Investment Performance Services

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Operating Engineers Local No. 77 JATC Fund

Investment Performance Analysis - GCS
Period Ended
June 30, 2025

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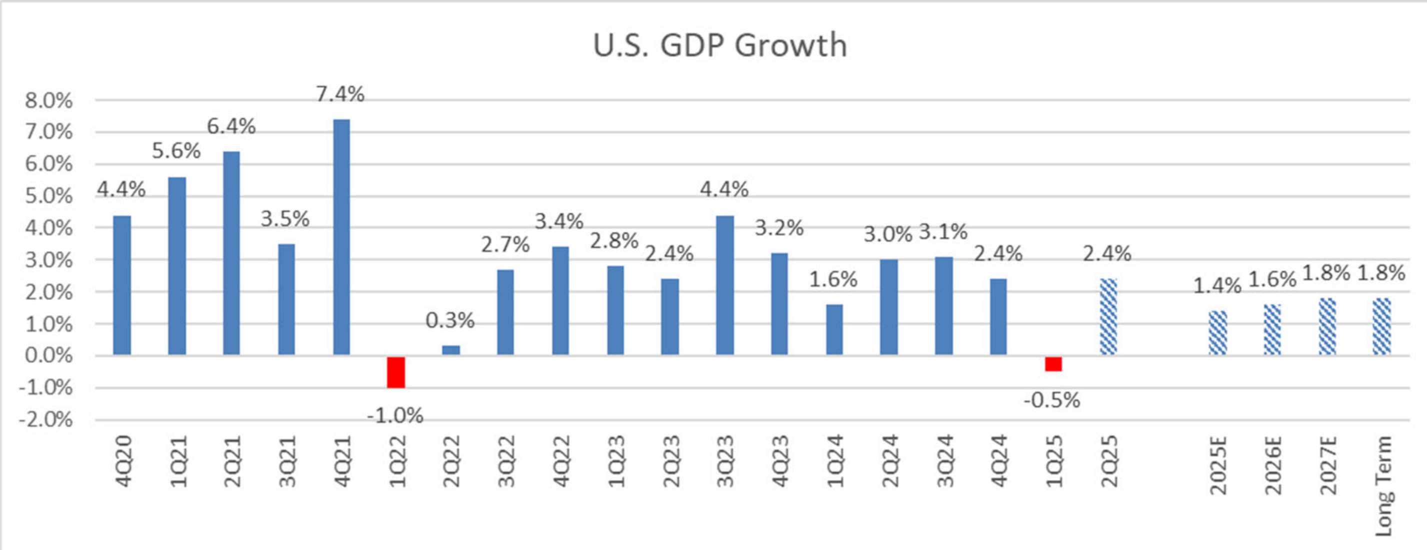
Operating Engineers Local No. 77 JATC Fund

Market Discussion Q2 | 2025

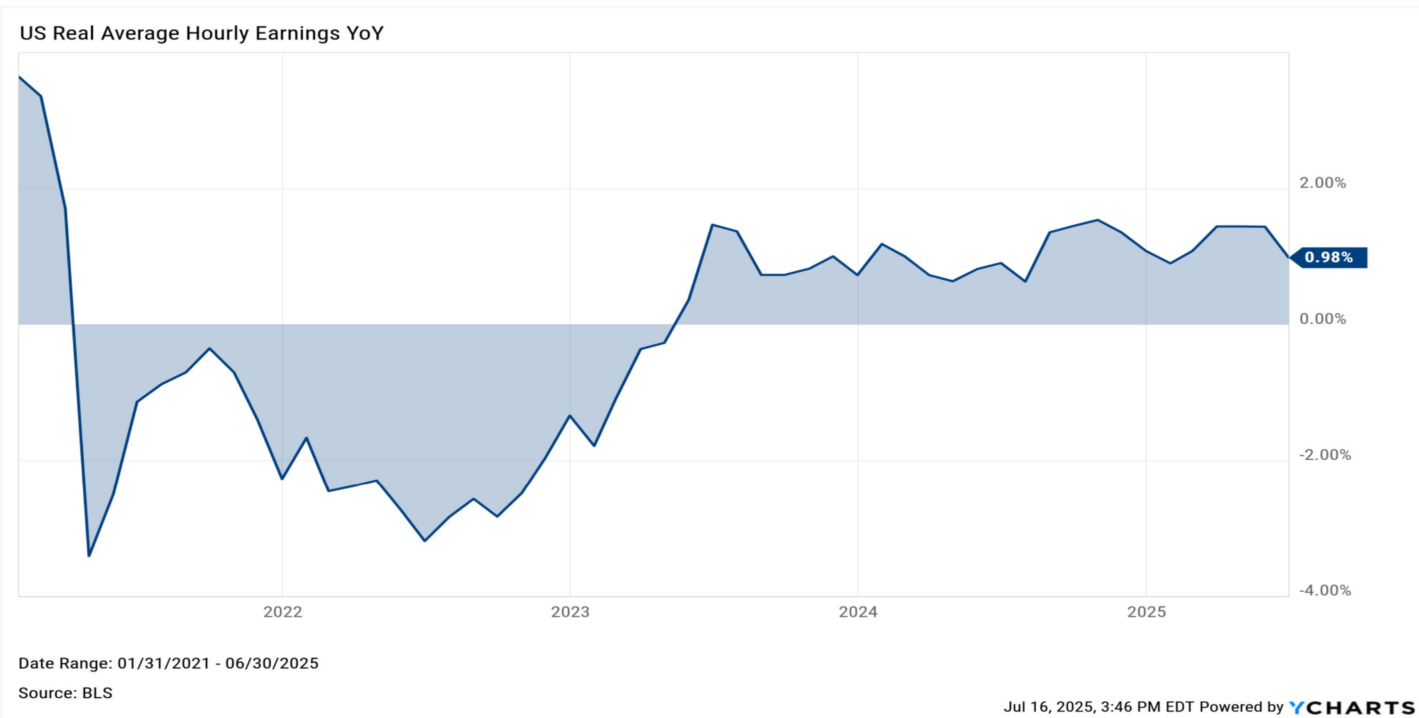
Financial Market Performance – Periods Ending June 30, 2025

Strategy	Sector	Index	QTR	YTD	2024	2023	2022	2021	2020	2019	1-Yr	3-Yr	5-Yr	10-Yr	20-Yr
Stocks	US Large Cap	S&P 500	10.9%	6.2%	25.0%	26.3%	-18.1%	28.7%	18.4%	31.5%	15.1%	19.7%	16.6%	13.6%	10.7%
	US Large Cap Growth	Russell 1000 Growth	17.8%	6.1%	33.4%	42.7%	-29.1%	27.6%	38.5%	36.4%	17.2%	25.7%	18.1%	17.0%	13.0%
	US Large Cap Value	Russell 1000 Value	3.8%	6.0%	14.3%	11.4%	-7.6%	25.1%	2.8%	26.5%	13.7%	12.7%	13.9%	9.2%	8.1%
	US Small Cap	Russell 2000	8.5%	-1.8%	11.5%	16.9%	-20.5%	14.8%	19.9%	25.5%	7.7%	10.0%	10.0%	7.1%	7.7%
	Non-US Developed	MSCI EAFE (net)	11.8%	19.4%	3.8%	18.2%	-14.5%	11.3%	7.8%	22.0%	17.7%	16.0%	11.2%	6.5%	5.8%
	Emerging Markets	MSCI EM (net)	12.0%	15.3%	7.5%	9.8%	-20.1%	-2.5%	18.3%	18.4%	15.3%	9.7%	6.8%	4.8%	6.4%
	Int'l Small Cap	MSCI EAFE Small Cap (net)	16.6%	20.9%	1.8%	13.2%	-21.4%	10.1%	12.3%	25.0%	22.5%	13.3%	9.3%	6.5%	6.5%
Bonds	Treasury	Bloomberg US Govt	0.9%	3.8%	0.6%	4.1%	-12.3%	-2.3%	7.9%	6.8%	5.3%	1.6%	-1.5%	1.2%	2.6%
	Broad Market	Bloomberg Aggregate	1.2%	4.0%	1.3%	5.5%	-13.0%	-1.5%	7.5%	8.7%	6.1%	2.5%	-0.7%	1.8%	3.1%
	Intermediate	Bloomberg Gov/Credit Int.	1.7%	4.1%	3.0%	5.2%	-8.2%	-1.4%	6.4%	6.8%	6.7%	3.6%	0.6%	2.0%	3.0%
	High Yield	Bloomberg HY BaB 2% IC	3.5%	4.7%	6.8%	12.6%	-10.6%	4.6%	7.7%	15.2%	9.1%	9.3%	5.3%	5.2%	6.3%
	Short Duration HY	ICE BofA 1-3 Yrs BB US Cash Pay HY	2.5%	3.9%	6.7%	8.9%	-3.1%	3.2%	5.4%	8.7%	7.8%	7.7%	5.2%	4.5%	5.6%
	Global Bonds	FTSE WGBI	4.6%	7.3%	-2.9%	5.2%	-18.3%	-7.0%	10.1%	5.9%	8.5%	1.7%	-2.5%	0.6%	1.8%
GTAA	Unconstrained	65% MSCI World /35% FTSE WGBI	9.1%	8.8%	10.8%	17.0%	-18.1%	11.0%	14.6%	19.9%	13.6%	12.4%	8.5%	7.3%	6.4%
Real Estate	Core	NCREIF ODCE Equal Weighted (net)	0.8%	1.7%	-2.4%	-13.4%	7.6%	21.9%	0.8%	5.2%	2.5%	-6.3%	2.7%	4.7%	5.3%
Hedge Fund of Funds	Diversified FOFs	HFRI FOF Composite	2.1%	2.9%	9.2%	6.1%	-5.3%	6.2%	10.9%	8.4%	7.2%	6.5%	6.2%	3.8%	3.6%
	Equity Long-Short	HFRI Equity Hedge	7.6%	6.0%	11.9%	11.4%	-10.1%	11.7%	17.9%	13.7%	11.6%	10.4%	10.1%	6.5%	5.8%
Commodities	Commodities	Goldman Sachs Commodity	-2.8%	1.9%	9.2%	-4.3%	26.0%	40.4%	-23.7%	17.6%	0.3%	-0.4%	17.7%	1.5%	-2.5%

U.S. Economy



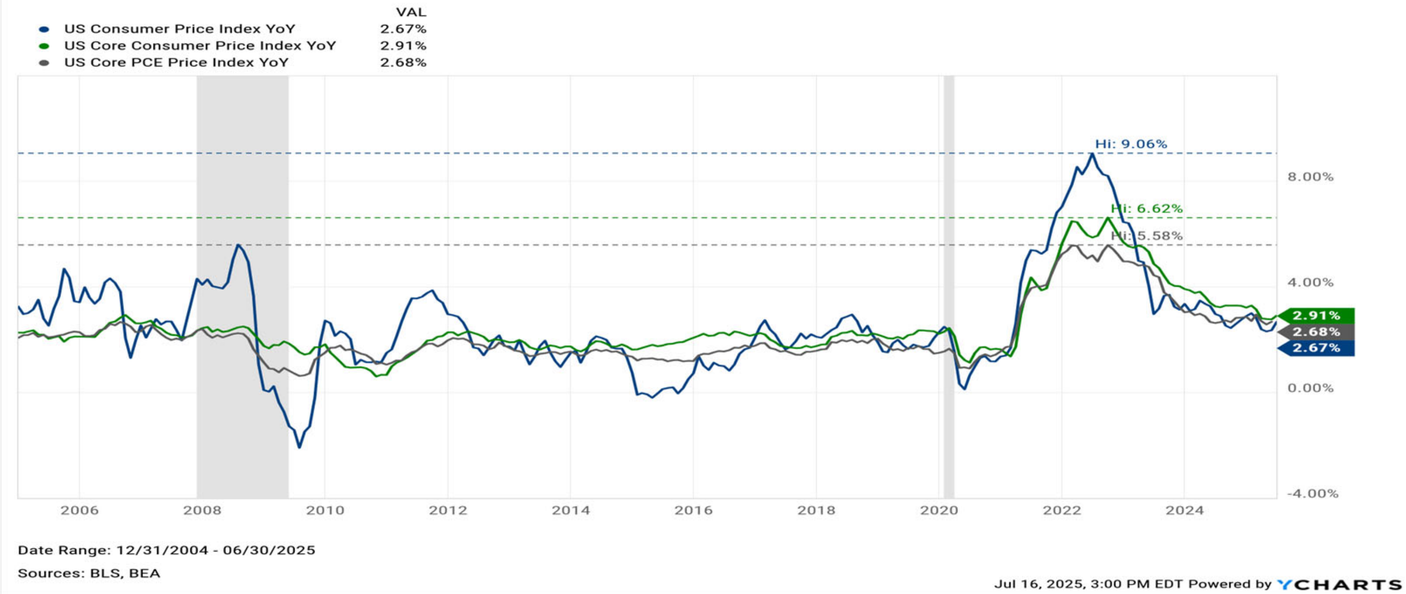
Sources: U.S. Bureau of Economic Analysis, Federal Reserve, Atlanta Federal Reserve

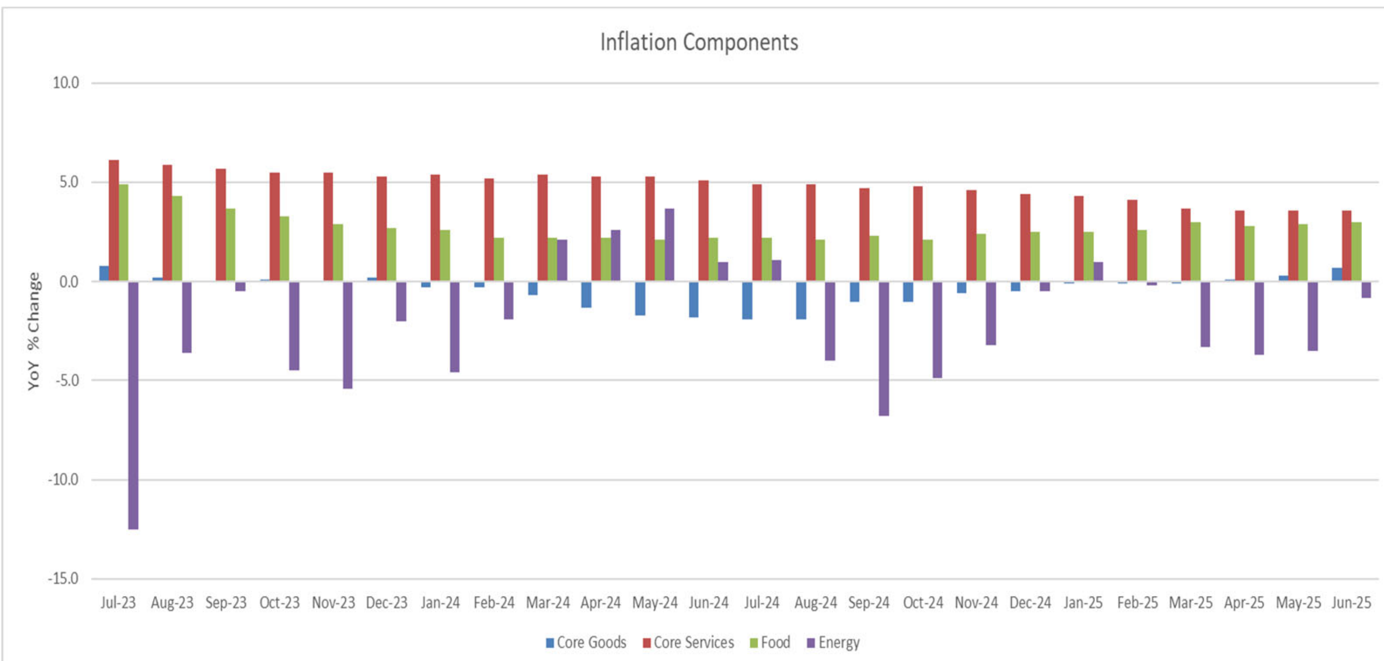


Economic Growth Rebounded in Q2 2025

- U.S. GDP declined by 0.5% in Q1 2025, the first negative quarter for economic growth since Q1 2022.
- The primary cause of negative U.S. GDP growth in Q1 2025 was a record surge in imports, which detracted from GDP, driven largely by businesses building inventory ahead of higher tariffs.
- Economic growth is expected to return to positive territory with the Atlanta Federal Reserve's *GDPNow* model projecting 2.4% growth for Q2 2025 as of July 18th.
- The Federal Reserve has downgraded its 2025 growth forecast from 2.1% to 1.4%, citing increased "uncertainty around the economic outlook."
- U.S. economic growth has been underpinned by strong consumer spending, bolstered by 26 straight months of inflation-adjusted wage gains as wage growth consistently outpaced inflation.

U.S. Economy

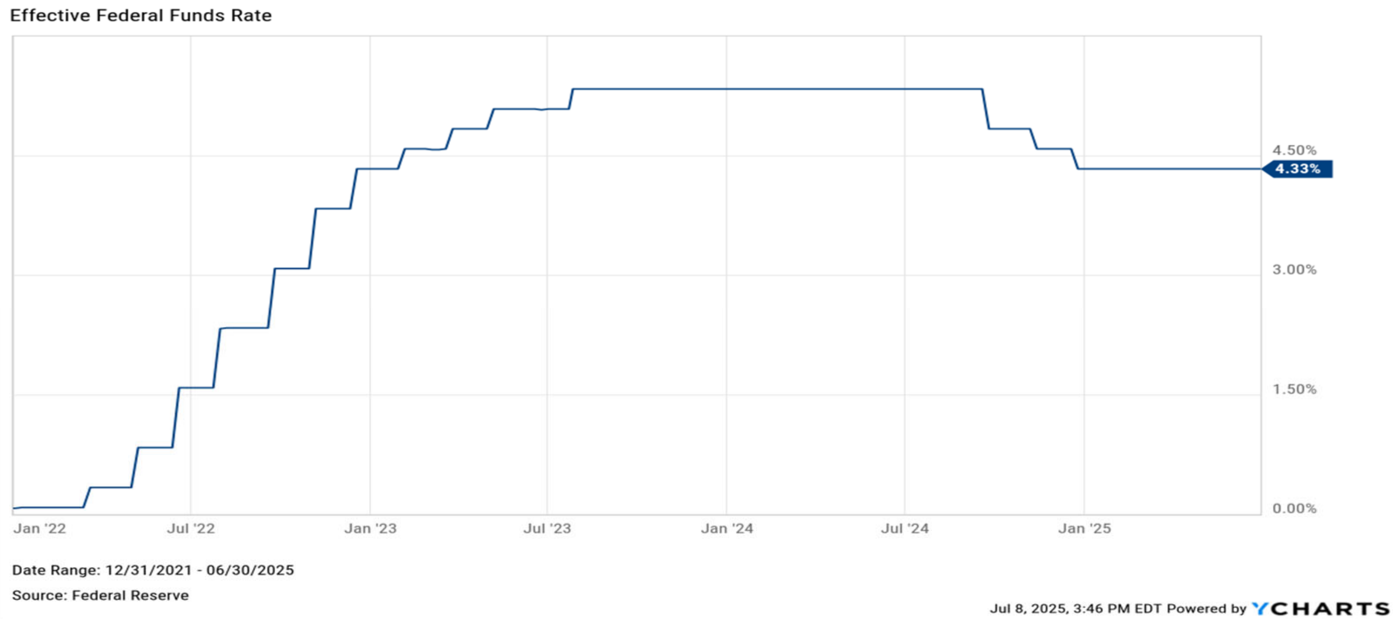


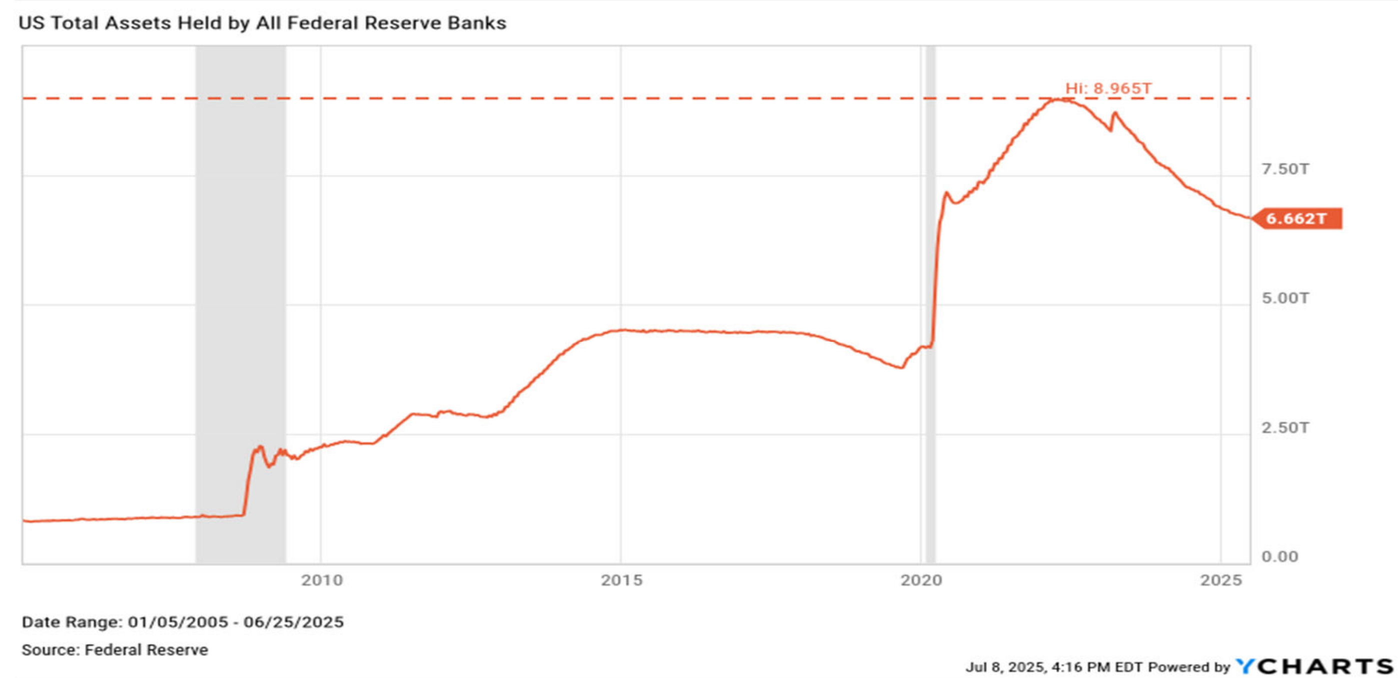


Higher Tariffs Impacting Inflation

- June CPI rose by 0.3% month-over-month, the fastest monthly rise since January, and year-over-year inflation climbed by 2.7%, up from 2.4% in May.
- After 15 consecutive months of declining prices (driven by falling auto prices), goods inflation was positive each of the last three months. In June, tariff-sensitive goods surged, including appliances (+1.9%), household furnishings (+1.0%), apparel (+0.4%), toys (+1.8%), and audio/video equipment (+1.1%)
- Excluding food and energy, core inflation increased by 0.2% in June and 2.9% vs. a year ago.
- Service inflation remains elevated; however, the May through June readings of 3.6% were the lowest since November 2021.
- Core Personal Consumption Expenditures (PCE), the Fed's preferred inflation measure, increased by 2.7% over the last year through May.

U.S. Economy

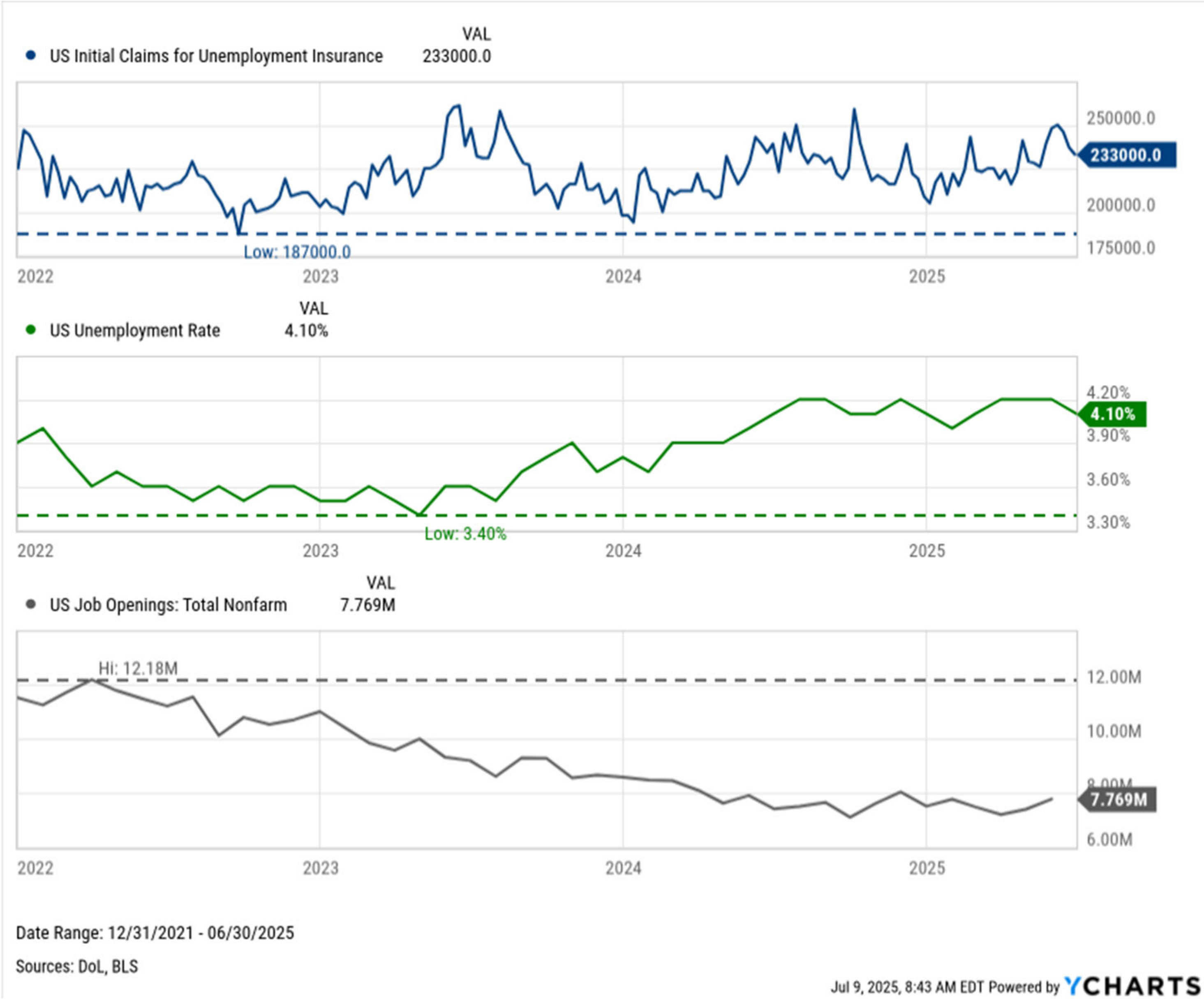




Fed Remains on Hold Amid Tariff Related Uncertainty

- The Federal Open Market Committee (FOMC) has held interest rates steady at a target range of 4.25% to 4.50% for each of the first four meetings of 2025.
- The effective Fed funds rate remains at the lowest level since January 2023.
- In their June 2025 statement, the FOMC noted that uncertainty about the economic outlook has diminished but remains elevated, replacing earlier language suggesting uncertainty had "increased further."
- Forward guidance from the FOMC's June meeting remained unchanged from March, suggesting 50 bps in cuts in 2025.
- The Fed reduced the size of its balance sheet through quantitative tightening by approximately $2.3 trillion since the peak in April 2022.
- The balance sheet is at the lowest level since April 2020 but remains significantly larger than pre-COVID.

U.S. Economy



Labor Market Remains Reasonably Healthy in 2025

- Nonfarm payrolls increased by 147,000 in June, slightly above the 12-month average and surpassing expectations of ~110,000.
- Unemployment rate edged down 0.1% to 4.1%. The unemployment rate has been at or above 4.0% since May 2024, following 27 consecutive months below 4.0%.
- Weekly claims for unemployment averaged 227,423 year-to-date in 2025, slightly higher than the 2024 average of 223,000.
- Despite a small uptick in 2025, job openings are approximately 4.4 million below the peak in 2022 of 12.2 million.

U.S. Equity Market

	Index	2Q25	YTD	2024	2023	2022	2021	2020	2019	1-Year	3-Year	5-Year	10-Year
Large Cap	S&P 500	10.9%	6.2%	25.0%	26.3%	-18.1%	28.7%	18.4%	31.5%	15.1%	19.7%	16.6%	13.6%
	Russell 1000	11.1%	6.1%	24.5%	26.5%	-19.1%	26.4%	21.0%	31.4%	15.6%	19.5%	16.3%	13.3%
	Russell 1000 Value	3.8%	6.0%	14.3%	11.4%	-7.6%	25.1%	2.8%	26.5%	13.7%	12.7%	13.9%	9.2%
	Russell 1000 Growth	17.8%	6.1%	33.4%	42.7%	-29.1%	27.6%	38.5%	36.4%	17.2%	25.7%	18.1%	17.0%
Mid Cap	Russell Mid-Cap	8.5%	4.8%	15.3%	17.2%	-17.3%	22.6%	17.1%	30.5%	15.2%	14.3%	13.1%	9.9%
	Russell Mid-Cap Value	5.3%	3.1%	13.1%	12.7%	-12.1%	28.3%	5.0%	27.0%	11.5%	11.3%	13.7%	8.4%
	Russell Mid-Cap Growth	18.2%	9.8%	22.1%	25.9%	-26.7%	12.7%	35.6%	35.5%	26.5%	21.4%	12.6%	12.1%
Small Cap	Russell 2000	8.5%	-1.8%	11.5%	16.9%	-20.5%	14.8%	19.9%	25.5%	7.7%	10.0%	10.0%	7.1%
	Russell 2000 Value	5.0%	-3.2%	8.0%	14.6%	-14.5%	28.2%	4.6%	22.4%	5.5%	7.4%	12.4%	6.7%
	Russell 2000 Growth	12.0%	-0.5%	15.2%	18.6%	-26.4%	2.8%	34.6%	28.4%	9.7%	12.3%	7.4%	7.1%
Total Market	Wilshire 5000	11.1%	5.7%	23.8%	26.1%	-19.0%	26.7%	20.8%	31.0%	15.2%	19.1%	16.2%	13.2%
	Russell 3000	11.0%	5.7%	23.8%	25.9%	-19.2%	25.6%	20.9%	31.0%	15.3%	19.0%	15.9%	12.9%

Major Index Total Return as of June 30, 2025

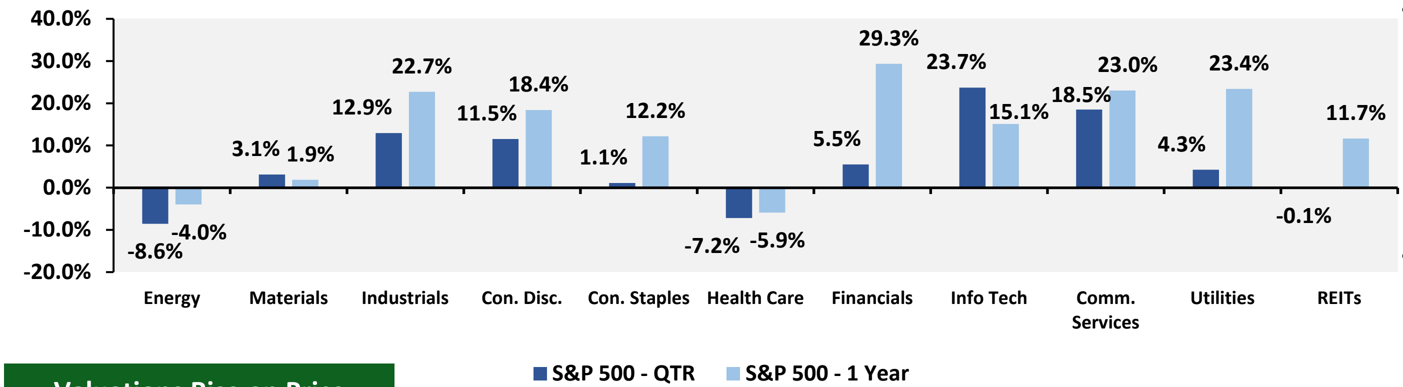
Asset Class	Name	2Q25	% off Low	% Off All Time High
U.S. Large Cap	S&P 500	10.9%	24.9%	0.0%
U.S. Mid Cap	Russell Midcap	8.5%	23.3%	-2.6%
U.S. Smid Cap	Russell 2500	8.6%	24.3%	-7.5%
U.S. Small Cap	Russell 2000	8.5%	24.0%	-10.2%
International Large Cap	MSCI EAFE (net)	11.8%	21.3%	0.0%
International Small Cap	MSCI EAFE Small Cap (net)	16.6%	25.1%	0.0%
Emerging Markets	MSCI EM (net)	12.0%	22.9%	-5.4%
Global Equity	MSCI AC World Index (net)	11.5%	24.1%	0.0%

*% off Low as of April 8, 2025

- After falling 4.3% in Q1, the S&P 500 Index rebounded strongly in Q2 2025, gaining 10.9% and bringing year-to-date returns to +6.2%.
- The second quarter began with a sharp selloff in April following a wave of U.S. tariff announcements targeting not only China but also key imports from allies such as Japan, South Korea, and the European Union.
- However, the pullback was short-lived. Markets began to view the tariffs as more symbolic than structural, expecting them to be delayed, scaled back, or never fully implemented.
- Q1 2025 earnings broadly exceeded expectations, particularly in the technology and consumer sectors, helping reignite investor confidence and propelling the S&P 500 Index to new record highs by the end of the quarter.

U.S. Equity Market

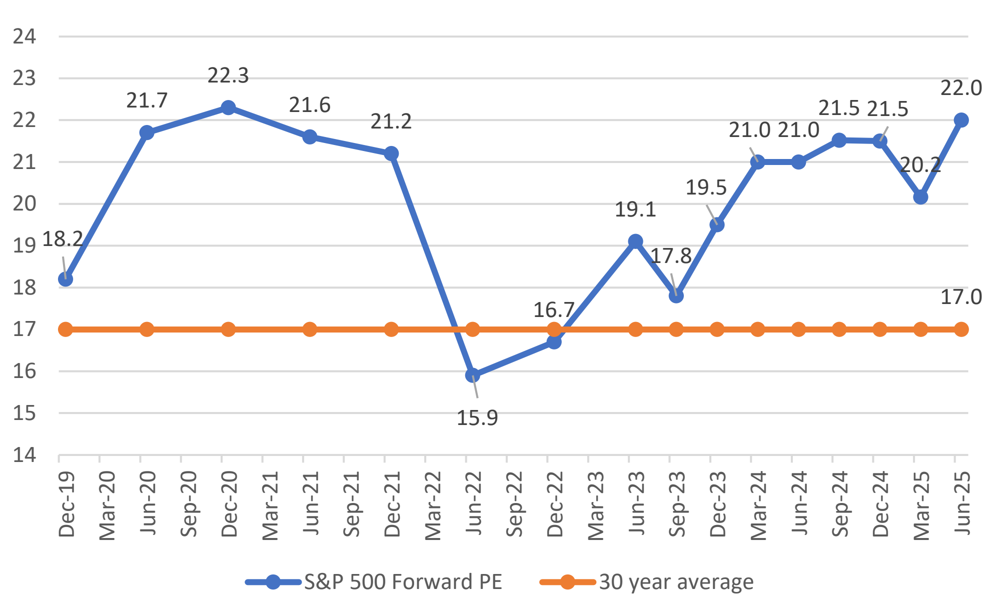
S&P 500 Sector Performance
As of June 30, 2025



Valuations Rise on Price Gains

- Analyst estimates indicate the S&P 500's Q2 earnings growth will slow to 4.8%, the weakest pace since Q4 2023. Markets are optimistic that earnings will improve in the second half of 2025 as economic conditions and corporate profits strengthen.
- The S&P 500's forward P/E ratio increased significantly during the late-quarter rebound, driven by price gains rather than earnings growth.

S&P 500 Forward P/E



Source: J.P. Morgan Asset Management

Mega Caps Roar Back Amid Market Surge

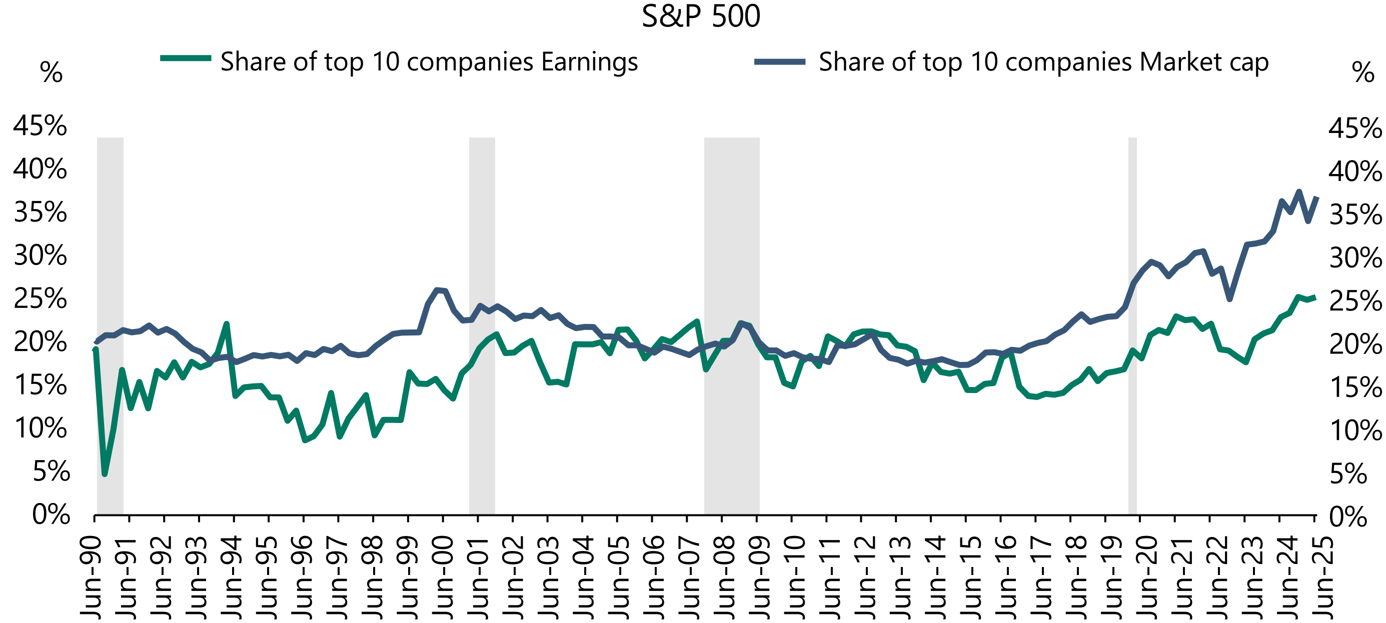
- April's near-flat monthly performance of the S&P 500 index masked significant volatility, including a 13.8% drawdown from the March close, the sharpest monthly drop since March 2020.
- Since the early April low, companies with greater international revenue exposure have outperformed, as a weaker U.S. dollar boosts the value of overseas sales when converted back into dollars. This currency effect, partly driven by tariff-related uncertainty, has helped lift reported earnings for large multinationals.
- Within large caps, technology and communications drove the Q2 recovery with gains of 23.7% and 18.5%, respectively.
- Conversely, energy and healthcare, which had been strong in the first quarter, declined sharply by 8.6% and 7.2%, respectively.
- The healthcare sector's decline extends a period of underperformance, as it has lagged the broader market for several years.

U.S. Equity Market

S&P 500 Shows Broad Valuation Elevation, Led by Top 10 Constituents

- The S&P 500 has historically exhibited concentration, but the top 10 companies now represent a growing share of both the index's earnings and market capitalization.
- These mega-cap companies generate substantial earnings that justify much of their market value; however, their valuations are expanding faster than earnings, resulting in a higher premium relative to the rest of the market.
- At the same time, valuations across the broader index are also elevated, indicating that high price-to-earnings multiples are widespread and not confined to just the most prominent companies.

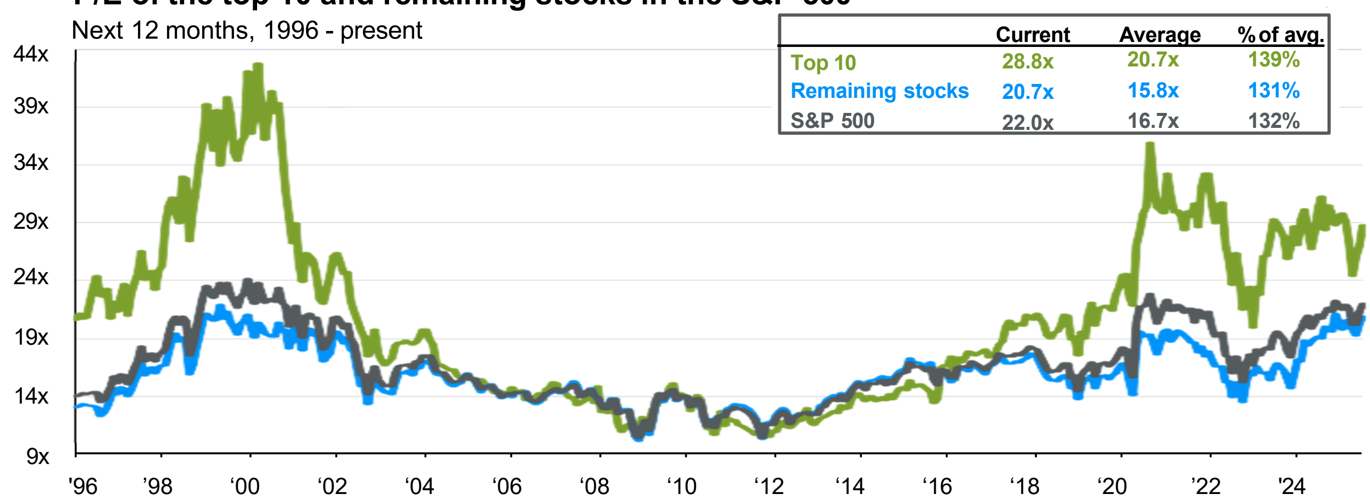
Concentration in the S&P 500 rising again



Sources: Bloomberg, Apollo Chief Economist.

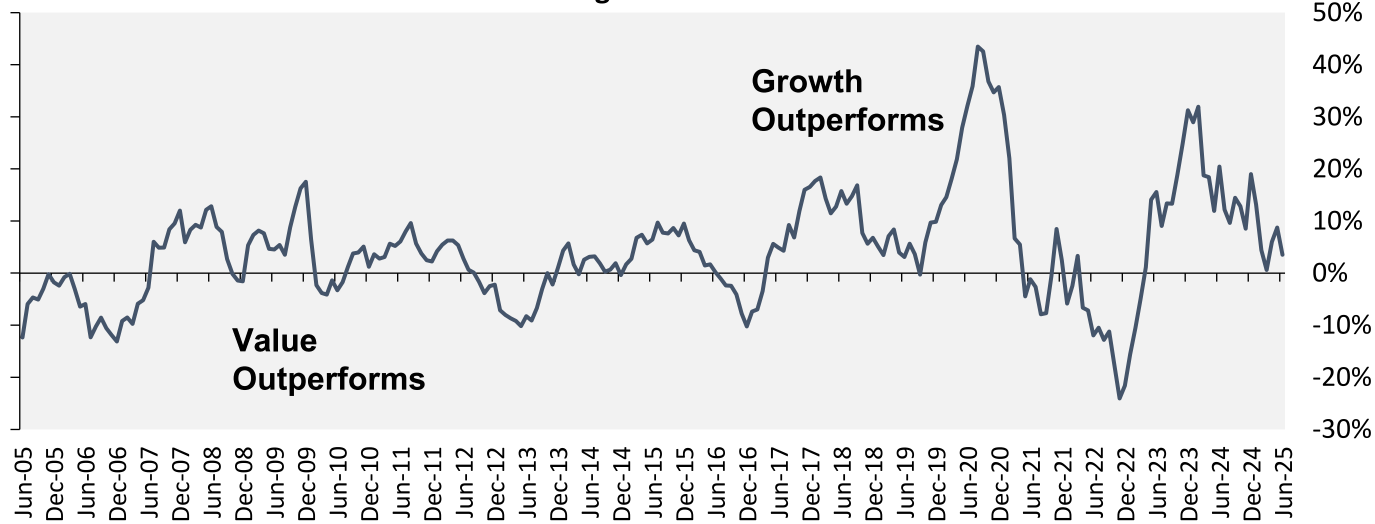
P/E of the top 10 and remaining stocks in the S&P 500

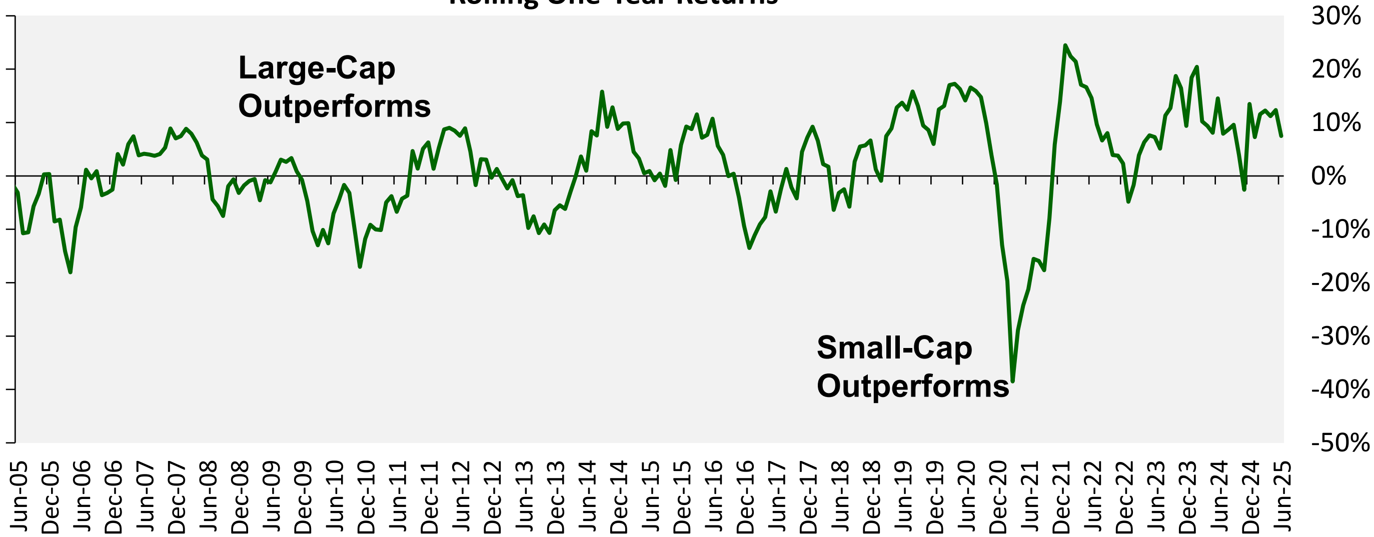
Next 12 months, 1996 - present



Source: J.P. Morgan Asset Management.

U.S. Equity Market



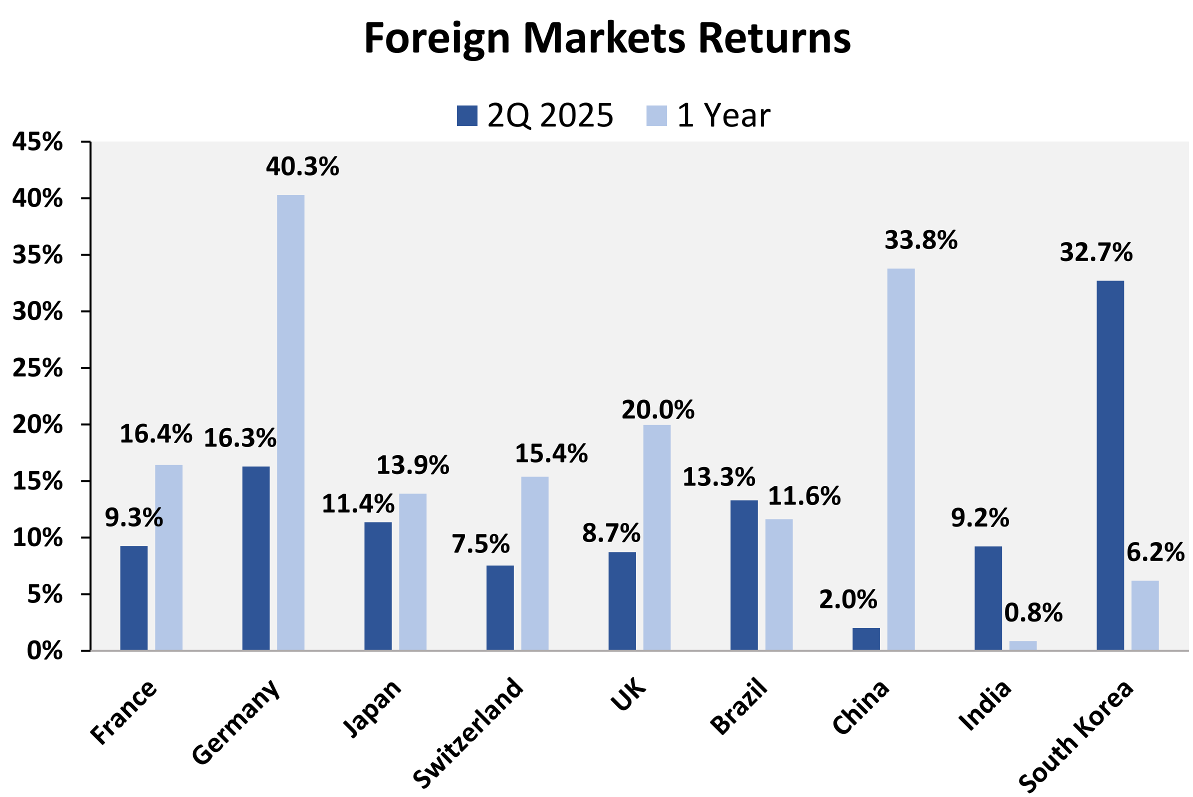


Growth Surges, Small Caps Stay Grounded

- In Q2 2025, momentum was the dominant factor, with strong outperformance from high-growth names, particularly within the mega-cap segment and the so-called "Magnificent Seven."
- In contrast, value and low-volatility stocks lagged. While low-volatility securities, often found in defensive, non-cyclical sectors, briefly held up during early quarter market stress, sentiment shifted quickly following news of a potential “tariff pause.”
- As risk appetite returned, market leadership consolidated around momentum-driven, large-cap growth stocks.
- While the S&P 500 Index reached new all-time highs at the end of Q2 2025, the Russell 2000 Index (small caps) remained significantly below its previous peak from 11/25/24.

International Equity Market

	Index	2Q25	YTD	2024	2023	2022	2021	2020	2019	1-Year	3-Year	5-Year	10-Year
Global	MSCI AC World Index (net)	11.5%	10.0%	17.5%	22.2%	-18.4%	18.5%	16.3%	26.6%	16.2%	17.3%	13.6%	10.0%
	MSCI World Small Cap (net)	11.6%	7.4%	8.2%	15.8%	-18.8%	15.8%	16.0%	26.2%	14.5%	12.2%	11.0%	7.6%
	MSCI World ex US (net)	12.0%	19.0%	4.7%	17.9%	-14.3%	12.6%	7.6%	22.5%	18.7%	15.7%	11.5%	6.6%
	MSCI World ex US Small Cap (net)	16.8%	20.8%	2.8%	12.6%	-20.6%	11.1%	12.8%	25.4%	22.9%	13.4%	9.8%	6.6%
Developed ex US	MSCI EAFE (net)	11.8%	19.4%	3.8%	18.2%	-14.5%	11.3%	7.8%	22.0%	17.7%	16.0%	11.2%	6.5%
	MSCI EAFE Value (net)	10.1%	22.8%	5.7%	19.0%	-5.6%	10.9%	-2.6%	16.1%	24.2%	18.4%	14.3%	6.0%
	MSCI EAFE Growth (net)	13.5%	16.0%	2.0%	17.6%	-22.9%	11.3%	18.3%	27.9%	11.4%	13.6%	7.9%	6.7%
	MSCI EAFE Small Cap (net)	16.6%	20.9%	1.8%	13.2%	-21.4%	10.1%	12.3%	25.0%	22.5%	13.3%	9.3%	6.5%
Emerging Markets	MSCI Emerging Markets (net)	12.0%	15.3%	7.5%	9.8%	-20.1%	-2.5%	18.3%	18.4%	15.3%	9.7%	6.8%	4.8%



- European stocks rose significantly in Q2 2025, with defense (military) stocks continuing to benefit from NATO's agreement for countries to increase spending. The ECB cut rates twice during the quarter, but recent guidance suggests a pause in easing, not a shift toward further cuts or hikes.

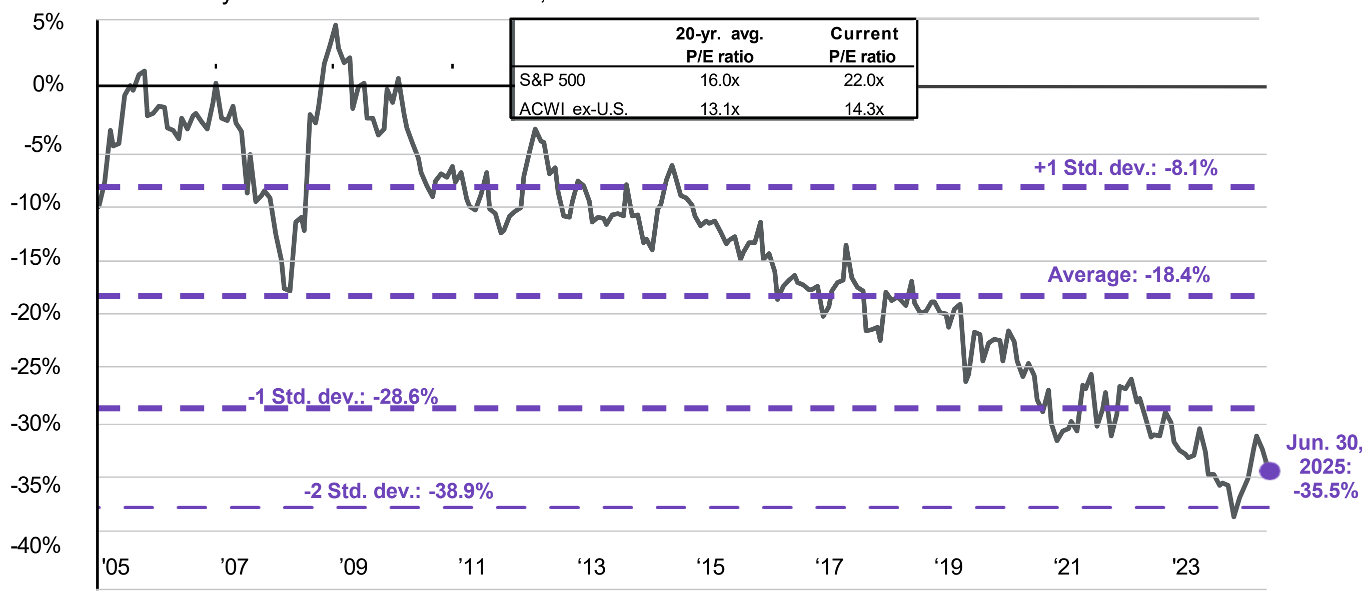
- In mid-June, Israel attacked Iran's nuclear sites, prompting Iranian missile/drone strikes on Israel. The U.S. responded with airstrikes, leading Iran to target a U.S. military base. A U.S.-brokered ceasefire in late June ended the conflict, which damaged Iran's nuclear program. Markets took the escalation in stride, with limited lasting impacts on investor sentiment.

- Emerging market (EM) stocks outperformed the U.S. in Q2, surprisingly aided by the very trade tensions aimed at them. The "Liberation Day" tariffs initially unsettled markets, but the 90-day pause and resulting policy uncertainty contributed to a weaker dollar. That currency shift eased pressure on EM economies and supported the rebound in their assets.

International Equity Market & Currencies

International: Price-to-earnings discount vs. U.S.

MSCI All Country World ex-U.S. vs. S&P 500, next 12 months



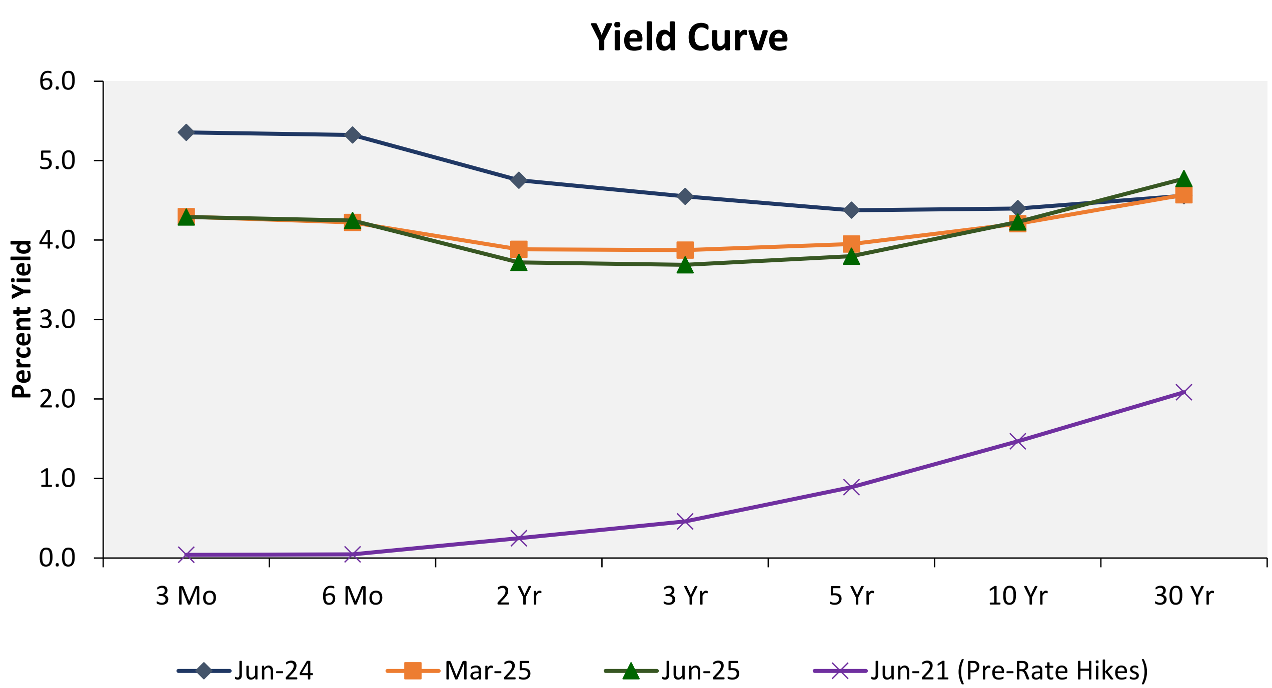
Source: J.P. Morgan Asset Management.

Valuation Gap Narrows, but Sector Mix Keeps International Discount Intact

- The U.S. dollar index reached its lowest point in three years, influenced by ongoing trade policy uncertainties and comparatively subdued domestic economic growth amid more accommodative fiscal policies abroad. Nevertheless, this decline follows an extended period of dollar appreciation, which may indicate a return toward a more balanced level.
- While the valuation gap between international and U.S. stocks has narrowed as international markets recover from extended underperformance, it persists due to sector differences: the U.S. market is dominated by high-growth technology, while international markets have greater exposure to slower-growth, cyclical sectors such as financials and industrials, which typically exhibit more volatile earnings and lower growth expectations.

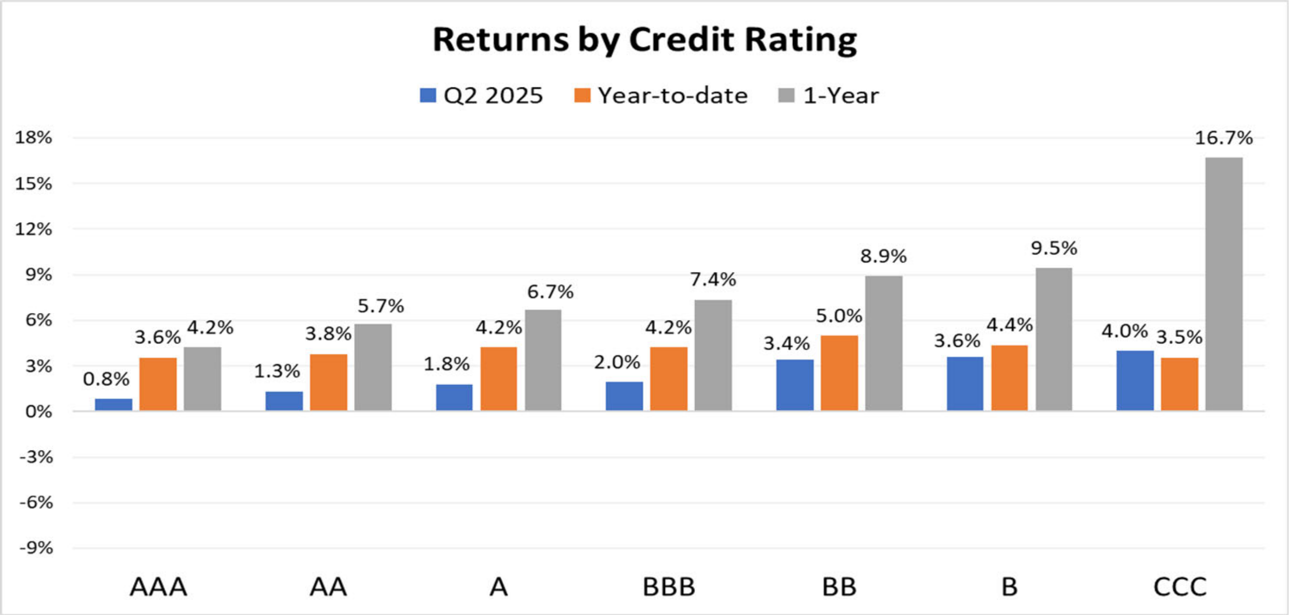
Bond Market

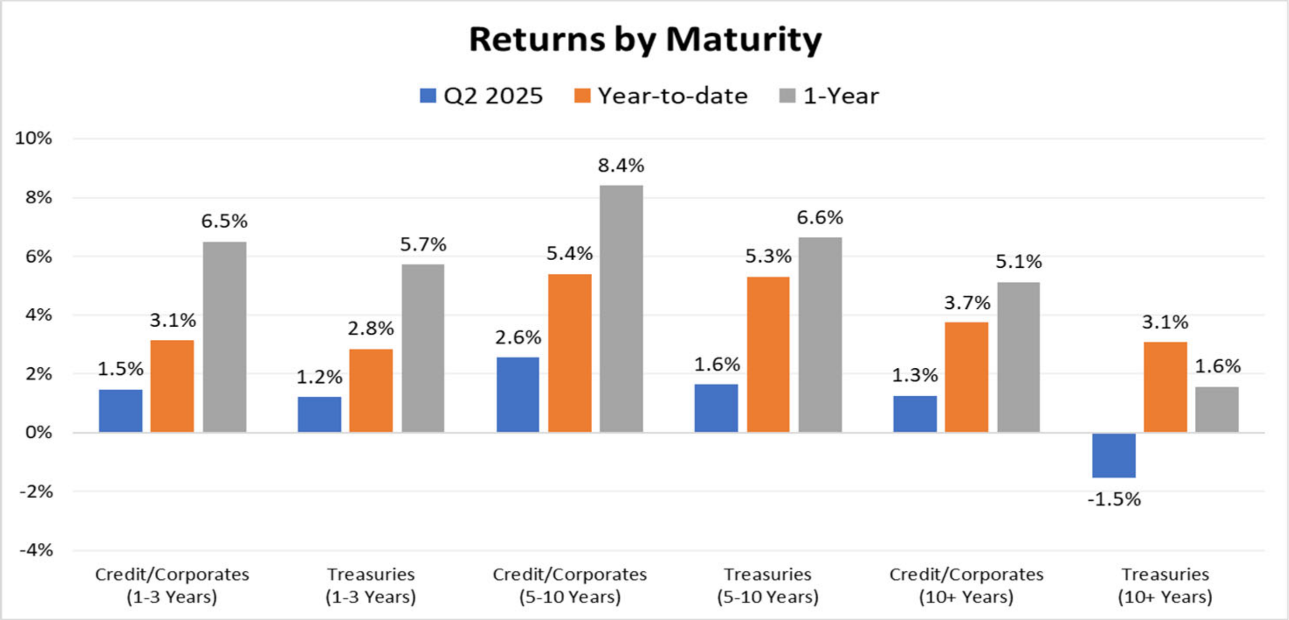
Index	Duration (years)	Yield	1Q25	YTD	2024	2023	2022	2021	2020	2019	1-Year	3-Year	5-Year	10-Year
Bloomberg Aggregate	6.1	4.51%	1.2%	4.0%	1.3%	5.5%	-13.0%	-1.5%	7.5%	8.7%	6.1%	2.5%	-0.7%	1.8%
Bloomberg Govt/Credit	6.2	4.37%	1.2%	3.9%	1.2%	5.7%	-13.6%	-1.7%	8.9%	9.7%	5.9%	2.6%	-0.8%	1.9%
Bloomberg Int Agg	4.4	4.35%	1.5%	4.2%	2.5%	5.2%	-9.5%	-1.3%	5.6%	6.7%	6.7%	3.2%	0.2%	1.8%
Bloomberg Int Govt/Credit	3.8	4.09%	1.7%	4.1%	3.0%	5.2%	-8.2%	-1.4%	6.4%	6.8%	6.7%	3.6%	0.6%	2.0%
Bloomberg U.S. Corporate	6.9	4.99%	1.8%	4.2%	2.1%	8.5%	-15.8%	-1.0%	9.9%	14.5%	6.9%	4.3%	0.1%	2.9%
Bloomberg HY Ba/B 2% IC	3.2	6.34%	3.5%	4.7%	6.8%	12.6%	-10.6%	4.6%	7.7%	15.2%	9.1%	9.3%	5.3%	5.2%
ICE BofA 1-3 Yrs BB US Cash Pay HY	1.7	5.38%	2.5%	3.9%	6.7%	8.9%	-3.1%	3.2%	5.4%	8.7%	7.8%	7.7%	5.2%	4.5%
Bloomberg Mortgage	5.8	4.93%	1.1%	4.2%	1.2%	5.0%	-11.8%	-1.0%	3.9%	6.4%	6.5%	2.3%	-0.6%	1.3%
Bloomberg Treasury	5.9	4.03%	0.8%	3.8%	0.6%	4.1%	-12.5%	-2.3%	8.0%	6.9%	5.3%	1.5%	-1.6%	1.2%
Bloomberg US TIPS	6.5	4.13%	0.5%	4.7%	1.8%	3.9%	-11.8%	6.0%	11.0%	8.4%	5.8%	2.3%	1.6%	2.7%
BofA ML 91 day T-Bills	0.2	4.29%	1.1%	2.1%	5.3%	5.2%	1.5%	0.0%	0.7%	2.3%	4.7%	4.6%	2.8%	2.0%



- In Q2 2025, the U.S. Treasury yield curve moderately steepened as yields on the 2-7 year parts of the curve declined while longer-term (10+ years) yields moved higher.
- Fixed Income returns were positive in Q2 2025 as credit spreads tightened back to their pre-tariff announcement levels. A decline in interest rates for maturities less than 10 years provided an additional lift.
- Year-to-date, bond markets have returned ~4%, with most of the return being driven by a decline in interest rates.

Bond Market

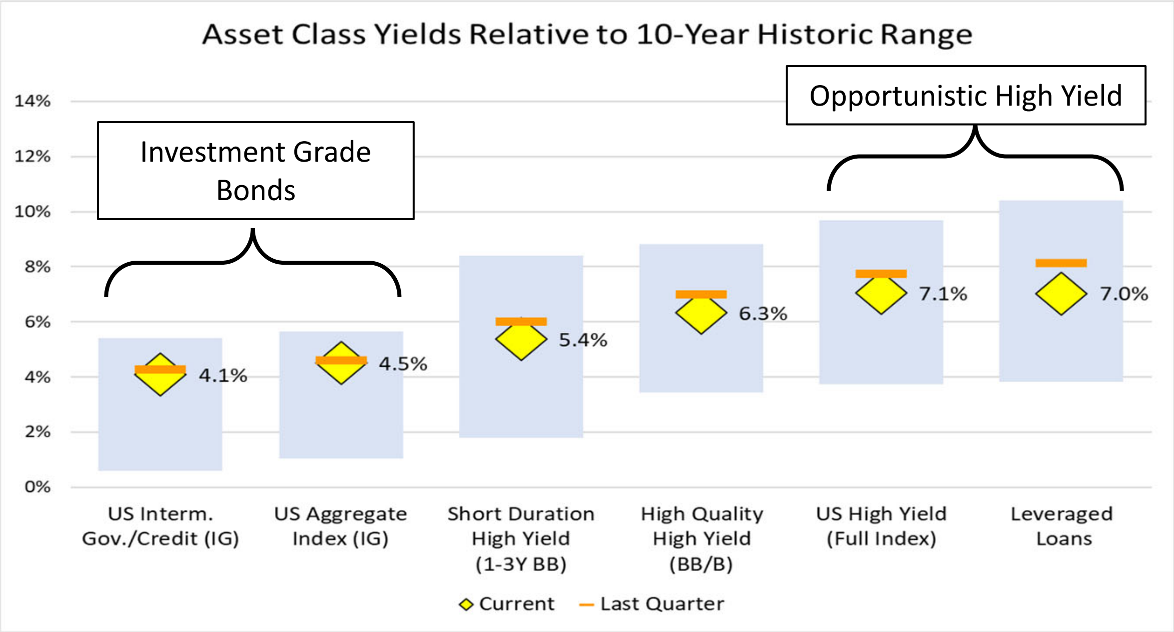


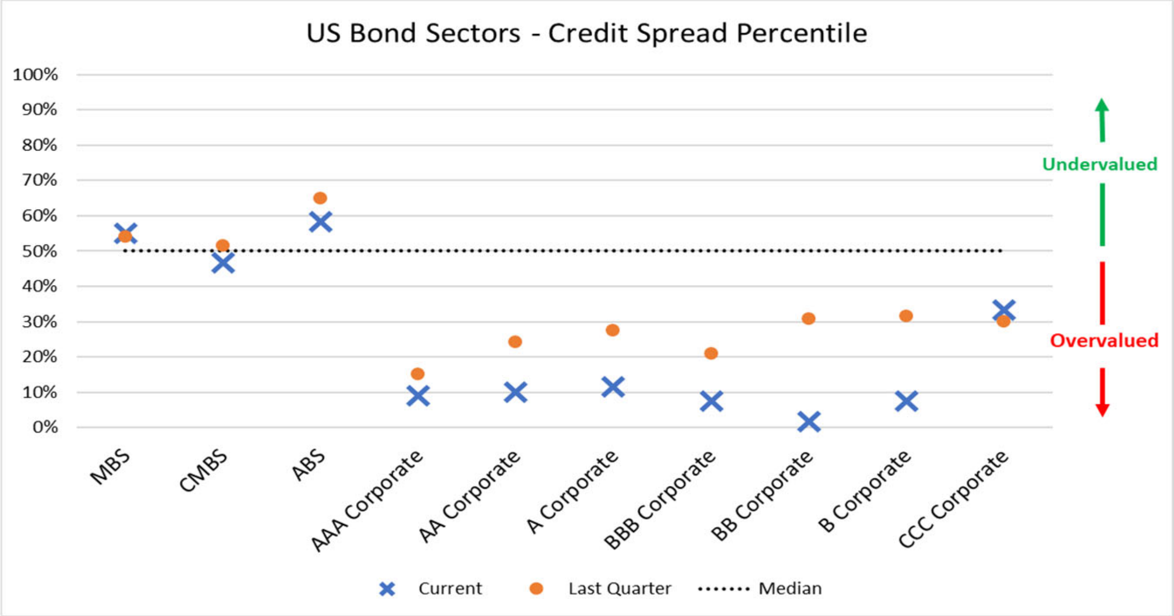


A Recovery in Credit Spreads Lifted Corporate Bonds in Q2 2025

- A recovery in credit spreads resulted in positive returns for corporate bonds in Q2 2025. Long-term (10+ years) Treasuries were the one notable weak spot in bond markets.
- Lower quality credit experienced the highest returns in Q2, recovering from underperformance in Q1.
- Rising long-term (10+ year) treasury yields were a headwind for investment grade bonds in Q2 2025, with AAA & AA-rated bonds experiencing the largest headwinds due to their longer maturities.
- Year-to-date, higher-quality high yield bonds (BB-rated) have remained among the best-performing areas within corporate bonds.

Bond Market





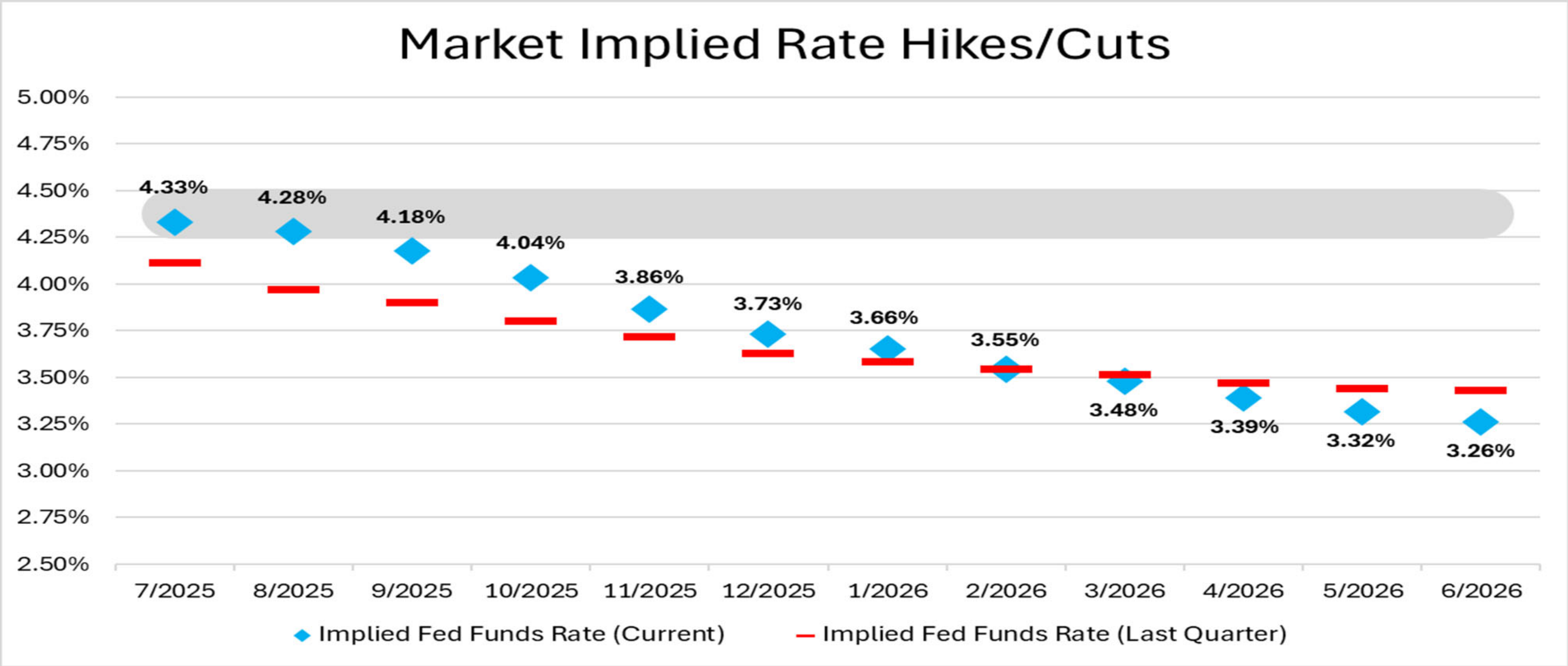
Bond Yields

- Bonds yields fell in Q2 2025 due to a combination of contracting credit spreads and declining interest rates for most maturities.
- Investment grade (IG) bonds now yield between 4.0% and 4.5%, while non-IG credit yields range from 5.5% to 7.0%.
- Yields across fixed income remain above the 10-year average; however, historically tight credit spreads resulted in a decline in yields from the 2022 highs.

Credit Spreads/Valuations

- Corporate credit spreads have tightened back to their year-end 2024 levels and remain tight relative to history.
- Credit spreads for BB-rated corporate bonds have only been lower in 3 monthly observations over the past 20-years. This is partially driven by ~$50 billion worth of BBB-rated bonds being downgraded to BB in 2025, making up roughly 7% of the total BB universe. $34 billion of those downgrades occurred in Q2 2025.
- Spreads in structured credit (MBS, CMBS, ABS) remain elevated, continuing to trade more cheaply relative to corporate credit.

Bond Market

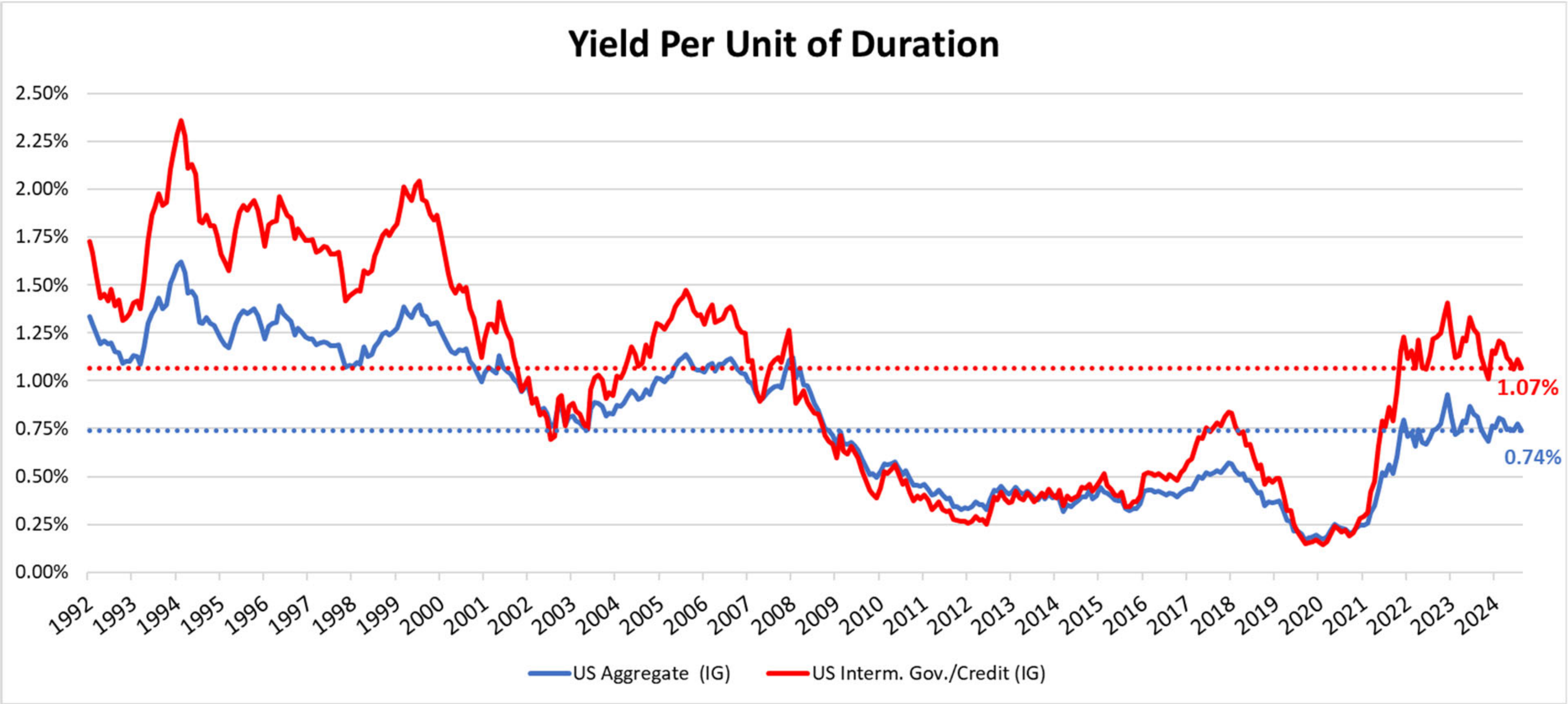


As of 6/30/25

- The FOMC left the Fed Funds target rate unchanged in Q2 2025. The current target Federal Funds rate sits at 4.25% - 4.50%.
- Since January, Fed Chair Jerome Powell has indicated the Federal Reserve was not in a rush to adjust their policy stance, indicating the Fed Funds rate could remain at its current level until inflation drops below the 2% target.
- In 2025, the Fed has communicated they will take a “wait & see” approach to adjusting policy, citing concerns over the eventual impact of tariffs. If tariffs reduce economic growth, the Fed may need to cut interest rates to incentivize consumer spending and investment to grow the economy. But if tariffs result in inflation, the Fed may need to hold rates at their current level, or possibly raise rates, to keep inflation under control.
- In Q2 2025, market participants continued to adjust their expectations for the future path of short-term interest rates, backing off their expectations for multiple rate cuts in Q3 2025 while now projecting a lower terminal rate of 3.25% in the back half of 2026.

Bond Market

Investment Grade Investors Are Now Compensated For Duration Risk



- Investment grade bond returns were susceptible to a rise in interest rates for most of the past decade. With the recent surge higher in bond yields, investment grade bond investors are now being adequately compensated for duration risk.
- Interest rates can now move ~74 bps higher over a one-year period before core bond investors (U.S. Aggregate Index) start to realize negative returns on their portfolio while intermediate investment grade investors can withstand a ~107 bps rise in interest rates over a one-year period before realizing losses on their portfolio.
- Given yields are roughly equal for the U.S. Intermediate Gov./Credit Index and the U.S. Aggregate Index, intermediate investment grade bonds (US Interm. Gov/Credit) are seemingly better positioned to limit downside risk in the near-term while core bonds (U.S. Aggregate) can provide more upside if interest rates fall but have less protection in the event interest rates continue to rise.

Bond Market

Interest Rate Sensitivity

12 Month Holding Period - Annualized Returns as of 06/30/2025

Yield Change (bps)	US Treasuries Bloomberg Treasury	Short-Term IG Bloomberg 1-3 Yr US Govt/Credit	Intermediate IG Bloomberg Interm Govt/Credit	Core Bond Bloomberg Aggregate	Short Duration HY ICE BofA 1-3 Yrs BB US Cash Pay HY	High-Quality HY Bloomberg HY BB/B 2% Capped	Full High Yield Bloomberg US Corporate HY
-300	25.12%	9.84%	16.51%	25.03%	9.21%	14.90%	15.58%
-250	21.14%	8.83%	14.32%	21.29%	8.75%	13.64%	14.31%
-200	17.34%	7.83%	12.17%	17.69%	8.22%	12.31%	12.98%
-150	13.73%	6.84%	10.08%	14.20%	7.62%	10.91%	11.59%
-100	10.31%	5.86%	8.03%	10.85%	6.95%	9.45%	10.14%
-75	8.67%	5.37%	7.03%	9.22%	6.58%	8.70%	9.39%
-50	7.08%	4.88%	6.04%	7.62%	6.20%	7.93%	8.63%
-25	5.53%	4.40%	5.06%	6.05%	5.80%	7.14%	7.85%
0	4.03%	3.92%	4.09%	4.51%	5.38%	6.34%	7.06%
25	2.57%	3.44%	3.14%	3.01%	4.94%	5.52%	6.25%
50	1.17%	2.97%	2.20%	1.53%	4.49%	4.69%	5.43%
75	-0.19%	2.49%	1.27%	0.09%	4.02%	3.83%	4.59%
100	-1.51%	2.02%	0.36%	-1.32%	3.53%	2.97%	3.74%
150	-4.00%	1.09%	-1.44%	-4.05%	2.49%	1.18%	1.98%
200	-6.30%	0.16%	-3.18%	-6.65%	1.38%	-0.67%	0.17%
250	-8.41%	-0.75%	-4.87%	-9.12%	0.20%	-2.58%	-1.70%
300	-10.34%	-1.66%	-6.51%	-11.47%	-1.06%	-4.57%	-3.64%
Duration	5.91	1.92	3.84	6.08	1.71	3.24	3.20
Convexity	0.75	0.04	0.20	0.50	-0.29	-0.26	-0.24

FOR ILLUSTRATIVE PURPOSES ONLY: For each index the current yield to worst as of 6/30/2025 was used as the base case annualized return. The annualized return sensitivity to a uniform increase or decrease in the yield curve was calculated by taking the index's Option-Adjusted Duration as of 6/30/2025 multiplied by the percentage point change in the yield curve (basis point change divided by 100), while adjusting for convexity effects using the index's Option-Adjusted Convexity as of 6/30/2025, and then appropriately adding or subtracting this implied percentage change in the value of the index (due to the shift in the yield curve) to the base case annualized return. This is a rough approximation of the annual return sensitivity to parallel shifts in the yield curve.

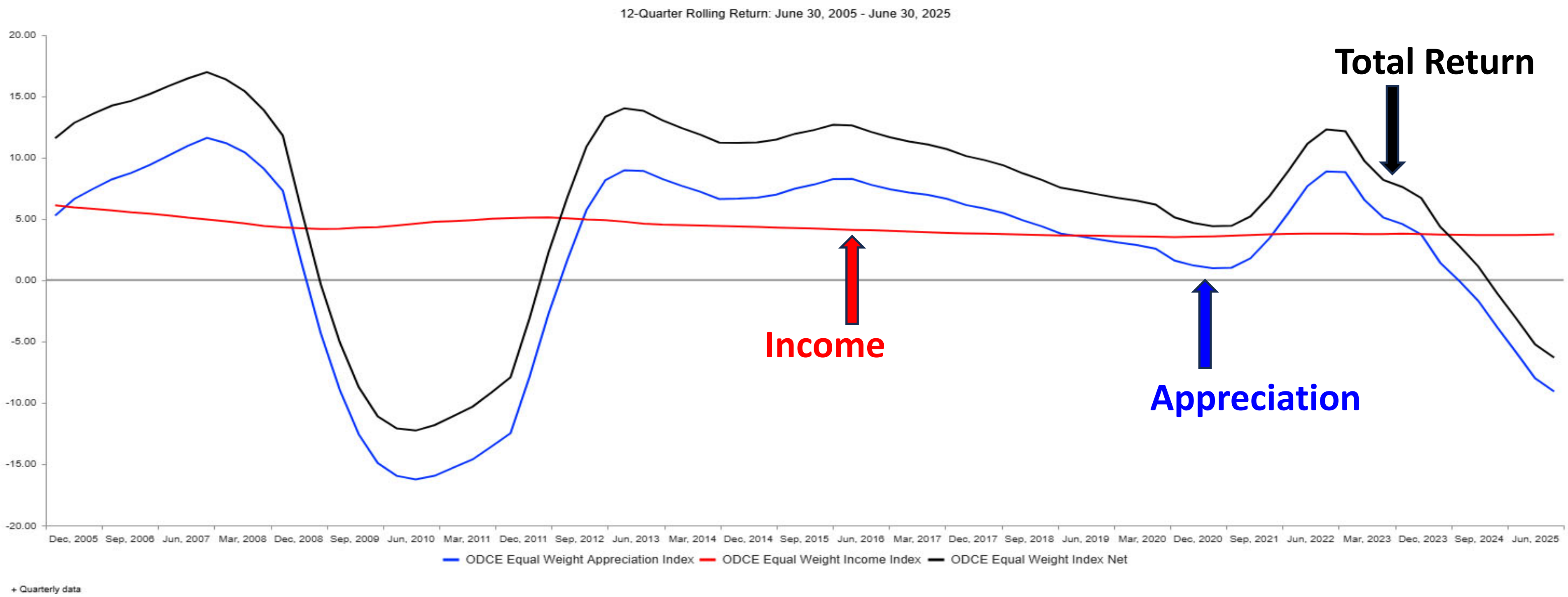
Real Estate Market

Sector	Index	2Q25	YTD	2024	2023	2022	2021	2020	2019	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year
US Private	NCREIF ODCE Equal Weighted (net)	0.8%	1.7%	-2.4%	-13.4%	7.6%	21.9%	0.8%	5.2%	2.5%	-6.3%	2.7%	4.7%	7.5%	5.3%
	NCREIF ODCE EW Income Index	1.0%	2.0%	4.0%	3.5%	3.5%	4.1%	3.6%	3.5%	4.1%	3.7%	3.8%	3.7%	4.0%	4.1%
	NCREIF ODCE EW Appreciation Index	0.0%	0.1%	-5.5%	-15.8%	4.8%	18.3%	-2.1%	1.7%	-0.8%	-9.1%	-0.0%	1.4%	3.7%	1.2%

- The NCREIF ODCE Equal Weighted Index (net) posted a third consecutive positive quarter in Q2 2025, matching the Q1 return of +0.84%. Similar to the last two quarters, the ODCE Index total return in Q2 2025 was primarily from rental income, as property appreciation again was essentially flat (+0.04%).

- Following two consecutive negative return years, the NCREIF ODCE Index is back in positive territory YTD through June 2025 as fundamentals continue to improve, especially in the residential and retail sectors.

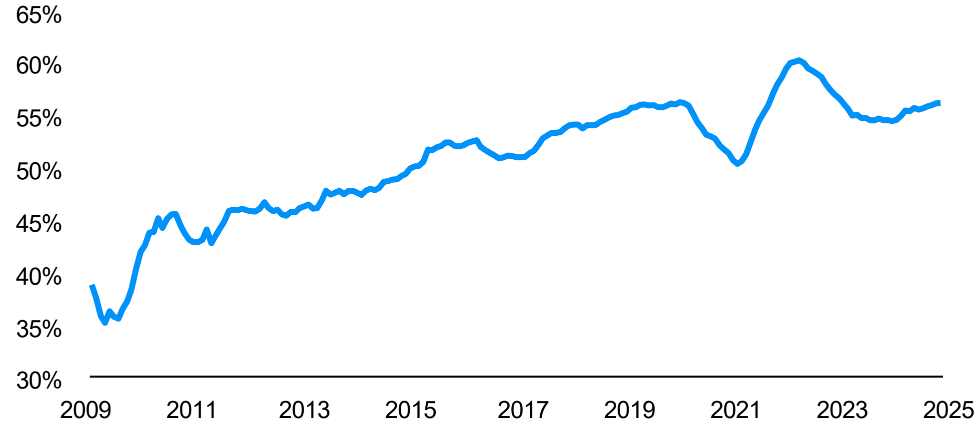
- The downturn during the last two years was driven by higher borrowing costs and less access to debt financing, low transaction volumes, lingering effects of the Covid-19 pandemic on urban centers and the office sector, and oversupply in some sectors constraining rent growth and valuations. These factors are generally improving, and that is reflected in more recent real estate valuations.



Real Estate Market

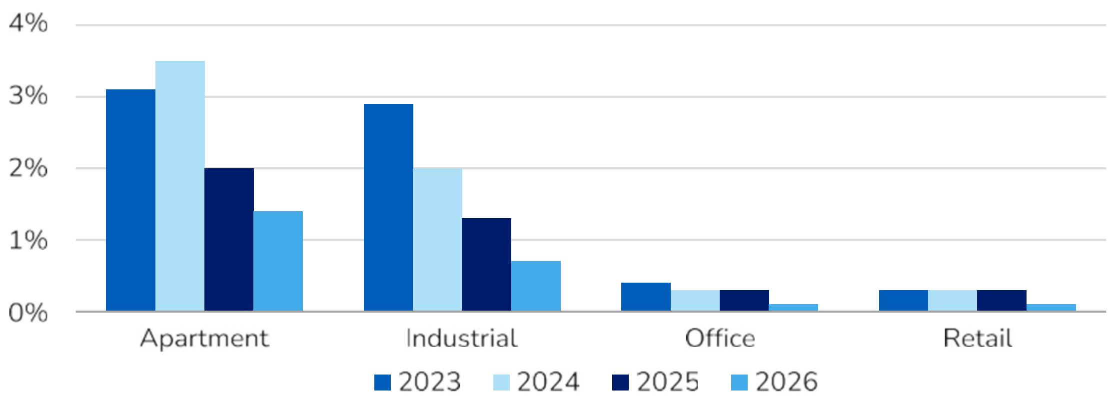
- The residential sector is experiencing several tailwinds; high home purchase prices and high mortgage rates are driving demand for rental properties, and low supply in some markets is driving an ability to grow rental incomes.

Rising Multifamily Renewal Rates Driving Net Operating Income (NOI) Growth



Source: JP Morgan Asset Management. As of March 31, 2025.

Inventory Changes By Sector



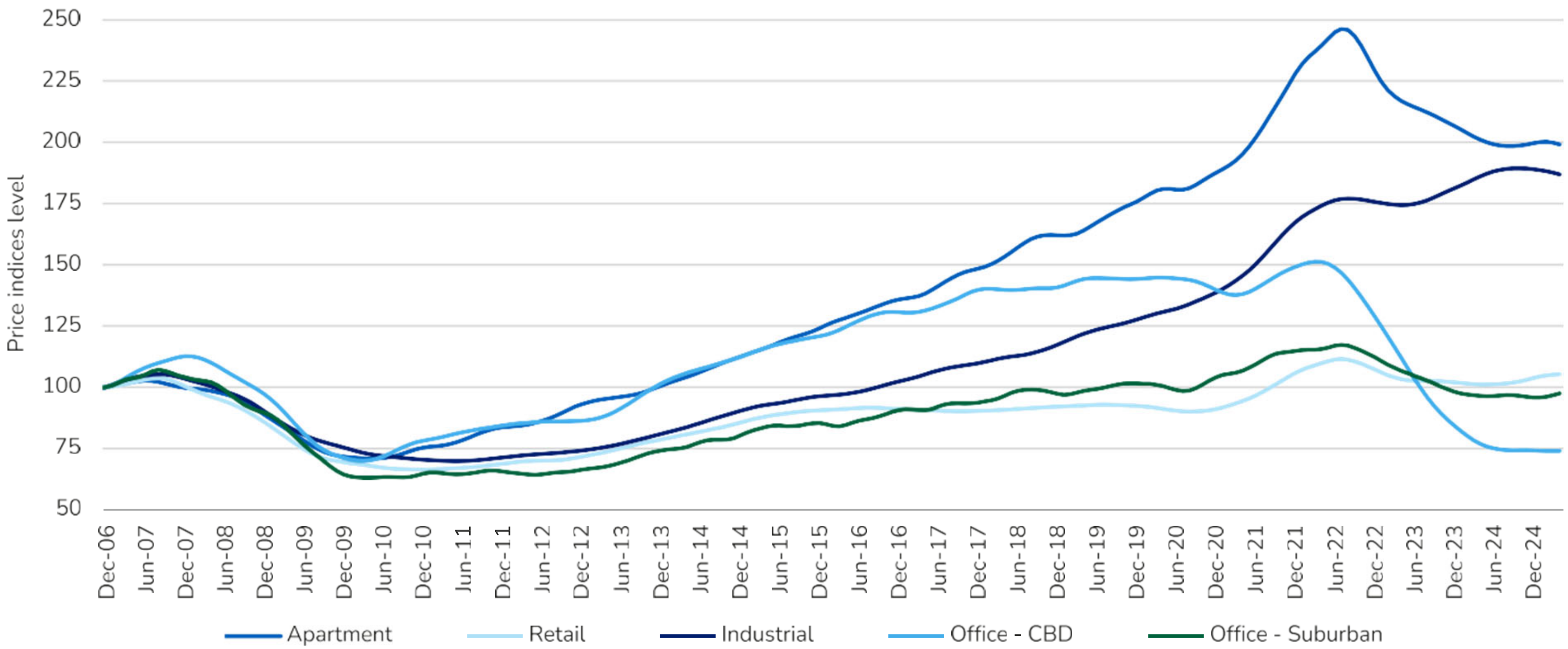
Source: CoStar, via L&G

- The rebound in real estate fundamentals is generally benefiting from a decline in new supply in the space-heavy apartment and industrial sectors, as well as continued minimal new supply in the office and retail sectors.

Real Estate Market

- The past two years represented a reset in real estate valuations. Commercial real estate may be at the start of a new cycle, with prices coming off what appears to be a market bottom in the past few quarters, creating an opportunity for buyers at attractive valuations.

Pricing Index, National Property Types (U.S.)



Source: MSCI-RCA, RCA CPPI. Via L&G. Data as of March 31, 2025.

Real Estate Market

- Real estate valuations can be impacted by a variety of macroeconomic factors, including economic growth, inflation, tariffs, job growth, consumer spending, etc. Slower economic growth, higher inflation, higher interest rates, and an employment/consumer slowdown all can negatively impact commercial real estate. Despite the improving fundamentals for real estate, uncertainty around the impact of these factors remains in place.

Note: Demand is weighted across Industrial (35%), Apartment (30%), Office (20%) and Retail (15%).
Source: Census Bureau (GDP); CBRE-EA (demand). Via DWS Real Estate. As of March 2025.

Investment Performance Services

Operating Engineers Local No. 77 JATC Fund

Investment Performance Report

Period Ended

June 30, 2025

Total Fund Growth of Assets

	Quarter-To-Date	Fiscal Year-To-Date	One Year	Three Years	Five Years	Inception 11/30/19
Beginning Market Value	$3,206,452	$3,189,011	$3,373,213	$2,786,635	$3,047,799	--
Net Cash Flow	-$85,633	-$91,035	-$389,129	-$234,149	-$610,320	$2,372,764
Net Investment Change	$95,379	$118,222	$232,115	$663,712	$778,719	$843,434
Ending Market Value	$3,216,198	$3,216,198	$3,216,198	$3,216,198	$3,216,198	$3,216,198

- The Fund's fiscal year end is December 31st.

Performance Summary (Gross of Fees) - Annualized

	Market Value	% of Portfolio	QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	Inception	Inception Date
			Ending June 30, 2025						
Total Fund	**$3,216,198**	**100.0%**	**3.1%**	**3.9%**	**7.8%**	**7.4%**	**5.0%**	**4.8%**	**Nov-19**
Total Domestic Large Cap Equity	**$465,537**	**14.5%**	**10.9%**	**6.2%**	**15.2%**	**19.7%**	**16.6%**	**14.7%**	**Nov-19**
Total Investment Grade Fixed Income	**$1,312,990**	**40.8%**	**1.5%**	**3.2%**	**6.2%**	**4.7%**	**2.5%**	**2.7%**	**Nov-19**
Total Short Duration High Yield Fixed Income	**$1,165,098**	**36.2%**	**2.5%**	**4.1%**	**7.6%**	**7.5%**	**--**	**4.2%**	**Jul-21**
Total Cash Equivalents	**$272,572**	**8.5%**	**1.0%**	**2.0%**	**4.2%**	**3.8%**	**2.3%**	**2.1%**	**Nov-19**

Performance Summary

	Fiscal Year Ending December 31st (Gross of Fees)					
	Fiscal YTD	2024	2023	2022	2021	2020
Total Fund	**3.9%**	**7.6%**	**8.7%**	**-5.8%**	**6.1%**	**5.7%**
Total Fund Benchmark	*3.6%*	*7.6%*	*10.0%*	*-5.4%*	*5.6%*	*6.5%*

	Fiscal Year Ending December 31st (Net of Fees)					
	Fiscal YTD	2024	2023	2022	2021	2020
Total Fund	**3.7%**	**7.3%**	**8.4%**	**-6.0%**	**6.0%**	**5.6%**
Total Fund Benchmark	*3.6%*	*7.6%*	*10.0%*	*-5.4%*	*5.6%*	*6.5%*

Current vs. Policy

	Current	Current	Policy	Policy Range	Difference	Difference
Domestic Large Cap Equity	$465,537	14.5%	10.0%	5.0% - 15.0%	4.5%	$143,918
Investment Grade Fixed Income	$1,312,990	40.8%	40.0%	35.0% - 45.0%	0.8%	$26,511
Short Duration High Yield Fixed Income	$1,165,098	36.2%	35.0%	30.0% - 40.0%	1.2%	$39,429
Cash Equivalents	$272,572	8.5%	15.0%	10.0% - 20.0%	-6.5%	-$209,857
Total	**$3,216,198**	**100.0%**	**100.0%**			

- Policy adopted May 2023; effective July 2023.

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	Inception	Inception Date
			Ending June 30, 2025						
Total Fund	**$3,216,198**	**100.0%**	**3.0%**	**3.7%**	**7.5%**	**7.1%**	**4.7%**	**4.6%**	**Nov-19**
Total Domestic Large Cap Equity	**$465,537**	**14.5%**	**10.9%**	**6.2%**	**15.1%**	**19.7%**	**16.6%**	**14.7%**	**Nov-19**
Vanguard 500 Index Fund Admiral Shares	$465,537	14.5%	10.9%	6.2%	15.1%	19.7%	16.6%	14.7%	Nov-19
S&P 500			*10.9%*	*6.2%*	*15.2%*	*19.7%*	*16.6%*	*14.7%*	*Nov-19*
Total Investment Grade Fixed Income	**$1,312,990**	**40.8%**	**1.4%**	**3.1%**	**6.0%**	**4.5%**	**2.3%**	**2.5%**	**Nov-19**
Chartwell Investment Partners	$1,312,990	40.8%	1.4%	3.1%	6.0%	4.5%	2.3%	2.5%	Dec-19
Bloomberg US Credit 1-3 Yr TR			*1.5%*	*3.1%*	*6.5%*	*4.5%*	*2.2%*	*2.4%*	*Dec-19*
Total Short Duration High Yield Fixed Income	**$1,165,098**	**36.2%**	**2.4%**	**3.8%**	**7.1%**	**6.9%**	**--**	**3.7%**	**Jul-21**
Carillon Chartwell SDHY Fund	$1,165,098	36.2%	2.4%	3.8%	7.1%	6.9%	--	3.7%	Jul-21
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR			*2.5%*	*3.9%*	*7.8%*	*7.7%*	*--*	*4.3%*	*Jul-21*
Total Cash Equivalents	**$272,572**	**8.5%**	**1.0%**	**2.0%**	**4.2%**	**3.8%**	**2.3%**	**2.1%**	**Nov-19**
PNC Cash	$272,572	8.5%	1.0%	2.0%	4.2%	3.8%	2.3%	2.1%	Nov-19

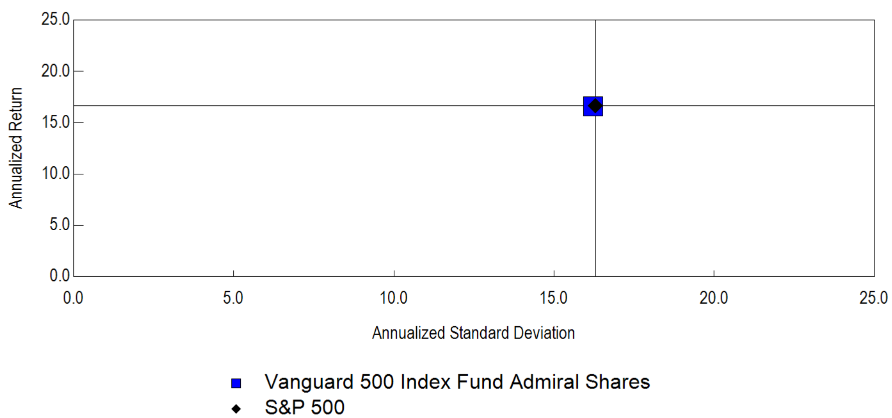
Account Information

Account Name	**Vanguard 500 Index Fund Admiral Shares**
Account Structure	**Mutual Fund**
Investment Style	**Passive**
Inception Date	**11/30/19**
Account Type	**Domestic Large Cap Core Equity**
Benchmark	**S&P 500**
Universe	**Large Blend MStar MF**

Vanguard 500 Index Fund Admiral Shares
Ending June 30, 2025

	Second Quarter	Inception 11/30/19
Beginning Market Value	$419,663	--
Net Cash Flow	$0	$54,281
Net Investment Change	$45,874	$411,256
Ending Market Value	$465,537	$465,537

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2025



3 Years Ending June 30, 2025

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard 500 Index Fund Admiral Shares	19.7%	14.1%	44.6%	8.2%
S&P 500	19.7%	15.8%	100.0%	100.0%

5 Years Ending June 30, 2025

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard 500 Index Fund Admiral Shares	16.6%	16.2%	34.9%	19.0%
S&P 500	16.6%	16.3%	100.0%	100.0%

											Calendar Years											
	QTD	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	2024	Rank	2023	Rank	2022	Rank	2021	Rank	2020	Rank	Inception	Inception Date
Vanguard 500 Index Fund Admiral Shares	10.9%	42	6.2%	35	15.1%	24	19.7%	22	16.6%	21	25.0%	24	26.2%	27	-18.1%	50	28.7%	23	18.4%	39	14.7%	Nov-19
S&P 500	*10.9%*	*41*	*6.2%*	*34*	*15.2%*	*22*	*19.7%*	*20*	*16.6%*	*19*	*25.0%*	*24*	*26.3%*	*25*	*-18.1%*	*48*	*28.7%*	*22*	*18.4%*	*38*	*14.7%*	*Nov-19*

Note: Returns are net of fees.

Account Information

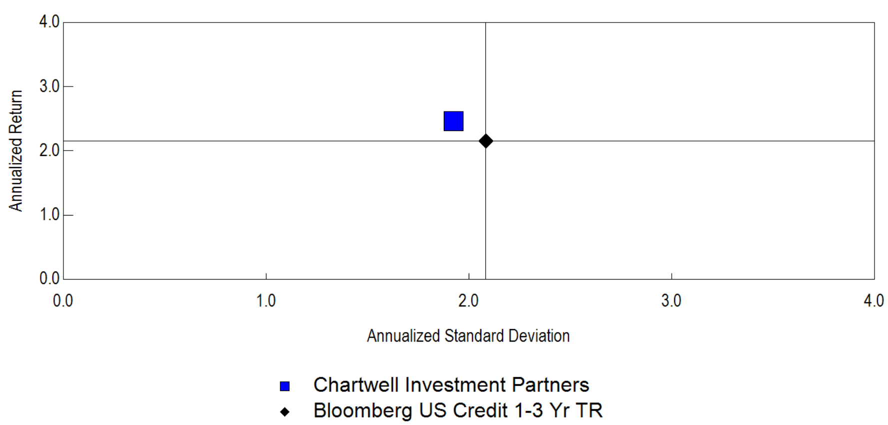
Account Name	**Chartwell Investment Partners**
Account Structure	**Separate Account**
Investment Style	**Active**
Inception Date	**12/31/19**
Account Type	**Investment Grade Fixed Income**
Benchmark	**Bloomberg US Credit 1-3 Yr TR**
Universe	

Chartwell Investment Partners

Ending June 30, 2025

	Second Quarter	Inception 12/31/19
Beginning Market Value	$1,293,889	--
Net Cash Flow	$0	$1,100,064
Net Investment Change	$19,101	$212,926
Ending Market Value	$1,312,990	$1,312,990

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2025



3 Years Ending June 30, 2025

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Chartwell Investment Partners	4.7%	1.9%	96.6%	73.8%
Bloomberg US Credit 1-3 Yr TR	4.5%	2.2%	100.0%	100.0%

5 Years Ending June 30, 2025

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Chartwell Investment Partners	2.5%	1.9%	99.7%	83.8%
Bloomberg US Credit 1-3 Yr TR	2.2%	2.1%	100.0%	100.0%

	QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	Calendar Years 2024	2023	2022	2021	2020	Inception	Inception Date
Chartwell Investment Partners	1.5%	3.2%	6.2%	4.7%	2.5%	4.8%	5.7%	-2.8%	0.0%	4.2%	2.7%	Dec-19
Bloomberg US Credit 1-3 Yr TR	*1.5%*	*3.1%*	*6.5%*	*4.5%*	*2.2%*	*5.1%*	*5.3%*	*-3.4%*	*-0.2%*	*3.7%*	*2.4%*	*Dec-19*

Note: Returns are gross of fees.

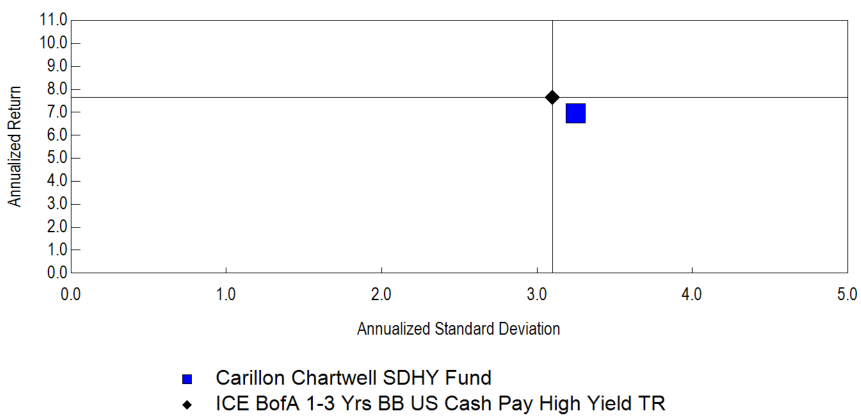
Account Information	
Account Name	Carillon Chartwell SDHY Fund
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	7/31/21
Account Type	Short Duration High Yield Fixed Income
Benchmark	ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR
Universe	

Carillon Chartwell SDHY Fund

Ending June 30, 2025

	Second Quarter	Inception 7/31/21
Beginning Market Value	$1,138,073	$0
Net Cash Flow	$0	$1,000,000
Net Investment Change	$27,026	$165,098
Ending Market Value	$1,165,098	$1,165,098

Annualized Return vs. Annualized Standard Deviation
3 Years Ending June 30, 2025



3 Years Ending June 30, 2025

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Carillon Chartwell SDHY Fund	7.5%	3.2%	64.2%	-113.5%
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR	7.7%	3.1%	100.0%	100.0%

	QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	Calendar Years 2024	2023	2022	2021	2020	Inception	Inception Date
Carillon Chartwell SDHY Fund	2.5%	4.1%	7.6%	7.5%	--	6.3%	8.3%	-2.7%	--	--	4.2%	Jul-21
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR	*2.5%*	*3.9%*	*7.8%*	*7.7%*	*--*	*6.7%*	*8.8%*	*-3.1%*	*--*	*--*	*4.3%*	*Jul-21*

Note: Returns are net of fees.

Account Information	
Account Name	**PNC Cash**
Account Structure	**Separate Account**
Investment Style	**Active**
Inception Date	**11/30/19**
Account Type	**Cash Equivalents**
Benchmark	
Universe	

PNC Cash
Ending June 30, 2025

	Second Quarter	**Inception 11/30/19**
Beginning Market Value	$354,828	--
Net Cash Flow	-$85,633	$218,685
Net Investment Change	$3,378	$53,887
Ending Market Value	$272,572	$272,572

Current yield as of June 30, 2025 is 4.27%

						Calendar Years						
	QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2024	2023	2022	2021	2020	Inception	Inception Date
PNC Cash	1.0%	2.0%	4.2%	3.8%	2.3%	4.4%	4.0%	1.2%	0.1%	0.0%	2.1%	Nov-19

Note: Returns are gross of fees.

Investment Performance Services

Operating Engineers Local No. 77 JATC Fund

Appendix

Performance Detail (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2025 QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	Inception	Inception Date
Total Fund	**$3,216,198**	**100.0%**	**3.1%**	**3.9%**	**7.8%**	**7.4%**	**5.0%**	**4.8%**	**Nov-19**
Total Domestic Large Cap Equity	**$465,537**	**14.5%**	**10.9%**	**6.2%**	**15.2%**	**19.7%**	**16.6%**	**14.7%**	**Nov-19**
Vanguard 500 Index Fund Admiral Shares	$465,537	14.5%	10.9%	6.2%	15.2%	19.7%	16.6%	14.7%	Nov-19
S&P 500			*10.9%*	*6.2%*	*15.2%*	*19.7%*	*16.6%*	*14.7%*	*Nov-19*
Total Investment Grade Fixed Income	**$1,312,990**	**40.8%**	**1.5%**	**3.2%**	**6.2%**	**4.7%**	**2.5%**	**2.7%**	**Nov-19**
Chartwell Investment Partners	$1,312,990	40.8%	1.5%	3.2%	6.2%	4.7%	2.5%	2.7%	Dec-19
Bloomberg US Credit 1-3 Yr TR			*1.5%*	*3.1%*	*6.5%*	*4.5%*	*2.2%*	*2.4%*	*Dec-19*
Total Short Duration High Yield Fixed Income	**$1,165,098**	**36.2%**	**2.5%**	**4.1%**	**7.6%**	**7.5%**	**--**	**4.2%**	**Jul-21**
Carillon Chartwell SDHY Fund	$1,165,098	36.2%	2.5%	4.1%	7.6%	7.5%	--	4.2%	Jul-21
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR			*2.5%*	*3.9%*	*7.8%*	*7.7%*	*--*	*4.3%*	*Jul-21*
Total Cash Equivalents	**$272,572**	**8.5%**	**1.0%**	**2.0%**	**4.2%**	**3.8%**	**2.3%**	**2.1%**	**Nov-19**
PNC Cash	$272,572	8.5%	1.0%	2.0%	4.2%	3.8%	2.3%	2.1%	Nov-19

Account	Fee Schedule	Market Value As of 6/30/2025	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
Total Domestic Large Cap Equity	**-**	**$465,537**	**14.5%**	**--**	**--**
Vanguard 500 Index Fund Admiral Shares	0.04% of Assets	$465,537	14.5%	$186	0.04%
Total Investment Grade Fixed Income	**-**	**$1,312,990**	**40.8%**	**--**	**--**
Chartwell Investment Partners	0.18% of Assets	$1,312,990	40.8%	$2,363	0.18%
Total Short Duration High Yield Fixed Income	**-**	**$1,165,098**	**36.2%**	**--**	**--**
Carillon Chartwell SDHY Fund	0.49% of Assets	$1,165,098	36.2%	$5,709	0.49%
Total Cash Equivalents	**-**	**$272,572**	**8.5%**	**--**	**--**
PNC Cash	-	$272,572	8.5%	--	--
Investment Management Fee		**$3,216,198**	**100.0%**	**$8,259**	**0.26%**

Note: The above fee schedules may not include incentive fees, operating expenses, custodian fees, or other administrative costs.

Note: The above information utilizes net expense ratio for any mutual fund investment. Management fee is used for all other investment types.

Benchmark History

Total Fund		
7/1/2023	Present	S&P 500 10% / Bloomberg US Credit 1-3 Yr TR 40% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 35% / 91 Day T-Bills 15%
7/1/2021	6/30/2023	S&P 500 20% / Bloomberg US Credit 1-3 Yr TR 35% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 30% / 91 Day T-Bills 15%
11/30/2019	6/30/2021	S&P 500 20% / Bloomberg US Credit 1-3 Yr TR 65% / 91 Day T-Bills 15%

Index Disclosures

- Total Fund Benchmark - The Total Fund Benchmark is comprised of the respective market indices for each asset class weighted at the percentage the asset class represents in the Policy. It is important to acknowledge that not all asset classes have a corresponding market index due to the specialized nature of the asset class (i.e. private equity, private debt, infrastructure, hedge funds) and/or the specialized nature of the investment (opportunistic investments, global tactical asset allocation, absolute return strategies). In such cases, a traditional asset class index may be used as a proxy in the Total Fund Benchmark. The Total Fund Benchmark illustrates how an indexed portfolio with a similar allocation to that of the Policy would have performed during a specific period. The Total Fund Benchmark does not account for ongoing changes in the allocation percentages of the Total Fund resulting from market gains/losses, cash flows, and rebalancing during the same period. While a useful tool in examining performance, due to the static nature of the allocation percentages in the Total Fund Benchmark, the fact that not all asset classes have a representative index, and considering that some indices in the Total Fund Benchmark are not investable, the Total Fund Benchmark should not be used as the primary measure of a Total Fund's success or failure.

Footnotes

- Values, flows, and returns for all commingled funds, mutual funds, partnerships, and all other alternative assets are provided by the firm managing the assets and cannot be independently verified by IPS. Separately managed account returns are calculated by IPS using custodian data.
- The net of fees returns in this report are estimated. Fees do not include: The investment consulting fee paid to IPS, custodian fees, or other administrative costs.
- The information contained in this report is proprietary and confidential information. You are hereby notified that any dissemination, distribution, or copying of this document is strictly prohibited.
- Effective 4Q 2021, mutual fund returns are calculated utilizing the net expense ratio. Prior to 4Q 2021, mutual fund returns were calculated utilizing the mutual fund's management fee.

Glossary of Investment Terminology

Alpha	The amount of an investment's return that is independent of the return of the market. Alpha is generated by active management through security selection and may be positive or negative relative to a given benchmark.
Beta	A measure of an investment's volatility relative to the market. The beta of the market is 1.0 (as represented by a benchmark such as the S&P 500 Index). A beta of greater than 1.0 indicates an investment with greater volatility than the benchmark. A beta of less than 1.0 indicates less volatility than the benchmark.
Capture Ratio	A measurement (usually based on monthly or quarterly time periods) of an investment manager's performance relative to their benchmark in a rising or falling market. Upside capture illustrates how a manager has performed when their benchmark index is positive. In a rising market, a percentage over 100% indicates the manager exceeded the benchmark, while a percentage below 100% indicates the manager lagged the benchmark. Downside capture illustrates how a manager has performed when their benchmark index is negative. In a falling market, a percentage of less than 100% indicates that the manager lost less than the benchmark, while a percentage above 100% indicates the manager lost more than the market. Index funds, in theory, should have 100% upside and downside capture ratios before fees.
Compound Annual Returns	A time-weighted measure of the annual investment return, assuming the investment grew at a constant rate.
Correlation	A statistical measure of how two investments perform in relation to each other. Investments with a correlation of 1.0 have perfect positive correlation (exactly the same). Investments with perfect negative correlation of -1.0 will perform equally but in opposite directions.
Distribution to Paid-In (DPI)	The value of all distributions to limited partners divided by the amount limited partners have contributed to the fund. Often expressed as a ratio, DPI plus the unrealized value of limited partners' investments (RPI) equals the Total Value to Paid In (TVPI) multiple. A DPI of 1 indicates the investor has received capital back equal to what they invested while a DPI over 1 indicates an investor has received more capital back than they invested. DPI is most relevant for closed-end fund structures such as private equity.
Efficient Frontier	Represents the set of possible portfolios that have the greatest expected return for each level of risk (standard deviation of returns).

Glossary of Investment Terminology

Geometric Return	A calculation used when determining an annualized investment return, which tends to dampen the effect of very high or very low values. The result is a number that is smaller than (or equal to) the arithmetic average of the values.
Internal Rate of Return (IRR)	The discount rate at which the net present value of an investment's cash flows is equal to zero (0). IRR is commonly used to gauge fund performance.
Market Cap	The dollar value of a corporation, which is calculated by multiplying the share price of the stock by the number of outstanding shares.
Residual to Paid-In (RPI)	The unrealized value of limited partners' investments divided by the amount limited partners have contributed to the fund. Often expressed as a ratio, RPI plus the amount distributed back to investors (DPI) equals the total value to paid in (TVPI) multiple.
Return/Risk Ratio	The expected return of an investment divided by the expected standard deviation (risk). When comparing return/risk ratios, a higher value is presumed to be better than a lower value.
Standard Deviation	A statistical measurement of the dispersion of a set of data from its mean. The more spread apart the data is, the greater the standard deviation. Standard deviation is the most commonly cited measure of volatility or "risk" in investment returns. It measures total volatility, meaning it does not differentiate "bad" volatility associated with negative returns from "good" volatility associated with positive returns.
Total Return	The annual return on an investment, including appreciation, depreciation and income (interest, dividends, net operating income).
Total Value to Paid in Multiple (TVPI)	A measure of return that expresses how much a fund has made relative to how much was contributed. It is calculated by dividing the sum of the amount of capital distributed to investors and the amount of remaining value by the amount of invested capital. A TVPI below 1 indicates the current value of the investment plus the capital returned to the investor is less than the investor contributed. A TVPI greater than 1 indicates the current value of the investment plus the capital returned to the investor is more than the investor contributed. For closed-end funds such as private equity, DPI and TVPI will be the same at the end of the fund's life.

Impact of Negative Cash Flows

- Most defined benefit pension funds payout more in benefits and expenses than they take in via contributions, resulting in **negative net cash flows** on an annual basis.
- Plans with negative net cash flows require a much higher return in Year 2 following a loss in Year 1 to get back to the starting fund value.
- For example, a plan with a neutral net cash flow that returns -10.0% in Year 1 would require an **11.0% return in Year 2 to break even**.
- A plan with -5.0% net cash flows that experiences a -10.0% return in Year 1 would require a **24.0% return in Year 2 to breakeven (Year 2B).**
- An 11.0% return for a -5.0% net cash flow plan in Year 2 following a -10.0% return in Year 1 would result in an ending value **that is $10.5 million less (Year 2A)** than the neutral cash flow plan, assuming a starting value of $100 million.

Return Needed in Year 2 to Breakeven

Year 1 Return	Cash Flow as Percentage of Beginning Assets: 0.0%	-2.5%	-5.0%	-7.5%	-10.0%
0.0%	0%	5%	11%	16%	22%
-5.0%	5%	11%	17%	23%	29%
-10.0%	**11%**	17%	**24%**	30%	38%
-15.0%	18%	24%	31%	39%	47%
-20.0%	25%	32%	40%	48%	57%

	Neutral Cash Flow Fund		Negative Cash Flow Fund		
	Year 1	Year 2	Year 1	Year 2A	Year 2B
Beginning Assets	$100,00,000	$90,000,000	$100,000,000	$85,000,000	$85,000,000
Net Cash Flows	NA	NA	($5,000,000)	($5,000,000)	($5,000,000)
Investment Return (%)	-10%	11%	-10%	11%	24%
Investment Return ($)	($10,000,000)	$10,000,000	($10,000,000)	$9,444,350	$20,000,000
Ending Value	**$90,000,000**	**$100,000,000**	**$85,000,000**	**89,444,350**	**$100,000,000**

Common Market Capitalization Categories for Equities

Mega Cap	Greater than $250 Billion
Large Cap	$50 Billion to $250 Billion
Mid Cap	$10 Billion to $50 Billion
Small Cap	$1 Billion to $10 Billion
Micro Cap	Less than $1 Billion

Bond Ratings & Classifications

	Standard & Poor's	Moody's
	AAA	Aaa
Investment Grade	AA	Aa
	A	A
	BBB	Baa
High Quality High Yield	BB	Ba
	B	B
	CCC	Caa
Low Quality High Yield	CC	Ca
	C	C

Real Estate Asset Class

Higher Returns

More Risk

Core

Diversified, high quality, mature holdings with little debt and high income.

- Diversified tenant base
- Well-leased properties
- Minimal capital expenditures
- Stable cash flows
- Market rents
- Class A & B properties
- 0-35% leverage

Core-Plus

Core, with higher leverage and/or small allocations to value-add strategies.

- Stable cash flows
- Light renovations
- May include construction/development with a cap
- 30-40% leverage

Value-Add

Focus on potential of upgrading individual properties.

- Development/redevelopment
- Light/heavy renovation
- Property repositioning and/or operational improvements
- Substantial initial or near-term vacancy
- Construction and/or lease-up risk
- Low initial yield
- May require major capital expenditures
- Lower income but higher appreciation potential
- 40-75% leverage

Opportunistic

Highest risk/return strategy that encompasses a variety of opportunities which are often cyclical.

- Strategies may include new development, major renovations, distressed properties
- May invest across geographies and property types
- Prioritizes upside/appreciation, with limited/no income
- 75-90% leverage

High Yield Credit Asset Class

Higher Returns

More Risk

Below Investment Grade (High Yield)

Investment Grade

"High Quality" High Yield

Primarily corporate bonds and loans rated BB/B

- Focused on public market issuers
- Readily liquid ("tradable credit")

Opportunistic High Yield

Broader mandate to invest across high yield bonds, loans, structured products, lower-quality securities and non-US issuers

- Primarily publicly traded credit securities
- Larger companies with higher levels of debt
- Complex debt structures that require expertise to evaluate
- May invest opportunistically in private loans

Private Credit

Privately negotiated loans or debt transactions made directly to companies or non-corporate borrowers.

- Non-traded, private loans/debt
- Debt unable to be financed by banks due to regulatory reasons or complexity
- Smaller companies or unconventional lending situations
- Smaller loans typically made by a single lender or a small group
- Loans typically held to maturity by the original lender

Disclaimer:

This report has been prepared by Investment Performance Services, LLC ("IPS"). Certain information, including information relating to market indices, was provided by sources external to IPS and may not have been verified. While IPS has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of source information contained herein. Information provided in this report is as of the date of the report unless noted otherwise, and IPS is under no obligation to update the information or communicate that any updates have been made. If this report contains information regarding a matter that is outside of the description of services in the written agreement between IPS and the Fund, such information is included for informational purposes only and, the inclusion of such information does not alter or expand the scope of the services provided by IPS.

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EPIC

April 29 - May 2, 2025

The following investment managers and providers attended and helped to defray the cost of IPS' annual conference EPIC. EPIC is an educational conference addressing various issues related to employee benefit plans. IPS does not give preferential treatment to investment managers or any other provider that pays to attend EPIC.

400 Capital Management
Adams Street Partners
AFL-CIO Housing Investment Trust
Alliance Bernstein
American Realty Advisors
Arena Capital
Aristotle Capital Management
ASB Real Estate Investments
Atlanta Capital
Barrow Hanley Global Investors
Bentall GreenOak
Blackrock
Blackstone
BNY Investments
Boston Partners
Boyd Watterson Asset Management
BPEA Private Equity
Chartwell / RJIM
Christenson Investment Partners
Columbia Threadneedle
Conestoga Capital Advisors
Constitution Capital Partners
Corbin Capital Partners
CS McKee
Dana Investment Advisors
Dimensional Fund Advisors
EARNEST Partners
Empower
EnTrust Global
Fengate Asset Management
Fidelity Investments
First Eagle
Fisher Investments
F/m Investments
Fred Alger Management
FS Investments (Portfolio Advisors)
GCM Grosvenor
Glouston Capital Partners
GoldenTree Asset Management
Great Lakes Advisors
Hamilton Lane Advisors
Hardman Johnston
HPS Investment Partners
IFM Investors
Income Research + Management
Intercontinental Real Estate
Invesco
Janus Henderson
John Hancock
JP Morgan Asset Management
Kearney Capital
Kelson Group
Loomis Sayles & Company
Lord Abbett
LSV Asset Management
McMorgan & Company
Mesirow Institutional Real Estate
Mesirow Private Equity
National Investment Services
Neuberger Berman
New York Life Investments
Northern Trust Asset Management
Nuveen
OakTree Capital Management
Partners Group
Patriot Financial Partners
PNC Bank
Post Advisory Group
Principal
Richmond Capital Management
Schroder Investment Management
Segall Bryant & Hamill
Sierra Investment Partners, Inc.
Siguler Guff
State Street Global Advisors
Stonepeak Advisors
Ullico Investment Company
Victory Capital
Washington Capital Management
Wedge Capital Management
Wellington Management
Westfield Capital
Westport Capital Partners
William Blair