVE values between January 2000 and May 2025.

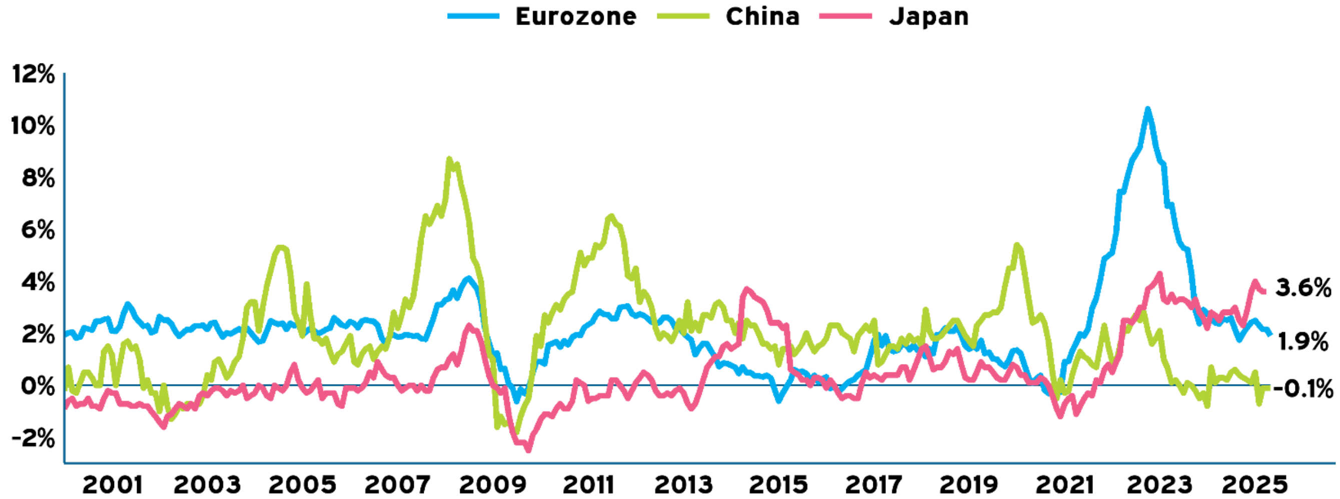
US Ten-Year Breakeven Inflation and CPI[1]



- Inflation has been slow to return to the Fed's 2% average target, with headline twelve-month inflation rising slightly from 2.3% to 2.4% in May matching expectations. For the month, shelter rose 0.3% and was the primary factor in the monthly increase with food prices rising a similar amount and energy falling 1.0% on lower gas prices.
- Core inflation year-over-year held steady at 2.8% in May (slightly below expectations for a 2.9% reading). For the month it increased 0.1%, down from the 0.2% level in April. Shelter, medical care, and transportation (particularly motor vehicle insurance) all rose while car and apparel prices fell.
- While tariff related price rises were not evident in the May inflation data, underlying price pressures in shelter and services continue to be headwinds for consumer prices.
- Inflation expectations (breakevens) rose slightly in May from 2.2% to 2.3% given on-going tariff uncertainty and expansionary fiscal policy.

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



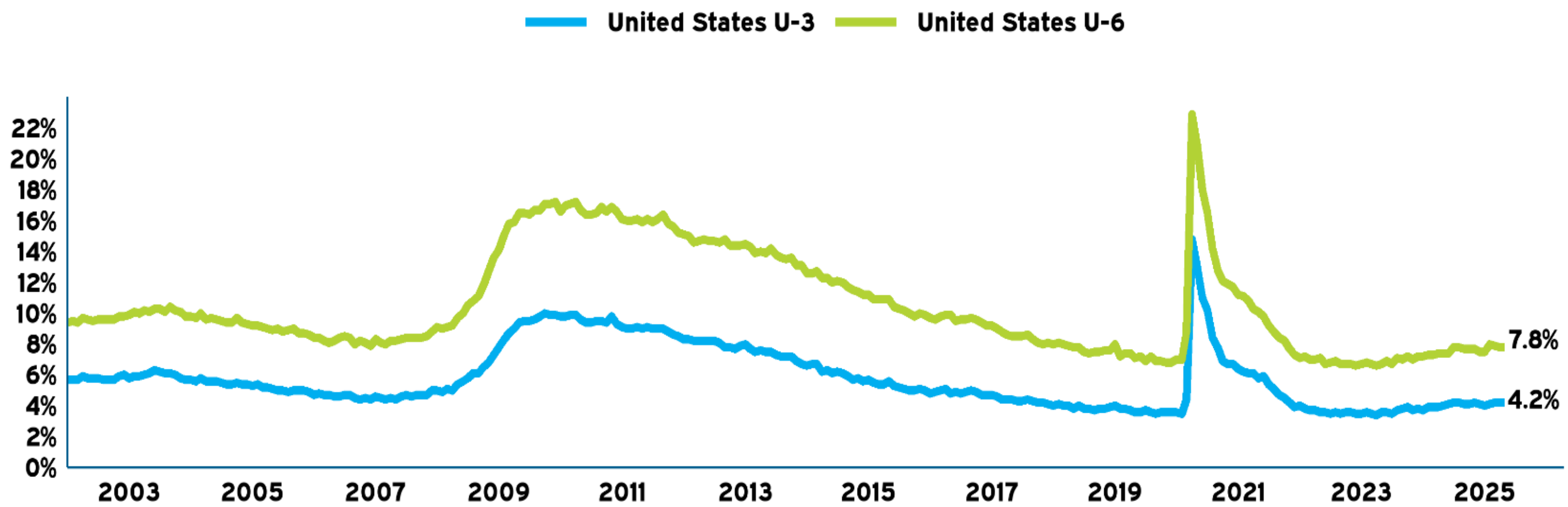
→ Inflation in the eurozone fell below its 2% target in May, rising 1.9% year-on-year largely due to a significant decline in services inflation. Given reduced inflation pressures, markets expect the ECB to cut interest rates once more by early next year.

→ The potential impact of future tariffs has complicated the inflation outlook for the Bank of Japan. Inflation rose 3.6% in May (the same rate as in April) driven by food prices with the cost of rice up 98% yoy given weak harvests.

→ In China, despite record policy stimulus, consumer prices declined for the fourth month in a row. During the month, prices fell by 0.1% compared to a year prior, highlighting the widespread weakness of the economy and ongoing trade uncertainty related to the US.

[1] Source: Bloomberg. Data is as May 2025, except Japan which is as of April 2025.

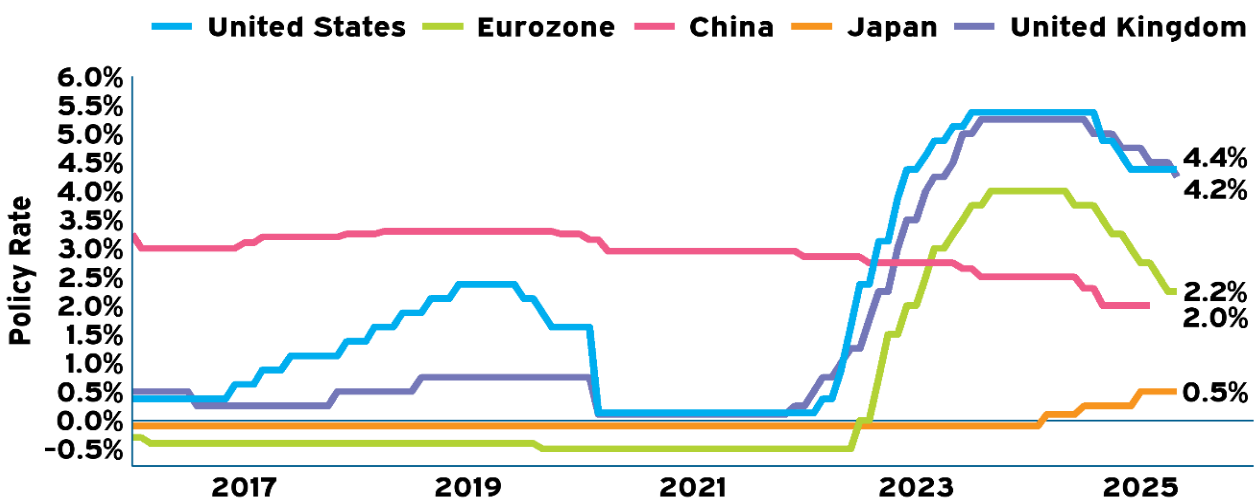
US Unemployment[1]



- In May, the US added 139,000 jobs (above expectations of 126,000); the unemployment rate held steady at 4.2% with 7.2 million unemployed.
- Health care added 62,000 jobs (close to 20,000 more than the recent trend), leisure and hospitality added 48,000 jobs, and social assistance added 16,000 jobs in May. Federal employees lost 22,000 jobs in May, bringing total losses to 59,000 since the start of the year.
- May hires (5.6M) outnumbered separations (5.3M) with quits (3.2M) exceeding layoffs (1.8M).
- Initial claims for unemployment remain relatively low and annual wage growth, although tracking down, is close to 4.0%.

[1] Source: FRED and BLS. Data is as of May 31, 2025.

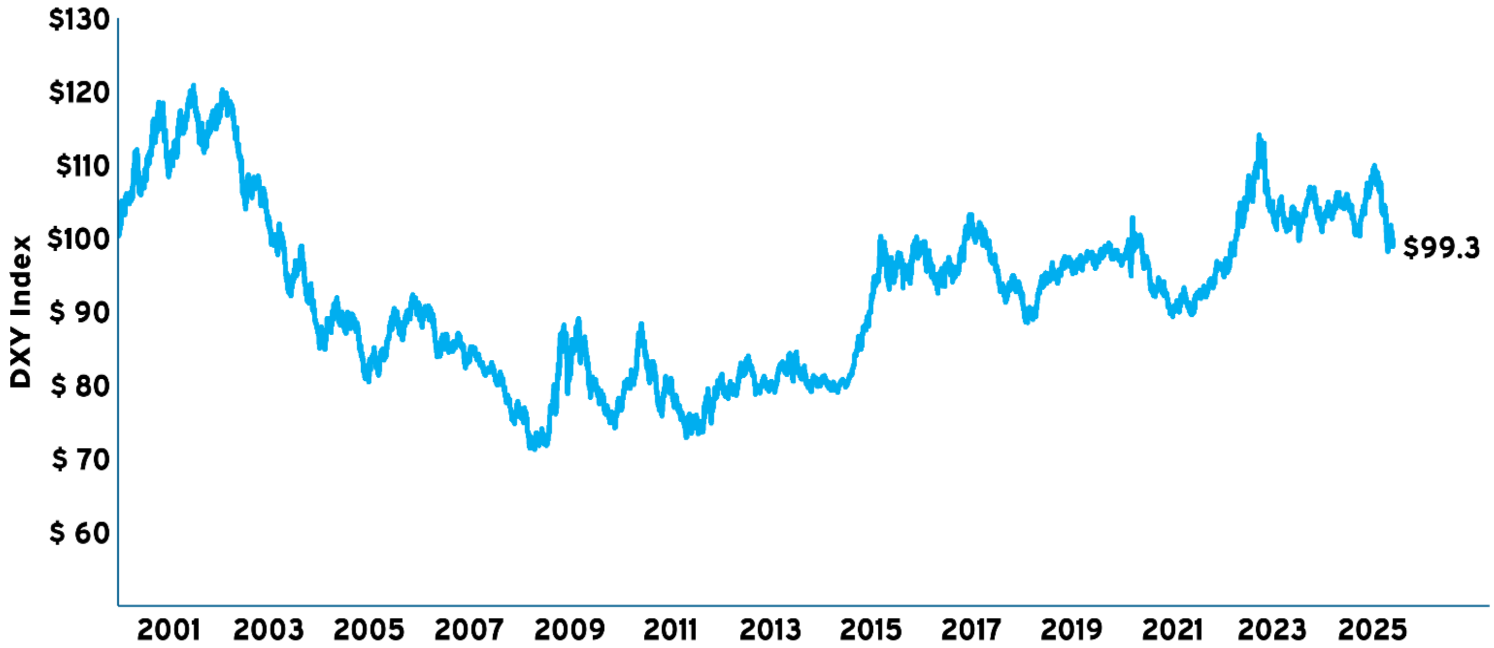
Global Policy Rates[1]



- While the Fed remains on hold, other central banks have continued to ease policy rates. Expectations are now for the Fed to cut rates roughly two times this year, down from four expected cuts during the heart of growth concerns.
- In May, the Bank of England cut interest rates for the fourth time, by 0.25% to 4.25%, while in May the European Central Bank cut rates by another 0.25% to 2.0%. 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. Future rate hikes and/or quantitative tightening are anticipated in the coming months, while rate cutting by other major central banks complicate prospects for further policy rate hikes in Japan.

[1] Source: Bloomberg. Data is as of May 31, 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 Currencies[1]



→ After several years of appreciation against a basket of currencies, the US dollar continued to weaken in May.

→ Typically, higher interest rates support the US dollar but recent concerns over changing US administration policies, potentially slower growth, and fiscal concerns all led to investors shedding US assets.

[1] Source: Bloomberg. Data as of May 31, 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, questions remain. Overall higher tariff levels and continued uncertainty could weigh on growth while at the same time increasing prices. 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. The recent resumption of collecting and reporting delinquent student loans could be a further headwind to consumption.
- US equities have now recovered from losses during the first week of April and are approaching all- time highs. 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 agreed to 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 May, US equities rose as tariff related uncertainty eased. Fixed income markets saw increased volatility due to rising concerns over the national debt.
- The table below reflects the latest valuation data through May 2025.

NERS	May 31, 2025	April 30, 2025	March 31, 2025	June 30, 2024
Total Fund Balance	$1.38 Billion	$1.35 Billion	$1.35 Billion	$1.32 Billion
Funded Status	89%	87%	87%	85%
NERS Assumed Rate of Return	6.75%	6.75%	6.75%	6.75%
FYTD Rate of Return	8.0%	5.0%	4.6%	10.4%
12 Months Trailing Rate of Return	9.0%	8.7%	6.0%	10.4%
Monthly Rate of Return	2.9%	0.4%	-1.2%	0.9%
Monthly Gains/Losses	+$40.3 million	$5.3 million	-$16.6 million	$12.0 million
Monthly Net Cash Flow	-$8.0 million	-$8.2 million	-$8.5 million	-$8.2 million

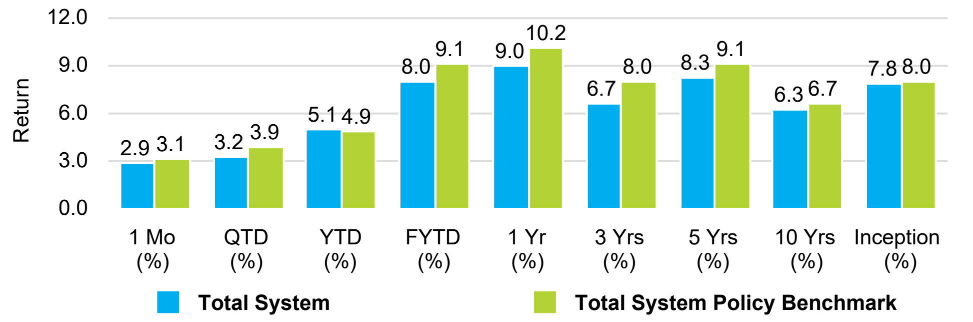
- The Actuarial Determined Contribution rates for Fiscal Year 2025 are:
  - NERS: $34.4 million
  - VRS: 7.84%
- As of May 31, the System was inside of its target asset allocation ranges for all asset classes.

Performance Summary

Portfolio Objective

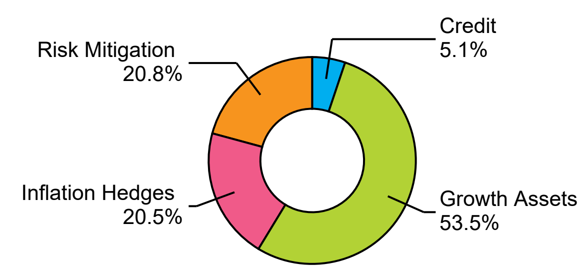
The Employees' Retirement System of the City of Norfolk is a long-term investor whose objective is to enable the System to provide retirement income for plan participants and beneficiaries. The System's strategy is to generate a return that meets the long-term return objective, while minimizing volatility.

Return Summary



	1 Mo (%)	QTD (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Total System	2.9	3.2	5.1	8.0	9.0	6.7	8.3	6.3	7.8	10/01/1990
Total System Policy Benchmark	3.1	3.9	4.9	9.1	10.2	8.0	9.1	6.7	8.0	

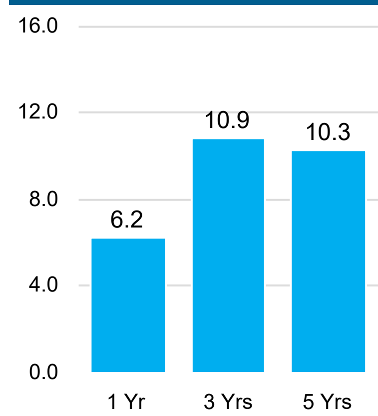
Current Allocation



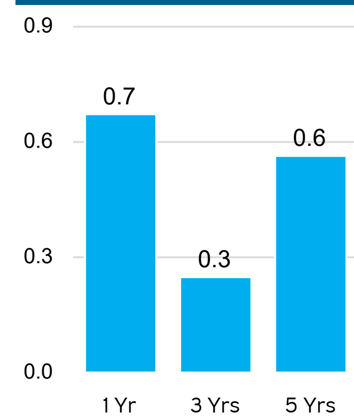
Summary of Cash Flows

	Last Month	Year-To-Date	One Year
Total System			
Beginning Market Value	1,350,997,704	1,354,588,745	1,317,866,233
Net Cash Flow	-8,004,112	-40,915,729	-55,221,149
Net Investment Change	40,255,013	69,575,589	120,512,886
Ending Market Value	1,383,248,605	1,383,248,605	1,383,248,605

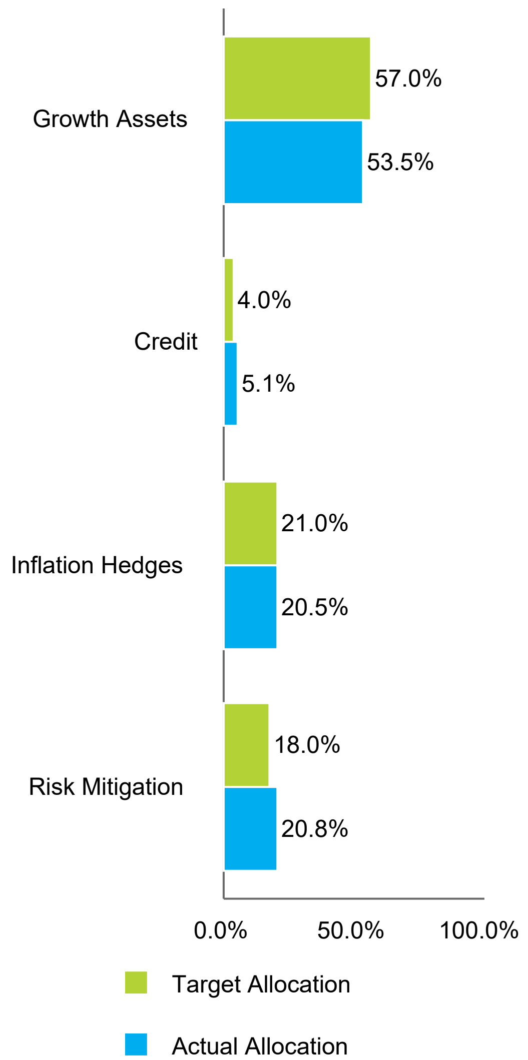
Annualized Standard Deviation



Sharpe Ratio

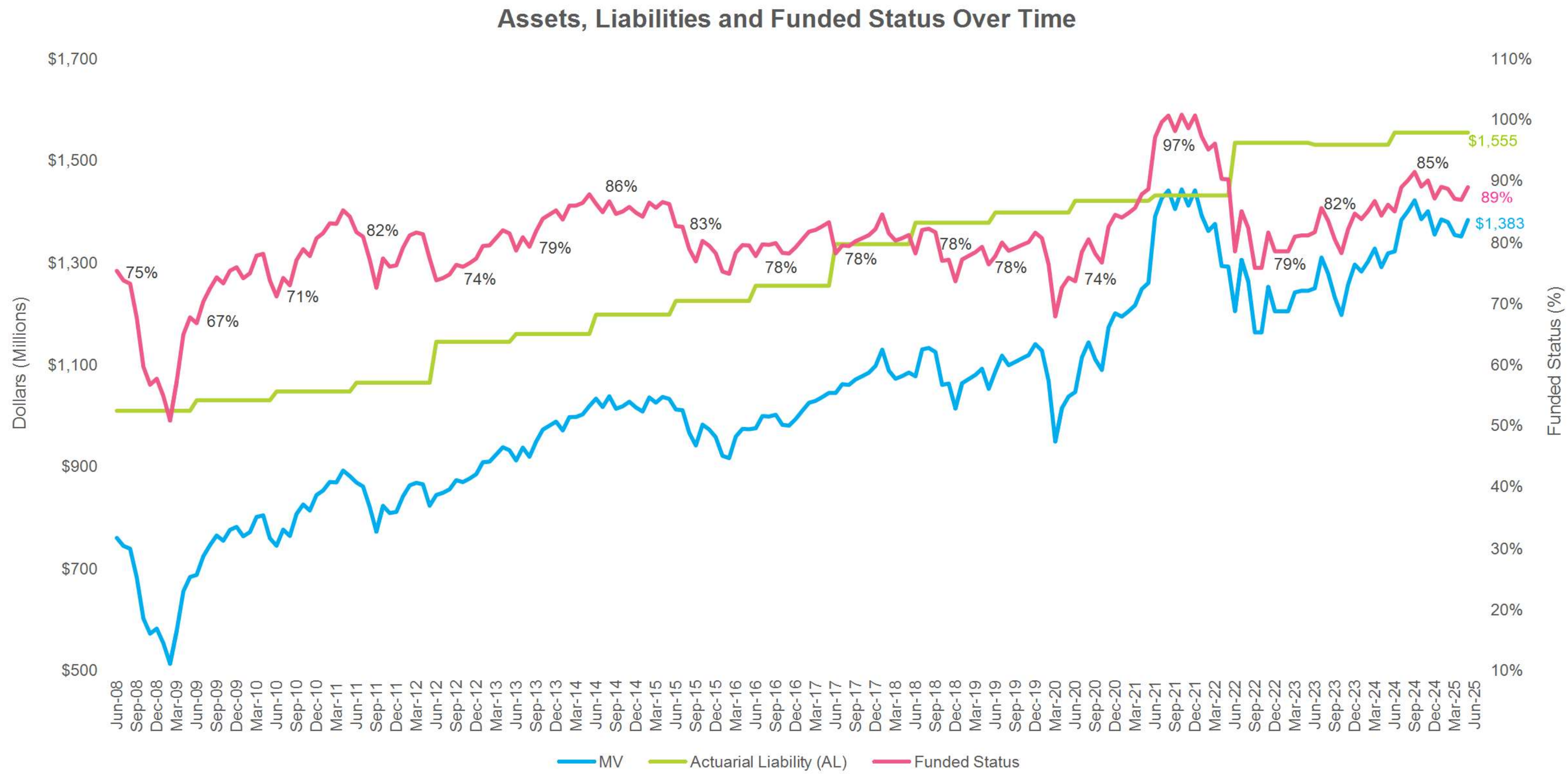


Actual vs. Target Allocation



Allocation vs. Targets and Policy

	Current Balance	Current Allocation (%)	Policy (%)	Policy Range (%)	Within IPS Range?
Growth Assets	**$740,514,948**	**53.5**	**57.0**	**47.0 - 67.0**	**Yes**
Global Equity	$733,217,497	53.0	52.0	42.0 - 62.0	Yes
Private Equity	$7,297,451	0.5	5.0	0.0 - 10.0	Yes
Credit	**$71,234,279**	**5.1**	**4.0**	**0.0 - 9.0**	**Yes**
High Yield & Bank Loans	$71,234,279	5.1	4.0	0.0 - 9.0	Yes
Inflation Hedges	**$284,106,492**	**20.5**	**21.0**	**14.0 - 28.0**	**Yes**
Real Estate	$105,365,669	7.6	8.0	3.0 - 13.0	Yes
Natural Resources & Infrastructure	$72,632,504	5.3	5.0	0.0 - 10.0	Yes
Gold	$36,409,277	2.6	3.0	0.0 - 6.0	Yes
Short-Term TIPS	$69,699,042	5.0	5.0	0.0 - 10.0	Yes
Risk Mitigation	**$287,392,885**	**20.8**	**18.0**	**11.0 - 25.0**	**Yes**
Investment Grade Fixed Income	$234,077,605	16.9	14.0	7.0 - 21.0	Yes
Hedge Funds	$50,484,378	3.6	4.0	0.0 - 9.0	Yes
Cash	$2,830,902	0.2	0.0	0.0 - 3.0	Yes
Total	**$1,383,248,605**	**100.0**	**100.0**		



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 April 2025 and 89% in May 2025.

Asset Class Performance Summary

	Market Value ($)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total System	1,383,248,605	100.0	2.9	3.2	5.1	8.0	9.0	6.7	8.3	6.3	7.8	Oct-90
Total System Policy Benchmark			3.1	3.9	4.9	9.1	10.2	8.0	9.1	6.7	8.0	
Total Fund Actual Allocation Benchmark			3.3	4.0	5.1	8.9	9.9	--	--	--	--	
Total Fund Public Benchmark			4.1	4.9	4.5	9.3	11.0	9.0	8.5	6.7	8.1	
Growth Assets	740,514,948	53.5	5.3	6.0	5.6	9.4	11.1	--	--	--	14.2	Dec-22
Growth Assets Custom Benchmark			5.2	6.5	4.9	11.3	13.5	--	--	--	15.9	
Global Equity	733,217,497	53.0	5.4	6.0	5.6	9.5	11.1	10.8	12.8	9.1	9.2	Oct-90
Global Equity Policy Benchmark			5.8	6.8	5.1	10.9	12.9	11.7	13.1	9.0	9.6	
Private Equity	7,297,451	0.5										
MSCI ACWI + 3% 1Q Lag			-0.4	3.2	3.0	14.6	18.5	--	--	--	19.9	
Credit	71,234,279	5.1	1.8	1.6	3.7	7.4	7.9	--	--	--	9.3	May-23
Credit Custom Benchmark			1.5	1.5	2.3	7.4	8.0	--	--	--	9.4	
High Yield & Bank Loans	71,234,279	5.1	1.8	1.6	3.7	7.4	7.9	--	--	--	9.3	May-23
High Yield & Bank Loans Custom Benchmark			1.5	1.5	2.3	7.4	8.0	--	--	--	9.4	
Inflation Hedges	284,106,492	20.5	0.8	1.3	7.5	10.3	9.7	--	--	--	1.6	Dec-22
Inflation Hedges Custom Benchmark			0.8	1.3	8.0	8.5	7.2	--	--	--	1.8	
Real Estate	105,365,669	7.6	0.2	0.0	1.1	5.7	6.6	-5.0	0.4	3.0	5.5	Apr-11
NCREIF ODCE (Net)			0.0	0.0	0.9	1.8	1.2	-5.1	2.0	4.7	6.7	
Natural Resources & Infrastructure	72,632,504	5.3	2.5	0.5	7.3	3.1	0.6	--	--	--	2.8	Apr-23
S&P Global LargeMidcap Resources & Commodities NR USD			3.3	0.6	8.9	1.6	-2.4	--	--	--	1.3	
Gold	36,409,277	2.6	1.4	7.1	34.5	45.7	42.7	--	--	--	23.9	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			1.0	7.4	35.3	46.3	44.9	--	--	--	26.1	
Short-Term TIPS	69,699,042	5.0	-0.4	0.4	3.5	6.0	6.6	--	--	--	5.1	Mar-23
Blmbg. U.S. TIPS 0-5 Year			-0.4	0.4	3.5	5.9	6.6	--	--	--	5.6	
Risk Mitigation	287,392,885	20.8	-1.3	-1.7	1.0	1.5	2.0	--	--	--	2.1	Dec-22
Risk Mitigation Custom Benchmark			-0.7	-0.5	1.5	2.9	3.4	--	--	--	2.9	
Investment Grade Fixed Income	234,077,605	16.9	-1.2	-1.2	1.8	3.4	4.6	0.9	-1.1	1.4	5.0	Oct-90
Blmbg. U.S. Aggregate Index			-0.7	-0.3	2.4	4.5	5.5	1.5	-0.9	1.5	5.0	
Intermediate-Term Bonds	186,169,774	13.5	-0.7	-0.4	2.3	4.7	5.7	2.0	-0.5	1.8	5.1	Oct-90
Blmbg. U.S. Aggregate Index			-0.7	-0.3	2.4	4.5	5.5	1.5	-0.9	1.5	5.0	
Long-Term Bonds	47,907,831	3.5	-2.9	-3.9	0.6	-1.0	0.7	--	--	--	-2.0	Mar-23
Blmbg. U.S. Treasury: Long			-2.9	-3.9	0.6	-0.9	0.7	--	--	--	-1.9	
Hedge Funds	50,484,378	3.6	-1.7	-3.9	-2.8	-5.7	-6.8	--	--	--	-1.6	Apr-23
Hedge Fund Custom Benchmark			-0.9	-1.0	-1.8	-2.7	-3.7	--	--	--	1.6	
Cash	2,830,902	0.2										

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

Trailing Net Performance

	Market Value ($)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total System	**1,383,248,605**	**100.0**	**2.9**	**3.2**	**5.1**	**8.0**	**9.0**	**6.7**	**8.3**	**6.3**	**7.8**	**Oct-90**
Total System Policy Benchmark			*3.1*	*3.9*	*4.9*	*9.1*	*10.2*	*8.0*	*9.1*	*6.7*	*8.0*	
Total Fund Actual Allocation Benchmark			*3.3*	*4.0*	*5.1*	*8.9*	*9.9*	--	--	--	--	
Total Fund Public Benchmark			*4.1*	*4.9*	*4.5*	*9.3*	*11.0*	*9.0*	*8.5*	*6.7*	*8.1*	
Growth Assets	**740,514,948**	**53.5**	**5.3**	**6.0**	**5.6**	**9.4**	**11.1**	**--**	**--**	**--**	**14.2**	**Dec-22**
Growth Assets Custom Benchmark			*5.2*	*6.5*	*4.9*	*11.3*	*13.5*	--	--	--	*15.9*	
Global Equity	**733,217,497**	**53.0**	**5.4**	**6.0**	**5.6**	**9.5**	**11.1**	**10.8**	**12.8**	**9.1**	**9.2**	**Oct-90**
Global Equity Policy Benchmark			*5.8*	*6.8*	*5.1*	*10.9*	*12.9*	*11.7*	*13.1*	*9.0*	*9.6*	
SSgA Russell 1000 Growth Index	20,989,542	1.5	8.8	10.8	-0.3	10.1	17.5	--	--	--	28.9	Mar-23
Russell 1000 Growth Index			*8.8*	*10.8*	*-0.3*	*10.2*	*17.6*	--	--	--	*29.0*	
SSgA Russell 1000 Value Index	41,293,502	3.0	3.5	0.4	2.5	9.9	8.8	--	--	--	11.9	Mar-23
Russell 1000 Value Index			*3.5*	*0.4*	*2.5*	*9.9*	*8.9*	--	--	--	*11.9*	
DF Dent Small Cap Growth Fund	12,888,215	0.9	3.6	1.8	-5.9	4.0	3.1	--	--	--	3.1	Jun-24
Russell 2000 Growth Index			*6.4*	*5.7*	*-6.0*	*3.6*	*3.5*	--	--	--	*3.5*	
DFA U.S. Small Cap Value Portfolio	4,647,800	0.3	6.0	0.4	-7.8	--	--	--	--	--	-6.3	Nov-24
Russell 2000 Value Index			*4.2*	*0.0*	*-7.7*	--	--	--	--	--	*-7.3*	
SSgA Russell 3000 Index	204,685,672	14.8	6.3	5.6	0.6	9.7	13.0	--	--	--	19.8	Mar-23
Russell 3000 Index			*6.3*	*5.6*	*0.6*	*9.7*	*13.1*	--	--	--	*19.9*	
SSgA MSCI EAFE	69,898,190	5.1	4.7	9.5	17.2	15.5	13.5	--	--	--	14.8	Mar-23
MSCI EAFE			*4.6*	*9.4*	*16.9*	*15.2*	*13.3*	--	--	--	*14.5*	
SSgA Emerging Markets Index	18,077,274	1.3	4.0	4.7	8.5	8.2	11.8	--	--	--	10.8	Mar-23
MSCI Emerging Markets			*4.3*	*5.6*	*8.7*	*8.7*	*13.0*	--	--	--	*11.3*	
ABS China Direct	9,745,547	0.7	4.0	0.7	11.4	20.7	16.5	--	--	--	1.9	Mar-23
MSCI China			*2.7*	*-1.6*	*13.1*	*29.0*	*26.5*	--	--	--	*8.3*	
ABS EM ex China Direct	22,710,381	1.6	6.6	10.3	6.6	0.0	5.4	--	--	--	13.1	Mar-23
MSCI EM ex China (Net)			*4.9*	*9.0*	*7.1*	*2.3*	*8.5*	--	--	--	*12.9*	
Kopernik Global All-Cap	38,886,992	2.8	7.0	10.2	26.3	24.6	21.5	--	--	--	16.3	Apr-23
MSCI AC World Index			*5.7*	*6.7*	*5.3*	*11.2*	*13.7*	--	--	--	*17.2*	
First Eagle Global Equity	121,796,017	8.8	3.9	3.7	8.6	12.6	12.5	--	--	--	13.1	Apr-23
MSCI AC World Index			*5.7*	*6.7*	*5.3*	*11.2*	*13.7*	--	--	--	*17.2*	
Artisan Global Opportunities	78,579,513	5.7	4.5	6.8	2.0	4.8	7.7	--	--	--	14.5	Apr-23
MSCI AC World Index			*5.7*	*6.7*	*5.3*	*11.2*	*13.7*	--	--	--	*17.2*	
J. Stern & Co. World Stars Global Equity Fund	89,018,852	6.4	6.3	7.2	3.7	4.1	6.1	--	--	--	13.3	Feb-24
MSCI AC World IMI Index			*5.8*	*6.8*	*5.1*	*10.9*	*12.9*	--	--	--	*16.1*	

	Market Value ($)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	**7,297,451**	**0.5**										
MSCI ACWI + 3% 1Q Lag			*-0.4*	*3.2*	*3.0*	*14.6*	*18.5*	*--*	*--*	*--*	*19.9*	
NexPhase Capital Fund V, L.P.	601,248	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										
Mainsail Partners VII	136,546	0.0										
Credit	**71,234,279**	**5.1**	**1.8**	**1.6**	**3.7**	**7.4**	**7.9**	**--**	**--**	**--**	**9.3**	**May-23**
Credit Custom Benchmark			*1.5*	*1.5*	*2.3*	*7.4*	*8.0*	*--*	*--*	*--*	*9.4*	
High Yield & Bank Loans	**71,234,279**	**5.1**	**1.8**	**1.6**	**3.7**	**7.4**	**7.9**	**--**	**--**	**--**	**9.3**	**May-23**
High Yield & Bank Loans Custom Benchmark			*1.5*	*1.5*	*2.3*	*7.4*	*8.0*	*--*	*--*	*--*	*9.4*	
Sculptor Credit Opportunities Overseas Fund	27,321,185	2.0	2.0	2.2	5.7	4.9	5.0	--	--	--	6.6	May-23
Blmbg. Global High Yield Index			*1.6*	*2.5*	*4.4*	*10.5*	*10.9*	*--*	*--*	*--*	*11.4*	
Brigade High Income Fund	43,913,094	3.2	1.6	0.9	2.2	9.4	10.1	--	--	--	11.3	May-23
60% Bloomberg U.S. Corporate High Yield & 40% S&P UBS Lev Loans			*1.5*	*1.5*	*2.4*	*7.5*	*8.3*	*--*	*--*	*--*	*9.4*	
Inflation Hedges	**284,106,492**	**20.5**	**0.8**	**1.3**	**7.5**	**10.3**	**9.7**	**--**	**--**	**--**	**1.6**	**Dec-22**
Inflation Hedges Custom Benchmark			*0.8*	*1.3*	*8.0*	*8.5*	*7.2*	*--*	*--*	*--*	*1.8*	
Real Estate	**105,365,669**	**7.6**	**0.2**	**0.0**	**1.1**	**5.7**	**6.6**	**-5.0**	**0.4**	**3.0**	**5.5**	**Apr-11**
NCREIF ODCE			*0.0*	*0.0*	*0.9*	*1.8*	*1.2*	*-5.1*	*2.0*	*4.7*	*6.7*	
JP Morgan Asset Management Strategic Property Fund	45,243,730	3.3	0.5	0.7	1.5	3.7	4.0	-7.3	0.8	3.6	6.3	Apr-11
NCREIF ODCE			*0.0*	*0.0*	*0.9*	*1.8*	*1.2*	*-5.1*	*2.0*	*4.7*	*6.7*	
UBS Trumbull Property Fund	19,879,731	1.4	0.0	0.0	1.3	1.8	0.7	-6.6	-0.9	1.8	3.6	Dec-11
NCREIF ODCE			*0.0*	*0.0*	*0.9*	*1.8*	*1.2*	*-5.1*	*2.0*	*4.7*	*6.4*	
Morgan Stanley Prime Property Fund	40,242,208	2.9	0.0	0.0	1.1	--	--	--	--	--	1.1	Jan-25
NCREIF ODCE			*0.0*	*0.0*	*0.9*	*--*	*--*	*--*	*--*	*--*	*0.9*	
Natural Resources & Infrastructure	**72,632,504**	**5.3**	**2.5**	**0.5**	**7.3**	**3.1**	**0.6**	**--**	**--**	**--**	**2.8**	**Apr-23**
S&P Global LargeMid Commodity & Resources			*3.3*	*0.6*	*8.9*	*1.6*	*-2.4*	*--*	*--*	*--*	*1.3*	
SSgA S&P Global LargeMidCap Natural Resources Index	55,105,514	4.0	3.4	0.7	9.1	1.7	-2.3	--	--	--	1.4	Apr-23
S&P Global LargeMid Commodity & Resources			*3.3*	*0.6*	*8.9*	*1.6*	*-2.4*	*--*	*--*	*--*	*1.3*	
JP Morgan Infrastructure Investments Fund	17,526,990	1.3	0.0	0.0	2.3	7.7	10.2	--	--	--	9.8	Oct-23
Dow Jones Brookfield Global Infrastructure			*0.4*	*3.6*	*11.3*	*23.3*	*20.9*	*--*	*--*	*--*	*20.9*	

	Market Value ($)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Gold	**36,409,277**	**2.6**	**1.4**	**7.1**	**34.5**	**45.7**	**42.7**	**--**	**--**	**--**	**23.9**	**Apr-23**
60% Gold (Spot)/ 40% FTSE Gold Mines			*1.0*	*7.4*	*35.3*	*46.3*	*44.9*	*--*	*--*	*--*	*26.1*	
First Eagle Institutional Gold Fund, LP	36,409,277	2.6	1.4	7.1	34.5	45.7	42.7	--	--	--	23.9	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			*1.0*	*7.4*	*35.3*	*46.3*	*44.9*	*--*	*--*	*--*	*26.1*	
Short-Term TIPS	**69,699,042**	**5.0**	**-0.4**	**0.4**	**3.5**	**6.0**	**6.6**	**--**	**--**	**--**	**5.1**	**Mar-23**
Blmbg. U.S. TIPS 0-5 Year			*-0.4*	*0.4*	*3.5*	*5.9*	*6.6*	*--*	*--*	*--*	*5.6*	
Vanguard Short-Term TIPS Index	69,699,042	5.0	-0.4	0.4	3.5	6.0	6.6	--	--	--	4.9	Apr-23
Blmbg. U.S. TIPS 0-5 Year			*-0.4*	*0.4*	*3.5*	*5.9*	*6.6*	*--*	*--*	*--*	*4.9*	
Risk Mitigation	**287,392,885**	**20.8**	**-1.3**	**-1.7**	**1.0**	**1.5**	**2.0**	**--**	**--**	**--**	**2.1**	**Dec-22**
Risk Mitigation Custom Benchmark			*-0.7*	*-0.5*	*1.5*	*2.9*	*3.4*	*--*	*--*	*--*	*2.9*	
Investment Grade Fixed Income	**234,077,605**	**16.9**	**-1.2**	**-1.2**	**1.8**	**3.4**	**4.6**	**0.9**	**-1.1**	**1.4**	**5.0**	**Oct-90**
Blmbg. U.S. Aggregate Index			*-0.7*	*-0.3*	*2.4*	*4.5*	*5.5*	*1.5*	*-0.9*	*1.5*	*5.0*	
Intermediate-Term Bonds	**186,169,774**	**13.5**	**-0.7**	**-0.4**	**2.3**	**4.7**	**5.7**	**2.0**	**-0.5**	**1.8**	**5.1**	**Oct-90**
Blmbg. U.S. Aggregate Index			*-0.7*	*-0.3*	*2.4*	*4.5*	*5.5*	*1.5*	*-0.9*	*1.5*	*5.0*	
SSgA US Aggregate Bond	46,408,834	3.4	-0.7	-0.3	2.4	4.5	5.4	1.5	-0.9	1.5	2.7	Jan-09
Blmbg. U.S. Aggregate Index			*-0.7*	*-0.3*	*2.4*	*4.5*	*5.5*	*1.5*	*-0.9*	*1.5*	*2.7*	
Wellington Core Bond	104,936,435	7.6	-0.7	-0.6	2.2	4.5	5.4	--	--	--	3.5	May-23
Blmbg. U.S. Aggregate Index			*-0.7*	*-0.3*	*2.4*	*4.5*	*5.5*	*--*	*--*	*--*	*2.7*	
Brandywine U.S. Fixed Income	34,824,505	2.5	-0.6	-0.1	2.3	5.8	7.4	--	--	--	2.7	Jun-23
Blmbg. U.S. Aggregate Index			*-0.7*	*-0.3*	*2.4*	*4.5*	*5.5*	*--*	*--*	*--*	*3.4*	
Long-Term Bonds	**47,907,831**	**3.5**	**-2.9**	**-3.9**	**0.6**	**-1.0**	**0.7**	**--**	**--**	**--**	**-2.0**	**Mar-23**
Blmbg. U.S. Treasury: Long			*-2.9*	*-3.9*	*0.6*	*-0.9*	*0.7*	*--*	*--*	*--*	*-1.9*	
SSgA Long US Treasury Index	47,907,831	3.5	-2.9	-3.9	0.6	-1.0	0.7	--	--	--	-2.0	Mar-23
Blmbg. U.S. Treasury: Long			*-2.9*	*-3.9*	*0.6*	*-0.9*	*0.7*	*--*	*--*	*--*	*-1.9*	
Hedge Funds	**50,484,378**	**3.6**	**-1.7**	**-3.9**	**-2.8**	**-5.7**	**-6.8**	**--**	**--**	**--**	**-1.6**	**Apr-23**
Hedge Fund Custom Benchmark			*-0.9*	*-1.0*	*-1.8*	*-2.7*	*-3.7*	*--*	*--*	*--*	*1.6*	
36 South Kohinoor Series (Cayman) Fund	13,619,738	1.0	-2.3	-0.3	1.9	1.0	1.7	--	--	--	1.4	Apr-23
HFR / EurekaHedge Long Volatility Blended Benchmark			*-1.8*	*4.2*	*6.6*	*9.5*	*10.6*	*--*	*--*	*--*	*1.2*	
BH-DG Systematic Trading Master Fund	13,795,842	1.0	-3.7	-7.9	-11.3	-21.0	-23.1	--	--	--	-8.4	Apr-23
SG Trend Index			*-2.2*	*-7.0*	*-11.3*	*-16.3*	*-18.6*	*--*	*--*	*--*	*-2.8*	
Lombard Odier Bear Convexity	5,996,147	0.4	-2.4	-0.9	3.5	4.1	4.5	--	--	--	0.5	Apr-23
HFR / EurekaHedge Long Volatility Blended Benchmark			*-1.8*	*4.2*	*6.6*	*9.5*	*10.6*	*--*	*--*	*--*	*1.2*	
Alpstone Global Macro Fund	17,072,652	1.2	0.7	-4.3	-1.1	1.0	-1.5	--	--	--	1.1	May-23
HFRI Macro (Total) Index			*-0.3*	*-2.6*	*-2.5*	*-2.5*	*-3.8*	*--*	*--*	*--*	*2.0*	
Cash	**2,830,902**	**0.2**										
Cash	2,830,902	0.2										

Annual Investment Expense Analysis
As of May 31, 2025

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee (%)
Total System		**$1,383,248,605**	**$4,910,638**	**0.36**
Growth Assets		**$740,514,948**	**$2,285,435**	**0.31**
Global Equity		**$733,217,497**	**$2,243,151**	**0.31**
SSgA Russell 1000 Growth Index	0.02 % of Assets	$20,989,542	$4,198	0.02
SSgA Russell 1000 Value Index	0.02 % of Assets	$41,293,502	$8,259	0.02
DF Dent Small Cap Growth Fund	0.95 % of Assets	$12,888,215	$122,438	0.95
DFA U.S. Small Cap Value Portfolio	0.31 % of Assets	$4,647,800	$14,408	0.31
SSgA Russell 3000 Index	0.02 % of Assets	$204,685,672	$40,937	0.02
SSgA MSCI EAFE	0.04 % of Assets	$69,898,190	$27,959	0.04
SSgA Emerging Markets Index	0.08 % of Assets	$18,077,274	$14,462	0.08
ABS China Direct	0.65 % of Assets	$9,745,547	$63,346	0.65
ABS EM ex China Direct	0.50 % of Assets	$22,710,381	$113,552	0.50
Kopernik Global All-Cap	0.75 % of Assets	$38,886,992	$291,652	0.75
First Eagle Global Equity	0.55 % of Assets	$121,796,017	$669,878	0.55
Artisan Global Opportunities	0.60 % of Assets	$78,579,513	$471,477	0.60
J. Stern & Co. World Stars Global Equity Fund	0.45 % of Assets	$89,018,852	$400,585	0.45
Private Equity		**$7,297,451**	**$42,283**	**0.58**
NexPhase Capital Fund V, L.P.	2.00 % of Assets	$601,248	$12,025	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
Mainsail Partners VII	2.00 % of Assets	$136,546	$2,731	2.00

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee (%)
Credit		**$71,234,279**	**$501,560**	**0.70**
High Yield & Bank Loans		**$71,234,279**	**$501,560**	**0.70**
Sculptor Credit Opportunities Overseas Fund	Performance Based 1.00 % and 20.00 %	$27,321,185	$273,212	1.00
Brigade High Income Fund	0.52 % of Assets	$43,913,094	$228,348	0.52
Inflation Hedges		**$284,106,492**	**$1,333,124**	**0.47**
Real Estate		**$105,365,669**	**$926,760**	**0.88**
JP Morgan Asset Management Strategic Property Fund	0.91 % of Assets	$45,243,730	$411,718	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		**$72,632,504**	**$221,612**	**0.31**
SSgA S&P Global LargeMidCap Natural Resources Index	0.10 % of Assets	$55,105,514	$55,106	0.10
JP Morgan Infrastructure Investments Fund	0.95 % of Assets	$17,526,990	$166,506	0.95
Gold		**$36,409,277**	**$163,842**	**0.45**
First Eagle Institutional Gold Fund, LP	0.45 % of Assets	$36,409,277	$163,842	0.45
Short-Term TIPS		**$69,699,042**	**$20,910**	**0.03**
Vanguard Short-Term TIPS Index	0.03 % of Assets	$69,699,042	$20,910	0.03
Risk Mitigation		**$287,392,885**	**$790,520**	**0.28**
Investment Grade Fixed Income		**$234,077,605**	**$250,569**	**0.11**
Intermediate-Term Bonds		**$186,169,774**	**$236,197**	**0.13**
SSgA US Aggregate Bond	0.02 % of Assets	$46,408,834	$9,282	0.02
Wellington Core Bond	0.12 % of Assets	$104,936,435	$125,924	0.12
Brandywine U.S. Fixed Income	0.29 % of Assets	$34,824,505	$100,991	0.29
Long-Term Bonds		**$47,907,831**	**$14,372**	**0.03**
SSgA Long US Treasury Index	0.03 % of Assets	$47,907,831	$14,372	0.03

Performance Update | As of May 31, 2025

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee (%)
Hedge Funds		**$50,484,378**	**$539,951**	**1.07**
36 South Kohinoor Series (Cayman) Fund	Performance Based 1.00 % and 20.00 %	$13,619,738	$136,197	1.00
BH-DG Systematic Trading Master Fund	0.93 % of Assets	$13,795,842	$128,301	0.93
Lombard Odier Bear Convexity	Performance Based 0.75 % and 27.50 %	$5,996,147	$44,971	0.75
Alpstone Global Macro Fund	Performance Based 1.35 % and 20.00 %	$17,072,652	$230,481	1.35
Cash		**$2,830,902**	**-**	**-**
Cash		$2,830,902	-	-

Fund	July '24 - Dec '24	Jan	Feb	Mar	Apr	May	CYTD	FYTD
	Monthly Management Fees Paid ($)							
SSgA Russell 1000 Growth Index	2,999	-	1,130	-	-	-	1,130	4,129
SSgA Russell 1000 Value Index	3,652	-	2,033	-	-	-	2,033	5,685
SSgA Russell 3000 Index	18,740	-	9,030	-	-	-	9,030	27,771
SSgA MSCI EAFE	17,690	-	10,353	-	-	-	10,353	28,042
SSgA Emerging Markets Index	15,061	-	4,993	2,577	-	-	7,571	22,632
DF Dent Small Cap Growth Fund	77,651	11,091	10,579	10,024	9,849	10,203	51,746	129,397
DFA U.S. Small Cap Growth Fund	3,998	1,341	1,270	1,196	1,132	1,201	6,139	10,138
ABS China Direct	27,445	4,740	4,728	5,112	5,242	5,078	24,900	52,345
ABS EM ex China Direct	56,352	8,879	8,948	8,617	8,582	8,875	43,900	100,252
Kopernik Global All-Cap*	140,018	28,769	26,175	31,405	26,876	29,725	142,949	282,967
First Eagle Global Equity	341,848	54,096	54,096	54,096	53,771	55,846	271,904	613,752
Artisan Global Opportunities*	302,498	49,953	44,290	41,720	42,649	39,290	217,903	520,401
J. Stern & Co. World Stars Global Equity	129,504	22,940	31,217	29,378	30,778	34,177	148,490	277,994
NexPhase Capital Fund V	-	-	-	-	-	59,487	59,487	59,487
Vitruvian Investment Partnership V	50,046	-	-	-	-	-	-	50,046
Lexington Capital Partners X	-	-	-	21,250	-	-	21,250	21,250
Flagship Pioneering Fund VIII, L.P.	-	13,247	-	-	11,001	-	24,248	24,248
Gauge Capital IV, L.P.	33,045	-	-	27,371	-	-	27,371	60,416
KPS Special Situations Fund VI, L.P.	-	-	-	-	-	-	-	-
Oakley Capital VI	-	-	-	-	-	-	-	-
Mainsail Partners VII	-	-	-	-	-	-	-	-
Sculptor Credit Opportunities Overseas Fund	130,762	22,264	20,109	22,264	22,027	22,761	109,425	240,187
Brigade High Income Fund*	82,124	16,892	16,977	16,867	11,024	19,029	80,790	162,914
JP Morgan Strategic Property Fund	201,788	101,951	-	-	103,485	-	205,436	407,223
UBS Trumbull Property Fund	91,640	43,195	-	-	41,096	-	84,292	175,931
Morgan Stanley Prime Property Fund	-	-	-	7,141	-	-	7,141	7,141
SSgA US REIT	12,076	-	3,457	2,213	3,658	-	9,328	21,404
SSgA S&P Global LargeMidCap NR Index	26,133	-	8,713	4,547	-	-	13,260	39,394
JP Morgan Infrastructure Investments Fund	68,600	-	-	35,685	-	-	35,685	104,285
First Eagle Institutional Gold Fund, LP	118,128	15,281	14,977	17,484	18,355	13,674	79,771	197,899
Vanguard Short-Term TIPS Index*	13,836	2,265	2,291	2,313	2,330	2,323	11,524	25,359
SSgA US Aggregate Bond	3,829	-	2,184	-	-	-	2,184	6,013
Wellington Core Bond*	66,245	11,238	11,497	10,843	9,957	12,243	55,779	122,024
Brandywine U.S. Fixed Income	26,894	-	17,129	-	-	17,385	34,515	61,409
SSgA Long US Treasury Index	7,388	-	2,450	1,236	-	-	3,685	11,073
36 South Kohinoor Series (Cayman) Fund	67,712	11,303	10,354	11,679	11,587	11,632	56,555	124,266
BH-DG Systematic Trading Master Fund	75,557	12,420	11,265	12,092	10,913	10,605	57,294	132,852
Lombard Odier Bear Convexity	21,793	3,593	3,699	3,785	3,841	3,750	18,668	40,461
Alpstone Global Macro	115,381	19,932	20,313	20,246	19,098	19,228	98,816	214,197
Total	**2,350,433**	**455,390**	**354,258**	**401,138**	**447,252**	**376,512**	**2,034,550**	**4,384,983**
Custodial Fee	18,701	2,589	4,220	2,632	2,591	4,230	**16,262**	**34,963**

*In some instances, NERS is invested in a pooled vehicle so a separate fee isn't charged at the Plan level. The fee is reflected in the NAV. Estimated based on management fee and market value.
In some instances, additional expenses are charged but the above table only reflects management fees.

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

Asset Allocation Review

Introduction

Introduction

- At the May Investment Committee meeting Meketa presented three alternative asset allocation policies. All three options slightly reduced the overall return and risk of the System, but still maintained a higher return than the assumed rate.
- In the original policies, we reduced public equity and increased fixed income, adding a new dedicated target to private credit.
- Based on feedback we received, an alternative Policy D has been created.
  - The primary reason for adding private credit was due to its attractive yield.
  - While not as significant, other asset classes offer enhanced yield including investment grade bonds, infrastructure, and high yield & bank loans.
- As an alternative, Policy D proposes a smaller decrease in global equity and an increase in high yield & bank loans, infrastructure, and investment grade bonds in order to achieve a similar yield while still reducing risk.
- In addition, a liquidity analysis is provided at the conclusion as well.

Asset Allocation Policy Options[1]

	Current (%)	Policy C (%)	Policy D (%)
Growth Assets	**57**	**45**	**47**
Global Equity	52	**40**	42
Private Equity	5	**5**	5
Credit	**4**	**11**	**7**
High Yield Bonds & Bank Loans	4	6	7
Private Credit	0	5	0
Inflation Hedges	**21**	**23**	**26**
Short-term TIPS	5	5	5
Real Estate	8	8	8
Natural Resources	2	2	2
Gold[2]	3	3	3
Infrastructure	3	5	8
Risk Mitigation	**18**	**21**	**20**
Investment Grade Bonds	10	13	12
Long-term Government Bonds	4	4	4
RMS Hedge Funds[3]	4	4	4
Expected Return (20 years)	8.12	8.04	8.01
Expected Return (20 years) Adjusted[4]	7.80	7.80	7.76
Standard Deviation	12.0	10.9	11.0
Probability of Achieving 6.75% over 20 Years	69.3	70.0	69.3

1 Expected return and standard deviation are based upon Meketa Investment Group's Annual Capital Markets Expectations. Throughout this document, returns for periods longer than one year are annualized. Green/red are relative to the Current Policy.

2 Gold allocation is 1/3 miners and 2/3 Gold Bullion.

3 RMS Hedge Funds consist of Trend Following, Long Volatility, and Global Macro.

4 Modified US Equity expected return.

Review of Proposed Asset Allocation Policies

- The Current Policy meets the return objectives of the System. As a result, we are not looking to dramatically change the asset allocation but rather make enhancements on the margins.
- Policy C adds exposure to private credit as an alternative option to maintain a similar return and reduce risk.
- Revised Policy D has a similar return with slightly less risk as compared to the Current Policy.
  - Revised Policy D considers a decline in the target to global equities by 10%, as reducing equity risk is the primary tool for decreasing overall risk in the System.
    - High yield bonds & bank loans, infrastructure, and investment grade bonds would increase in target as a result.
    - The increased allocation to fixed income and infrastructure considers the increase in interest rates as an opportunity to earn a more attractive return.

Diversification and Risk Analysis

Diversification

- The primary motive for diversifying a portfolio is to reduce risk.
- Diversification is the sole "free lunch" available to investors. That is, it represents the only way to reduce risk without reducing expected returns.
- Therefore, investments should be allocated across multiple classes of assets, based in part on the expected correlation of their returns.
- Within each asset type, investments should be distributed across strategies and risk factors to further reduce volatility.

Types of Risk Analysis Addressed

- Risk budgeting[1]
  - Attributes overall portfolio risks to specific asset classes
  - Highlights the source and scale of portfolio-level risk
- MPT-based risk analytics
  - Includes worst-case return expectations
  - Relies on assumptions underlying Modern Portfolio Theory ("MPT")
- Scenario analysis
  - Stress tests policy portfolios using actual historical examples
  - Stress tests policy portfolios under specific hypothetical scenarios

[1] Risk budgeting seeks to decompose the aggregate risk of a portfolio into different sources (in this case, by asset class), with risk defined as standard deviation.

MPT-Based Risk Analysis

Scenario	Current (%)	Policy C (%)	Policy D (%)
Worst Case Returns[1]			
One Year (annualized)	-16.3	-14.5	-14.7
Three Years (annualized)	-6.8	-5.6	-5.8
Five Years (annualized)	-3.6	-2.7	-2.8
Ten Years (annualized)	-0.3	0.3	0.2
Twenty Years (annualized)	2.1	2.5	2.4
Probability of Experiencing Negative Returns			
One Year	24.0	22.1	22.5
Three Years	11.0	9.2	9.5
Five Years	5.7	4.3	4.5
Ten Years	1.3	0.8	0.8
Twenty Years	0.1	0.0	0.0
Probability of Achieving at least a 6.75% Return			
One Year	54.5	54.7	54.5
Three Years	57.7	58.0	57.7
Five Years	60.0	60.3	60.0
Ten Years	63.9	64.5	63.9

→ Revised Policy D has the same expectation of reaching the target return over the long term as the Current Policy.

[1] "Worst Case Returns" refers to the 99.7th percentile return.

Historical Negative Scenario Analysis[1]
(*Cumulative* Return)

Scenario	Current (%)	Policy C (%)	Policy D (%)
Post-COVID Rate Hikes (Jan 2022 - Oct 2023)	-9.0	-7.0	-7.3
COVID-19 Market Shock (Feb 2020 - Mar 2020)	-19.8	-16.7	-17.1
Taper Tantrum (May - Aug 2013)	-1.2	-1.0	-1.1
Global Financial Crisis (Oct 2007 - Mar 2009)	-26.9	-22.3	-22.5
Popping of the TMT Bubble (Apr 2000 - Sep 2002)	-16.1	-9.2	-9.6
LTCM (Jul - Aug 1998)	-7.8	-6.2	-6.4
Asian Financial Crisis (Aug 1997 - Jan 1998)	0.8	1.9	1.6
Rate spike (1994 Calendar Year)	2.9	2.4	2.0
Early 1990s Recession (Jun - Oct 1990)	-5.1	-3.9	-4.2
Crash of 1987 (Sep - Nov 1987)	-10.4	-8.0	-8.4
Strong dollar (Jan 1981 - Sep 1982)	0.3	2.8	2.1
Volcker Recession (Jan - Mar 1980)	-4.1	-3.8	-3.8
Stagflation (Jan 1973 - Sep 1974)	-18.6	-14.1	-14.7

→ Revised Policy D would have performed better in declining equity markets in comparison to the Current Policy.

[1] In periods where the ideal benchmark was not yet available, we used the next closest benchmark(s) as a proxy.

Historical Positive Scenario Analysis[1]
(*Cumulative* Return)

Scenario	Current (%)	Policy C (%)	Policy D (%)
Covid Recovery (Apr 2020 - Dec 2021)	51.6	45.9	46.5
Global Financial Crisis Recovery (Mar 2009 - Nov 2009)	37.5	33.0	33.3
Real Estate and Buyout Boom (Oct 2004 - Sept 2007)	59.3	56.0	55.4
Best of Great Moderation (Apr 2003 - Feb 2004)	30.1	26.2	26.5
Peak of the TMT Bubble (Oct 1998 - Mar 2000)	36.6	31.9	32.9
Short Rate Decrease Cycle (Jan 1995-Dec 1995)	17.3	16.5	16.2
Recession Recovery (Nov 1990 - March 1992)	11.8	12.4	12.4
Plummeting Dollar (Jan 1986 - Aug 1987)	61.7	51.0	52.7
Long Rate Decrease Cycle (June 1984 - August 1986)	92.2	79.8	81.4
Volcker Recovery (Aug 1982 - Apr 1983)	32.7	28.7	29.1
Bretton Wood Recovery (Oct 1974 - Jun 1975)	27.6	23.3	23.9

→ The Current Policy would have been the best option for capturing most of the upside in strongly positive markets.

[1] In periods where the ideal benchmark was not yet available we used the next closest benchmark(s) as a proxy.

Stress Testing: Impact of Negative Market Movements (Expected Return under Negative Conditions)[1]

Scenario	Current (%)	Policy C (%)	Policy D (%)
10-year Treasury Bond rates rise 100 bps	3.8	3.0	3.1
10-year Treasury Bond rates rise 200 bps	-1.8	-2.1	-2.2
10-year Treasury Bond rates rise 300 bps	-2.7	-3.5	-3.3
Baa Spreads widen by 50 bps, High Yield by 200 bps	0.7	0.8	0.8
Baa Spreads widen by 300 bps, High Yield by 1000 bps	-20.9	-18.2	-18.3
Trade Weighted Dollar gains 10%	-4.9	-4.1	-4.2
Trade Weighted Dollar gains 20%	-1.7	-1.1	-0.9
US Equities decline 10%	-5.2	-4.3	-4.4
US Equities decline 25%	-15.6	-13.7	-13.9
US Equities decline 40%	-25.4	-22.1	-22.5
Bull Steepener	1.7	1.8	1.8

- Each policy portfolio has a different sensitivity to four major risk factors: interest rates, credit spreads, currency fluctuations, and equity values.
- The System’s primary risk factors would continue to be an equity market decline and a widening of credit spreads, no matter the policy.

[1] Assumes that assets not directly exposed to the factor are affected nonetheless.

Stress Testing: Impact of Positive Market Movements (Expected Return under Positive Conditions)[1]

Scenario	Current (%)	Policy C (%)	Policy D (%)
10-year Treasury Bond rates drop 100 bps	1.9	2.0	2.0
10-year Treasury Bond rates drop 200 bps	11.0	9.6	9.6
10-year Treasury Bond rates drop 300 bps	14.2	12.6	12.7
Baa Spreads narrow by 30bps, High Yield by 100 bps	6.4	5.8	5.9
Baa Spreads narrow by 100bps, High Yield by 300 bps	13.0	11.9	12.0
Trade Weighted Dollar drops 10%	8.0	7.2	7.3
Trade Weighted Dollar drops 20%	23.3	19.7	20.0
US Equities rise 10%	6.0	5.4	5.5
US Equities rise 30%	15.4	13.1	13.4
Bear Steepener	4.6	3.6	3.7

→ The portfolio with the least downside risk is likewise the portfolio that participates least in upside scenarios.

[1] Assumes that assets not directly exposed to the factor are affected nonetheless.

Inflation Stress Testing: Negative Scenarios
(Expected Return under Negative Inflationary Conditions)

Scenario	Current (%)	Policy C (%)	Policy D (%)
Inflation slightly higher than expected	-0.3	-0.2	-0.2
Inflation meaningfully higher than expected	-5.5	-4.5	-4.6
Low Growth and Low Inflation	-7.8	-6.5	-6.8
Low Growth and High Inflation	-12.2	-10.1	-10.4
Brief, moderate inflation spike	-3.3	-2.8	-2.9
Extended, moderate inflation spike	-5.7	-4.7	-4.9
Brief, extreme inflation spike	-7.2	-6.0	-6.2
Extended, extreme inflation spike	-9.1	-7.5	-7.8

→ Each of the alternative policies performs better than the Current Policy in the scenarios where inflation does the most harm.

Inflation Stress Testing: Positive Scenarios (Expected Return under Positive Inflationary Conditions)

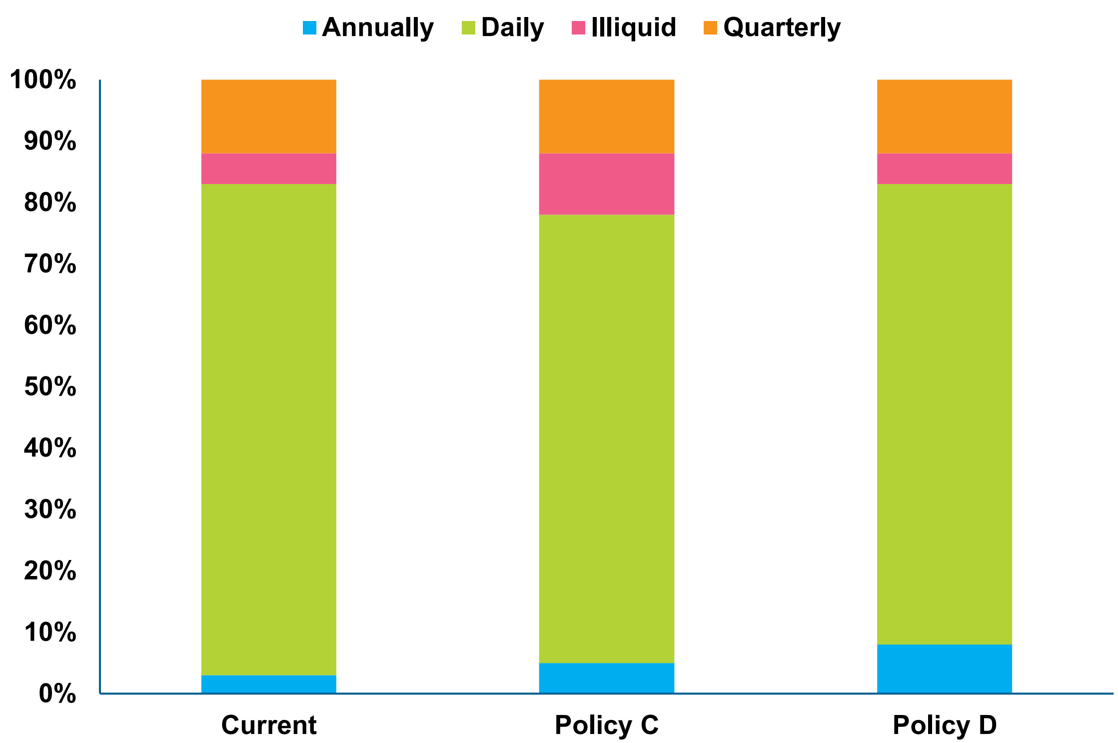
Scenario	Current (%)	Policy C (%)	Policy D (%)
High Growth and Low Inflation	10.4	8.5	9.0
High Growth and Moderate Inflation	7.6	6.3	6.7
High Growth and High Inflation	4.7	3.9	4.3

→ The Current Policy performs better than each of the alternative policies in positive inflationary conditions.

Liquidity Risk

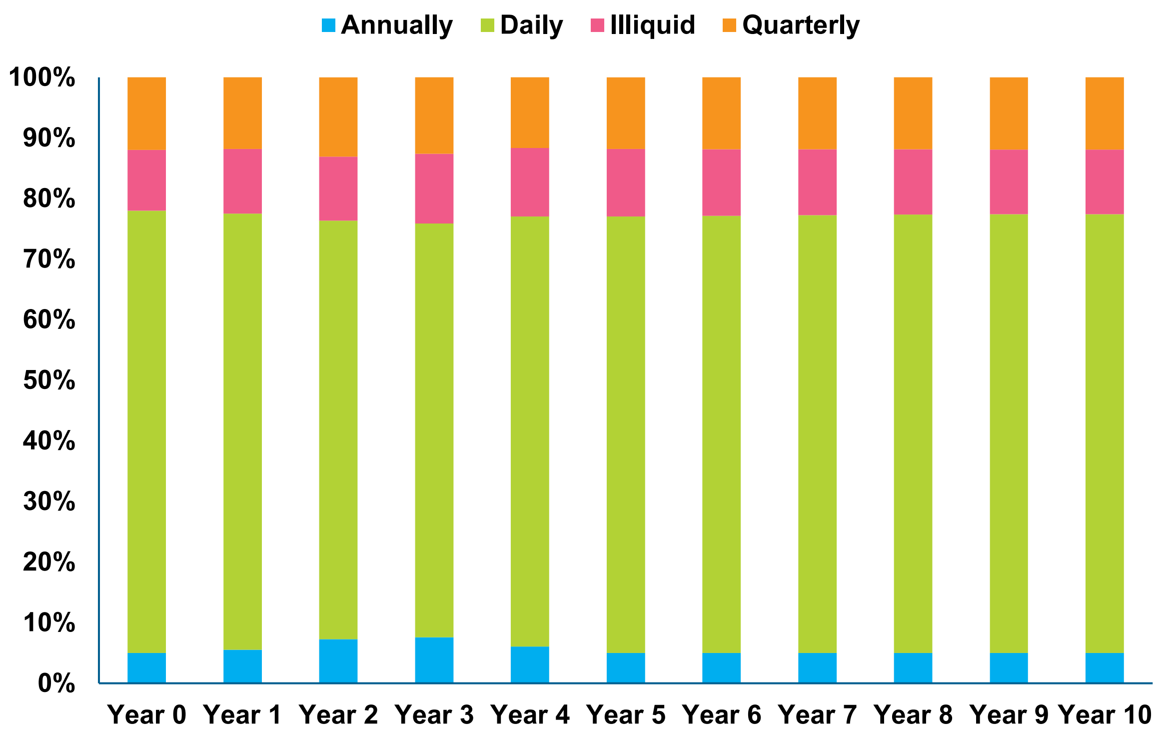
- Liquidity risk is a meaningful risk that is generally not captured in traditional asset allocation processes.
- The System must maintain adequate liquidity to satisfy benefit payments and to avoid having to sell illiquid assets at distressed prices if possible.

Liquidity Profile



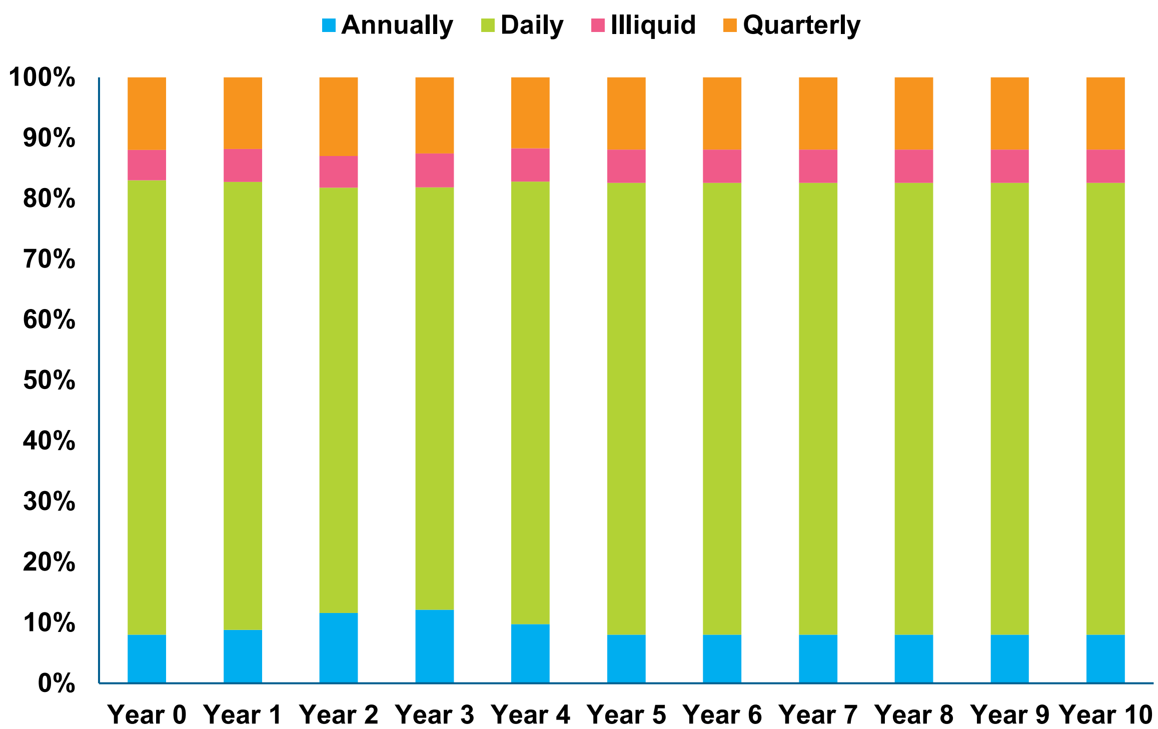
- Each policy portfolio has at least 73% allocated to daily-liquid assets.

Liquidity Stress Test: Liquidity Profile (for Policy C)



- In an extreme market event (e.g., GFC like returns and no sharp recover), accounting for making benefit payments and rebalancing, the System has sufficient liquidity.
- At the trough, the policy portfolio would have 68% of its assets in daily liquid vehicles.

Liquidity Stress Test: Liquidity Profile (for Policy D)



- In an extreme market event (e.g., GFC like returns and no sharp recover), accounting for making benefit payments and rebalancing, the System has sufficient liquidity.
- At the trough, the policy portfolio would have 70% of its assets in daily liquid vehicles.

Appendices

Global Equity Portfolio Change: Termination of Artisan Global Opportunities

Background and Rationale

→ Meketa has terminated the Artisan Global Opportunities Fund. The performance of the asset manager had diverged from expectations and was placed on watch earlier in 2025.

→ In the following pages we explore the underperformance of Artisan which led to their termination.

- Trailing period and calendar year returns
- Contribution and selection effect of top 10
- Stock selection and residual skill (Alpha)

→ Proceeds will be invested in two index funds at this time, specifically, 65% in the Russell 1000 Growth Index (or equivalent) and 35% in the MSCI EAFE Index (or equivalent).

Trailing Period and Calendar Year Returns

Overview and Terms

As of 3/31/2025	YTD	1 Year	3-Year	5-Year	10-Year
Artisan Global Opportunities	-4.3	0.1	3.9	12.7	0.1
MSCI ACWI	-1.3	7.2	6.9	15.2	7.2
Peer Ranking	59	52	49	61	31

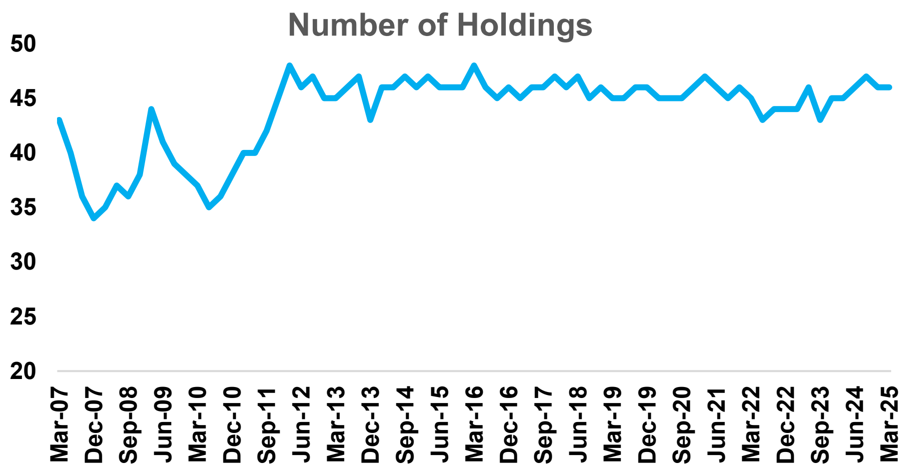
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Artisan Global Opportunities	16.1	24.4	-29.5	15.2	41.5	37.0	-7.9	32.7	5.5	9.1
MSCI ACWI	17.5	22.2	-18.4	18.5	16.3	26.6	-9.4	24.0	7.9	-2.4
Peer Ranking	40	40	63	54	42	20	57	40	29	18

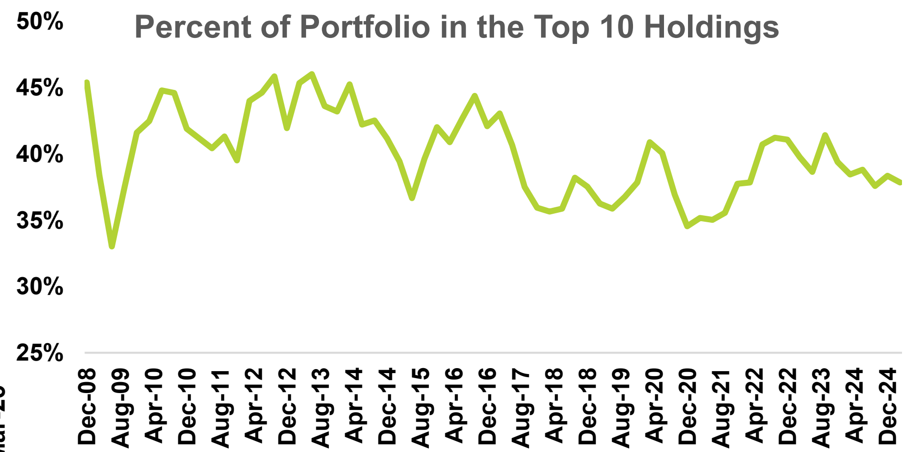
→ Artisan was added as a core global growth equity manager in late 2022 with the expectation of outperforming the MSCI All Country World Index (ACWI).

→ The strategy’s “pan-growth” investment approach, focusing on franchise companies with accelerating profit cycles, aligned with our growth allocation objectives. The manager has performed close to median relative to their peer universe.

→ AGO’s performance has consistently lagged its benchmark, and its largest holdings, an area we expect to contribute materially given the percentage they represent at AGO, have detracted significantly from returns over the past three years.

Evaluating the Top 10 (as of March 31, 2025)

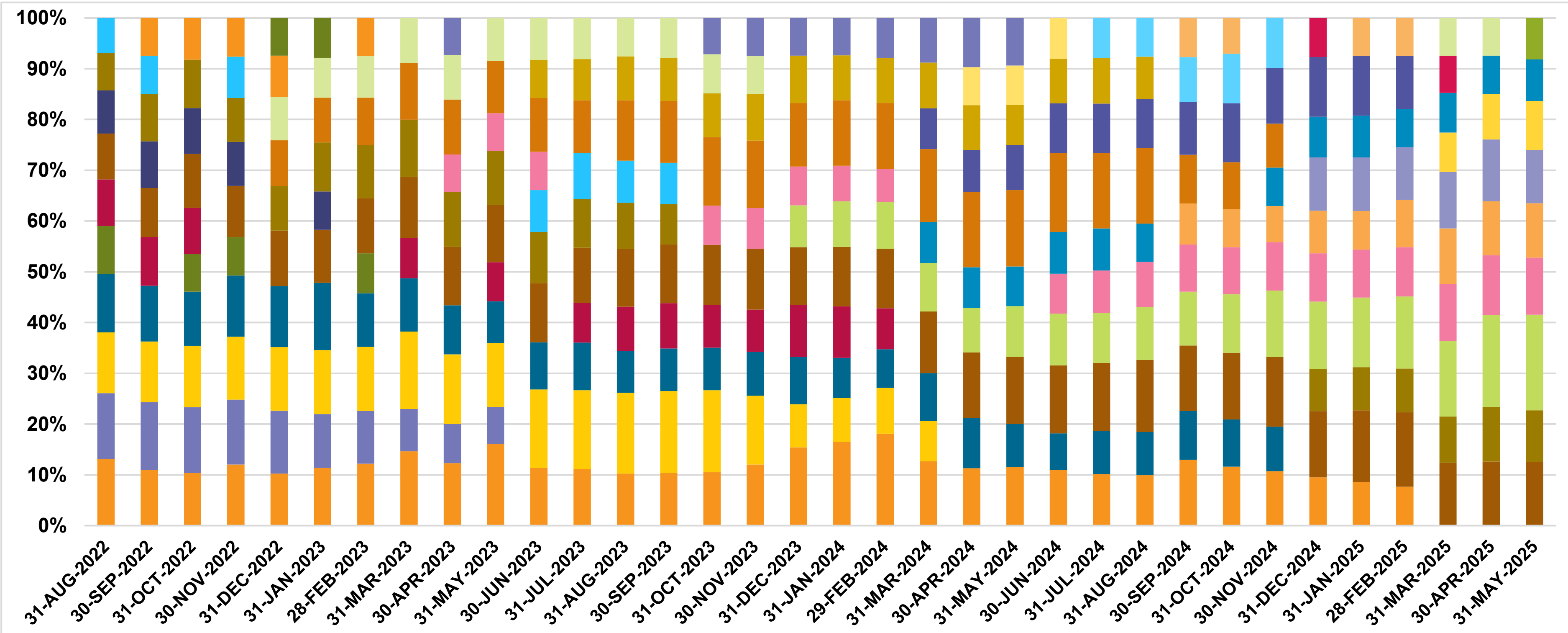




- Artisan has held a consistent number of holdings (left chart), and a consistent percentage in the top 10 securities (right chart).
- For an active manager the top 10 are a firm's best ideas and generally a key area of relative returns. Unfortunately, Artisan's top 10 holdings have been a persistent drag on the fund's performance.

Global Equity Portfolio Change: Termination of Artisan Global Opportunities

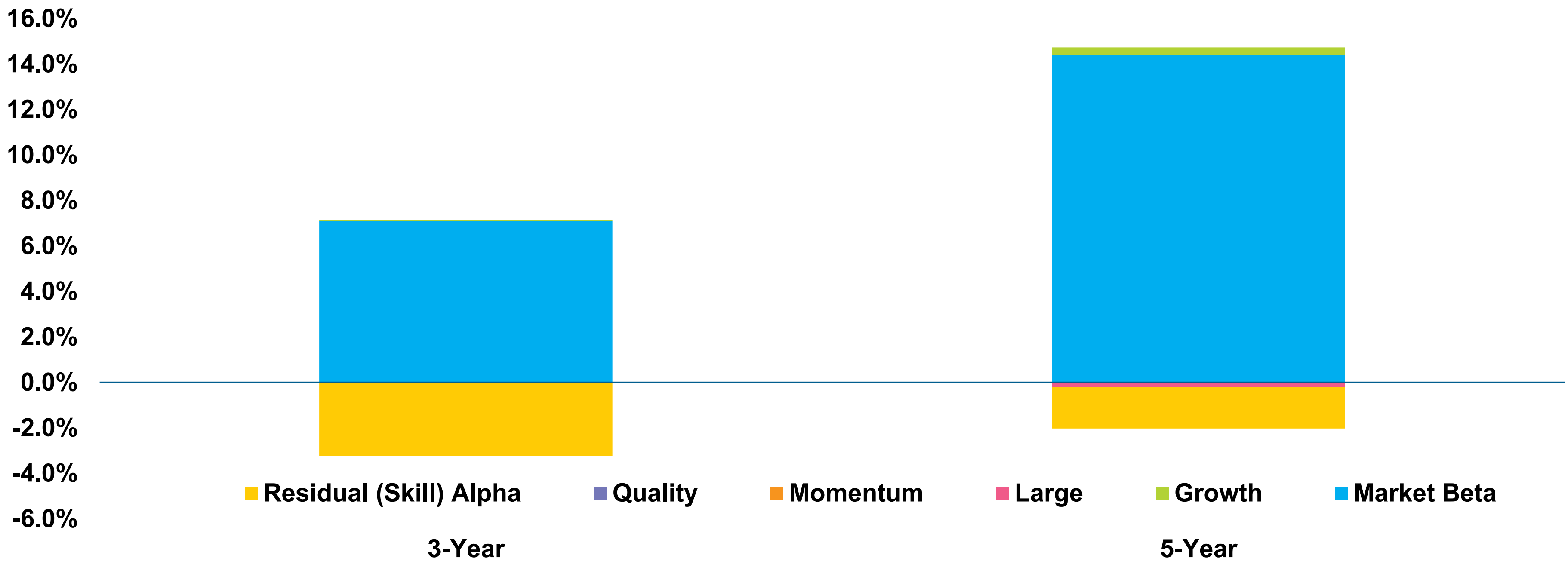
Evaluating the Top 10 (as of May 31, 2025)



- The top 10 holdings performance from 2022 through 2025 shows Artisan's top 10 has been a headwind. The above highlights the dynamic nature of the top 10 implying there were decisions to reduce or eliminate securities to improve the portfolio outcomes.
- Poor stock selection inside the top ten detracted in 2022, 2024 and first quarter 2025

Stock Selection and Residual Skill

Alpha-Beta Regressions: Artisan Global Opportunities vs MSCI ACWI



- The manager has struggled to generate non-market driven returns.
- Upside and downside capture during the investment period missed expectations, with actual results of 96% and 103%, respectively, compared to the 5-year historical figures at the time of investment of 108% and 96%.
- Attribution analysis of Artisan’s holdings indicates that stock selection was the primary headwind for the strategy.

Summary

- Artisan was added in late 2022 as a core global growth equity manager, based on the expectation that its "pan-growth" strategy, targeting franchise companies with accelerating profit cycles, would outperform the MSCI ACWI over a full market cycle. Artisan's performance has lagged the benchmark, with significant underperformance driven by poor results from the fund's largest holdings.
- While overall risk levels have remained steady, Artisan has shown diminished upside capture and greater downside participation; underperforming in rising markets and declining more than the benchmark during downturns.

Private Credit

What is Private Credit?

- Private credit (also known as private debt) is a loan or other form of debt financing originated by a non-bank lender that is subject to privately negotiated terms.
  - Non-bank lenders are not subject to the oversight by the federal banking system.
  - Examples of non-bank lenders include asset managers, pension funds, and insurance companies.
- A wide range of collateral may be used, including corporate cash flows, consumer and small business receivables, financial assets, or hard assets.
- Interest rates for borrowing in private markets are often higher than for public markets.
  - However, there are compelling reasons why borrowers would choose private financing, such as:
    - The borrower may be too small or lack the credit history or worthiness to raise capital in public markets
    - Speed and certainty in execution
    - A flexible and tailored structure
    - Confidentiality

The Evolution of Private Credit

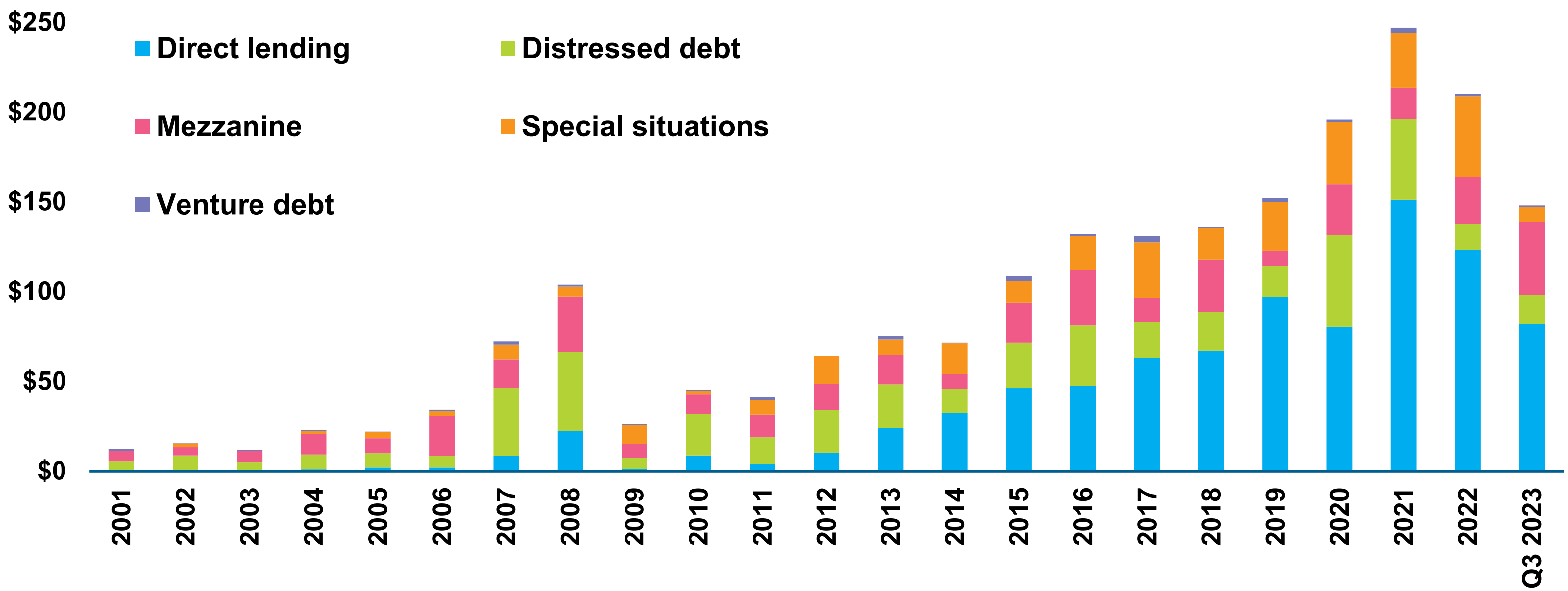
→ Prior to the Global Financial Crisis (GFC), the private credit universe was composed primarily of mezzanine and distressed debt.

- The GFC had a meaningful impact on lending.

→ Private credit's aggregate capital raised did not return to its 2008 level until 2015.

- However, it has more than doubled since 2008, peaking at approximately $250 billion in 2021.

→ Post GFC, fundraising and investment has centered on direct lending, the current largest strategy.



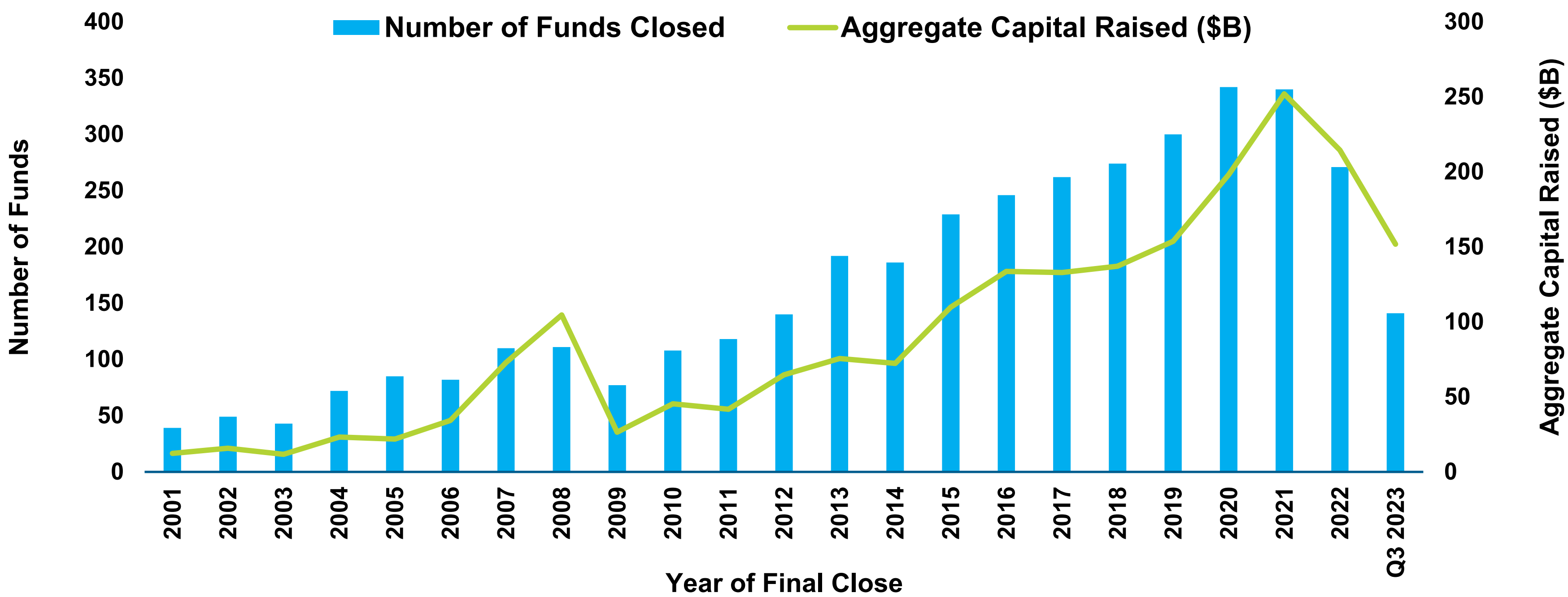
Source: Preqin, 2024 Global Private Debt Report published in December 2023. Note private debt fund-of-funds were excluded from this chart.

The Private Credit Universe

→ Since 2010, private credit's global aggregate capital raised has quadrupled in size.

- The number of funds closed has increased by roughly 2.5x over the same period.

→ Private credit recently surpassed real estate to become the second largest private markets asset class, behind private equity.



32Source: Preqin, as of June 2023. Private Credit became the second largest asset class in private markets as measured by total assets under management for the year 2023, as of June 2023. Assets under management refers to both dry powder and unrealized value. Private market asset classes include private equity, private credit, natural resources, real estate, and infrastructure.
Source: Preqin, 2024 Global Private Debt Report published in December 2023.

Private Credit Strategies

- There is no universally agreed upon system for categorizing private credit strategies.
- Meketa categorizes the private credit universe into four broad groups.
  - Within each category, strategies can vary across multiple dimensions.

Meketa's Classification of Private Credit Strategies

Direct Lending	Asset-Based Lending	Special Situations	Diversifying
Capital Structure - First Lien - Unitranche - Second Lien - Mezzanine/Junior Debt	**Consumer** - Credit Cards - Student Loans - Auto Loans - Consumer Installment	**Distressed** - Corporate - Mortgage - Commercial Real Estate	- Royalties - Infrastructure - Secondaries - Regulatory Capital Relief
Geography - US - Europe - Asia/Emerging Markets - Global	**Commercial** - Accounts Receivable - Trade Finance - Small Balance	**Capital Solutions** - Rescue Financing - Growth Financing	
Industry - Healthcare - Franchise - Technology	**Hard Assets** - Equipment Leasing - Mortgage Credit - Solar/Renewable Energy - Transportation	**Non-Performing Loans** - Commercial Real Estate - Residential Real Estate - Consumer - Small Medium Enterprises	
	Soft Assets - Intellectual Property - Fund Finance		

Source: Meketa Investment Group, 2024.

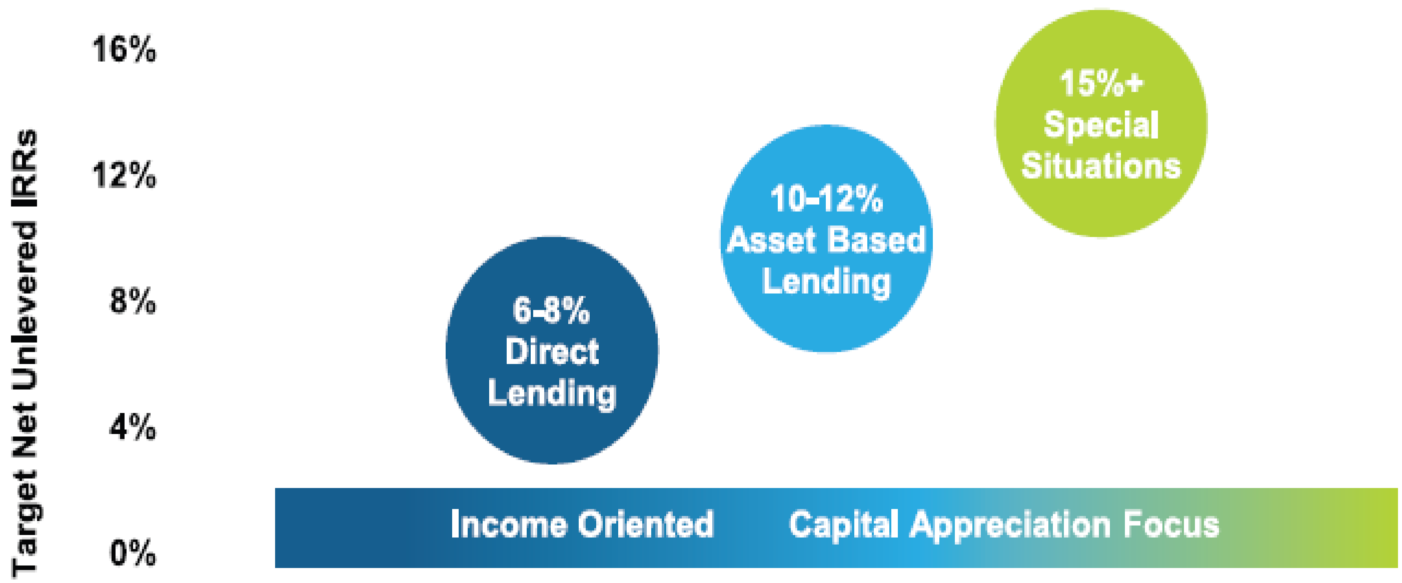
Different Strategies Target Different Returns

→ At a high level, the primary drivers of private credit returns are income and capital appreciation.

- However, the variety of implementation approaches leads to a range of outcomes.

→ Some variables that may impact expected returns include seniority in the capital structure, use of fund level leverage, borrower/collateral quality, structural protections, workout capabilities, and GP experience.

Targeted Net Unlevered IRRs by Strategy



Source: Meketa Investment Group, 2024

Private Credit Performance

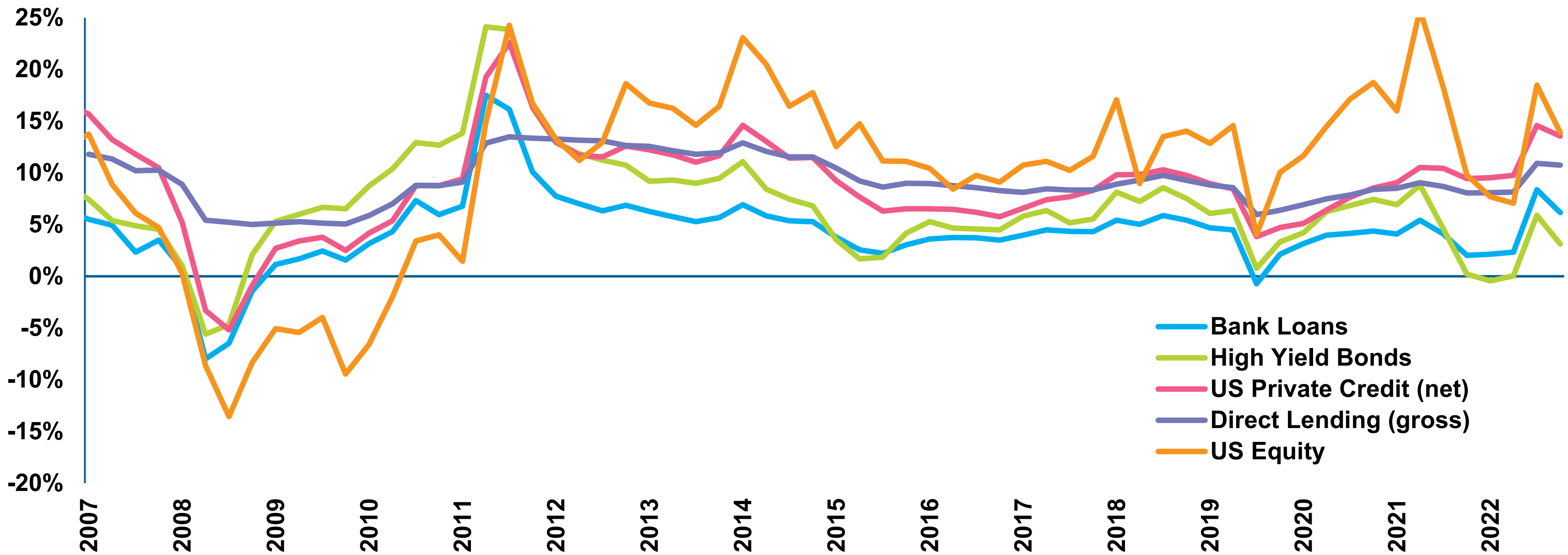
- Evaluating performance for the broad private credit asset class is challenging due to the diversity of strategies and a lack of robust performance data for many of the sub-strategies.
  - The evolution of the asset class further complicates things as the composition of the private credit market is quite different today than it was just 10-15 years ago.*
    - Thus, it is difficult to extrapolate past performance onto the current opportunity set.
- Our analysis compares two different proxies for private credit performance:
  - Cambridge Associates' US Private Credit Composite, which is a composite of private credit funds where returns are IRRs *net* of fees.
  - The Cliffwater Direct Lending Index ("CDLI"), which measures the unlevered, *gross* of fee performance of US middle market corporate loans.

*Mezzanine and distressed debt strategies represented the majority of the private credit universe from 2001 through the early 2010's. However, since 2014, direct lending has taken over as the single largest strategy, comprising around half of aggregate capital raised in each year of final close.

Historic Returns

- Since 2005, the CDLI had an annualized *gross* return of 9.4%, followed by US equity's 9.3%, Cambridge's US Private Credit's 9.1% *net* return, corporate high yield bonds' 6.1%, and bank loans' 4.5%.
- When looking at their trailing 10-year returns, all had slightly lower returns and remained in the same order, with the exception of US equity whose returns increased, outperforming the other assets.

Rolling 3-Year Annualized Returns



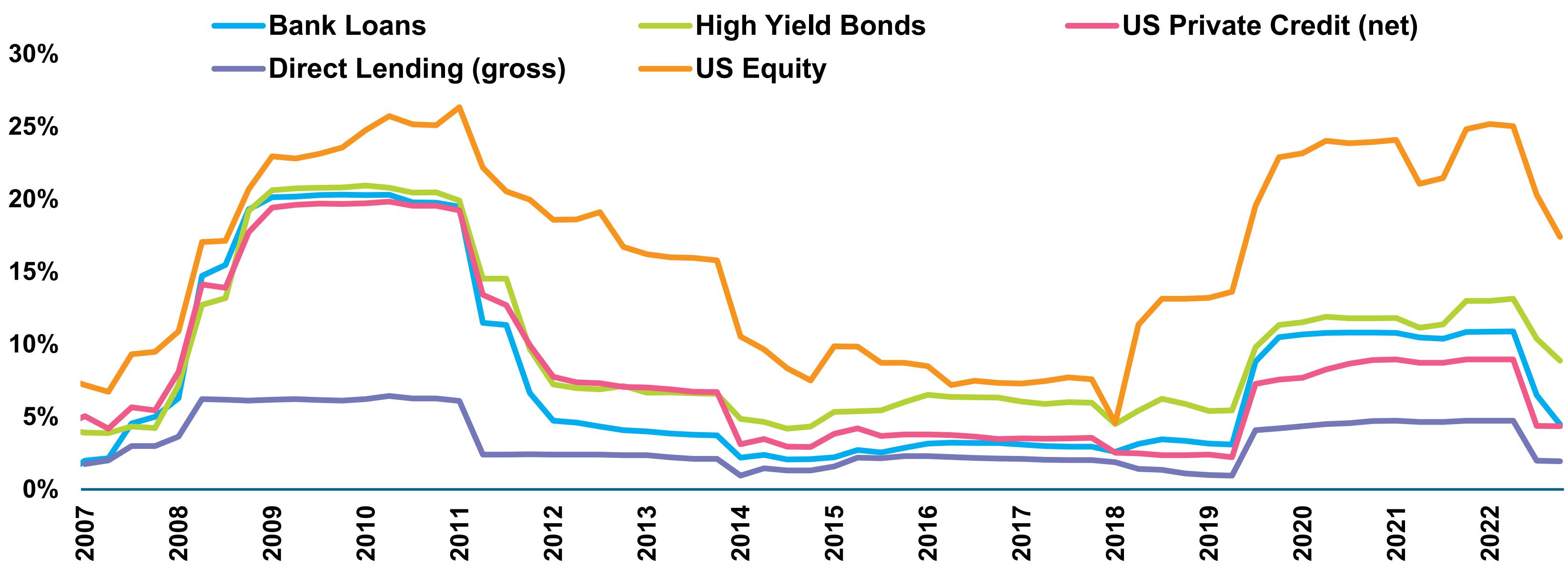
Source: Cambridge Associates via IHS Markit, annualized quarterly Pooled IRR as of June 2023 (pulled in January 2024). Monthly returns sourced from Bloomberg as of June 2023 and converted to quarterly. Indices: Cambridge US Private Credit Composite, Cliffwater Direct Lending index, Credit Suisse Leveraged Loan, Bloomberg US Corporate High Yield Bond Index, Russell 3000. CDLI returns are gross of fees, all other returns are net of fees.
Note: For purposes of return comparison, throughout this document we linked quarterly IRRs of Cambridge's US Private Credit Composite as reported by Cambridge Associates. This is because time-weighted returns for these series were not available, and the quarterly IRRs used should not differ materially from time-weighted quarterly returns. Note that the trailing returns we present by linking the quarterly IRRs are different from the trailing IRRs, as the trailing IRRs are running the calculation over a longer period in which the weighting of cash flows has a more substantial impact.

Historical Volatility

→ Since 2005, US equity had the highest annualized standard deviation at 16.9%, followed by high yield bonds' 10.7%, bank loans' 9.3%, Cambridge's US private credit's 9.2%, and the CDLI's 3.5%.

- However, the methodology in the CDLI may artificially smooth the volatility of returns, particularly during periods of market stress.
- Cambridge's US private credit volatility may also be smoothed and lagged when compared to public market credit indices due to the inherent nature of private markets valuations and reporting.

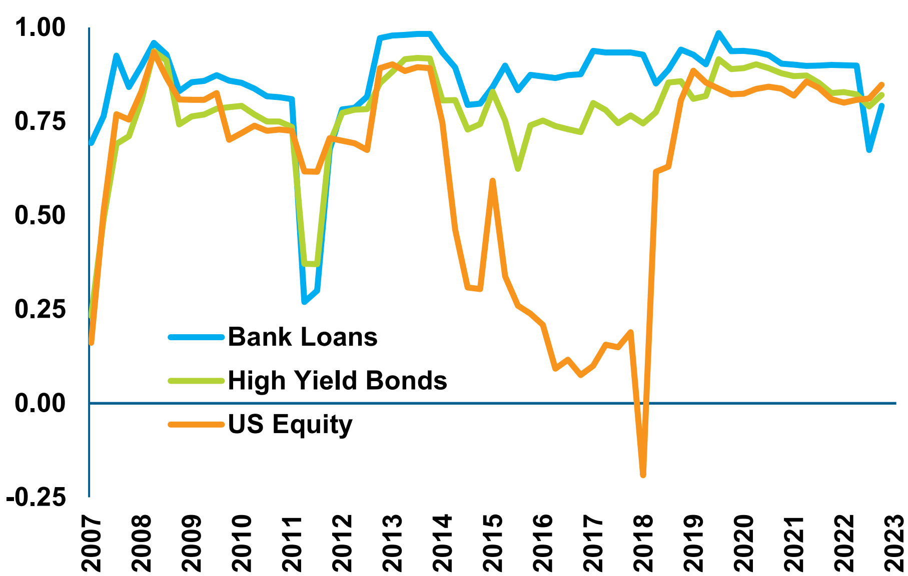
Rolling 3-Year Annualized Volatility

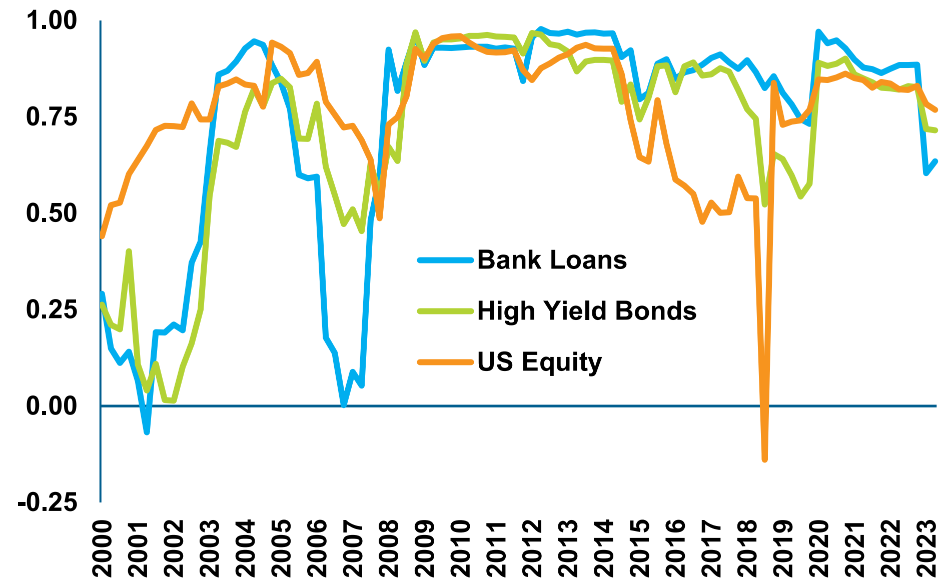


Source: Cambridge Associates via IHS Markit, annualized quarterly Pooled IRR as of June 2023 (pulled in January 2024). Monthly returns sourced from Bloomberg as of June 2023 and converted to quarterly. Indices: Cambridge US Private Credit Composite, Cliffwater Direct Lending index, Credit Suisse Leveraged Loan, Bloomberg US Corporate High Yield Bond Index, Russell 3000.

Diversification Potential

- Cambridge's US private credit composite and the CDLI may offer limited diversification benefits relative to their public market counterparts.
- Since 2005, both private credit proxies had average correlations of 0.70 and higher with US equity, 0.79 and higher with US private equity, and no correlation with US investment grade bonds.
  - Thus, US private credit may offer diversification benefits from the interest rate-sensitive portion of the US bond market, though not substantial diversification from US equity and private equity.





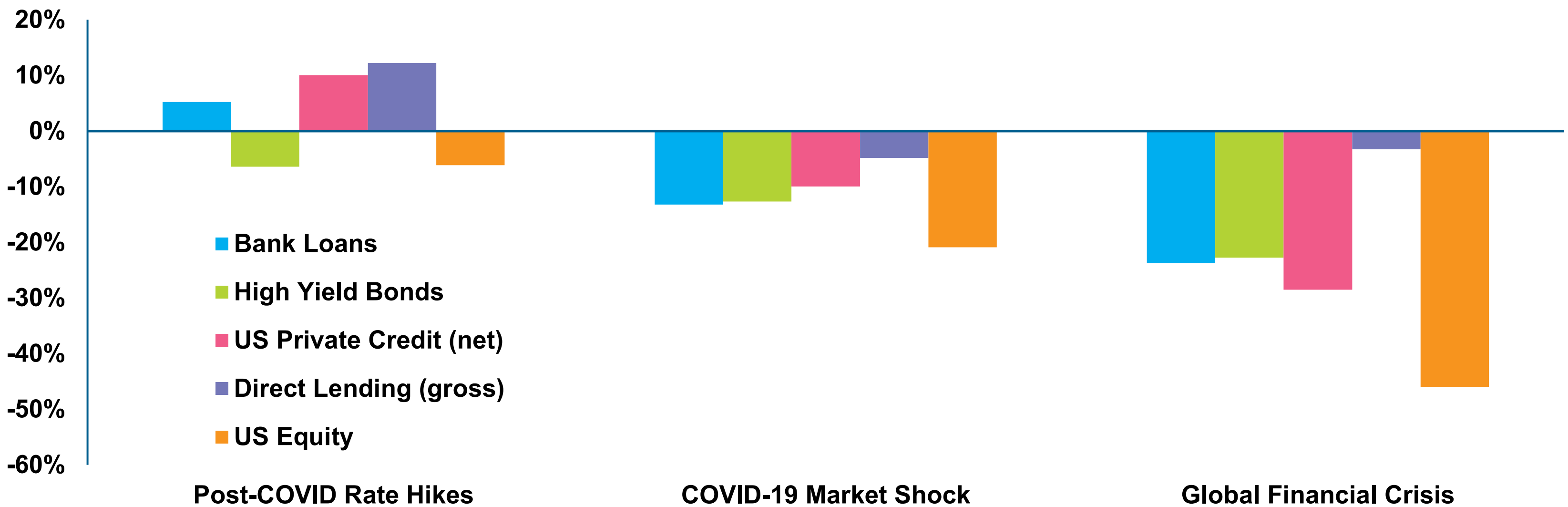
*Source: Monthly returns sourced from Bloomberg as of June 2023 and converted to quarterly. Indices: Cliffwater Direct Lending index, Credit Suisse Leveraged Loan, Bloomberg US Corporate High Yield Bond Index, Russell 3000.
**Source: Cambridge Associates via IHS Markit, annualized quarterly Pooled IRR as of June 2023 (pulled in January 2024). Monthly returns sourced from Bloomberg as of June 2023 and converted to quarterly. Indices: Cambridge US Private Credit Composite, Credit Suisse Leveraged Loan, Bloomberg US Corporate High Yield Bond Index, Russell 3000.

Downside Protection

→ Private credit may offer downside protection benefits to a portfolio for a number of reasons, for example:

- Funds generally produce steady income for a portfolio.
- Most private credit instruments are floating rate, which reduces interest rate sensitivity.
- There may also be seniority in the capital structure, better control over loan documentation, and access to borrower performance metrics.

→ Private credit strategies have fared better than US equity during the major market downturns over the last twenty years.



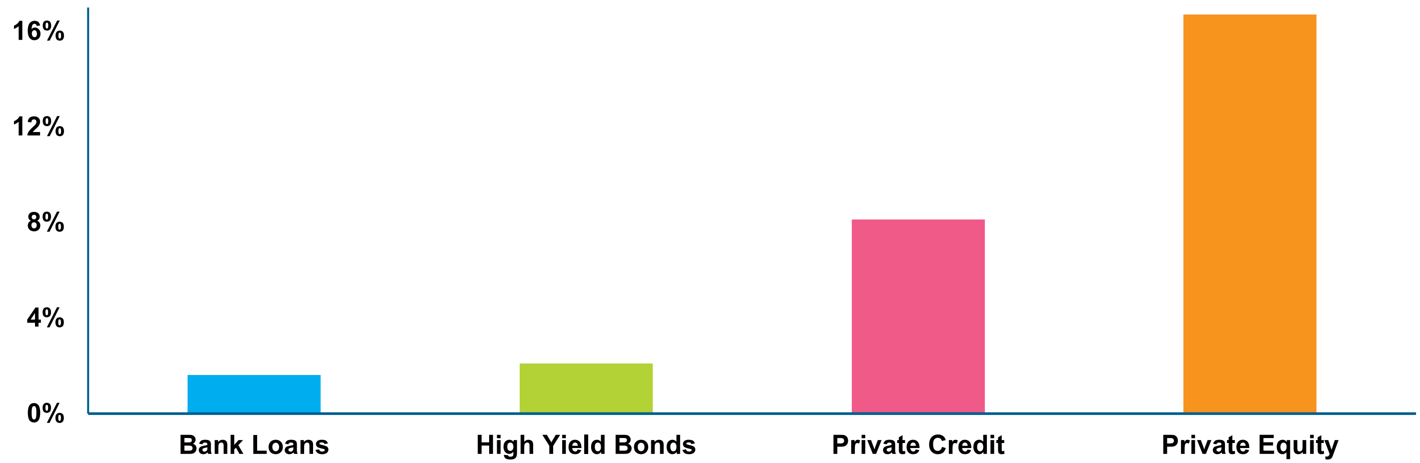
Source: Cambridge Associates via IHS Markit, annualized quarterly IRR as of June 2023 (pulled in January 2024). Monthly returns sourced from Bloomberg as of June 2023 and converted to quarterly. Indices: Cambridge US Private Credit Composite, Cliffwater Direct Lending index, Credit Suisse Leveraged Loan, Bloomberg US Corporate High Yield Bond Index, Russell 3000. Returns are cumulative for the time period over which the scenario occurred. Dates for the three events in order are: Oct 2007 – Mar 2009, Feb 2020 - Mar 2020, Jan 2022 – June 2023.

Manager Alpha Potential

→ Interquartile spreads can be interpreted as the potential value from selecting superior funds/managers.

→ Private credit's interquartile spread is larger than bank loans and high yield bonds but less than private equity.

- This may imply that private credit has more potential to add value than its public credit counterparts, but less than some other private markets asset classes.



→ The various strategies within private credit also have a range of value add potential.

- Direct lending generally has the smallest potential for funds/managers to add value while special situations typically has the highest.

Source: Cambridge Associates via IHS Markit, IRR quartiles by vintage year, and eVestment data pulled in April 2024. Private asset funds raised Vintage Year 2012 to 2021. High yield and bank loan data for the trailing 10 years as of December 31, 2022. Indices: Cambridge Private Credit Composite, Cambridge Private Equity Composite, eVestment High Yield Universe, eVestment Bank Loans Universe. Average fund count is 33 for private credit, 107 for private equity, 84 for bank loans, 143 for high yield. For more information on the bank loans and high yield alpha calculation, see Meketa's Manager Alpha Whitepaper.

Implementation Considerations

- While most private credit funds have traditionally been closed-end partnerships, there are an increasing number of open-end offerings.
- While there is a J-curve effect in private credit, it is typically shallower than for most other private market categories.
- As with other private markets, achieving full liquidity for an investor’s position in a fund would likely require a sale in the secondary market.
- Vintage year diversification is just as important for private credit portfolios as for other asset classes.

Fees

- Fee structures in private credit vary widely depending on fund structure and sub-strategy.
  - The emergence of open-end funds has led to an even wider variety of fee structures.
- Direct lending generally has lower fees, carry, and hurdle rates than special situations.
  - Primary drivers for the variance between fees include open vs closed-end structure, complexity and competition, and leverage, among others.
- Investors making large commitments may receive lower fee rates at one or more break levels.

Mean Private Credit Management Fee of the past 10 Vintage Years

Private Credit Sub-Strategy	Management Fee (%)
Direct Lending	1.56
Mezzanine	1.76
Special Situations	1.76
Distressed	1.85

Source: Preqin, 2023 Private Capital Fund Terms Advisor, October 2023. Figures are the average of the mean management fee for the past 10 vintage years.

Summary

→ Private credit is a form of financing originated by non-bank lenders under privately negotiated terms.

→ The private credit market has evolved and grown considerably, particularly since the GFC.

→ Meketa has identified four main strategies within private credit: direct lending, asset-based lending, special situations, and diversifying.

→ Private credit offers the opportunity to access potentially higher yield and return than those available in public market fixed income assets.

→ Benefits for institutional portfolios include the potential for volatility dampening, downside protection, and alpha via the selection of skilled managers.

- Diversification benefits may be limited to the interest rate-sensitive portion of the US bond market as it exhibits relatively high correlations with public credit and equities.

→ Investors should consider the diligence requirements, illiquidity, and higher fees common to private markets as well as the breadth of the asset class as they seek to build a strategic allocation consistent with their objectives and constraints.

Appendix

Cambridge Associates Private Credit Strategies’ Descriptions

- Cambridge Associates uses different categories for classifying private credit strategies than Meketa.
- Below are the strategies and descriptions used in the Cambridge Private Credit composite.
- Cambridge Associates Private Credit Strategies

Strategy	Description
Credit Opportunities	Funds that invest in a broad spectrum of credit and debt related investments across multiple geographies. Investments include but not limited to traditional high yield bonds and bank loans, corporate distressed debt, nonperforming loans (NPLs), real estate, structured finance, and dislocated industries (i.e. aviation, energy, shipping, royalties).
Senior Debt	Funds that provide senior secured loans for companies seeking to finance acquisitions, add-ons, restructurings and/ or bridge loans. Senior loans offer a level of downside protection through priority of claim on assets in the event of bankruptcy in addition to embedded covenants. The loans typically have floating rate coupons priced off LIBOR and benefit from LIBOR floors and/ or upfront origination fees. These investments may offer a lead role in refinancing’s with the ability to influence.
Subordinated Capital	Funds that invest in securities that lie between equity and secured debt. These investments are most often made to finance buyout but can also be used in place of growth equity. Along with the typical interest payment associated with debt, mezzanine capital will often include an equity stake in the form of warrants attached to the debt obligation or a debt conversion feature identical to that of a convertible bond.

Corporate Update

MEKETA

6
Offices

98%
Client Retention Rate

5:1
Client | Consultant Ratio

$2.4T
Assets Under Advisement

$380B
Assets in Alternative Investments

Meketa Investment Group is proud to work for over 30 million American families everyday!

Client and employee counts as of March 31, 2025; assets under advisement as of December 31, 2024; assets in alternative investments as of December 31, 2024.

Client retention rate is one minus the number of clients lost divided by the number of clients at prior year-end. Average over the previous five years.

THOUGHT LEADERSHIP

Converging Paths or Persistent Gaps? Understanding Valuations Across Public and Private Equity

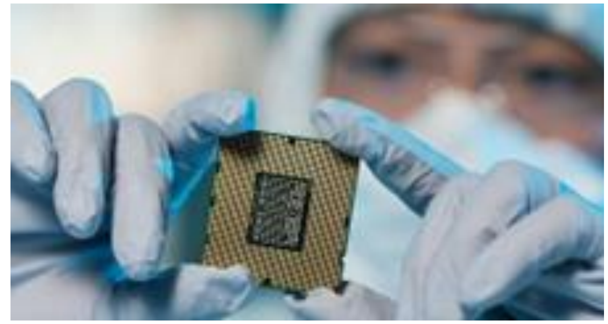
Valuations play a critical role in shaping long-term investment outcomes and are often considered to be an important determinant of future performance. Therefore, it is natural for allocators of large pools of assets to examine valuations across different markets. An area that has drawn attention in recent years is the comparison of valuations for the stock market and private equity, as both public and private equity valuations are near all-time highs. In this research note, we aim to evaluate where private equity valuations are relative to public markets, with a focus on North American buyout strategies and US equities, and what implications this may have.

Read more here:
https://meketa.com/leadership/converging-paths-or-persistent-gaps-understanding-valuations-across-public-and-private-equity/

Sustaining Missions and Navigating Markets: Frameworks for Endowment and Foundation Spending Policies

Our focus in this paper is on endowments and foundations that aim to maintain intergenerational equity, and how best to maintain this goal through spending policy development.

Read more here:
https://meketa.com/leadership/sustaining-missions-and-navigating-markets-frameworks-for-endowment-and-foundation-spending-policies/



AI Infrastructure Investment

Since OpenAI launched its generative artificial intelligence application, ChatGPT, in late 2022, AI has catapulted to the forefront of technology companies in the US.

The growing competition in AI development has driven a significant surge in investments in technological research and innovation. In the US, the so-called "Magnificent Seven" companies have each developed their own proprietary large language models (LLMs).

Read more here:
https:///meketa.com/leadership/ai-infrastructure-investment

ANNOUNCING
OUR NEWEST SHAREHOLDER

Matt Curran

Research Consultant

HONORS AND AWARDS FOR MEKETA'S DECORATED LEADERS

Congratulations to Meketa's Mika Malone, CAIA on being named to Chief Investment Officer magazine's 2025 Knowledge Brokers list!

The annual Knowledge Brokers list honors influential and insightful investment consultants, recognizing them for their strategic counsel and success in connecting asset owners with impactful investment opportunities. Mika's leadership, thoughtful guidance, and client-first mindset continue to make a lasting impact both at Meketa and across the industry.

View the full story here: https://www.linkedin.com/feed/update/urn:li:activity:7330986008714383361

NCPERS 1941

The Voice for Public Pensions

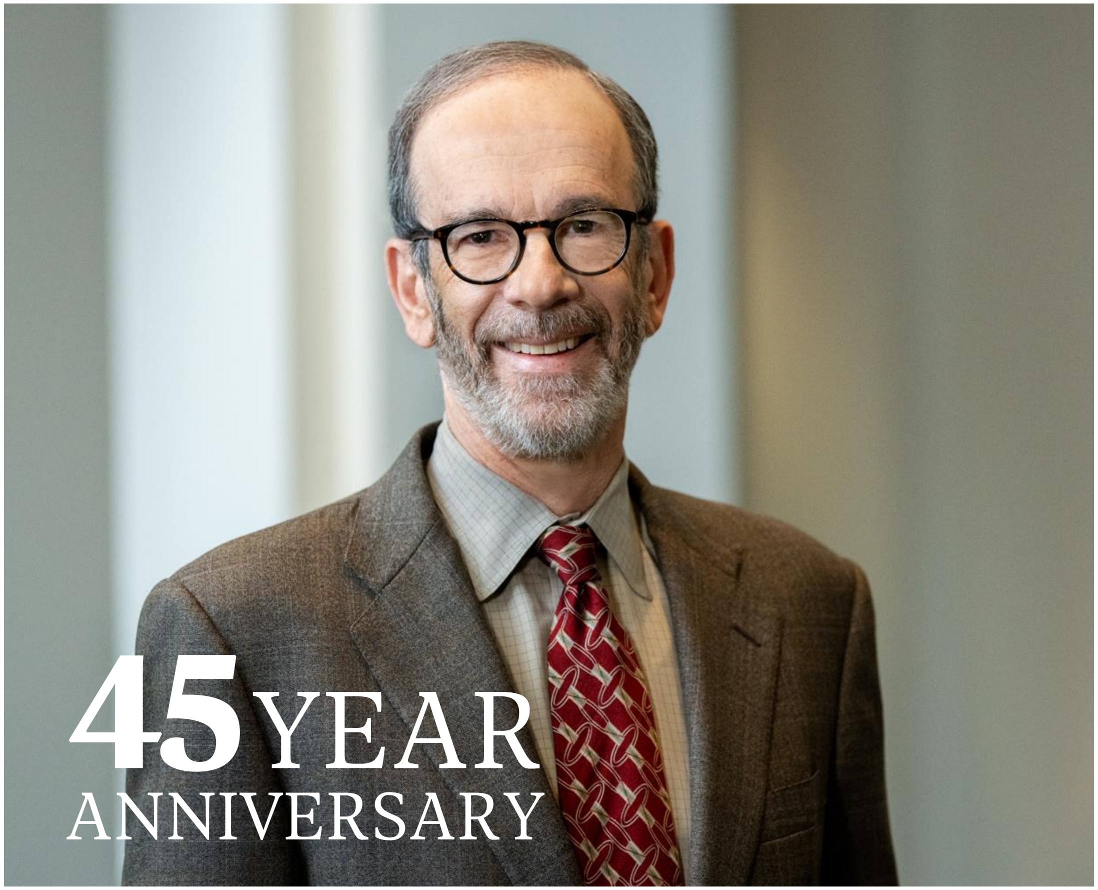
Meketa is proud to have received a 2025 Pension Partners of the Year Award from the National Conference on Public Employee Retirement Systems (NCPERS).

"Education is a crucial component of our service to clients and the wider pension fund industry" said Stephen McCourt, co-CEO, Meketa Investment Group. "We're honored to be recognized by NCPERS, and we're especially proud of the contributions of our colleagues Judy Chambers and David Sancewich, whose efforts have helped trustees navigate an increasingly complex investment landscape."

View full story here: https://www.linkedin.com/feed/update/urn:li:activity:7343354503682768897

CONGRATULATIONS TO ALAN SPATRICK ON CELEBRATING 45 YEARS WITH MEKETA

Alan's journey at Meketa Investment Group spans an incredible 45 years, making him a living archive of the firm's history, evolution, and ethos. As employee number three, he has witnessed and influenced Meketa's transformation from a small operation to a sophisticated institutional investment advisory firm.



View the full story here: **Celebrating 45 Years of Inspiration Insights from the Archive of Alan Spatrick, Meketa Consultant, from His Journey Along the Way**
https://meketa.com/wp-content/uploads/2025/03/MEKETA_Anniversary-Alan-Spatrick.pdf

MEKETA IN THE WILD

IPEM Conference

Meketa's **Balaj Singh, CFA, CAIA** enjoyed moderating a panel at April's Pensions & Investments x IPEM conference, 2025 Private Markets: The LP Perspective. Balaj and his fellow panelists discussed the state of private equity and how LPs are monitoring their private equity portfolios to ensure they meet investment objectives, noting "private equity investing is not about a "set it and forget it" mentality."

Talking Hedge

It was great to hear Meketa's **Zachary Driscoll, CFA** moderate the panel, Leveraging Total Portfolio Principles to Compound Better, at last month's Talking Hedge Austin conference. The discussion offered valuable insights and was a great kick-off to the event.

PREA Institute

Christy Fields from Meketa had the pleasure of leading the session, The Performance of Real Estate and Other Alternatives, at the conference in Chicago, with **Rajeev Ranade** joining as well. The Institute is dedicated to exploring real estate investment where theory meets practice, fostering insightful discussions and innovative ideas.

MEKETA IN THE NEWS

Pensions&Investments

Expanding the Playbook – Private Equity's Evolving Opportunities in Sports | April 30, 2025

Commentary by Balaj Singh, *Senior Private Markets Analyst*

"For private equity investors, the sports sector offers the allure of cultural relevance, anticipated steady demand and growing institutional acceptance. But it also requires patience, creativity and an understanding that this is not your typical PE asset class. The playbook is still being written."

EQDerivatives

Long Volatility Gains Momentum, Trend Strategies Show Resilience Amid Market Corrections

By Quratulain Tejani | May 7, 2025

Meketa said risk mitigating strategies helped institutional clients navigate volatility as markets tumbled in April. Long volatility strategies proved effective in mitigating risk, and should a drawdown or inflationary themes continue to extend, trend following strategies will be ready to take the baton.

Meketa's risk management framework, which is categorized into first responders, such as long volatility, second responders, such as trend following and diversifiers, is helping investors weather equity drawdowns and potentially benefit from bear market conditions. Ryan Lobdell, head of marketable alternatives, highlighted that many of these strategies have stood their ground during the recent market selloffs, despite liquidity concerns expressed by some.

"The vast majority of these [systematic strategies] trade futures contracts on different types of assets, such as equity, equity indices, rates, currencies [and] commodities.," said Zack Driscoll, research consultant at Meketa.

"Many first responder strategies, [such as long volatility], did quite well over the first week to 10 days of April," said Lobdell. "There has been an uptick in interest, but in terms of people actually putting dollars to work, I think that's been a hit or miss because of liquidity constraints within private markets allocations."

Second responder strategies, such as trend following, tend to perform well during bear markets or prolonged drawdowns — especially when asset managers take long and short positions across macro markets within a six-week to six-month time horizon, Lobdell said. "This played out during the global financial crisis and again in 2022, when persistent market trends created favorable conditions for these approaches. But in times like the mid-April market selloffs, or the beginning of COVID-19, when trends rapidly reverse, the performance of the strategy can suffer in the short term as it repositions. If equities are trending down, trend followers will likely be net sellers, leading to negative correlations to equities." This, Lobdell said, may produce an attractive profile, such as convexity.

Diversifiers, such as global macro, equity market neutral, relative value, event-driven, insurance-linked securities, alternative risk premia and multistrategies, act as hedges and contribute to returns during bull and flat equity markets, particularly when bonds might be failing to deliver the required portfolio protection, Lodbell and Driscoll highlighted. "[These] diversified sets of hedges or protection in a portfolio tend to not do as well when there's no trend. When markets move sideways and are choppy, like we've seen, that's a harder environment for them to succeed in," **Driscoll said. "Ultimately, no single group of a risk management functional framework, or a single strategy within a group, is likely to effectively fulfill all objectives. We work hard to educate clients on the role of the framework and how each strategy within interacts, to manage their expectations."**

chief investment officer

How Companies With Frozen, Overfunded Pensions Approach the Future

By Matt Toledo | May 1, 2025

Corporations are increasingly evaluating de-risking options for their pension funds, while also adding risk to their portfolios.

"The majority of plans that are frozen and just a little bit overfunded are still targeting termination," says **Jonathan Camp**, a managing principal at Meketa. "But we have seen an uptick in companies that are opening back up their plans. … Some of these frozen plans that have excess assets—let's say they are 5% or 10% overfunded—that's when [the sponsors] start to have to think to [themselves]: Are we going to terminate the plan and then use those assets for some other purpose?"

How Frozen, Surplus-Asset Plans Are Investing

"If you're 100% or over 100% funded, you're going to have a heavier allocation to bonds—the higher quality, the better," says Camp. "So typically Treasurys, AAA bonds, AA bonds…you're generally focused on investment-grade, high-quality corporate bonds."

Will More Plans Like IBM Reopen?

"The plans that I see that are frozen and using their assets to open back up and offer new benefits, from what I've seen, they tend to be cash balance plans," Camp says, noting that other types of plans are not unfreezing their pensions.

Disclaimer, Glossary, and Notes

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

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT, AND IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. THE INFORMATION CONTAINED HEREIN, INCLUDING ANY OPINIONS OR RECOMMENDATIONS, REPRESENTS OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND IS SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK, AND THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

THE INFORMATION USED TO PREPARE THIS REPORT MAY HAVE BEEN OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. SOME OF THIS REPORT MAY HAVE BEEN PRODUCED WITH THE ASSISTANCE OF ARTIFICIAL INTELLIGENCE (“AI”) TECHNOLOGY. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY, ADEQUACY, VALIDITY, RELIABILITY, AVAILABILITY, OR COMPLETENESS OF ANY INFORMATION CONTAINED HEREIN, WHETHER OBTAINED EXTERNALLY OR PRODUCED BY THE AI.

THE RECIPIENT SHOULD BE AWARE THAT THIS REPORT MAY INCLUDE AI-GENERATED CONTENT THAT MAY NOT HAVE CONSIDERED ALL RISK FACTORS. THE RECIPIENT IS ADVISED TO CONSULT WITH THEIR MEKETA ADVISOR OR ANOTHER PROFESSIONAL ADVISOR BEFORE MAKING ANY FINANCIAL DECISIONS OR TAKING ANY ACTION BASED ON THE CONTENT OF THIS REPORT. WE BELIEVE THE INFORMATION TO BE FACTUAL AND UP TO DATE BUT DO NOT ASSUME ANY RESPONSIBILITY FOR ERRORS OR OMISSIONS IN THE CONTENT PRODUCED. UNDER NO CIRCUMSTANCES SHALL WE BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES OR ANY DAMAGES WHATSOEVER, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE, OR OTHER TORT, ARISING OUT OF OR IN CONNECTION WITH THE USE OF THIS CONTENT. IT IS IMPORTANT FOR THE RECIPIENT TO CRITICALLY EVALUATE THE INFORMATION PROVIDED.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE “FORWARD-LOOKING STATEMENTS,” WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS “MAY,” “WILL,” “SHOULD,” “EXPECT,” “AIM,” “ANTICIPATE,” “TARGET,” “PROJECT,” “ESTIMATE,” “INTEND,” “CONTINUE,” OR “BELIEVE,” OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS REPORT ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS REPORT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Russell Indices®, TM, SM are trademarks/service marks of the Frank Russell Company.

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.