



Operating Engineers Local No. 77 Pension & Trust Funds

Master Consulting Services Report

**Period Ended
June 30, 2024**

TABLE OF CONTENTS

Page 03	Market Commentary
Page 26	Pension Fund – MCS Commentary, Recommendations, and Compliance Summary
Page 82	Trust Fund – MCS Commentary, Recommendations, and Compliance Summary
Page 110	Grosvenor Private Credit Fund Memo
Page 126	Glossary of Investment Terminology

Market Discussion

Q2 | 2024

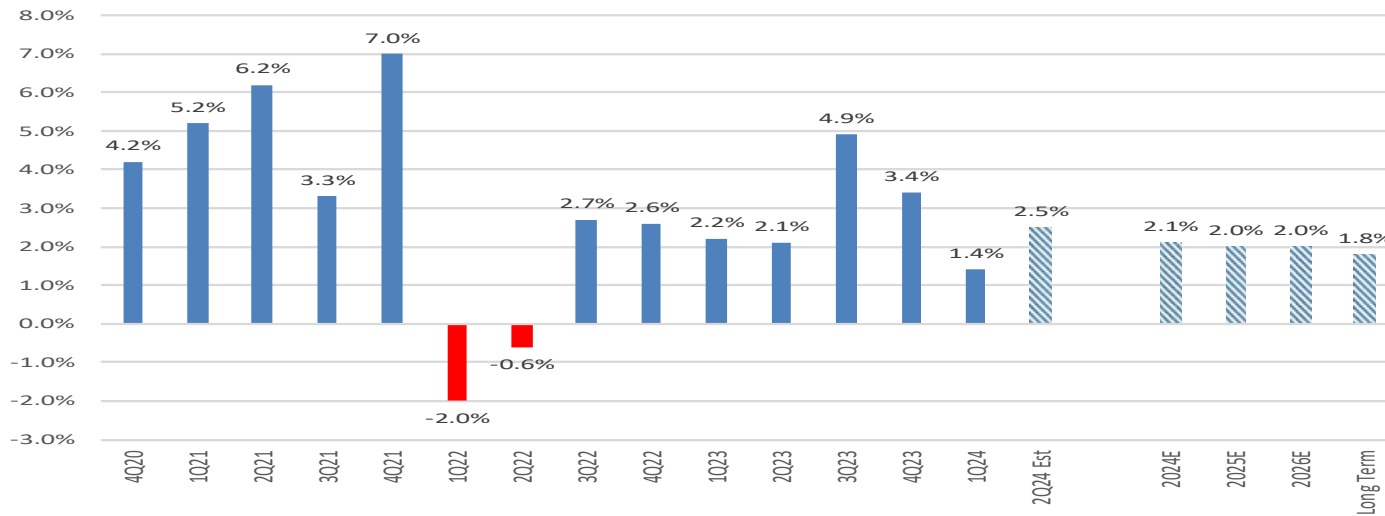


Financial Market Performance – Periods Ending June 30, 2024

Strategy	Sector	Index	QTR	YTD	2023	2022	2021	2020	2019	2018	1-Yr	3-Yr	5-Yr	10-Yr	20-Yr
Stocks	US Large Cap	S&P 500	4.3%	15.3%	26.3%	-18.1%	28.7%	18.4%	31.5%	-4.4%	24.5%	10.0%	15.0%	12.8%	10.3%
	US Large Cap Growth	Russell 1000 Growth	8.3%	20.7%	42.7%	-29.1%	27.6%	38.5%	36.4%	-1.5%	33.4%	11.3%	19.3%	16.3%	12.2%
	US Large Cap Value	Russell 1000 Value	-2.2%	6.6%	11.4%	-7.6%	25.1%	2.8%	26.5%	-8.3%	13.0%	5.5%	9.0%	8.2%	8.1%
	US Small Cap	Russell 2000	-3.3%	1.7%	16.9%	-20.5%	14.8%	19.9%	25.5%	-11.0%	10.0%	-2.6%	6.9%	7.0%	7.8%
	Non-US Developed	MSCI EAFE (net)	-0.4%	5.3%	18.2%	-14.5%	11.3%	7.8%	22.0%	-13.8%	11.5%	2.9%	6.5%	4.3%	5.6%
	Emerging Markets	MSCI EM (net)	5.0%	7.5%	9.8%	-20.1%	-2.5%	18.3%	18.4%	-14.6%	12.5%	-5.1%	3.1%	2.8%	7.3%
	Int'l Small Cap	MSCI EAFE Small Cap (net)	-1.8%	0.5%	13.2%	-21.4%	10.1%	12.3%	25.0%	-17.9%	7.8%	-3.3%	4.2%	4.3%	6.5%
Bonds	Treasury	Bloomberg US Govt	0.1%	-0.8%	4.1%	-12.3%	-2.3%	7.9%	6.8%	0.9%	1.6%	-3.2%	-0.6%	0.9%	2.7%
	Broad Market	Bloomberg Aggregate	0.1%	-0.7%	5.5%	-13.0%	-1.5%	7.5%	8.7%	0.0%	2.6%	-3.0%	-0.2%	1.3%	3.1%
	Intermediate	Bloomberg Gov/Credit Int.	0.6%	0.5%	5.2%	-8.2%	-1.4%	6.4%	6.8%	0.9%	4.2%	-1.2%	0.7%	1.5%	2.9%
	High Yield	Bloomberg HY BaB 2% IC	1.2%	2.5%	12.6%	-10.6%	4.6%	7.7%	15.2%	-1.9%	10.0%	1.6%	3.9%	4.3%	6.3%
	Short Duration HY	ICE BofA 1-3 Yrs BB US Cash Pay HY	1.4%	2.8%	8.9%	-3.1%	3.2%	5.4%	8.7%	1.3%	8.1%	3.1%	4.0%	4.0%	5.5%
	Global Bonds	FTSE WGBI	-1.6%	-4.0%	5.2%	-18.3%	-7.0%	10.1%	5.9%	-0.8%	-0.6%	-6.9%	-3.2%	-1.2%	1.8%
GTAA	Unconstrained	65% MSCI World /35% FTSE WGBI	1.2%	6.0%	17.0%	-18.1%	11.0%	14.6%	19.9%	-5.8%	12.6%	2.0%	6.6%	5.7%	6.2%
Real Estate	Core	NCREIF ODCE Equal Weighted (net)	-0.8%	-3.2%	-13.4%	7.6%	21.9%	0.8%	5.2%	7.3%	-10.4%	1.1%	2.6%	5.8%	5.8%
Hedge Fund of Funds	Diversified FOFs	HFRI FOF Composite	0.4%	4.6%	6.1%	-5.3%	6.2%	10.9%	8.4%	-4.0%	8.5%	2.1%	4.8%	3.5%	3.5%
	Equity Long-Short	HFRI Equity Hedge	1.0%	6.1%	11.4%	-10.1%	11.7%	17.9%	13.7%	-7.1%	11.8%	1.9%	7.8%	5.6%	5.5%
Commodities	Commodities	Goldman Sachs Commodity	0.7%	11.1%	-4.3%	26.0%	40.4%	-23.7%	17.6%	-13.8%	15.0%	12.7%	8.3%	-3.1%	-1.5%

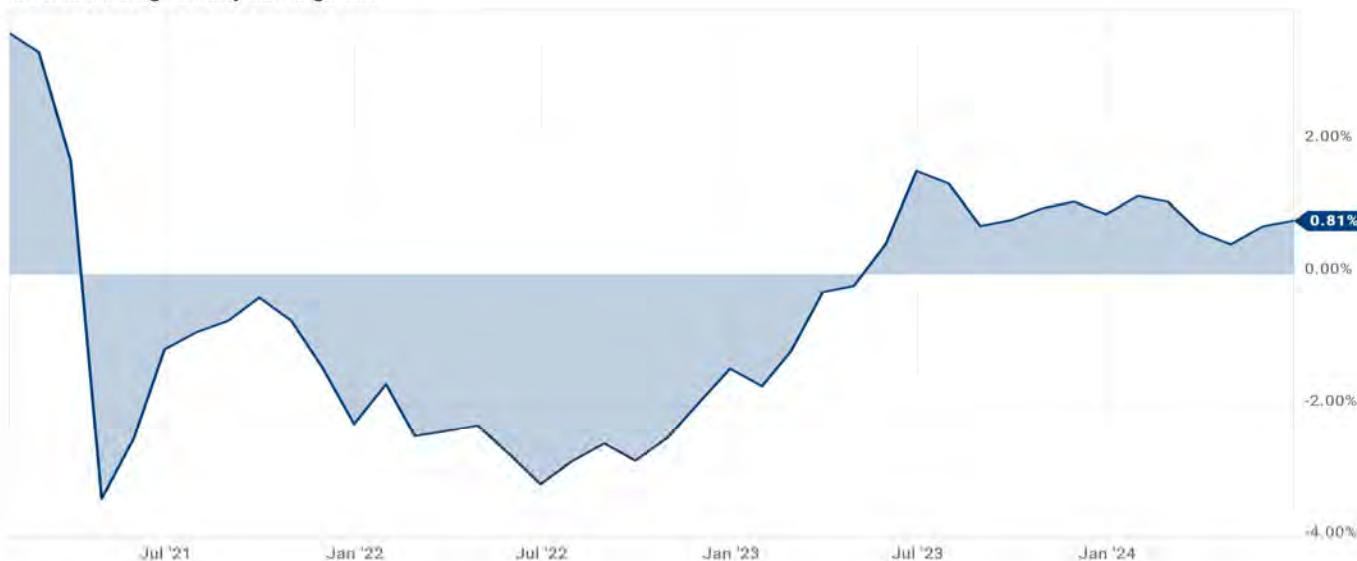
U.S. Economy

U.S. GDP Growth



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

US Real Average Hourly Earnings YoY



Date Range: 01/31/2021 - 06/30/2024

Source: BLS

Jul 15, 2024, 2:03 PM EDT Powered by YCHARTS

U.S. Economic Growth Slows

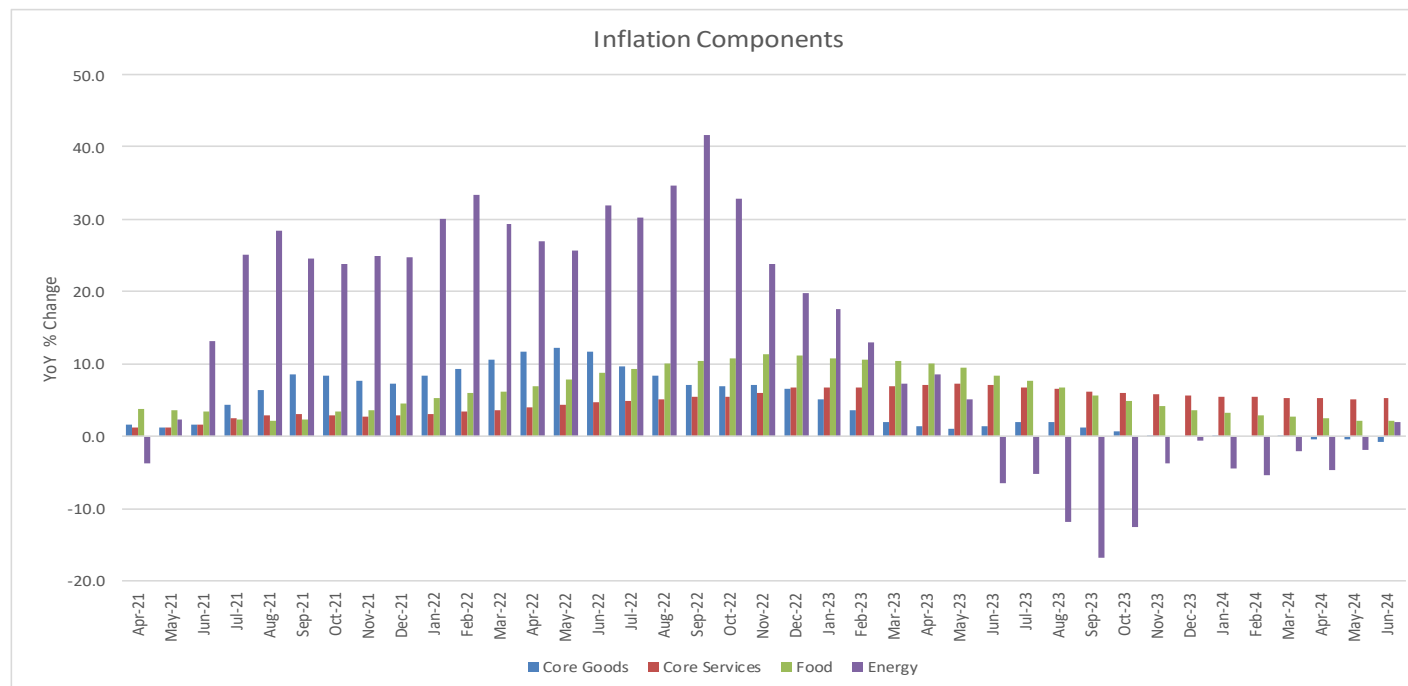
- U.S. GDP growth slowed from 3.4% in Q4 2023 to 1.4% in 1Q 2024, the slowest pace of growth since Q2 2021 as consumer spending softened.
- Compared to Q4 2023, the deceleration in real GDP primarily reflected lower growth in consumer spending (2.0% vs. 3.3% in Q4 2023), exports, and state and local government spending, and a downturn in federal government spending. These movements were partly offset by an acceleration in residential fixed investment and imports.
- As of July 16th, the Atlanta Federal Reserve is projecting GDP growth has accelerated to 2.5% in Q2 2024.
- After 25 consecutive months of negative real wage growth for U.S. workers, higher earnings and slowing inflation have more recently resulted in 14 consecutive months of real earnings growth.

U.S. Economy



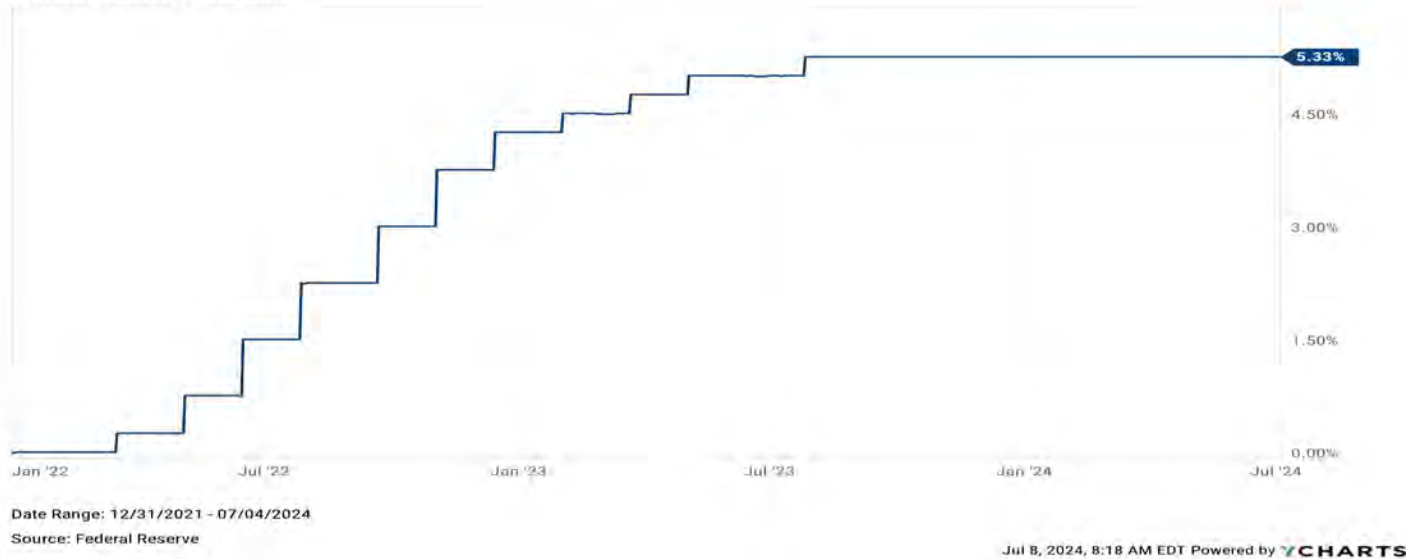
Progress Towards Inflation Target Continues

- June CPI fell 0.1% month-over-month, the largest decline since May 2020. Year-over-year, headline CPI moved below 3.0% to the lowest level since March 2021.
- Shelter costs rose by 5.2% in June, the smallest increase since April 2022 for the component which represents over one third of headline CPI.
- Excluding food and energy, core inflation increased by 3.3% vs. a year ago, the lowest level since April 2021.
- Year-over-year core goods inflation has been negative for all six months of 2024, driven by falling used car prices.
- Service inflation remains above 5.0%, driven by shelter and auto insurance, which is up over 20.0% in the last year.
- Core Personal Consumption Expenditures (PCE), the Fed's preferred inflation measure, increased by 2.6% over the last year through May, the lowest level since March of 2021.



U.S. Economy

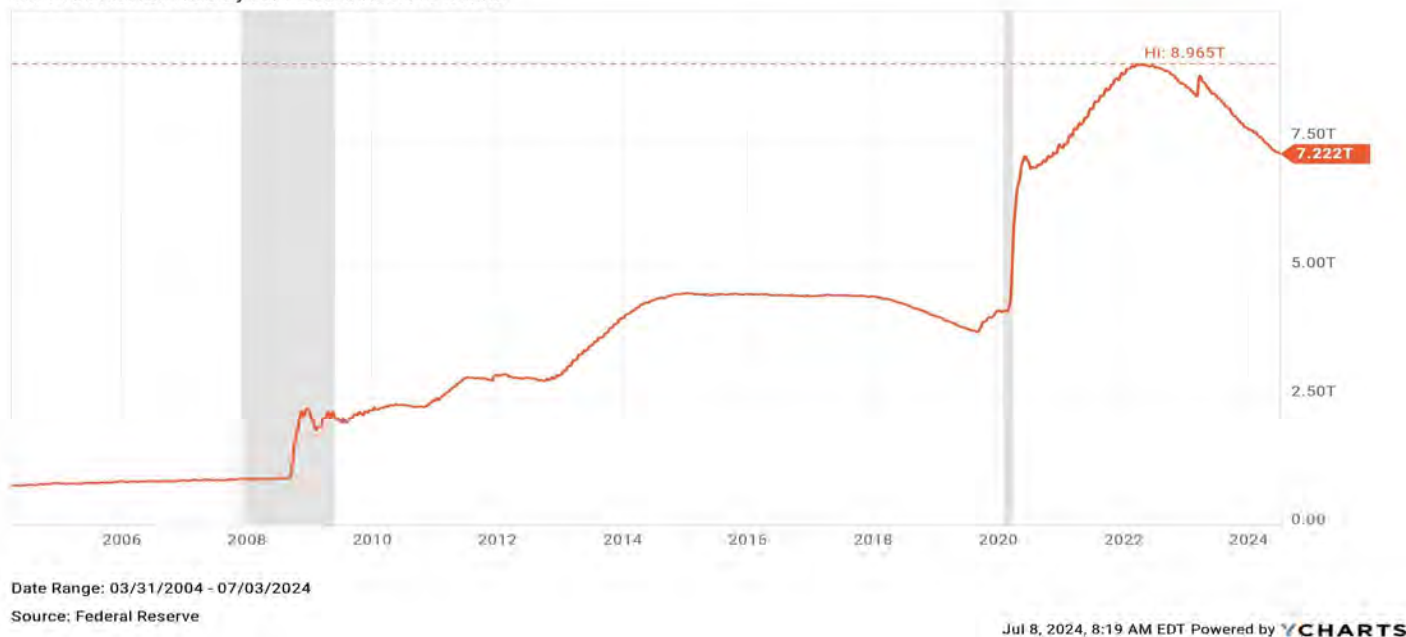
Effective Federal Funds Rate



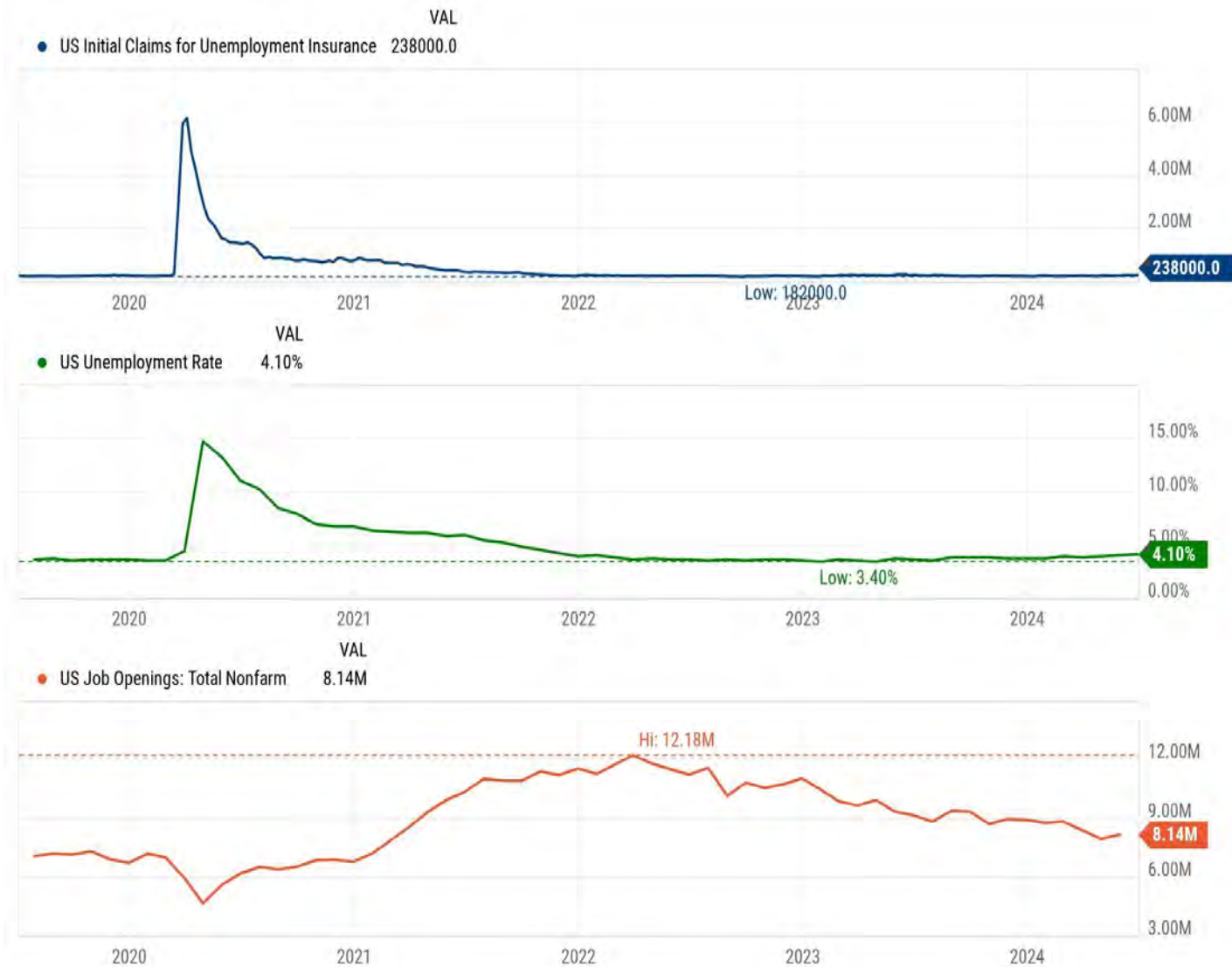
Fed Remains on Hold But First Rate Cut May Be Near

- The U.S. Federal Reserve raised rates from 0.0% to 5.25% since the beginning of 2022, with the most recent 0.25% increase occurring at the July 2023 meeting, leaving the effective Fed Funds Rate at 5.33%, the highest level since 2007.
- The Fed left rates unchanged at each of the final three meetings of 2023 and the first four meetings of 2024.
- Forward guidance from the Fed at the June meeting suggests one 0.25% cut in 2024, down from three in the December 2023 projections. Following the June inflation report, the market is now anticipating three 0.25% rate cuts in 2024.
- The Fed reduced the size of the balance sheet through quantitative tightening by approximately \$1.7 trillion since the peak in April 2022.
- The balance sheet is at the lowest level since December 2020; but remains sufficiently larger than pre-COVID.

US Total Assets Held by All Federal Reserve Banks



U.S. Economy



Date Range: 07/06/2019 - 06/30/2024

Sources: DoL, BLS

Jul 8, 2024, 8:21 AM EDT Powered by **YCHARTS**

Labor Market Beginning to Show Softness

- While the labor market has remained resilient in the face of higher interest rates, signs of weakness have begun to emerge.
- There were an average of 177,000 jobs added in Q2 2024, down from an average of 269,000 in the previous quarter.
- Weekly claims for unemployment averaged 224,385 in Q2 2024 compared to 211,000 in 1Q 2024.
- The unemployment rate breached 4.0% in May for the first time since January 2022 and has increased by 0.60% since the low of 3.4% in April 2023. The unemployment rate is at the highest level in almost three years.
- U.S. job openings declined in 2024 by approximately 700k and are down by approximately four million from the peak in 2022.

U.S. Equity Market

Sector	Index	2Q24	YTD	2023	2022	2021	2020	2019	2018	1-Year	3-Year	5-Year	10-Year
Large Cap	S&P 500	4.3%	15.3%	26.3%	-18.1%	28.7%	18.4%	31.5%	-4.4%	24.5%	10.0%	15.0%	12.8%
	Russell 1000	3.6%	14.2%	26.5%	-19.1%	26.4%	21.0%	31.4%	-4.8%	23.8%	8.7%	14.6%	12.5%
	Russell 1000 Value	-2.2%	6.6%	11.4%	-7.6%	25.1%	2.8%	26.5%	-8.3%	13.0%	5.5%	9.0%	8.2%
	Russell 1000 Growth	8.3%	20.7%	42.7%	-29.1%	27.6%	38.5%	36.4%	-1.5%	33.4%	11.3%	19.3%	16.3%
Mid Cap	Russell Mid-Cap	-3.3%	5.0%	17.2%	-17.3%	22.6%	17.1%	30.5%	-9.1%	12.8%	2.4%	9.4%	9.0%
	Russell Mid-Cap Value	-3.4%	4.5%	12.7%	-12.1%	28.3%	5.0%	27.0%	-12.3%	11.9%	3.6%	8.5%	7.6%
	Russell Mid-Cap Growth	-3.2%	6.0%	25.9%	-26.7%	12.7%	35.6%	35.5%	-4.8%	15.0%	-0.1%	9.9%	10.5%
Small Cap	Russell 2000	-3.3%	1.7%	16.9%	-20.5%	14.8%	19.9%	25.5%	-11.0%	10.0%	-2.6%	6.9%	7.0%
	Russell 2000 Value	-3.6%	-0.9%	14.6%	-14.5%	28.2%	4.6%	22.4%	-12.9%	10.8%	-0.6%	7.0%	6.2%
	Russell 2000 Growth	-2.9%	4.4%	18.6%	-26.4%	2.8%	34.6%	28.4%	-9.3%	9.1%	-4.9%	6.1%	7.4%
Total Market	Wilshire 5000	3.3%	13.6%	26.1%	-19.0%	26.7%	20.8%	31.0%	-5.3%	23.1%	8.4%	14.4%	12.3%
	Russell 3000	3.2%	13.6%	25.9%	-19.2%	25.6%	20.9%	31.0%	-5.2%	23.0%	8.0%	14.1%	12.1%

Major Index Total Return as of June 30, 2024

Asset Class	Name	2Q24	% off Low	% Off All Time High
U.S. Large Cap	S&P 500	4.3%	56.9%	-0.5%
U.S. Mid Cap	Russell Midcap	-3.4%	34.5%	-3.4%
U.S. Smid Cap	Russell 2500	-4.3%	29.6%	-7.0%
U.S. Small Cap	Russell 2000	-3.3%	26.8%	-12.9%
International Large Cap	MSCI EAFE	-0.1%	48.9%	-2.9%
International Small Cap	MSCI EAFE Small Cap (gross)	-1.2%	35.2%	-14.3%
Emerging Markets	MSCI Emerging Markets	5.4%	35.4%	-16.9%
Global Equity	MSCI World (gross)	2.8%	53.8%	-0.3%

- The first half of 2024 concluded positively for major equity benchmarks, marked by broad gains in Q1 that contrast sharply with a narrower market in Q2.
- Strong market breadth led to all major indices finishing in the green in Q1, with the S&P 500 equal-weight index reaching an all time high.
- Q2 saw a divergence, characterized by weaker breadth and varied performance across indices. Select mega-cap growth stocks drove substantial gains, significantly boosting the Russell 1000 Growth and S&P 500 indices to strong double-digit returns for the year's first half. This performance outpaced value, mid-cap, and small-cap benchmarks.

U.S. Equity Market

S&P 500 Sector Performance
As of June 30, 2024

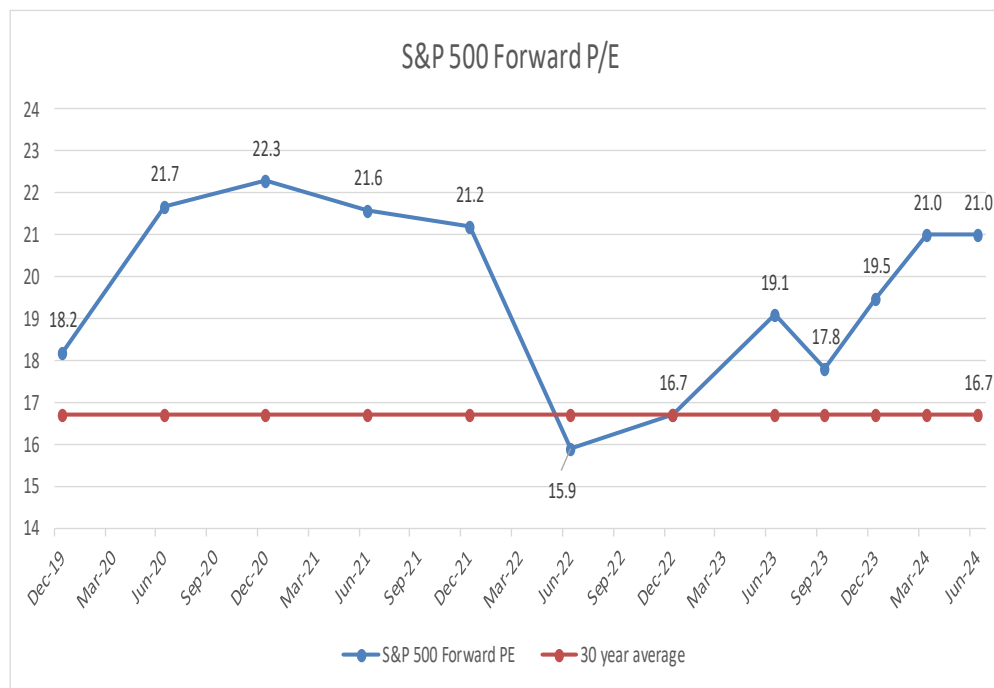


Divided Market: AI Gains Momentum as Cyclical Stocks Stall

- In Q1, market returns were broad-based, but in Q2, positive returns were heavily centered on AI-related companies. The IT (+13.8%) and communication services (+9.4%) sectors maintained their dominance, with utilities (+4.7%) also showing surprisingly positive performance.
- Traditionally viewed as a defensive play due to their regulated nature, utilities are now being reassessed in the AI era. This shift is highlighted by Amazon Web Services' 2024 acquisition of its first nuclear-powered data center, placing utilities at the intersection of AI and energy needs — a perception gaining traction in the equity market.
- Meanwhile, cyclical stocks saw widespread declines, led by losses in materials (-4.5%). Economically sensitive sectors like energy and industrials, which had enjoyed double-digit gains in the first quarter, fell. High interest rates continued to pressure REITs.

Analysts Still Bullish on Earnings Growth

- Analysts forecast the S&P 500 will achieve 11.3% earnings growth in 2024 and 14.4% in 2025. Should these projections materialize, it would represent the third instance in the last 15 years of the index achieving consecutive years of double-digit earnings growth.
- In Q2 2024, the S&P 500's forward P/E ratio held steady at its highest levels since late 2021, indicating that rising stock prices have corresponded proportionally with earnings forecasts.



Source: J.P. Morgan Asset Management

U.S. Equity Market

Tech Giants' CAPEX Boost Rewards Nvidia

- Tech giants Amazon, Google, Meta, and Microsoft are increasing investments in chips and data centers to bolster their AI capabilities. This capital expenditure has been well-received by the market, driving up their stock prices as investors bet on their potential to lead in AI and spur growth.
- The current regulatory landscape has also intensified scrutiny of mergers and acquisitions within Big Tech, prompting these companies to allocate their cash flow towards capital expenditures and other strategic purposes.
- According to Goldman Sachs research, total capital expenditures and R&D for the Magnificent 7 are expected to be nearly \$348 billion this year, a remarkable 61% of their operating free cash flow. By comparison, that is three times the amount spent by the other 493 companies S&P 500 companies.
- Nvidia has significantly benefited from this trend, with its graphic processing units (GPUs) chips deemed essential for AI applications. Its leadership in GPU technology has positioned Nvidia as a primary supplier of AI infrastructure, driving substantial revenue growth from Big Tech's CAPEX spend and boosting its own stock price.
- This has elevated Nvidia into an elite tier alongside Microsoft and Apple, as they each vied for the title of the world's largest company, by market cap, all surpassing \$3 trillion in valuation during Q2.

Exhibit 1: Capex Estimates for Alphabet, Meta and Amazon (\$ bn)

Combined we estimate capex of three companies to increase 35% y/y (up \$37bn y/y) in 2024 to \$145bn.



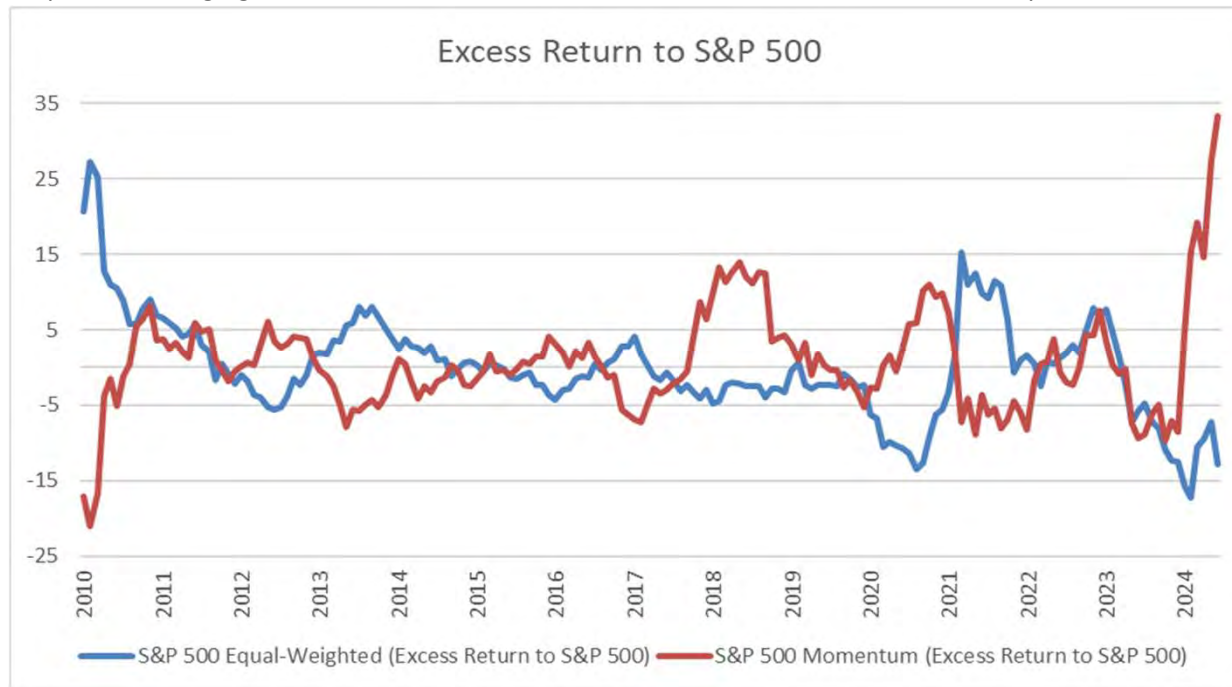
Source: Company Filings, BofA Global Research Estimates

BoFA GLOBAL RESEARCH

U.S. Equity Market

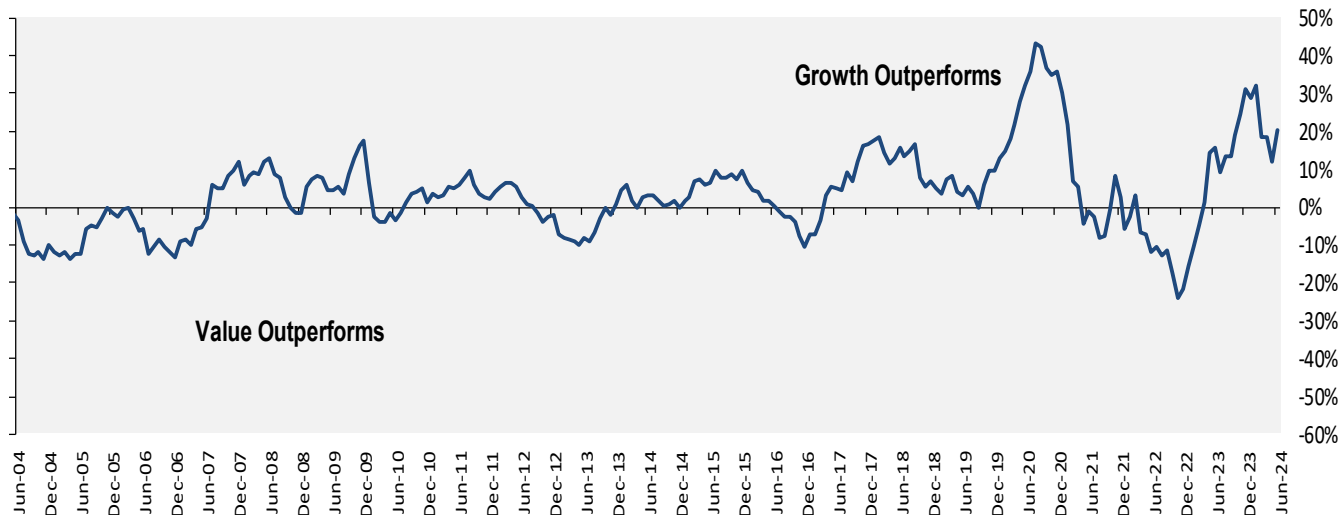
Harnessing Momentum Has Prevailed Leaving Value, Dividends, and Low Volatility Behind

- The term momentum in finance refers to the tendency of assets that have performed well (or poorly) in the recent past to continue to perform similarly in the near future.
- For example, the S&P 500 Momentum Index selects stocks from the S&P 500 Index and assigns higher weights based on their positive momentum. Generally, stocks are weighted in this subset index based on their performance over the past 12 months minus the performance over the last one month. This calculation helps gauge the longer-term trend while considering short-term fluctuations in momentum.
- The chart below displays the trailing 12-month excess return of the S&P 500 Momentum Index and the S&P 500 Equal-Weighted Index compared to the widely used market capitalization-weighted S&P 500.
- Two notable observations: first, since the Global Financial Crisis (GFC), this is the first instance where momentum has achieved a 33% outperformance surge over 12 months. Second, the relationship between momentum and equal-weight outperformance seems nearly inverse.
- Across global equity markets, investing in larger companies with strong momentum has proven effective, albeit to varying degrees. Regardless of the region—US, UK, Europe, Japan, or emerging markets — the momentum factor has contributed to relative outperformance in 1H2024.

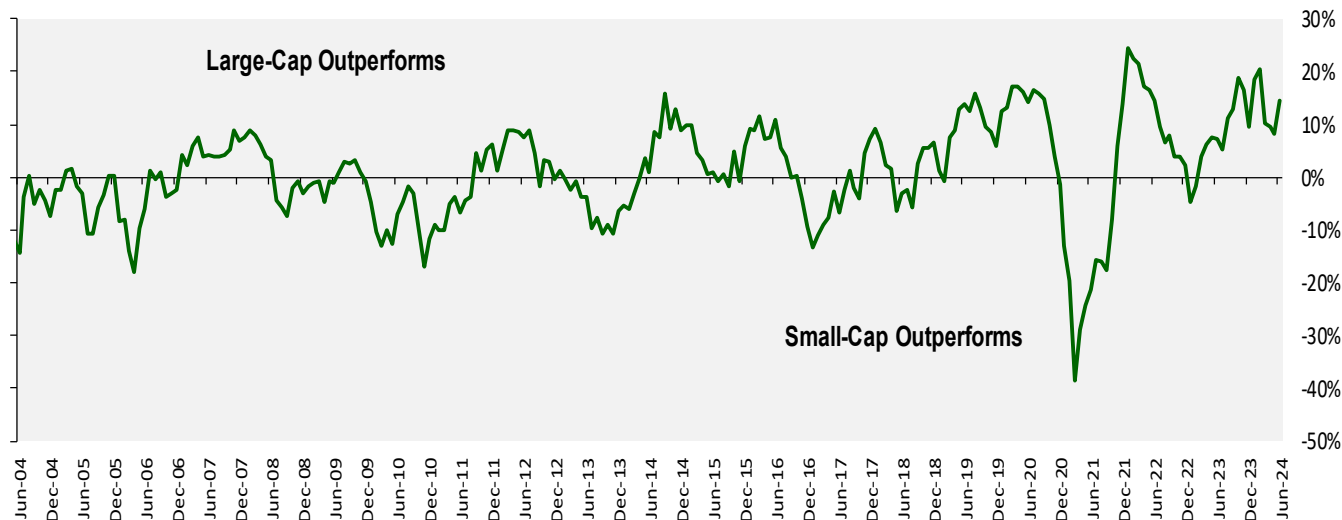


U.S. Equity Market

Russell 1000 Growth vs. Russell 1000 Value
Rolling One-Year Returns



S&P 500 vs. Russell 2000
Rolling One-Year Returns



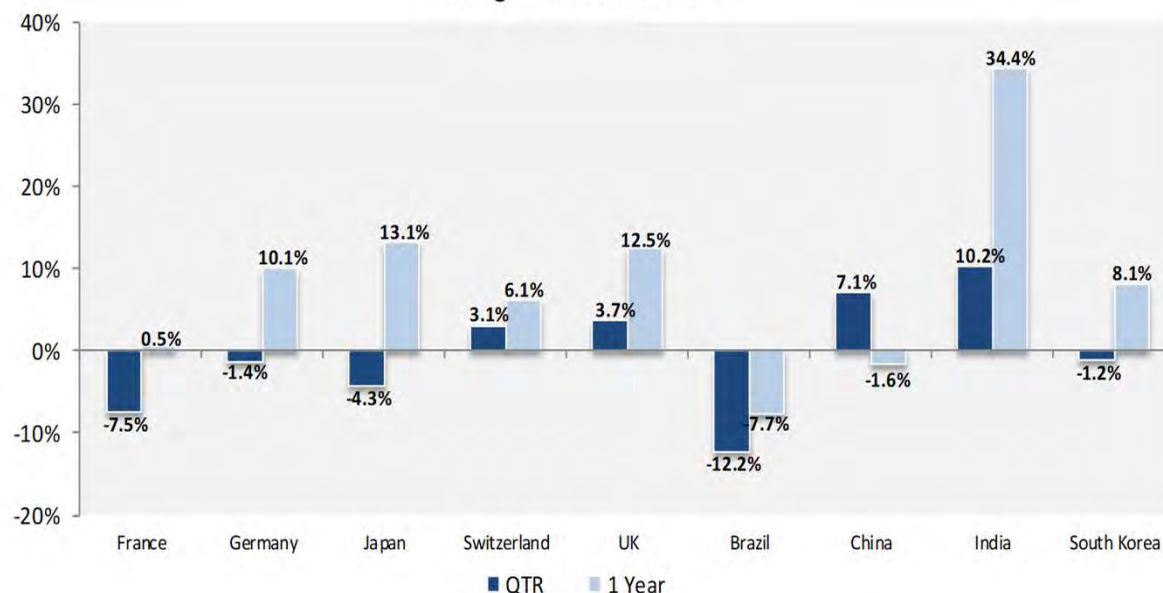
Market Driven by AI Titans; Small Companies Face Challenges

- AI enthusiasm continued to propel growth stocks, driven primarily by a handful of mega-cap leaders in 2024. The “Magnificent 7” saw varied results in Q2 but now constitutes a record 32% of the S&P 500. Five key megacap companies - Nvidia, Microsoft, Amazon, Meta, and Apple - accounted for a remarkable 60% of the year-to-date S&P 500 advance with Nvidia driving 31% of the index's gains in the first half of the year.
- The Russell 2000 (small caps) lagged its large-cap counterpart by nearly 13% year-to-date through the end of Q2, marking its worst first half-year performance compared to large caps since the Russell indices' inception in 1979.
- Meanwhile, the Russell 1000 hit new highs 11 times in Q2 2024, while in contrast the Russell 2000 ended Q2 -12.9% below its peak from nearly three years ago.

International Equity Market

Sector	Index	2Q24	YTD	2023	2022	2021	2020	2019	2018	1-Year	3-Year	5-Year	10-Year
Global	MSCI AC World Index (net)	2.9%	11.3%	22.2%	-18.4%	18.5%	16.3%	26.6%	-9.4%	19.3%	5.4%	10.7%	8.4%
	MSCI World Small Cap (net)	-2.8%	1.5%	15.8%	-18.8%	15.8%	16.0%	26.2%	-13.9%	9.1%	-1.3%	6.9%	6.3%
	MSCI World ex US (net)	-0.6%	5.0%	17.9%	-14.3%	12.6%	7.6%	22.5%	-14.1%	11.2%	2.8%	6.5%	4.3%
	MSCI World ex US Small Cap (net)	-1.6%	1.0%	12.6%	-20.6%	11.1%	12.8%	25.4%	-18.1%	7.8%	-3.0%	4.7%	4.0%
Developed ex US	MSCI EAFE (net)	-0.4%	5.3%	18.2%	-14.5%	11.3%	7.8%	22.0%	-13.8%	11.5%	2.9%	6.5%	4.3%
	MSCI EAFE Value (net)	0.0%	4.5%	19.0%	-5.6%	10.9%	-2.6%	16.1%	-14.8%	13.7%	5.5%	6.1%	3.0%
	MSCI EAFE Growth (net)	-0.8%	6.2%	17.6%	-22.9%	11.3%	18.3%	27.9%	-12.8%	9.4%	0.1%	6.5%	5.4%
	MSCI EAFE Small Cap (net)	-1.8%	0.5%	13.2%	-21.4%	10.1%	12.3%	25.0%	-17.9%	7.8%	-3.3%	4.2%	4.3%
Emerging Markets	MSCI Emerging Markets (net)	5.0%	7.5%	9.8%	-20.1%	-2.5%	18.3%	18.4%	-14.6%	12.5%	-5.1%	3.1%	2.8%

Foreign Markets Returns



- In Q2, European equities declined due to uncertainty surrounding the elections in France and diminishing expectations for substantial interest rate cuts. The IT sector saw gains while the consumer discretionary sector faced declines from weaknesses in automotive and luxury goods.
- Several Japanese equity market indices posted marginal gains in Q2; however, yen depreciation, driven by a strong U.S. dollar, turned U.S. dollar-based returns negative.
- In Q2, emerging market equities outperformed developed markets. Optimism about Chinese government support for the housing sector, coupled with low equity valuations, attracted investors and stabilized the Chinese equity market. Taiwan achieved double-digit gains due to strong investor enthusiasm for IT stocks, particularly AI-related companies like Taiwan Semiconductor. Indian benchmark indices hit record highs, driven by gains in the media and banking sectors.

International Equity Market

ICE US Dollar Index Level



Date Range: 06/30/2014 - 06/28/2024

Jul 8, 2024, 8:26 AM EDT Powered by YCHARTS

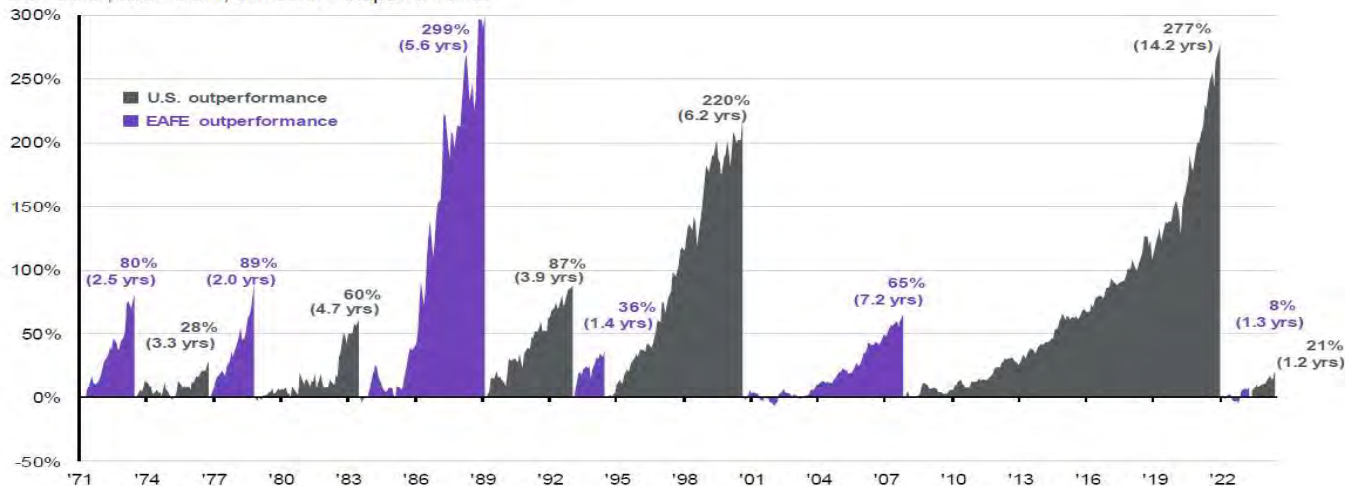
Japanese Yen Hits Record Lows, Stirs Intervention Debate

- The Japanese Yen closed Q2 at its lowest level against the U.S. dollar since 1986 and reached an all-time low against the Euro. The sell-off is triggering speculation that authorities may intervene once again to stabilize the currency.
- This depreciation is driving up import costs, which is adversely affecting Japanese consumers. As such, the Yen warrants close attention due to Japan's outsized weighting in widely followed international benchmarks.

U.S. Resume Global Dominance

- U.S. equity markets outperformed international markets by 277% over 14.2 years, marking the longest duration of outperformance in 50 years; however, this trend may have merely paused in 2021.
- Over the past 2.5 years, U.S. and international developed markets had comparable returns, with no clear winner. However, in the last year, U.S. markets, driven by mega-cap technology stocks, have regained supremacy over non-U.S.

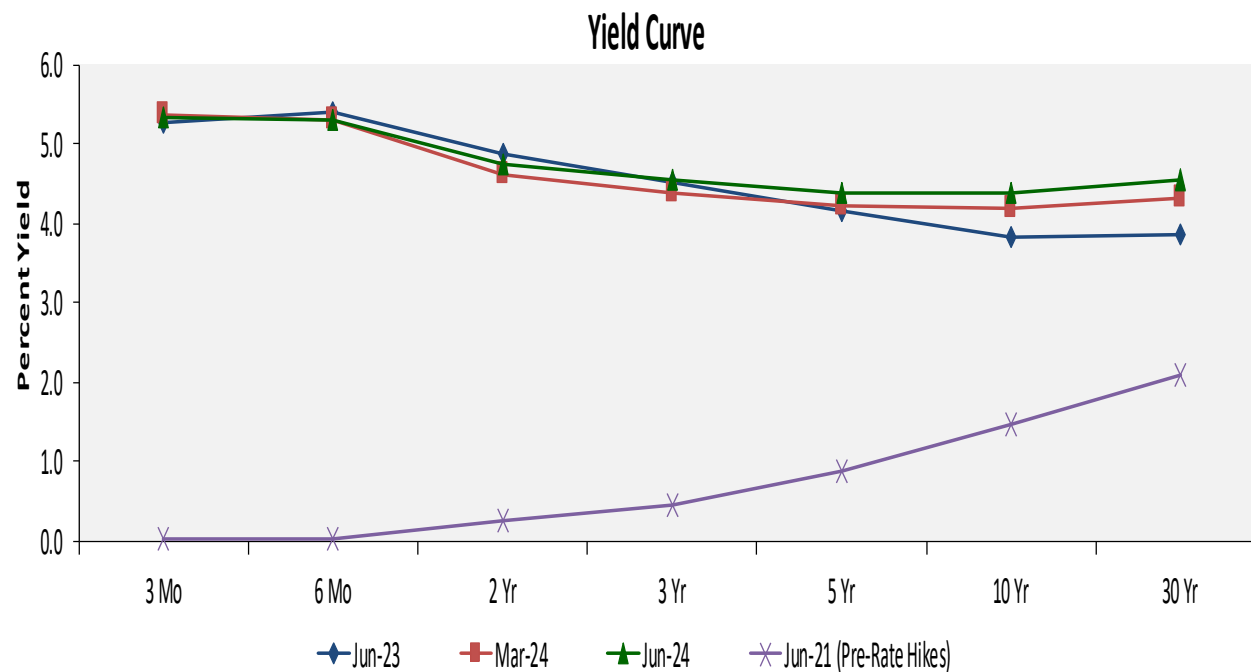
MSCI EAFE and MSCI USA relative performance
U.S. dollar, total return, cumulative outperformance



Source: J.P. Morgan Asset Management. Peak MSCI EAFE outperformance vs. MSCI USA occurred in April 2023. If this is sustained for 12 months, the regime will switch in April 2024.

Bond Market

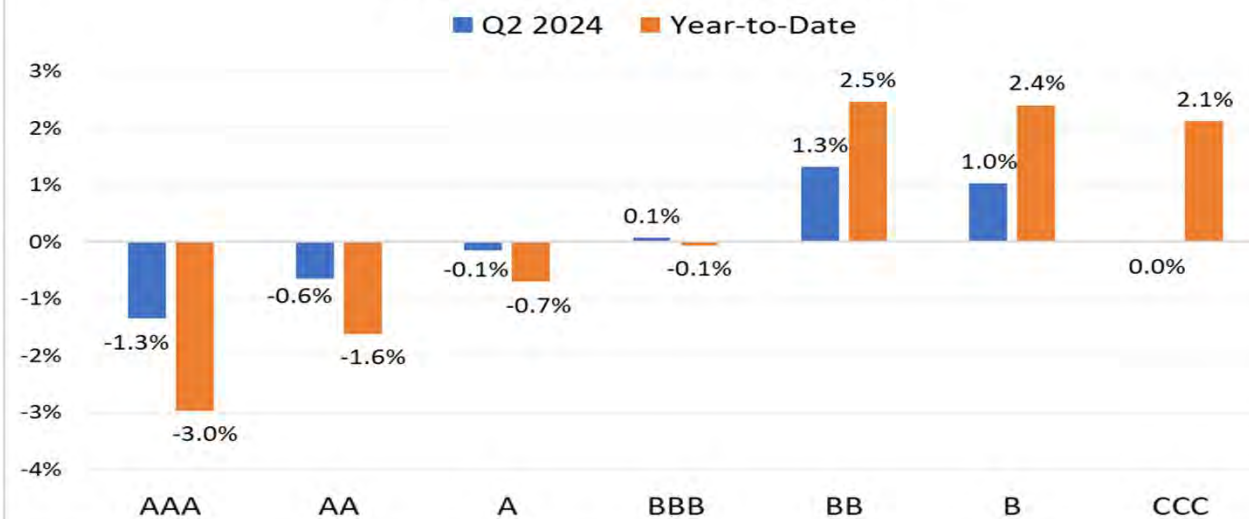
Index	Duration (years)	Yield	2Q24	YTD	2023	2022	2021	2020	2019	2018	1-Year	3-Year	5-Year	10-Year
Bloomberg Aggregate	6.2	5.00%	0.1%	-0.7%	5.5%	-13.0%	-1.5%	7.5%	8.7%	0.0%	2.6%	-3.0%	-0.2%	1.3%
Bloomberg Govt/Credit	6.4	4.91%	0.0%	-0.7%	5.7%	-13.6%	-1.7%	8.9%	9.7%	-0.4%	2.7%	-3.1%	-0.1%	1.5%
Bloomberg Int Agg	4.5	4.96%	0.5%	0.0%	5.2%	-9.5%	-1.3%	5.6%	6.7%	0.9%	3.5%	-1.8%	0.2%	1.3%
Bloomberg Int Govt/Credit	3.9	4.82%	0.6%	0.5%	5.2%	-8.2%	-1.4%	6.4%	6.8%	0.9%	4.2%	-1.2%	0.7%	1.5%
Bloomberg U.S. Corporate	7.1	5.48%	-0.1%	-0.5%	8.5%	-15.8%	-1.0%	9.9%	14.5%	-2.5%	4.6%	-3.0%	0.6%	2.3%
Bloomberg HY Ba/B 2% IC	3.7	7.04%	1.2%	2.5%	12.6%	-10.6%	4.6%	7.7%	15.2%	-1.9%	10.0%	1.6%	3.9%	4.3%
ICE BofA 1-3 Yrs BB US Cash Pay HY	1.9	6.47%	1.4%	2.8%	8.9%	-3.1%	3.2%	5.4%	8.7%	1.3%	8.1%	3.1%	4.0%	4.0%
Bloomberg Mortgage	5.8	5.22%	0.1%	-1.0%	5.0%	-11.8%	-1.0%	3.9%	6.4%	1.0%	2.1%	-2.9%	-0.8%	0.9%
Bloomberg Treasury	6.0	4.57%	0.1%	-0.9%	4.1%	-12.5%	-2.3%	8.0%	6.9%	0.9%	1.5%	-3.3%	-0.7%	0.9%
Bloomberg US TIPS	6.6	4.77%	0.8%	0.7%	3.9%	-11.8%	6.0%	11.0%	8.4%	-1.3%	2.7%	-1.3%	2.1%	1.9%
BofA ML 91 day T-Bills	0.2	5.36%	1.3%	2.7%	5.2%	1.5%	0.0%	0.7%	2.3%	1.9%	5.4%	3.1%	2.2%	1.5%



- The U.S. Treasury curve shifted upward in Q2 2024, putting pressure on longer duration bonds.
- Despite the move higher in yields, most areas of the bond market generated flat to positive returns in Q2 2024 due to the higher levels of income offsetting the impact of price changes.
- High yield bonds and shorter maturity bonds were the best performing markets in Q2 2024, a continuation of Q1 2024. Recent curve steepening (rising long-term yields) has resulted in year-to-date underperformance in bond sectors and market indexes with longer duration such as the U.S. Aggregate, AAA & AA corporate bonds & Treasuries.

Bond Market

Returns by Credit Rating



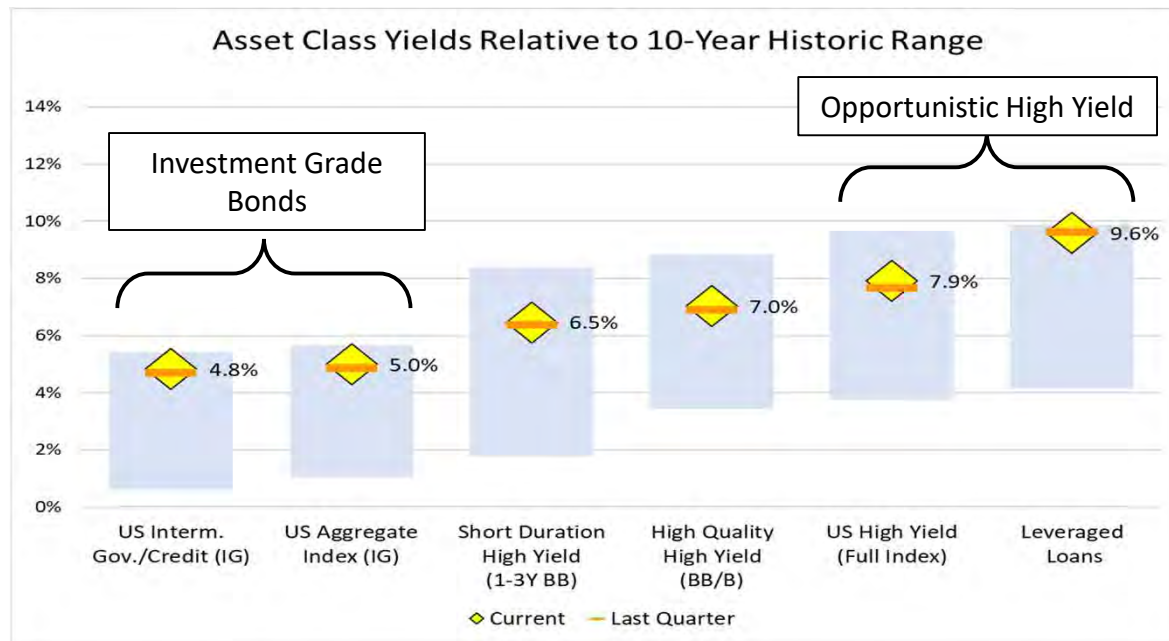
Returns by Maturity



Rising interest rates in Q2 2024 continue to put pressure on long duration bonds.

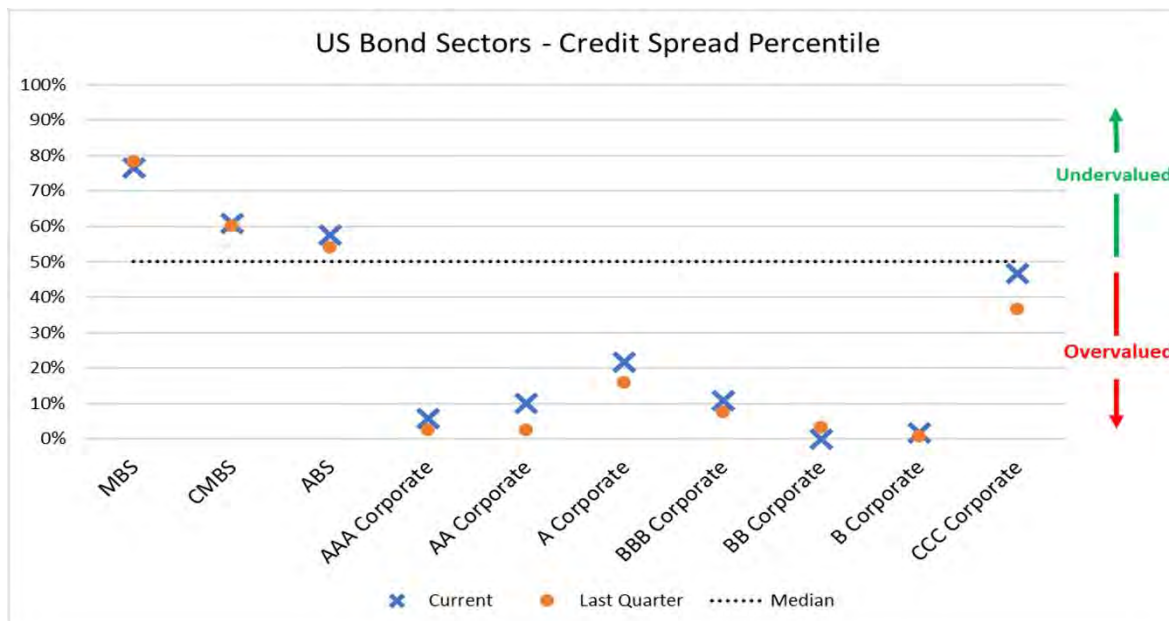
- U.S. Treasury yields continued to rise in Q2 2024, leading to more underperformance in longer duration bonds versus bonds with shorter duration.
- Credit spreads were mixed in Q2, with investment grade spreads widening while BB & B-rated bonds experienced some spread tightening.
- Investment grade bonds generated negative returns in Q2, adding to their year-to-date losses, largely due to their longer duration.
- The income generated from higher yields helped reduce the impact of rising rates for bonds with less than 10 years until maturity, but longer maturity bonds continue to experience price swings due to interest rate volatility.
- Higher-quality high yield (BB) bonds have performed well in 2024 due to higher income and shorter duration relative to investment grade credit.

Bond Market



Bond Yields

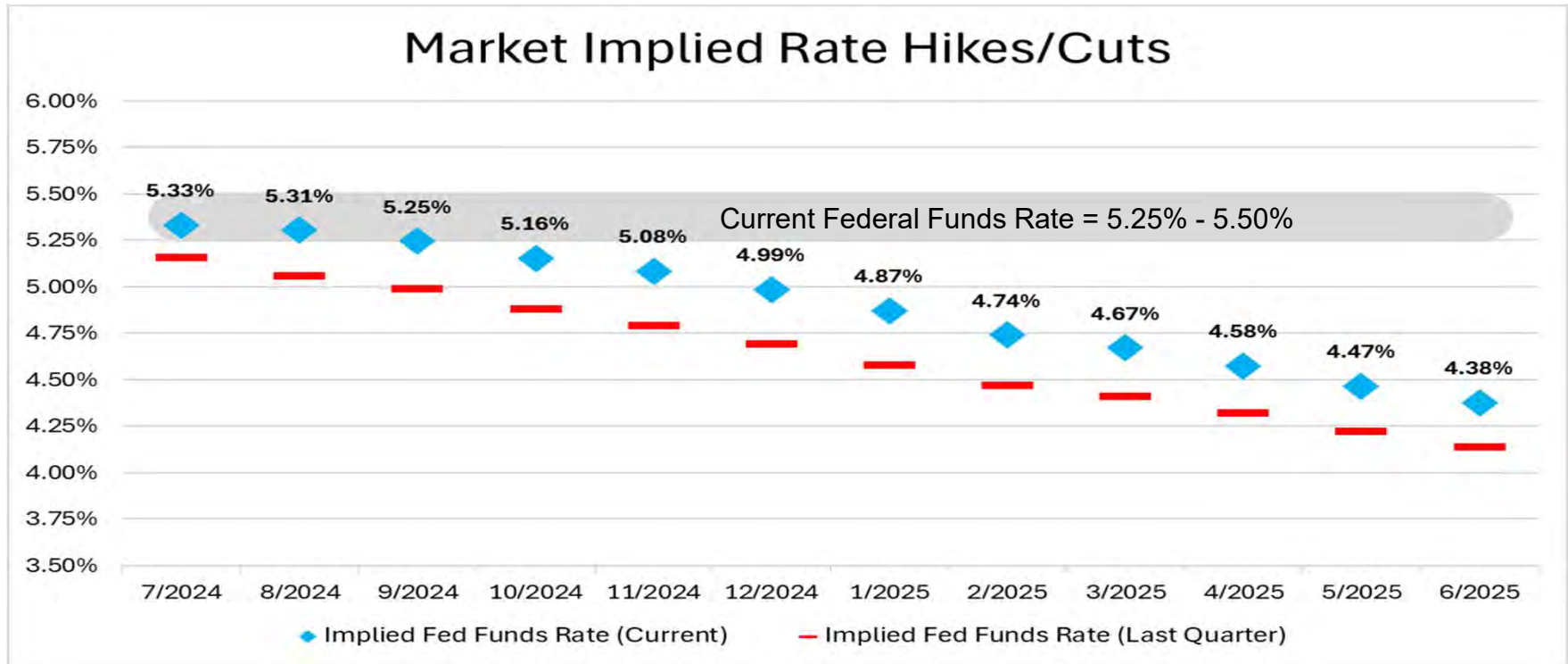
- Yields were mostly unchanged to slightly higher quarter over quarter.
- Investment grade bonds are currently yielding between 5.0% (AAA & AA) and 5.5% (A & BBB) while yields for high yield range between 6.5% - 8.0% with CCC-rated bonds yielding ~12.8%. Leveraged loans offer a current yield of ~9.6%; however, this is largely driven by the current 5.3% Secured Overnight Financing Rate (SOFR) rate. Future rate cuts would reduce this yield as SOFR should mirror the Fed Funds rate.



Credit Spreads/Valuations

- Spreads on investment grade corporate bonds widened in Q2 2024 while spreads tightened for BB-rated high yield bonds. CCC-rated high yield experienced the largest spread widening across corporate credit.
- Corporate spreads continue to trade rich relative to history. All credit buckets (aside from CCC) are trading within the top 25% of monthly observations, while BB & B-rated high yield bonds are trading at the tightest spreads experienced in the past 10 years.
- Spreads in structured credit (MBS, CMBS, ABS) remain elevated, offering a premium to corporate credit.

Bond Market

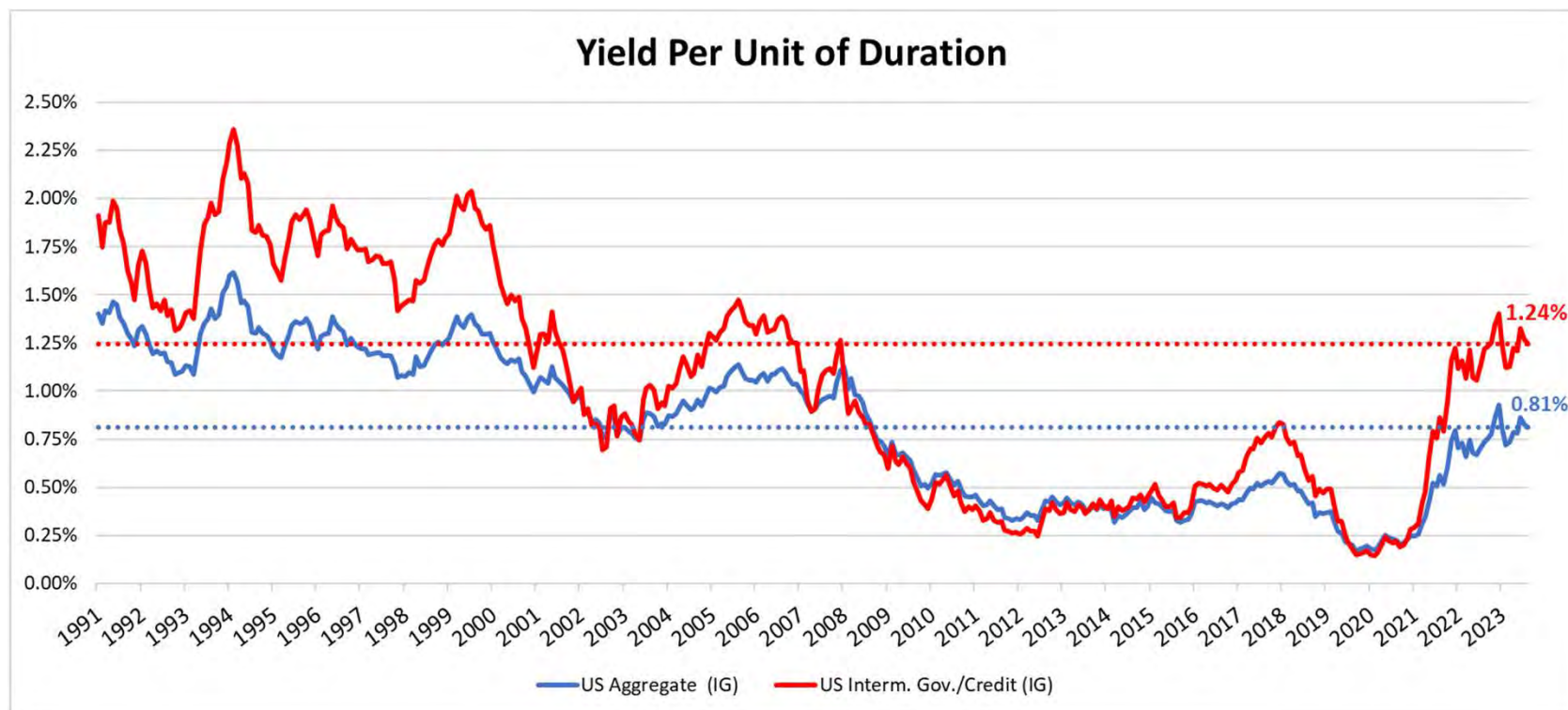


As of 6/30/24

- The FOMC held the Fed Funds rate at its current level for both their April and June meetings. The current target Federal Funds rate remains at 5.25% - 5.50%, where it has been since July 2023.
- Expectations of Fed Funds rate cuts continue to diminish. At the beginning of 2024, the market was anticipating the Federal Reserve to cut rates by ~150 bps by the end of 2024. As of the end of Q2 2024, the market is now expecting ~50 bps of cuts by year end.
- Expectations for future Fed Funds rate cuts have subsided as inflation data continues to stagnate between 3% - 3.5%, well above the Fed's 2% inflation target.
- The June 2024 Federal Reserve dot plot, which represents each individual policymaker's projection of the future path of interest rates, shows the majority of individual Fed members are expecting the Fed Funds rate to be between 4.75% and 5.25% by the end of 2024, which is consistent with current pricing in the Fed Funds Futures market. Based on the dot plot, only four out 19 policymakers expect the Fed Funds rate to stay at its current level by the end of 2024; however, this number increased by two since the March 2024 dot plot, indicating two policy makers changed their view in Q2 2024 that the Fed Funds rate should remain at its current level for the remainder of 2024.

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 ~80 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 ~125 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 6/30/2024										
Yield Change	Bloomberg Int Govt/Credit	Bloomberg Int Agg	Bloomberg Mortgage	Bloomberg Treasury	Bloomberg Aggregate	Bloomberg Govt/Credit	Bloomberg US TIPS	Bloomberg U.S. Corporate	ICE BofA 1-3 Yrs BB US Cash Pay HY	Bloomberg HY Ba/B 2% IC
(bps)										
-300	17.35	18.86	22.15	26.15	26.07	27.68	26.92	31.09	11.45	17.46
-250	15.14	16.47	19.37	22.08	22.20	23.38	22.92	26.24	10.70	15.81
-200	12.97	14.11	16.58	18.19	18.48	19.28	19.04	21.62	9.92	14.13
-150	10.86	11.78	13.77	14.50	14.89	15.39	15.29	17.24	9.11	12.41
-100	8.80	9.48	10.94	11.00	11.45	11.69	11.66	13.08	8.26	10.66
-75	7.78	8.34	9.52	9.32	9.79	9.92	9.89	11.10	7.82	9.76
-50	6.78	7.21	8.09	7.69	8.15	8.20	8.15	9.17	7.38	8.86
-25	5.80	6.08	6.66	6.10	6.56	6.53	6.44	7.29	6.93	7.95
0	4.82	4.96	5.22	4.57	5.00	4.91	4.77	5.48	6.47	7.04
25	3.86	3.85	3.78	3.08	3.48	3.34	3.12	3.72	6.00	6.11
50	2.91	2.75	2.34	1.64	1.99	1.82	1.51	2.03	5.52	5.17
75	1.97	1.65	0.89	0.25	0.53	0.35	-0.08	0.39	5.04	4.22
100	1.05	0.56	-0.57	-1.10	-0.88	-1.07	-1.63	-1.19	4.55	3.27
150	-0.76	-1.60	-3.49	-3.65	-3.61	-3.75	-4.64	-4.18	3.54	1.33
200	-2.52	-3.72	-6.43	-6.00	-6.20	-6.24	-7.53	-6.93	2.50	-0.64
250	-4.23	-5.82	-9.39	-8.17	-8.64	-8.52	-10.29	-9.45	1.43	-2.65
300	-5.89	-7.89	-12.37	-10.14	-10.94	-10.60	-12.93	-11.74	0.32	-4.70
Duration	3.87	4.46	5.75	6.05	6.17	6.38	6.64	7.14	1.86	3.69
Convexity	0.20	0.12	-0.07	0.76	0.57	0.81	0.50	0.93	-0.13	-0.15

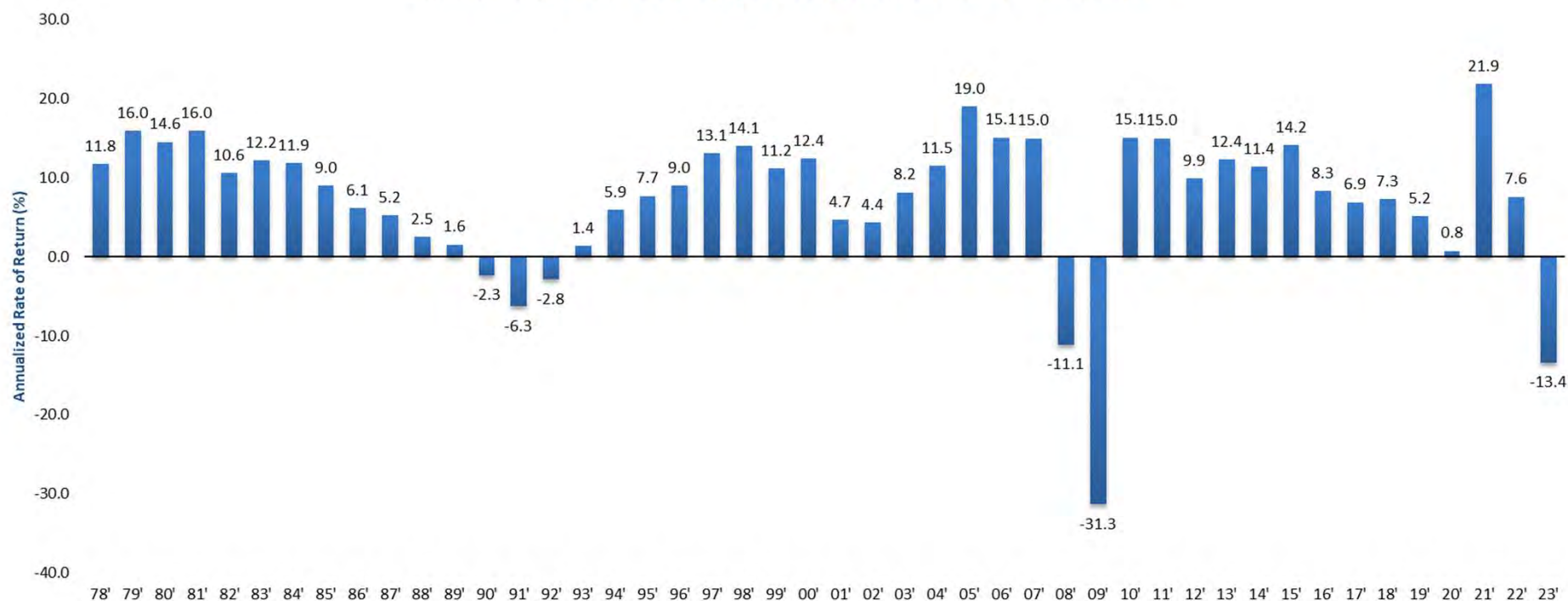
FOR ILLUSTRATIVE PURPOSES ONLY: For each index the current yield to worst as of 6/30/2024 was used as the base case annualized return. The annualized return sensitivity to a uniform increase or decrease in the yield curve was calculated by taking the index's Option-Adjusted Duration as of 6/30/2024 multiplied 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 6/30/2024, 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	2Q24	YTD	2023	2022	2021	2020	2019	2018	1-Year	3-Year	5-Year	10-Year
US Private	NCREIF ODCE Equal Weighted (net)	-0.8%	-3.2%	-13.4%	7.6%	21.9%	0.8%	5.2%	7.3%	-10.4%	1.1%	2.6%	5.8%
	NCREIF ODCE EW Income Index	1.0%	1.9%	3.5%	3.5%	4.1%	3.6%	3.5%	3.5%	3.8%	3.7%	3.7%	3.7%
	NCREIF ODCE EW Appreciation Index	-1.6%	-4.7%	-15.8%	4.8%	18.3%	-2.1%	1.7%	3.7%	-13.1%	-1.7%	-0.5%	2.4%

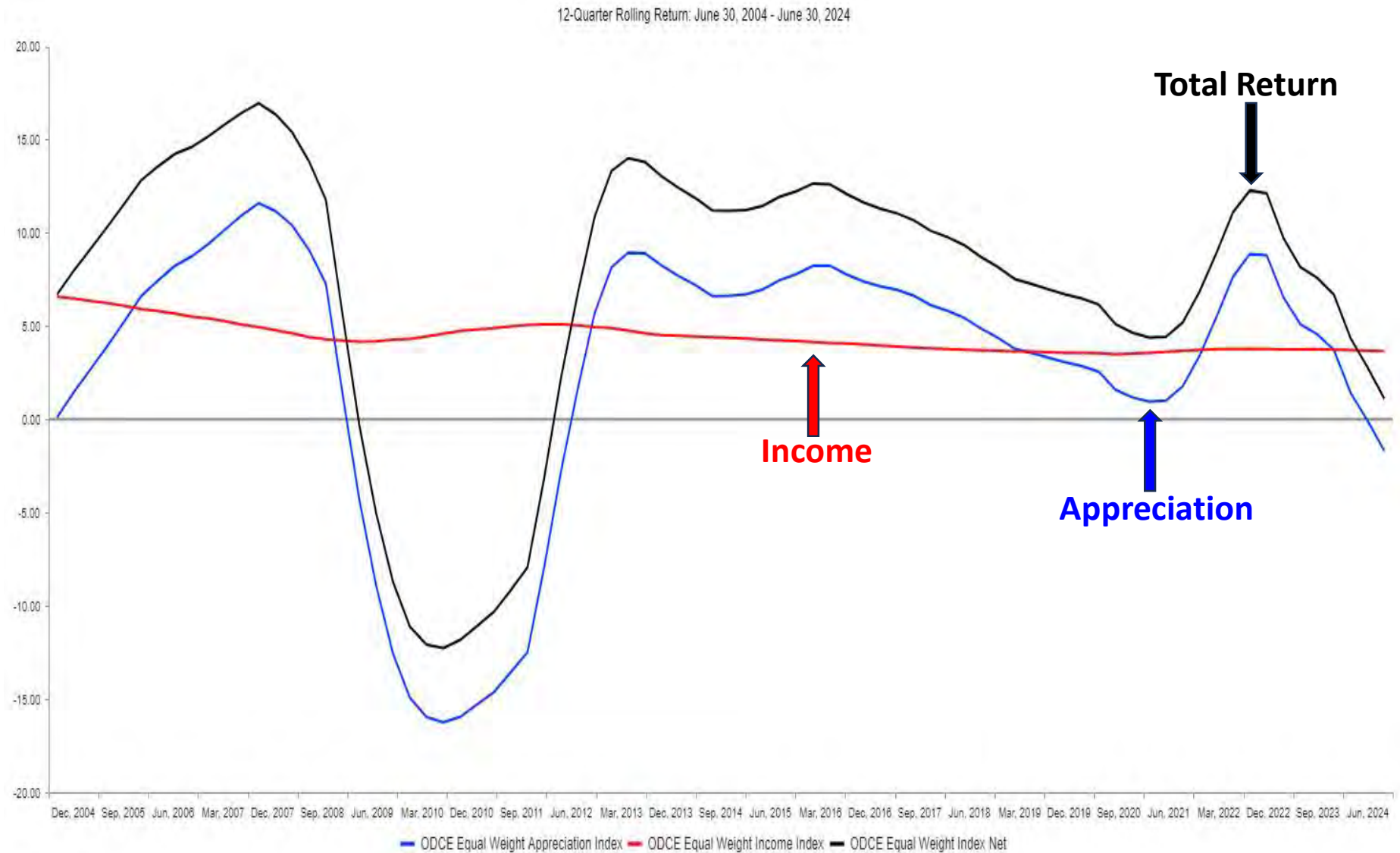
- The NCREIF ODCE Equal Weighted Index (net) declined -0.8% in Q2 2024, representing the seventh consecutive negative quarterly return for the index, but also the least negative return during this period.
- The previous drawdown from 2008-2009 was much sharper than the current drawdown, but shorter in duration, lasting six quarters, after which valuations improved for a sustained multi-year period.
- Liquidity, pricing and fundamentals for most sectors (outside of office) are improving, and several ODCE fund managers reported modest positive returns in Q2.

Historical NCREIF ODCE Equal Weight Total Net Performance



Real Estate Market

- The income component of real estate returns continues to remain stable, as shown in the chart below, providing a buffer against the recent periods of negative appreciation.



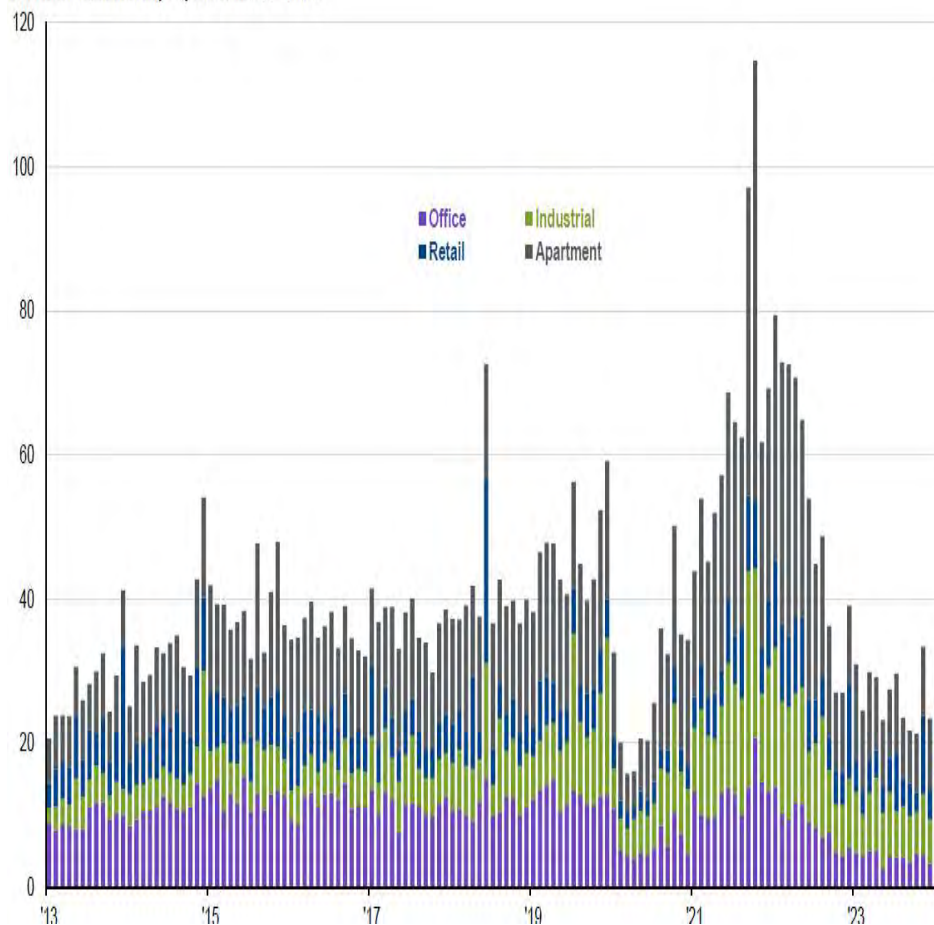
+ Quarterly data

Real Estate Market

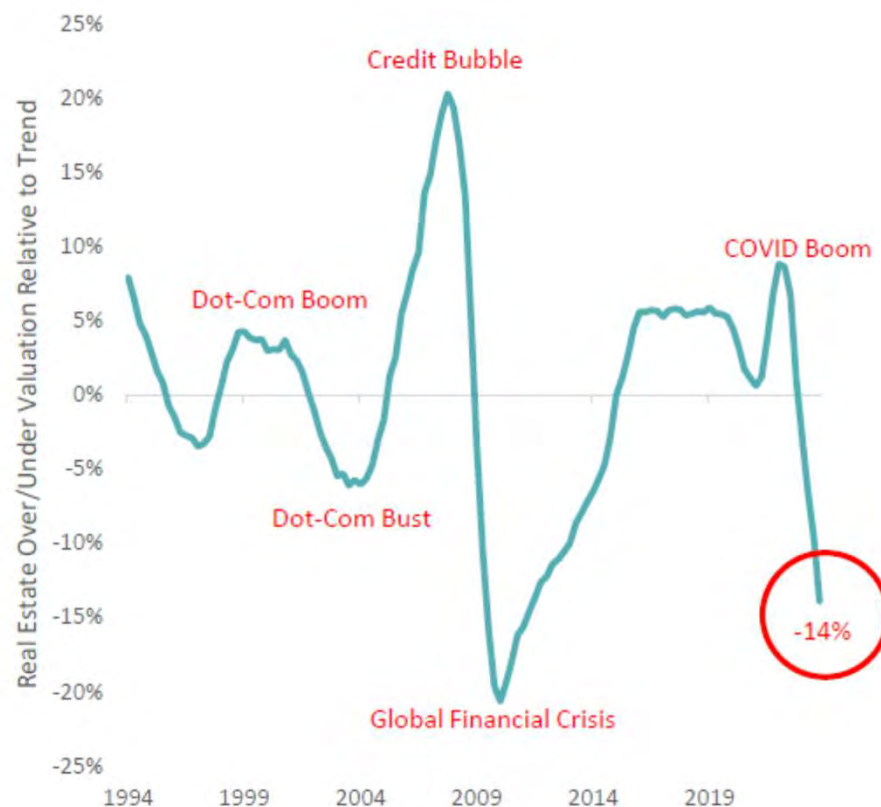
- The Covid boom of investor flows into real estate drove transaction volumes to record levels and significantly increased property valuations from late 2020 through 2022.
- Transaction volumes, as shown in the chart below (left), remain well below peak levels, though the first half of 2024 has seen a notable uptick in transactions and liquidity relative to the lows of 2023, indicating a recovering market.
- Real estate valuations now appear inexpensive relative to long-term trends, with the potential for gains and strong buying opportunities as pricing reverts to historical norms.

U.S. real estate transaction volumes

USD billions, seasonally adjusted, 1Q13 – 1Q24



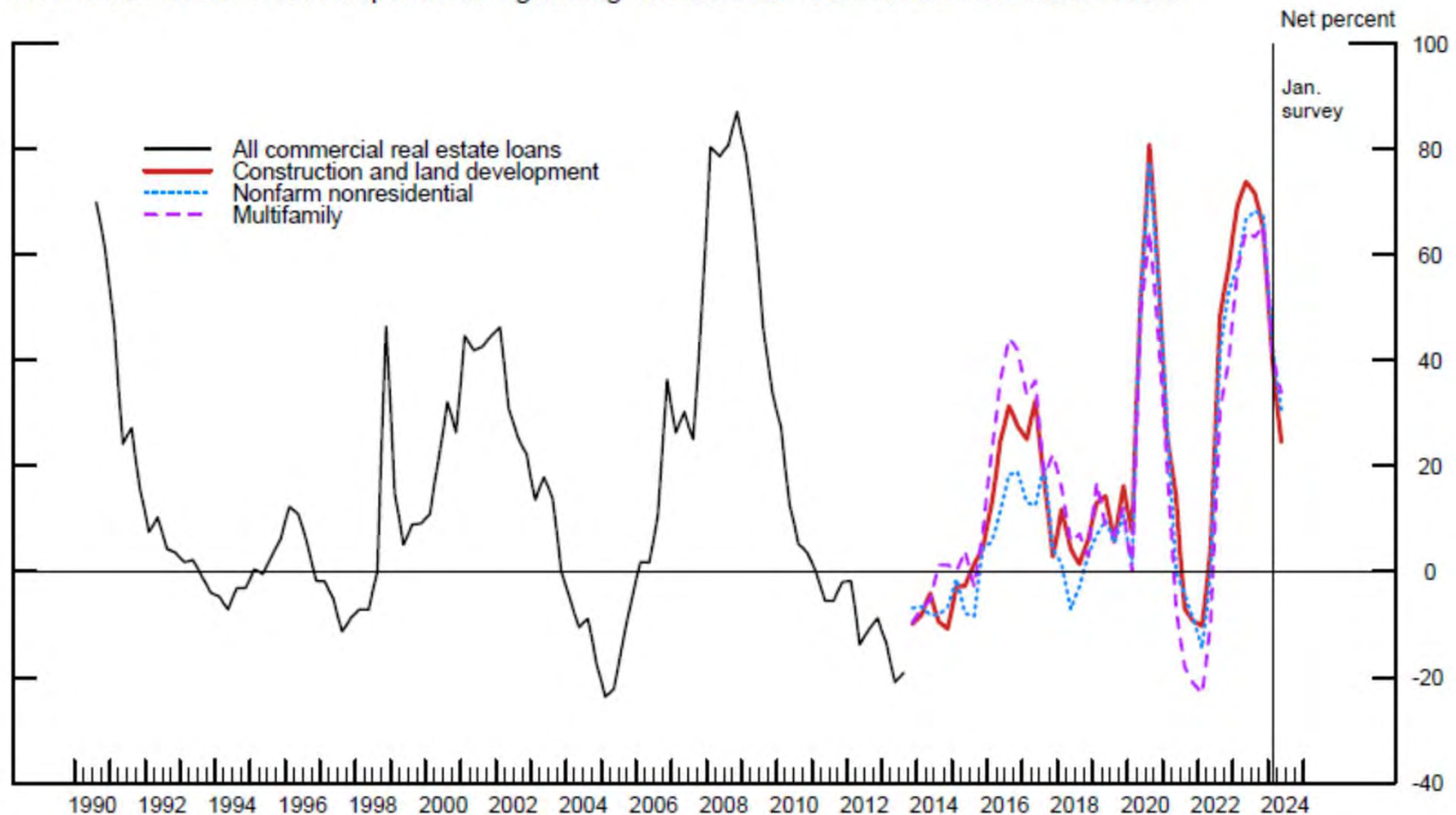
Values Relative to Trend



Real Estate Market

- Rising interest rates have led to higher borrowing costs, providing a difficult environment for real estate owners to refinance their debt. Though debt financing continues to be difficult to access as lenders conserve capital due to an uncertain economic and interest rate environment, lending standards appear to have eased over the last year, helping to increase transactions and liquidity.

Net Percent of Domestic Respondents Tightening Standards for Commercial Real Estate Loans



Source: April 2024 Fed Lender Survey.



Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report

Period Ended

June 30, 2024

Total Fund Growth of Assets

	Second Quarter	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$197,388,909	\$191,750,568	\$189,852,057	\$207,818,625
Net Cash Flow	-\$1,854,166	-\$3,319,903	-\$6,964,870	-\$22,508,367
Net Investment Change	\$1,139,369	\$8,243,447	\$13,786,926	\$11,363,855
Ending Market Value	\$196,674,112	\$196,674,112	\$196,674,112	\$196,674,112

Total Fund Growth of Assets

	Five Years	Seven Years	Ten Years
Beginning Market Value	\$174,149,389	\$167,845,041	\$165,728,145
Net Cash Flow	-\$38,464,596	-\$56,994,832	-\$86,219,962
Net Investment Change	\$60,989,319	\$85,823,904	\$117,165,930
Ending Market Value	\$196,674,112	\$196,674,112	\$196,674,112

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

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Summary (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024			
			2024 Q2	Fiscal YTD	1 Yr	3 Yrs
Total Fund	\$196,674,112	100.0%	0.7%	4.5%	7.9%	2.5%
Total Domestic Large Cap Equity	\$37,398,951	19.0%	3.9%	17.9%	29.4%	6.6%
Total Domestic Mid Cap Equity	\$10,683,287	5.4%	-2.9%	6.9%	17.0%	4.2%
Total Domestic Small Cap Equity	\$9,120,665	4.6%	-4.4%	2.9%	6.1%	2.0%
Total International Large Cap Equity	\$9,903,666	5.0%	0.8%	3.6%	3.2%	-5.9%
Total International Small Cap Equity	\$10,659,488	5.4%	-0.9%	5.1%	11.1%	-1.1%
Total Investment Grade Fixed Income	\$16,216,498	8.2%	0.6%	0.7%	4.4%	-0.9%
Total Short Duration High Yield Fixed Income	\$21,427,466	10.9%	1.5%	2.8%	8.0%	2.9%
Total Mortgages	\$10,272,757	5.2%	0.7%	2.1%	4.9%	3.1%
Total Opportunistic High Yield Fixed Income	\$20,504,091	10.4%				
Total Real Estate - Core	\$17,335,256	8.8%	-0.7%	-2.8%	-8.1%	1.7%
Total Real Estate - Value Add	\$17,129,842	8.7%	-0.5%	-3.0%	-4.9%	--
Total Private Equity	\$11,731,511	6.0%				
Total Infrastructure - Value Add	\$3,371,578	1.7%				
Total Cash Equivalents	\$919,056	0.5%				

Note: The present assumed actuarial rate as determined by the plan actuary is 7.0%.

Note: Time-weighted returns are not shown for asset classes for which internal rate of return (IRR) is a more appropriate performance measurement. IRRs can be found on the Commitment and Funding of Alternative Investments chart.

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Summary (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024		
			5 Yrs	7 Yrs	10 Yrs
Total Fund	\$196,674,112	100.0%	7.2%	7.5%	7.4%
Total Domestic Large Cap Equity	\$37,398,951	19.0%	13.9%	13.7%	12.5%
Total Domestic Mid Cap Equity	\$10,683,287	5.4%	12.6%	13.7%	11.9%
Total Domestic Small Cap Equity	\$9,120,665	4.6%	6.1%	4.3%	3.4%
Total International Large Cap Equity	\$9,903,666	5.0%	5.8%	6.7%	6.6%
Total International Small Cap Equity	\$10,659,488	5.4%	7.0%	--	--
Total Investment Grade Fixed Income	\$16,216,498	8.2%	1.1%	1.8%	2.0%
Total Short Duration High Yield Fixed Income	\$21,427,466	10.9%	3.5%	3.7%	3.5%
Total Mortgages	\$10,272,757	5.2%	3.3%	3.7%	3.9%
Total Opportunistic High Yield Fixed Income	\$20,504,091	10.4%			
Total Real Estate - Core	\$17,335,256	8.8%	3.5%	4.9%	6.9%
Total Real Estate - Value Add	\$17,129,842	8.7%	--	--	--
Total Private Equity	\$11,731,511	6.0%			
Total Infrastructure - Value Add	\$3,371,578	1.7%			
Total Cash Equivalents	\$919,056	0.5%			

Performance Summary (Gross of Fees)

	Fiscal Year Ending December 31st						
	Fiscal YTD	2023	2022	2021	2020	2019	2018
Total Fund	4.5%	8.8%	-9.7%	15.1%	13.8%	17.1%	-2.5%
<i>Total Fund Benchmark</i>	<i>3.2%</i>	<i>9.2%</i>	<i>-9.7%</i>	<i>14.3%</i>	<i>12.8%</i>	<i>17.6%</i>	<i>-3.7%</i>

	Fiscal Year Ending December 31st				
	2017	2016	2015	2014	2013
Total Fund	15.4%	7.6%	4.0%	7.9%	21.5%
<i>Total Fund Benchmark</i>	<i>11.1%</i>	<i>9.5%</i>	<i>1.6%</i>	<i>7.2%</i>	<i>19.7%</i>

Performance Summary (Net of Fees)

	Fiscal Year Ending December 31st						
	Fiscal YTD	2023	2022	2021	2020	2019	2018
Total Fund	4.2%	8.0%	-10.4%	14.2%	13.0%	16.2%	-3.3%
<i>Total Fund Benchmark</i>	<i>3.2%</i>	<i>9.2%</i>	<i>-9.7%</i>	<i>14.3%</i>	<i>12.8%</i>	<i>17.6%</i>	<i>-3.7%</i>

	Fiscal Year Ending December 31st				
	2017	2016	2015	2014	2013
Total Fund	14.5%	6.7%	3.3%	7.1%	20.6%
<i>Total Fund Benchmark</i>	<i>11.1%</i>	<i>9.5%</i>	<i>1.6%</i>	<i>7.2%</i>	<i>19.7%</i>

Operating Engineers Local No. 77 Pension Plan
Master Consulting Services Report as of June 30, 2024

Current vs. Policy						
	Current	Current	Policy	Policy Range	Difference	Difference
Domestic Large Cap Equity	\$37,398,951	19.0%	17.5%	12.5% - 22.5%	1.5%	\$2,980,981
Domestic Small/Mid Cap Core Equity	\$19,803,952	10.1%	7.5%	2.5% - 12.5%	2.6%	\$5,053,394
International Large Cap Equity	\$9,903,666	5.0%	5.0%	0.0% - 10.0%	0.0%	\$69,960
International Small Cap Equity	\$10,659,488	5.4%	2.5%	0.0% - 7.5%	2.9%	\$5,742,635
Investment Grade Fixed Income	\$16,216,498	8.2%	10.0%	5.0% - 15.0%	-1.8%	-\$3,450,913
Short Duration High Yield Fixed Income	\$21,427,466	10.9%	12.5%	7.5% - 17.5%	-1.6%	-\$3,156,798
Mortgages	\$10,272,757	5.2%	5.0%	0.0% - 10.0%	0.2%	\$439,052
Opportunistic High Yield Fixed Income	\$20,504,091	10.4%	12.5%	7.5% - 17.5%	-2.1%	-\$4,080,173
Real Estate - Core	\$17,335,256	8.8%	10.0%	5.0% - 15.0%	-1.2%	-\$2,332,155
Real Estate - Value Add	\$17,129,842	8.7%	7.5%	2.5% - 12.5%	1.2%	\$2,379,284
Private Credit	--	--	2.5%	0.0% - 7.5%	-2.5%	-\$4,916,853
Private Equity	\$11,731,511	6.0%	5.0%	0.0% - 10.0%	1.0%	\$1,897,806
Infrastructure - Value Add	\$3,371,578	1.7%	2.5%	0.0% - 7.5%	-0.8%	-\$1,545,275
Cash Equivalents	\$919,056	0.5%	0.0%	0.0% - 0.0%	0.5%	\$919,056
Total	\$196,674,112	100.0%	100.0%			

- Policy adopted February 2024; effective TBD (pending rebalancing, real estate - core redemption, real estate - value add redemption, and opportunistic high yield fixed income redemption).
- Cash equivalents includes:
 - \$85K income-distribution-proceeds from real estate - core (Boyd Watterson GSA Fund, LP) received on July 29, 2024.
 - \$221K income-distribution-proceeds from real estate - value add (Boyd Watterson State Government Fund, LP) received on July 29, 2024.

Operating Engineers Local No. 77 Pension Plan – Asset Allocation

- Asset allocation reviews were provided on the following dates: February 9, 2021, February 8, 2022, February 14, 2023, August 8, 2023, and February 13, 2024.
- Private equity pacing analyses were provided on the following dates: May 11, 2021, May 10, 2022, February 14, 2023, and February 13, 2024.
- At the meeting on February 14, 2023, the Trustees adopted Policy: 15.0% domestic large cap equity (-5.0%), 5.0% domestic mid cap equity, 5.0% domestic small cap equity, 5.0% international large cap equity (-2.5%), 5.0% international small cap equity, 10.0% investment grade fixed income (+5.0%), 5.0% short duration high yield fixed income, 10.0% mortgages (+5.0%), 2.5% global tactical asset allocation, 10.0% real estate - core, 10.0% real estate – value add, 0.0% hedge fund of funds – multi strategy (-2.5%), 10.0% opportunistic strategies, 5.0% private equity, 2.5% infrastructure – value add. To rebalance closer to Policy, the Trustees approved: 1) transfer \$2.5M from Fred Alger Management (domestic large cap equity) and \$2.5M from Hardman Johnston International Equity Group Trust (international equity) to Wedge Capital Management (investment grade fixed income). 2) transfer \$1.25M from Fred Alger Management (domestic large cap equity) and \$3.75M from Wedge Capital Management – QVM (domestic large cap equity) to Chartwell Investment Partners (short duration high yield fixed income). Status: Completed April 2023. Additionally, the Trustees approved terminating Fred Alger Management (domestic large cap equity) and retaining Northern Trust Collective Russell 1000 Growth Index Fund (domestic large cap equity) for an estimated fee savings of \$39,872. Status: Completed May 2023.
- At the meeting on August 8, 2023, the Trustees adopted Policy: 15.0% domestic large cap equity, 5.0% domestic mid cap equity, 5.0% domestic small cap equity, 5.0% international large cap equity, 5.0% international small cap equity, 10.0% investment grade fixed income, 12.5% short duration high yield fixed income (+7.5%), 5.0% mortgages (-5.0%), 0.0% global tactical asset allocation (-2.5%), 10.0% real estate - core, 10.0% real estate – value add, 10.0% opportunistic strategies, 5.0% private equity, 2.5% infrastructure – value add. To rebalance closer to Policy, the Trustees approved: transfer \$5.5M of cash proceeds from Grosvenor Institutional Partners (PF), Ltd. (hedge fund of funds – multi strategy) redemption, with \$3.0M to Wedge Capital Management (investment grade fixed income) and \$2.5M to Chartwell Investment Partners (short duration high yield fixed income). Status: Completed August 2023. Additionally at the meeting, the following recommendations were approved: 1) To increase diversification of international equity allocation, retain Barrow Hanley Non-U.S. Value CIT – Founder Class (international large cap equity) for a \$4.5M mandate. Status: Completed December 2023. 2) Terminate Lazard/Wilmington LCAS Global Diversified – CIT (global tactical asset allocation), with proceeds from the termination going to Chartwell Investment Partners (short duration high yield fixed income). Status: Completed September 2023.
- At the meeting on November 14, 2023, the following recommendations were approved: 1) Redeem \$1.0M from Corbin ERISA Opportunity Fund, LP – Class C Shares (opportunistic strategies), effective March 31, 2024. Status: Completed May 2024. 2) Accept the annual distribution option from GCM Grosvenor Opportunistic Credit Fund, Ltd (opportunistic strategies) \$488K and utilize proceeds for cash needs. Status: Completed January 2024.
- At the February 13, 2024, meeting, the Trustees adopted Policy: 17.5% domestic large cap equity (+2.5%), 0.0% domestic mid cap equity (-5.0%), 7.5% domestic small/mid cap core equity (new asset class), 0.0% domestic small cap equity (-5.0%), 5.0% international large cap equity, 2.5% international small cap equity (-2.5%), 10.0% investment grade fixed income, 12.5% short duration high yield fixed income, 5.0% mortgages, 12.5% (+12.5%) opportunistic high yield fixed income, 10.0% real estate - core, 7.5% real estate – value add (-2.5%), 0.0% opportunistic strategies (-10.0%), 2.5% private credit (new asset class), 5.0% private equity, 2.5% infrastructure – value add. To rebalance closer to Policy, the Trustees approved: submit a partial redemption request of \$250K from Boyd Watterson State Government Fund, LP (real estate – value add); effective June 30, 2024. Status: In process.

Operating Engineers Local No. 77 Pension Plan – Asset Allocation

- At the meeting on May 14, 2024, to rebalance closer to Policy, the Trustees approved: 1) retain Loomis Sayles (domestic small/mid cap core equity) for a \$14.0M mandate. Status: In process. 2) retain Arena Capital (opportunistic high yield) for a \$5.0M mandate. Status: In process. 3) Terminate Times Square Capital Management (domestic mid cap equity) and Eaton Vance Small Cap CIT Fund (domestic small cap equity) and utilize proceeds to fund newly hired managers Loomis Sayles and Arena Capital. Status: In process.

Recommendations: 1) Allocations will rebalance within Policy Ranges as new managers are funded. 2) Retain Grosvenor Private Credit Fund for a \$5.0M private credit mandate. 3) Rescind balance of core real estate withdrawal request with Principal.

Operating Engineers Local No. 77 Pension Plan
Master Consulting Services Report as of June 30, 2024

Real Estate - Core Redemption (In Millions) as of June 30, 2024						
Manager	Redemption Type	Effective Date	Withdrawal Queue	Requested \$	Received \$	Remaining \$
Principal U.S. Property Account	Partial	Aug-22	Jul-22	\$1.00	\$0.31	\$0.69
Total				\$1.00	\$0.31	\$0.69

Real Estate - Value Add Redemption (In Millions) as of June 30, 2024						
Manager	Redemption Type	Effective Date	Withdrawal Queue	Requested \$	Received \$	Remaining \$
Boyd Watterson State Government Fund, LP	Partial	Jun-24	N/A	\$0.25	\$0.00	\$0.25
Total				\$0.25	\$0.00	\$0.25

Opportunistic High Yield Fixed Income Redemption (In Millions) as of June 30, 2024						
Manager	Redemption Type	Effective Date	Withdrawal Queue	Requested \$	Received \$	Remaining \$
Corbin ERISA Opportunity Fund, LP - Class C Shares*	Partial	Mar-24	N/A	\$1.00	\$1.00	\$0.00
Total				\$1.00	\$1.00	\$0.00

*Redemption was fully satisfied on March 31, 2024. Proceeds were received in May 2024.

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Commitment and Funding of Real Estate - Core (In Millions) as of June 30, 2024

Investments		Commitments			Contributions & Distributions		Valuations		Performance	
Account Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Cumulative Distributions	Valuation	Total Value	DPI	TVPI
Principal U.S. Property Account	2001	\$33.8	\$0.0	1.0	\$33.8	\$51.2	\$6.3	\$57.5	1.5	1.7
Multi-Employer Property Trust	2001	\$20.0	\$0.0	1.0	\$20.0	\$27.9	\$5.2	\$33.1	1.4	1.7
Boyd Watterson GSA Fund, LP	2015	\$5.0	\$0.0	1.0	\$5.0	\$2.5	\$6.0	\$8.5	0.5	1.7
Total		\$58.8	\$0.0	1.0	\$58.8	\$81.7	\$17.4	\$99.1	1.4	1.7

Commitment and Funding of Real Estate - Value Add (In Millions) as of June 30, 2024

Investments		Commitments			Contributions & Distributions		Valuations		Performance	
Account Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Cumulative Distributions	Valuation	Total Value	DPI	TVPI
Boyd Watterson State Government Fund, LP	2021	\$18.0	\$0.0	1.0	\$18.0	\$1.2	\$17.3	\$18.4	0.1	1.0
Total		\$18.0	\$0.0	1.0	\$18.0	\$1.2	\$17.3	\$18.4	0.1	1.0

Commitment and Funding of Opportunistic High Yield Fixed Income (In Millions) as of June 30, 2024

Investments		Commitments			Contributions & Distributions		Valuations		Performance		
Account Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Cumulative Distributions	Valuation	Total Value	DPI	TVPI	IRR
Grosvenor Opportunistic Credit Fund III, Ltd	2014	\$3.0	\$0.0	1.0	\$3.0	\$3.4	\$0.1	\$3.5	1.1	1.2	4.6%
Grosvenor Opportunistic Credit Fund IV, Ltd	2015	\$3.0	\$0.0	1.0	\$3.0	\$3.2	\$0.2	\$3.5	1.1	1.2	3.5%
GCM Grosvenor Opportunistic Credit Fund, Ltd	2017	\$8.7	\$0.0	1.0	\$8.7	\$0.9	\$10.4	\$11.3	0.1	1.3	
Total		\$14.7	\$0.0	1.0	\$14.7	\$7.6	\$10.7	\$18.3	0.5	1.2	

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Commitment and Funding of Private Equity (In Millions) as of June 30, 2024

Investments		Commitments			Contributions & Distributions		Valuations		Performance		
Account Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Cumulative Distributions	Valuation	Total Value	DPI	TVPI	IRR
¹ GCM Grosvenor Secondary Opportunities Feeder Fund II, LP	2018	\$11.0	\$3.5	0.7	\$7.6	\$2.9	\$7.5	\$10.4	0.4	1.4	10.8%
² GCM Grosvenor Secondary Opportunities Feeder Fund III, LP	2021	\$8.5	\$5.0	0.4	\$3.5	\$0.0	\$4.3	\$4.3	0.0	1.2	
Total		\$19.5	\$8.5	0.6	\$11.1	\$2.9	\$11.7	\$14.6	0.3	1.3	

¹Unfunded commitment includes recallable distributions of \$162K.

²Commitment amount includes \$2.5M unfunded commitment adjustment.

Commitment and Funding of Infrastructure - Value Add (In Millions) as of June 30, 2024

Investments		Commitments			Contributions & Distributions		Valuations		Performance	
Account Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Cumulative Distributions	Valuation	Total Value	DPI	TVPI
¹ WaCap - SP Infrastructure Fund IV Feeder	2021	\$5.0	\$2.0	0.6	\$3.2	\$0.3	\$3.3	\$3.5	0.1	1.1
Total		\$5.0	\$2.0	0.6	\$3.2	\$0.3	\$3.3	\$3.5	0.1	1.1

¹Unfunded commitment includes recallable distributions of \$192K. After June 14, 2024, unfunded commitment will be \$1.97M.

- Performance data included in the table above may differ from performance data provided by the investment manager due to the availability and timing of data used in the calculations.

Summary of Investment Manager Recommendations				
Manager	Recommendation	Initiated	Action Required	Comment/Status
TimeSquare Capital Management	Terminate.	2Q 2024	None.	At the May 14, 2024 meeting, the Trustees approved the termination of domestic mid cap equity (TimeSquare Capital Management). Status: In process.
Eaton Vance Small Cap Collective Investment Trust Fund	Terminate.	2Q 2024	None.	At the May 14, 2024 meeting, the Trustees approved the termination of domestic small cap equity (Eaton Vance Small Cap Collective Investment Trust Fund). Status: In process.
Hardman Johnston International Equity Group Trust	Monitor performance for improvement.	1Q 2024	None.	The significant relative underperformance in 2023 resulted from misjudging the "Chinese consumer" and the delayed "reopening" theme within China. The manager has mostly exited this China allocation and their exposure is now more aligned with benchmarks, particularly the ACWI ex-US Growth benchmark. In 2024, the strategy has shown strong outperformance against both peers and the benchmark.
Corbin ERISA Opportunity Fund, LP - Class C Shares	Monitor performance for improvement.	4Q 2023	None.	Corbin outperformed the blended benchmark of 50% Bloomberg US High Yield/50% LSTA Leveraged Loan and the HFRI Credit Index in Q2 2024 and is outperforming both benchmarks year-to-date (both on a gross basis). The rebound in performance has been driven by increased exposure to higher-quality credit and favorable event catalysts in Q2. Despite strong performance year-to-date, Corbin continues to lag benchmarks over the trailing 3-year period due to two consecutive years of underperformance in 2022 and 2023.

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024					
			2024 Q2	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs
Total Fund	\$196,674,112	100.0%	0.5%	4.2%	7.2%	6.9%	1.8%	6.4%
Total Domestic Large Cap Equity	\$37,398,951	19.0%	3.8%	17.8%	29.1%	23.0%	6.1%	13.3%
Northern Trust Collective Russell 1000 Growth Index Fund	\$19,611,039	10.0%	8.3%	20.7%	33.5%	--	--	--
<i>Russell 1000 Growth</i>			8.3%	20.7%	33.5%	--	--	--
Wedge Capital Management - QVM	\$17,787,912	9.0%	-0.8%	14.7%	24.5%	19.5%	8.9%	12.1%
<i>Russell 1000 Value</i>			-2.2%	6.6%	13.1%	12.3%	5.5%	9.0%
Total Domestic Mid Cap Equity	\$10,683,287	5.4%	-3.1%	6.5%	16.0%	17.8%	3.3%	11.7%
TimesSquare Capital Management	\$10,683,287	5.4%	-3.1%	6.5%	16.0%	17.8%	3.3%	11.7%
<i>Russell MidCap Growth</i>			-3.2%	6.0%	15.1%	19.0%	-0.1%	9.9%
Total Domestic Small Cap Equity	\$9,120,665	4.6%	-4.5%	2.6%	5.6%	9.5%	1.5%	5.5%
Eaton Vance Small Cap Collective Investment Trust Fund	\$9,120,665	4.6%	-4.5%	2.6%	5.6%	9.5%	1.5%	--
<i>Russell 2000</i>			-3.3%	1.7%	10.1%	11.2%	-2.6%	--
Total International Large Cap Equity	\$9,903,666	5.0%	0.6%	3.3%	2.5%	6.8%	-6.6%	5.1%
Hardman Johnston International Equity Group Trust	\$5,385,666	2.7%	3.7%	10.6%	9.1%	10.2%	-4.6%	6.4%
<i>MSCI EAFE</i>			-0.4%	5.3%	11.5%	15.1%	2.9%	6.5%
<i>MSCI ACWI ex USA Growth</i>			0.7%	6.7%	9.9%	11.6%	-2.6%	5.5%
Barrow Hanley Non-US Value CIT - Founders Class	\$4,518,000	2.3%	-2.8%	-4.2%	--	--	--	--
<i>MSCI EAFE Value</i>			0.0%	4.5%	--	--	--	--

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024					
			2024 Q2	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs
Total International Small Cap Equity	\$10,659,488	5.4%	-1.1%	4.7%	10.2%	12.1%	-1.9%	6.1%
Victory Trivalent International Small-Cap Collective Fund	\$10,659,488	5.4%	-1.1%	4.7%	10.2%	12.1%	-1.9%	6.1%
S&P Developed Ex-U.S. Small Cap (Net)			-1.0%	1.0%	7.6%	9.0%	-3.7%	4.3%
Total Investment Grade Fixed Income	\$16,216,498	8.2%	0.5%	0.6%	4.1%	1.9%	-1.3%	0.8%
Wedge Capital Management	\$16,216,498	8.2%	0.5%	0.6%	4.1%	1.9%	-1.3%	0.8%
Wedge Custom Benchmark			0.6%	0.5%	4.2%	2.0%	-1.2%	0.7%
Total Short Duration High Yield Fixed Income	\$21,427,466	10.9%	1.4%	2.6%	7.5%	6.6%	2.4%	3.0%
Chartwell Investment Partners SDHY	\$21,427,466	10.9%	1.4%	2.6%	7.5%	6.6%	2.4%	3.0%
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR			1.4%	2.8%	8.1%	7.6%	3.1%	4.0%
Bloomberg US Govt/Credit Int TR			0.6%	0.5%	4.2%	2.0%	-1.2%	0.7%
Total Mortgages	\$10,272,757	5.2%	0.6%	1.9%	4.4%	3.3%	2.6%	2.7%
Ullico - J for Jobs	\$4,855,723	2.5%	0.9%	2.2%	4.5%	3.4%	2.7%	2.6%
Bloomberg US Aggregate TR			0.1%	-0.7%	2.6%	0.8%	-3.0%	-0.2%
Washington Capital JMT Mortgage Income Fund	\$5,417,035	2.8%	0.4%	1.6%	4.3%	3.2%	2.4%	2.9%
Bloomberg US Aggregate TR			0.1%	-0.7%	2.6%	0.8%	-3.0%	-0.2%

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024					
			2024 Q2	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs
Total Opportunistic High Yield Fixed Income	\$20,504,091	10.4%						
Grosvenor Opportunistic Credit Fund III, Ltd	\$94,610	0.0%						
Grosvenor Opportunistic Credit Fund IV, Ltd	\$231,431	0.1%						
GCM Grosvenor Opportunistic Credit Fund, Ltd	\$10,366,297	5.3%	1.4%	3.4%	6.7%	6.1%	4.7%	5.2%
HFRI Credit Index			1.5%	4.3%	9.4%	6.5%	3.2%	5.0%
Corbin ERISA Opportunity Fund, LP - Class C Shares	\$9,811,753	5.0%	2.6%	5.4%	9.2%	5.1%	2.5%	--
50% Bloomberg US HY Index/50% LSTA Leveraged Loan Index			1.5%	3.5%	10.8%	10.4%	3.9%	--
HFRI Credit Index			1.5%	4.3%	9.4%	6.5%	3.2%	--
Total Real Estate - Core	\$17,335,256	8.8%	-1.0%	-3.3%	-9.1%	-8.0%	0.7%	2.4%
Principal U.S. Property Account	\$6,318,361	3.2%	-1.0%	-3.0%	-9.0%	-9.9%	1.2%	2.6%
NCREIF ODCE Equal Weighted Net			-0.8%	-3.2%	-10.3%	-10.4%	1.2%	2.6%
Boyd Watterson GSA Fund, LP	\$5,903,728	3.0%	-1.0%	-2.8%	-5.8%	-2.2%	0.3%	3.2%
NCREIF ODCE Equal Weighted Net			-0.8%	-3.2%	-10.3%	-10.4%	1.2%	2.6%
Long-Term Income Objective 8%			1.9%	3.9%	8.0%	8.0%	8.0%	8.0%
Multi-Employer Property Trust	\$5,113,168	2.6%	-1.0%	-4.2%	-12.9%	-12.1%	-0.4%	1.3%
NCREIF ODCE Equal Weighted Net			-0.8%	-3.2%	-10.3%	-10.4%	1.2%	2.6%

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024					
			2024 Q2	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs
Total Real Estate - Value Add	\$17,129,842	8.7%	-0.8%	-3.6%	-6.1%	-1.8%	--	--
Boyd Watterson State Government Fund, LP	\$17,129,842	8.7%	-0.8%	-3.6%	-6.1%	-1.8%	--	--
<i>NCREIF ODCE Equal Weighted Net</i>			-0.8%	-3.2%	-10.3%	-10.4%	--	--
<i>Long-Term Income Objective 9%</i>			2.2%	4.4%	9.0%	9.0%	--	--
Total Private Equity	\$11,731,511	6.0%						
GCM Grosvenor Secondary Opportunities Feeder Fund II, LP	\$7,473,845	3.8%						
GCM Grosvenor Secondary Opportunities Feeder Fund III, LP	\$4,257,666	2.2%						
Total Infrastructure - Value Add	\$3,371,578	1.7%						
WaCap - SP Infrastructure Fund IV Feeder	\$3,371,578	1.7%						
Total Cash Equivalents	\$919,056	0.5%						
Cash Account	\$613,214	0.3%						
Cash in Transit - Boyd Watterson GSA Fund, LP Distribution Proceeds	\$84,580	0.0%						
Cash in Transit - Boyd Watterson State Government Fund, LP Distribution Proceeds	\$221,262	0.1%						

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024			
			7 Yrs	10 Yrs	Inception	Inception Date
Total Fund	\$196,674,112	100.0%	6.6%	6.6%	8.6%	Apr-88
Total Domestic Large Cap Equity	\$37,398,951	19.0%	13.1%	11.9%	--	Jul-01
Northern Trust Collective Russell 1000 Growth Index Fund	\$19,611,039	10.0%	--	--	40.9%	May-23
Russell 1000 Growth			--	--	40.8%	May-23
Wedge Capital Management - QVM	\$17,787,912	9.0%	11.3%	10.2%	9.9%	Jul-01
Russell 1000 Value			8.6%	8.2%	7.4%	Jul-01
Total Domestic Mid Cap Equity	\$10,683,287	5.4%	12.8%	11.0%	--	Apr-06
TimesSquare Capital Management	\$10,683,287	5.4%	12.8%	11.0%	10.4%	Apr-06
Russell MidCap Growth			11.7%	10.5%	9.5%	Apr-06
Total Domestic Small Cap Equity	\$9,120,665	4.6%	3.6%	2.7%	--	Jul-04
Eaton Vance Small Cap Collective Investment Trust Fund	\$9,120,665	4.6%	--	--	7.8%	Sep-19
Russell 2000			--	--	8.2%	Sep-19
Total International Large Cap Equity	\$9,903,666	5.0%	5.9%	5.8%	--	Apr-97
Hardman Johnston International Equity Group Trust	\$5,385,666	2.7%	6.8%	6.5%	7.8%	Jul-09
MSCI EAFE			5.7%	4.3%	6.8%	Jul-09
MSCI ACWI ex USA Growth			5.7%	4.7%	6.9%	Jul-09
Barrow Hanley Non-US Value CIT - Founders Class	\$4,518,000	2.3%	--	--	0.4%	Dec-23
MSCI EAFE Value			--	--	9.6%	Dec-23

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024			
			7 Yrs	10 Yrs	Inception	Inception Date
Total International Small Cap Equity	\$10,659,488	5.4%	--	--	3.6%	Mar-18
Victory Trivalent International Small-Cap Collective Fund	\$10,659,488	5.4%	--	--	3.6%	Mar-18
<i>S&P Developed Ex-U.S. Small Cap (Net)</i>			--	--	1.9%	Mar-18
Total Investment Grade Fixed Income	\$16,216,498	8.2%	1.4%	1.6%	4.3%	Jun-95
Wedge Capital Management	\$16,216,498	8.2%	1.4%	1.6%	3.2%	Jan-03
<i>Wedge Custom Benchmark</i>			1.4%	1.5%	3.1%	Jan-03
Total Short Duration High Yield Fixed Income	\$21,427,466	10.9%	3.1%	3.0%	3.1%	Jan-13
Chartwell Investment Partners SDHY	\$21,427,466	10.9%	3.1%	3.0%	3.1%	Jan-13
<i>ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR</i>			4.0%	4.0%	4.1%	Jan-13
<i>Bloomberg US Govt/Credit Int TR</i>			1.4%	1.5%	1.5%	Jan-13
Total Mortgages	\$10,272,757	5.2%	3.1%	3.3%	3.4%	Oct-04
Ullico - J for Jobs	\$4,855,723	2.5%	2.9%	3.0%	2.8%	Oct-04
<i>Bloomberg US Aggregate TR</i>			0.9%	1.3%	3.0%	Oct-04
Washington Capital JMT Mortgage Income Fund	\$5,417,035	2.8%	3.3%	3.6%	4.6%	Oct-04
<i>Bloomberg US Aggregate TR</i>			0.9%	1.3%	3.0%	Oct-04

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024			
			7 Yrs	10 Yrs	Inception	Inception Date
Total Opportunistic High Yield Fixed Income	\$20,504,091	10.4%				
Grosvenor Opportunistic Credit Fund III, Ltd	\$94,610	0.0%				
Grosvenor Opportunistic Credit Fund IV, Ltd	\$231,431	0.1%				
GCM Grosvenor Opportunistic Credit Fund, Ltd	\$10,366,297	5.3%	5.2%	--	5.0%	Feb-17
<i>HFRI Credit Index</i>			4.6%	--	4.6%	Feb-17
Corbin ERISA Opportunity Fund, LP - Class C Shares	\$9,811,753	5.0%	--	--	5.7%	Jan-20
<i>50% Bloomberg US HY Index/50% LSTA Leveraged Loan Index</i>			--	--	4.5%	Jan-20
<i>HFRI Credit Index</i>			--	--	5.2%	Jan-20
Total Real Estate - Core	\$17,335,256	8.8%	3.8%	5.8%	5.7%	Jul-01
Principal U.S. Property Account	\$6,318,361	3.2%	4.0%	6.1%	6.1%	Oct-01
<i>NCREIF ODCE Equal Weighted Net</i>			3.8%	5.8%	5.9%	Oct-01
Boyd Watterson GSA Fund, LP	\$5,903,728	3.0%	4.6%	--	5.8%	Feb-15
<i>NCREIF ODCE Equal Weighted Net</i>			3.8%	--	5.5%	Feb-15
<i>Long-Term Income Objective 8%</i>			8.0%	--	8.0%	Feb-15
Multi-Employer Property Trust	\$5,113,168	2.6%	2.6%	4.7%	5.1%	Jul-01
<i>NCREIF ODCE Equal Weighted Net</i>			3.8%	5.8%	5.8%	Jul-01

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024			
			7 Yrs	10 Yrs	Inception	Inception Date
Total Real Estate - Value Add	\$17,129,842	8.7%	--	--	0.5%	Oct-21
Boyd Watterson State Government Fund, LP	\$17,129,842	8.7%	--	--	0.5%	Oct-21
<i>NCREIF ODCE Equal Weighted Net</i>			--	--	-1.1%	Oct-21
<i>Long-Term Income Objective 9%</i>			--	--	9.0%	Oct-21
Total Private Equity	\$11,731,511	6.0%				
GCM Grosvenor Secondary Opportunities Feeder Fund II, LP	\$7,473,845	3.8%				
GCM Grosvenor Secondary Opportunities Feeder Fund III, LP	\$4,257,666	2.2%				
Total Infrastructure - Value Add	\$3,371,578	1.7%				
WaCap - SP Infrastructure Fund IV Feeder	\$3,371,578	1.7%				
Total Cash Equivalents	\$919,056	0.5%				
Cash Account	\$613,214	0.3%				
Cash in Transit - Boyd Watterson GSA Fund, LP	\$84,580	0.0%				
Distribution Proceeds						
Cash in Transit - Boyd Watterson State Government Fund, LP	\$221,262	0.1%				
Distribution Proceeds						

Account Information	
Account Name	Northern Trust Collective Russell 1000 Growth Index Fund
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	5/01/23
Account Type	Domestic Large Cap Growth Equity
Benchmark	Russell 1000 Growth
Universe	eV US Large Cap Growth Equity Net

Northern Trust Collective Russell 1000 Growth Index Fund		
Ending June 30, 2024		
	Second Quarter	Inception 5/1/23
Beginning Market Value	\$18,362,971	\$0
Net Cash Flow	-\$261,500	\$12,939,101
Net Investment Change	\$1,509,568	\$6,671,938
Ending Market Value	\$19,611,039	\$19,611,039

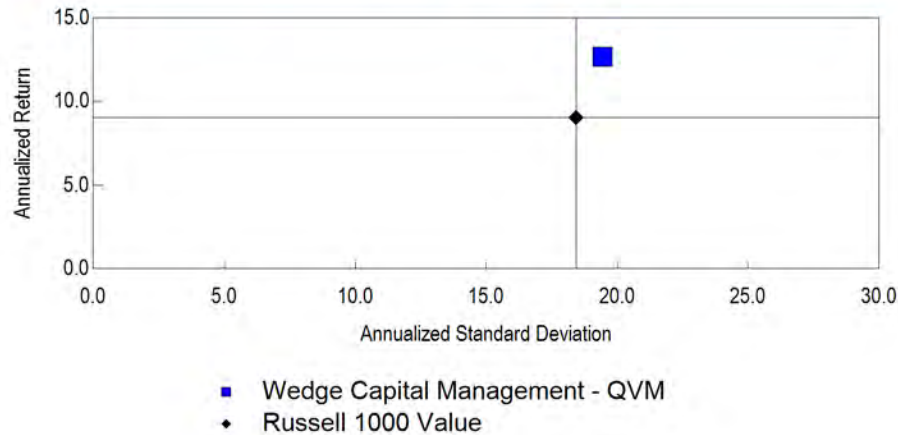
											Calendar Years									
	2024 Q2	Rank	Fiscal YTD	Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank				2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank	Inception	Inception Date			
Northern Trust Collective Russell 1000 Growth Index Fund	8.3%	18	20.7%	39	33.5%	37	--	--	--	--	--	--	--	--	--	--	40.9%	May-23		
<i>Russell 1000 Growth</i>	8.3%	17	20.7%	39	33.5%	37	--	--	--	--	--	--	--	--	--	--	40.8%	May-23		

Note: Returns are net of fees.

Account Information

Account Name	Wedge Capital Management - QVM
Account Structure	Separate Account
Investment Style	Active
Inception Date	7/01/01
Account Type	Domestic Large Cap Value Equity
Benchmark	Russell 1000 Value
Universe	eV US Large Cap Value Equity Gross

Annualized Return vs. Annualized Standard Deviation 5 Years Ending June 30, 2024



Wedge Capital Management - QVM

Ending June 30, 2024

	Second Quarter	Inception 7/1/01
Beginning Market Value	\$18,176,890	\$22,264,495
Net Cash Flow	-\$261,500	-\$52,979,449
Net Investment Change	-\$127,479	\$48,502,866
Ending Market Value	\$17,787,912	\$17,787,912

3 Years Ending June 30, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wedge Capital Management - QVM	9.5%	18.0%	118.2%	98.5%
Russell 1000 Value	5.5%	16.6%	100.0%	100.0%

5 Years Ending June 30, 2024

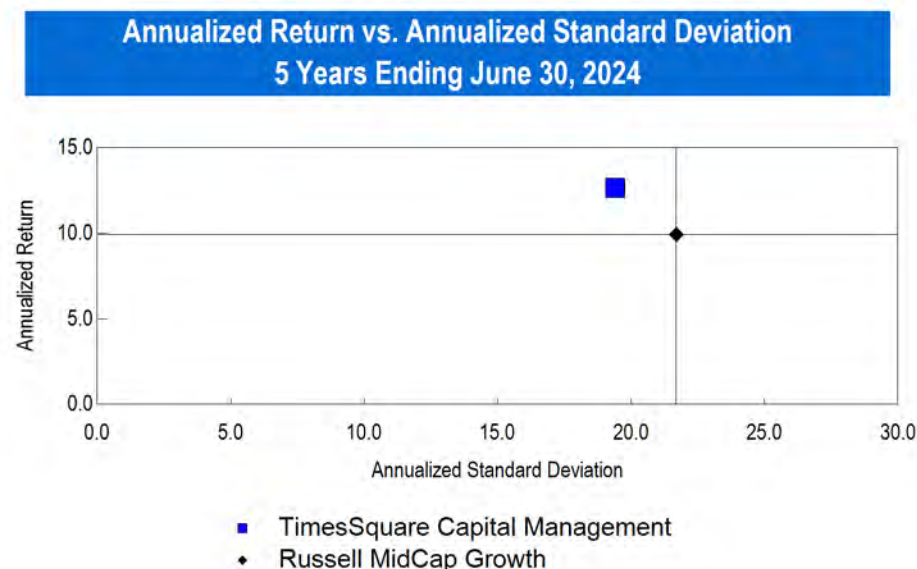
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wedge Capital Management - QVM	12.7%	19.5%	115.4%	97.1%
Russell 1000 Value	9.0%	18.4%	100.0%	100.0%

Calendar Years

	2024 Q2 Rank	Fiscal YTD Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank	2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank	Inception	Inception Date										
Wedge Capital Management - QVM	-0.7%	37	15.0%	5	25.1%	7	9.5%	20	12.7%	24	17.5%	26	-12.3%	88	33.2%	9	6.8%	38	29.6%	25	10.4%	Jul-01
Russell 1000 Value	-2.2%	71	6.6%	64	13.1%	76	5.5%	80	9.0%	85	11.5%	62	-7.5%	69	25.2%	72	2.8%	62	26.5%	54	7.4%	Jul-01

Note: Returns are gross of fees.

Account Information	
Account Name	TimesSquare Capital Management
Account Structure	Separate Account
Investment Style	Active
Inception Date	4/01/06
Account Type	Domestic Mid Cap Growth Equity
Benchmark	Russell MidCap Growth
Universe	eV US Mid Cap Growth Equity Gross



TimesSquare Capital Management Ending June 30, 2024		
	Second Quarter	Inception 4/1/06
Beginning Market Value	\$11,188,594	\$11,020,228
Net Cash Flow	-\$175,400	-\$20,691,135
Net Investment Change	-\$329,906	\$20,354,194
Ending Market Value	\$10,683,287	\$10,683,287

3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
TimesSquare Capital Management	4.2%	18.4%	94.8%	88.2%
Russell MidCap Growth	-0.1%	21.5%	100.0%	100.0%

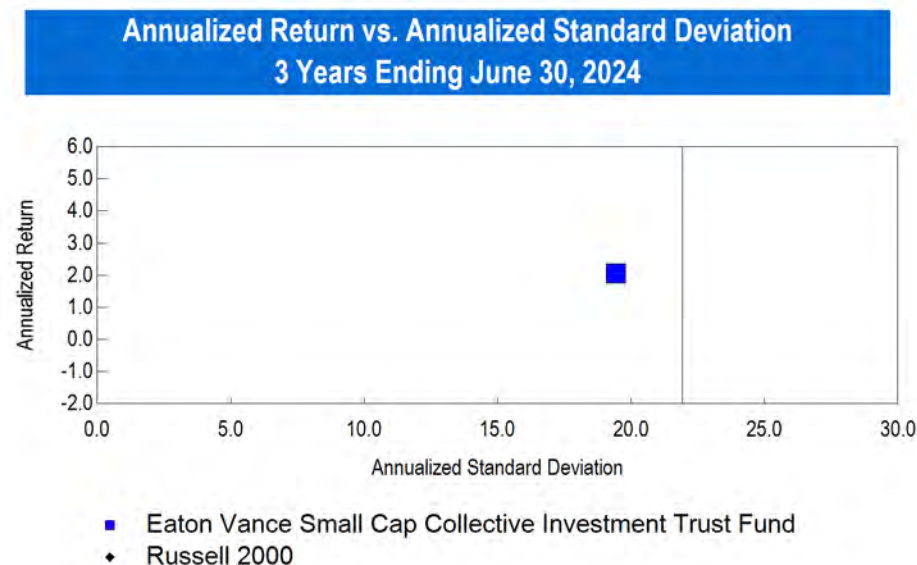
5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
TimesSquare Capital Management	12.6%	19.4%	94.1%	92.0%
Russell MidCap Growth	9.9%	21.7%	100.0%	100.0%

											Calendar Years											
	2024 Q2	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	2023	Rank	2022	Rank	2021	Rank	2020	Rank	2019	Rank	Inception	Inception Date
TimesSquare Capital Management	-2.9%	37	6.9%	40	17.0%	29	4.2%	12	12.6%	13	26.2%	26	-21.5%	13	17.1%	37	34.2%	62	37.6%	37	11.3%	Apr-06
Russell MidCap Growth	-3.2%	42	6.0%	46	15.1%	36	-0.1%	41	9.9%	53	25.9%	29	-26.7%	41	12.7%	65	35.6%	54	35.5%	53	9.5%	Apr-06

Note: Returns are gross of fees.

Account Information	
Account Name	Eaton Vance Small Cap Collective Investment Trust Fund
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	9/01/19
Account Type	Domestic Small Cap Core Equity
Benchmark	Russell 2000
Universe	eV US Small Cap Core Equity Gross

Eaton Vance Small Cap Collective Investment Trust Fund		
Ending June 30, 2024		
	Second Quarter	Inception 9/1/19
Beginning Market Value	\$9,705,806	\$0
Net Cash Flow	-\$156,900	\$5,776,650
Net Investment Change	-\$428,241	\$3,344,015
Ending Market Value	\$9,120,665	\$9,120,665



3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Eaton Vance Small Cap Collective Investment Trust Fund	2.0%	19.4%	89.9%	86.7%
Russell 2000	-2.6%	21.9%	100.0%	100.0%

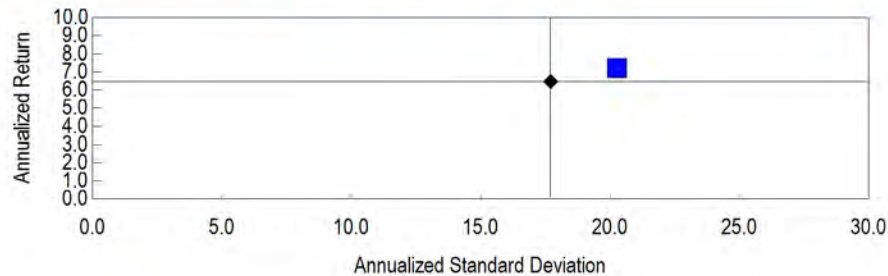
											Calendar Years											
	2024 Q2	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	2023	Rank	2022	Rank	2021	Rank	2020	Rank	2019	Rank	Inception	Inception Date
Eaton Vance Small Cap Collective Investment Trust Fund	-4.4%	81	2.9%	52	6.1%	85	2.0%	53	--	--	12.9%	83	-14.7%	32	22.9%	62	13.9%	58	--	--	8.4%	Sep-19
Russell 2000	-3.3%	58	1.7%	71	10.1%	61	-2.6%	92	--	--	16.9%	58	-20.4%	78	14.8%	94	20.0%	33	--	--	8.2%	Sep-19

Note: Returns are gross of fees.

Account Information

Account Name	Hardman Johnston International Equity Group Trust
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	7/01/09
Account Type	International Large Cap Equity
Benchmark	MSCI EAFE
Universe	eV Non-US Diversified Growth Eq Gross

Annualized Return vs. Annualized Standard Deviation 5 Years Ending June 30, 2024



- Hardman Johnston International Equity Group Trust
- ◆ MSCI EAFE

Hardman Johnston International Equity Group Trust

Ending June 30, 2024

	Second Quarter	Inception 7/1/09
Beginning Market Value	\$5,191,254	\$6,099,925
Net Cash Flow	\$0	-\$12,935,348
Net Investment Change	\$194,412	\$12,221,089
Ending Market Value	\$5,385,666	\$5,385,666

3 Years Ending June 30, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Hardman Johnston International Equity Group Trust	-3.9%	20.0%	89.8%	114.2%
MSCI EAFE	2.9%	16.9%	100.0%	100.0%

5 Years Ending June 30, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Hardman Johnston International Equity Group Trust	7.2%	20.3%	106.7%	100.8%
MSCI EAFE	6.5%	17.7%	100.0%	100.0%

Calendar Years

	2024 Q2 Rank	Fiscal YTD Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank	2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank	Inception	Inception Date										
Hardman Johnston International Equity Group Trust	3.9%	7	11.0%	9	10.0%	34	-3.9%	63	7.2%	42	6.4%	93	-23.1%	39	1.9%	90	36.5%	15	34.3%	18	8.6%	Jul-09
MSCI EAFE	-0.4%	48	5.3%	41	11.5%	25	2.9%	11	6.5%	58	18.2%	36	-14.5%	5	11.3%	41	7.8%	99	22.0%	94	6.8%	Jul-09
MSCI ACWI ex USA Growth	0.7%	28	6.7%	34	9.9%	36	-2.6%	58	5.5%	74	14.0%	70	-23.1%	38	5.1%	79	22.2%	60	27.3%	72	6.9%	Jul-09

Note: Returns are gross of fees.

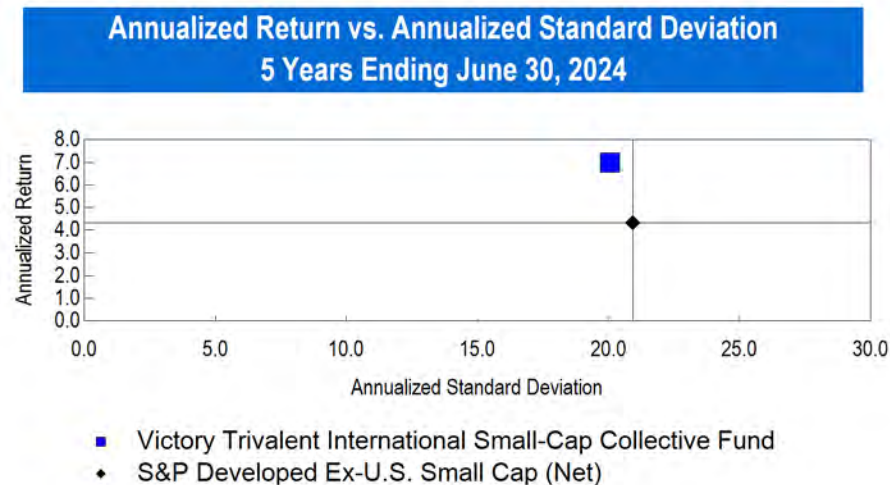
Account Information	
Account Name	Barrow Hanley Non-US Value CIT - Founders Class
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	12/01/23
Account Type	International Large Cap Value Equity
Benchmark	MSCI EAFE Value
Universe	eV Non-US Diversified Value Eq Gross

Barrow Hanley Non-US Value CIT - Founders Class		
Ending June 30, 2024		
	Second Quarter	Inception 12/1/23
Beginning Market Value	\$4,648,500	\$0
Net Cash Flow	\$0	\$4,500,000
Net Investment Change	-\$130,500	\$18,000
Ending Market Value	\$4,518,000	\$4,518,000

											Calendar Years										Inception	Inception Date
	2024 Q2 Rank	Fiscal YTD Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank	2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank	2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank							
Barrow Hanley Non-US Value CIT - Founders Class	-2.7%	97	-3.9%	99	--	--	--	--	--	--	--	--	--	--	--	--	--	0.7%	Dec-23			
MSCI EAFE Value	0.0%	63	4.5%	54	13.7%	38	5.5%	30	6.1%	74	18.9%	54	-5.6%	17	10.9%	69	-2.6%	89	16.1%	87	9.6%	Dec-23

Note: Returns are gross of fees.

Account Information	
Account Name	Victory Trivalent International Small-Cap Collective Fund
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	3/01/18
Account Type	International Small Cap Equity
Benchmark	S&P Developed Ex-U.S. Small Cap (Net)
Universe	eV Non-US Diversified Small Cap Eq Gross



Victory Trivalent International Small-Cap Collective Fund		
Ending June 30, 2024		
	Second Quarter	Inception 3/1/18
Beginning Market Value	\$10,755,879	\$0
Net Cash Flow	\$0	\$8,059,128
Net Investment Change	-\$96,391	\$2,600,360
Ending Market Value	\$10,659,488	\$10,659,488

3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Victory Trivalent International Small-Cap Collective Fund	-1.1%	18.7%	105.6%	96.0%
S&P Developed Ex-U.S. Small Cap (Net)	-3.7%	19.3%	100.0%	100.0%

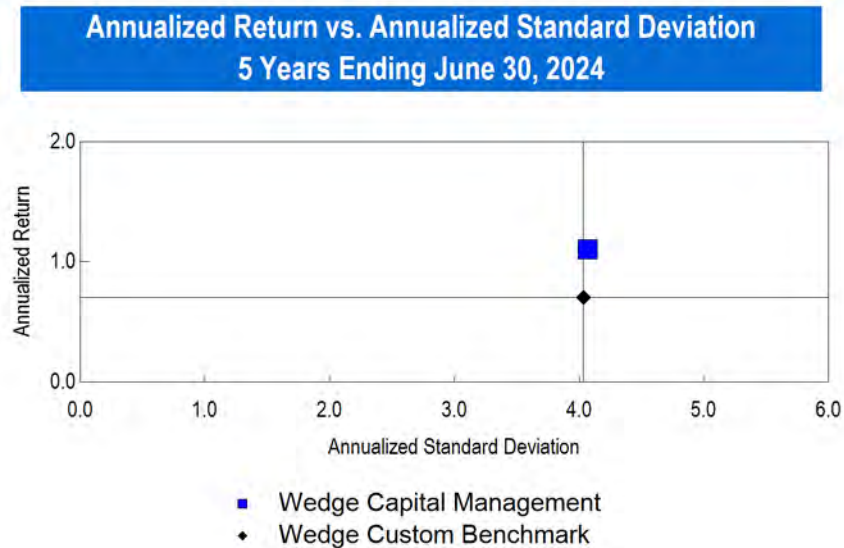
5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Victory Trivalent International Small-Cap Collective Fund	7.0%	20.1%	104.9%	96.5%
S&P Developed Ex-U.S. Small Cap (Net)	4.3%	20.9%	100.0%	100.0%

												Calendar Years											Inception	Inception Date
	2024	Ran	Fiscal	Ran	1 Yr	Ran	3 Yrs	Ran	5 Yrs	Ran	2023	Ran	2022	Ran	2021	Ran	2020	Ran	2019	Ran				
	Q2	k	YTD	k		k		k		k		k		k		k		k		k				
Victory Trivalent International Small-Cap Collective Fund	-0.9%	58	5.1%	38	11.1%	46	-1.1%	50	7.0%	43	16.3%	42	-21.9%	55	13.7%	55	16.4%	36	29.2%	23	4.4%	Mar-18		
S&P Developed Ex-U.S. Small Cap (Net)	-1.0%	60	1.0%	70	7.6%	69	-3.7%	66	4.3%	75	13.5%	69	-21.6%	54	9.6%	78	14.3%	47	24.1%	59	1.9%	Mar-18		

Note: Returns are gross of fees.

Account Information	
Account Name	Wedge Capital Management
Account Structure	Separate Account
Investment Style	Active
Inception Date	1/01/03
Account Type	Investment Grade Fixed Income
Benchmark	Wedge Custom Benchmark
Universe	

Wedge Capital Management		
Ending June 30, 2024		
	Second Quarter	Inception 1/1/03
Beginning Market Value	\$16,219,992	\$19,772,647
Net Cash Flow	-\$104,600	-\$12,847,288
Net Investment Change	\$101,106	\$9,291,139
Ending Market Value	\$16,216,498	\$16,216,498



3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wedge Capital Management	-0.9%	4.8%	99.8%	96.9%
Wedge Custom Benchmark	-1.2%	4.8%	100.0%	100.0%

5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wedge Capital Management	1.1%	4.1%	102.3%	95.0%
Wedge Custom Benchmark	0.7%	4.0%	100.0%	100.0%

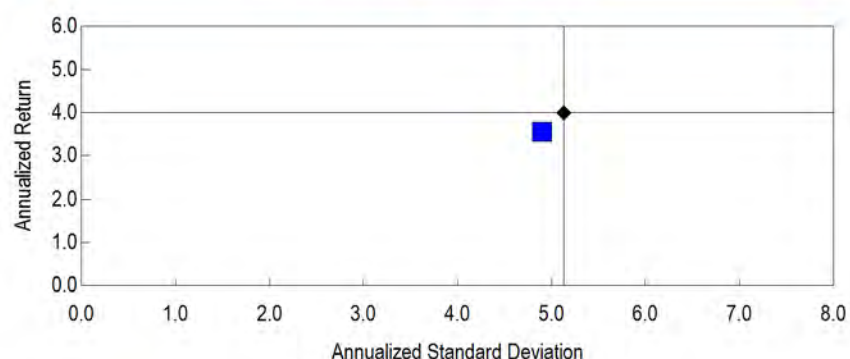
Calendar Years												
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
Wedge Capital Management	0.6%	0.7%	4.4%	-0.9%	1.1%	5.5%	-7.9%	-1.1%	7.5%	7.0%	3.5%	Jan-03
Wedge Custom Benchmark	0.6%	0.5%	4.2%	-1.2%	0.7%	5.2%	-8.2%	-1.4%	6.4%	6.8%	3.1%	Jan-03

Note: Returns are gross of fees.

Account Information

Account Name	Chartwell Investment Partners SDHY
Account Structure	Separate Account
Investment Style	Active
Inception Date	1/31/13
Account Type	Short Duration High Yield Fixed Income
Benchmark	ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR
Universe	

Annualized Return vs. Annualized Standard Deviation 5 Years Ending June 30, 2024



- Chartwell Investment Partners SDHY
- ◆ ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR

Chartwell Investment Partners SDHY

Ending June 30, 2024

	Second Quarter	Inception 1/31/13
Beginning Market Value	\$21,267,627	\$0
Net Cash Flow	-\$156,900	\$17,935,219
Net Investment Change	\$316,739	\$3,492,247
Ending Market Value	\$21,427,466	\$21,427,466

3 Years Ending June 30, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Chartwell Investment Partners SDHY	2.9%	4.3%	100.0%	104.5%
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR	3.1%	4.1%	100.0%	100.0%

5 Years Ending June 30, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Chartwell Investment Partners SDHY	3.5%	4.9%	92.0%	97.5%
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR	4.0%	5.1%	100.0%	100.0%

Calendar Years

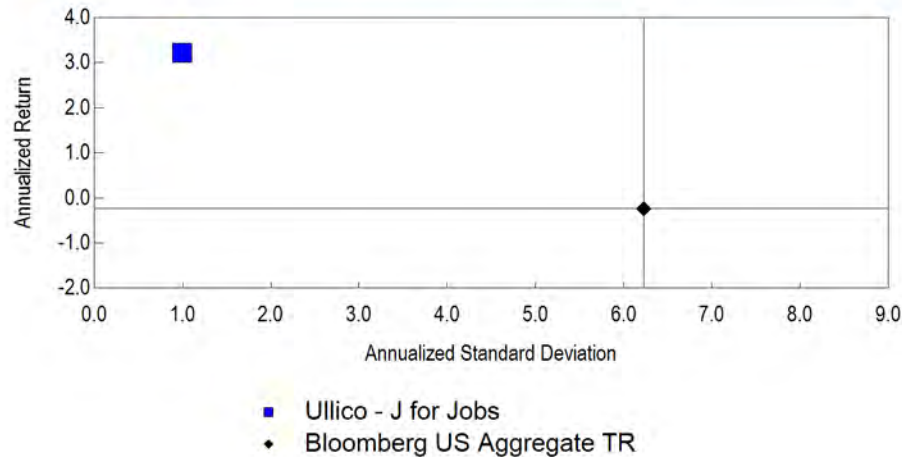
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
Chartwell Investment Partners SDHY	1.5%	2.8%	8.0%	2.9%	3.5%	7.8%	-2.7%	2.8%	4.7%	8.0%	3.6%	Jan-13
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR	1.4%	2.8%	8.1%	3.1%	4.0%	8.8%	-3.1%	3.2%	5.4%	8.7%	4.1%	Jan-13
Bloomberg US Govt/Credit Int TR	0.6%	0.5%	4.2%	-1.2%	0.7%	5.2%	-8.2%	-1.4%	6.4%	6.8%	1.5%	Jan-13

Note: Returns are gross of fees.

Account Information

Account Name	Ullico - J for Jobs
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	10/01/04
Account Type	Mortgages
Benchmark	Bloomberg US Aggregate TR
Universe	

Annualized Return vs. Annualized Standard Deviation 5 Years Ending June 30, 2024



Ullico - J for Jobs

Ending June 30, 2024

	Second Quarter	Inception 10/1/04
Beginning Market Value	\$4,813,744	\$10,000,000
Net Cash Flow	\$0	-\$8,968,786
Net Investment Change	\$41,978	\$3,824,508
Ending Market Value	\$4,855,723	\$4,855,723

3 Years Ending June 30, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Ullico - J for Jobs	3.3%	1.2%	25.4%	-8.3%
Bloomberg US Aggregate TR	-3.0%	7.4%	100.0%	100.0%

5 Years Ending June 30, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Ullico - J for Jobs	3.2%	1.0%	25.5%	-12.3%
Bloomberg US Aggregate TR	-0.2%	6.2%	100.0%	100.0%

Calendar Years

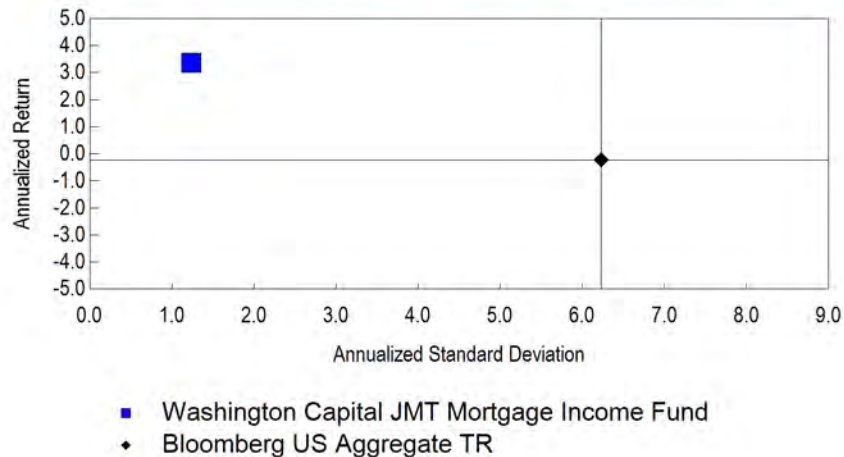
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
Ullico - J for Jobs	1.0%	2.4%	5.0%	3.3%	3.2%	4.5%	0.9%	3.6%	2.6%	4.7%	3.3%	Oct-04
Bloomberg US Aggregate TR	0.1%	-0.7%	2.6%	-3.0%	-0.2%	5.5%	-13.0%	-1.5%	7.5%	8.7%	3.0%	Oct-04

Note: Returns are gross of fees.

Account Information

Account Name	Washington Capital JMT Mortgage Income Fund
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	10/01/04
Account Type	Mortgages
Benchmark	Bloomberg US Aggregate TR
Universe	

Annualized Return vs. Annualized Standard Deviation 5 Years Ending June 30, 2024



Washington Capital JMT Mortgage Income Fund

Ending June 30, 2024

	Second Quarter	Inception 10/1/04
Beginning Market Value	\$5,390,430	\$5,000,000
Net Cash Flow	\$0	-\$3,500,000
Net Investment Change	\$26,605	\$3,917,035
Ending Market Value	\$5,417,035	\$5,417,035

3 Years Ending June 30, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Washington Capital JMT Mortgage Income Fund	2.9%	1.3%	26.0%	-4.4%
Bloomberg US Aggregate TR	-3.0%	7.4%	100.0%	100.0%

5 Years Ending June 30, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Washington Capital JMT Mortgage Income Fund	3.4%	1.2%	29.7%	-9.0%
Bloomberg US Aggregate TR	-0.2%	6.2%	100.0%	100.0%

Calendar Years

	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
Washington Capital JMT Mortgage Income Fund	0.5%	1.9%	4.8%	2.9%	3.4%	5.0%	0.1%	3.2%	3.3%	7.4%	5.0%	Oct-04
Bloomberg US Aggregate TR	0.1%	-0.7%	2.6%	-3.0%	-0.2%	5.5%	-13.0%	-1.5%	7.5%	8.7%	3.0%	Oct-04

Note: Returns are gross of fees.

Account Information	
Account Name	Grosvenor Opportunistic Credit Fund III, Ltd
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	1/01/14
Account Type	Opportunistic High Yield Fixed Income
Benchmark	
Universe	

Grosvenor Opportunistic Credit Fund III, Ltd		
Ending June 30, 2024		
	Second Quarter	Inception 1/1/14
Beginning Market Value	\$95,232	\$0
Net Cash Flow	\$0	-\$463,074
Net Investment Change	-\$622	\$557,684
Ending Market Value	\$94,610	\$94,610

Note: Reported market values were provided by the manager and are preliminary.
Market values and returns are subject to change.

Account Information	
Account Name	Grosvenor Opportunistic Credit Fund IV, Ltd
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	9/30/15
Account Type	Opportunistic High Yield Fixed Income
Benchmark	
Universe	

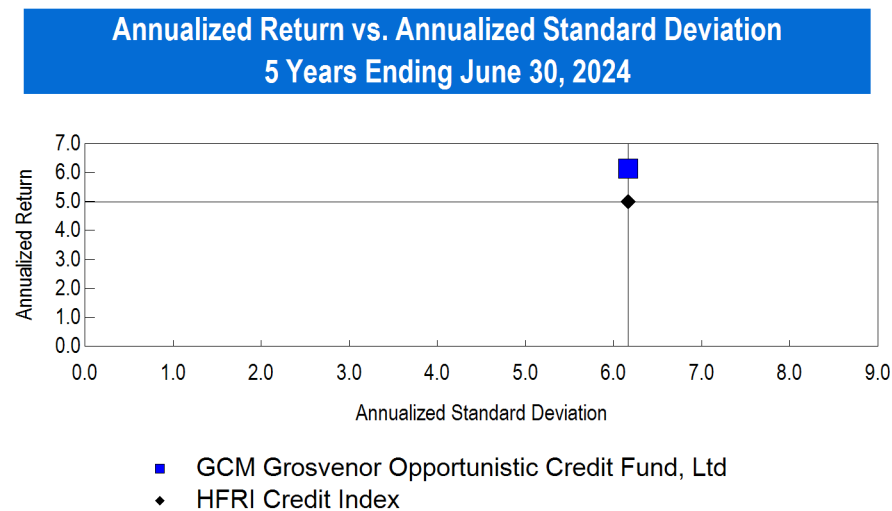
Grosvenor Opportunistic Credit Fund IV, Ltd		
Ending June 30, 2024		
	Second Quarter	Inception 9/30/15
Beginning Market Value	\$239,604	\$0
Net Cash Flow	\$0	-\$228,858
Net Investment Change	-\$8,173	\$460,289
Ending Market Value	\$231,431	\$231,431

Note: Reported market values were provided by the manager and are preliminary.
Market values and returns are subject to change.

Account Information	
Account Name	GCM Grosvenor Opportunistic Credit Fund, Ltd
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	2/01/17
Account Type	Opportunistic High Yield Fixed Income
Benchmark	HFRI Credit Index
Universe	

GCM Grosvenor Opportunistic Credit Fund, Ltd		
Ending June 30, 2024		
	Second Quarter	Inception 2/1/17
Beginning Market Value	\$10,223,824	\$0
Net Cash Flow	\$0	\$7,759,247
Net Investment Change	\$142,473	\$2,607,050
Ending Market Value	\$10,366,297	\$10,366,297

Note: Reported market values were provided by the manager and are preliminary. Market values and returns are subject to change.



3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
GCM Grosvenor Opportunistic Credit Fund, Ltd	5.6%	1.9%	90.4%	6.4%
HFRI Credit Index	3.2%	3.3%	100.0%	100.0%

5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
GCM Grosvenor Opportunistic Credit Fund, Ltd	6.1%	6.2%	94.2%	66.2%
HFRI Credit Index	5.0%	6.2%	100.0%	100.0%

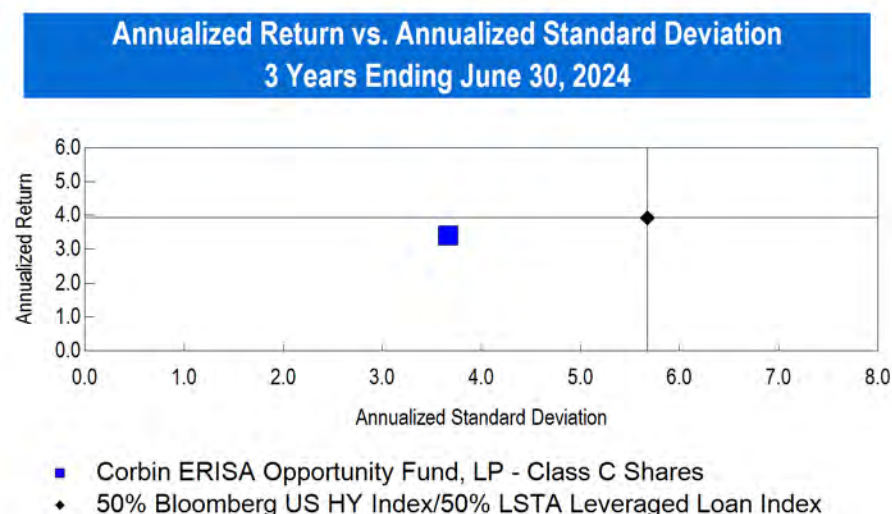
	Calendar Years										Inception	Inception Date
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019		
GCM Grosvenor Opportunistic Credit Fund, Ltd	1.6%	3.8%	7.6%	5.6%	6.1%	8.6%	1.1%	10.9%	1.6%	9.5%	5.8%	Feb-17
HFRI Credit Index	1.5%	4.3%	9.4%	3.2%	5.0%	7.8%	-2.6%	7.9%	6.3%	6.5%	4.6%	Feb-17

Note: Returns are gross of fees.

Account Information	
Account Name	Corbin ERISA Opportunity Fund, LP - Class C Shares
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	1/31/20
Account Type	Opportunistic High Yield Fixed Income
Benchmark	50% Bloomberg US HY Index/50% LSTA Leveraged Loan Index
Universe	

Corbin ERISA Opportunity Fund, LP - Class C Shares		
Ending June 30, 2024		
	Second Quarter	Inception 1/31/20
Beginning Market Value	\$9,565,104	\$0
Net Cash Flow	\$0	\$7,500,000
Net Investment Change	\$246,649	\$2,311,753
Ending Market Value	\$9,811,753	\$9,811,753

Note: Reported market values were provided by the manager and are preliminary. Market values and returns are subject to change.



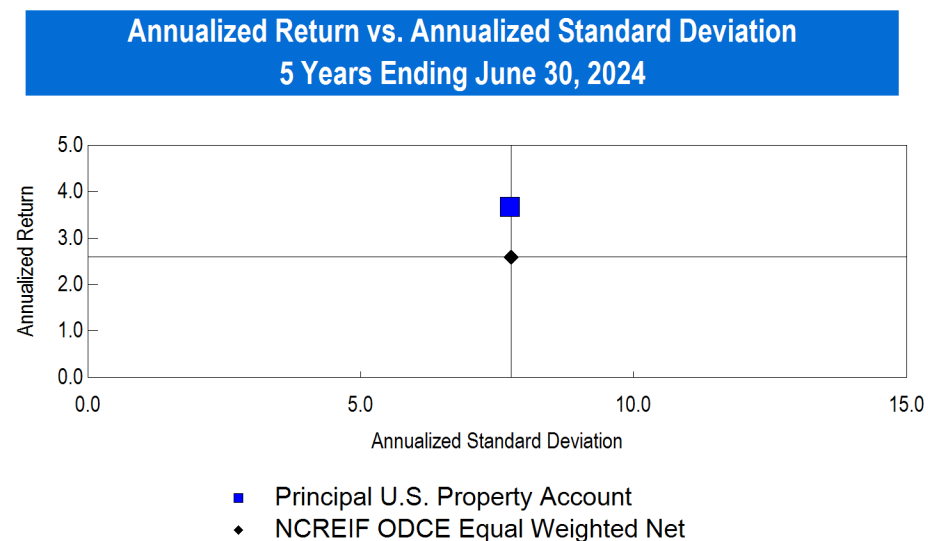
3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Corbin ERISA Opportunity Fund, LP - Class C Shares	3.4%	3.7%	56.9%	42.9%
50% Bloomberg US HY Index/50% LSTA Leveraged Loan Index	3.9%	5.7%	100.0%	100.0%

	Calendar Years											Inception Date
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Corbin ERISA Opportunity Fund, LP - Class C Shares	2.7%	5.8%	10.1%	3.4%	--	5.4%	-3.7%	13.3%	--	--	6.5%	Jan-20
50% Bloomberg US HY Index/50% LSTA Leveraged Loan Index	1.5%	3.5%	10.8%	3.9%	--	13.4%	-6.0%	5.2%	--	--	4.5%	Jan-20
HFRI Credit Index	1.5%	4.3%	9.4%	3.2%	--	7.8%	-2.6%	7.9%	--	--	5.2%	Jan-20

Note: Returns are gross of fees.

Account Information	
Account Name	Principal U.S. Property Account
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	10/01/01
Account Type	Real Estate - Core
Benchmark	NCREIF ODCE Equal Weighted Net
Universe	

Income is distributed.



Principal U.S. Property Account Ending June 30, 2024		
	Second Quarter	Inception 10/1/01
Beginning Market Value	\$6,548,627	\$7,999,474
Net Cash Flow	-\$169,185	-\$25,452,620
Net Investment Change	-\$61,082	\$23,771,506
Ending Market Value	\$6,318,361	\$6,318,361

3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Principal U.S. Property Account	2.3%	9.8%	98.8%	85.9%
NCREIF ODCE Equal Weighted Net	1.2%	9.8%	100.0%	100.0%

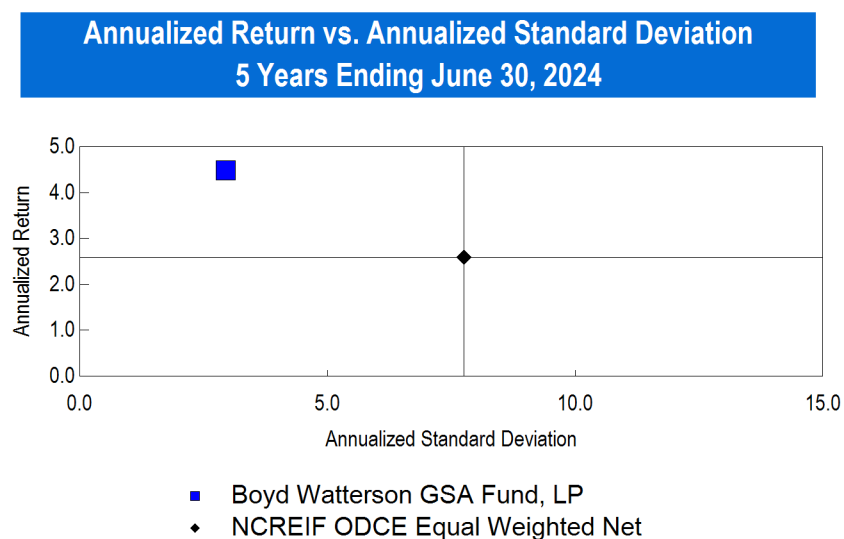
5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Principal U.S. Property Account	3.7%	7.7%	104.9%	86.0%
NCREIF ODCE Equal Weighted Net	2.6%	7.8%	100.0%	100.0%

	Calendar Years										Inception	Inception Date
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019		
Principal U.S. Property Account	-0.7%	-2.4%	-8.0%	2.3%	3.7%	-10.0%	5.0%	23.8%	1.6%	7.0%	7.2%	Oct-01
NCREIF ODCE Equal Weighted Net	-0.8%	-3.2%	-10.3%	1.2%	2.6%	-13.3%	7.6%	21.9%	0.8%	5.2%	5.9%	Oct-01

Note: Returns are gross of fees.

Account Information	
Account Name	Boyd Watterson GSA Fund, LP
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	2/01/15
Account Type	Real Estate - Core
Benchmark	NCREIF ODCE Equal Weighted Net
Universe	

Income is distributed.



Boyd Watterson GSA Fund, LP Ending June 30, 2024		
	Second Quarter	Inception 2/1/15
Beginning Market Value	\$6,049,110	\$0
Net Cash Flow	-\$84,580	\$2,498,450
Net Investment Change	-\$60,802	\$3,405,278
Ending Market Value	\$5,903,728	\$5,903,728

3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Boyd Watterson GSA Fund, LP	1.6%	2.7%	29.1%	18.0%
NCREIF ODCE Equal Weighted Net	1.2%	9.8%	100.0%	100.0%

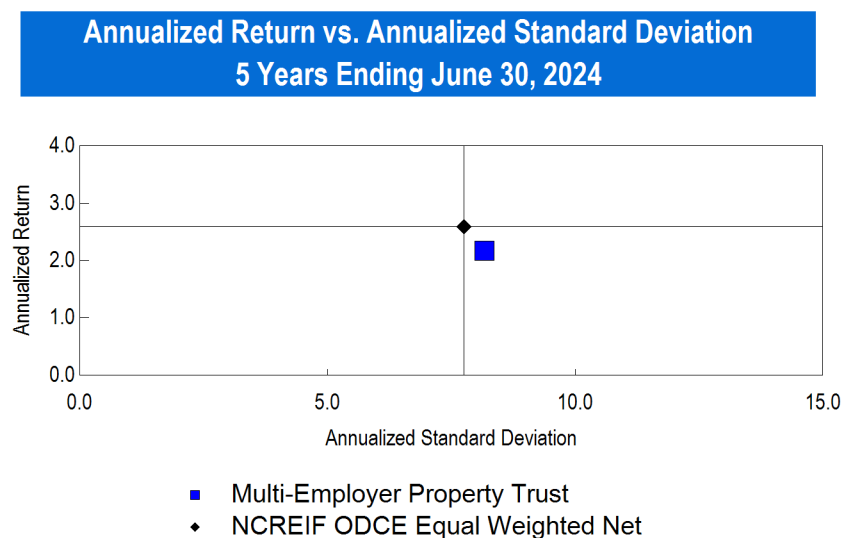
5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Boyd Watterson GSA Fund, LP	4.5%	2.9%	59.1%	7.3%
NCREIF ODCE Equal Weighted Net	2.6%	7.8%	100.0%	100.0%

	Calendar Years										Inception	Inception Date
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019		
Boyd Watterson GSA Fund, LP	-0.7%	-2.2%	-4.6%	1.6%	4.5%	-1.9%	5.9%	9.4%	7.2%	9.5%	7.0%	Feb-15
NCREIF ODCE Equal Weighted Net	-0.8%	-3.2%	-10.3%	1.2%	2.6%	-13.3%	7.6%	21.9%	0.8%	5.2%	5.5%	Feb-15
Long-Term Income Objective 8%	1.9%	3.9%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	Feb-15

Note: Returns are gross of fees.

Account Information	
Account Name	Multi-Employer Property Trust
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	7/01/01
Account Type	Real Estate - Core
Benchmark	NCREIF ODCE Equal Weighted Net
Universe	

Income is distributed.



Multi-Employer Property Trust Ending June 30, 2024		
	Second Quarter	Inception 7/1/01
Beginning Market Value	\$5,162,325	\$0
Net Cash Flow	\$0	-\$7,931,775
Net Investment Change	-\$49,158	\$13,044,943
Ending Market Value	\$5,113,168	\$5,113,168

3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Multi-Employer Property Trust	0.5%	10.3%	105.4%	112.1%
NCREIF ODCE Equal Weighted Net	1.2%	9.8%	100.0%	100.0%

5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Multi-Employer Property Trust	2.2%	8.2%	107.3%	115.3%
NCREIF ODCE Equal Weighted Net	2.6%	7.8%	100.0%	100.0%

	Calendar Years										Inception	Inception Date
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019		
Multi-Employer Property Trust	-0.7%	-3.8%	-12.2%	0.5%	2.2%	-14.8%	8.7%	20.8%	1.4%	4.6%	6.0%	Jul-01
NCREIF ODCE Equal Weighted Net	-0.8%	-3.2%	-10.3%	1.2%	2.6%	-13.3%	7.6%	21.9%	0.8%	5.2%	5.8%	Jul-01

Note: Returns are gross of fees.

Account Information	
Account Name	Boyd Watterson State Government Fund, LP
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	10/01/21
Account Type	Real Estate - Value Add
Benchmark	NCREIF ODCE Equal Weighted Net
Universe	

Income is distributed.

Boyd Watterson State Government Fund, LP		
Ending June 30, 2024		
	Second Quarter	Inception 10/1/21
Beginning Market Value	\$17,497,243	\$0
Net Cash Flow	-\$221,262	\$16,834,992
Net Investment Change	-\$146,139	\$294,850
Ending Market Value	\$17,129,842	\$17,129,842

	Calendar Years											Inception Date
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Boyd Watterson State Government Fund, LP	-0.5%	-3.0%	-4.9%	--	--	-1.2%	7.4%	--	--	--	1.8%	Oct-21
NCREIF ODCE Equal Weighted Net	-0.8%	-3.2%	-10.3%	--	--	-13.3%	7.6%	--	--	--	-1.1%	Oct-21
Long-Term Income Objective 9%	2.2%	4.4%	9.0%	--	--	9.0%	9.0%	--	--	--	9.0%	Oct-21

Note: Returns are gross of fees.

Account Information	
Account Name	GCM Grosvenor Secondary Opportunities Feeder Fund II, LP
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	5/31/18
Account Type	Private Equity
Benchmark	
Universe	

GCM Grosvenor Secondary Opportunities Feeder Fund II, LP		
Ending June 30, 2024		
	Second Quarter	Inception 5/31/18
Beginning Market Value	\$7,473,845	\$0
Net Cash Flow	\$0	\$4,759,697
Net Investment Change	\$0	\$2,714,148
Ending Market Value	\$7,473,845	\$7,473,845

Note: Investment is valued as of March 31, 2024, plus or minus any flows.

Account Information	
Account Name	GCM Grosvenor Secondary Opportunities Feeder Fund III, LP
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	7/01/21
Account Type	Private Equity
Benchmark	
Universe	

GCM Grosvenor Secondary Opportunities Feeder Fund III, LP		
Ending June 30, 2024		
	Second Quarter	Inception 7/1/21
Beginning Market Value	\$3,688,174	\$0
Net Cash Flow	\$569,492	\$3,461,612
Net Investment Change	\$0	\$796,055
Ending Market Value	\$4,257,666	\$4,257,666

Note: Investment is valued as of March 31, 2024, plus or minus any flows.

Account Information	
Account Name	WaCap - SP Infrastructure Fund IV Feeder
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	7/01/21
Account Type	Infrastructure
Benchmark	
Universe	

WaCap - SP Infrastructure Fund IV Feeder		
Ending June 30, 2024		
	Second Quarter	Inception 7/1/21
Beginning Market Value	\$3,366,398	\$0
Net Cash Flow	\$20,367	\$2,969,637
Net Investment Change	-\$15,187	\$401,941
Ending Market Value	\$3,371,578	\$3,371,578

Note: Investment is valued as of March 31, 2024, plus or minus any flows.

Investment Policy Statement

- The current investment policy statement was adopted and signed on May 14, 2024.

Custody Bank

- The current custodian is PNC Bank.
- Separate account market values and flows are derived from the custodial statement.

Commission Recapture Provider

- Cowen and Company, LLC.
- IPS evaluated the benefits of ongoing participation in a commission recapture program and suggested Funds continue to participate in them. To potentially enhance the managers' utilization of the commission recapture program, in November 2022, as a courtesy IPS provided draft notices for the Fund Administrator to consider sending to the investment managers.

Commingled Funds

- Commingled Fund: Due to the commingled fund structure, IPS does not monitor the holdings within the commingled fund for compliance with the client's investment policy statement. The commingled fund is governed by its own investment policy.
- Commingled fund market values and flows are derived from the manager statement.



Operating Engineers Local No. 77 Pension Plan

Appendix

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024								Inception	Inception Date
			2024 Q2	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs		
Total Fund	\$196,674,112	100.0%	0.7%	4.5%	7.9%	7.7%	2.5%	7.2%	7.5%	7.4%	9.0%	Apr-88
Total Domestic Large Cap Equity	\$37,398,951	19.0%	3.9%	17.9%	29.4%	23.5%	6.6%	13.9%	13.7%	12.5%	--	Jul-01
Northern Trust Collective Russell 1000 Growth Index Fund	\$19,611,039	10.0%	8.3%	20.7%	33.6%	--	--	--	--	--	40.9%	May-23
Russell 1000 Growth			8.3%	20.7%	33.5%	--	--	--	--	--	40.8%	May-23
Wedge Capital Management - QVM	\$17,787,912	9.0%	-0.7%	15.0%	25.1%	20.1%	9.5%	12.7%	11.9%	10.7%	10.4%	Jul-01
Russell 1000 Value			-2.2%	6.6%	13.1%	12.3%	5.5%	9.0%	8.6%	8.2%	7.4%	Jul-01
Total Domestic Mid Cap Equity	\$10,683,287	5.4%	-2.9%	6.9%	17.0%	18.7%	4.2%	12.6%	13.7%	11.9%	--	Apr-06
TimesSquare Capital Management	\$10,683,287	5.4%	-2.9%	6.9%	17.0%	18.7%	4.2%	12.6%	13.7%	11.9%	11.3%	Apr-06
Russell MidCap Growth			-3.2%	6.0%	15.1%	19.0%	-0.1%	9.9%	11.7%	10.5%	9.5%	Apr-06
Total Domestic Small Cap Equity	\$9,120,665	4.6%	-4.4%	2.9%	6.1%	10.1%	2.0%	6.1%	4.3%	3.4%	--	Jul-04
Eaton Vance Small Cap Collective Investment Trust Fund	\$9,120,665	4.6%	-4.4%	2.9%	6.1%	10.1%	2.0%	--	--	--	8.4%	Sep-19
Russell 2000			-3.3%	1.7%	10.1%	11.2%	-2.6%	--	--	--	8.2%	Sep-19
Total International Large Cap Equity	\$9,903,666	5.0%	0.8%	3.6%	3.2%	7.6%	-5.9%	5.8%	6.7%	6.6%	--	Apr-97
Hardman Johnston International Equity Group Trust	\$5,385,666	2.7%	3.9%	11.0%	10.0%	11.1%	-3.9%	7.2%	7.6%	7.3%	8.6%	Jul-09
MSCI EAFE			-0.4%	5.3%	11.5%	15.1%	2.9%	6.5%	5.7%	4.3%	6.8%	Jul-09
MSCI ACWI ex USA Growth			0.7%	6.7%	9.9%	11.6%	-2.6%	5.5%	5.7%	4.7%	6.9%	Jul-09
Barrow Hanley Non-US Value CIT - Founders Class	\$4,518,000	2.3%	-2.7%	-3.9%	--	--	--	--	--	--	0.7%	Dec-23
MSCI EAFE Value			0.0%	4.5%	--	--	--	--	--	--	9.6%	Dec-23
Total International Small Cap Equity	\$10,659,488	5.4%	-0.9%	5.1%	11.1%	13.0%	-1.1%	7.0%	--	--	4.4%	Mar-18
Victory Trivalent International Small-Cap Collective Fund	\$10,659,488	5.4%	-0.9%	5.1%	11.1%	13.0%	-1.1%	7.0%	--	--	4.4%	Mar-18
S&P Developed Ex-U.S. Small Cap (Net)			-1.0%	1.0%	7.6%	9.0%	-3.7%	4.3%	--	--	1.9%	Mar-18
Total Investment Grade Fixed Income	\$16,216,498	8.2%	0.6%	0.7%	4.4%	2.2%	-0.9%	1.1%	1.8%	2.0%	4.4%	Jun-95
Wedge Capital Management	\$16,216,498	8.2%	0.6%	0.7%	4.4%	2.2%	-0.9%	1.1%	1.8%	2.0%	3.5%	Jan-03
Wedge Custom Benchmark			0.6%	0.5%	4.2%	2.0%	-1.2%	0.7%	1.4%	1.5%	3.1%	Jan-03
Total Short Duration High Yield Fixed Income	\$21,427,466	10.9%	1.5%	2.8%	8.0%	7.2%	2.9%	3.5%	3.7%	3.5%	3.6%	Jan-13
Chartwell Investment Partners SDHY	\$21,427,466	10.9%	1.5%	2.8%	8.0%	7.2%	2.9%	3.5%	3.7%	3.5%	3.6%	Jan-13
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR			1.4%	2.8%	8.1%	7.6%	3.1%	4.0%	4.0%	4.0%	4.1%	Jan-13
Bloomberg US Govt/Credit Int TR			0.6%	0.5%	4.2%	2.0%	-1.2%	0.7%	1.4%	1.5%	1.5%	Jan-13

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024								Inception	Inception Date
			2024 Q2	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs		
Total Mortgages	\$10,272,757	5.2%	0.7%	2.1%	4.9%	3.9%	3.1%	3.3%	3.7%	3.9%	3.8%	Oct-04
Ullico - J for Jobs	\$4,855,723	2.5%	1.0%	2.4%	5.0%	4.0%	3.3%	3.2%	3.5%	3.6%	3.3%	Oct-04
Bloomberg US Aggregate TR			0.1%	-0.7%	2.6%	0.8%	-3.0%	-0.2%	0.9%	1.3%	3.0%	Oct-04
Washington Capital JMT Mortgage Income Fund	\$5,417,035	2.8%	0.5%	1.9%	4.8%	3.7%	2.9%	3.4%	3.9%	4.1%	5.0%	Oct-04
Bloomberg US Aggregate TR			0.1%	-0.7%	2.6%	0.8%	-3.0%	-0.2%	0.9%	1.3%	3.0%	Oct-04
Total Opportunistic High Yield Fixed Income	\$20,504,091	10.4%										
Grosvenor Opportunistic Credit Fund III, Ltd	\$94,610	0.0%										
Grosvenor Opportunistic Credit Fund IV, Ltd	\$231,431	0.1%										
GCM Grosvenor Opportunistic Credit Fund, Ltd	\$10,366,297	5.3%	1.6%	3.8%	7.6%	7.0%	5.6%	6.1%	6.1%	--	5.8%	Feb-17
HFRI Credit Index			1.5%	4.3%	9.4%	6.5%	3.2%	5.0%	4.6%	--	4.6%	Feb-17
Corbin ERISA Opportunity Fund, LP - Class C Shares	\$9,811,753	5.0%	2.7%	5.8%	10.1%	5.9%	3.4%	--	--	--	6.5%	Jan-20
50% Bloomberg US HY Index/50% LSTA Leveraged Loan Index			1.5%	3.5%	10.8%	10.4%	3.9%	--	--	--	4.5%	Jan-20
HFRI Credit Index			1.5%	4.3%	9.4%	6.5%	3.2%	--	--	--	5.2%	Jan-20
Total Real Estate - Core	\$17,335,256	8.8%	-0.7%	-2.8%	-8.1%	-7.0%	1.7%	3.5%	4.9%	6.9%	6.4%	Jul-01
Principal U.S. Property Account	\$6,318,361	3.2%	-0.7%	-2.4%	-8.0%	-8.9%	2.3%	3.7%	5.1%	7.2%	7.2%	Oct-01
NCREIF ODCE Equal Weighted Net			-0.8%	-3.2%	-10.3%	-10.4%	1.2%	2.6%	3.8%	5.8%	5.9%	Oct-01
Boyd Watterson GSA Fund, LP	\$5,903,728	3.0%	-0.7%	-2.2%	-4.6%	-1.0%	1.6%	4.5%	5.9%	--	7.0%	Feb-15
NCREIF ODCE Equal Weighted Net			-0.8%	-3.2%	-10.3%	-10.4%	1.2%	2.6%	3.8%	--	5.5%	Feb-15
Long-Term Income Objective 8%			1.9%	3.9%	8.0%	8.0%	8.0%	8.0%	8.0%	--	8.0%	Feb-15
Multi-Employer Property Trust	\$5,113,168	2.6%	-0.7%	-3.8%	-12.2%	-11.3%	0.5%	2.2%	3.5%	5.6%	6.0%	Jul-01
NCREIF ODCE Equal Weighted Net			-0.8%	-3.2%	-10.3%	-10.4%	1.2%	2.6%	3.8%	5.8%	5.8%	Jul-01
Total Real Estate - Value Add	\$17,129,842	8.7%	-0.5%	-3.0%	-4.9%	-0.6%	--	--	--	--	1.8%	Oct-21
Boyd Watterson State Government Fund, LP	\$17,129,842	8.7%	-0.5%	-3.0%	-4.9%	-0.6%	--	--	--	--	1.8%	Oct-21
NCREIF ODCE Equal Weighted Net			-0.8%	-3.2%	-10.3%	-10.4%	--	--	--	--	-1.1%	Oct-21
Long-Term Income Objective 9%			2.2%	4.4%	9.0%	9.0%	--	--	--	--	9.0%	Oct-21

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Performance Detail (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024								Inception	Inception Date
			2024 Q2	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs		
Total Private Equity	\$11,731,511	6.0%										
GCM Grosvenor Secondary Opportunities Feeder Fund II, LP	\$7,473,845	3.8%										
GCM Grosvenor Secondary Opportunities Feeder Fund III, LP	\$4,257,666	2.2%										
Total Infrastructure - Value Add	\$3,371,578	1.7%										
WaCap - SP Infrastructure Fund IV Feeder	\$3,371,578	1.7%										
Total Cash Equivalents	\$919,056	0.5%										
Cash Account	\$613,214	0.3%										
Cash in Transit - Boyd Watterson GSA Fund, LP Distribution Proceeds	\$84,580	0.0%										
Cash in Transit - Boyd Watterson State Government Fund, LP Distribution Proceeds	\$221,262	0.1%										

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Account	Fee Schedule	Market Value As of 6/30/2024	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Total Domestic Large Cap Equity	-	\$37,398,951	19.0%	--	--
Northern Trust Collective Russell 1000 Growth Index Fund	0.04% of Assets	\$19,611,039	10.0%	\$7,844	0.04%
**Wedge Capital Management - QVM	0.50% of Assets	\$17,787,912	9.0%	\$88,940	0.50%
Total Domestic Mid Cap Equity	-	\$10,683,287	5.4%	--	--
TimesSquare Capital Management	0.80% of First 50.0 Mil, 0.70% of Next 50.0 Mil, 0.60% Thereafter	\$10,683,287	5.4%	\$85,466	0.80%
Total Domestic Small Cap Equity	-	\$9,120,665	4.6%	--	--
Eaton Vance Small Cap Collective Investment Trust Fund	0.55% of Assets	\$9,120,665	4.6%	\$50,164	0.55%
Total International Large Cap Equity	-	\$9,903,666	5.0%	--	--
Hardman Johnston International Equity Group Trust	0.75% of First 25.0 Mil, 0.60% of Next 75.0 Mil, 0.50% Thereafter	\$5,385,666	2.7%	\$40,392	0.75%
Barrow Hanley Non-US Value CIT - Founders Class	0.53% of Assets	\$4,518,000	2.3%	\$23,945	0.53%
Total International Small Cap Equity	-	\$10,659,488	5.4%	--	--
Victory Trivalent International Small-Cap Collective Fund	0.85% of Assets	\$10,659,488	5.4%	\$90,606	0.85%
Total Investment Grade Fixed Income	-	\$16,216,498	8.2%	--	--
*Wedge Capital Management	0.33% of Assets	\$16,216,498	8.2%	\$52,704	0.33%
Total Short Duration High Yield Fixed Income	-	\$21,427,466	10.9%	--	--
Chartwell Investment Partners SDHY	0.50% of Assets	\$21,427,466	10.9%	\$107,137	0.50%
Total Mortgages	-	\$10,272,757	5.2%	--	--
Ullico - J for Jobs	0.55% of First 90.0 Mil, 0.50% Thereafter	\$4,855,723	2.5%	\$26,706	0.55%
Washington Capital JMT Mortgage Income Fund	0.50% of Assets	\$5,417,035	2.8%	\$27,085	0.50%

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Account	Fee Schedule	Market Value As of 6/30/2024	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Total Opportunistic High Yield Fixed Income	-	\$20,504,091	10.4%	--	--
Grosvenor Opportunistic Credit Fund III, Ltd	0.80% of Assets	\$94,610	0.0%	\$757	0.80%
Grosvenor Opportunistic Credit Fund IV, Ltd	0.80% of Assets	\$231,431	0.1%	\$1,851	0.80%
GCM Grosvenor Opportunistic Credit Fund, Ltd	0.80% of Assets	\$10,366,297	5.3%	\$82,930	0.80%
Corbin ERISA Opportunity Fund, LP - Class C Shares	0.85% of Assets	\$9,811,753	5.0%	\$83,400	0.85%
Total Real Estate - Core	-	\$17,335,256	8.8%	--	--
Principal U.S. Property Account	1.10% of Assets	\$6,318,361	3.2%	\$69,502	1.10%
Boyd Watterson GSA Fund, LP	1.25% of First 25.0 Mil, 1.15% of Next 75.0 Mil, 1.05% Thereafter	\$5,903,728	3.0%	\$73,797	1.25%
Multi-Employer Property Trust	0.87% of Assets	\$5,113,168	2.6%	\$44,485	0.87%
Total Real Estate - Value Add	-	\$17,129,842	8.7%	--	--
Boyd Watterson State Government Fund, LP	1.25% of First 25.0 Mil, 1.15% of Next 75.0 Mil, 1.05% Thereafter	\$17,129,842	8.7%	\$214,123	1.25%
Total Private Equity	-	\$11,731,511	6.0%	--	--
*GCM Grosvenor Secondary Opportunities Feeder Fund II, LP	17,213 Quarterly	\$7,473,845	3.8%	\$68,852	0.92%
*GCM Grosvenor Secondary Opportunities Feeder Fund III, LP	14,875 Quarterly	\$4,257,666	2.2%	\$59,500	1.40%
Total Infrastructure - Value Add	-	\$3,371,578	1.7%	--	--
*WaCap - SP Infrastructure Fund IV Feeder	18,750 Quarterly	\$3,371,578	1.7%	\$75,000	2.22%

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Account	Fee Schedule	Market Value As of 6/30/2024	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Total Cash Equivalents	-	\$919,056	0.5%	--	--
Cash Account	-	\$613,214	0.3%	--	--
Cash in Transit - Boyd Watterson GSA Fund, LP Distribution Proceeds	-	\$84,580	0.0%	--	--
Cash in Transit - Boyd Watterson State Government Fund, LP Distribution Proceeds	-	\$221,262	0.1%	--	--
Investment Management Fee		\$196,674,112	100.0%	\$1,375,187	0.70%

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

* The estimated annual fee (%) shown in the above table is calculated based on the investment market value. For investments in which the fee is based on committed capital, the estimated annual fee (%) shown may not be representative of the actual annual fee (%).

**Fee schedule represents the effective rate from the aggregation of assets of related Funds.

Operating Engineers Local No. 77 Pension Plan

Master Consulting Services Report as of June 30, 2024

Benchmark History

Total Fund		
10/1/2023	Present	Russell 1000 15% / Russell MidCap Growth 5% / Russell 2000 5% / MSCI EAFE 5% / S&P Developed Ex-U.S. Small Cap (Net) 5% / Bloomberg US Govt/Credit Int TR 10% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 12.5% / Bloomberg US Aggregate TR 5% / NCREIF ODCE Equal Weighted Net 20% / HFRI Credit Index 10% / Russell 2000 5% / CPI + 400 Basis Points 2.5%
10/1/2021	9/30/2023	Russell 1000 20% / Russell 2000 5% / Russell MidCap Growth 5% / MSCI EAFE 7.5% / Bloomberg US Govt/Credit Int TR 5% / Bloomberg US Aggregate TR 5% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 5% / NCREIF ODCE Equal Weighted Net 20% / HFRI Fund of Funds Composite Index 2.5% / 65% MSCI World Index/35% FTSE WGBI 2.5% / Russell 2000 5% / S&P Developed Ex-U.S. SmallCap 5% / HFRI Credit Index 10% / CPI + 400 Basis Points 2.5%
11/1/2019	9/30/2021	Russell 1000 Value 10% / Russell 1000 Growth 10% / Russell 2000 5% / Russell MidCap Growth 5% / MSCI EAFE 5% / Bloomberg US Govt/Credit Int TR 5% / Bloomberg US Aggregate TR 5% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 5% / NCREIF ODCE Equal Weighted Net 17.5% / HFRI Fund of Funds Composite Index 5% / 65% MSCI World Index/35% FTSE WGBI 7.5% / Russell 2000 5% / S&P Developed Ex-U.S. SmallCap 5% / HFRI Credit Index 10%
2/2/2018	10/31/2019	Russell 1000 Value 10% / Russell 1000 Growth 10% / Russell 2000 Value 5% / Russell MidCap Growth 5% / MSCI EAFE 5% / Bloomberg US Govt/Credit Int TR 7.5% / Bloomberg US Aggregate TR 5% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 5% / NCREIF ODCE Equal Weighted Net 17.5% / HFRI Fund of Funds Composite Index 5% / 65% MSCI World Index/35% FTSE WGBI 10% / HFRI Credit Index 5% / Russell 2000 Value 5% / S&P Developed Ex-U.S. SmallCap 5%
1/1/2017	2/1/2018	Russell 1000 Value 25% / Russell 2000 Value 5% / Russell MidCap Growth 7.5% / MSCI EAFE 5% / Bloomberg US Govt/Credit Int TR 7.5% / Bloomberg US Aggregate TR 5% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 5% / NCREIF ODCE Equal Weighted Net 20% / HFRI Fund of Funds Composite Index 5% / 65% MSCI World Index/35% FTSE WGBI 10% / HFRI Credit Index 5%
2/1/2015	12/31/2016	MSCI EAFE 5% / HFRI Fund of Funds Composite Index 10% / Russell 1000 Value 25% / Russell 2000 Value 5% / Russell MidCap Growth 7.5% / 65% MSCI World Index/35% FTSE WGBI 10% / Bloomberg US Govt/Credit Int TR 7.5% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 5% / NCREIF ODCE Equal Weighted Net 20% / Bloomberg US Aggregate TR 5%
6/1/2013	1/31/2015	MSCI EAFE 7.5% / HFRI Fund of Funds Composite Index 10% / Russell 1000 Value 12.5% / Russell 2000 Value 7.5% / Russell MidCap Growth 7.5% / Russell 1000 Growth 12.5% / 65% MSCI World Index/35% FTSE WGBI 10% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 5% / Bloomberg US Govt/Credit Int TR 5% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 5% / NCREIF ODCE Equal Weighted Net 17.5%
1/1/2013	5/31/2013	MSCI EAFE 7.5% / Bloomberg US Aggregate TR 5% / Bloomberg US Aggregate TR 5% / HFRI Fund of Funds Composite Index 10% / Russell 1000 Value 12.5% / Russell 2000 Value 7.5% / Russell MidCap Growth 7.5% / Russell 1000 Growth 12.5% / 65% MSCI World Index/35% FTSE WGBI 10% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 5% / NCREIF ODCE Equal Weighted Net 17.5%
7/1/2012	12/31/2012	MSCI EAFE 7.5% / Bloomberg US Aggregate TR 5% / Bloomberg US Aggregate TR 5% / HFRI Fund of Funds Composite Index 15% / Russell 1000 Value 12.5% / Russell 2000 Value 7.5% / Russell MidCap Growth 7.5% / Russell 1000 Growth 12.5% / 65% MSCI World Index/35% FTSE WGBI 10% / NCREIF ODCE Equal Weighted Net 17.5%
1/1/2011	6/30/2012	MSCI EAFE 10% / Bloomberg US Aggregate TR 5% / Bloomberg US Aggregate TR 5% / HFRI Fund of Funds Composite Index 15% / Russell 1000 Value 12.5% / Russell 2000 Value 7.5% / Russell MidCap Growth 7.5% / Russell 1000 Growth 12.5% / 65% MSCI World Index/35% FTSE WGBI 10% / NCREIF ODCE Equal Weighted Net 15%
4/1/2010	12/31/2010	MSCI EAFE 15% / Bloomberg US Aggregate TR 5% / Bloomberg US Aggregate TR 5% / HFRI Fund of Funds Composite Index 15% / Russell 1000 Value 12.5% / Russell 2000 Value 10% / Russell MidCap Growth 10% / Russell 1000 Growth 12.5% / NCREIF ODCE Equal Weighted Net 15%
1/1/2009	3/31/2010	S&P 500 34% / MSCI EAFE 11% / Bloomberg US Aggregate TR 25% / HFRI Fund of Funds Composite Index 10% / NCREIF ODCE Equal Weighted Net 20%
4/1/2007	12/31/2008	S&P 500 34% / MSCI EAFE 11% / Bloomberg US Aggregate TR 25% / HFRI Fund of Funds Composite Index 10% / NCREIF ODCE Equal Weighted Net 20%
10/1/2005	3/31/2007	Bloomberg US Aggregate TR 30% / MSCI EAFE 12% / S&P 500 38% / NCREIF ODCE Equal Weighted Net 20%
10/1/2004	9/30/2005	S&P 500 38% / MSCI EAFE 12% / Bloomberg US Aggregate TR 30% / NCREIF ODCE Equal Weighted Net 20%
10/1/2002	9/30/2004	S&P 500 55% / MSCI EAFE 10% / Bloomberg US Aggregate TR 25% / NCREIF ODCE Equal Weighted Net 10%
7/1/2001	9/30/2002	S&P 500 55% / Bloomberg US Govt/Credit TR 25% / MSCI EAFE 10% / NCREIF ODCE Equal Weighted Net 10%
4/1/1997	6/30/2001	Bloomberg US Govt/Credit TR 35% / MSCI EAFE 10% / S&P 500 55%
1/1/1990	3/31/1997	Bloomberg US Govt/Credit TR 6000% / S&P 500 40%
4/1/1988	12/31/1989	/ S&P 500 55% Bloomberg US Govt/Credit TR 45%

Benchmark History

Wedge Capital Management

6/1/2013	Present	Bloomberg US Govt/Credit Int TR 100%
1/1/2003	5/31/2013	Bloomberg US Aggregate TR 100%

Index Disclosures

- Bloomberg US Govt/Credit Int TR - Index is listed for illustrative purposes.
- HFRI Credit Index - Index is listed for illustrative purposes.
- Long-Term Target Return of 8% - Index is listed for illustrative purposes.
- Long-Term Income Objective 8% -The manager's stated objective of an 8% net income return is listed for illustrative purposes.
- Long-Term Income Objective 9% -The manager's stated objective of an 9% net income return is listed for illustrative purposes.
- MSCI ACWI ex USA Growth - Index is listed for illustrative purposes.
- The NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE) is a non-investable, time-weighted index comprised of the time weighted returns of approximately 40 open-end commingled funds pursuing a core private real estate investment strategy. The constituent funds qualify for inclusion in the NFI-ODCE based on specific criteria regarding their percentage of net assets invested in private equity real estate, geography, property type, life cycle, diversification and use of leverage. Constituent funds must also comply with the NCREIF PREA Reporting Standards, including annual audits, quarterly valuations and time-weighted returns. The NFI-ODCE returns are mainly driven by the underlying property investments in the constituent funds but can also be impacted by each funds use of leverage, cash balances, fund costs, etc. Returns shown are for the NFI-ODCE Equal Weight Index (fund constituents are equally-weighted), net of fees.
- Total Fund Benchmark History - During 4Q 2018, the real estate benchmark was changed from NCREIF ODCE Equal Weighted Index to NCREIF ODCE Equal Weighted Net Index for all historical time periods since inception.
- Total Fund Benchmark History - As of November 1, 2019, the Total Fund Benchmark domestic small cap equity weighting was changed from the Russell 2000 Value Index to the Russell 2000 Index to more accurately represent the underlying investment in the asset class.
- Total Fund Benchmark History - During 4Q 2019, the opportunistic benchmark was changed from HFRI Event Driven Index to HFRI Credit Index for all historical time periods since inception.

- Total Fund Benchmark History - During 4Q 2021, the real estate - value add benchmark was changed from NCREIF ODCE Equal Weighted Net Index to Long-Term Income Objective 9% for all historical time periods since inception.
- 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.
- Hedge Fund of Funds - Multi Strategy returns are based on the manager provided estimated value.
- Grosvenor OCF III, OCF IV and OCF V – the net of fee returns include the accrual of the incentive fee. The difference between the gross and net returns may vary widely due to this accounting. The information reported by IPS is provided by the manager and subject to change.
- Net of fees calculations began 3Q 2001 and cannot be calculated for prior time periods.
- Total asset class inception returns may not be available if the performance history begins prior to December 2007.

- The following composite returns prior to 1Q 2010 do not include cash in the returns:
 - Total Fund Domestic Equity
 - Total Fund International Equity
 - Total Domestic Fixed Investment Grade
 - Total Fund Mortgage
 - Total Fund Real Estate
 - Total Fund Hedge Fund of Funds
- Prior to the 4Q 2011 report, Principal's returns were reported net of fees.
- Prior to the 4Q 2011 report, Multi-Employer Property Trust's returns were reported net of fees.
- 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. For real estate, where Boyd Waterson GSA (core real estate) and/or Boyd Waterson State (value add real estate) are the lone real estate investments, the annualized income objective of the respective Boyd Watterson fund (8% for GSA; 9% for State) was previously used as the market index to represent the real estate asset class. For example, if a fund has a 10% Policy for core real estate and Boyd Waterson GSA is the lone core real estate investment, 10% of the Total Fund benchmark was an 8% annualized income objective.
- The dramatic rise in interest rates in 2021 and 2022 made the annualized income objectives for the Boyd Waterson funds an unrealistic baseline for near-term and intermediate-term real estate return expectations. Therefore, the real estate component of the Total Fund benchmark is changed to the NCREIF ODCE Equal Weight Net Index for all real estate allocations, regardless of the specific real estate manager(s). The change has been applied to all historical time periods. We believe this change better represents the opportunity set for the real estate asset class.

- The following managers are valued as of March 31, 2024, plus or minus any flows:
 - GCM Grosvenor Secondary Opportunities Feeder Fund II, LP
 - GCM Grosvenor Secondary Opportunities Feeder Fund III, LP
 - WaCap - SP Infrastructure Fund IV Feeder
- The following managers' values are preliminary and are subject to change:
 - Corbin ERISA Opportunity Fund, LP - Class C Shares
 - Grosvenor Opportunistic Credit Fund III, Ltd
 - Grosvenor Opportunistic Credit Fund IV, Ltd
 - GCM Grosvenor Opportunistic Credit Fund, Ltd



Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report

Period Ended

June 30, 2024

Total Fund Growth of Assets

	Second Quarter Fiscal Year-To-Date		One Year	Three Years
Beginning Market Value	\$37,722,962	\$36,452,729	\$34,977,953	\$37,410,870
Net Cash Flow	-\$297,798	\$319,340	\$748,974	-\$2,123,713
Net Investment Change	\$469,114	\$1,122,209	\$2,167,351	\$2,607,121
Ending Market Value	\$37,894,278	\$37,894,278	\$37,894,278	\$37,894,278

Total Fund Growth of Assets

	Five Years	Seven Years	Ten Years
Beginning Market Value	\$37,220,146	\$38,726,768	\$31,746,054
Net Cash Flow	-\$6,672,524	-\$11,976,463	-\$10,039,757
Net Investment Change	\$7,346,655	\$11,143,973	\$16,187,982
Ending Market Value	\$37,894,278	\$37,894,278	\$37,894,278

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

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Performance Summary (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024			
			2024 Q2	Fiscal YTD	1 Yr	3 Yrs
Total Fund	\$37,894,278	100.0%	1.3%	3.1%	6.1%	2.5%
Total Domestic Large Cap Equity	\$5,423,834	14.3%	4.1%	17.9%	29.1%	9.6%
Total Investment Grade Fixed Income	\$13,160,168	34.7%	0.6%	0.7%	4.3%	-0.9%
Total Short Duration High Yield Fixed Income	\$12,539,807	33.1%	1.5%	2.9%	8.1%	3.1%
Total Real Estate - Core	\$2,892,660	7.6%	-0.2%	-2.4%	-10.3%	2.2%
Total Real Estate - Value Add	\$3,039,224	8.0%	-0.5%	-3.0%	-4.9%	--
Total Cash Equivalents	\$838,585	2.2%				

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Performance Summary (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024		
			5 Yrs	7 Yrs	10 Yrs
Total Fund	\$37,894,278	100.0%	4.2%	4.6%	4.7%
Total Domestic Large Cap Equity	\$5,423,834	14.3%	13.1%	12.1%	11.0%
Total Investment Grade Fixed Income	\$13,160,168	34.7%	1.2%	1.8%	2.0%
Total Short Duration High Yield Fixed Income	\$12,539,807	33.1%	3.7%	3.8%	3.6%
Total Real Estate - Core	\$2,892,660	7.6%	3.4%	4.7%	6.4%
Total Real Estate - Value Add	\$3,039,224	8.0%	--	--	--
Total Cash Equivalents	\$838,585	2.2%			

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Performance Summary (Gross of Fees)

	Fiscal Year Ending December 31st						
	Fiscal YTD	2023	2022	2021	2020	2019	2018
Total Fund	3.1%	6.3%	-5.1%	8.9%	5.5%	9.7%	1.0%
<i>Total Fund Benchmark</i>	<i>1.9%</i>	<i>4.8%</i>	<i>-5.1%</i>	<i>8.6%</i>	<i>4.9%</i>	<i>9.9%</i>	<i>1.0%</i>

	Fiscal Year Ending December 31st				
	2017	2016	2015	2014	2013
Total Fund	6.8%	6.5%	3.3%	6.1%	9.2%
<i>Total Fund Benchmark</i>	<i>5.2%</i>	<i>7.5%</i>	<i>3.0%</i>	<i>5.9%</i>	<i>8.3%</i>

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Performance Summary (Net of Fees)

	Fiscal Year Ending December 31st						
	Fiscal YTD	2023	2022	2021	2020	2019	2018
Total Fund	2.8%	5.7%	-5.6%	8.4%	4.9%	9.1%	0.4%
<i>Total Fund Benchmark</i>	<i>1.9%</i>	<i>4.8%</i>	<i>-5.1%</i>	<i>8.6%</i>	<i>4.9%</i>	<i>9.9%</i>	<i>1.0%</i>

	Fiscal Year Ending December 31st				
	2017	2016	2015	2014	2013
Total Fund	6.2%	5.9%	2.7%	5.5%	8.6%
<i>Total Fund Benchmark</i>	<i>5.2%</i>	<i>7.5%</i>	<i>3.0%</i>	<i>5.9%</i>	<i>8.3%</i>

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Current vs. Policy						
	Current	Current	Policy	Policy Range	Difference	Difference
Domestic Large Cap Equity	\$5,423,834	14.3%	10.0%	5.0% - 15.0%	4.3%	\$1,634,406
Investment Grade Fixed Income	\$13,160,168	34.7%	35.0%	30.0% - 40.0%	-0.3%	-\$102,829
Short Duration High Yield Fixed Income	\$12,539,807	33.1%	35.0%	30.0% - 40.0%	-1.9%	-\$723,190
Real Estate - Core	\$2,892,660	7.6%	10.0%	5.0% - 15.0%	-2.4%	-\$896,768
Real Estate - Value Add	\$3,039,224	8.0%	10.0%	5.0% - 15.0%	-2.0%	-\$750,204
Cash Equivalents	\$838,585	2.2%	0.0%	0.0% - 0.0%	2.2%	\$838,585
Total	\$37,894,278	100.0%	100.0%			

- Policy adopted February 2023; effective April 2023.
- Cash equivalents allocation includes:
 - \$22K in partial-redemption-proceeds from real estate - core (ARA Core Property Fund, LP); received on July 3, 2024.
 - \$21K in income-distribution-proceeds from real estate - core (ARA Core Property Fund, LP); received on July 26, 2024.
 - \$39K in income-distribution-proceeds from real estate - value add (Boyd Watterson State Government Fund, LP); received in July 2024.

Operating Engineers Local No. 77 Trust Fund of Washington DC – Asset Allocation

- Asset allocation reviews were provided on the following dates: February 9, 2021, February 8, 2022, February 14, 2023, and February 13, 2024.
- At the meeting on November 8, 2022, the following recommendations were approved: submit a \$600K partial redemption from ARA Core Property Fund, LP (real estate – core), effective December 31, 2022, and a \$600K partial redemption from Boyd Watterson State Government Fund, LP (real estate - value add) effective March 31, 2023. Utilize proceeds rebalancing and cash needs, pending availability in withdrawal queue (ARA Core Property Fund, LP). Status: Boyd Watterson State Government Fund, LP: Completed March 2023. ARA Core Property Fund, LP: in process.
- At the meeting on February 14, 2023, the Trustees adopted Policy: 10.0% domestic large cap equity (-5.0%), 35.0% investment grade fixed income, 35.0% short duration high yield fixed income (+5.0%), 10.0% real estate - core, 10.0% real estate - value add. To rebalance closer to the Policy, the Trustees approved: transfer \$500K from Vanguard Growth Index Fund Admiral Shares (domestic large cap equity) and \$500K from Wedge Capital Management – QVM (domestic large cap equity) to Chartwell Investment Partners (short duration high yield fixed income). Status: Completed April 2023.
- At the meeting on August 8, 2023, the following recommendation was approved: Rebalance closer to Policy by transferring available cash to Wedge Capital Management (investment grade fixed income allocation); however, administration noted cash was needed for claims and cash needs. Status: No rebalancing occurred.
- At the meeting on November 14, 2023, the following recommendation was approved: Rebalance closer to Policy by transferring \$2.0M of cash to Wedge Capital Management (investment grade fixed income allocation); however, administration noted cash was needed for claims and cash needs. Status: No rebalancing occurred.

Recommendations: Rebalance closer to Policy by transferring \$750k from Vanguard Growth Index Fund (domestic large cap equity) to Chartwell Investment Partners (short duration high yield).

Real Estate - Core Redemption (In Millions) as of June 30, 2024						
Manager	Redemption Type	Effective Date	Withdrawal Queue	Requested \$	Received \$	Remaining \$
ARA Core Property Fund, LP	Partial	Dec-22	Sep-22	\$0.60	\$0.19	\$0.41
Total				\$0.60	\$0.19	\$0.41

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Commitment and Funding of Real Estate - Core (In Millions) as of June 30, 2024

Investments		Commitments			Contributions & Distributions		Valuations		Performance	
Account Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Cumulative Distributions	Valuation	Total Value	DPI	TVPI
ARA Core Property Fund, LP	2007	\$5.2	\$0.0	1.0	\$5.2	\$7.2	\$2.9	\$10.1	1.4	1.9
Total		\$5.2	\$0.0	1.0	\$5.2	\$7.2	\$2.9	\$10.1	1.4	1.9

Commitment and Funding of Real Estate - Value Add (In Millions) as of June 30, 2024

Investments		Commitments			Contributions & Distributions		Valuations		Performance	
Account Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Cumulative Distributions	Valuation	Total Value	DPI	TVPI
Boyd Watterson State Government Fund, LP	2021	\$3.8	\$0.0	1.0	\$3.8	\$0.8	\$3.1	\$3.9	0.2	1.0
Total		\$3.8	\$0.0	1.0	\$3.8	\$0.8	\$3.1	\$3.9	0.2	1.0

- Performance data included in the table above may differ from performance data provided by the investment manager due to the availability and timing of data used in the calculations.

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024				
			2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs
Total Fund	\$37,894,278	100.0%	1.2%	2.8%	5.6%	2.0%	3.7%
Total Domestic Large Cap Equity	\$5,423,834	14.3%	4.0%	17.7%	28.8%	9.3%	12.7%
Vanguard Growth Index Fund Admiral Shares	\$2,863,833	7.6%	8.7%	20.5%	32.8%	9.9%	--
CRSP US Large Cap Growth TR USD			8.7%	20.5%	32.8%	9.9%	--
Wedge Capital Management - QVM	\$2,560,001	6.8%	-0.7%	14.7%	24.5%	8.8%	11.7%
Russell 1000 Value			-2.2%	6.6%	13.1%	5.5%	9.0%
Total Investment Grade Fixed Income	\$13,160,168	34.7%	0.5%	0.6%	3.9%	-1.2%	0.8%
Wedge Capital Management	\$13,160,168	34.7%	0.5%	0.6%	3.9%	-1.2%	0.8%
Bloomberg US Govt/Credit Int TR			0.6%	0.5%	4.2%	-1.2%	0.7%
Total Short Duration High Yield Fixed Income	\$12,539,807	33.1%	1.4%	2.6%	7.5%	2.6%	3.2%
Chartwell Investment Partners SDHY	\$12,539,807	33.1%	1.4%	2.6%	7.5%	2.6%	3.2%
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR			1.4%	2.8%	8.1%	3.1%	4.0%
Bloomberg US Govt/Credit Int TR			0.6%	0.5%	4.2%	-1.2%	0.7%

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

			Ending June 30, 2024				
	Market Value	% of Portfolio	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs
Total Real Estate - Core	\$2,892,660	7.6%	-0.5%	-2.9%	-11.3%	1.0%	2.3%
ARA Core Property Fund, LP	\$2,892,660	7.6%	-0.5%	-2.9%	-11.3%	1.0%	2.3%
<i>NCREIF ODCE Equal Weighted Net</i>			-0.8%	-3.2%	-10.3%	1.2%	2.6%
Total Real Estate - Value Add	\$3,039,224	8.0%	-0.8%	-3.6%	-6.1%	--	--
Boyd Watterson State Government Fund, LP	\$3,039,224	8.0%	-0.8%	-3.6%	-6.1%	--	--
<i>NCREIF ODCE Equal Weighted Net</i>			-0.8%	-3.2%	-10.3%	--	--
<i>Long-Term Income Objective 9%</i>			2.2%	4.4%	9.0%	--	--
Total Cash Equivalents	\$838,585	2.2%					
Cash Account	\$756,233	2.0%					
Cash in Transit - ARA Core Property Fund, LP							
Redemption Proceeds	\$21,698	0.1%					
Cash in Transit - ARA Core Property Fund, LP							
Distribution Proceeds	\$21,396	0.1%					
Cash in Transit - Boyd Watterson State Government Fund, LP							
Distribution Proceeds	\$39,257	0.1%					

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024			
			7 Yrs	10 Yrs	Inception	Inception Date
Total Fund	\$37,894,278	100.0%	4.0%	4.2%	4.6%	Oct-97
Total Domestic Large Cap Equity	\$5,423,834	14.3%	11.7%	10.5%	6.2%	Apr-99
Vanguard Growth Index Fund Admiral Shares	\$2,863,833	7.6%	--	--	12.9%	Mar-21
CRSP US Large Cap Growth TR USD			--	--	12.9%	Mar-21
Wedge Capital Management - QVM	\$2,560,001	6.8%	11.0%	10.0%	12.3%	Dec-12
Russell 1000 Value			8.6%	8.2%	10.7%	Dec-12
Total Investment Grade Fixed Income	\$13,160,168	34.7%	1.5%	1.6%	3.7%	Jan-99
Wedge Capital Management	\$13,160,168	34.7%	1.5%	1.6%	3.2%	Jan-03
Bloomberg US Govt/Credit Int TR			1.4%	1.5%	2.9%	Jan-03
Total Short Duration High Yield Fixed Income	\$12,539,807	33.1%	3.3%	3.1%	3.3%	Sep-12
Chartwell Investment Partners SDHY	\$12,539,807	33.1%	3.3%	3.1%	3.3%	Sep-12
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR			4.0%	4.0%	4.3%	Sep-12
Bloomberg US Govt/Credit Int TR			1.4%	1.5%	1.5%	Sep-12

Operating Engineers Local No. 77 Trust Fund of Washington DC

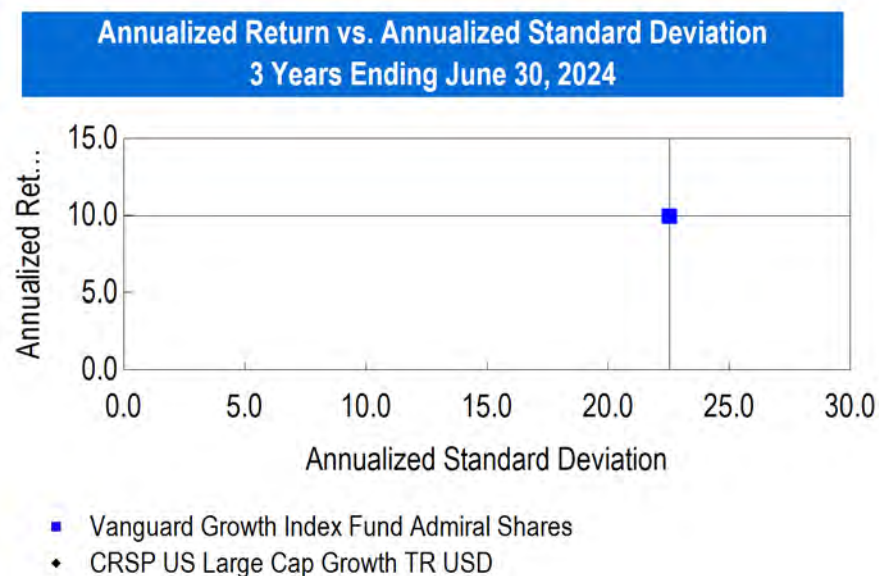
Master Consulting Services Report as of June 30, 2024

Performance Detail (Net of Fees) - Annualized

			Ending June 30, 2024			
	Market Value	% of Portfolio	7 Yrs	10 Yrs	Inception	Inception Date
Total Real Estate - Core	\$2,892,660	7.6%	3.5%	5.3%	3.9%	Apr-07
ARA Core Property Fund, LP	\$2,892,660	7.6%	3.5%	5.3%	3.9%	Apr-07
<i>NCREIF ODCE Equal Weighted Net</i>			3.8%	5.8%	4.2%	Apr-07
Total Real Estate - Value Add	\$3,039,224	8.0%	--	--	0.5%	Oct-21
Boyd Watterson State Government Fund, LP	\$3,039,224	8.0%	--	--	0.5%	Oct-21
<i>NCREIF ODCE Equal Weighted Net</i>			--	--	-1.1%	Oct-21
<i>Long-Term Income Objective 9%</i>			--	--	9.0%	Oct-21
Total Cash Equivalents	\$838,585	2.2%				
Cash Account	\$756,233	2.0%				
Cash in Transit - ARA Core Property Fund, LP						
Redemption Proceeds	\$21,698	0.1%				
Cash in Transit - ARA Core Property Fund, LP						
Distribution Proceeds	\$21,396	0.1%				
Cash in Transit - Boyd Watterson State Government Fund, LP						
Distribution Proceeds	\$39,257	0.1%				

Account Information	
Account Name	Vanguard Growth Index Fund Admiral Shares
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	3/31/21
Account Type	Domestic Large Cap Growth Equity
Benchmark	CRSP US Large Cap Growth TR USD
Universe	Large Growth MStar MF

Vanguard Growth Index Fund Admiral Shares		
Ending June 30, 2024		
	Second Quarter	Inception 3/31/21
Beginning Market Value	\$2,635,561	\$0
Net Cash Flow	\$0	\$1,825,000
Net Investment Change	\$228,272	\$1,038,833
Ending Market Value	\$2,863,833	\$2,863,833



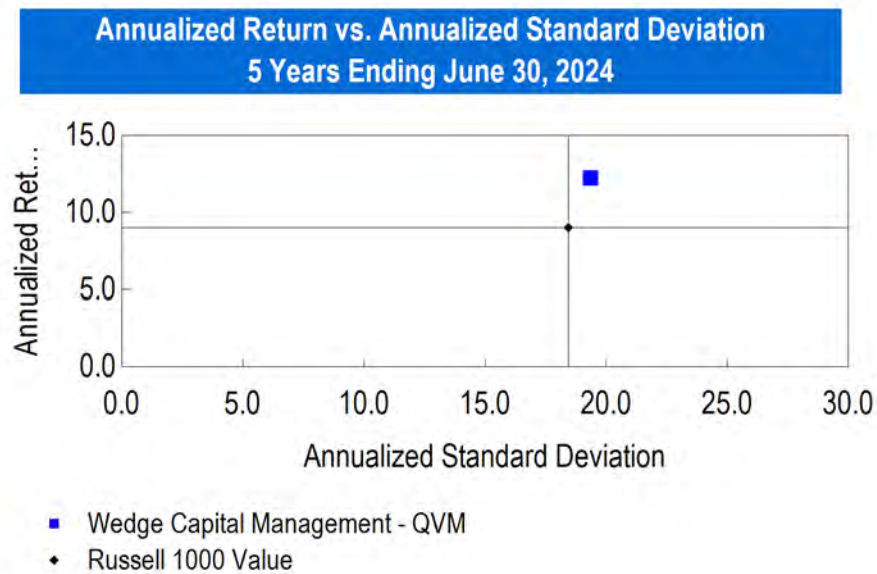
3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Growth Index Fund Admiral Shares	10.0%	22.5%	100.0%	100.0%
CRSP US Large Cap Growth TR USD	9.9%	22.5%	100.0%	100.0%

											Calendar Years										
	2024 Q2	Rank	Fiscal YTD	Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank				2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank	Inception	Inception Date				
Vanguard Growth Index Fund Admiral Shares	8.7%	13	20.5%	36	32.8%	38	9.9%	16	--	--	46.8%	15	-33.1%	69	--	--	--	--	12.9%	Mar-21	
CRSP US Large Cap Growth TR USD	8.7%	13	20.5%	36	32.8%	37	9.9%	15	--	--	46.9%	14	-33.1%	68	--	--	--	--	12.9%	Mar-21	

Note: Returns are net of fees.

Account Information	
Account Name	Wedge Capital Management - QVM
Account Structure	Separate Account
Investment Style	Active
Inception Date	12/01/12
Account Type	Domestic Large Cap Value Equity
Benchmark	Russell 1000 Value
Universe	eV US Large Cap Value Equity Gross

Wedge Capital Management - QVM		
Ending June 30, 2024		
	Second Quarter	Inception 12/1/12
Beginning Market Value	\$2,574,828	\$0
Net Cash Flow	\$0	-\$4,078,444
Net Investment Change	-\$14,827	\$6,638,445
Ending Market Value	\$2,560,001	\$2,560,001



3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wedge Capital Management - QVM	9.4%	17.9%	117.1%	98.2%
Russell 1000 Value	5.5%	16.6%	100.0%	100.0%

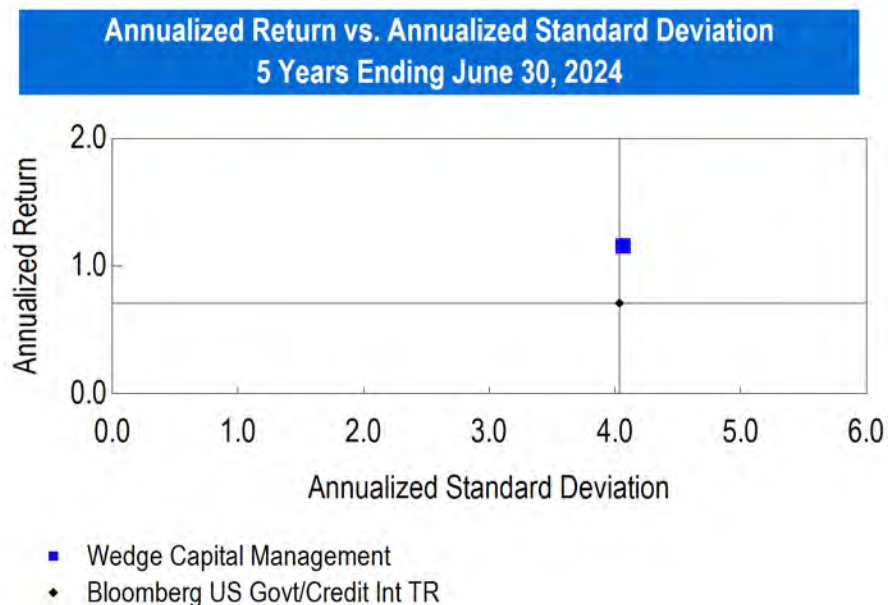
5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wedge Capital Management - QVM	12.2%	19.4%	112.4%	97.1%
Russell 1000 Value	9.0%	18.4%	100.0%	100.0%

											Calendar Years											
	2024 Q2	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	2023	Rank	2022	Rank	2021	Rank	2020	Rank	2019	Rank	Inception	Inception Date
Wedge Capital Management - QVM	-0.6%	36	15.0%	5	25.2%	7	9.4%	20	12.2%	30	17.5%	27	-12.2%	88	30.9%	19	6.5%	40	29.6%	25	12.9%	Dec-12
Russell 1000 Value	-2.2%	71	6.6%	64	13.1%	76	5.5%	80	9.0%	85	11.5%	62	-7.5%	69	25.2%	72	2.8%	62	26.5%	54	10.7%	Dec-12

Note: Returns are gross of fees.

Account Information	
Account Name	Wedge Capital Management
Account Structure	Separate Account
Investment Style	Active
Inception Date	1/01/03
Account Type	Investment Grade Fixed Income
Benchmark	Bloomberg US Govt/Credit Int TR
Universe	

Wedge Capital Management		
Ending June 30, 2024		
	Second Quarter	Inception 1/1/03
Beginning Market Value	\$11,572,040	\$3,769,223
Net Cash Flow	\$1,500,000	\$1,950,913
Net Investment Change	\$88,128	\$7,440,032
Ending Market Value	\$13,160,168	\$13,160,168



3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wedge Capital Management	-0.9%	4.8%	100.7%	97.0%
Bloomberg US Govt/Credit Int TR	-1.2%	4.8%	100.0%	100.0%

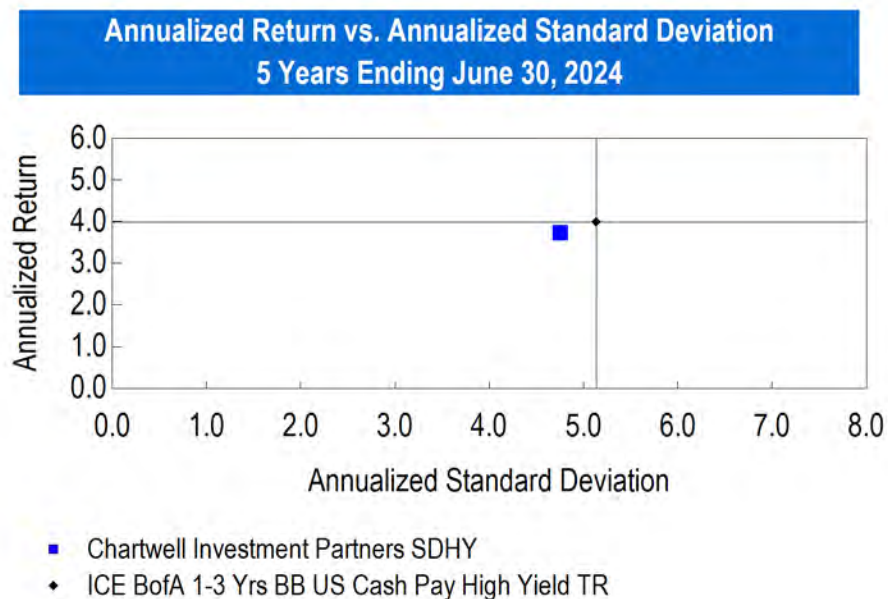
5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wedge Capital Management	1.2%	4.1%	102.9%	94.6%
Bloomberg US Govt/Credit Int TR	0.7%	4.0%	100.0%	100.0%

	Calendar Years											Inception Date
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Wedge Capital Management	0.6%	0.7%	4.3%	-0.9%	1.2%	5.6%	-7.9%	-1.1%	7.6%	6.9%	3.6%	Jan-03
Bloomberg US Govt/Credit Int TR	0.6%	0.5%	4.2%	-1.2%	0.7%	5.2%	-8.2%	-1.4%	6.4%	6.8%	2.9%	Jan-03

Note: Returns are gross of fees.

Account Information	
Account Name	Chartwell Investment Partners SDHY
Account Structure	Separate Account
Investment Style	Active
Inception Date	9/01/12
Account Type	Short Duration High Yield Fixed Income
Benchmark	ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR
Universe	

Chartwell Investment Partners SDHY		
Ending June 30, 2024		
	Second Quarter	Inception 9/1/12
Beginning Market Value	\$12,356,162	\$0
Net Cash Flow	\$0	\$7,884,627
Net Investment Change	\$183,645	\$4,655,181
Ending Market Value	\$12,539,807	\$12,539,807



3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Chartwell Investment Partners SDHY	3.1%	4.3%	100.4%	100.4%
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR	3.1%	4.1%	100.0%	100.0%

5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Chartwell Investment Partners SDHY	3.7%	4.8%	91.7%	93.1%
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR	4.0%	5.1%	100.0%	100.0%

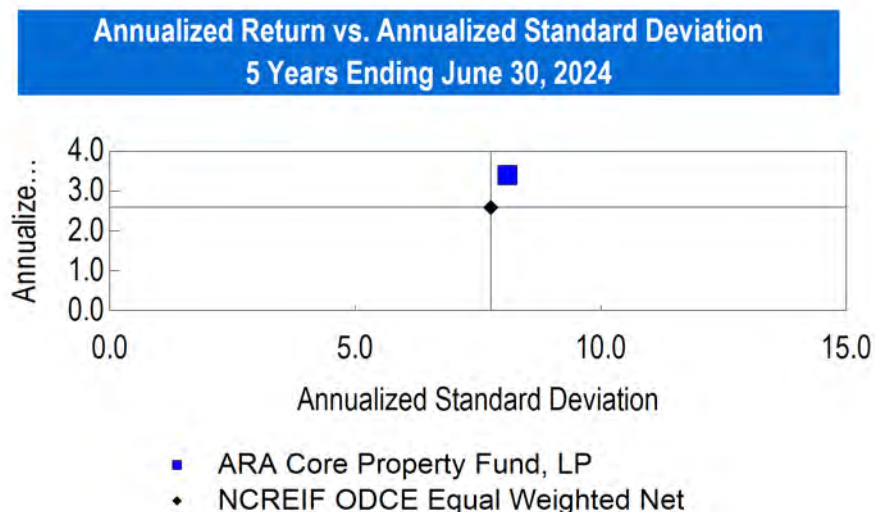
	Calendar Years										Inception	Inception Date
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019		
Chartwell Investment Partners SDHY	1.5%	2.9%	8.1%	3.1%	3.7%	8.2%	-2.5%	3.0%	5.0%	7.9%	3.8%	Sep-12
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR	1.4%	2.8%	8.1%	3.1%	4.0%	8.8%	-3.1%	3.2%	5.4%	8.7%	4.3%	Sep-12
Bloomberg US Govt/Credit Int TR	0.6%	0.5%	4.2%	-1.2%	0.7%	5.2%	-8.2%	-1.4%	6.4%	6.8%	1.5%	Sep-12

Note: Returns are gross of fees.

Account Information	
Account Name	ARA Core Property Fund, LP
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	4/01/07
Account Type	Real Estate - Core
Benchmark	NCREIF ODCE Equal Weighted Net
Universe	

ARA Core Property Fund, LP		
Ending June 30, 2024		
	Second Quarter	Inception 4/1/07
Beginning Market Value	\$2,949,203	\$0
Net Cash Flow	-\$43,095	-\$2,051,497
Net Investment Change	-\$13,448	\$4,944,157
Ending Market Value	\$2,892,660	\$2,892,660

Income is distributed.



3 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
ARA Core Property Fund, LP	2.2%	10.3%	109.9%	97.0%
NCREIF ODCE Equal Weighted Net	1.2%	9.8%	100.0%	100.0%

5 Years Ending June 30, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
ARA Core Property Fund, LP	3.4%	8.1%	109.8%	96.4%
NCREIF ODCE Equal Weighted Net	2.6%	7.8%	100.0%	100.0%

Calendar Years												
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
ARA Core Property Fund, LP	-0.2%	-2.4%	-10.3%	2.2%	3.4%	-13.1%	9.4%	21.9%	1.6%	6.3%	5.0%	Apr-07
NCREIF ODCE Equal Weighted Net	-0.8%	-3.2%	-10.3%	1.2%	2.6%	-13.3%	7.6%	21.9%	0.8%	5.2%	4.2%	Apr-07

Note: Returns are gross of fees.

Account Information		Boyd Watterson State Government Fund, LP		
Account Name	Boyd Watterson State Government Fund, LP	Ending June 30, 2024		
Account Structure	Commingled Fund	Second Quarter		Inception
Investment Style	Active			10/1/21
Inception Date	10/01/21	Beginning Market Value	\$3,104,409	\$0
Account Type	Real Estate - Value Add	Net Cash Flow	-\$39,257	\$2,943,301
Benchmark	NCREIF ODCE Equal Weighted Net	Net Investment Change	-\$25,928	\$95,923
Universe		Ending Market Value	\$3,039,224	\$3,039,224

Income is distributed.

	Calendar Years											Inception Date
	2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Boyd Watterson State Government Fund, LP	-0.5%	-3.0%	-4.9%	--	--	-1.2%	7.4%	--	--	--	1.8%	Oct-21
NCREIF ODCE Equal Weighted Net	-0.8%	-3.2%	-10.3%	--	--	-13.3%	7.6%	--	--	--	-1.1%	Oct-21
Long-Term Income Objective 9%	2.2%	4.4%	9.0%	--	--	9.0%	9.0%	--	--	--	9.0%	Oct-21

Note: Returns are gross of fees.

Investment Policy Statement

- The current investment policy statement was adopted and signed on May 14, 2024.

Custody Bank

- The current custodian is PNC Bank.
- Separate account market values and flows are derived from the custodial statement.

Commission Recapture Provider

- Cowen and Company, LLC.
- IPS evaluated the benefits of ongoing participation in a commission recapture program and suggests Funds continue to participate in them. To potentially enhance the manager's utilization of the commission recapture program, in November 2022, as a courtesy IPS provided draft notices for fund Administrator to consider sending to the investment managers.

Commingled Funds

- Commingled Fund: Due to the commingled fund structure, IPS does not monitor the holdings within the commingled fund for compliance with the client's investment policy statement. The commingled fund is governed by its own investment policy.
- Commingled fund market values and flows are derived from the manager statement.

Mutual Funds

- Mutual Fund: Due to the mutual fund structure, IPS does not monitor the holdings within the mutual fund for compliance with the client's investment policy statement. The mutual fund is governed by its own investment policy.
- Mutual fund market values and flows are derived from the manager statement.



Operating Engineers Local No. 77 Trust Fund of Washington DC

Appendix

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Performance Detail (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024						
			2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund	\$37,894,278	100.0%	1.3%	3.1%	6.1%	2.5%	4.2%	4.6%	4.7%
Total Domestic Large Cap Equity	\$5,423,834	14.3%	4.1%	17.9%	29.1%	9.6%	13.1%	12.1%	11.0%
Vanguard Growth Index Fund Admiral Shares	\$2,863,833	7.6%	8.7%	20.5%	32.8%	10.0%	--	--	--
CRSP US Large Cap Growth TR USD			8.7%	20.5%	32.8%	9.9%	--	--	--
Wedge Capital Management - QVM	\$2,560,001	6.8%	-0.6%	15.0%	25.2%	9.4%	12.2%	11.5%	10.5%
Russell 1000 Value			-2.2%	6.6%	13.1%	5.5%	9.0%	8.6%	8.2%
Total Investment Grade Fixed Income	\$13,160,168	34.7%	0.6%	0.7%	4.3%	-0.9%	1.2%	1.8%	2.0%
Wedge Capital Management	\$13,160,168	34.7%	0.6%	0.7%	4.3%	-0.9%	1.2%	1.8%	2.0%
Bloomberg US Govt/Credit Int TR			0.6%	0.5%	4.2%	-1.2%	0.7%	1.4%	1.5%
Total Short Duration High Yield Fixed Income	\$12,539,807	33.1%	1.5%	2.9%	8.1%	3.1%	3.7%	3.8%	3.6%
Chartwell Investment Partners SDHY	\$12,539,807	33.1%	1.5%	2.9%	8.1%	3.1%	3.7%	3.8%	3.6%
ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR			1.4%	2.8%	8.1%	3.1%	4.0%	4.0%	4.0%
Bloomberg US Govt/Credit Int TR			0.6%	0.5%	4.2%	-1.2%	0.7%	1.4%	1.5%

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Performance Detail (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending June 30, 2024						
			2024 Q2	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Real Estate - Core	\$2,892,660	7.6%	-0.2%	-2.4%	-10.3%	2.2%	3.4%	4.7%	6.4%
ARA Core Property Fund, LP	\$2,892,660	7.6%	-0.2%	-2.4%	-10.3%	2.2%	3.4%	4.7%	6.4%
NCREIF ODCE Equal Weighted Net			-0.8%	-3.2%	-10.3%	1.2%	2.6%	3.8%	5.8%
Total Real Estate - Value Add	\$3,039,224	8.0%	-0.5%	-3.0%	-4.9%	--	--	--	--
Boyd Watterson State Government Fund, LP	\$3,039,224	8.0%	-0.5%	-3.0%	-4.9%	--	--	--	--
NCREIF ODCE Equal Weighted Net			-0.8%	-3.2%	-10.3%	--	--	--	--
Long-Term Income Objective 9%			2.2%	4.4%	9.0%	--	--	--	--
Total Cash Equivalents	\$838,585	2.2%							
Cash Account	\$756,233	2.0%							
Cash in Transit - ARA Core Property Fund, LP Redemption Proceeds	\$21,698	0.1%							
Cash in Transit - ARA Core Property Fund, LP Distribution Proceeds	\$21,396	0.1%							
Cash in Transit - Boyd Watterson State Government Fund, LP Distribution Proceeds	\$39,257	0.1%							

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Account	Fee Schedule	Market Value As of 6/30/2024	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Total Domestic Large Cap Equity	-	\$5,423,834	14.3%	--	--
Vanguard Growth Index Fund Admiral Shares	0.05% of Assets	\$2,863,833	7.6%	\$1,432	0.05%
*Wedge Capital Management - QVM	0.50% of Assets	\$2,560,001	6.8%	\$12,800	0.50%
Total Investment Grade Fixed Income	-	\$13,160,168	34.7%	--	--
*Wedge Capital Management	0.33% of Assets	\$13,160,168	34.7%	\$42,771	0.33%
Total Short Duration High Yield Fixed Income	-	\$12,539,807	33.1%	--	--
Chartwell Investment Partners SDHY	0.50% of Assets	\$12,539,807	33.1%	\$62,699	0.50%
Total Real Estate - Core	-	\$2,892,660	7.6%	--	--
ARA Core Property Fund, LP	1.10% of Assets	\$2,892,660	7.6%	\$31,819	1.10%
Total Real Estate - Value Add	-	\$3,039,224	8.0%	--	--
Boyd Watterson State Government Fund, LP	1.25% of First 25.0 Mil, 1.15% of Next 75.0 Mil, 1.05% Thereafter	\$3,039,224	8.0%	\$37,990	1.25%
Total Cash Equivalents	-	\$838,585	2.2%	--	--
Cash Account	-	\$756,233	2.0%	--	--
Cash in Transit - ARA Core Property Fund, LP Redemption Proceeds	-	\$21,698	0.1%	--	--
Cash in Transit - ARA Core Property Fund, LP Distribution Proceeds	-	\$21,396	0.1%	--	--
Cash in Transit - Boyd Watterson State Government Fund, LP - Distribution Proceeds	-	\$39,257	0.1%	--	--
Investment Management Fee		\$37,894,278	100.0%	\$189,511	0.50%

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.

*Fee schedule represents the effective rate from the aggregation of assets of related Funds.

Operating Engineers Local No. 77 Trust Fund of Washington DC

Master Consulting Services Report as of June 30, 2024

Benchmark History

Total Fund		
4/1/2023	Present	Russell 1000 10% / Bloomberg US Govt/Credit Int TR 35% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 35% / NCREIF ODCE Equal Weighted Net 20%
10/1/2021	3/31/2023	Russell 1000 15% / Bloomberg US Govt/Credit Int TR 35% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 30% / NCREIF ODCE Equal Weighted Net 20%
12/1/2012	9/30/2021	Russell 1000 Value 15% / Bloomberg US Govt/Credit Int TR 35% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 30% / NCREIF ODCE Equal Weighted Net 20%
7/1/2012	11/30/2012	S&P 500 15% / Bloomberg US Govt/Credit Int TR 35% / ICE BofA 1-3 Yrs BB US Cash Pay High Yield TR 30% / NCREIF ODCE Equal Weighted Net 20%
7/1/2009	6/30/2012	S&P 500 20% / Bloomberg US Govt/Credit Int TR 65% / NCREIF ODCE Equal Weighted Net 15%
4/1/2007	6/30/2009	S&P 500 20% / Bloomberg US Govt/Credit Int TR 60% / NCREIF ODCE Equal Weighted Net 20%
4/1/1999	3/31/2007	S&P 500 20% / Bloomberg US Govt/Credit Int TR 80%
10/1/1997	3/31/1999	91 Day T-Bills 100%

Index Disclosures

- Bloomberg US Govt/Credit Int TR Index is listed for illustrative purposes.
- Long-Term Income Objective 9% - The manager's stated objective of a 9% net income return is listed for illustrative purposes.
- The NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE) is a non-investable, time-weighted index comprised of the time weighted returns of approximately 40 open-end commingled funds pursuing a core private real estate investment strategy. The constituent funds qualify for inclusion in the NFI-ODCE based on specific criteria regarding their percentage of net assets invested in private equity real estate, geography, property type, life cycle, diversification and use of leverage. Constituent funds must also comply with the NCREIF PREA Reporting Standards, including annual audits, quarterly valuations and time-weighted returns. The NFI-ODCE returns are mainly driven by the underlying property investments in the constituent funds but can also be impacted by each funds use of leverage, cash balances, fund costs, etc. Returns shown are for the NFI-ODCE Equal Weight Index (fund constituents are equally-weighted), net of fees.
- Total Fund Benchmark History - During 4Q 2018, the real estate benchmark was changed from NCREIF ODCE Equal Weighted Index to NCREIF ODCE Equal Weighted Net Index for all historical time periods since inception.
- 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. Real Estate Benchmark - During 4Q2018 the real estate benchmark was changed from NCREIF ODCE Equal Weighted Index to NCREIF ODCE Equal Weighted Net Index for all historical time periods since inception.

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 propriety and confidential information. You are hereby notified that any dissemination, distribution, or copying of this document is strictly prohibited.
- Net of fees calculations began 3Q 2001, and cannot be calculated for prior time periods.
- Starting 4Q 2021, mutual fund returns are calculated utilizing the net expense ratio. Prior to 4Q 2021, mutual fund returns were calculated utilizing the fund's management fee.

- 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. For real estate, where Boyd Waterson GSA (core real estate) and/or Boyd Waterson State (value add real estate) are the lone real estate investments, the annualized income objective of the respective Boyd Watterson fund (8% for GSA; 9% for State) was previously used as the market index to represent the real estate asset class. For example, if a fund has a 10% Policy for core real estate and Boyd Waterson GSA is the lone core real estate investment, 10% of the Total Fund benchmark was an 8% annualized income objective.
- The dramatic rise in interest rates in 2021 and 2022 made the annualized income objectives for the Boyd Waterson funds an unrealistic baseline for near-term and intermediate-term real estate return expectations. Therefore, the real estate component of the Total Fund benchmark is changed to the NCREIF ODCE Equal Weight Net Index for all real estate allocations, regardless of the specific real estate manager(s). The change has been applied to all historical time periods. We believe this change better represents the opportunity set for the real estate asset class.
- The following are investments in a mutual fund; the underlying holdings of the mutual fund are not monitored for compliance.
 - Vanguard Growth Index Fund Admiral Shares

Memo



To: Board of Trustees - Operating Engineers Local No. 77 Pension Plan
From: Jennifer Mink
CC: David Jensen, Kathy Phillips, Charles Fuller, Esq., William Dale, Esq.
Date: August 19, 2024
Re: Grosvenor Private Credit Fund (PCF)

Executive Summary

The Grosvenor Private Credit Fund ("PCF", "the Fund") is a fund-of-funds vehicle that will allocate across primary and secondary fund investments and credit co-investments. PCF is constructed to offer a single point of entry to a diversified allocation of best-in-class and difficult to access private credit managers with a unique expertise and edge in their respective markets. These managers will be focused on providing highly customized, directly originated or privately negotiated loan and debt transactions to a variety of corporate and consumer borrowers backed by cash flows and/or collateral.

The investment team will take an opportunistic approach with the flexibility to invest across the private credit markets with a goal to capitalize on complexity and illiquidity premiums. PCF's mandate will allow the Fund to provide a wide breadth of asset exposure across both senior and subordinated positions with a variety of different collateral types, such as corporate cash flows, hard assets, and pools of loans or other cash-flowing assets. Fund returns will come from a combination of cash interest payments and capital appreciation from debt structures with equity-like features. The Fund is expected to invest in developed credit markets, with approximately 70% of the Fund invested within the United States, and additional exposures primarily constrained to Western Europe.

PCF will provide investors with exposure to a variety of strategies across private corporate credit, structured capital solutions, asset-backed credit, and specialty finance. Private corporate credit and structured capital solutions strategies are largely tied to cash-flow lending to corporate borrowers, while asset-backed credit and specialty finance consists of asset-based lending opportunities backed by both physical and intangible assets.

PCF will be structured as an "evergreen" vehicle that will have the feel of a closed-end fund without the constraint of a defined fundraise period. PCF will accept monthly commitments, allowing investors to buy into the fund at NAV. Any investor that wishes to exit the fund can elect to opt out of future investments at the end of an investment period and will receive a pro-rata slice of the portfolio that will liquidate over time.

PCF is targeting returns of 10-12% net of fees. IPS believes these returns are achievable and expects earlier returns for PCF will exceed these return targets due to elevated short-term rates and a favorable lending environment. While PCF is a new investment strategy without an existing track record, Grosvenor

has been investing in private credit strategies since 2000 through other vehicles and customized mandates. From 2000 to June 2023, the primary private credit fund investments made by Grosvenor have generated an 11.3% IRR net of underlying manager fees.

The IPS Investment Committee has approved the Grosvenor Private Credit Fund for use in client portfolios which include a private credit allocation.

Firm Overview

Grosvenor is a global alternatives investment firm with approximately \$76 billion in assets under management in absolute return strategies, private equity, infrastructure, real estate, credit, and multi-asset class opportunistic investments as of September 30, 2023. Assets invested in credit total \$12.4 billion. The firm has approximately 538 employees, including 179 investment professionals, 29 of which are focused on credit investments. Grosvenor is headquartered in Chicago, with offices in New York, Toronto, London, Frankfurt, Tokyo, Hong Kong, Seoul and Sydney.

The firm was founded in 1971 and the private markets business was founded in 1999 at Prudential Insurance Company of America. In 2000, the private markets group joined Donaldson, Lufkin & Jenrette (“DLJ”), which already had a significant presence in high yield fixed income as an early pioneer in the “Junk Bond” market. DLJ was acquired in November 2000 by Credit Suisse and added capabilities in infrastructure and real estate. From 2000 to 2013, the group operated as a business unit within the asset management division of Credit Suisse. In January 2014, Grosvenor acquired the business from Credit Suisse.

In November 2020, Grosvenor closed a transaction to become a public company through a merger with a special purpose acquisition company. Post transaction, Grosvenor’s existing senior management continues to lead the business. The transaction allowed private equity firm Hellman & Friedman, which held a passive, minority investment in Grosvenor, to sell their interest. Currently, Grosvenor management owns 77% of the equity interests of the company, while the remaining ownership is held by public investors in GCM Grosvenor Inc. (Nasdaq: GCMG). While individual ownership percentages are not disclosed, approximately 30 people participate in the economics associated with Grosvenor’s ownership interests.

Investment Team

The Grosvenor Private Credit Fund (PCF) is overseen by Grosvenor’s Credit Investment team which consists of 29 investment professionals. The team is comprised of members of Grosvenor’s Absolute Return Strategies group who focus on investment manager research for both public and private credit strategies, and members from Grosvenor’s Strategic Investment Group (SIG) who oversee credit co-investments.

The Credit Investment team is led by Fred Pollock, Grosvenor’s Chief Investment Officer, and a four-member Alternative Credit Investment Committee. In addition to Mr. Pollock, the investment committee consists of David Richter (Chair), Bradley Meyers, and Bernard Yancovich. The investment committee makes decisions by majority vote. Mr. Pollock has the authority to determine the outcome in the event of a tie. Members of the committee serve across multiple verticals within the Grosvenor organization and provide a wide breadth of knowledge beyond just credit investments. The Alternative Credit Investment Committee oversees all investment activities within Grosvenor’s alternative credit vertical and is responsible for vetting and approving all credit investments for PCF.

Fred Pollock and Steve McMillan serve as the lead portfolio managers (PMs) for the Grosvenor Private Credit Fund. The two PMs are responsible for the oversight of the two investment functions within the Credit Investment team consisting of primary and secondary fund research and credit co-investments.

Fred Pollock is Head of the Strategic Investments Group responsible for co-investments and direct investments at Grosvenor. Mr. Pollock is also the firm’s Chief Investment Officer and leads the Alternative Credit Investment Committee while also serving on all investment committees within the firm. He is largely

responsible for the oversight of all credit co-investments for PCF, including the oversight of the due diligence process and vetting investment proposals before they are presented to the Alternative Credit Investment Committee.

Steve McMillan is the Head of Credit Strategies at Grosvenor, overseeing the due diligence and investment process pertaining to all primary and secondary fund investments across both public and private credit. Mr. McMillan joined Grosvenor in 2021 and has been largely influential in crafting Grosvenor's approach to private credit investing since joining the firm. Prior to joining Grosvenor, Mr. McMillan was Head of Fund Management and the CEO of Europe at BlueMountain Capital, a multi-strategy credit hedge fund with more than \$20 billion in AUM at its peak. Before joining BlueMountain, he was Head of Fixed Income at Lloyds Bank Pension, overseeing all the pension's credit and fixed income assets.

Members of the Credit Investment team are supported by a 9-person risk management team and 17 team members specializing in operational due diligence. The operational due diligence team consists of finance and legal professionals who are independent of the investment due diligence team. This team focuses on the governance and controls of prospective and existing fund investments and seeks to evaluate and mitigate the risk of investment losses due to reputational or operational issues of the investment manager.

Investment Philosophy & Approach

The investment team uses a combination of a top-down and bottom-up, fundamental approach to allocating capital across the private credit landscape. IPS believes this approach aligns with the investment team's general investment philosophy for investing in private credit which can be distilled into three core beliefs:

- 1) Private Credit should earn a premium to what can be found in public or traded credit markets.
- 2) View fund investments as a fundamental credit investment, not an allocation to a strategy.
- 3) Take risk where appropriate to compensate for potential losses.

A core tenet to the investment team's philosophy is that private credit investments should earn a material premium to what can be earned in public credit markets to compensate investors for the potential opportunity cost of locking-up their capital. The Private Credit Fund seeks to identify the best risk-adjusted opportunities within private credit. Part of this relative value approach is identifying areas where investors are being compensated for both credit risk and illiquidity risk relative to other opportunities in both private and public credit. IPS believes the investment team's breadth of coverage across both public and private credit markets creates an edge by understanding where relative value exists across the broader credit market.

To make a relative value comparison across public and private credit markets, the investment team uses a bottom-up, fundamental approach when evaluating fund investments and underwriting co-investments. This fundamental approach allows the investment team to dynamically allocate to new investment opportunities while understanding the underlying risk and return drivers of the investment. This is done by evaluating the underlying credit fundamentals of the market or sector, analyzing covenant protections and credit spreads versus public markets, and considering macroeconomic factors and trends that may impact the investment.

PCF provides investors with a diversified mix of higher yielding opportunities across private credit markets. The investment team will deploy capital to new investment opportunities over time as credit fundamentals and risks change. Investment decisions will largely be driven by current market conditions and where investors are being adequately compensated for risk. PCF's flexible mandate allows the investment team to invest across the capital structure, providing the ability to reduce risk by being senior in the capital structure in times of uncertainty, while taking more equity-like risk in economic recoveries. Because the return profile of credit investments typically exhibits limited upside with large downside risks, adding equity-like risk (high upside) with low correlation to credit can help diversify the return stream as winners can offset losers in the portfolio. PCF's allocations to specialty finance and structured capital solutions can help diversify the portfolio from traditional credit risk while providing more equity-like returns to balance the portfolio.

Strategy Overview

PCF is a fund-of-funds vehicle that will allocate across primary and secondary fund investments and credit co-investments. PCF is constructed in a manner to offer a single point of entry into a diversified allocation of best-in-class and difficult to access private credit managers with a unique expertise and edge in their respective markets. These managers will be focused on providing highly customized, directly originated or privately negotiated loan and debt transactions to a variety of corporate and consumer borrowers backed by cash flows and/or collateral.

PCF will allocate across the private credit universe with exposure to private corporate credit, asset-backed credit, and specialty finance. The investment team will take an opportunistic approach with the flexibility to invest across the private credit markets with a goal to capitalize on complexity and illiquidity premiums. PCF's mandate will allow the Fund to provide a wide breadth of asset exposure across both senior and subordinated positions, with a variety of different collateral types such as corporate cash flows, real estate or hard assets, and pools of loans or other cash flowing assets. Fund returns will come from a combination of cash interest payments and capital appreciation from debt structures with equity-like features. The Fund is expected to invest in developed credit markets, with approximately 70% of the Fund invested in the United States, and additional exposures constrained to Western Europe.

A general description of the private credit sectors and targeted allocations are highlighted below:

Private Corporate Credit (30-50% target allocation): Primary fund investments with managers providing private, directly originated loans to corporate borrowers. PCF will target managers with flexible mandates to capture opportunities across the capital structure. These managers tend to focus on particular industries or segments of the market that require a specialized knowledge base to evaluate a company's business model and risk. Because of the specialized knowledge required, these borrowers are often overlooked by traditional lenders, creating the opportunity for specialty lenders to provide capital at attractive terms. These managers may provide capital to both sponsored (private equity-backed) and non-sponsored transactions in both senior and subordinated debt positions. PCF may also provide seed capital to established managers launching a new strategy or a Business Development Company (BDC) vehicle in exchange for a revenue share agreement. These seed investments have historically achieved returns of 200-500 bps, per annum, in excess of the fund returns.

Structured Capital Solutions (10-30% target allocation): Primary fund investments with managers providing capital to fulfill specific financing needs of corporate borrowers. Structured Capital is a hybrid of debt and equity and fits in between debt and equity in a capital structure, leaving investors subordinated to senior lenders but having a liquidity preference over equity holders. These investments typically have a contractual maturity date with a preferred return, while providing the potential for additional upside in the form of warrants or a conversion feature that's convertible to equity. Structured capital can fulfill the needs of troubled companies in need of short-term liquidity; however, in recent years this style of lending has become popular as a non-dilutive alternative to equity financing for late-stage private companies waiting for the right time to access the initial public offering (IPO) market. The fixed-maturity date, preferred return, and liquidity preference over equity holders provide investors with a level of downside protection while having the potential for higher returns than senior debt lenders.

Asset Backed Credit (20-40% target allocation): Primary fund investments with managers investing in debt backed by cash flowing portfolios of hard assets (i.e., residential mortgages, transportation assets, or equipment loans). Like public securitizations, private asset backed investments are structured as special purpose vehicles (SPVs) established to acquire assets and simultaneously issue various tranches of debt and equity secured by those assets. Similarly, these structures must adhere to numerous covenants (e.g., leverage and cash flow related) which provide governance and structural downside protection for investors. These are generally pools of loans or mortgages that the manager will purchase in a secondary transaction from an originator, bank, or asset

owner. These loans may be performing, or non-performing (NPLs) purchased at a discount with asset coverage protection provided by the collateral. Investment returns will be driven by interest payments, changes in collateral value, and additional return coming from securitizing these loans. Because these investments are typically secured by tangible hard assets, these loans can be less correlated to traditional credit markets and can offer investors some level of inflation protection.

Specialty Finance (10-30% target allocation): Primary fund investments with managers providing asset-based financing to asset originators, lending platforms, or service providers to fund the assets they originate and grow their business. These lenders or asset originators typically provide financing to both consumer & commercial borrowers that are underserved by the traditional banking channel due to the complexity of the collateralized asset. These loans are generally structured to give the investment manager exposure to the loans or assets being originated through a bankruptcy-remote, special purpose vehicle (SPV) to provide the investment manager the return of the assets without taking counterparty credit risk. There is a gray area in what is defined as specialty finance versus asset-backed credit as both are forms of asset-based lending, secured by a pool of loans or assets. Where the two strategy types differ tends to be in the collateral base. While asset-backed credit tends to consist of loan pools backed by physical, hard assets, the collateral base in specialty finance typically consists of directly-originated financial assets (i.e., consumer loans, leases, receivables) and niche/esoteric assets such as royalty streams and various types of risk-sharing agreements (i.e., reinsurance, regulatory relief transactions, litigation finance, etc.) which provide an annuity-like return profile with limited correlation to traditional asset classes.

Private Credit Secondaries (10% target allocation): Private credit secondary fund investments in PCF will be implemented through an allocation to Grosvenor's commingled co-investment vehicle, Grosvenor Credit Secondaries Fund I (CSF). CSF will make secondary fund investments in both GP and LP-led transactions across various types of private credit strategies. Most secondary investments are expected to be mid-life LP-led secondaries (i.e., late investment period, early harvest period) to help diversify and de-risk the portfolio due to the mitigation of J-curve and blind pool risks with immediate return of capital following the transaction. The opportunity for investments in private credit secondaries is growing due to the prolific growth of private credit as an asset class over the past decade. Additionally, the popularity of private market investments in institutional portfolios over the past decade has led to more denominator effect issues, increasing the amount of LP-led secondary transactions in recent periods of asset volatility. The investment team anticipates the use of LP-led secondary transactions in the early stages of PCF to help facilitate an early return of capital while the rest of the primary fund investments get to scale. CSF may invest in secondary transactions across all private credit sub-strategies; however, earlier secondary investments will likely be more concentrated in corporate direct lending strategies due to the significant amount of capital raised over the past 5 years.

Credit Co-Investments (10% target allocation): Co-Investments in PCF will be implemented through an allocation to Grosvenor's commingled co-investment vehicle, Grosvenor Strategic Credit Fund II (SCF). By allocating to a commingled co-investment vehicle, PCF will be able to manage the position sizing of co-investments within the broader context of the portfolio. The Grosvenor co-investment vehicle will invest in privately originated financings alongside General Partners (GPs) on the GCM Grosvenor platform. SCF has the flexibility to invest across the capital structure in both corporate and structured credit investments. Grosvenor Strategic Credit Fund II will target 30-40 positions with a target net IRR of 10-12% in the current market environment.

Investment Process

The majority of the Grosvenor Private Credit Fund will consist of primary and secondary fund investments with an opportunistic allocation to credit co-investments & credit secondaries. The research and due diligence on primary and secondary fund investments will be overseen by Steve McMillan and 9 additional team members of the Absolute Return Strategies group that specialize in credit investments. This team is largely led by three senior team members consisting of Mr. McMillan, Marc Iyer, and Kyle Brennan, who are responsible for overseeing the sourcing and due diligence efforts for primary and secondary private credit fund investments as well as setting top-down views, in conjunction with the Alternative Credit Investment Committee, which are used to help drive due diligence efforts based on areas of opportunity and conviction.

Due Diligence of Primary & Secondary Fund Investments:

Members of the investment team are responsible for identifying the highest quality investment managers within their respective strategies or regions. The investment process begins with sourcing and evaluating the investible universe of private credit managers that is compiled through an extensive global network of industry contacts, proprietary databases, and ongoing conversations with managers who Grosvenor has existing investments.

The initial evaluation process begins when the investment team identifies an investment opportunity. A deal team of both senior and junior investment professionals is assigned to conduct investment due diligence and ongoing monitoring of an investment. The deal team conducts initial due diligence through an introductory meeting to evaluate the merits and suitability of the potential investment. An early research report is compiled and presented to the investment committee to determine whether further due diligence should be conducted. The key areas of focus on whether the investment team should continue their due diligence efforts depend on a variety of factors, including the investment merits and portfolio fit.

The next stage of the process includes preliminary and comprehensive due diligence on a proposed investment to evaluate key risks and further evaluate the merits identified in the initial evaluation. The deal team conducts informal reference checks with other potential fund investors and limited partners with prior investments with the manager. The objective of the preliminary due diligence is to create a recommendation memo outlining the primary thesis behind the investment and potential risks. The deal team uses this preliminary due diligence to determine whether the investment is well positioned to achieve superior risk-adjusted returns relative to what can be achieved through traditional fixed income markets. This evaluation is conducted with two independent due diligence processes of investment due diligence and operational due diligence.

Investment Due Diligence Process:

The investment due diligence process seeks to build a team consensus view on the investment opportunity and risks associated with an investment in any single investment strategy. The investment due diligence process is evaluated in steps and presented in sub-committee meetings in which the rest of the credit team evaluates the potential investment to determine whether the deal team should continue with further diligence. For all primary and secondary fund investments, the credit team focuses on identifying whether a manager possesses the characteristics Grosvenor believes distinguish high-quality managers from average managers. The investment due diligence process involves evaluating the firm and investment team, sourcing and origination capabilities, operating and industry expertise, the investment process and the overall investment strategy. Within this evaluation, the credit team is also evaluating the investment team's track record of execution as well as the exit opportunities of the underlying investments. Additionally, the team evaluates the terms and conditions of the investment opportunity as well as the potential to negotiate the terms of the investment.

The investment team will conduct reference checks on all key investment personnel, including portfolio managers, senior strategy and sector heads, and any other investment professionals the team deems to be critical to the investment's success. This is done by contacting former employers, colleagues, and investors. Reference checks are used as one way to qualify the manager's reputation, talent, and competence, in addition to verifying past experience and track record.

The credit investment team conducts investment due diligence by performing quantitative analyses, assessing qualitative factors, reviewing past investments, and completing multiple reference checks. During the course of the investment due diligence process, the investment team typically conducts ~10 meetings with a prospective manager, with at least three in-person meetings and 2-3 on-site visits to a manager's primary or satellite offices.

Operational Due Diligence Process:

The operational due diligence process is performed by a team of finance and legal professionals independent of the investment due diligence team. The goal of the operational due diligence process is to evaluate and mitigate the risk of investment losses due to reputational or operational issues of the prospective manager.

The operational due diligence process addresses three major areas of evaluation: 1) background investigations, 2) operational capabilities, and 3) legal and structuring review. The background investigations analysis is a more in-depth review of the reference check performed in the investment due diligence

process. Grosvenor works with third-party services and private investigation firms that specialize in the financial services industry to conduct background checks on prospective managers. These background checks include a verification of the legal existence and reputation of the investment manager's firm and affiliated entities. The background checks also search for any civil or criminal litigation and regulatory proceedings involving key investment personnel or independent directors that serve on the fund's board. Both the operational due diligence team and the credit investment team review the report prepared by the private investigation firm. Any issues identified in the report, including inconsistencies with information gathered in the investment due diligence process, must be resolved prior to seeking approval from the firm's Operations Committee.

The evaluation of operational capabilities and internal controls seeks to evaluate whether a prospective manager has created a strong, institutional-quality internal control environment. This review is typically conducted through multiple on-site visits and involves a series of in-depth interviews with accounting, operations, technology, and compliance personnel to evaluate whether proper procedures and documentation exist for all aspects of the investment, asset monitoring, and fund governance process.

The final area of the operational due diligence review involves the evaluation of the legal and governance structure of the proposed investment as well as negotiating improved terms and conditions, including the negotiation of fees, enhanced liquidity, and control provisions. Experienced attorneys and paralegals on Grosvenor's operational due diligence team review all relevant documentation relating to the proposed investment. Additionally, it is at this stage where Grosvenor may seek to construct customized vehicle structures via separate accounts to obtain a desired return profile for the investment.

Investment Committee Approval:

Upon completion of the investment due diligence and operational due diligence process, investments must be independently reviewed and approved by both the Alternative Credit Investment Committee and Operations Committee in order to be executed.

The deal team prepares the Investment Committee memorandum which highlights the findings of the investment due diligence process, highlighting the merits of the investment as well as potential risks. The Alternative Credit Investment committee discusses the benefits and drawbacks of the potential investment before making a decision by a majority vote.

The Operational Due Diligence team also prepares an information packet of detailed findings from the Operational Due Diligence process which is presented to the firm's Operations Committee. If any parts of a prospective manager's operational review are deemed inadequate, the Operational Due Diligence team may also present a proposed risk mitigation plan detailing any steps a manager must take before an investment is made. An investment must be approved by a majority vote of the Operations Committee to qualify for investment.

The overall due diligence process for primary and secondary fund investments takes an average of 2-3 months for a fund. In most instances, the Grosvenor investment team will have known and met the investment manager for years prior to formal approval for investment.

Post-Investment Monitoring

Senior members of the deal team for each investment remain actively involved and monitor each investment through its exit. The post-investment review process involves both qualitative and quantitative reviews on a regular basis. These reviews are conducted through ongoing meetings with the investment manager in addition to evaluating and assessing investments made by the manager. These qualitative and quantitative reviews are used to assess the adherence to the managers stated investment process and basic strategy, as well as monitoring the stability of the investment manager's personnel. Additionally, the Grosvenor deal team will also perform benchmarking of the manager through an ongoing evaluation of capital deployment, investment performance of underlying positions, as well as distribution of capital. This benchmarking is aggregated to assist in the evaluation of the investment versus a broad peer group of private credit managers as well as evaluating the manager's performance versus expectations at the investment's inception.

As part of the monitoring process, underperforming investments may be added to the Credit Investment team's "Investment Watch List". Funds that are added to the Investment Watch List undergo enhanced monitoring in which communication with the fund manager increases substantially. For these funds, the senior members of the deal team obtain regular updates on the portfolio and valuations to ascertain the manager's ability to work through the current environment. Additionally, Grosvenor may also seek to initiate dialogue with other LPs in the fund to gather more information on the performance of underlying positions and to obtain additional insights and opinions of other investors. Given the illiquid nature of private credit investments, there are limitations to the extent that actions can be taken to correct underperforming managers. The Credit Investment team will often seek remedies based on pre-negotiated terms with managers. An example of this may be re-negotiating fee structures or cutting off further capital deployment, effectively stopping investment and putting the investment into harvest. In the event of personnel departures, Grosvenor will structure key-man clauses into all investment agreements that will allow them to opt out of future investments if certain investment professionals leave the firm.

Co-Investment Underwriting & Due Diligence

The co-investment strategy benefits from the manager due diligence work done by the Grosvenor Credit team. The co-investment due diligence process seeks to identify the most attractive investment ideas sourced through Grosvenor's platform of credit managers. The investment process is typically led by one of the investment analysts in Grosvenor's Strategic Investments Group (SIG) in collaboration with team members from the Credit Investment team.

Potential investment ideas are vetted through a bi-weekly meeting where the SIG team reviews the pipeline of co-investment opportunities and outlines a due diligence process to make an informed decision on the investment. The process includes conducting initial research and building a valuation model to determine the relative attractiveness of the investment. The Grosvenor co-investment platform has the added benefit of gathering additional insights from other managers on the Grosvenor platform to help provide additional insight into risks and market conditions. Additional information is gathered through conversations with industry experts, economic research, and survey data. This additional information, including insights from other managers on the Grosvenor platform, is used to triangulate information that can be used in model assumptions.

All co-investment research is coordinated with Fred Pollock, Head of Grosvenor's Strategic Investment Group, who oversees every component of the co-investment process. Certain aspects of investing in illiquid investments are addressed when completing the analysis. Like the Credit Investment team's approach to private credit investments, the underwriting of private credit co-investments places a higher return hurdle for expected return to compensate investors for the illiquidity risk.

After underwriting a potential co-investment, an implementation plan is created to determine the appropriate structure for the investment. Private credit investments typically entail a more robust structuring process that requires the SIG analyst to work with Grosvenor's Legal and Structuring team to negotiate and document all components of the transaction. Private credit transactions are typically structured to maximize Grosvenor's control and oversight of the investment and is usually executed internally by GCM Grosvenor, as opposed to an account administered by the manager who brought the co-investment to Grosvenor. By having the investment executed through GCM Grosvenor, the SIG team will have full transparency and access to the company or asset, along with control rights (i.e., liquidity, investment discretion) to manage the position. In the event a deal structure requires an investment to be administered by the co-investment manager, Grosvenor will seek to structure the investment so the SIG team maintains the same level of transparency and control rights they would receive if the investment was executed directly by GCM Grosvenor.

SIG investment analysts are responsible for monitoring their respective investments. At the outset of any investment, the analyst is responsible for determining key factors that will drive the outcome of each investment, including developing a way to monitor and track those key factors. Each investment is monitored for performance based on those key factors and the investment is reviewed on a regular basis for suitability. Most private credit investments will be self-liquidating; however, there may be some co-investments that have a secondary market for liquidity. Fred Pollock, in consultation with the Investment Committee, will ultimately be responsible for all selling decisions and evaluating exit opportunities for co-investments.

Investment Performance

The Grosvenor Private Credit Fund is a new fund that does not have an existing track record. However, Grosvenor has been investing in private credit funds since 2000, deploying approximately \$20 billion in primary fund commitments in aggregate. Of primary fund investments made between 2000-2020, only 15 out of 190 (7.9%) experienced a total value to-paid-in capital ratio (TVPI) of less than 1x, representing a loss of capital on the investment, while the average TVPI over that period was approximately 1.5x.

Historically, private credit primary fund investments made by Grosvenor have generated a median IRR of approximately 10%, with dispersion based on the year of capital deployment. The average IRRs and TVPI by year of investment are typically higher than the median due to a number of large, outsized performers. These outsized performers tend to be strategies more focused on subordinated capital or seeding arrangements, such as seeding BDCs, which provide some level of equity participation in their investments. The only two vintages since 2000 that produced a median IRR below 8% were the 2013 and 2015 calendar year vintages, with IRRs of 7.3% and 7.4%, respectively, while the average IRRs for both of these two vintages were 8.6%. These lower IRR years were largely centered around the periods of ultra-low interest rates and minimal economic stress, providing managers little opportunity to lend at higher interest rates. IRRs on secondary fund investments have historically been higher than primary fund investments; however, Grosvenor has deployed much less capital (~\$140 million in aggregate) to private credit secondary fund investments due to the infancy of this market and a constrained opportunity set. In aggregate, Grosvenor's private credit primary fund investments have generated a gross IRR (net of underlying manager fees) of 11.3% from 2000 to June 2023, while private credit secondary fund investments generated a gross IRR of 23.7%. A graph of the median primary fund IRRs and median & average TVPI by calendar year commitments is provided in the Appendix.

The co-investment allocation within PCF will be implemented through an allocation to Grosvenor's Strategic Credit Funds (SCF). Grosvenor SCF I was launched in May 2020 and has deployed approximately \$600 million, and has generated a net IRR (what investors would realize in PCF) of 6.7% and a multiple on invested capital (MOIC) of 1.19x. A large portion of SCF I is comprised of unrealized investments, many of which are still experiencing some J-curve effects. The realized investments in SCF I generated an 18.9% net IRR with a net MOIC of 1.12x. IPS expects the performance of the co-investments made through SCF to be approximately equal to returns generated by primary fund investments, net of fees.

Investment Risks

Illiquidity Risk: Although PCF is an evergreen structure, the underlying investments held by the Fund are illiquid. When investors elect to exit the Fund, their capital will be returned as the investments are realized. Any investors exiting the Fund can expect to see a significant portion of their capital returned within five years of entering harvest. However, depending on the composition of the portfolio at the time of exit, the return of capital may take up to ten years.

Blind Pool Risk: Early investors in the Fund are committing to a blind pool. The underlying investments and composition of the portfolio are not known at this time.

Due Diligence Risks: Private investments lack the safeguards provided by publicly issued securities. When direct loans are originated, the lender will be responsible for gathering and validating the financials provided by the borrower. There can be no assurance that the financial results or representations made by the borrower are accurate or complete. Failure by the lender to validate and verify the borrower's financial position and assets can lead to an overstatement of collateral for the underlying loan.

Leverage Risk: The underlying investments in this fund may use leverage. The use of leverage can increase the expected returns on investments at the risk of amplifying potential losses. Typically, this leverage is non-recourse, meaning the leverage provider has no claim against other assets besides the pledged collateral. Additionally, fund structures in private credit typically limit the ability of investors to withdraw capital, reducing the risk of liquidity mismatches.

Subordination Risks: The Fund is permitted to invest in mezzanine debt and equity investments. These positions will typically be subordinated and carry more risk versus senior debt obligations.

Smaller Company Risk: Private debt borrowers tend to be smaller companies relative to the borrowers in the public bond market. Investing in smaller companies often entails a higher level of risk due to more limited resources relative to competing with larger companies.

Niche Asset Risk: The Fund has a broad mandate to invest across private credit markets. Credit is a very flexible asset class as lenders can extend credit to anything that generates a cash-flow or has an asset value attached to it. The Fund will invest in conventional credit such as corporate credit or mortgages but may also invest in more niche or unconventional credit backed by cash-flowing assets such as intellectual property, royalties, receivables, leases, and various forms of risk-sharing agreements. While these assets typically offer low correlation to traditional assets such as stocks and bonds, the performance of these assets may exhibit elevated risks due to limited price transparency and minimal liquidity.

Legal Structure and ERISA Considerations

The Grosvenor Private Credit Fund will be domiciled in the Cayman Islands and invested through a master-feeder structure. US tax-exempt investors will invest directly through “GCM Grosvenor Private Credit Fund, Ltd.”, an offshore feeder designed to block UBTI for tax-exempt investors, which will be domiciled in the Cayman Islands. “GCM Grosvenor Private Credit Fund, Ltd.” will in turn invest substantially all its capital into “GCM Grosvenor Private Credit Fund, L.P.” which will hold the underlying investments, including the co-investment and secondaries investment vehicles. Grosvenor Capital Management L.P., an Illinois (USA) limited partnership is the investment manager of both “GCM Grosvenor Private Credit Fund, Ltd.” and “GCM Grosvenor Private Credit Fund, L.P.”

Grosvenor has managed ERISA plan assets vehicles in the past, and the Grosvenor Private Credit Fund is expected to be a plan assets vehicle at inception. In the event the Grosvenor Private Credit Fund is not a plan assets vehicle, Grosvenor has agreed to document their willingness to act in a similar capacity as an ERISA fiduciary.

IPS recommends that Trustees defer to their legal counsel to review and evaluate the ERISA considerations relevant to this investment.

Legal, Regulatory, and Compliance

- Grosvenor provides investment management and advisory services through GCM Customized Fund Investment Group, L.P., which is registered as an investment adviser with the SEC and is a Qualified Professional Asset Manager (QPAM).
- Grosvenor states they are not aware of any material judicial, administrative, or arbitration proceedings that they expect to have a material impact on the firm.

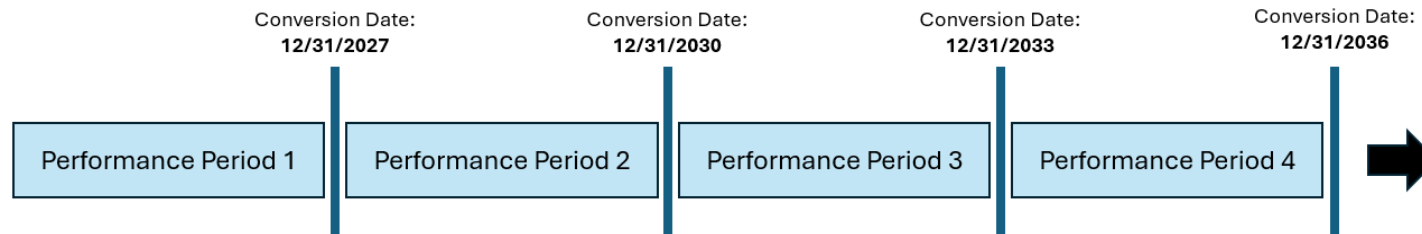
- Grosvenor reports that as part of a review of industry practices around pay-to-play policies and procedures, the SEC Staff issued a letter requesting a minor change to the firm's political contributions compliance policy. The requested change was made.
- Grosvenor maintains \$30 million of Public Company Directors & Officers Liability coverage, \$150 million in Professional Liability and Fund Liability coverage (includes E&O, Fiduciary breach), a Financial Institutional Bond with policy limits of \$10 million for a single occurrence and \$20 million in aggregate, and cyber liability coverage of \$5 million.
- Grosvenor maintains an ERISA Bond covering the lesser amount of 10% of the plan's assets handled by Grosvenor, as a fiduciary, or \$500,000.
- Grosvenor has retained PricewaterhouseCoopers LLP and Ernst & Young LLP for audit services and BNY Mellon Alternative Investment Services and SEI Global Services as the administrator.

Fund Structure & Liquidity Mechanism

- The Grosvenor Private Credit Fund will be structured as an "evergreen" private credit vehicle that will have the feel of a closed-end fund without the constraint of a defined fundraising period.
- Investors may commit capital at any time and capital will be called pro-rata based on each investor's unfunded capital commitments to the Fund. Capital is expected to be called quarterly, but the Fund may call capital at its discretion.
- As capital is called and contributed to the Fund, investors will acquire interests ("Participating Shares") in proportionate value of the Fund's current Net Asset Value (NAV), which will include all existing investments held by the Fund at the time when the investor's capital is called. The investor will participate in all future investments made by the Fund for as long as they remain invested.
- The Fund expects to distribute up to 5% of capital annually (subject to market conditions) on December 31 to investors that were invested in the Fund for the full calendar year. Any capital returned by the Fund's underlying investments, in excess of the 5% annual distribution and costs associated with Fund or underlying investments, will be reinvested, allowing investors to compound their capital over time. Investors should note that PCF does not expect to make an annual distribution before the initial conversion date (December 31, 2027).
- PCF will offer investors liquidity at predetermined dates ("Conversion Dates") that will occur every three years, with the first Conversion Date set to occur on December 31, 2027. Subsequent Conversion Dates will follow on each three-year anniversary thereafter. Investors may seek liquidity by electing to convert all or a portion of their "Participating Shares" to "Liquidating Shares" with 90 days' written notice prior to the Conversion Date. A schedule of Conversion Dates is provided below.
- Liquidating Shares will not participate in new investments after the Conversion Date and represent interest in a liquidating sleeve of a pro-rata vertical slice of the Fund's investments (including unfunded capital commitments to underlying fund investments) as of the Conversion Date. The Liquidating Shares will not have any capital re-invested and investors will receive back capital as investments are realized.
- Liquidating Shares are subject to the same fees as Participating Shares, however, the incentive fees are only paid when investments are realized (cash returned), using a preferred return of 6.5%, annualized, calculated from the Conversion Date until the realization occurs.

- The timing of distributions once in liquidation will be subject to PCF's underlying investments. Co-investments and secondary fund investments are expected to have an average life of 3-5 years while primary fund investments are expected to have an average life of 8 years. Any investors converting from Participating Shares to Liquidating Shares can expect to see a significant portion of their capital returned within five years of conversion. However, depending on the underlying assets of the portfolio at the time of conversion, the return of capital may take up to ten years.

Conversion Date Schedule



Fees & Terms

Term: Evergreen structure, indefinite term

Investment Minimum: \$5 million, subject to Grosvenor's discretion

Fees: The Fund will make primary fund, secondary fund and credit co-investments, and there are different fees associated with each type of investment.

Primary Fund Investments – Management Fees

Management fees will be charged on NAV of primary fund investments in PCF.

IPS has negotiated the aggregation of all IPS client commitments for the purposes of the fee calculation, with a 25% discount that will be applied to all IPS clients. Listed below are the fund's standard fees along with the IPS fees based on the aggregate of IPS client commitments to the Fund:

	Standard Fee	IPS Fee
Below \$25 million:	80 bps	60 bps
\$25 million and below \$50 million:	70 bps	52.5 bps
\$50 million and below \$100 million:	60 bps	45 bps
\$100 million and above:	50 bps	37.5 bps

As of August 1, 2024, IPS client commitments exceed \$100 million, resulting in a fee of 37.5 bps, which provides a savings of 12.5 to 42.5 bps, per annum for IPS clients.

Primary Fund Investments – Incentive Fees

7.5% carried interest over an annualized 6.5% preferred return, subject to a high watermark. This incentive fee structure will only apply to primary fund investments. The timing of when incentive fees are paid will differ for investors remaining in the Fund versus investors who have allocations in liquidation.

- For Continuing Investors (Participating Shares): Carried interest is paid at the end of each 3-year “Performance Period”. Investors entering the Fund in the middle of a performance period will pay their pro rata portion of fees based on their percentage of NAV.
- For Investors in Liquidation (Liquidating Shares): Carried interest is paid on realized proceeds only. The preferred return is measured from the Conversion Date until the time the investments are realized.

Fees on Co-Investments & Secondary Fund Investments

The Fund will access credit co-investments and secondaries through an allocation to GCM Grosvenor’s applicable commingled vehicles (i.e., “drop downs”) which will consist of Grosvenor’s Strategic Credit Fund Series (“SCF”) for co-investments and Grosvenor’s Credit Secondary Fund Series (“CSF”) for secondary fund investments. These “drop down” allocations will have a separate fee schedule from the primary fund investments. The Grosvenor Private Credit Fund (PCF) is expected to maintain a 10% allocation to each “drop down” vehicle, for a cumulative exposure of 20% of the total Fund.

The management and incentive fees for the two drop down vehicles are provided below:

Grosvenor Strategic Credit Fund II (Co-Investments):

- 0.85% Management Fee on Invested Capital.
- 12.5% carried interest over a 6% preferred return on realized investments.

Grosvenor Credit Secondaries Fund I (Secondaries):

- 0.85% Management Fee on Committed Capital.
- 12.5% carried interest over a 6.5% preferred return on realized investments.

Fee Summary & Market Rate Comparison

PCF is designed to provide investors with exposure to a diversified portfolio of top-tier private credit managers at little to no additional cost versus replicating the same portfolio directly.

The standard fees charged by top tier private credit managers typically are:

- Management: 1.50 - 2.00%
- Incentive Fee: 15 - 20%
- Preferred Returns: 7% - 9%

IPS believes the blended management fee negotiated by IPS for clients will be approximately 1.47%, which would be at the low end of the market for high quality private credit managers. This is a function of Grosvenor's ability to negotiate below market fees (~ 50 bps lower on average), in addition to IPS' ability to reduce the fee paid to Grosvenor. Due to the differences in preferred returns and incentive fees, it is difficult to determine an effective blended rate for each component; however, we can estimate a total incentive fee charged at varying levels of return using a simplified model. Relative to implementing a similar private credit program directly, IPS believes PCF will offer investors a total fee savings for gross returns of 10% and lower with a slightly higher cost for gross returns above 10%.

Gross Return	6%	8%	10%	12%	14%	16%	18%
Grosvenor Private Credit Fund (Estimated IPS Client Fees)*							
Management Fee	1.47%	1.47%	1.47%	1.47%	1.47%	1.47%	1.47%
Incentive Fees	0.00%	0.02%	0.27%	0.68%	1.09%	1.49%	1.90%
Total Fees	1.47%	1.49%	1.74%	2.15%	2.56%	2.96%	3.37%
Standard Fees Charged by Private Credit Managers^							
Management Fee	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%
Incentive Fees	0.00%	0.00%	0.04%	0.39%	0.74%	1.09%	1.44%
Total Fees	1.75%	1.75%	1.79%	2.14%	2.49%	2.84%	3.19%
Estimated Net Returns (PCF vs. Private Credit Managers)							
Grosvenor PCF*	4.53%	6.51%	8.26%	9.85%	11.44%	13.04%	14.63%
Private Credit Managers^	4.25%	6.25%	8.21%	9.86%	11.51%	13.16%	14.81%
Difference	0.28%	0.26%	0.05%	-0.01%	-0.06%	-0.12%	-0.18%

* Assumes Grosvenor Negotiated Fees For Underlying Managers (1.25% Management Fee; Carried Interest of 16% over 8% Preferred)

^ Assumes Mid-Point of Standard Fee Range (1.75% Management Fee; Carried Interest of 17.5% over 8% Preferred)

Disclosure: Fees and Net Return Estimates are based on modeled assumptions. Actual Fees paid may be higher.

Summary

The Grosvenor Private Credit Fund was designed and structured to offer investors a single point of entry to a diversified portfolio of higher yielding private credit strategies that can adapt to changing market conditions. The Grosvenor Credit Investment team appears to be well suited to identify best-in-class private credit managers that are uniquely positioned to take advantage of illiquidity and complexity premiums, allowing investors to earn additional yield beyond credit risk. PCF's flexible mandate will allow the investment team to deploy capital to what they see as the best risk-adjusted opportunities in private credit markets, allowing the Fund to position itself more defensively in times of uncertainty and seeking capital appreciation through debt structures with equity-like features in times of economic growth.

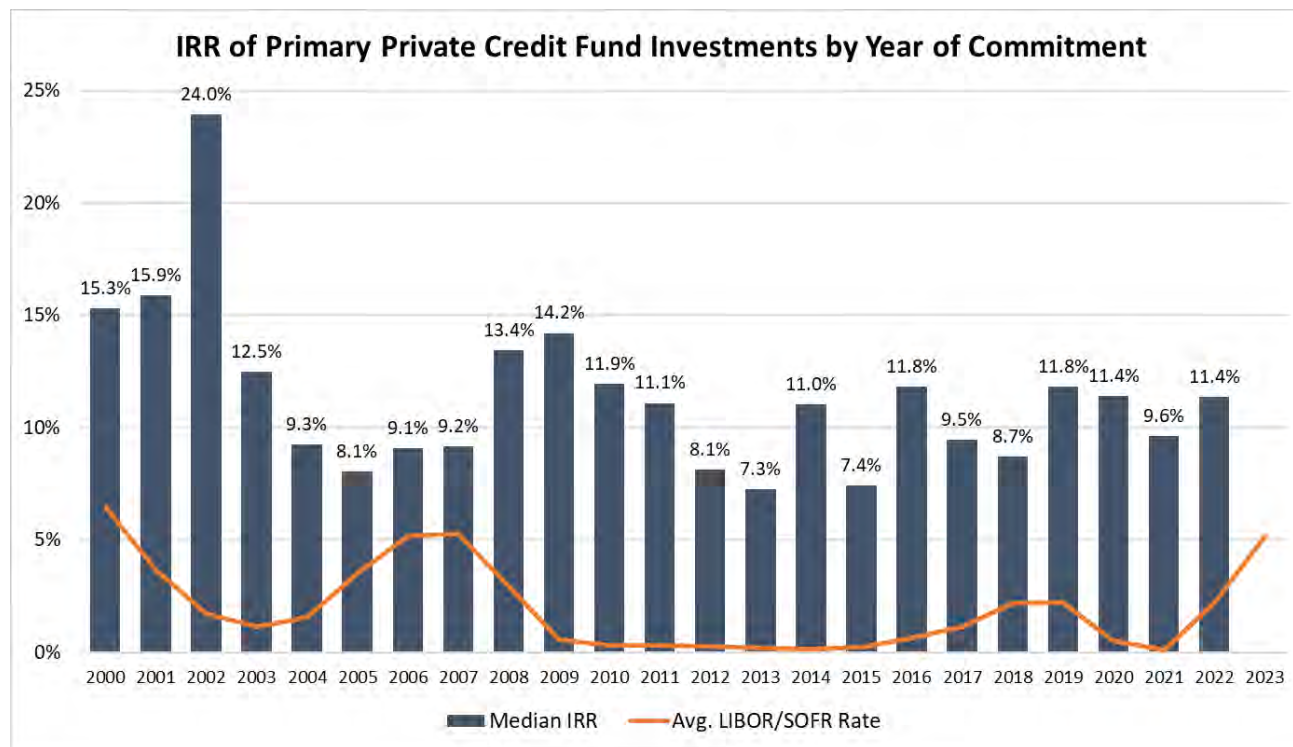
The Grosvenor Private Credit Fund can be used a “core” position within a private credit allocation. PCF is targeting higher-returning strategies that can earn a premium to publicly traded credit, which will compensate investors for the illiquidity of the investment. The flexibility of the investment mandate and the diversification benefits of the fund-of-funds structure should allow investors to capture a material return premium to traded non-investment grade credit, with less volatility over a full market cycle.

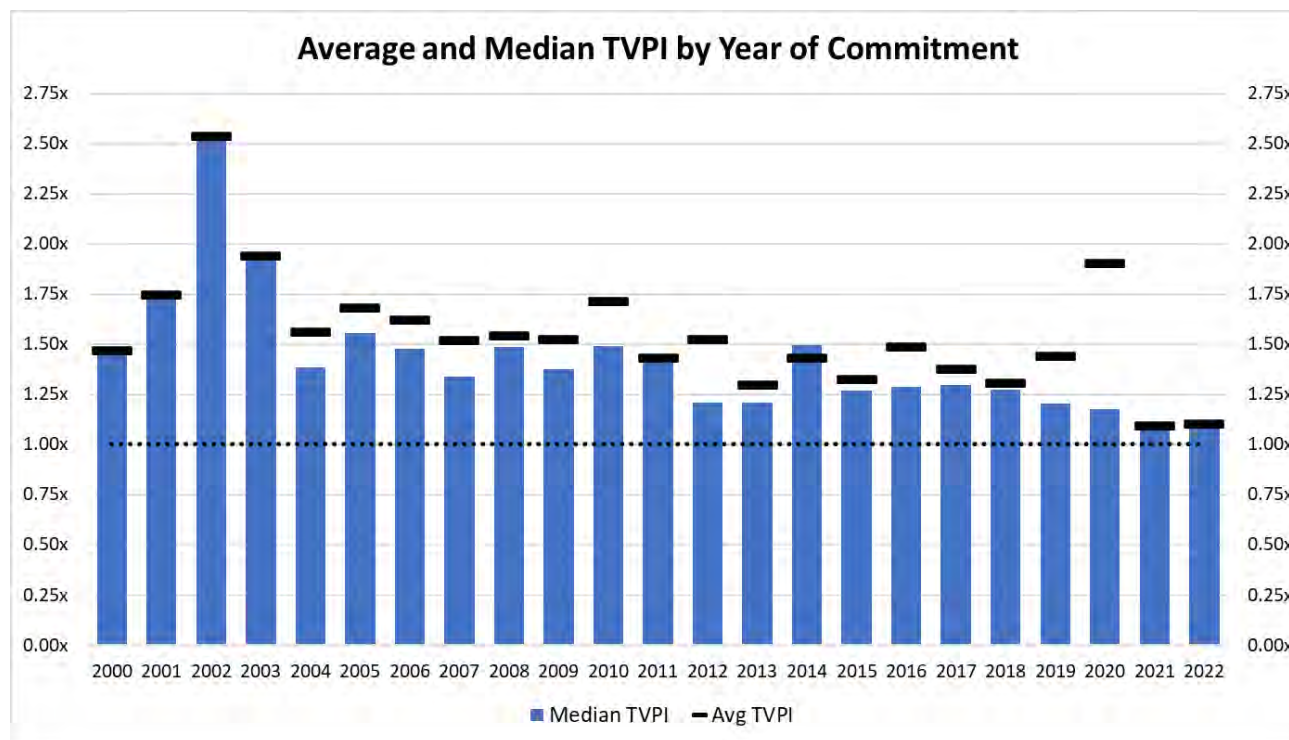
The IPS Investment Committee has approved the Grosvenor Private Credit Fund for use in client portfolios which include a private credit allocation.

Appendix

Performance of Private Credit Primary Fund Investments made by Grosvenor

Performance as of 6/30/2023





EPIC

April 30 – May 3, 2024

IPS does not sell products or services to investment managers. However, investment managers may pay IPS to attend and to help defray the cost of IPS' annual conference EPIC. EPIC is an educational conference addressing various issues related to benefit plans. IPS does not give preferential treatment to investment managers or any other provider that pays to attend and help defray the costs of EPIC.

It is important to note that no fees are paid to IPS by any investment manager to be included in a search or database. The only requirement placed upon the manager is their willingness to submit and maintain data concerning their firm, its investment products, and performance results.

GCM Grosvenor attended and helped defray the cost of EPIC.

Fee disclosure: IPS believes the proposed fee is reasonable for the strategy and relative to the respective peer group. IPS has not received a placement fee for recommending the investment.

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.

Common Market Capitalization Categories for Equities

Mega Cap

Greater than \$300 billion

Large Cap

\$10 to \$200 Billion

Mid Cap

\$2 to \$10 Billion

Small Cap

\$300 Million to \$2 Billion

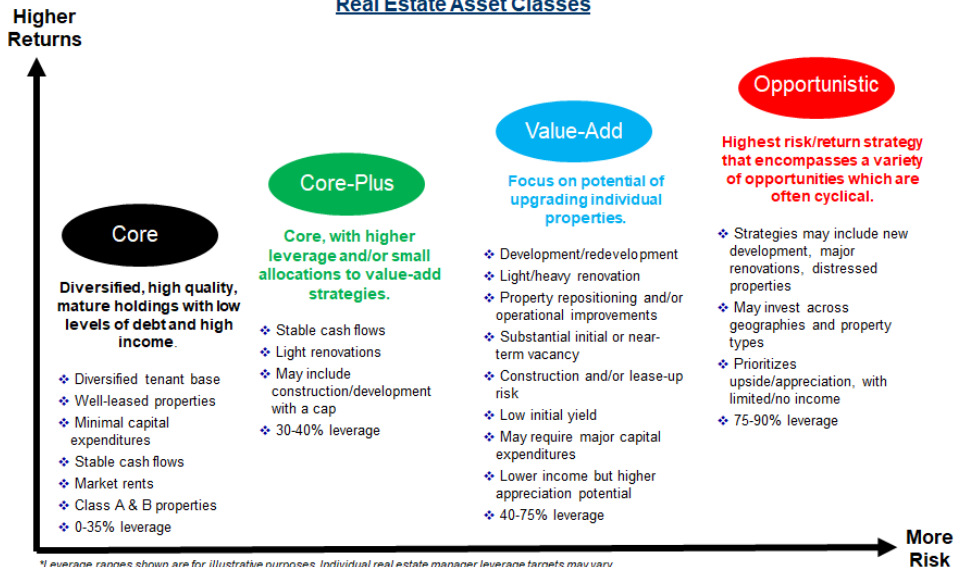
Micro Cap

\$50 to \$300 Million

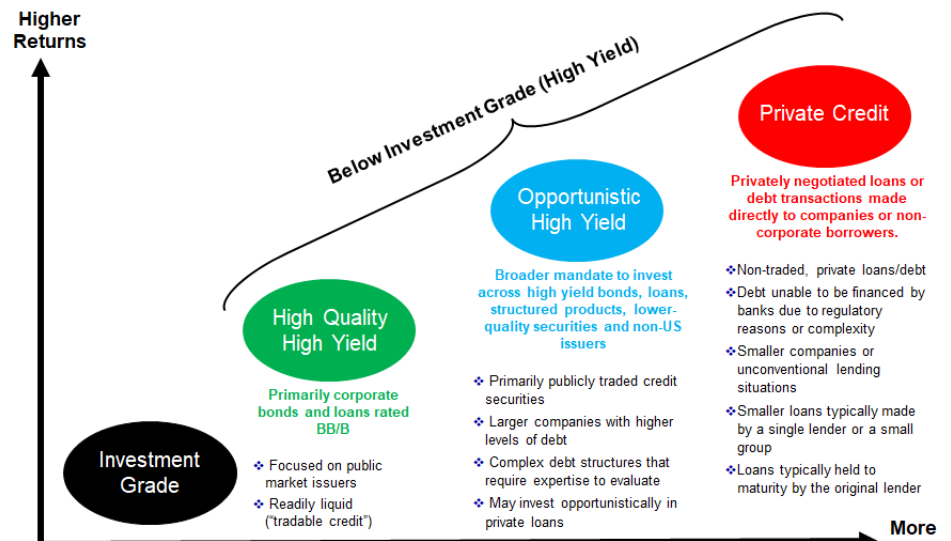
Bond Ratings & Classifications

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

Real Estate Asset Classes



High Yield Credit Asset Classes



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.

The Fund's performance is attributable to factors other than the advice of IPS because, among other things, (a) IPS may act in an advisory capacity (i.e., IPS may not have discretion over Fund assets), (b) the Fund may or may not follow advice provided by IPS, and (c) returns may include investments made prior to the Fund's relationship with IPS. Nothing contained herein constitutes investment, legal, accounting, actuarial, or tax advice, or a recommendation to buy, sell, or hold a security or pursue a particular investment vehicle or any trading strategy. Past performance is no guaranty of future results.

© 2024 by Investment Performance Services, LLC. All rights reserved.

EPIC

April 30 - May 3, 2024

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
Alliance Bernstein
Amalgamated Bank of Chicago
Amalgamated Bank of NY
American Realty Advisors
Apogem Capital
Arena Capital
Aristotle
ASB Real Estate Investments
Atlanta Capital Management
Barrow Hanley Global Investors
BentallGreenOak
Blackstone Infrastructure
BNY Mellon Investment Management
Boston Partners
Boyd Watterson Asset Management
BPEA Private Equity
Brown Advisory
Chartwell Investment Partners
Christenson Investment Partners
Columbia Threadneedle Investments
Constitution Capital Equity Partners
Corbin Capital Partners
Crux Point
Dana Investment Advisors
Earnest Partners
Empower
EnTrust Global
F/M Investments
Fidelity Investments
First Eagle Investments

Fisher Investments
Foundry Partners
Fred Alger Management
GCM Grosvenor
Glouston Capital Partners
GoldenTree Asset Management
Great Lakes Advisors
Hamilton Lane Advisors
Hardman Johnston Global Advisors
HPS Investment Partners
Income Research & Management
Intercontinental Real Estate Corp.
Invesco Advisors, Inc.
Janus Henderson Investors
John Hancock
JP Morgan Asset Management
Kearney Capital LLC
Kelson Group
Lazard Asset Management
Loomis, Sayles & Company
Lord Abbett & Co.
LSV Asset Management
Lyrical Asset Management
MacKay Shields
McMorgan & Company
Manulife
MGG Investment Group
Mesirow Private Equity
National Investment Services
National Real Estate Advisors
Neuberger Berman

Northern Trust Asset Management
Nuveen Investment Group
Oaktree Capital Management
Old Glory Asset Management
One America Financial
Partners Group
Patriot Financial Partners
PNC Capital Advisors
Portfolio Advisors LLC
Post Advisory Group
Principal Financial Group
Principal Life Insurance
Richmond Capital Management
Schroders Investment Management
Segall Bryant & Hamill
Sierra Investment Partners
Siguler Guff & Company, LP
State Street Global Advisors
Stonepeak Partners
Ullico Investment Company
Victory Capital Management
Wasatch Global Investors
Washington Capital Management
WEDGE Capital Management
Wellington Management Company
Westfield Capital Management
Westport Capital Partners
William Blair & Company
Xponance