



IUOE Local No. 77 Annuity Fund

Master Consulting Services Report

**Period Ended
March 31, 2024**

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Market Discussion

1Q | 2024

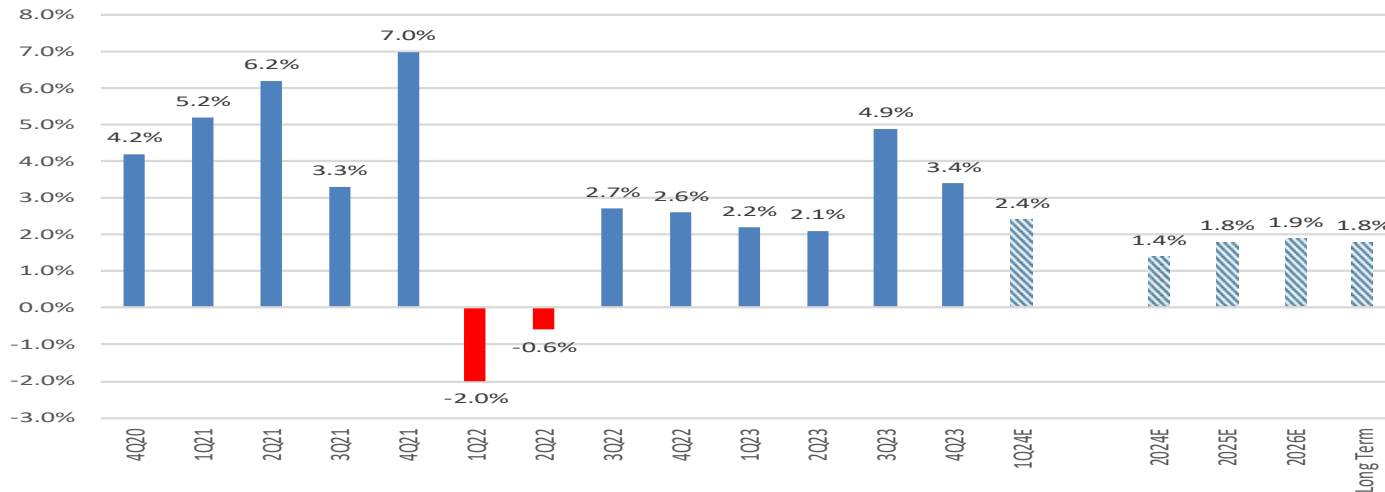


Financial Market Performance – Periods Ending March 31, 2024

Strategy	Sector	Index	QTR	2023	2022	2021	2020	2019	2018	2017	1-Yr	3-Yr	5-Yr	10-Yr	20-Yr
Stocks	US Large Cap	S&P 500	10.6%	26.3%	-18.1%	28.7%	18.4%	31.5%	-4.4%	21.8%	29.8%	11.5%	15.0%	12.9%	10.1%
	US Large Cap Growth	Russell 1000 Growth	11.4%	42.7%	-29.1%	27.6%	38.5%	36.4%	-1.5%	30.2%	38.9%	12.5%	18.5%	16.0%	8.0%
	US Large Cap Value	Russell 100 Value	9.0%	11.4%	-7.6%	25.1%	2.8%	26.5%	-8.3%	13.7%	20.2%	8.1%	10.3%	9.0%	7.8%
	US Small Cap	Russell 2000	5.2%	16.9%	-20.5%	14.8%	19.9%	25.5%	-11.0%	14.6%	19.6%	-0.1%	8.1%	7.5%	8.0%
	Non-US Developed	MSCI EAFE (net)	5.8%	18.2%	-14.5%	11.3%	7.8%	22.0%	-13.8%	25.0%	15.3%	4.8%	7.3%	4.8%	5.7%
	Emerging Markets	MSCI EM (net)	2.4%	9.8%	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	8.1%	-5.0%	2.2%	2.9%	6.5%
	Int'l Small Cap	MSCI EAFE Small Cap (net)	2.4%	13.2%	-21.4%	10.1%	12.3%	25.0%	-17.9%	33.0%	10.4%	-1.4%	4.9%	4.7%	6.6%
Bonds	Treasury	Bloomberg US Govt	-0.9%	4.1%	-12.3%	-2.3%	7.9%	6.8%	0.9%	2.3%	0.1%	-2.7%	-0.0%	1.0%	2.5%
	Broad Market	Bloomberg Aggregate	-0.8%	5.5%	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	1.7%	-2.5%	0.4%	1.5%	3.0%
	Intermediate	Bloomberg Gov/Credit Int.	-0.2%	5.2%	-8.2%	-1.4%	6.4%	6.8%	0.9%	2.1%	2.7%	-1.1%	1.1%	1.6%	2.8%
	High Yield	Bloomberg HY BaB 2% IC	1.3%	12.6%	-10.6%	4.6%	7.7%	15.2%	-1.9%	6.9%	10.2%	2.1%	4.3%	4.5%	6.2%
	Short Duration HY	ICE BofA 1-3 Yrs BB US Cash Pay HY	1.4%	8.9%	-3.1%	3.2%	5.4%	8.7%	1.3%	3.6%	7.9%	3.1%	4.0%	3.9%	5.4%
	Global Bonds	FTSE WGBI	-2.4%	5.2%	-18.3%	-7.0%	10.1%	5.9%	-0.8%	7.5%	-0.8%	-6.1%	-2.2%	-0.8%	1.7%
GTAA	Unconstrained	65% MSCI World /35% FTSE WGBI	4.8%	17.0%	-18.1%	11.0%	14.6%	19.9%	-5.8%	17.0%	15.5%	3.4%	7.2%	5.9%	6.1%
Real Estate	Core	NCREIF ODCE Equal Weighted (net)	-3.2%	-13.4%	7.6%	21.9%	0.8%	5.2%	7.3%	6.9%	-12.4%	2.8%	3.0%	6.2%	6.0%
Hedge Fund of Funds	Diversified FOFs	HFRI FOF Composite	4.2%	6.1%	-5.3%	6.2%	10.9%	8.4%	-4.0%	7.8%	9.7%	2.9%	5.0%	3.6%	3.4%
	Equity Long-Short	HFRI Equity Hedge	5.2%	11.4%	-10.1%	11.7%	17.9%	13.7%	-7.1%	13.3%	14.3%	3.3%	7.9%	5.7%	5.4%
Commodities	Commodities	Goldman Sachs Commodity	10.4%	-4.3%	26.0%	40.4%	-23.7%	17.6%	-13.8%	5.8%	11.1%	18.0%	7.8%	-2.9%	-1.5%

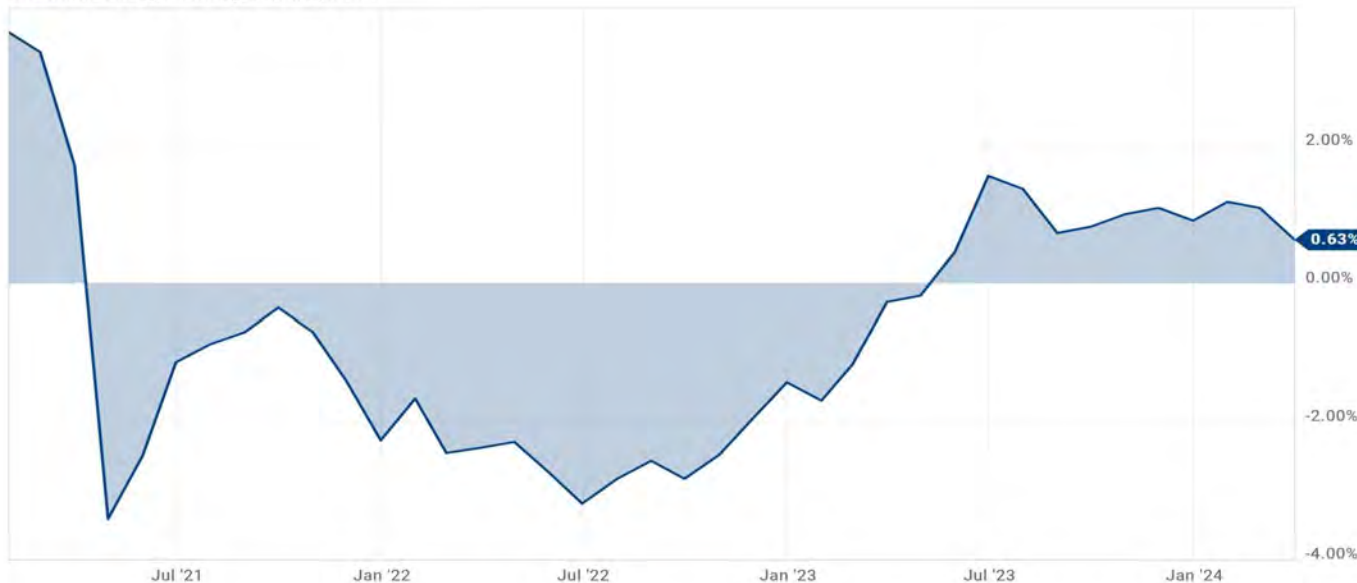
U.S. Economy

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 - 03/31/2024

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U.S. Economic Growth Continues to Exceed Expectations

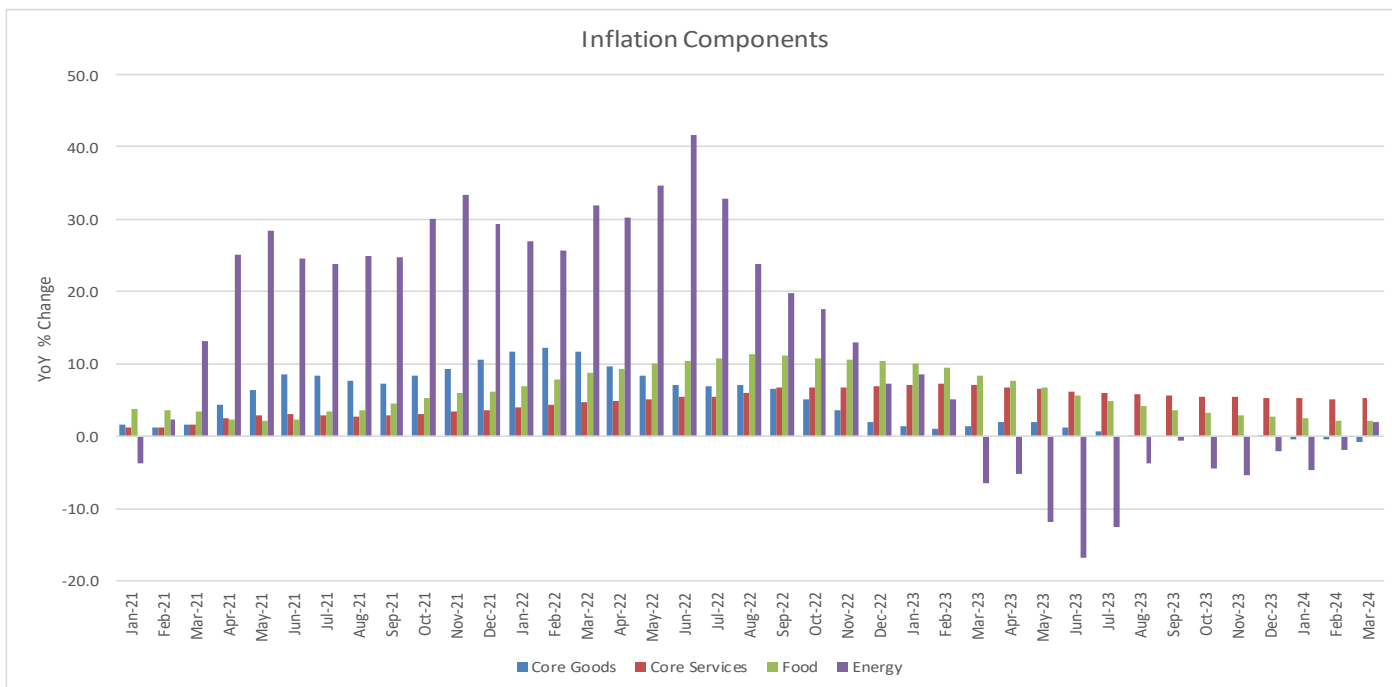
- While U.S. GDP growth slowed from 4.9% in 3Q 2023 to 3.4% in 4Q 2023, U.S. economic growth continues to exceed expectations.
- For CY 2023, the U.S. economy grew by 2.5%, ahead of the 1.9% pace of growth in 2022.
- Strong consumer spending was the primary driver of growth for Q4 2023 and the year. State and local government spending and business spending also positively contributed to growth in Q4 2023.
- Rising inflation resulted in 25 consecutive months of negative real wage growth for U.S. workers through early 2023. Beginning in Q2 2023, higher earnings and slowing inflation have more recently resulted in eleven consecutive months of real earnings growth, which has helped fuel stronger than expected economic growth.

U.S. Economy



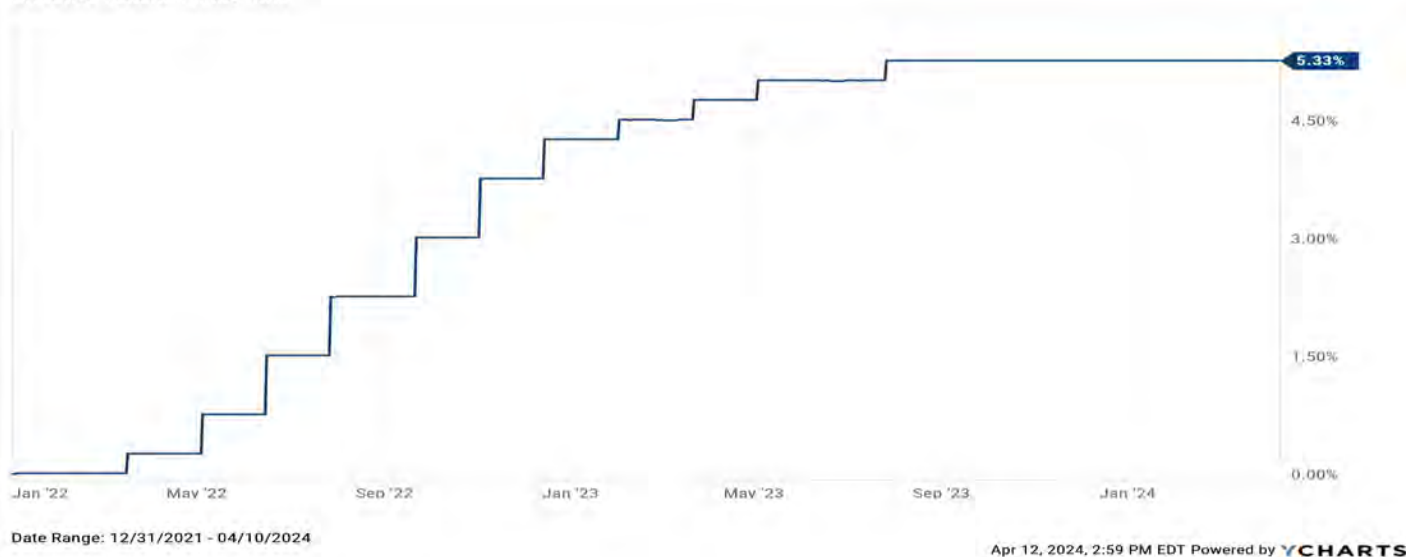
Inflation Remains Above Target

- Inflation remains above the Federal Reserve's 2.0% target. After falling below 3.0% in June 2023, year-over-year readings have averaged 3.3% over the last nine months.
- March 2024 headline inflation of 3.5% was driven by shelter and energy costs.
- Excluding food and energy, core inflation increased by 3.8% vs. a year ago.
- Year-over-year core goods inflation was negative for the first three 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.
- Personal Consumption Expenditures (PCE), the Fed's preferred inflation measure, increased by 2.8% over the last year through February, the lowest level since March of 2021.



U.S. Economy

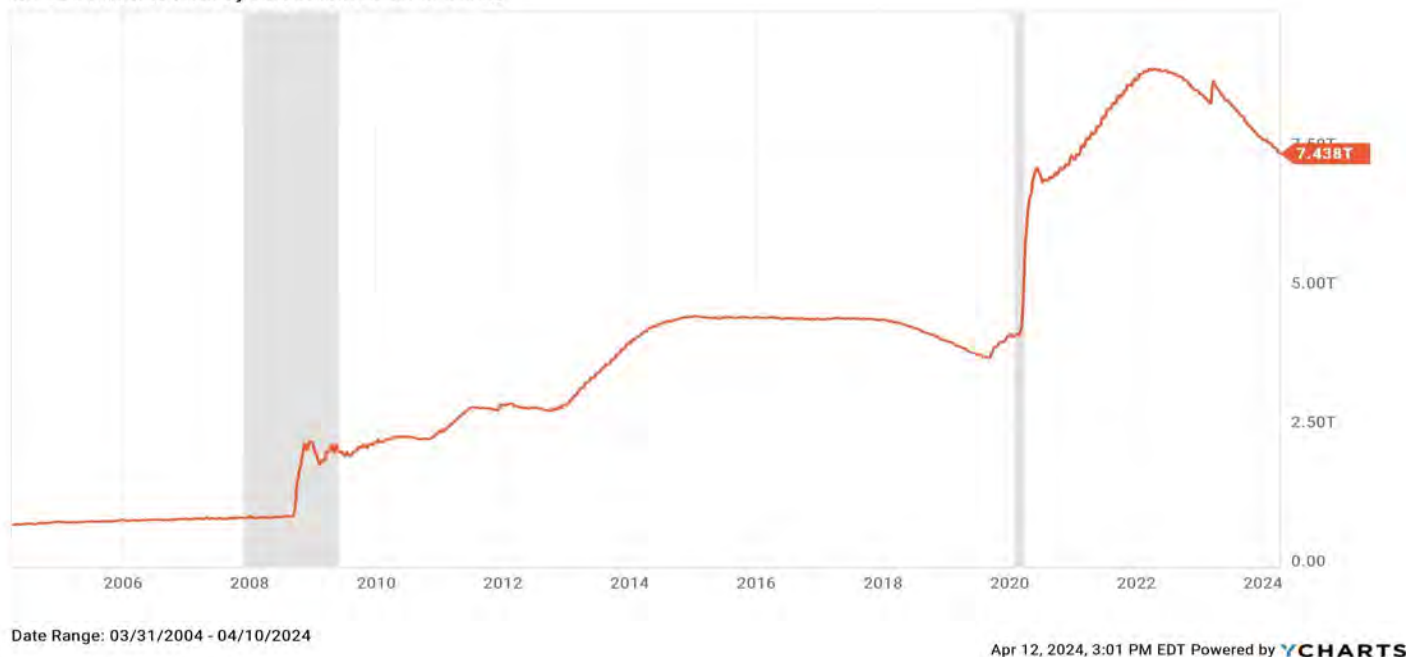
Effective Federal Funds Rate



Fed Remains on Hold as Inflation Proves to be Sticky

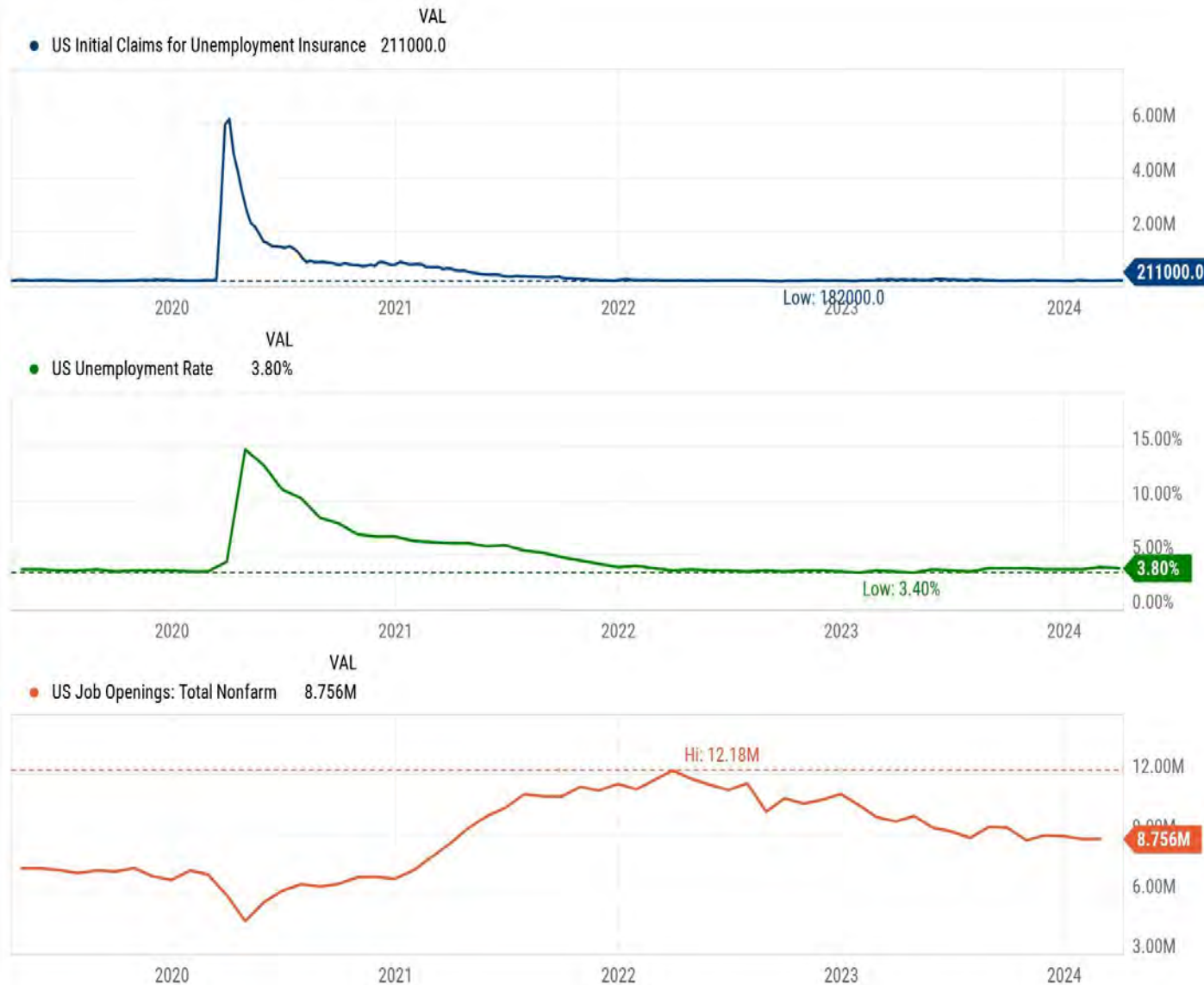
- The U.S. Federal Reserve raised rates from 0.0% to 5.25% since the beginning of 2022, with the most recent 0.25% increase occurring at the July 2023 meeting, leaving the effective Fed Funds Rate at 5.33%, the highest level since 2007.
- The Fed left rates unchanged at each of the final three meetings of 2023 and the first two meetings of 2024.
- Forward guidance from the Fed at the December meeting suggests three 0.25% cuts in 2024, while the market has reduced the number of cuts priced in for 2024 from six, at the start of the year, to two.
- The Fed reduced the size of the balance sheet by approximately \$1.6 trillion since the peak in April 2022 through quantitative tightening.
- The balance sheet is at the lowest level since February 2021, but remains considerably larger than pre-COVID.

US Total Assets Held by All Federal Reserve Banks



U.S. Economy

Employment Remains Resilient



Date Range: 04/13/2019 - 04/06/2024

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- Despite significant increases in the Fed Funds rate, various measures suggest the labor market remains strong.
- Weekly claims for unemployment have averaged 211,000 in 2024 compared to 225,000 for calendar year 2023.
- The U.S. labor market added 303,000 jobs in March, the most since January 2023. In total, 829,000 jobs were added in Q1 2024, while the unemployment rate increased from 3.7% at the start of the year to 3.8% in March.
- U.S. job openings declined in 2024, but remain elevated by historical standards at 8.8 million. There are approximately 1.4 openings for every unemployed person.

U.S. Equity Market

Sector	Index	1Q24	2023	2022	2021	2020	2019	2018	1-Year	3-Year	5-Year	10-Year
Large Cap	S&P 500	10.6%	26.3%	-18.1%	28.7%	18.4%	31.5%	-4.4%	29.8%	11.5%	15.0%	12.9%
	Russell 1000	10.3%	26.5%	-19.1%	26.4%	21.0%	31.4%	-4.8%	29.8%	10.4%	14.7%	12.7%
	Russell 1000 Value	9.0%	11.4%	-7.6%	25.1%	2.8%	26.5%	-8.3%	20.2%	8.1%	10.3%	9.0%
	Russell 1000 Growth	11.4%	42.7%	-29.1%	27.6%	38.5%	36.4%	-1.5%	38.9%	12.5%	18.5%	16.0%
Mid Cap	Russell Mid-Cap	8.6%	17.2%	-17.3%	22.6%	17.1%	30.5%	-9.1%	22.3%	6.1%	11.1%	9.9%
	Russell Mid-Cap Value	8.2%	12.7%	-12.1%	28.3%	5.0%	27.0%	-12.3%	20.3%	6.8%	9.9%	8.5%
	Russell Mid-Cap Growth	9.5%	25.9%	-26.7%	12.7%	35.6%	35.5%	-4.8%	26.2%	4.6%	11.8%	11.3%
Small Cap	Russell 2000	5.2%	16.9%	-20.5%	14.8%	19.9%	25.5%	-11.0%	19.6%	-0.1%	8.1%	7.5%
	Russell 2000 Value	2.9%	14.6%	-14.5%	28.2%	4.6%	22.4%	-12.9%	18.6%	2.2%	8.1%	6.8%
	Russell 2000 Growth	7.6%	18.6%	-26.4%	2.8%	34.6%	28.4%	-9.3%	20.3%	-2.7%	7.3%	7.9%
Total Market	Wilshire 5000	10.0%	26.1%	-19.0%	26.7%	20.8%	31.0%	-5.3%	29.3%	10.1%	14.6%	12.5%
	Russell 3000	10.0%	25.9%	-19.2%	25.6%	20.9%	31.0%	-5.2%	29.2%	9.7%	14.3%	12.3%

Major Index Total Return as of March 31, 2024

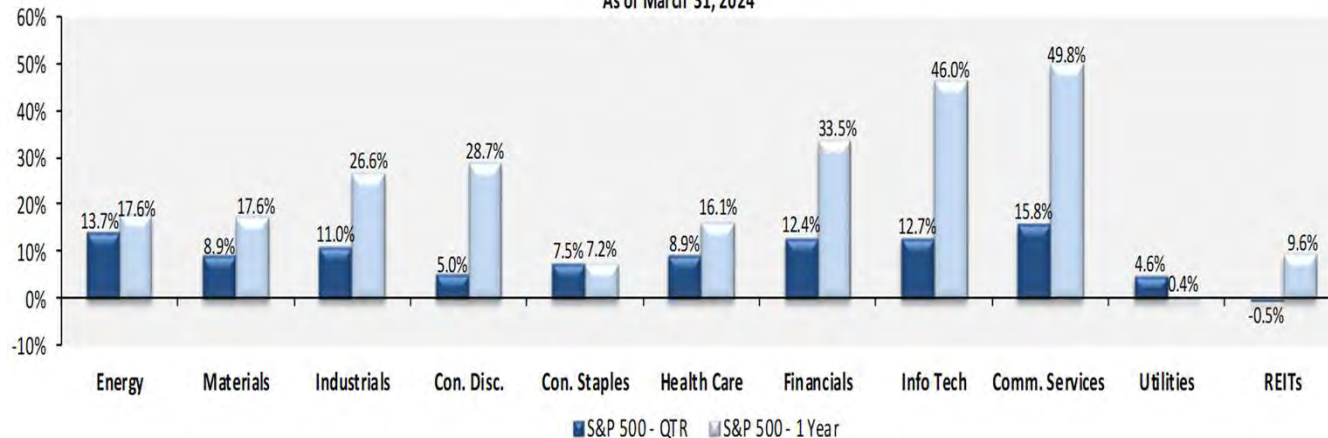
Asset Class	Name	1Q24	% off Low	% Off All Time High
U.S. Large Cap	S&P 500	10.6%	50.5%	0.0%
U.S. Mid Cap	Russell Midcap	8.6%	39.1%	0.0%
U.S. Smid Cap	Russell 2500	6.9%	35.4%	-2.8%
U.S. Small Cap	Russell 2000	5.2%	31.1%	-9.9%
International Large Cap	MSCI EAFE	5.9%	49.0%	-0.1%
International Small Cap	MSCI EAFE Small Cap (gross)	2.5%	37.4%	-13.2%
Emerging Markets	MSCI Emerging Markets	2.4%	28.8%	-21.1%
Global Equity	MSCI World (gross)	9.0%	49.7%	0.0%

- U.S. equities hit record highs in Q1 2024, driven by the S&P 500's impressive 10.6% total return. This marked the index's second consecutive quarter of double-digit growth, a feat achieved only nine times since 1940, as the large cap index posted five consecutive months of positive returns from November 2023 to March 2024.
- Following an initial tech-driven surge early in 2024, the equity rally has expanded to encompass cyclicals such as commodities and industrials.
- Anticipation of interest rate cuts in 2024, despite expectations of a less dovish Federal Reserve, has propelled small and mid-cap indices ahead of large caps in the past five months. Despite recent outperformance, small caps remain close to 10% below their all-time high.

U.S. Equity Market

S&P 500 Sector Performance

As of March 31, 2024



Broad Sector Participation Fuels Stock Rally

- In Q1 2024, ten out of eleven large-cap sectors experienced gains. Leading the pack were communications (+15.8%), energy (+13.7%), technology (+12.7%), financials (+12.4%), and industrials (+11%), with only real estate (-0.5%) posting losses.

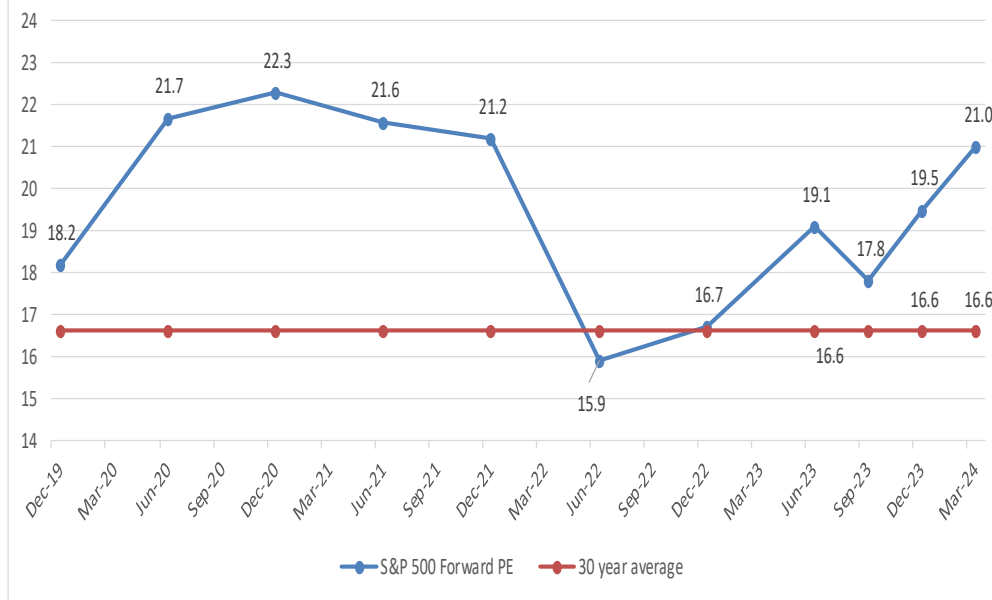
- While technology and communications have led over the past year, cyclical sectors, spearheaded by energy, rose to the forefront of sector performance in the latter half of Q1 2024.

- Commodity prices, including gold, copper, iron ore, and oil, are surging. Gold remains at a record high, copper is near a 15-month peak due to supply constraints and increased global manufacturing, and oil is nearing a five-month high amid Middle East tensions and ongoing supply worries.

Earnings Growth Streak Continues

- The S&P 500 is expected to post 3.2% year-over-year earnings growth for Q1 2024, which would mark the third consecutive quarter of year-over-year earnings growth.
- The S&P 500's forward P/E ratio jumped in Q1 2024 to the highest levels since late 2021 as rising stock prices outpaced earnings growth forecasts. This upward trend in valuations is surprising given that interest rates remain elevated.

S&P 500 Forward P/E



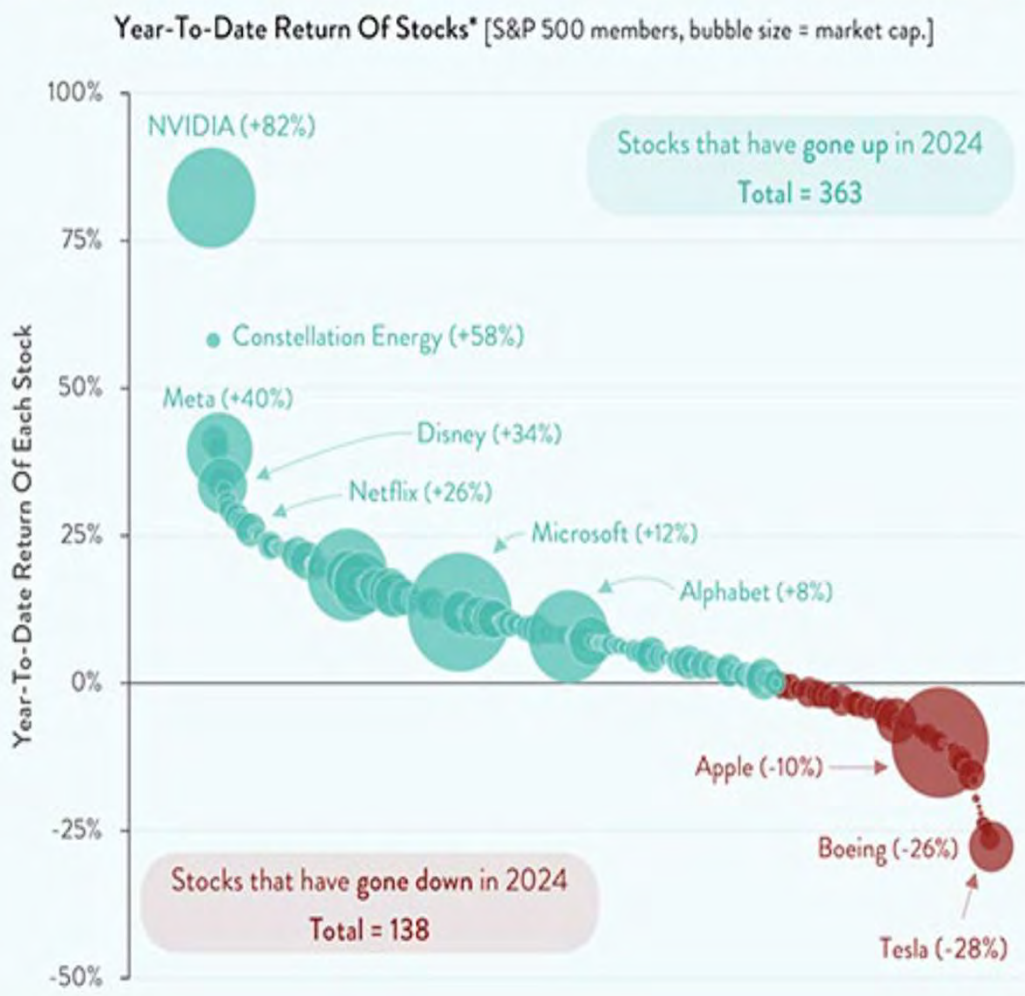
Source: J.P. Morgan Asset Management

U.S. Equity Market

S&P 500 Rally Fueled by AI Giants, Chip Index Hits Two-Decade Valuation High

- In 2023, equity markets were dominated by the “Magnificent Seven” narrative; however, in Q1 2024, a concentrated group of six stocks, including some from the Magnificent Seven, drove 60% of S&P 500 gains. Five of these six companies — Nvidia, Microsoft, Meta, Amazon, and Broadcom — are primarily associated with AI, an industry drawing significant investment from cloud-based hyperscalers.
- Moreover, the AI frenzy has propelled chipmakers, with the Philadelphia Stock Exchange Semiconductor Index currently trading at approximately eight times sales, the highest level in two decades. In contrast, the S&P 500 is valued at around three times sales. This indicates that the chip index now surpasses its valuation during the dot-com peak in 2000 relative to the broader benchmark.

2024 Stock Market Winners & Losers



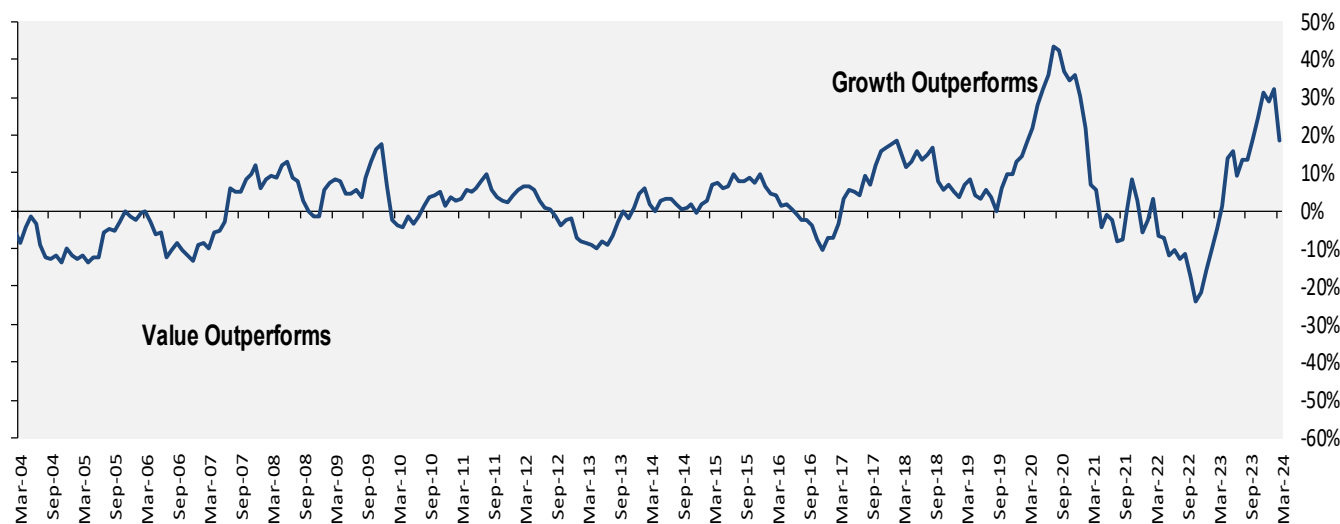
*Super Micro Computer not shown (+270%). The “Magnificent 7” is comprised of Alphabet, Amazon, Apple, Meta, Microsoft, NVIDIA, and Tesla. Sources: Koyfin; Chartr.

Q1 2024 Echoes Q4 2023: US Stocks Surge

- US shares surged in the quarter, buoyed by strong corporate earnings. Despite the slower-than-expected pace of monetary policy easing due to resilient economic data, investor appetite for equities remained high. 40% of the S&P constituents outpaced the cap-weighted S&P 500 index for the quarter, which compares favorably to the 25% figure for the calendar year 2023.
- From a factor perspective, in Q1 2024,, momentum remains the dominant force, with stocks that performed well in 2023 continuing to generate gains in the most recent quarter. Conversely, high-dividend stocks fared poorly during this period.

U.S. Equity Market

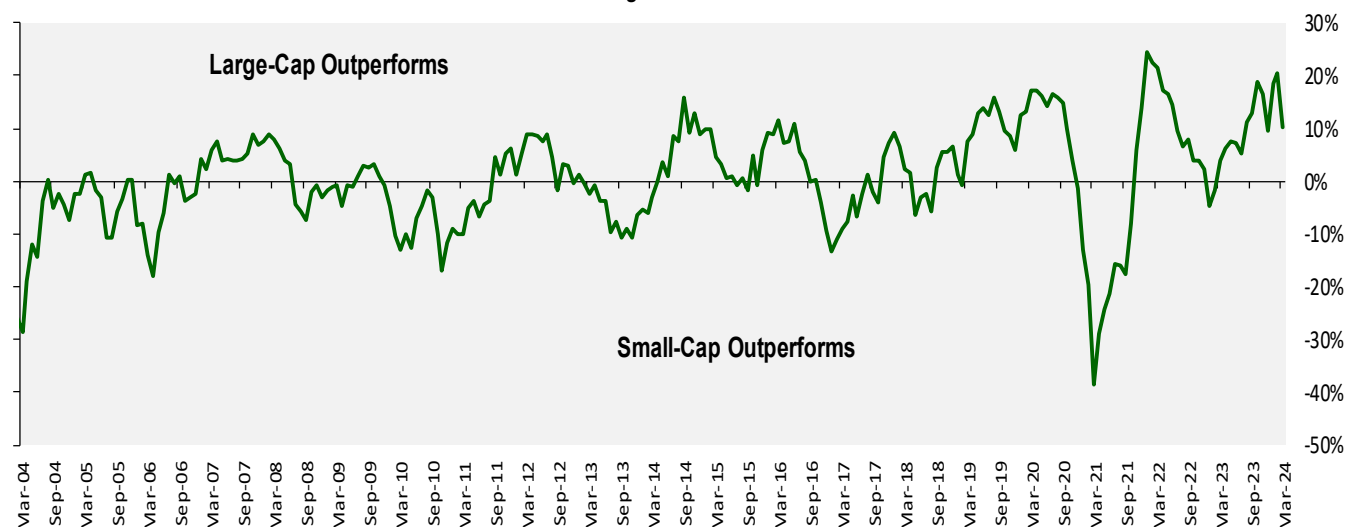
Russell 1000 Growth vs. Russell 1000 Value
Rolling One-Year Returns



Large-Cap Growth Leads Again, Small-Caps Show Resilience

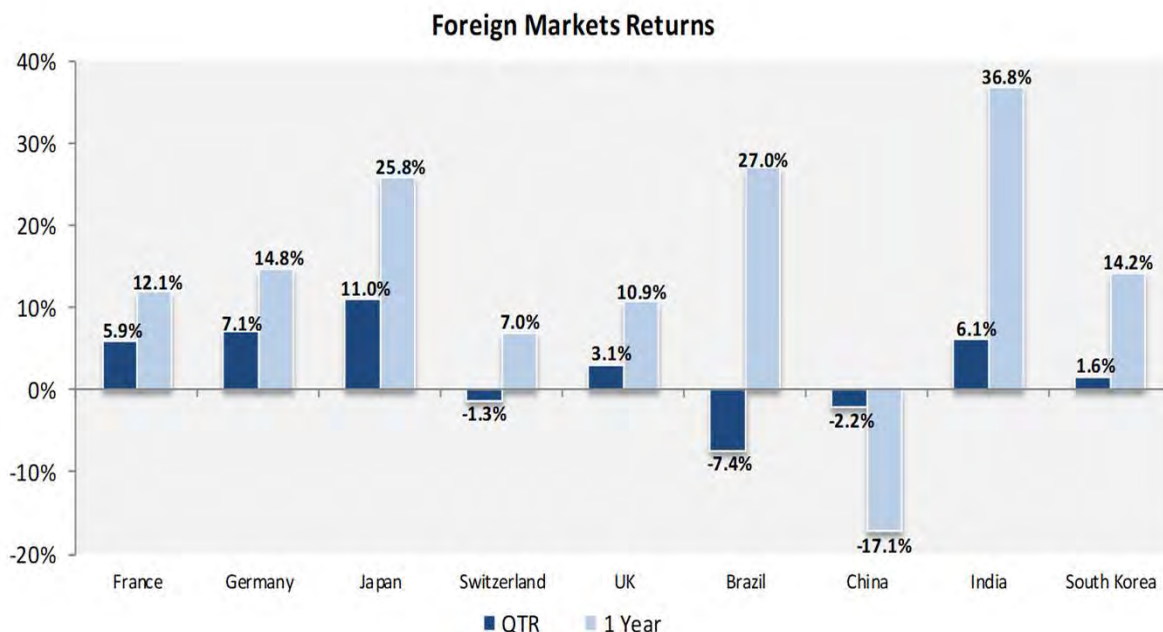
- In Q1 2024, large-cap growth once again outperformed large-cap value, although the margin was less significant compared to the previous quarter. Over the past year, the extremes between value and growth indices have primarily been observed in the large and mega-cap sectors. However, in mid and small caps, the return dispersion between growth and value has been minimal over the last 12 months.
- The small-cap index rose by a respectable 5.2% in Q1 2024, albeit trailing behind the Russell 1000's impressive 10.3% gain. Mega-cap stocks continued to dominate the large-cap index, with the Russell Top 50 Index advancing by 11.9% but these quarterly figures fail to capture the complete narrative. From the recent low on 10/27/23, the Russell 2000 surged by 30.7%, outperforming the Russell 1000, which saw a 28.9% increase.

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



International Equity Market

Sector	Index	1Q24	2023	2022	2021	2020	2019	2018	1-Year	3-Year	5-Year	10-Year
Global	MSCI AC World Index (net)	8.2%	22.2%	-18.4%	18.5%	16.3%	26.6%	-9.4%	23.1%	6.9%	10.9%	8.7%
	MSCI World Small Cap (net)	4.4%	15.8%	-18.8%	15.8%	16.0%	26.2%	-13.9%	15.8%	1.3%	7.9%	6.9%
	MSCI World ex US (net)	5.6%	17.9%	-14.3%	12.6%	7.6%	22.5%	-14.1%	15.2%	4.9%	7.5%	4.8%
Developed ex US	MSCI World ex US Small Cap (net)	2.6%	12.6%	-20.6%	11.1%	12.8%	25.4%	-18.1%	10.0%	-0.9%	5.4%	4.5%
	MSCI EAFE (net)	5.8%	18.2%	-14.5%	11.3%	7.8%	22.0%	-13.8%	15.3%	4.8%	7.3%	4.8%
	MSCI EAFE Value (net)	4.5%	19.0%	-5.6%	10.9%	-2.6%	16.1%	-14.8%	17.3%	6.6%	6.4%	3.5%
	MSCI EAFE Growth (net)	7.0%	17.6%	-22.9%	11.3%	18.3%	27.9%	-12.8%	13.2%	2.8%	7.8%	5.9%
	MSCI EAFE Small Cap (net)	2.4%	13.2%	-21.4%	10.1%	12.3%	25.0%	-17.9%	10.4%	-1.4%	4.9%	4.7%
Emerging Markets	MSCI Emerging Markets (net)	2.4%	9.8%	-20.1%	-2.5%	18.3%	18.4%	-14.6%	8.1%	-5.0%	2.2%	2.9%



- In Q1, Japanese equities surged ahead, surpassing global peers, while European equities held steady near the global benchmark. Conversely, Emerging and Asia Pacific indices lagged, primarily due to China's continued drag.
- In response to economic challenges such as a property downturn and persistent deflation, Beijing implemented measures including state fund interventions and initiatives targeting the housing crisis, aimed at bolstering investor sentiment in China.
- Reflecting the strength also observed in the U.S. market, the global technology sector, particularly semiconductors, saw substantial gains in the quarter. This trend was echoed by gains in financials, particularly banks, and industrials, driven by defense-related activities. Principally, in Europe, the defense industry continued its upward re-rating trend, propelled by the ongoing rearmament cycle in the region.

International Equity Market

ICE US Dollar Index Level



Date Range: 03/31/2014 - 03/29/2024

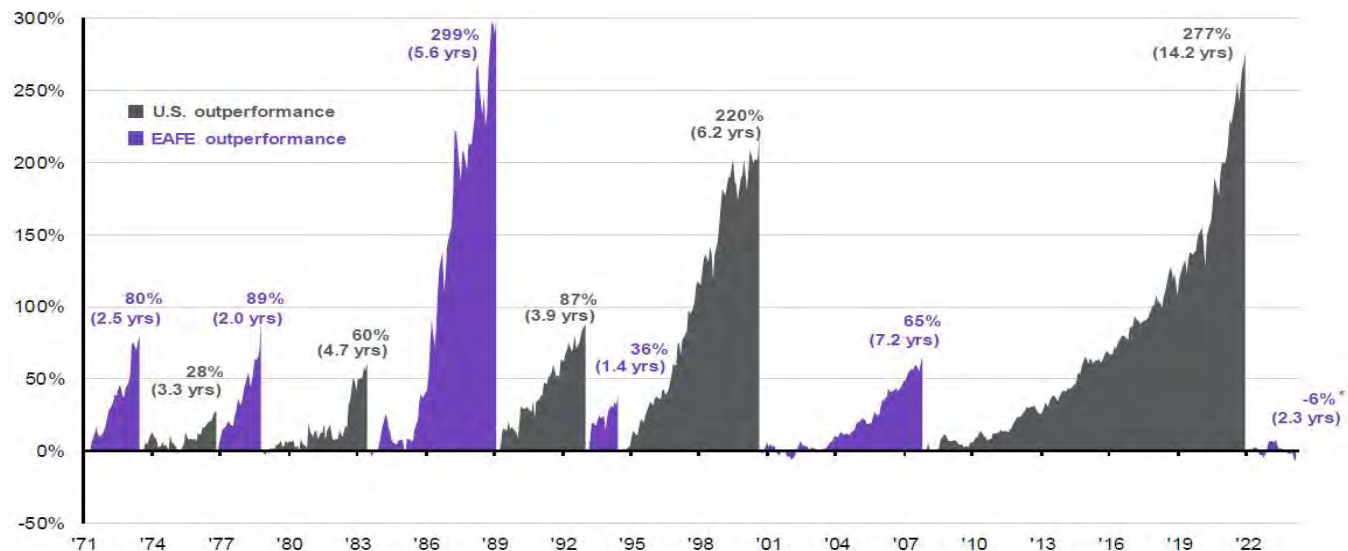
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Dollar Reigns as Yen Falls to Low

- Following a historic rate hike that marked the end of negative rates, Japan still holds the lowest policy rate among developed nations. Meanwhile, the Federal Reserve has maintained its benchmark federal funds rate between 5.25% and 5.50%, providing a wide gap in the U.S. and strengthening the U.S. Dollar.
- The Japanese Yen plunged to a 34-year low against the U.S. Dollar, prompting increased warnings from Japanese authorities about potential intervention to stabilize the currency and curb volatility.

Two-Year Stalemate: U.S. and Developed International Markets

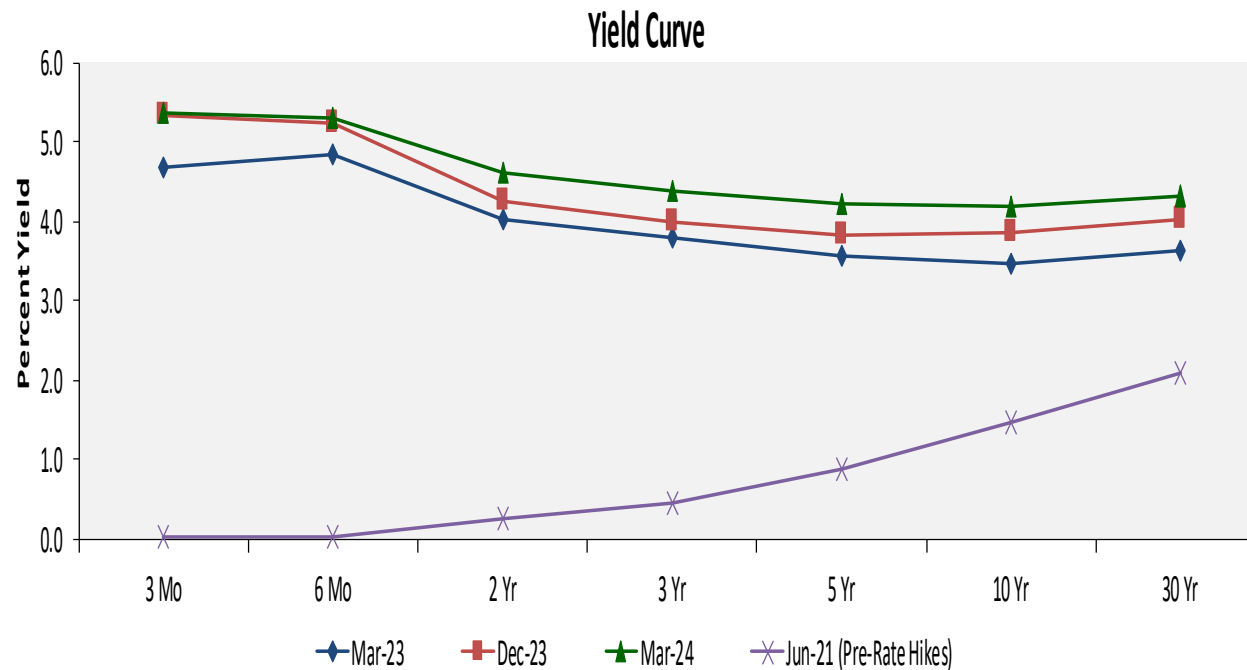
- U.S. equity markets outperformed international markets by 277% over 14.2 years, marking the longest duration of outperformance in 50 years; however, this trend may have ended by the close of 2021.
- Over the last 2.3 years, U.S. and internationally developed markets have exhibited a sawtooth pattern, with no clear trend and a minimal spread between them.



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

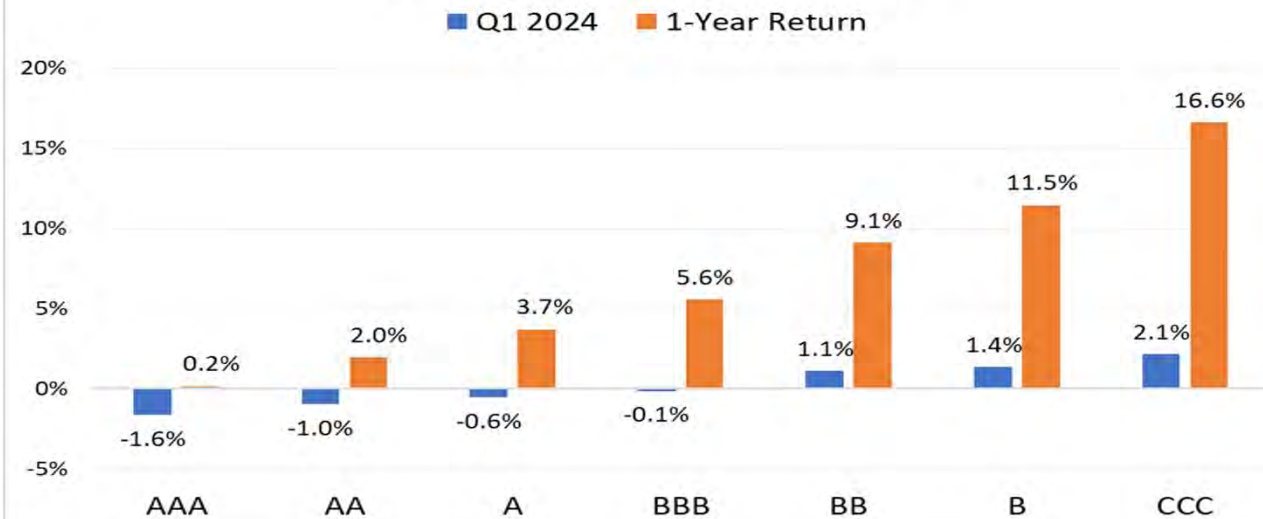
Index	Duration (years)	Yield	1Q24	2023	2022	2021	2020	2019	2018	1-Year	3-Year	5-Year	10-Year
Bloomberg Aggregate	6.2	4.85%	-0.8%	5.5%	-13.0%	-1.5%	7.5%	8.7%	0.0%	1.7%	-2.5%	0.4%	1.5%
Bloomberg Govt/Credit	6.5	4.76%	-0.7%	5.7%	-13.6%	-1.7%	8.9%	9.7%	-0.4%	1.7%	-2.3%	0.6%	1.7%
Bloomberg Int Agg	4.5	4.82%	-0.4%	5.2%	-9.5%	-1.3%	5.6%	6.7%	0.9%	2.3%	-1.7%	0.6%	1.5%
Bloomberg Int Govt/Credit	3.9	4.70%	-0.2%	5.2%	-8.2%	-1.4%	6.4%	6.8%	0.9%	2.7%	-1.1%	1.1%	1.6%
Bloomberg U.S. Corporate	7.2	5.30%	-0.4%	8.5%	-15.8%	-1.0%	9.9%	14.5%	-2.5%	4.4%	-1.9%	1.5%	2.6%
Bloomberg HY Ba/B 2% IC	3.7	6.88%	1.3%	12.6%	-10.6%	4.6%	7.7%	15.2%	-1.9%	10.2%	2.1%	4.3%	4.5%
ICE BofA 1-3 Yrs BB US Cash Pay HY	1.8	6.36%	1.4%	8.9%	-3.1%	3.2%	5.4%	8.7%	1.3%	7.9%	3.1%	4.0%	3.9%
Bloomberg Mortgage	5.7	5.04%	-1.0%	5.0%	-11.8%	-1.0%	3.9%	6.4%	1.0%	1.4%	-2.8%	-0.4%	1.1%
Bloomberg Treasury	6.2	4.43%	-1.0%	4.1%	-12.5%	-2.3%	8.0%	6.9%	0.9%	0.1%	-2.7%	-0.1%	1.0%
Bloomberg US TIPS	6.8	4.61%	-0.1%	3.9%	-11.8%	6.0%	11.0%	8.4%	-1.3%	0.5%	-0.5%	2.5%	2.2%
BofA ML 91 day T-Bills	0.2	5.37%	1.3%	5.2%	1.5%	0.0%	0.7%	2.3%	1.9%	5.3%	2.6%	2.1%	1.4%



- The majority of the U.S. Treasury curve shifted upward in Q1 2024, putting pressure on longer duration bonds.
- The rise in U.S. Treasury yields was largely driven by diminishing expectations of future rate cuts by the Federal Reserve and persistent inflation readings above the Fed's 2% target inflation rate.
- Returns for the U.S. bond market were mostly negative in Q1 2024. Credit spreads tightened across sectors, but it was not enough to offset the rise in Treasury yields, particularly for investment grade bonds. High yield bonds generated a positive return in Q1 2024 due to higher income and enough spread tightening to offset the move higher in Treasury yields.

Bond Market

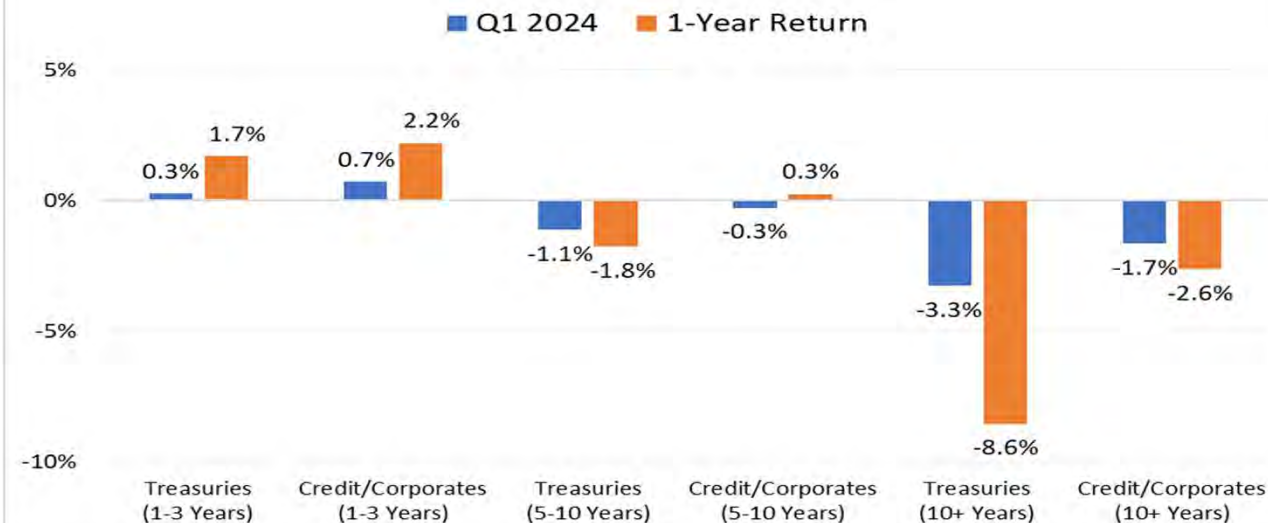
Returns by Credit Rating



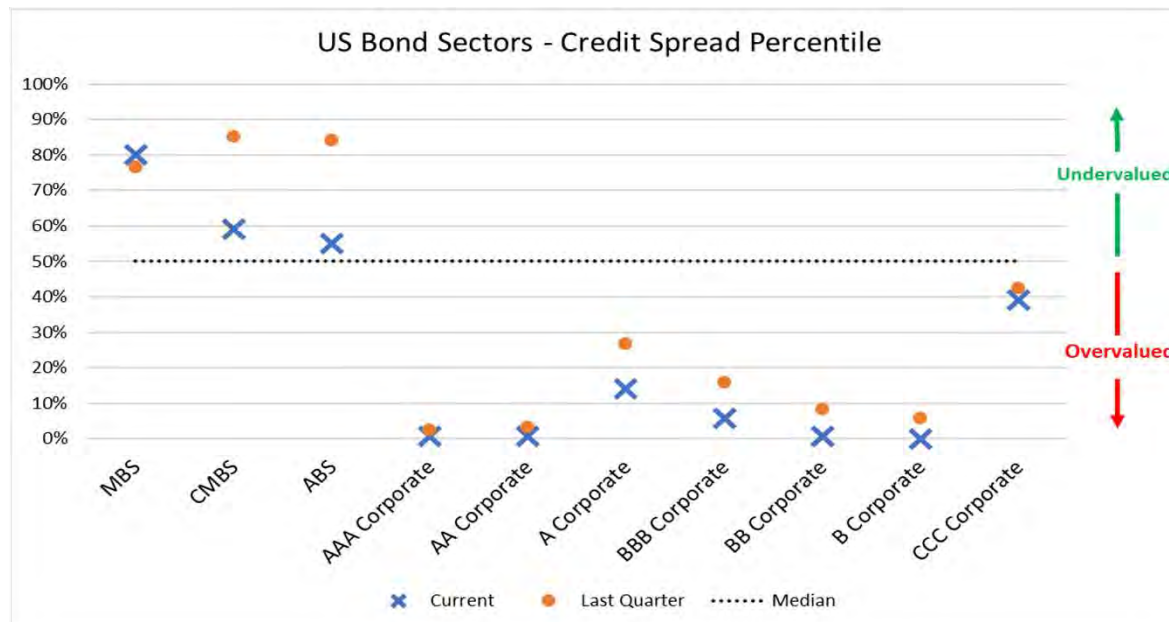
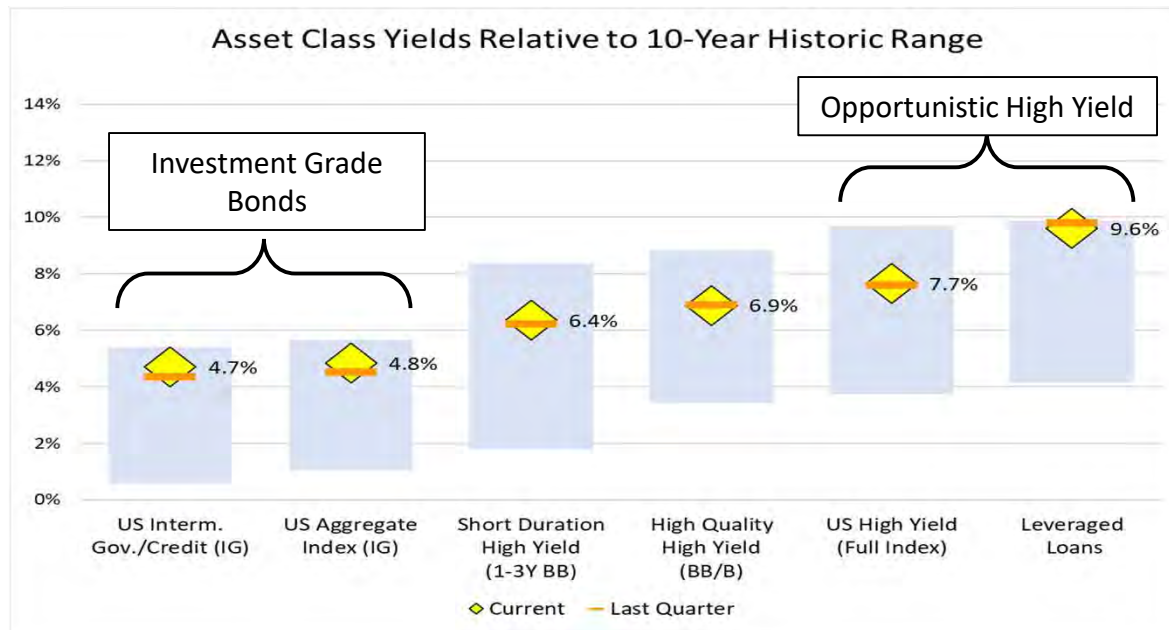
Rising interest rates in Q1 2024 led to underperformance in long duration bonds.

- The rise in U.S. Treasury yields in Q1 2024 put pressure on long-term bonds and higher quality corporate bonds during the quarter.
- Credit spreads tightened in Q1, causing corporate bonds to outperform treasuries.
- High yield bonds (BB-CCC rated) generated positive returns in Q1 2024 while investment grade corporate bonds experienced losses.
- While investment grade bonds experienced some spread tightening, their longer duration was a headwind as treasury yields rose.
- Outperformance in high yield bonds was driven by a combination of credit spread tightening and higher income versus investment grade bonds.
- Single-B bonds experienced the most spread tightening in Q1 2024, however, CCC-rated corporates outperformed due to a significant yield advantage.
- Lower-quality, short-duration credit continues to materially outperform over the trailing 1-year period.

Returns by Maturity



Bond Market



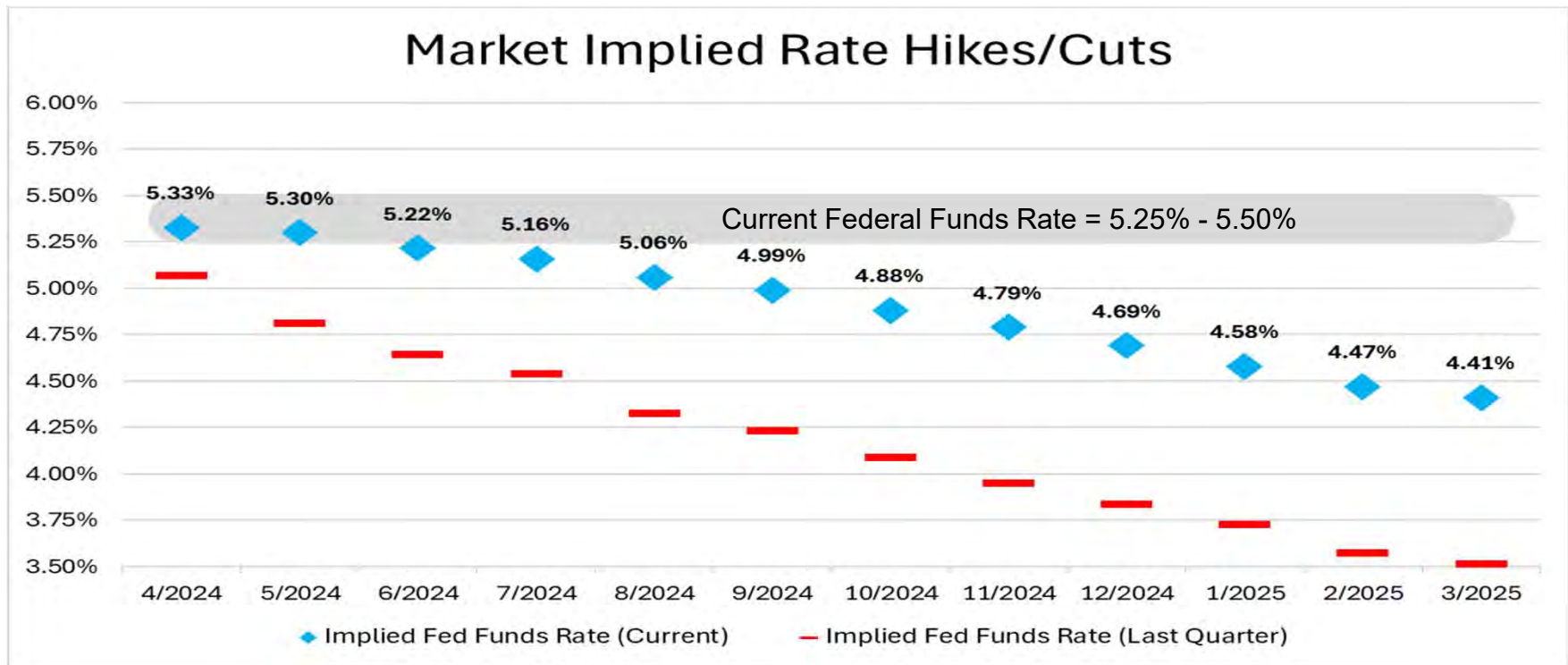
Bond Yields

- The rise in U.S. Treasury yields more than offset the credit spread tightening to push yields higher on investment grade bonds in Q1 2024, while high yield credit yields remained stable quarter over quarter.
- Investment grade bonds are currently yielding 4.5-5.5% while yields for high yield range between 6-8% with CCC-rated bonds yielding ~12%.
- 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 corporate bonds tightened in Q1 2024. High yield bonds experienced the largest spread compression during the quarter as sentiment and outlook was positive, mirroring the sentiment that pushed stocks to new all-time highs.
- Most corporate bond spreads are nearing the tightest spreads recorded in the last 10-years.
- Spreads in structured credit (MBS, CMBS, ABS) remain elevated. CMBS experienced the 2nd largest spread tightening in Q1, behind Single-B corporate bonds.

Bond Market

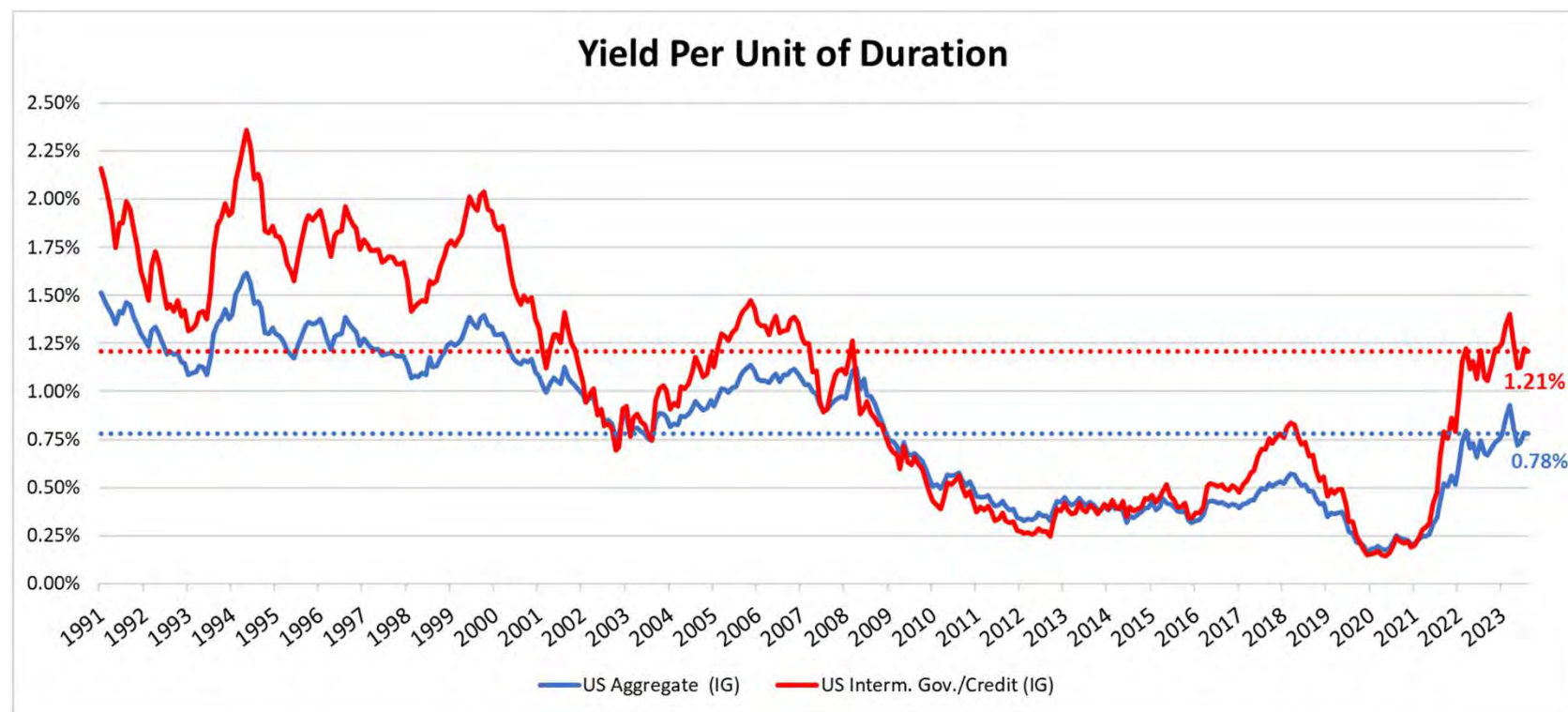


As of 3/31/24

- The FOMC held the Fed Funds rate at its current level for both their January and March meetings. The current target Federal Funds rate remains at 5.25-5.50%, up from 4.75-5.00% in Q1 2023.
- Expectations of Fed Funds rate cuts diminished in Q1. 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 Q1 2024, the market is now expecting ~75 bps of cuts by year end.
- These changes in expectations coincide with a leveling of U.S. inflation data, which has hovered between 3-3.5% since July 2023, remaining above the Federal Reserve's 2% inflation goal.
- Although the Federal Reserve has not deliberately signaled a plan to cut rates in the near-term, the March 2024 Federal Reserve dot plot, which represents each individual policymakers' projection of the future path of interest rates, shows the majority of individual Fed members are expecting the Fed Funds rate to be between 4.5% and 5% by the end of 2024, with the median expectation placing the Fed Funds rate between 4.5%-4.75%. Based on the dot plot, only 2 of 19 policymakers expect the Fed Funds rate to stay at its current level by the end 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 ~75 bps higher before core bond investors (U.S. Aggregate Index) start to realize negative returns on their portfolio in the near-term while intermediate investment grade investors can withstand a ~120 bps rise in interest rates before realizing losses on their portfolio.
- Given yields are equal for the U.S. Intermediate Gov./Credit Index and the US 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 3/31/2024										
Yield Change (bps)	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
-300	17.29	18.65	21.52	26.47	26.10	27.98	26.86	31.28	10.99	17.53
-250	15.06	16.28	18.85	22.30	22.20	23.59	22.91	26.35	10.31	15.84
-200	12.89	13.94	16.15	18.33	18.44	19.40	19.06	21.66	9.59	14.11
-150	10.76	11.62	13.42	14.56	14.83	15.43	15.31	17.21	8.84	12.35
-100	8.69	9.33	10.66	10.98	11.36	11.66	11.64	13.00	8.05	10.56
-75	7.67	8.19	9.26	9.27	9.67	9.86	9.85	10.98	7.64	9.65
-50	6.67	7.06	7.86	7.61	8.03	8.11	8.08	9.03	7.22	8.74
-25	5.67	5.94	6.46	5.99	6.42	6.41	6.33	7.13	6.80	7.81
0	4.70	4.82	5.04	4.43	4.85	4.76	4.61	5.30	6.36	6.88
25	3.73	3.71	3.62	2.91	3.31	3.17	2.91	3.52	5.92	5.95
50	2.78	2.60	2.18	1.45	1.81	1.62	1.23	1.81	5.46	5.00
75	1.83	1.50	0.74	0.03	0.34	0.13	-0.42	0.16	5.00	4.04
100	0.91	0.41	-0.70	-1.33	-1.09	-1.30	-2.05	-1.44	4.53	3.08
150	-0.91	-1.75	-3.62	-3.92	-3.84	-4.02	-5.23	-4.45	3.55	1.13
200	-2.68	-3.89	-6.57	-6.30	-6.45	-6.53	-8.32	-7.21	2.54	-0.84
250	-4.39	-6.01	-9.55	-8.49	-8.91	-8.83	-11.32	-9.74	1.50	-2.86
300	-6.06	-8.10	-12.56	-10.48	-11.23	-10.92	-14.22	-12.03	0.41	-4.90
Duration	3.89	4.46	5.68	6.16	6.22	6.48	6.85	7.22	1.76	3.74
Convexity	0.20	0.10	-0.12	0.79	0.58	0.84	0.38	0.96	-0.15	-0.13

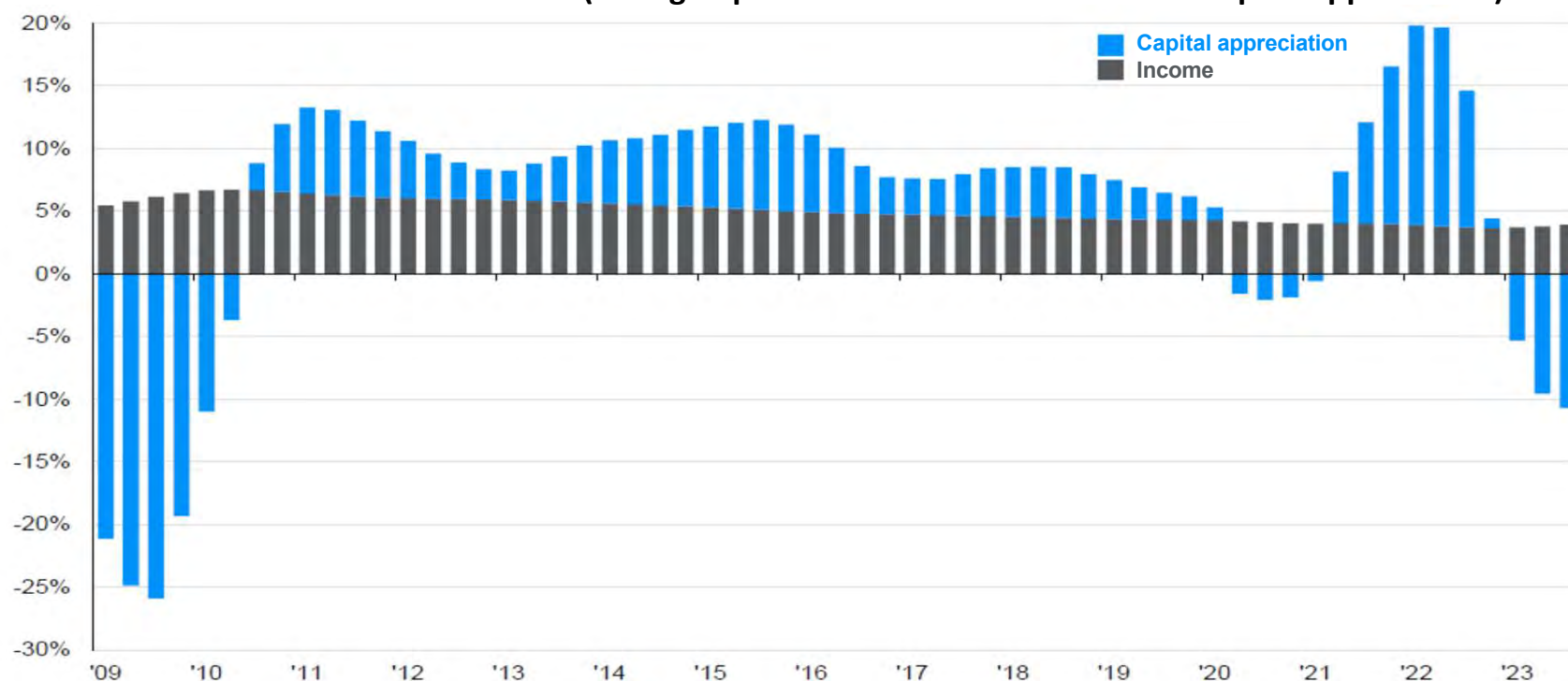
FOR ILLUSTRATIVE PURPOSES ONLY: For each index the current yield to worst as of 3/31/2024 was used as the base case annualized return. The annualized return sensitivity to a uniform increase or decrease in the yield curve was calculated by taking the index's Option-Adjusted Duration as of 3/31/2024 multiplied 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 3/31/2024, 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	1Q24	2023	2022	2021	2020	2019	2018	1-Year	3-Year	5-Year	10-Year
US Private	NCREIF ODCE Equal Weighted (net)	-2.4%	-13.4%	7.6%	21.9%	0.8%	5.2%	7.3%	-12.4%	2.8%	3.0%	6.2%
	NCREIF ODCE EW Income Index	1.0%	3.5%	3.5%	4.1%	3.6%	3.5%	3.5%	3.6%	3.7%	3.7%	3.7%
	NCREIF ODCE EW Appreciation Index	-3.2%	-15.8%	4.8%	18.3%	-2.1%	1.7%	3.7%	-14.5%	-0.1%	-0.1%	2.7%

- The NCREIF ODCE Equal Weighted Index (net) declined for the sixth quarter in a row in Q1 2024, generating a return of -2.4%, though the rate of decline slowed substantially compared to the Q4 2023 return of -5.4%.
- 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.

Global Real Estate Returns (rolling 4-quarter returns from income and capital appreciation)

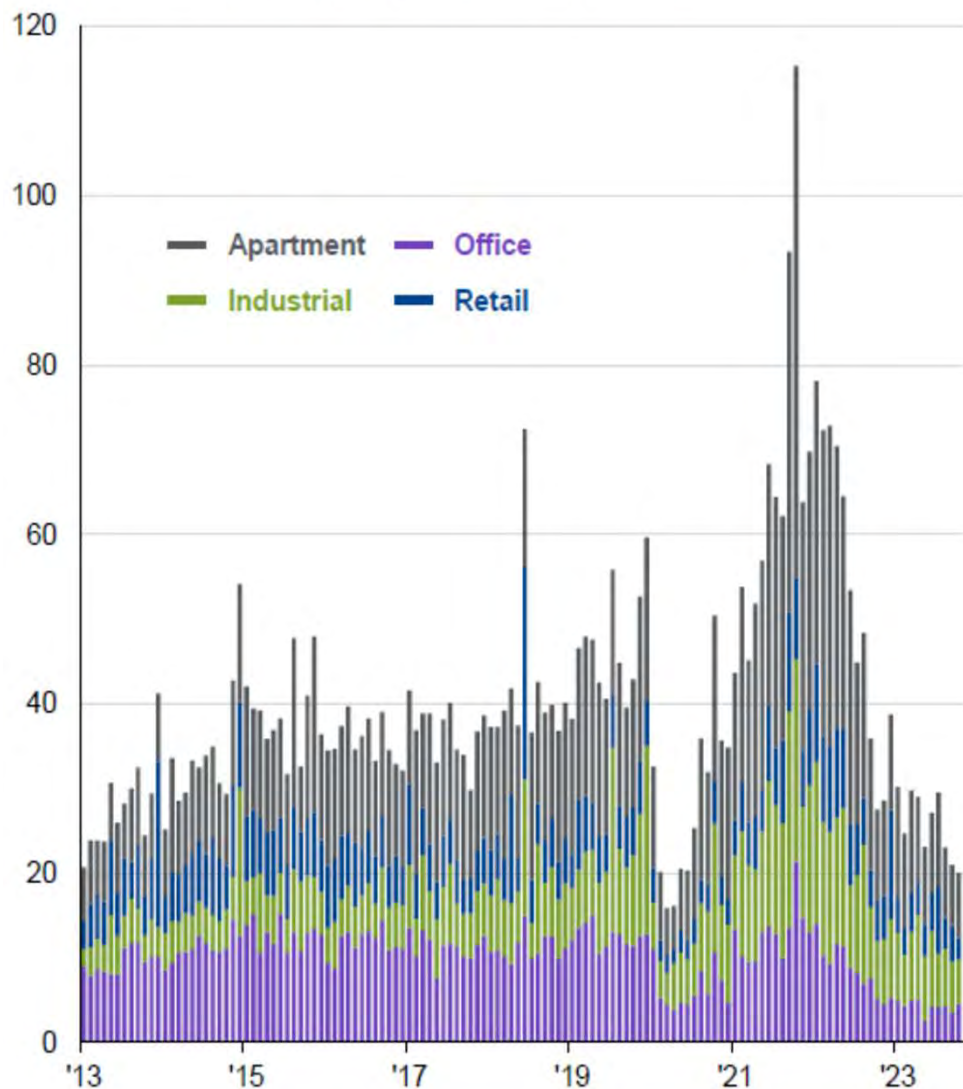


Source: MSCI, J.P. Morgan Asset Management; as of 9/30/2023.

Real Estate Market

U.S. real estate transaction volumes

USD billions, seasonally adjusted, 2013 – present



Source: J.P. Morgan Asset Management; as of 12/31/2023.

- Higher borrowing costs and less access to debt financing continue to weigh on properties across markets and sectors.
- Transaction volumes, as shown in the chart on the left, remain well below peak levels, though an increase in market participants and transactions during the first few months of 2024, combined with the potential for lower interest rates later this year, provide some optimism that commercial real estate prices are nearing stabilization.

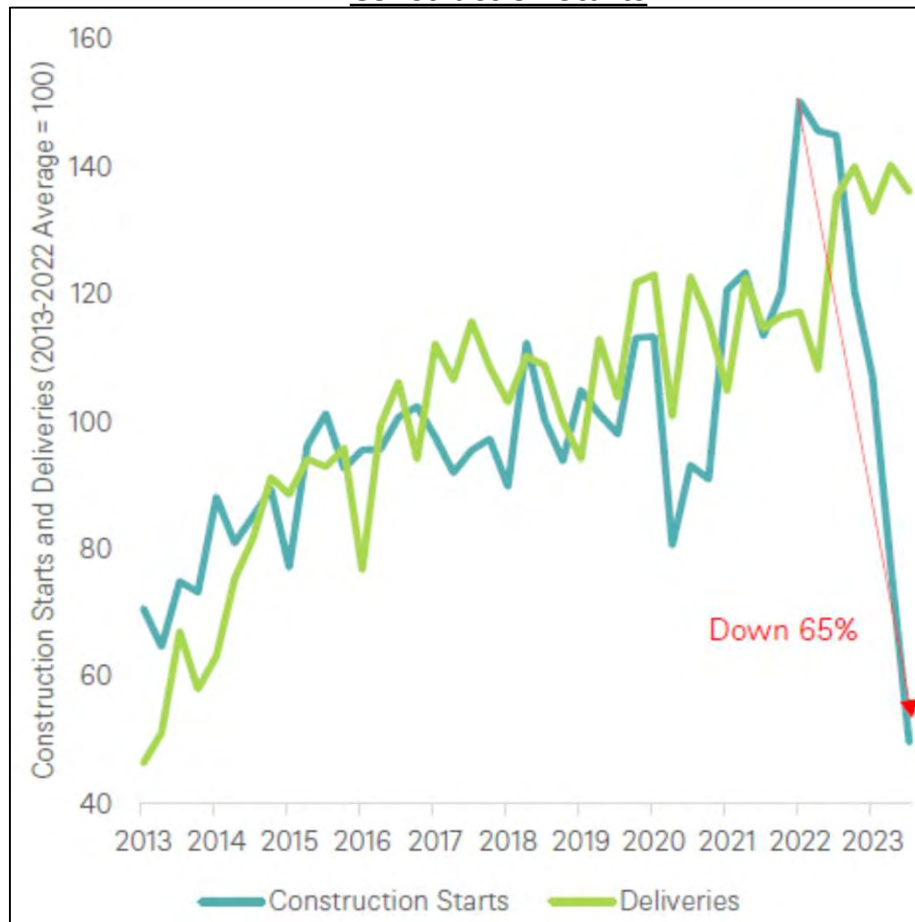


Source: NCREIF via DWS; as of 10/31/2023.

Real Estate Market

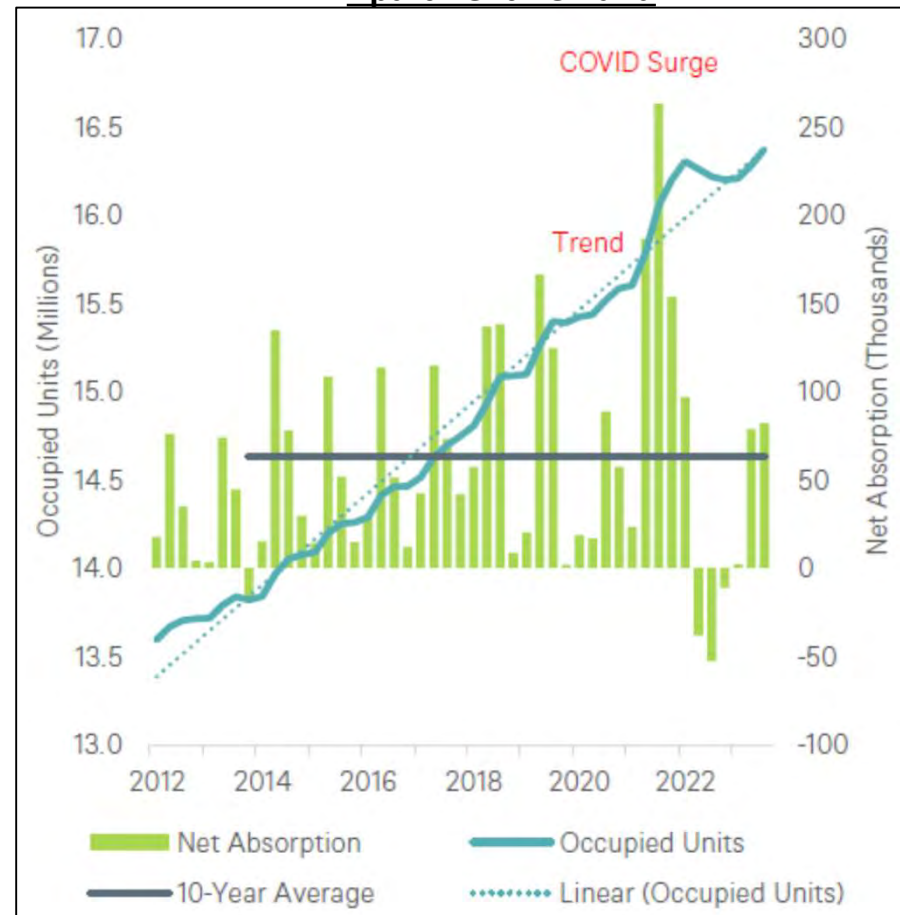
- The supply dynamics (primarily oversupply in industrial and multifamily) that have put downward pressure on rent growth and valuations are eventually expected to abate due to a significant decline in construction starts. Construction starts increased substantially during 2021-2022, bringing a significant amount of new supply to market recently.
- Despite the near-term oversupply in some markets, multifamily/apartments remain in high demand due to high mortgage rates, persistently high home prices and limited supply of homes for sale. The supply of homes available for sale was 37.9% below pre-pandemic levels, while the national median existing home price has risen nearly 5% year-over-year to \$393,500.

Construction Starts



Source: Costar (starts); CBRE-EA and DWS (deliveries); as of 9/30/2023.

Apartment Demand



Source: CBRE-EA via DWS; as of 9/30/2023.



IUOE Local No. 77 Annuity Fund

Master Consulting Services Report

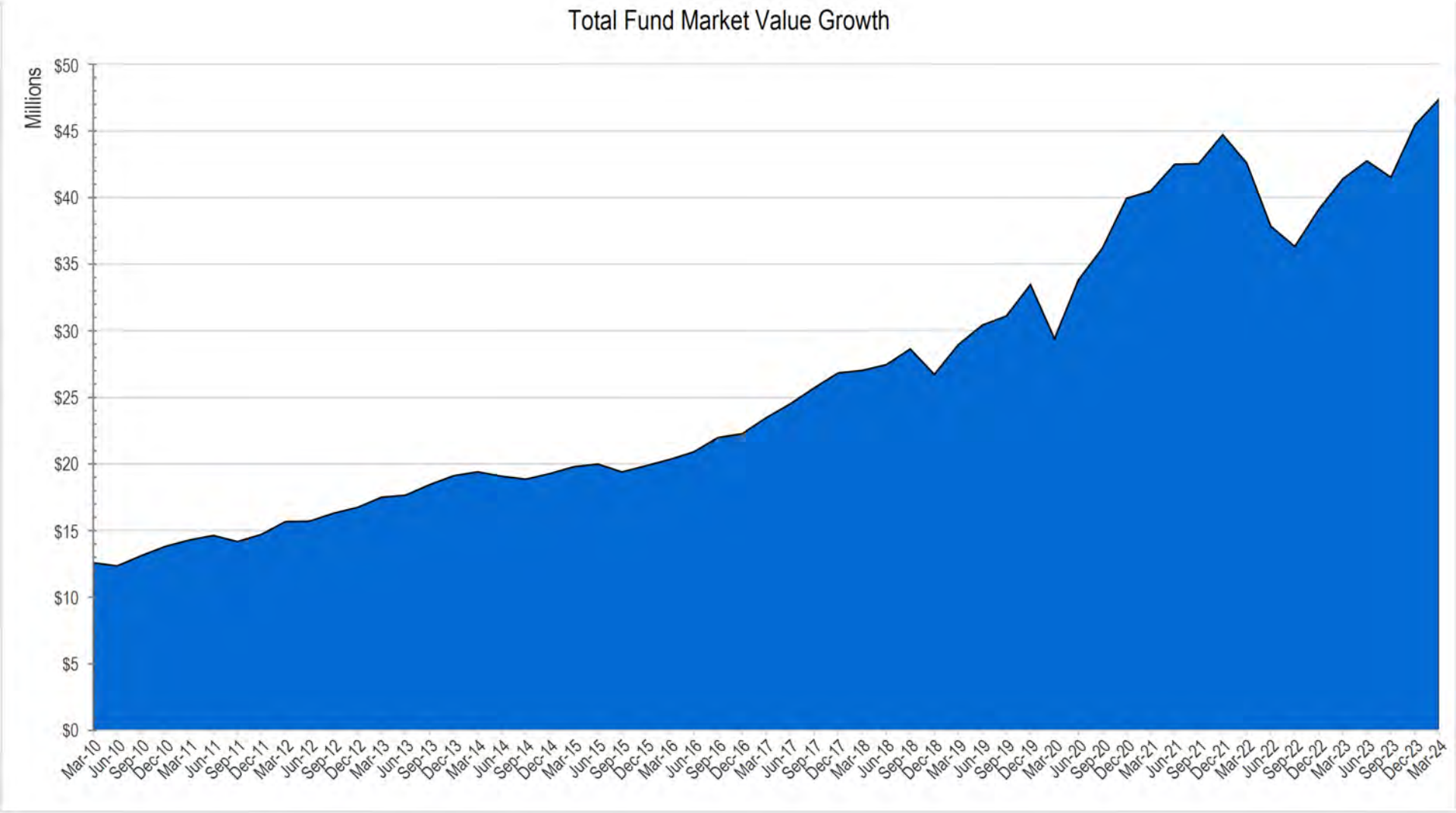
Period Ended

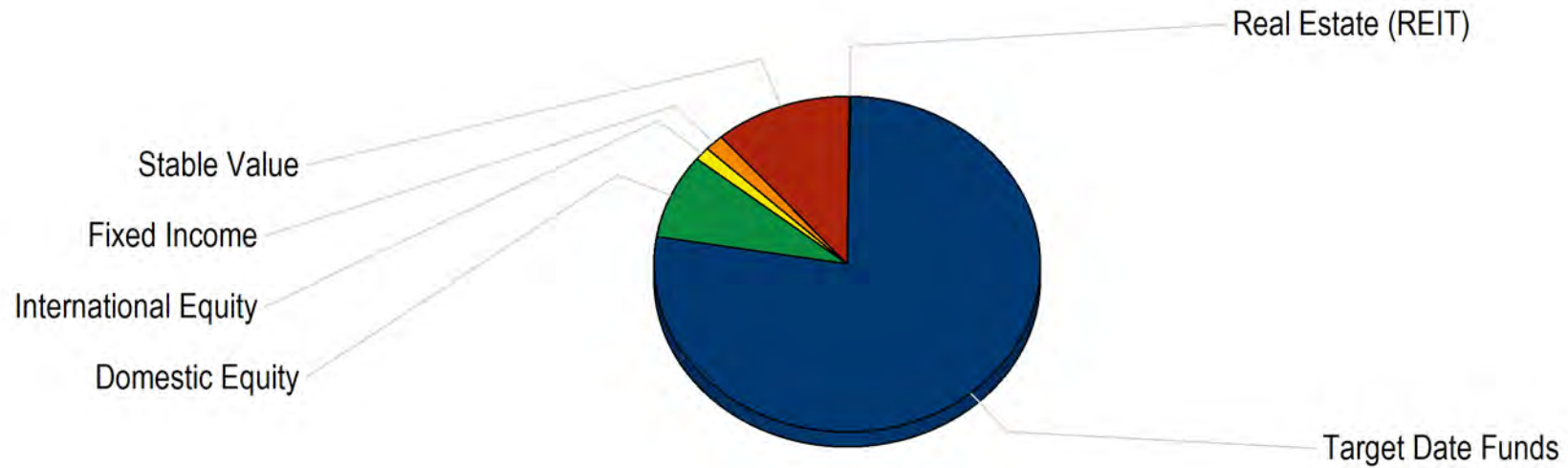
March 31, 2024

IUOE Local No. 77 Annuity Fund
Master Consulting Services Report as of March 31, 2024

Total Fund Growth of Assets

	Quarter Ending March 31	Quarter Ending June 30	Quarter Ending September 30	Quarter Ending December 31
2024	\$47,385,920	-	-	-
2023	\$41,406,753	\$42,753,166	\$41,519,175	\$45,441,929
2022	\$42,590,150	\$37,848,557	\$36,332,422	\$39,114,841
2021	\$40,486,314	\$42,500,221	\$42,541,556	\$44,720,977
2020	\$29,413,529	\$33,829,564	\$36,219,895	\$39,945,311
2019	\$28,965,507	\$30,429,058	\$31,114,044	\$33,471,332
2018	\$27,025,726	\$27,457,905	\$28,639,222	\$26,726,290
2017	\$23,468,954	\$24,510,754	\$25,713,956	\$26,840,656
2016	\$20,348,414	\$20,917,578	\$21,987,483	\$22,274,102
2015	\$19,798,253	\$19,997,614	\$19,407,137	\$19,867,667
2014	\$19,411,611	\$19,082,997	\$18,865,153	\$19,278,079
2013	\$17,509,679	\$17,661,805	\$18,453,388	\$19,122,441
2012	\$15,681,014	\$15,709,815	\$16,307,675	\$16,749,139
2011	\$14,298,684	\$14,638,327	\$14,180,615	\$14,718,540
2010	\$12,588,726	\$12,354,846	\$13,122,426	\$13,819,325

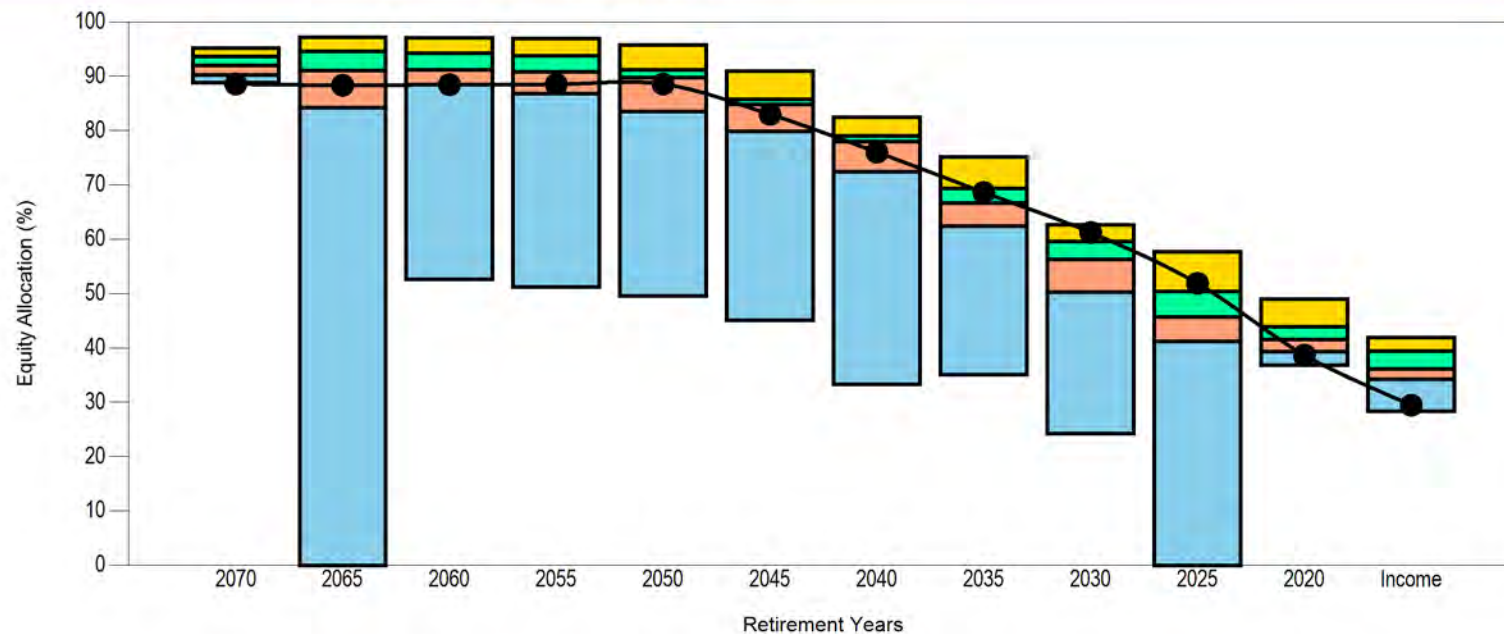




Total Fund Asset Allocation
As Of March 31, 2024

	Current	%
Target Date Funds	\$36,669,396	77.4%
Domestic Equity	\$3,875,489	8.2%
International Equity	\$600,569	1.3%
Fixed Income	\$770,975	1.6%
Stable Value	\$5,439,243	11.5%
Real Estate (REIT)	\$30,247	0.1%
Total	\$47,385,920	100.0%

Vanguard Target Date Investments Equity Allocation vs. Universe of Target Date Families
As of March 31, 2024



	Allocation (Rank)											
5th Percentile	88.9	-32.3	52.7	51.2	49.6	45.1	33.4	35.1	24.3	-0.3	36.9	28.4
25th Percentile	90.3	84.3	88.5	86.9	83.5	80.0	72.5	62.5	50.3	41.3	39.4	34.3
Median	92.0	91.1	91.2	90.9	89.8	84.9	78.0	66.7	56.4	45.7	41.7	36.2
75th Percentile	93.8	94.7	94.3	93.8	91.3	85.8	79.1	69.4	59.7	50.4	44.0	39.5
95th Percentile	95.1	97.1	97.0	96.9	95.7	90.9	82.4	75.1	62.6	57.7	48.9	41.9
# of Portfolios	2	12	18	18	18	18	17	18	17	18	11	13
● Vanguard Inv	88.6 (1)	88.3 (37)	88.5 (24)	88.5 (36)	88.6 (36)	83.0 (36)	76.0 (38)	68.6 (71)	61.2 (88)	51.9 (89)	38.7 (10)	29.5 (17)

Note: The above chart illustrates the Vanguard target date funds' total equity allocation by retirement fund year relative to the peer universe. A higher Rank indicates a greater allocation to equities relative to peers. For example, a Rank of 100 indicates the highest equity allocation among peers and a Rank of 1 indicates the lowest equity allocation.

IUOE Local No. 77 Annuity Fund

Master Consulting Services Report as of March 31, 2024

Manager Roster

Name	Ticker	Account Type	Benchmark	Market Value	% of Portfolio
Vanguard Target Retirement Income Fund - Investor	VTINX	Target Date Fund	Target Retirement Income Composite	\$403,007	0.85%
Vanguard Target Retirement 2020 - Investor	VTWNX	Target Date Fund	Target Retirement 2020 Composite	\$1,933,812	4.08%
Vanguard Target Retirement 2025 - Investor	VTTVX	Target Date Fund	Target Retirement 2025 Composite	\$6,980,535	14.73%
Vanguard Target Retirement 2030 - Investor	VTHRX	Target Date Fund	Target Retirement 2030 Composite	\$5,613,638	11.85%
Vanguard Target Retirement 2035 - Investor	VTTHX	Target Date Fund	Target Retirement 2035 Composite	\$5,090,282	10.74%
Vanguard Target Retirement 2040 - Investor	VFORX	Target Date Fund	Target Retirement 2040 Composite	\$5,039,933	10.64%
Vanguard Target Retirement 2045 - Investor	VTIVX	Target Date Fund	Target Retirement 2045 Composite	\$4,430,933	9.35%
Vanguard Target Retirement 2050 - Investor	VFIFX	Target Date Fund	Target Retirement 2050 Composite	\$3,536,732	7.46%
Vanguard Target Retirement 2055 - Investor	VFFVX	Target Date Fund	Target Retirement 2055 Composite	\$2,300,185	4.85%
Vanguard Target Retirement 2060 - Investor	VTTSX	Target Date Fund	Target Retirement 2060 Composite	\$1,119,393	2.36%
Vanguard Target Retirement 2065 - Investor	VLXVX	Target Date Fund	Target Retirement 2065 Composite	\$208,845	0.44%
Vanguard Target Retirement 2070 - Investor	VSVNX	Target Date Fund	Target Retirement 2070 Composite	\$12,103	0.03%
Vanguard 500 Index Fund	VFIAX	Domestic Equity	S&P 500	\$2,807,159	5.92%
Vanguard Growth Index Fund Admiral Shares	VIGAX	Domestic Equity	CRSP US Large Cap Growth TR USD	\$97,431	0.21%
Vanguard Value Index Fund Admiral Shares	VVIAX	Domestic Equity	CRSP US Large Cap Value TR USD	\$21,712	0.05%
Vanguard Mid-Cap Index Fund	VIMAX	Domestic Equity	CRSP US Mid Cap TR USD	\$646,355	1.36%
Vanguard Small Cap Index Fund	VSMAX	Domestic Equity	CRSP US Small Cap TR USD	\$302,831	0.64%
Vanguard Developed Markets Index Fund Admiral	VTMGX	International Equity	FTSE-Developed All Cap Ex U.S. Index	\$556,255	1.17%
Vanguard FTSE All-World ex-US SmallCap Index	VFSAX	International Equity	FTSE - Global Small Cap Ex U.S. Index	\$4,496	0.01%
Vanguard Emerging Markets Index Fund Admiral	VEMAX	International Equity	Spliced Emerging Markets Index	\$39,818	0.08%
Vanguard High-Yield Corporate Fund	VWEAX	Fixed Income	High-Yield Corporate Composite Index	\$67,703	0.14%
Vanguard Total Bond Market Index Admiral	VBTLX	Fixed Income	Spliced Barclays USAgg Float Adj	\$703,272	1.48%
SAGIC Diversified Bond		Stable Value	FTSE T-Bill 3 Months TR	\$5,439,243	11.48%
Vanguard Real Estate Index Fund Admiral	VGSLX	Real Estate	REIT Spliced Index	\$30,247	0.06%
Total				\$47,385,920	100.00%

Asset Allocation of Vanguard Target Retirement Investments by Fund Vintage Year As of March 31, 2024												
	2070	2065	2060	2055	2050	2045	2040	2035	2030	2025	2020	Income
Multi-Cap Core Funds	53.8%	53.4%	53.7%	53.8%	53.9%	51.7%	47.1%	42.3%	37.2%	31.4%	23.3%	17.7%
Vanguard Total Stock Market Index Fund;Inst +	53.8%	53.4%	53.7%	53.8%	53.9%	51.7%	47.1%	42.3%	37.2%	31.4%	23.3%	17.7%
International Multi-Cap Core	35.9%	36.0%	35.9%	35.8%	35.7%	32.3%	29.9%	27.1%	24.8%	21.1%	15.8%	12.1%
Vanguard Total International Stock Index Fund;Inv	35.9%	36.0%	35.9%	35.8%	35.7%	32.3%	29.9%	27.1%	24.8%	21.1%	15.8%	12.1%
Core Bond Funds	7.0%	6.6%	6.7%	6.7%	6.6%	10.4%	15.5%	20.7%	25.9%	28.4%	33.3%	36.8%
Vanguard Total Bond Market II Index Fund;Investor	7.0%	6.6%	6.7%	6.7%	6.6%	10.4%	15.5%	20.7%	25.9%	28.4%	33.3%	36.8%
International Income Funds	3.0%	3.0%	3.0%	3.0%	3.0%	4.7%	6.7%	9.0%	11.2%	12.3%	14.7%	16.1%
Vanguard Total International Bond II Index Fd;Inst	3.0%	3.0%	3.0%	3.0%	3.0%	4.7%	6.7%	9.0%	11.2%	12.3%	14.7%	16.1%
Inflation Protected Bond Funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	12.1%	16.5%
Vanguard Sht-Term Inflation-Protected Sec Idx;Adm	--	--	--	--	--	--	--	--	--	5.8%	12.1%	16.5%
Other	0.4%	1.0%	0.8%	0.7%	0.8%	0.9%	0.9%	0.9%	0.9%	1.0%	0.8%	0.7%
USD Cash	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Vanguard Market Liquidity Fund	0.3%	1.0%	0.8%	0.7%	0.8%	0.9%	0.9%	0.9%	0.9%	1.0%	0.8%	0.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending March 31, 2024												Expense Ratio
			2024 Q1	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	7 Yrs	Rank	10 Yrs	Rank	
Total Fund	\$47,385,920	100.0%													
Total Target Date Funds	\$36,669,396	77.4%													
Vanguard Target Retirement Income Fund - Investor	\$403,007	0.9%	2.2%	--	8.5%	--	1.2%	--	4.1%	--	4.3%	--	--	--	0.08%
Target Retirement Income Composite			2.2%	--	8.8%	--	1.5%	--	4.4%	--	4.5%	--	--	--	
Vanguard Target Retirement 2020 - Investor	\$1,933,812	4.1%	2.8%	--	10.4%	--	2.0%	--	5.6%	--	5.8%	--	--	--	0.08%
Target Retirement 2020 Composite			2.9%	--	10.7%	--	2.3%	--	6.0%	--	6.1%	--	--	--	
Vanguard Target Retirement 2025 - Investor	\$6,980,535	14.7%	3.8%	--	13.0%	--	2.7%	--	6.6%	--	6.7%	--	--	--	0.08%
Target Retirement 2025 Composite			3.8%	--	13.2%	--	3.0%	--	7.0%	--	7.0%	--	--	--	
Vanguard Target Retirement 2030 - Investor	\$5,613,638	11.8%	4.5%	--	14.8%	--	3.3%	--	7.4%	--	7.4%	--	--	--	0.08%
Target Retirement 2030 Composite			4.5%	--	15.1%	--	3.7%	--	7.8%	--	7.7%	--	--	--	
Vanguard Target Retirement 2035 - Investor	\$5,090,282	10.7%	5.2%	--	16.4%	--	4.0%	--	8.2%	--	8.1%	--	--	--	0.08%
Target Retirement 2035 Composite			5.1%	--	16.6%	--	4.4%	--	8.6%	--	8.4%	--	--	--	
Vanguard Target Retirement 2040 - Investor	\$5,039,933	10.6%	5.9%	--	17.9%	--	4.7%	--	9.0%	--	8.7%	--	--	--	0.08%
Target Retirement 2040 Composite			5.8%	--	18.2%	--	5.0%	--	9.4%	--	9.1%	--	--	--	
Vanguard Target Retirement 2045 - Investor	\$4,430,933	9.4%	6.5%	--	19.4%	--	5.3%	--	9.7%	--	9.3%	--	--	--	0.08%
Target Retirement 2045 Composite			6.4%	--	19.7%	--	5.7%	--	10.2%	--	9.7%	--	--	--	
Vanguard Target Retirement 2050 - Investor	\$3,536,732	7.5%	6.9%	--	20.4%	--	5.7%	--	10.0%	--	9.5%	--	--	--	0.08%
Target Retirement 2050 Composite			6.8%	--	20.7%	--	6.0%	--	10.4%	--	9.9%	--	--	--	
Vanguard Target Retirement 2055 - Investor	\$2,300,185	4.9%	6.9%	--	20.4%	--	5.7%	--	10.0%	--	9.5%	--	--	--	0.08%
Target Retirement 2055 Composite			6.8%	--	20.7%	--	6.0%	--	10.4%	--	9.9%	--	--	--	
Vanguard Target Retirement 2060 - Investor	\$1,119,393	2.4%	6.9%	--	20.4%	--	5.7%	--	10.0%	--	9.5%	--	--	--	0.08%
Target Retirement 2060 Composite			6.8%	--	20.7%	--	6.0%	--	10.4%	--	9.9%	--	--	--	
Vanguard Target Retirement 2065 - Investor	\$208,845	0.4%	6.9%	--	20.4%	--	5.7%	--	10.0%	--	--	--	--	--	0.08%
Target Retirement 2065 Composite			6.8%	--	21.9%	--	6.3%	--	10.6%	--	--	--	--	--	
Vanguard Target Retirement 2070 - Investor	\$12,103	0.0%	6.9%	--	20.5%	--	--	--	--	--	--	--	--	--	0.08%
Target Retirement 2070 Composite			6.8%	--	20.7%	--	--	--	--	--	--	--	--	--	

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending March 31, 2024												Expense Ratio
			2024 Q1	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	7 Yrs	Rank	10 Yrs	Rank	
Total Domestic Equity	\$3,875,489	8.2%													
Vanguard 500 Index Fund	\$2,807,159	5.9%	10.5%	40	29.8%	36	11.4%	25	15.0%	23	14.0%	19	12.9%	12	0.04%
S&P 500			10.6%	39	29.9%	33	11.5%	23	15.0%	21	14.1%	16	13.0%	10	
Vanguard Growth Index Fund Admiral Shares	\$97,431	0.2%	10.9%	66	38.8%	48	10.9%	24	17.9%	9	17.0%	21	15.1%	19	0.05%
CRSP US Large Cap Growth TR USD			10.9%	66	38.9%	48	11.0%	24	18.0%	9	17.1%	21	15.1%	17	
Vanguard Value Index Fund Admiral Shares	\$21,712	0.0%	9.8%	41	21.1%	56	10.2%	35	11.5%	48	10.8%	31	10.4%	18	0.05%
CRSP US Large Cap Value TR USD			9.8%	42	21.0%	56	10.2%	34	11.5%	48	10.8%	30	10.5%	17	
Vanguard Mid-Cap Index Fund	\$646,355	1.4%	7.9%	77	20.4%	76	5.7%	62	10.9%	52	10.4%	31	9.9%	14	0.05%
CRSP US Mid Cap TR USD			7.9%	78	20.4%	76	5.7%	61	10.9%	51	10.4%	28	9.9%	11	
Vanguard Small Cap Index Fund	\$302,831	0.6%	7.5%	25	22.5%	25	3.8%	46	10.0%	40	9.6%	21	8.9%	18	0.05%
CRSP US Small Cap TR USD			7.5%	25	22.4%	25	3.8%	46	9.9%	41	9.6%	22	8.9%	19	
Total International Equity	\$600,569	1.3%													
Vanguard Developed Markets Index Fund Admiral	\$556,255	1.2%	5.1%	51	14.9%	30	3.9%	29	7.4%	35	6.7%	32	5.0%	28	0.07%
FTSE-Developed All Cap Ex U.S. Index			5.2%	50	15.6%	22	4.2%	27	7.7%	23	7.0%	19	--	--	
Vanguard FTSE All-World ex-US SmallCap Index	\$4,496	0.0%	1.4%	83	10.2%	68	-0.3%	72	5.0%	82	4.7%	71	3.6%	93	0.17%
FTSE - Global Small Cap Ex U.S. Index			1.6%	78	11.3%	54	0.2%	57	5.4%	74	5.0%	55	3.9%	83	
Vanguard Emerging Markets Index Fund Admiral	\$39,818	0.1%	1.9%	69	7.4%	65	-3.8%	41	2.8%	56	3.8%	54	3.2%	51	0.14%
Spliced Emerging Markets Index			2.0%	66	8.5%	57	-3.2%	37	3.2%	46	4.0%	49	3.4%	48	
Total Fixed Income	\$770,975	1.6%													
Vanguard High-Yield Corporate Fund	\$67,703	0.1%	0.8%	--	9.1%	--	2.1%	--	3.8%	--	4.1%	--	4.2%	--	0.13%
High-Yield Corporate Composite Index			1.2%	--	9.8%	--	1.9%	--	4.1%	--	4.3%	--	4.3%	--	
Vanguard Total Bond Market Index Admiral	\$703,272	1.5%	-0.8%	--	1.7%	--	-2.4%	--	0.4%	--	1.1%	--	1.5%	--	0.05%
Spliced Barclays USAgg Float Adj			-0.7%	--	1.8%	--	-2.4%	--	0.4%	--	1.1%	--	1.6%	--	

Performance Detail (Net of Fees) - Annualized

			Ending March 31, 2024												Expense Ratio
	Market Value	% of Portfolio	2024 Q1	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	7 Yrs	Rank	10 Yrs	Rank	
Total Stable Value	\$5,439,243	11.5%													
SAGIC Diversified Bond	\$5,439,243	11.5%	1.1%	--	4.2%	--	3.7%	--	3.7%	--	3.8%	--	--	--	0.42%
FTSE T-Bill 3 Months TR			1.4%	--	5.5%	--	2.7%	--	2.1%	--	1.9%	--	--	--	
Total Real Estate (REIT)	\$30,247	0.1%													
Vanguard Real Estate Index Fund Admiral	\$30,247	0.1%	-1.2%	--	8.5%	--	1.7%	--	3.7%	--	4.7%	--	6.2%	--	0.12%
REIT Spliced Index			-1.1%	--	8.7%	--	1.9%	--	3.8%	--	4.8%	--	6.3%	--	

Note: SAGIC Diversified Bond market value does not reflect unallocated assets (forfeitures).

IUOE Local No. 77 Annuity Fund

Master Consulting Services Report as of March 31, 2024

Performance Detail (Net of Fees) - Annualized

			Ending December 31st					
	Market Value	% of Portfolio	2023	2022	2021	2020	2019	2018
Total Fund	\$47,385,920	100.0%						
Total Target Date Funds	\$36,669,396	77.4%						
Vanguard Target Retirement Income Fund - Investor	\$403,007	0.9%	10.7%	-12.7%	5.2%	10.0%	13.2%	-2.0%
Target Retirement Income Composite			10.8%	-12.5%	5.4%	10.7%	13.4%	-2.0%
Vanguard Target Retirement 2020 - Investor	\$1,933,812	4.1%	12.5%	-14.2%	8.2%	12.0%	17.6%	-4.2%
Target Retirement 2020 Composite			12.6%	-13.8%	8.4%	12.9%	17.9%	-4.2%
Vanguard Target Retirement 2025 - Investor	\$6,980,535	14.7%	14.5%	-15.5%	9.8%	13.3%	19.6%	-5.2%
Target Retirement 2025 Composite			14.7%	-15.0%	10.1%	14.2%	19.9%	-5.0%
Vanguard Target Retirement 2030 - Investor	\$5,613,638	11.8%	16.0%	-16.3%	11.4%	14.1%	21.1%	-5.9%
Target Retirement 2030 Composite			16.2%	-15.7%	11.7%	15.0%	21.3%	-5.7%
Vanguard Target Retirement 2035 - Investor	\$5,090,282	10.7%	17.1%	-16.6%	13.0%	14.8%	22.4%	-6.6%
Target Retirement 2035 Composite			17.4%	-16.1%	13.2%	15.7%	22.8%	-6.5%
Vanguard Target Retirement 2040 - Investor	\$5,039,933	10.6%	18.3%	-17.0%	14.6%	15.5%	23.9%	-7.3%
Target Retirement 2040 Composite			18.6%	-16.5%	14.9%	16.3%	24.2%	-7.2%
Vanguard Target Retirement 2045 - Investor	\$4,430,933	9.4%	19.5%	-17.4%	16.2%	16.3%	24.9%	-7.9%
Target Retirement 2045 Composite			19.8%	-16.8%	16.4%	17.0%	25.4%	-7.8%
Vanguard Target Retirement 2050 - Investor	\$3,536,732	7.5%	20.2%	-17.5%	16.4%	16.4%	25.0%	-7.9%
Target Retirement 2050 Composite			20.5%	-17.1%	16.7%	17.2%	25.4%	-7.8%
Vanguard Target Retirement 2055 - Investor	\$2,300,185	4.9%	20.2%	-17.5%	16.4%	16.3%	25.0%	-7.9%
Target Retirement 2055 Composite			20.5%	-17.1%	16.7%	17.2%	25.4%	-7.8%
Vanguard Target Retirement 2060 - Investor	\$1,119,393	2.4%	20.2%	-17.5%	16.4%	16.3%	25.0%	-7.9%
Target Retirement 2060 Composite			20.5%	-17.1%	16.7%	17.2%	25.4%	-7.8%
Vanguard Target Retirement 2065 - Investor	\$208,845	0.4%	20.1%	-17.4%	16.5%	16.2%	25.0%	-7.9%
Target Retirement 2065 Composite			21.6%	-17.1%	16.7%	17.2%	25.4%	-7.8%
Vanguard Target Retirement 2070 - Investor	\$12,103	0.0%	20.2%	--	--	--	--	--
Target Retirement 2070 Composite			20.5%	--	--	--	--	--

IUOE Local No. 77 Annuity Fund

Master Consulting Services Report as of March 31, 2024

Performance Detail (Net of Fees) - Annualized

			Ending December 31st					
	Market Value	% of Portfolio	2023	2022	2021	2020	2019	2018
Total Domestic Equity	\$3,875,489	8.2%						
Vanguard 500 Index Fund	\$2,807,159	5.9%	26.2%	-18.1%	28.7%	18.4%	31.5%	-4.4%
S&P 500			26.3%	-18.1%	28.7%	18.4%	31.5%	-4.4%
Vanguard Growth Index Fund Admiral Shares	\$97,431	0.2%	46.8%	-33.1%	27.3%	40.2%	37.2%	-3.3%
CRSP US Large Cap Growth TR USD			46.9%	-33.1%	27.3%	40.3%	37.3%	-3.3%
Vanguard Value Index Fund Admiral Shares	\$21,712	0.0%	9.2%	-2.1%	26.5%	2.3%	25.8%	-5.4%
CRSP US Large Cap Value TR USD			9.2%	-2.0%	26.5%	2.3%	25.9%	-5.4%
Vanguard Mid-Cap Index Fund	\$646,355	1.4%	16.0%	-18.7%	24.5%	18.2%	31.0%	-9.2%
CRSP US Mid Cap TR USD			16.0%	-18.7%	24.5%	18.2%	31.1%	-9.2%
Vanguard Small Cap Index Fund	\$302,831	0.6%	18.2%	-17.6%	17.7%	19.1%	27.4%	-9.3%
CRSP US Small Cap TR USD			18.1%	-17.6%	17.7%	19.1%	27.3%	-9.3%
Total International Equity	\$600,569	1.3%						
Vanguard Developed Markets Index Fund Admiral	\$556,255	1.2%	17.7%	-15.3%	11.4%	10.3%	22.0%	-14.5%
FTSE-Developed All Cap Ex U.S. Index			18.3%	-15.3%	11.9%	10.3%	22.7%	-14.5%
Vanguard FTSE All-World ex-US SmallCap Index	\$4,496	0.0%	15.1%	-21.3%	12.7%	11.9%	21.7%	-18.5%
FTSE - Global Small Cap Ex U.S. Index			15.9%	-21.2%	13.4%	11.8%	22.1%	-18.6%
Vanguard Emerging Markets Index Fund Admiral	\$39,818	0.1%	9.2%	-17.8%	0.9%	15.2%	20.3%	-14.6%
Spliced Emerging Markets Index			9.5%	-17.6%	1.5%	15.5%	20.4%	-14.8%
Total Fixed Income	\$770,975	1.6%						
Vanguard High-Yield Corporate Fund	\$67,703	0.1%	11.7%	-9.0%	3.8%	5.4%	15.9%	-2.9%
High-Yield Corporate Composite Index			12.1%	-10.3%	4.4%	7.6%	14.6%	-1.7%
Vanguard Total Bond Market Index Admiral	\$703,272	1.5%	5.7%	-13.2%	-1.7%	7.7%	8.7%	0.0%
Spliced Barclays USAgg Float Adj			5.6%	-13.1%	-1.6%	7.7%	8.9%	-0.1%

Performance Detail (Net of Fees) - Annualized

			Ending December 31st					
	Market Value	% of Portfolio	2023	2022	2021	2020	2019	2018
Total Stable Value	\$5,439,243	11.5%						
SAGIC Diversified Bond	\$5,439,243	11.5%	4.1%	3.4%	3.3%	3.8%	3.8%	4.1%
FTSE T-Bill 3 Months TR			5.3%	1.5%	0.0%	0.6%	2.3%	1.9%
Total Real Estate (REIT)	\$30,247	0.1%						
Vanguard Real Estate Index Fund Admiral	\$30,247	0.1%	11.8%	-26.2%	40.4%	-4.7%	28.9%	-5.9%
REIT Spliced Index			12.0%	-26.1%	40.6%	-4.6%	29.0%	-5.9%

Note: SAGIC Diversified Bond market value does not reflect unallocated assets (forfeitures).

IUOE Local No. 77 Annuity Fund – Investment Structure and Plan Design

- At the May 9, 2023, meeting, IPS presented an Annual Review report and made the following recommendations: 1) retain Empower as recordkeeper at their proposed lower flat fee of \$55 per participant. The previous fee was \$74 per participant; 2) add a large cap growth index option (VIGAX) and a large cap value index option (VVIAX); 3) add Vanguard Target Retirement 2070 Fund when available; 4) request Empower schedule virtual educational meetings at least quarterly. Decision: The Trustees approved all recommendations. Status: Fund changes and new recordkeeping fee (\$55 per participant) were effective August 1, 2023.
- As of July 1, 2023, an investment policy statement was approved by counsel and adopted by the Trustees at the November 14, 2023, meeting.

Recommendations: Continue scheduling Empower's quarterly onsite educational meetings with participants, as per the annual report being presented today.

Investment Options	Plan Assets	Net	Revenue	Revenue	Net Inv	Net Inv
	3/31/2024	Expense	Sharing	Sharing	Mgmt	Management
	(A)	Ratio	Fee %	Fee \$	Expense	Cost
Target Date Funds						
Vanguard Target Retirement Income Fund - Investor (VTINX)	\$403,007	0.08%	0.00%	\$0	0.08%	\$322
Vanguard Target Retirement 2020 - Investor (VTWNX)	\$1,933,812	0.08%	0.00%	\$0	0.08%	\$1,547
Vanguard Target Retirement 2025 - Investor (VTTVX)	\$6,980,535	0.08%	0.00%	\$0	0.08%	\$5,584
Vanguard Target Retirement 2030 - Investor (VTHRX)	\$5,613,638	0.08%	0.00%	\$0	0.08%	\$4,491
Vanguard Target Retirement 2035 - Investor (VTTHX)	\$5,090,282	0.08%	0.00%	\$0	0.08%	\$4,072
Vanguard Target Retirement 2040 - Investor (VFORX)	\$5,039,933	0.08%	0.00%	\$0	0.08%	\$4,032
Vanguard Target Retirement 2045 - Investor (VTIVX)	\$4,430,933	0.08%	0.00%	\$0	0.08%	\$3,545
Vanguard Target Retirement 2050 - Investor (VFIFX)	\$3,536,732	0.08%	0.00%	\$0	0.08%	\$2,829
Vanguard Target Retirement 2055 - Investor (VFFVX)	\$2,300,185	0.08%	0.00%	\$0	0.08%	\$1,840
Vanguard Target Retirement 2060 - Investor (VTTSX)	\$1,119,393	0.08%	0.00%	\$0	0.08%	\$896
Vanguard Target Retirement 2065 - Investor (VLXVX)	\$208,845	0.08%	0.00%	\$0	0.08%	\$167
Vanguard Target Retirement 2070 - Investor (VSVNX)	\$12,103	0.08%	0.00%	\$0	0.08%	\$10
Domestic Equity						
Vanguard 500 Index Fund (VFIAX)	\$2,807,159	0.04%	0.00%	\$0	0.04%	\$1,123
Vanguard Growth Index Fund Admiral Shares (VIGAX)	\$97,431	0.05%	0.00%	\$0	0.05%	\$49
Vanguard Value Index Fund Admiral Shares (VVIAX)	\$21,712	0.05%	0.00%	\$0	0.05%	\$11
Vanguard Mid-Cap Index Fund (VIMAX)	\$646,355	0.05%	0.00%	\$0	0.05%	\$323
Vanguard Small Cap Index Fund (VSMAX)	\$302,831	0.05%	0.00%	\$0	0.05%	\$151
International Equity						
Vanguard Developed Markets Index Fund Admiral (VTMGX)	\$556,255	0.07%	0.00%	\$0	0.07%	\$389
Vanguard FTSE All-World ex-US SmallCap Index (VFSAX)	\$4,496	0.17%	0.00%	\$0	0.17%	\$8
Vanguard Emerging Markets Index Fund Admiral (VEMAX)	\$39,818	0.14%	0.00%	\$0	0.14%	\$56
Fixed Income						
Vanguard High-Yield Corporate Fund (VWEAX)	\$67,703	0.13%	0.00%	\$0	0.13%	\$88
Vanguard Total Bond Market Index Admiral (VBTLX)	\$703,272	0.05%	0.00%	\$0	0.05%	\$352
Stable Value						
SAGIC Diversified Bond ¹	\$5,439,243	0.42%	0.00%	\$0	0.42%	\$22,845
Real Estate (REIT)						
Vanguard Real Estate Index Fund Admiral (VGSLX)	\$30,247	0.12%	0.00%	\$0	0.12%	\$36
Total	\$47,385,920	0.12%	0.00%	\$0	0.12%	\$54,766

¹ SAGIC Diversified Bond market value does not reflect unallocated asset (forfeitures).

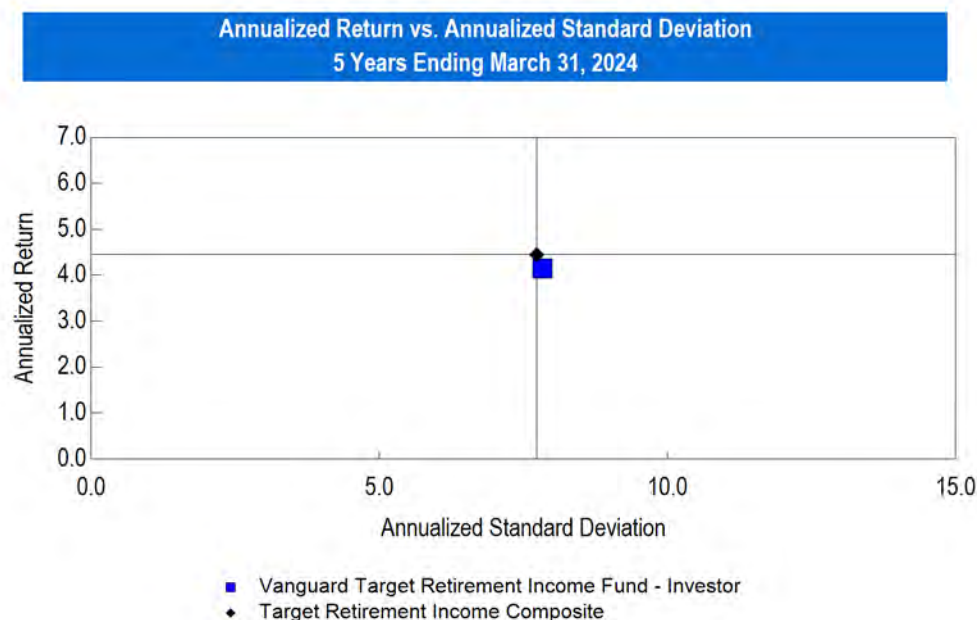
IUOE Local No. 77 Annuity - SAGIC Diversified Bond

Quarter End Date	Market-to-Book	Net Crediting Rate
March 31, 2024	89.0%	4.64%
December 31, 2023	90.0%	4.35%
September 30, 2023	85.0%	4.27%
June 30, 2023	88.3%	4.07%
March 31, 2023	87.7%	3.69%
December 31, 2022	86.7%	3.79%
September 30, 2022	91.4%	3.74%
June 30, 2022	91.0%	3.54%
March 31, 2022	98.5%	3.28%
December 31, 2021	105.6%	2.65%
September 30, 2021	106.1%	3.22%
June 30, 2021	106.5%	3.05%
March 31, 2021	104.2%	3.62%
December 31, 2020	107.1%	3.75%

- Market-to-Book Value Ratio: The market-to-book value ratio is the difference in market value of underlying assets to book value. This ratio may be interpreted as a sign of investment soundness, with a ratio greater than 100% indicating higher market value in support of the stable value investment.
- Net Crediting Rate: The net crediting rating is the interest rate earned on the contract value (principal plus accrued income) after adjusting for expenses expressed as an effective annual yield.

Account Information	
Account Name	Vanguard Target Retirement Income Fund - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/31/21
Account Type	Target Date Fund
Benchmark	Target Retirement Income Composite
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement Income Fund - Investor	1.2%	8.5%	100.9%	102.4%
Target Retirement Income Composite	1.5%	8.4%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement Income Fund - Investor	4.1%	7.8%	99.9%	102.6%
Target Retirement Income Composite	4.4%	7.7%	100.0%	100.0%

	Calendar Years										Inception Date
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Vanguard Target Retirement Income Fund - Investor	2.2%	8.5%	1.2%	4.1%	10.7%	-12.7%	5.2%	10.0%	13.2%	-0.4%	Aug-21
Target Retirement Income Composite	2.2%	8.8%	1.5%	4.4%	10.8%	-12.5%	5.4%	10.7%	13.4%	-0.2%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement Income Fund - Investor

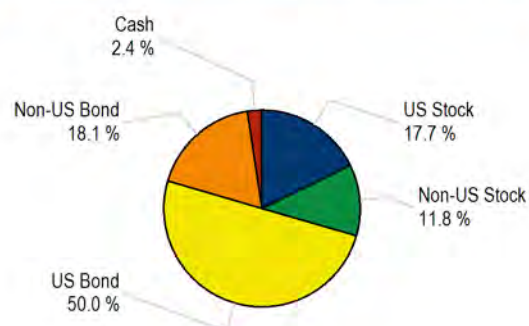
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide current income and some capital appreciation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors currently in retirement. Its indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VTINX
Morningstar Category	Target-Date Retirement
Average Market Cap (\$mm)	86,490.33
Net Assets (\$mm)	36,262.44
% Assets in Top 10 Holdings	99.26
Total Number of Holdings	7
Manager Name	Walter Nejman
Manager Tenure	11
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL BOND MARKET II IDX INV	36.83%
VANGUARD TOTAL STOCK MKT IDX INSTL PLS	17.73%
VANGUARD SHRT-TERM INFL-PROT SEC IDX ADM	16.48%
VANGUARD TOTAL INTL BD II IDX INSL	16.13%
VANGUARD TOTAL INTL STOCK INDEX INV	12.08%

Fund Characteristics as of March 31, 2024

Versus Target Retirement Income Composite

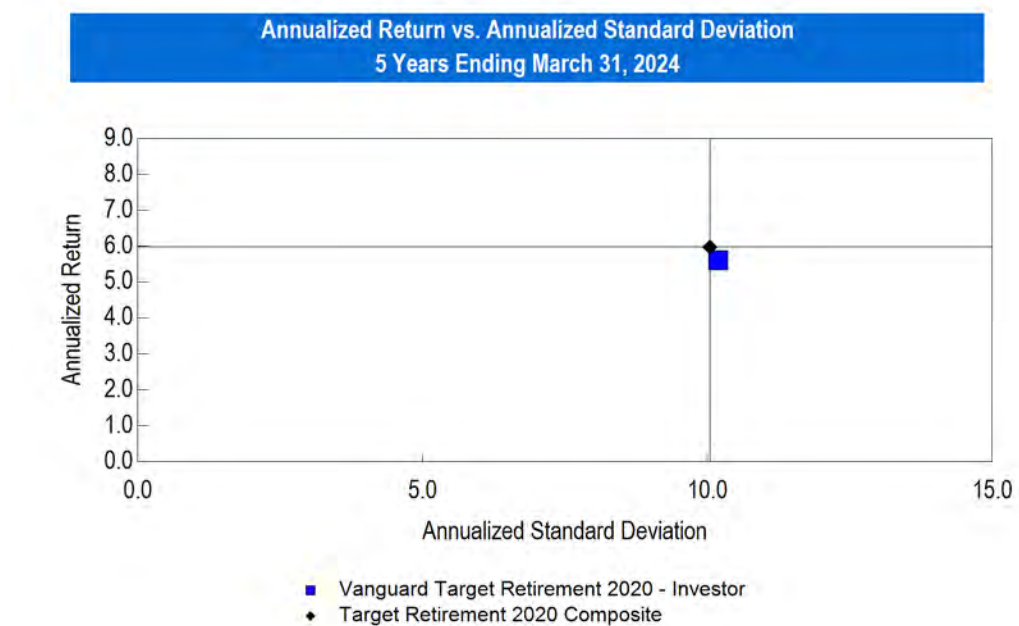
Sharpe Ratio (3 Year)	-0.16
Average Market Cap (\$mm)	86,490.33
Price/Earnings	17.52
Price/Book	2.45
Price/Sales	1.75
Price/Cash Flow	11.11
Dividend Yield	2.17
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.02%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.37%
COMMUNICATION SERVICES	6.98%
CONSUMER CYCLICAL	11.11%
CONSUMER DEFENSIVE	6.16%
ENERGY	4.44%
FINANCIAL SERVICES	15.61%
HEALTHCARE	11.15%
INDUSTRIALS	11.72%
REAL ESTATE	2.92%
TECHNOLOGY	23.11%
UTILITIES	2.42%

Account Information	
Account Name	Vanguard Target Retirement 2020 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/31/21
Account Type	Target Date Fund
Benchmark	Target Retirement 2020 Composite
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2020 - Investor	2.0%	10.1%	100.8%	102.3%
Target Retirement 2020 Composite	2.3%	10.0%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2020 - Investor	5.6%	10.2%	99.7%	102.1%
Target Retirement 2020 Composite	6.0%	10.0%	100.0%	100.0%

	Calendar Years										Inception Date
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Vanguard Target Retirement 2020 - Investor	2.8%	10.4%	2.0%	5.6%	12.5%	-14.2%	8.2%	12.0%	17.6%	-0.1%	Aug-21
Target Retirement 2020 Composite	2.9%	10.7%	2.3%	6.0%	12.6%	-13.8%	8.4%	12.9%	17.9%	0.2%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement 2020 - Investor

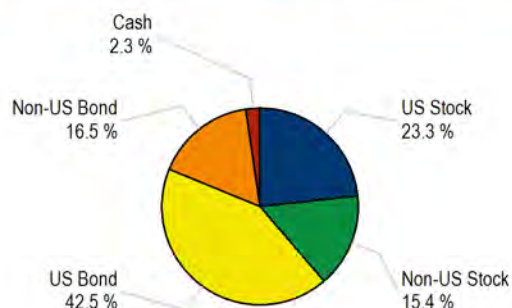
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2020 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VTWNX
Morningstar Category	Target-Date 2020
Average Market Cap (\$mm)	86,619.41
Net Assets (\$mm)	38,372.56
% Assets in Top 10 Holdings	99.22
Total Number of Holdings	7
Manager Name	Walter Nejman
Manager Tenure	11
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL BOND MARKET II IDX INV	33.26%
VANGUARD TOTAL STOCK MKT IDX INSTL PLS	23.32%
VANGUARD TOTAL INTL STOCK INDEX INV	15.84%
VANGUARD TOTAL INTL BD II IDX INSL	14.74%
VANGUARD SHRT-TERM INFL-PROT SEC IDX ADM	12.07%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2020 Composite

Sharpe Ratio (3 Year)	-0.06
Average Market Cap (\$mm)	86,619.41
Price/Earnings	17.53
Price/Book	2.46
Price/Sales	1.75
Price/Cash Flow	11.11
Dividend Yield	2.17
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.02%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.37%
COMMUNICATION SERVICES	6.98%
CONSUMER CYCLICAL	11.11%
CONSUMER DEFENSIVE	6.16%
ENERGY	4.44%
FINANCIAL SERVICES	15.61%
HEALTHCARE	11.16%
INDUSTRIALS	11.71%
REAL ESTATE	2.92%
TECHNOLOGY	23.12%
UTILITIES	2.42%

Account Information	
Account Name	Vanguard Target Retirement 2025 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/31/21
Account Type	Target Date Fund
Benchmark	Target Retirement 2025 Composite
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2025 - Investor	2.7%	11.7%	100.6%	102.4%
Target Retirement 2025 Composite	3.0%	11.5%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2025 - Investor	6.6%	11.9%	99.6%	102.0%
Target Retirement 2025 Composite	7.0%	11.7%	100.0%	100.0%

	Calendar Years										Inception Date
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Vanguard Target Retirement 2025 - Investor	3.8%	13.0%	2.7%	6.6%	14.5%	-15.5%	9.8%	13.3%	19.6%	0.4%	Aug-21
Target Retirement 2025 Composite	3.8%	13.2%	3.0%	7.0%	14.7%	-15.0%	10.1%	14.2%	19.9%	0.8%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement 2025 - Investor

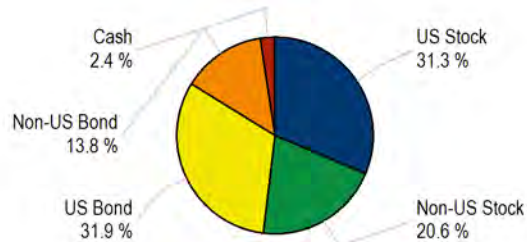
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2025 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VTTVX
Morningstar Category	Target-Date 2025
Average Market Cap (\$mm)	86,949.18
Net Assets (\$mm)	77,474.61
% Assets in Top 10 Holdings	98.97
Total Number of Holdings	7
Manager Name	Walter Nejman
Manager Tenure	11
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL STOCK MKT IDX INSTL PLS	31.40%
VANGUARD TOTAL BOND MARKET II IDX INV	28.35%
VANGUARD TOTAL INTL STOCK INDEX INV	21.13%
VANGUARD TOTAL INTL BD II IDX INSL	12.30%
VANGUARD SHRT-TERM INFL-PROT SEC IDX ADM	5.80%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2025 Composite

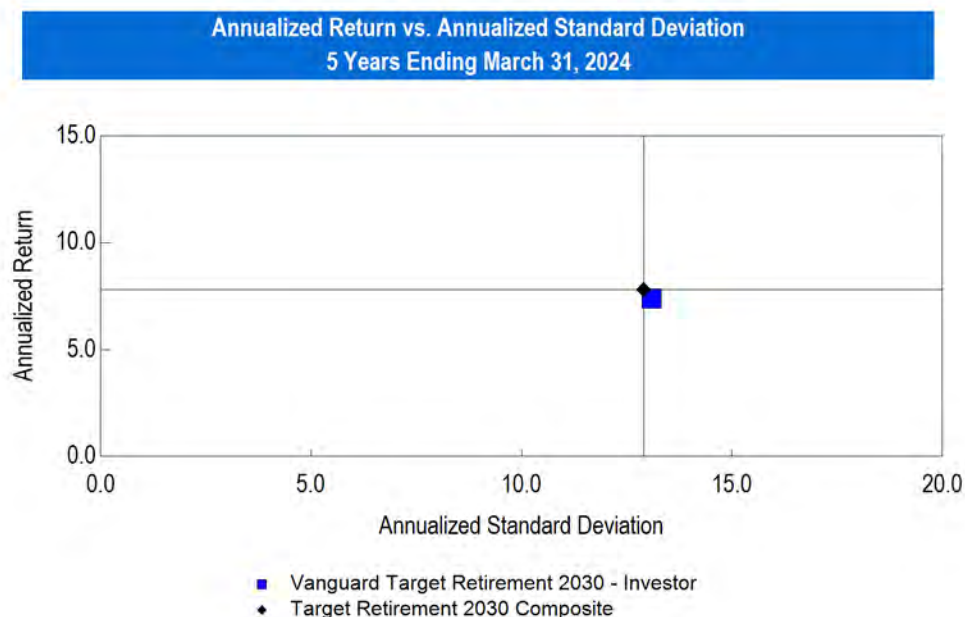
Sharpe Ratio (3 Year)	0.01
Average Market Cap (\$mm)	86,949.18
Price/Earnings	17.55
Price/Book	2.46
Price/Sales	1.75
Price/Cash Flow	11.13
Dividend Yield	2.16
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.03%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.36%
COMMUNICATION SERVICES	6.99%
CONSUMER CYCLICAL	11.11%
CONSUMER DEFENSIVE	6.16%
ENERGY	4.44%
FINANCIAL SERVICES	15.59%
HEALTHCARE	11.16%
INDUSTRIALS	11.70%
REAL ESTATE	2.92%
TECHNOLOGY	23.16%
UTILITIES	2.42%

Account Information	
Account Name	Vanguard Target Retirement 2030 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/31/21
Account Type	Target Date Fund
Benchmark	Target Retirement 2030 Composite
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2030 - Investor	3.3%	12.7%	100.6%	102.0%
Target Retirement 2030 Composite	3.7%	12.5%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2030 - Investor	7.4%	13.1%	99.7%	101.7%
Target Retirement 2030 Composite	7.8%	12.9%	100.0%	100.0%

	Calendar Years										
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
Vanguard Target Retirement 2030 - Investor	4.5%	14.8%	3.3%	7.4%	16.0%	-16.3%	11.4%	14.1%	21.1%	1.0%	Aug-21
Target Retirement 2030 Composite	4.5%	15.1%	3.7%	7.8%	16.2%	-15.7%	11.7%	15.0%	21.3%	1.3%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement 2030 - Investor

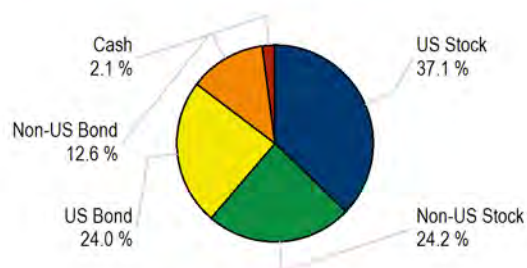
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2030 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VTHRX
Morningstar Category	Target-Date 2030
Average Market Cap (\$mm)	87,249.50
Net Assets (\$mm)	92,795.07
% Assets in Top 10 Holdings	99.13
Total Number of Holdings	5
Manager Name	Walter Nejman
Manager Tenure	11
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL STOCK MKT IDX INSTL PLS	37.18%
VANGUARD TOTAL BOND MARKET II IDX INV	25.94%
VANGUARD TOTAL INTL STOCK INDEX INV	24.81%
VANGUARD TOTAL INTL BD II IDX INSL	11.20%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2030 Composite

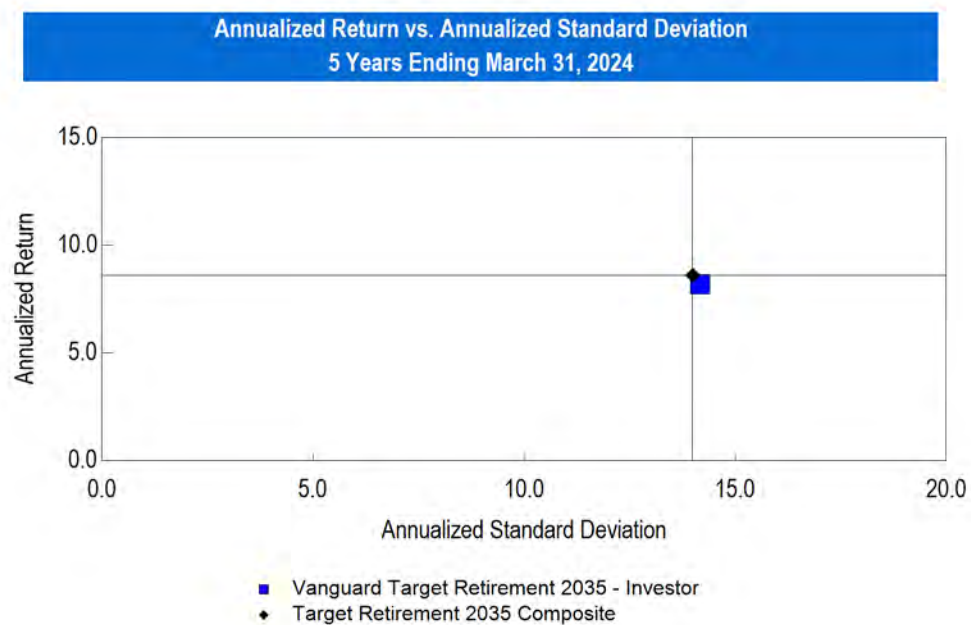
Sharpe Ratio (3 Year)	0.06
Average Market Cap (\$mm)	87,249.50
Price/Earnings	17.56
Price/Book	2.47
Price/Sales	1.76
Price/Cash Flow	11.14
Dividend Yield	2.16
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.03%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.35%
COMMUNICATION SERVICES	6.99%
CONSUMER CYCLICAL	11.11%
CONSUMER DEFENSIVE	6.15%
ENERGY	4.43%
FINANCIAL SERVICES	15.58%
HEALTHCARE	11.17%
INDUSTRIALS	11.69%
REAL ESTATE	2.92%
TECHNOLOGY	23.19%
UTILITIES	2.42%

Account Information	
Account Name	Vanguard Target Retirement 2035 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/31/21
Account Type	Target Date Fund
Benchmark	Target Retirement 2035 Composite
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2035 - Investor	4.0%	13.6%	100.7%	102.0%
Target Retirement 2035 Composite	4.4%	13.4%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2035 - Investor	8.2%	14.2%	99.9%	101.6%
Target Retirement 2035 Composite	8.6%	14.0%	100.0%	100.0%

	Calendar Years										Inception Date
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Vanguard Target Retirement 2035 - Investor	5.2%	16.4%	4.0%	8.2%	17.1%	-16.6%	13.0%	14.8%	22.4%	1.5%	Aug-21
Target Retirement 2035 Composite	5.1%	16.6%	4.4%	8.6%	17.4%	-16.1%	13.2%	15.7%	22.8%	1.9%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement 2035 - Investor

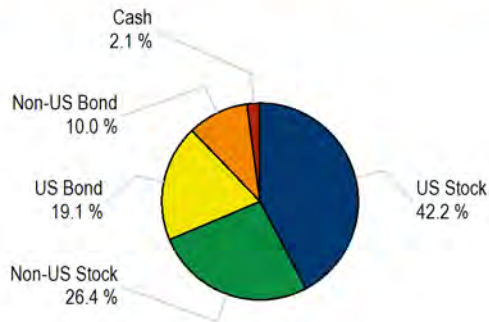
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2035 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VTTHX
Morningstar Category	Target-Date 2035
Average Market Cap (\$mm)	88,712.92
Net Assets (\$mm)	96,066.97
% Assets in Top 10 Holdings	99.07
Total Number of Holdings	6
Manager Name	Walter Nejman
Manager Tenure	11
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL STOCK MKT IDX INSTL PLS	42.33%
VANGUARD TOTAL INTL STOCK INDEX INV	27.12%
VANGUARD TOTAL BOND MARKET II IDX INV	20.67%
VANGUARD TOTAL INTL BD II IDX INSL	8.95%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2035 Composite

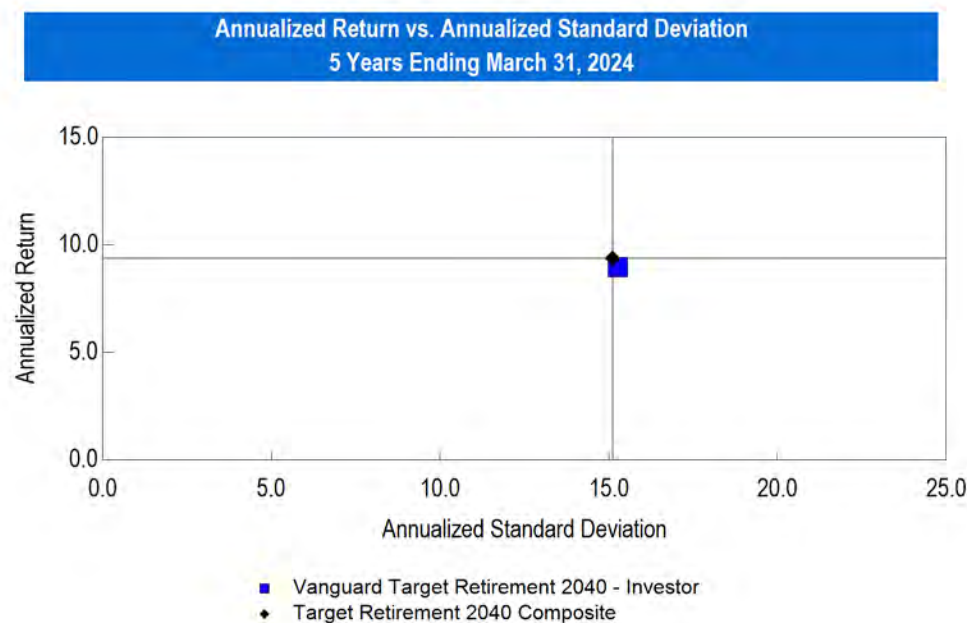
Sharpe Ratio (3 Year)	0.11
Average Market Cap (\$mm)	88,712.92
Price/Earnings	17.64
Price/Book	2.49
Price/Sales	1.77
Price/Cash Flow	11.21
Dividend Yield	2.14
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.03%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.30%
COMMUNICATION SERVICES	7.02%
CONSUMER CYCLICAL	11.10%
CONSUMER DEFENSIVE	6.14%
ENERGY	4.42%
FINANCIAL SERVICES	15.51%
HEALTHCARE	11.20%
INDUSTRIALS	11.64%
REAL ESTATE	2.91%
TECHNOLOGY	23.35%
UTILITIES	2.41%

Account Information	
Account Name	Vanguard Target Retirement 2040 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/31/21
Account Type	Target Date Fund
Benchmark	Target Retirement 2040 Composite
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2040 - Investor	4.7%	14.4%	100.6%	101.7%
Target Retirement 2040 Composite	5.0%	14.2%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2040 - Investor	9.0%	15.3%	99.8%	101.3%
Target Retirement 2040 Composite	9.4%	15.1%	100.0%	100.0%

	Calendar Years										Inception Date
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Vanguard Target Retirement 2040 - Investor	5.9%	17.9%	4.7%	9.0%	18.3%	-17.0%	14.6%	15.5%	23.9%	2.1%	Aug-21
Target Retirement 2040 Composite	5.8%	18.2%	5.0%	9.4%	18.6%	-16.5%	14.9%	16.3%	24.2%	2.4%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement 2040 - Investor

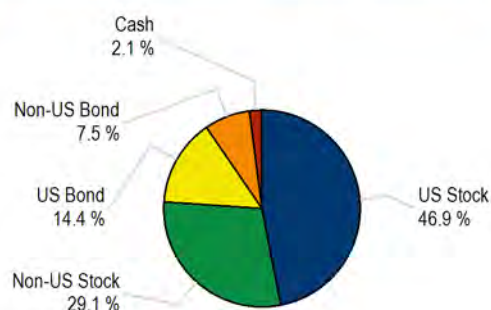
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2040 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VFORX
Morningstar Category	Target-Date 2040
Average Market Cap (\$mm)	89,020.46
Net Assets (\$mm)	85,087.00
% Assets in Top 10 Holdings	99.13
Total Number of Holdings	6
Manager Name	Walter Nejman
Manager Tenure	11
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL STOCK MKT IDX INSTL PLS	47.05%
VANGUARD TOTAL INTL STOCK INDEX INV	29.89%
VANGUARD TOTAL BOND MARKET II IDX INV	15.49%
VANGUARD TOTAL INTL BD II IDX INSL	6.70%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2040 Composite

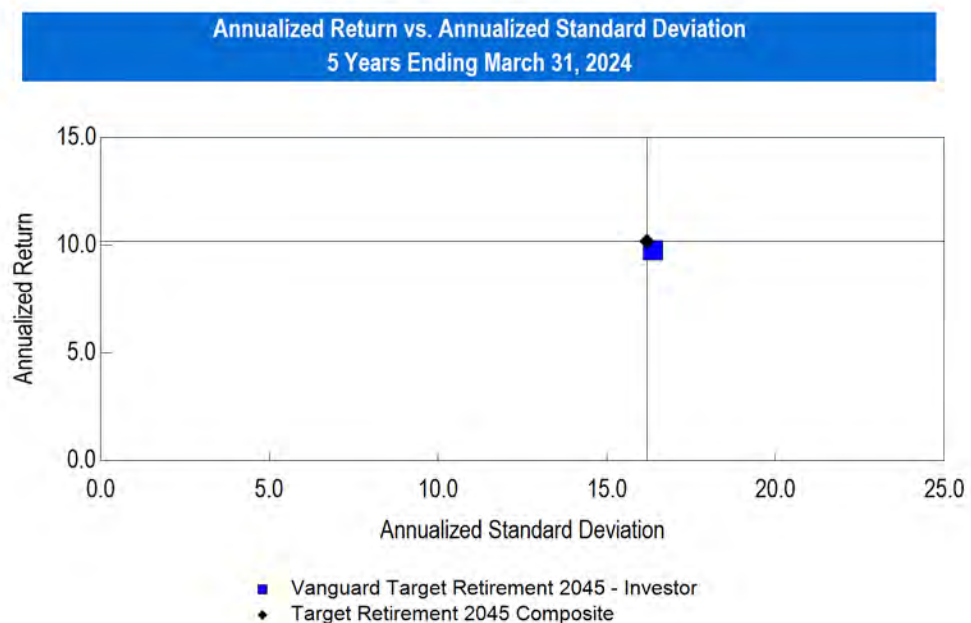
Sharpe Ratio (3 Year)	0.15
Average Market Cap (\$mm)	89,020.46
Price/Earnings	17.66
Price/Book	2.49
Price/Sales	1.77
Price/Cash Flow	11.22
Dividend Yield	2.14
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.03%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.29%
COMMUNICATION SERVICES	7.03%
CONSUMER CYCLICAL	11.10%
CONSUMER DEFENSIVE	6.14%
ENERGY	4.42%
FINANCIAL SERVICES	15.49%
HEALTHCARE	11.21%
INDUSTRIALS	11.62%
REAL ESTATE	2.91%
TECHNOLOGY	23.38%
UTILITIES	2.41%

Account Information	
Account Name	Vanguard Target Retirement 2045 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/31/21
Account Type	Target Date Fund
Benchmark	Target Retirement 2045 Composite
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2045 - Investor	5.3%	15.2%	100.8%	101.8%
Target Retirement 2045 Composite	5.7%	15.1%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2045 - Investor	9.7%	16.4%	100.0%	101.3%
Target Retirement 2045 Composite	10.2%	16.2%	100.0%	100.0%

	Calendar Years										
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
Vanguard Target Retirement 2045 - Investor	6.5%	19.4%	5.3%	9.7%	19.5%	-17.4%	16.2%	16.3%	24.9%	2.6%	Aug-21
Target Retirement 2045 Composite	6.4%	19.7%	5.7%	10.2%	19.8%	-16.8%	16.4%	17.0%	25.4%	2.9%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement 2045 - Investor

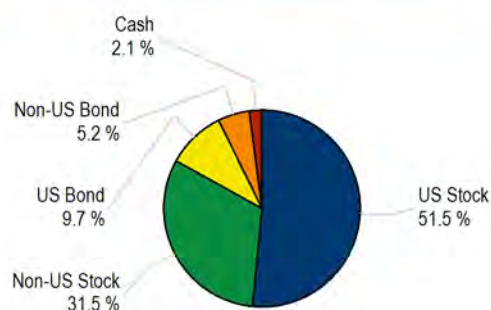
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2045 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VTIVX
Morningstar Category	Target-Date 2045
Average Market Cap (\$mm)	89,604.48
Net Assets (\$mm)	82,605.48
% Assets in Top 10 Holdings	99.07
Total Number of Holdings	5
Manager Name	Walter Nejman
Manager Tenure	11
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL STOCK MKT IDX INSTL PLS	51.69%
VANGUARD TOTAL INTL STOCK INDEX INV	32.31%
VANGUARD TOTAL BOND MARKET II IDX INV	10.41%
VANGUARD TOTAL INTL BD II IDX INSL	4.66%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2045 Composite

Sharpe Ratio (3 Year)	0.18
Average Market Cap (\$mm)	89,604.48
Price/Earnings	17.69
Price/Book	2.50
Price/Sales	1.78
Price/Cash Flow	11.25
Dividend Yield	2.13
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.03%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.27%
COMMUNICATION SERVICES	7.04%
CONSUMER CYCLICAL	11.10%
CONSUMER DEFENSIVE	6.13%
ENERGY	4.41%
FINANCIAL SERVICES	15.47%
HEALTHCARE	11.22%
INDUSTRIALS	11.60%
REAL ESTATE	2.91%
TECHNOLOGY	23.44%
UTILITIES	2.40%

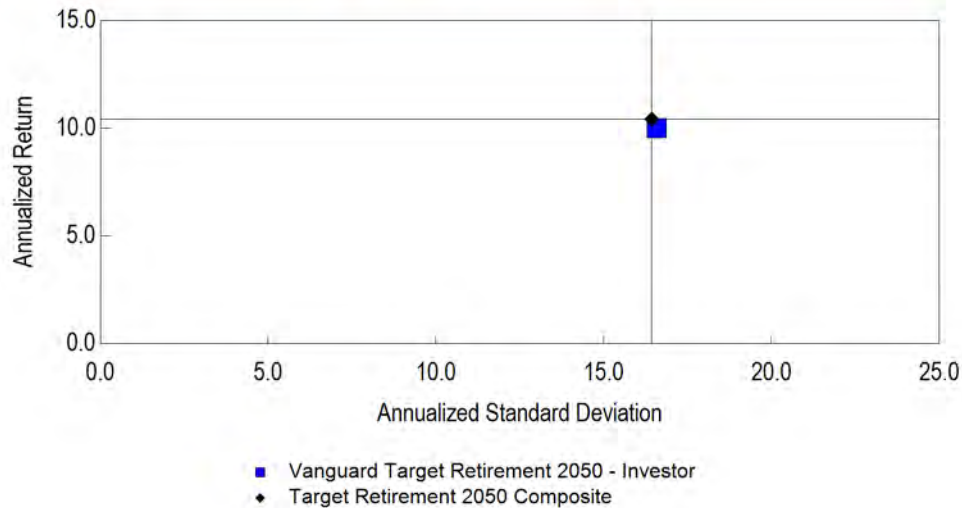
Account Information

Account Name	Vanguard Target Retirement 2050 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/31/21
Account Type	Target Date Fund
Benchmark	Target Retirement 2050 Composite
Universe	

3 Years Ending March 31, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2050 - Investor	5.7%	15.6%	100.7%	101.6%
Target Retirement 2050 Composite	6.0%	15.5%	100.0%	100.0%

Annualized Return vs. Annualized Standard Deviation 5 Years Ending March 31, 2024



5 Years Ending March 31, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2050 - Investor	10.0%	16.6%	99.9%	101.2%
Target Retirement 2050 Composite	10.4%	16.4%	100.0%	100.0%

Calendar Years

	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
Vanguard Target Retirement 2050 - Investor	6.9%	20.4%	5.7%	10.0%	20.2%	-17.5%	16.4%	16.4%	25.0%	2.9%	Aug-21
Target Retirement 2050 Composite	6.8%	20.7%	6.0%	10.4%	20.5%	-17.1%	16.7%	17.2%	25.4%	3.2%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement 2050 - Investor

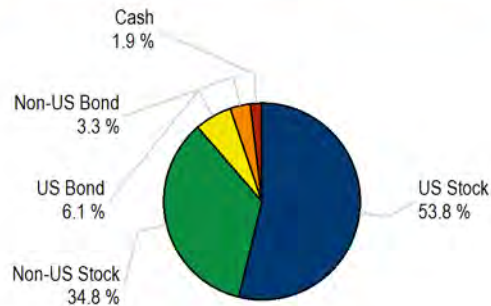
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2050 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VFIFX
Morningstar Category	Target-Date 2050
Average Market Cap (\$mm)	87,477.07
Net Assets (\$mm)	69,280.07
% Assets in Top 10 Holdings	99.25
Total Number of Holdings	5
Manager Name	Walter Nejman
Manager Tenure	11
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL STOCK MKT IDX INSTL PLS	53.91%
VANGUARD TOTAL INTL STOCK INDEX INV	35.74%
VANGUARD TOTAL BOND MARKET II IDX INV	6.61%
VANGUARD TOTAL INTL BD II IDX INSL	2.99%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2050 Composite

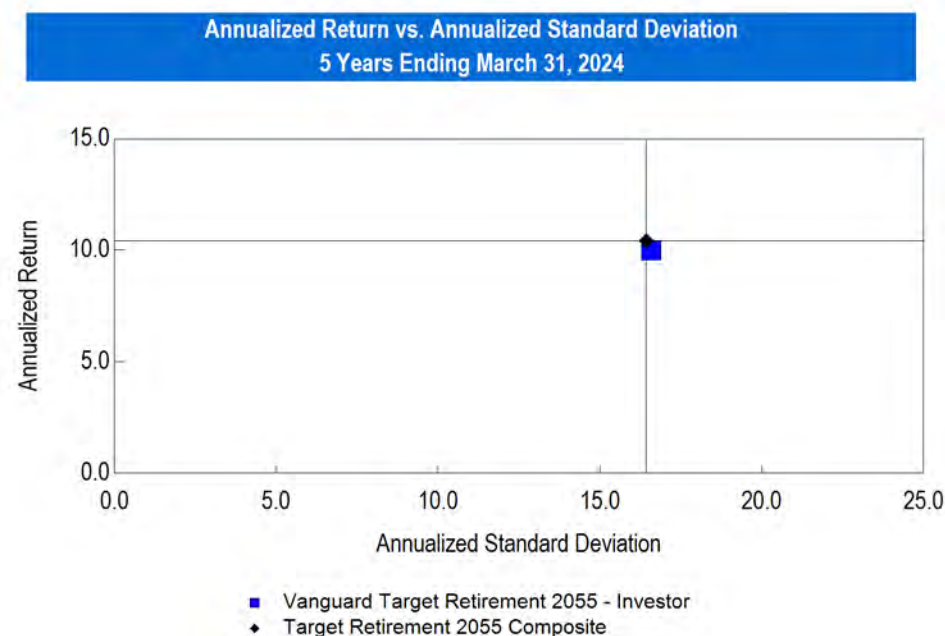
Sharpe Ratio (3 Year)	0.20
Average Market Cap (\$mm)	87,477.07
Price/Earnings	17.58
Price/Book	2.47
Price/Sales	1.76
Price/Cash Flow	11.15
Dividend Yield	2.15
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.03%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.34%
COMMUNICATION SERVICES	7.00%
CONSUMER CYCLICAL	11.11%
CONSUMER DEFENSIVE	6.15%
ENERGY	4.43%
FINANCIAL SERVICES	15.57%
HEALTHCARE	11.18%
INDUSTRIALS	11.68%
REAL ESTATE	2.92%
TECHNOLOGY	23.21%
UTILITIES	2.42%

Account Information	
Account Name	Vanguard Target Retirement 2055 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/31/21
Account Type	Target Date Fund
Benchmark	Target Retirement 2055 Composite
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2055 - Investor	5.7%	15.6%	100.8%	101.6%
Target Retirement 2055 Composite	6.0%	15.5%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2055 - Investor	10.0%	16.6%	99.9%	101.2%
Target Retirement 2055 Composite	10.4%	16.4%	100.0%	100.0%

	Calendar Years										
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
Vanguard Target Retirement 2055 - Investor	6.9%	20.4%	5.7%	10.0%	20.2%	-17.5%	16.4%	16.3%	25.0%	2.9%	Aug-21
Target Retirement 2055 Composite	6.8%	20.7%	6.0%	10.4%	20.5%	-17.1%	16.7%	17.2%	25.4%	3.2%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement 2055 - Investor

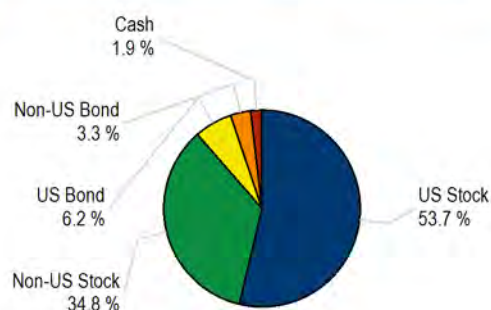
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2055 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VFFVX
Morningstar Category	Target-Date 2055
Average Market Cap (\$mm)	87,363.51
Net Assets (\$mm)	45,933.61
% Assets in Top 10 Holdings	99.32
Total Number of Holdings	6
Manager Name	Walter Nejman
Manager Tenure	11
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL STOCK MKT IDX INSTL PLS	53.82%
VANGUARD TOTAL INTL STOCK INDEX INV	35.80%
VANGUARD TOTAL BOND MARKET II IDX INV	6.71%
VANGUARD TOTAL INTL BD II IDX INSL	2.99%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2055 Composite

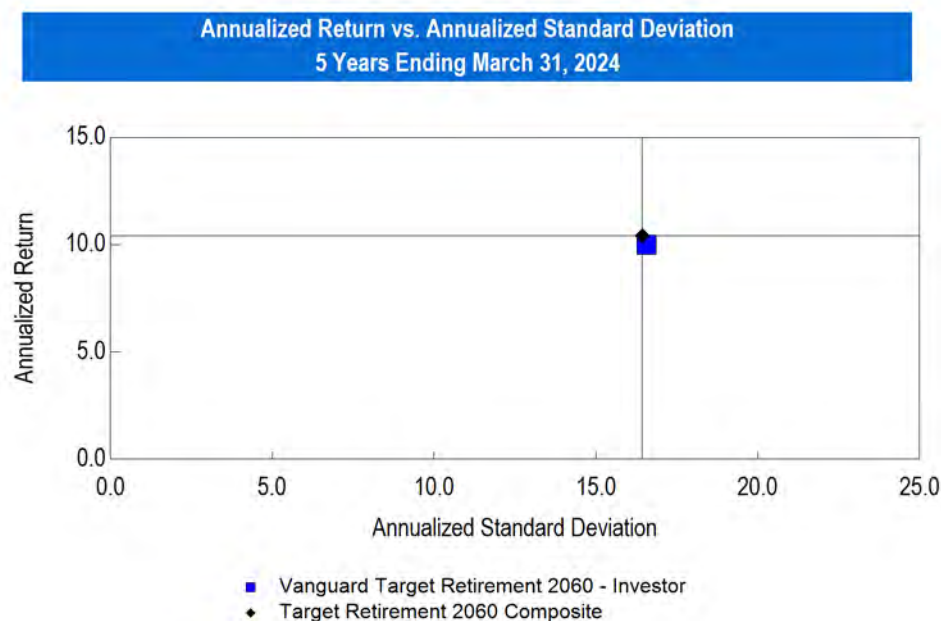
Sharpe Ratio (3 Year)	0.20
Average Market Cap (\$mm)	87,363.51
Price/Earnings	17.57
Price/Book	2.47
Price/Sales	1.76
Price/Cash Flow	11.15
Dividend Yield	2.16
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.03%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.34%
COMMUNICATION SERVICES	7.00%
CONSUMER CYCLICAL	11.11%
CONSUMER DEFENSIVE	6.15%
ENERGY	4.43%
FINANCIAL SERVICES	15.57%
HEALTHCARE	11.17%
INDUSTRIALS	11.69%
REAL ESTATE	2.92%
TECHNOLOGY	23.20%
UTILITIES	2.42%

Account Information	
Account Name	Vanguard Target Retirement 2060 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/31/21
Account Type	Target Date Fund
Benchmark	Target Retirement 2060 Composite
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2060 - Investor	5.7%	15.6%	100.7%	101.5%
Target Retirement 2060 Composite	6.0%	15.5%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2060 - Investor	10.0%	16.6%	99.7%	101.1%
Target Retirement 2060 Composite	10.4%	16.4%	100.0%	100.0%

	Calendar Years										Inception Date
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Vanguard Target Retirement 2060 - Investor	6.9%	20.4%	5.7%	10.0%	20.2%	-17.5%	16.4%	16.3%	25.0%	3.0%	Aug-21
Target Retirement 2060 Composite	6.8%	20.7%	6.0%	10.4%	20.5%	-17.1%	16.7%	17.2%	25.4%	3.2%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement 2060 - Investor

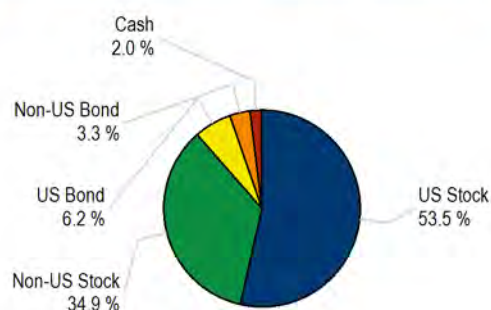
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2060 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VTTSX
Morningstar Category	Target-Date 2060
Average Market Cap (\$mm)	87,141.62
Net Assets (\$mm)	25,462.17
% Assets in Top 10 Holdings	99.21
Total Number of Holdings	5
Manager Name	Walter Nejman
Manager Tenure	11
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL STOCK MKT IDX INSTL PLS	53.65%
VANGUARD TOTAL INTL STOCK INDEX INV	35.91%
VANGUARD TOTAL BOND MARKET II IDX INV	6.65%
VANGUARD TOTAL INTL BD II IDX INSL	3.00%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2060 Composite

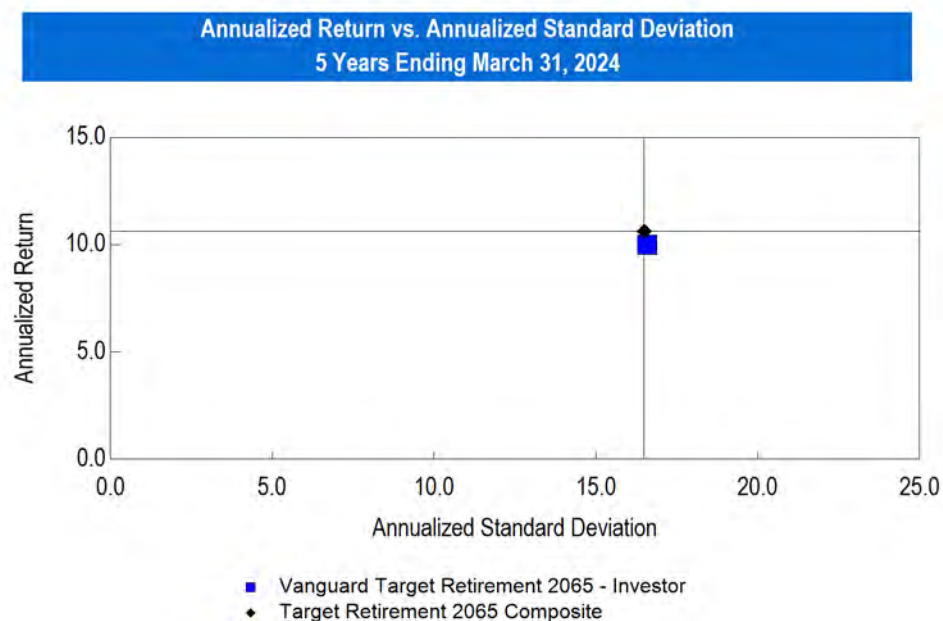
Sharpe Ratio (3 Year)	0.20
Average Market Cap (\$mm)	87,141.62
Price/Earnings	17.56
Price/Book	2.46
Price/Sales	1.76
Price/Cash Flow	11.14
Dividend Yield	2.16
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.03%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.35%
COMMUNICATION SERVICES	6.99%
CONSUMER CYCLICAL	11.11%
CONSUMER DEFENSIVE	6.16%
ENERGY	4.44%
FINANCIAL SERVICES	15.58%
HEALTHCARE	11.17%
INDUSTRIALS	11.69%
REAL ESTATE	2.92%
TECHNOLOGY	23.18%
UTILITIES	2.42%

Account Information	
Account Name	Vanguard Target Retirement 2065 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/01/21
Account Type	Target Date Fund
Benchmark	Target Retirement 2065 Composite
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2065 - Investor	5.7%	15.6%	99.0%	101.5%
Target Retirement 2065 Composite	6.3%	15.6%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Target Retirement 2065 - Investor	10.0%	16.6%	98.5%	101.2%
Target Retirement 2065 Composite	10.6%	16.5%	100.0%	100.0%

	Calendar Years										Inception Date
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Vanguard Target Retirement 2065 - Investor	6.9%	20.4%	5.7%	10.0%	20.1%	-17.4%	16.5%	16.2%	25.0%	3.7%	Aug-21
Target Retirement 2065 Composite	6.8%	21.9%	6.3%	10.6%	21.6%	-17.1%	16.7%	17.2%	25.4%	4.4%	Aug-21

Note: Returns are net of fees.

Vanguard Target Retirement 2065 - Investor

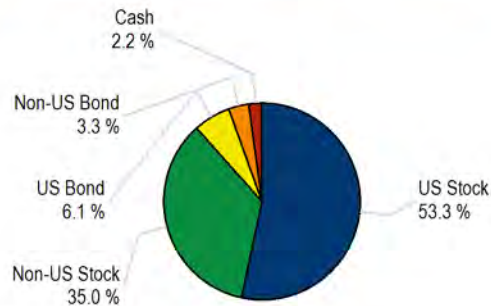
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2065 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VLXVX
Morningstar Category	Target-Date 2065+
Average Market Cap (\$mm)	86,922.88
Net Assets (\$mm)	7,160.41
% Assets in Top 10 Holdings	98.99
Total Number of Holdings	6
Manager Name	Walter Nejman
Manager Tenure	7
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL STOCK MKT IDX INSTL PLS	53.44%
VANGUARD TOTAL INTL STOCK INDEX INV	35.99%
VANGUARD TOTAL BOND MARKET II IDX INV	6.57%
VANGUARD TOTAL INTL BD II IDX INSL	2.99%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2065 Composite

Sharpe Ratio (3 Year)	0.20
Average Market Cap (\$mm)	86,922.88
Price/Earnings	17.55
Price/Book	2.46
Price/Sales	1.75
Price/Cash Flow	11.13
Dividend Yield	2.16
Number of Equity Holdings	0
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.05%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.36%
COMMUNICATION SERVICES	6.99%
CONSUMER CYCLICAL	11.11%
CONSUMER DEFENSIVE	6.16%
ENERGY	4.44%
FINANCIAL SERVICES	15.59%
HEALTHCARE	11.16%
INDUSTRIALS	11.70%
REAL ESTATE	2.92%
TECHNOLOGY	23.15%
UTILITIES	2.42%

Account Information	
Account Name	Vanguard Target Retirement 2070 - Investor
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	8/01/23
Account Type	Target Date Fund
Benchmark	Target Retirement 2070 Composite
Universe	

	Calendar Years										
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
Vanguard Target Retirement 2070 - Investor	6.9%	20.5%	--	--	20.2%	--	--	--	--	10.7%	Aug-23
Target Retirement 2070 Composite	6.8%	20.7%	--	--	20.5%	--	--	--	--	10.8%	Aug-23

Note: Returns are net of fees.

Vanguard Target Retirement 2070 - Investor

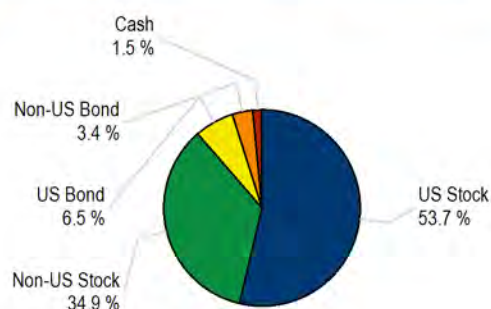
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in a mix of Vanguard mutual funds (underlying funds) according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2070 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VSVNX
Morningstar Category	Target-Date 2065+
Average Market Cap (\$mm)	87,272.98
Net Assets (\$mm)	663.48
% Assets in Top 10 Holdings	99.65
Total Number of Holdings	6
Manager Name	Walter Nejman
Manager Tenure	2
Expense Ratio	0.08%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD TOTAL STOCK MKT IDX INSTL PLS	53.79%
VANGUARD TOTAL INTL STOCK INDEX INV	35.87%
VANGUARD TOTAL BOND MARKET II IDX INV	7.00%
VANGUARD TOTAL INTL BD II IDX INSL	2.99%

Fund Characteristics as of March 31, 2024

Versus Target Retirement 2070 Composite

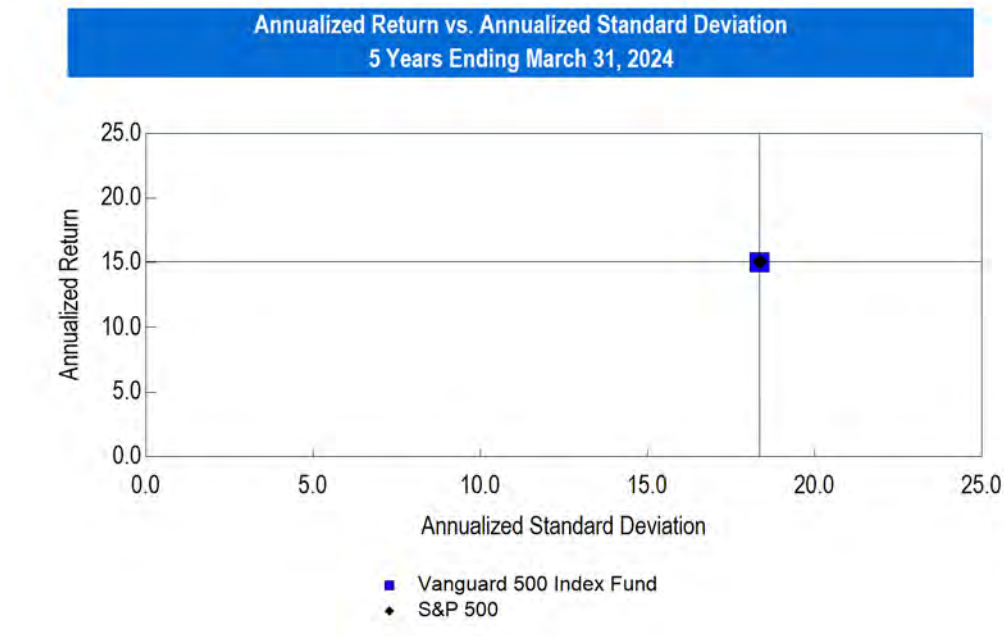
Sharpe Ratio (3 Year)	
Average Market Cap (\$mm)	87,272.98
Price/Earnings	17.57
Price/Book	2.47
Price/Sales	1.76
Price/Cash Flow	11.14
Dividend Yield	2.16
Number of Equity Holdings	0
R-Squared (3 Year)	
Alpha (3 Year)	

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.34%
COMMUNICATION SERVICES	7.00%
CONSUMER CYCLICAL	11.11%
CONSUMER DEFENSIVE	6.15%
ENERGY	4.43%
FINANCIAL SERVICES	15.58%
HEALTHCARE	11.17%
INDUSTRIALS	11.69%
REAL ESTATE	2.92%
TECHNOLOGY	23.19%
UTILITIES	2.42%

Account Information	
Account Name	Vanguard 500 Index Fund
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	1/01/17
Account Type	Domestic Equity
Benchmark	S&P 500
Universe	Large Blend MStar MF

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard 500 Index Fund	11.4%	17.6%	99.9%	100.0%
S&P 500	11.5%	17.6%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard 500 Index Fund	15.0%	18.4%	99.9%	100.0%
S&P 500	15.0%	18.4%	100.0%	100.0%

									Calendar Years											
	2024 Q1 Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank					2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank	Inception	Inception Date					
Vanguard 500 Index Fund	10.5%	40	29.8%	36	11.4%	25	15.0%	23	26.2%	27	-18.1%	50	28.7%	23	18.4%	39	31.5%	26	14.5%	Jan-17
S&P 500	10.6%	39	29.9%	33	11.5%	23	15.0%	21	26.3%	25	-18.1%	48	28.7%	22	18.4%	38	31.5%	25	14.5%	Jan-17

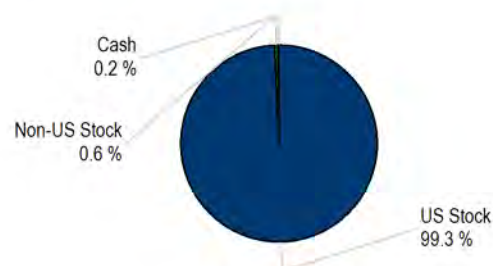
Note: Returns are net of fees.

Description:

The investment seeks to track the performance of the Standard & Poor's 500 Index that measures the investment return of large-capitalization stocks.

The fund employs an indexing investment approach designed to track the performance of the Standard & Poor's 500 Index, a widely recognized benchmark of U.S. stock market performance that is dominated by the stocks of large U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VFIAX
Morningstar Category	Large Blend
Average Market Cap (\$mm)	274,602.26
Net Assets (\$mm)	505,179.81
% Assets in Top 10 Holdings	32.13
Total Number of Holdings	508
Manager Name	Michelle Louie
Manager Tenure	6
Expense Ratio	0.04%
Closed to New Investors	No

Top Holdings as of March 31, 2024

MICROSOFT CORP	7.09%
APPLE INC	5.64%
NVIDIA CORP	5.06%
AMAZON.COM INC	3.74%
META PLATFORMS INC CLASS A	2.42%
ALPHABET INC CLASS A	2.02%
BERKSHIRE HATHAWAY INC CLASS B	1.73%
ALPHABET INC CLASS C	1.70%
ELI LILLY AND CO	1.41%
BROADCOM INC	1.32%

Fund Characteristics as of March 31, 2024

Versus S&P 500

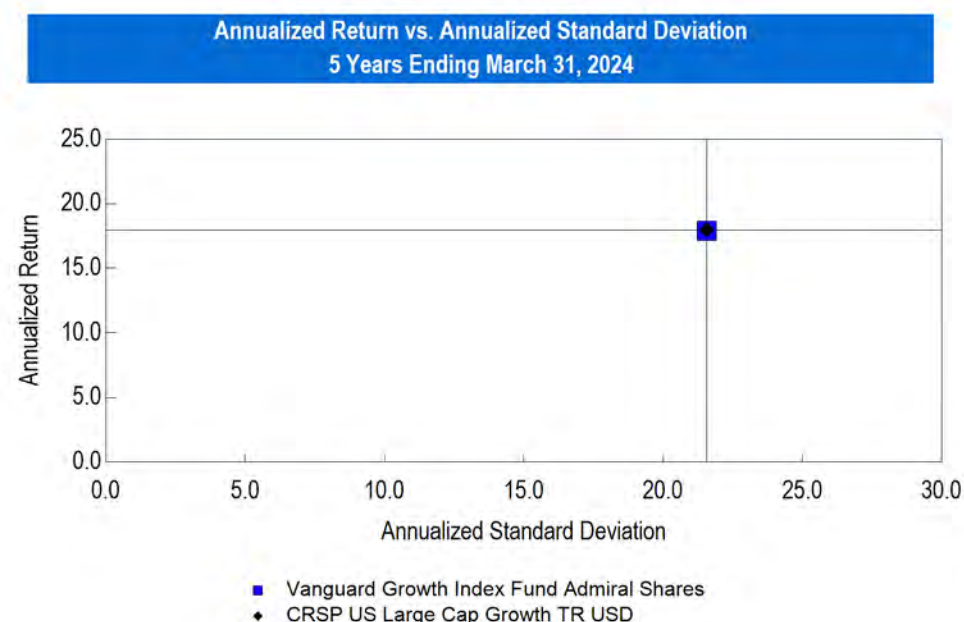
Sharpe Ratio (3 Year)	0.50
Average Market Cap (\$mm)	274,602.26
Price/Earnings	21.75
Price/Book	4.11
Price/Sales	2.66
Price/Cash Flow	14.99
Dividend Yield	1.44
Number of Equity Holdings	505
R-Squared (3 Year)	1.00
Alpha (3 Year)	0.00%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	2.15%
COMMUNICATION SERVICES	8.95%
CONSUMER CYCLICAL	10.51%
CONSUMER DEFENSIVE	5.93%
ENERGY	3.96%
FINANCIAL SERVICES	12.66%
HEALTHCARE	12.46%
INDUSTRIALS	8.31%
REAL ESTATE	2.27%
TECHNOLOGY	30.60%
UTILITIES	2.20%

Account Information	
Account Name	Vanguard Growth Index Fund Admiral Shares
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	8/01/23
Account Type	Domestic Equity
Benchmark	CRSP US Large Cap Growth TR USD
Universe	Large Growth MStar MF

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Growth Index Fund Admiral Shares	10.9%	22.4%	99.9%	100.0%
CRSP US Large Cap Growth TR USD	11.0%	22.4%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Growth Index Fund Admiral Shares	17.9%	21.6%	99.8%	100.0%
CRSP US Large Cap Growth TR USD	18.0%	21.6%	100.0%	100.0%

									Calendar Years											
	2024 Q1 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	10.9%	66	38.8%	48	10.9%	24	17.9%	9	46.8%	15	-33.1%	69	27.3%	20	40.2%	31	37.2%	13	18.3%	Aug-23
CRSP US Large Cap Growth TR USD	10.9%	66	38.9%	48	11.0%	24	18.0%	9	46.9%	14	-33.1%	68	27.3%	19	40.3%	31	37.3%	12	18.3%	Aug-23

Note: Returns are net of fees.

Vanguard Growth Index Fund Admiral Shares

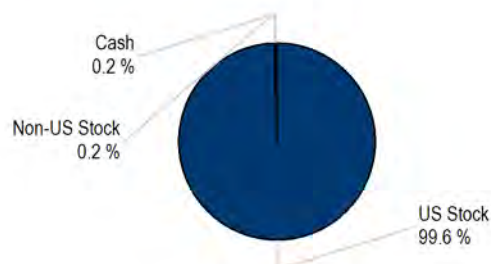
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to track the performance of the CRSP US Large Cap Growth Index that measures the investment return of large-capitalization growth stocks.

The fund employs an indexing investment approach designed to track the performance of the index, a broadly diversified index predominantly made up of growth stocks of large U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VIGAX
Morningstar Category	Large Growth
Average Market Cap (\$mm)	541,457.61
Net Assets (\$mm)	75,443.89
% Assets in Top 10 Holdings	56.96
Total Number of Holdings	202
Manager Name	Gerard C. O'Reilly
Manager Tenure	29
Expense Ratio	0.05%
Closed to New Investors	No

Top Holdings as of March 31, 2024

MICROSOFT CORP	12.97%
APPLE INC	10.43%
NVIDIA CORP	8.88%
AMAZON.COM INC	6.97%
META PLATFORMS INC CLASS A	4.45%
ALPHABET INC CLASS A	3.67%
ALPHABET INC CLASS C	3.03%
ELI LILLY AND CO	2.77%
TESLA INC	1.98%
VISA INC CLASS A	1.79%

Fund Characteristics as of March 31, 2024

Versus CRSP US Large Cap Growth TR USD

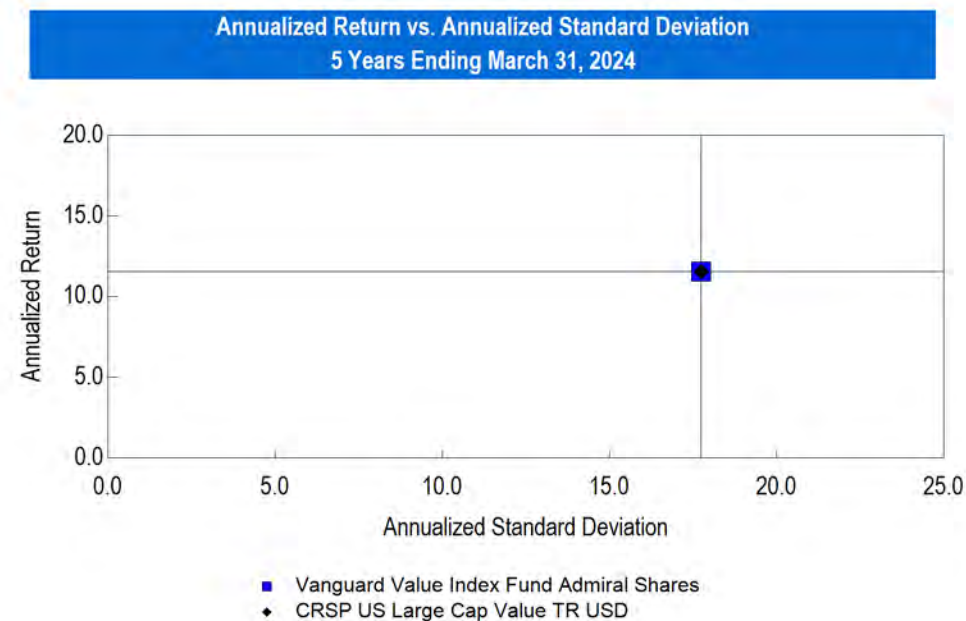
Sharpe Ratio (3 Year)	0.37
Average Market Cap (\$mm)	541,457.61
Price/Earnings	31.22
Price/Book	8.55
Price/Sales	5.74
Price/Cash Flow	20.59
Dividend Yield	0.53
Number of Equity Holdings	199
R-Squared (3 Year)	1.00
Alpha (3 Year)	0.00%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	1.82%
COMMUNICATION SERVICES	13.73%
CONSUMER CYCLICAL	14.61%
CONSUMER DEFENSIVE	2.18%
ENERGY	1.14%
FINANCIAL SERVICES	5.88%
HEALTHCARE	7.74%
INDUSTRIALS	3.79%
REAL ESTATE	1.47%
TECHNOLOGY	47.63%
UTILITIES	0.00%

Account Information	
Account Name	Vanguard Value Index Fund Admiral Shares
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	8/01/23
Account Type	Domestic Equity
Benchmark	CRSP US Large Cap Value TR USD
Universe	Large Value MStar MF

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Value Index Fund Admiral Shares	10.2%	15.6%	100.0%	100.1%
CRSP US Large Cap Value TR USD	10.2%	15.6%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Value Index Fund Admiral Shares	11.5%	17.8%	100.0%	100.0%
CRSP US Large Cap Value TR USD	11.5%	17.8%	100.0%	100.0%

									Calendar Years										Inception	Inception Date
	2024 Q1 Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank	2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank											
Vanguard Value Index Fund Admiral Shares	9.8%	41	21.1%	56	10.2%	35	11.5%	48	9.2%	72	-2.1%	20	26.5%	50	2.3%	57	25.8%	50	13.0%	Aug-23
CRSP US Large Cap Value TR USD	9.8%	42	21.0%	56	10.2%	34	11.5%	48	9.2%	73	-2.0%	19	26.5%	49	2.3%	57	25.9%	49	13.0%	Aug-23

Note: Returns are net of fees.

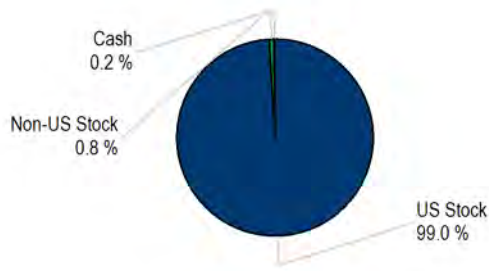
Vanguard Value Index Fund Admiral Shares

Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to track the performance of the CRSP US Large Cap Value Index that measures the investment return of large-capitalization value stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Large Cap Value Index, a broadly diversified index predominantly made up of value stocks of large U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VVIAX
Morningstar Category	Large Value
Average Market Cap (\$mm)	122,280.07
Net Assets (\$mm)	36,409.25
% Assets in Top 10 Holdings	22.82
Total Number of Holdings	343
Manager Name	Gerard C. O'Reilly
Manager Tenure	29
Expense Ratio	0.05%
Closed to New Investors	No

Top Holdings as of March 31, 2024

BERKSHIRE HATHAWAY INC CLASS B	3.73%
BROADCOM INC	3.02%
JPMORGAN CHASE & CO	2.81%
EXXON MOBIL CORP	2.25%
UNITEDHEALTH GROUP INC	2.23%
JOHNSON & JOHNSON	1.86%
PROCTER & GAMBLE CO	1.86%
THE HOME DEPOT INC	1.86%
MERCK & CO INC	1.63%
ABBVIE INC	1.57%

Fund Characteristics as of March 31, 2024

Versus CRSP US Large Cap Value TR USD

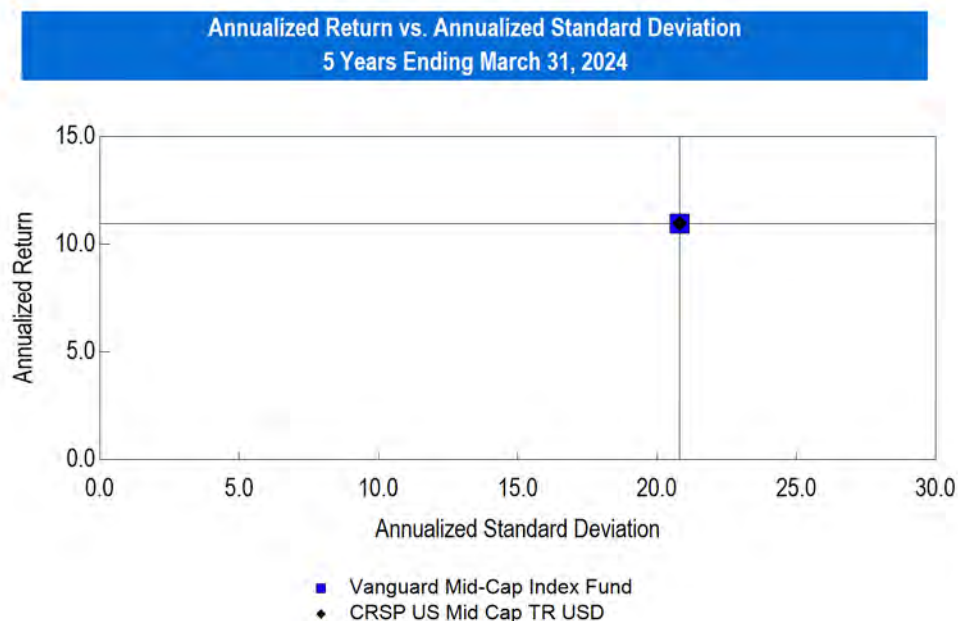
Sharpe Ratio (3 Year)	0.49
Average Market Cap (\$mm)	122,280.07
Price/Earnings	16.44
Price/Book	2.64
Price/Sales	1.69
Price/Cash Flow	11.26
Dividend Yield	2.44
Number of Equity Holdings	340
R-Squared (3 Year)	1.00
Alpha (3 Year)	0.00%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	2.41%
COMMUNICATION SERVICES	3.45%
CONSUMER CYCLICAL	4.88%
CONSUMER DEFENSIVE	10.13%
ENERGY	7.18%
FINANCIAL SERVICES	21.16%
HEALTHCARE	17.89%
INDUSTRIALS	13.37%
REAL ESTATE	3.02%
TECHNOLOGY	11.96%
UTILITIES	4.54%

Account Information	
Account Name	Vanguard Mid-Cap Index Fund
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	1/01/17
Account Type	Domestic Equity
Benchmark	CRSP US Mid Cap TR USD
Universe	Mid-Cap Blend MStar MF

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Mid-Cap Index Fund	5.7%	19.3%	100.0%	100.0%
CRSP US Mid Cap TR USD	5.7%	19.3%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Mid-Cap Index Fund	10.9%	20.8%	100.0%	100.0%
CRSP US Mid Cap TR USD	10.9%	20.8%	100.0%	100.0%

									Calendar Years											
	2024 Q1 Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank					2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank	Inception	Inception Date					
Vanguard Mid-Cap Index Fund	7.9%	77	20.4%	76	5.7%	62	10.9%	52	16.0%	54	-18.7%	83	24.5%	46	18.2%	27	31.0%	18	10.9%	Jan-17
CRSP US Mid Cap TR USD	7.9%	78	20.4%	76	5.7%	61	10.9%	51	16.0%	54	-18.7%	81	24.5%	45	18.2%	27	31.1%	15	11.0%	Jan-17

Note: Returns are net of fees.

Vanguard Mid-Cap Index Fund

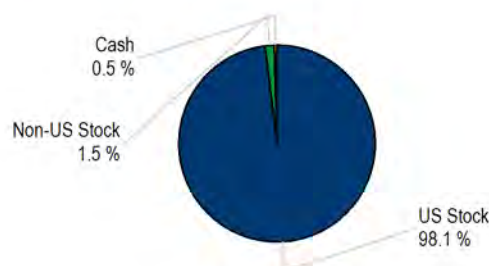
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to track the performance of the CRSP US Mid Cap Index that measures the investment return of mid-capitalization stocks.

The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Index, a broadly diversified index of stocks of mid-size U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VIMAX
Morningstar Category	Mid-Cap Blend
Average Market Cap (\$mm)	31,244.54
Net Assets (\$mm)	61,126.28
% Assets in Top 10 Holdings	7.65
Total Number of Holdings	331
Manager Name	Awais Khan
Manager Tenure	3
Expense Ratio	0.05%
Closed to New Investors	No

Top Holdings as of March 31, 2024

AMPHENOL CORP CLASS A	0.90%
PACCAR INC	0.85%
TRANSDIGM GROUP INC	0.85%
CINTAS CORP	0.77%
CONSTELLATION ENERGY CORP	0.77%
MOTOROLA SOLUTIONS INC	0.77%
ARTHUR J. GALLAGHER & CO	0.71%
DEXCOM INC	0.70%
WELLTOWER INC	0.69%
COPART INC	0.65%

Fund Characteristics as of March 31, 2024

Versus CRSP US Mid Cap TR USD

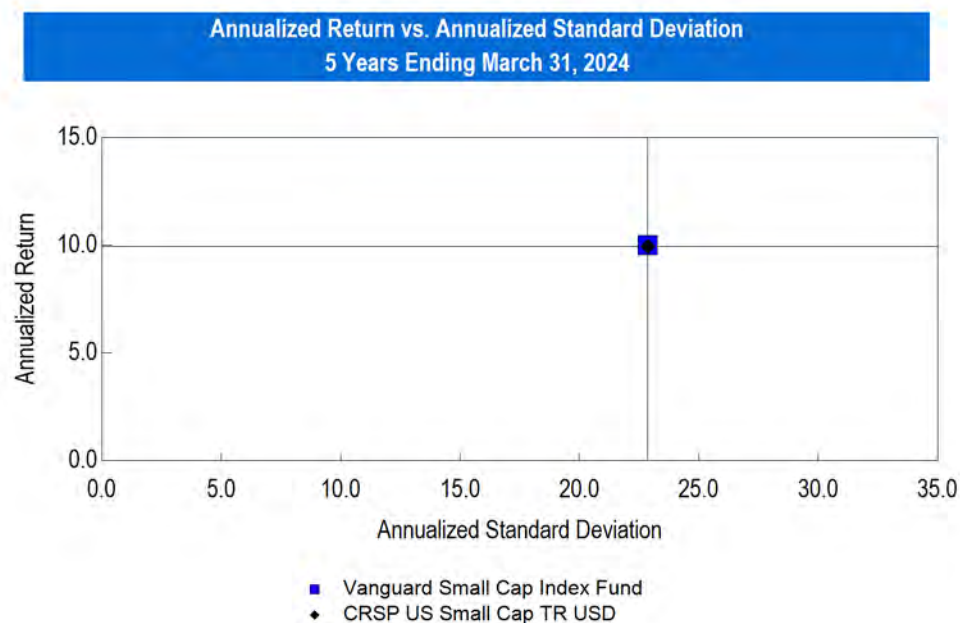
Sharpe Ratio (3 Year)	0.16
Average Market Cap (\$mm)	31,244.54
Price/Earnings	19.48
Price/Book	2.83
Price/Sales	1.75
Price/Cash Flow	12.35
Dividend Yield	1.70
Number of Equity Holdings	328
R-Squared (3 Year)	1.00
Alpha (3 Year)	0.00%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	5.53%
COMMUNICATION SERVICES	3.41%
CONSUMER CYCLICAL	8.44%
CONSUMER DEFENSIVE	4.74%
ENERGY	4.56%
FINANCIAL SERVICES	12.83%
HEALTHCARE	10.71%
INDUSTRIALS	17.41%
REAL ESTATE	7.30%
TECHNOLOGY	18.27%
UTILITIES	6.80%

Account Information	
Account Name	Vanguard Small Cap Index Fund
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	1/01/17
Account Type	Domestic Equity
Benchmark	CRSP US Small Cap TR USD
Universe	Small Blend MStar MF

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Small Cap Index Fund	3.8%	20.5%	100.0%	99.9%
CRSP US Small Cap TR USD	3.8%	20.5%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Small Cap Index Fund	10.0%	22.9%	100.1%	100.0%
CRSP US Small Cap TR USD	9.9%	22.9%	100.0%	100.0%

									Calendar Years											
	2024 Q1 Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank					2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank	Inception	Inception Date					
Vanguard Small Cap Index Fund	7.5%	25	22.5%	25	3.8%	46	10.0%	40	18.2%	26	-17.6%	63	17.7%	84	19.1%	20	27.4%	21	9.8%	Jan-17
CRSP US Small Cap TR USD	7.5%	25	22.4%	25	3.8%	46	9.9%	41	18.1%	26	-17.6%	63	17.7%	84	19.1%	20	27.3%	21	9.8%	Jan-17

Note: Returns are net of fees.

Vanguard Small Cap Index Fund

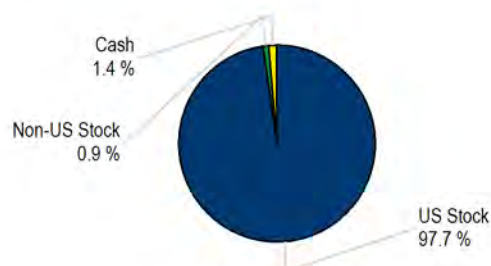
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to track the performance of the CRSP US Small Cap Index that measures the investment return of small-capitalization stocks.

The fund employs an indexing investment approach designed to track the performance of the CRSP US Small Cap Index, a broadly diversified index of stocks of small U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VSMAX
Morningstar Category	Small Blend
Average Market Cap (\$mm)	6,747.13
Net Assets (\$mm)	55,202.00
% Assets in Top 10 Holdings	3.88
Total Number of Holdings	1,416
Manager Name	William A. Coleman
Manager Tenure	8
Expense Ratio	0.05%
Closed to New Investors	No

Top Holdings as of March 31, 2024

BUILDERS FIRSTSOURCE INC	0.44%
MICROSTRATEGY INC CLASS A	0.44%
TARGA RESOURCES CORP	0.43%
DECKERS OUTDOOR CORP	0.42%
AXON ENTERPRISE INC	0.39%
ENTEGRIS INC	0.37%
PTC INC	0.37%
WILLIAMS-SONOMA INC	0.35%
DRAFTKINGS INC ORDINARY SHARES - CLASS A	0.34%
BOOZ ALLEN HAMILTON HOLDING CORP CLASS A	0.33%

Fund Characteristics as of March 31, 2024

Versus CRSP US Small Cap TR USD

Sharpe Ratio (3 Year)	0.06
Average Market Cap (\$mm)	6,747.13
Price/Earnings	17.19
Price/Book	2.17
Price/Sales	1.33
Price/Cash Flow	9.07
Dividend Yield	1.65
Number of Equity Holdings	1,413
R-Squared (3 Year)	1.00
Alpha (3 Year)	0.00%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	4.68%
COMMUNICATION SERVICES	2.55%
CONSUMER CYCLICAL	14.03%
CONSUMER DEFENSIVE	3.90%
ENERGY	5.18%
FINANCIAL SERVICES	12.79%
HEALTHCARE	10.77%
INDUSTRIALS	20.20%
REAL ESTATE	7.61%
TECHNOLOGY	15.49%
UTILITIES	2.81%

Account Information

Account Name	Vanguard Developed Markets Index Fund Admiral
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	1/01/17
Account Type	International Equity
Benchmark	FTSE-Developed All Cap Ex U.S. Index
Universe	Foreign Large Blend MStar MF

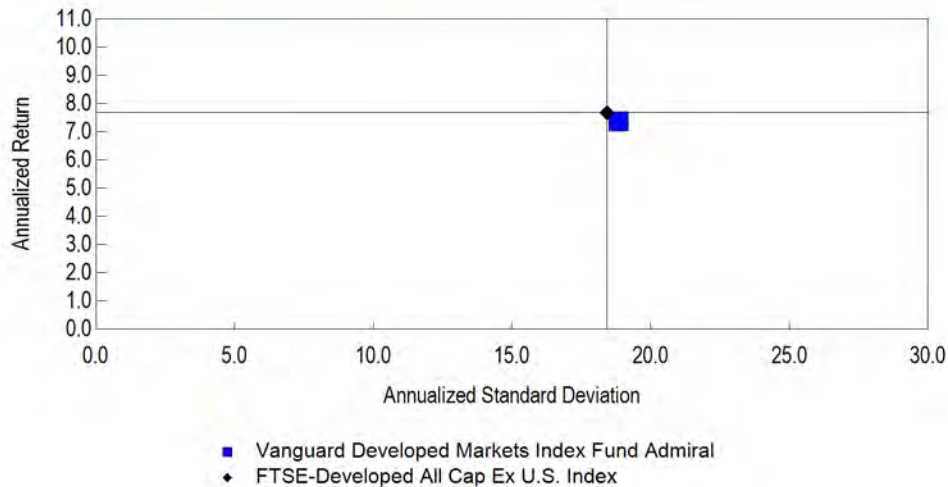
3 Years Ending March 31, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Developed Markets Index Fund Admiral	3.9%	17.9%	106.4%	104.4%
FTSE-Developed All Cap Ex U.S. Index	4.2%	17.3%	100.0%	100.0%

5 Years Ending March 31, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Developed Markets Index Fund Admiral	7.4%	18.9%	104.8%	102.5%
FTSE-Developed All Cap Ex U.S. Index	7.7%	18.4%	100.0%	100.0%

Annualized Return vs. Annualized Standard Deviation
5 Years Ending March 31, 2024



Calendar Years

	2024 Q1 Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank		2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank	Inception	Inception Date								
Vanguard Developed Markets Index Fund Admiral	5.1%	51	14.9%	30	3.9%	29	7.4%	35	17.7%	36	-15.3%	42	11.4%	33	10.3%	46	22.0%	47	7.6%	Jan-17
FTSE-Developed All Cap Ex U.S. Index	5.2%	50	15.6%	22	4.2%	27	7.7%	23	18.3%	24	-15.3%	42	11.9%	28	10.3%	45	22.7%	37	7.8%	Jan-17

Note: Returns are net of fees.

Vanguard Developed Markets Index Fund Admiral

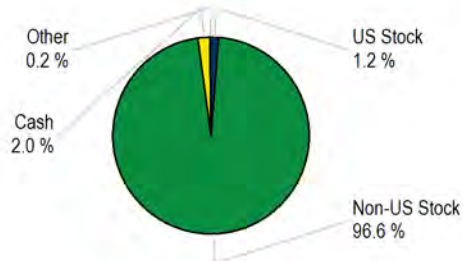
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to track the performance of the FTSE Developed All Cap ex US Index.

The fund employs an indexing investment approach designed to track the performance of the FTSE Developed All Cap ex US Index, a market-capitalization-weighted index that is made up of approximately 4,006 common stocks of large-, mid-, and small-cap companies located in Canada and the major markets of Europe and the Pacific region. The Advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VTMGX
Morningstar Category	Foreign Large Blend
Average Market Cap (\$mm)	34,216.49
Net Assets (\$mm)	27,871.02
% Assets in Top 10 Holdings	11.56
Total Number of Holdings	4,036
Manager Name	Christine D. Franquin
Manager Tenure	11
Expense Ratio	0.07%
Closed to New Investors	No

Top Holdings as of March 31, 2024

NOVO NORDISK A/S CLASS B	1.70%
ASML HOLDING NV	1.64%
TOYOTA MOTOR CORP	1.29%
SAMSUNG ELECTRONICS CO LTD	1.22%
NESTLE SA	1.21%
LVMH MOET HENNESSY LOUIS VUITTON SE	0.95%
SHELL PLC	0.92%
SAP SE	0.91%
NOVARTIS AG REGISTERED SHARES	0.86%
ASTRAZENECA PLC	0.85%

Fund Characteristics as of March 31, 2024

Versus FTSE-Developed All Cap Ex U.S. Index

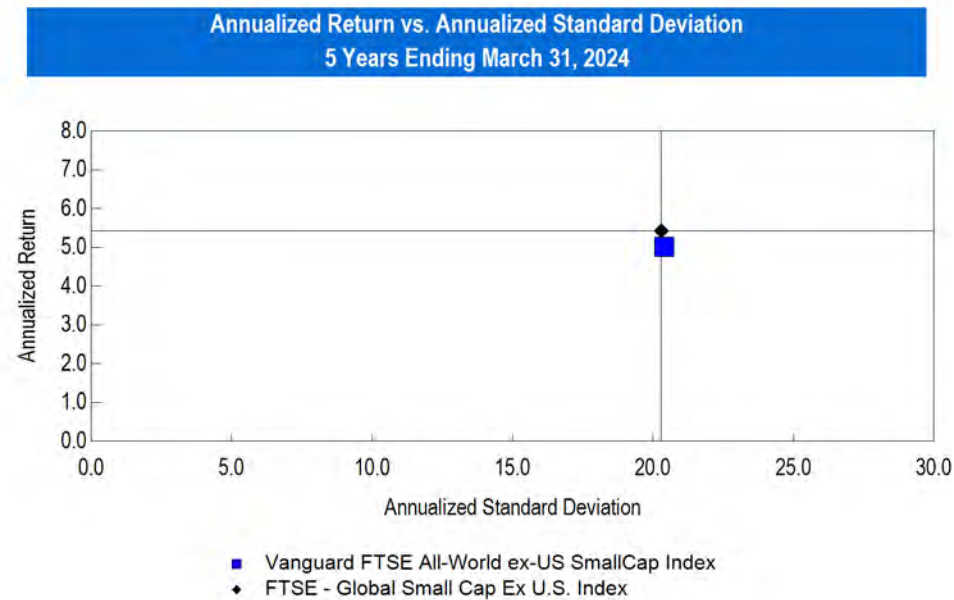
Sharpe Ratio (3 Year)	0.08
Average Market Cap (\$mm)	34,216.49
Price/Earnings	14.09
Price/Book	1.62
Price/Sales	1.20
Price/Cash Flow	8.23
Dividend Yield	3.16
Number of Equity Holdings	3,985
R-Squared (3 Year)	0.98
Alpha (3 Year)	-0.03%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	7.46%
COMMUNICATION SERVICES	4.04%
CONSUMER CYCLICAL	11.23%
CONSUMER DEFENSIVE	7.13%
ENERGY	5.29%
FINANCIAL SERVICES	19.35%
HEALTHCARE	10.55%
INDUSTRIALS	17.43%
REAL ESTATE	3.24%
TECHNOLOGY	11.59%
UTILITIES	2.70%

Account Information	
Account Name	Vanguard FTSE All-World ex-US SmallCap Index
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	10/01/18
Account Type	International Equity
Benchmark	FTSE - Global Small Cap Ex U.S. Index
Universe	Foreign Small/Mid Blend Mstar MF

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard FTSE All-World ex-US SmallCap Index	-0.3%	17.9%	101.8%	102.2%
FTSE - Global Small Cap Ex U.S. Index	0.2%	17.7%	100.0%	100.0%



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard FTSE All-World ex-US SmallCap Index	5.0%	20.4%	101.3%	101.2%
FTSE - Global Small Cap Ex U.S. Index	5.4%	20.3%	100.0%	100.0%

	Calendar Years																		Inception	Inception Date
	2024 Q1 Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank	2023 Rank	2022 Rank	2021 Rank	2020 Rank	2019 Rank	2018 Rank	2017 Rank	2016 Rank	2015 Rank	2014 Rank	2013 Rank	2012 Rank	2011 Rank	2010 Rank		
Vanguard FTSE All-World ex-US SmallCap Index	1.4%	83	10.2%	68	-0.3%	72	5.0%	82	15.1%	47	-21.3%	63	12.7%	63	11.9%	40	21.7%	59	3.5%	Oct-18
FTSE - Global Small Cap Ex U.S. Index	1.6%	78	11.3%	54	0.2%	57	5.4%	74	15.9%	28	-21.2%	59	13.4%	40	11.8%	41	22.1%	54	3.8%	Oct-18

Note: Returns are net of fees.

Vanguard FTSE All-World ex-US SmallCap Index

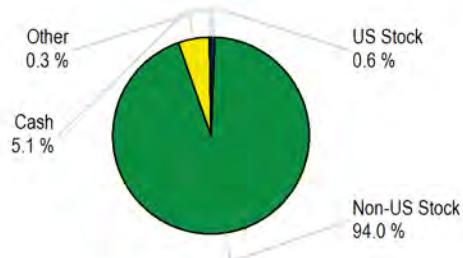
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to track the performance of a FTSE Global Small Cap ex U.S. Index that measures the investment return of stocks of international small-cap companies.

The fund employs an indexing investment approach designed to track the performance of the index. The advisor attempts to sample the target index by investing all, or substantially all, of its assets in common stocks in the index and by holding a representative sample of securities that resembles the full index in terms of key risk factors and other characteristics.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VFSAX
Morningstar Category	Foreign Small/Mid Blend
Average Market Cap (\$mm)	1,816.25
Net Assets (\$mm)	1,426.31
% Assets in Top 10 Holdings	3.50
Total Number of Holdings	4,795
Manager Name	Jeffrey D. Miller
Manager Tenure	9
Expense Ratio	0.17%
Closed to New Investors	No

Top Holdings as of March 31, 2024

WSP GLOBAL INC	0.63%
RB GLOBAL INC	0.44%
TFI INTERNATIONAL INC	0.41%
ARC RESOURCES LTD	0.34%
OPEN TEXT CORP	0.33%
EMERA INC	0.31%
STANTEC INC	0.30%
THE DESCARTES SYSTEMS GROUP INC	0.25%
TOROMONT INDUSTRIES LTD	0.25%
KINROSS GOLD CORP	0.24%

Fund Characteristics as of March 31, 2024

Versus FTSE - Global Small Cap Ex U.S. Index

Sharpe Ratio (3 Year)	-0.16
Average Market Cap (\$mm)	1,816.25
Price/Earnings	12.64
Price/Book	1.30
Price/Sales	0.85
Price/Cash Flow	6.55
Dividend Yield	3.13
Number of Equity Holdings	4,729
R-Squared (3 Year)	0.99
Alpha (3 Year)	-0.04%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	10.65%
COMMUNICATION SERVICES	3.10%
CONSUMER CYCLICAL	11.65%
CONSUMER DEFENSIVE	4.26%
ENERGY	4.86%
FINANCIAL SERVICES	11.11%
HEALTHCARE	7.13%
INDUSTRIALS	21.76%
REAL ESTATE	8.86%
TECHNOLOGY	13.63%
UTILITIES	3.01%

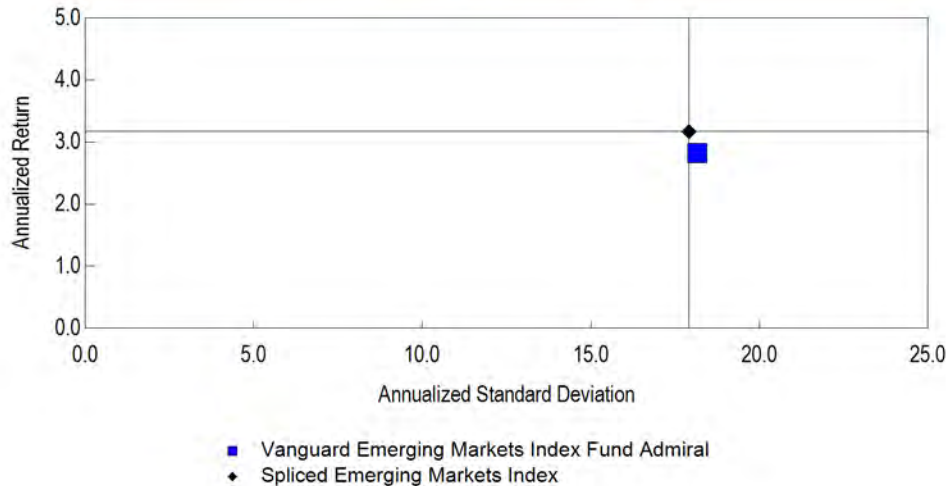
Account Information

Account Name	Vanguard Emerging Markets Index Fund Admiral
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	8/31/21
Account Type	International Equity
Benchmark	Spliced Emerging Markets Index
Universe	Diversified Emerging Mkts MStar MF

3 Years Ending March 31, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Emerging Markets Index Fund Admiral	-3.8%	16.4%	99.1%	101.9%
Spliced Emerging Markets Index	-3.2%	16.0%	100.0%	100.0%

Annualized Return vs. Annualized Standard Deviation 5 Years Ending March 31, 2024



5 Years Ending March 31, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Emerging Markets Index Fund Admiral	2.8%	18.2%	99.5%	100.9%
Spliced Emerging Markets Index	3.2%	17.9%	100.0%	100.0%

Calendar Years

	2024 Q1	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	2023	Rank	2022	Rank	2021	Rank	2020	Rank	2019	Rank	Inception	Inception Date
Vanguard Emerging Markets Index Fund Admiral	1.9%	69	7.4%	65	-3.8%	41	2.8%	56	9.2%	64	-17.8%	26	0.9%	38	15.2%	67	20.3%	51	-4.8%	Aug-21
Spliced Emerging Markets Index	2.0%	66	8.5%	57	-3.2%	37	3.2%	46	9.5%	62	-17.6%	24	1.5%	34	15.5%	64	20.4%	50	-4.5%	Aug-21

Note: Returns are net of fees.

Vanguard Emerging Markets Index Fund Admiral

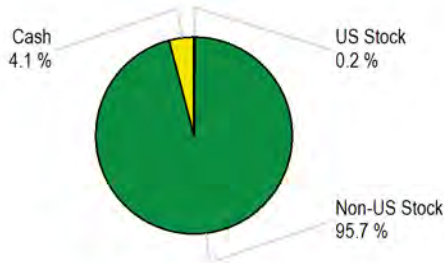
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to track the performance the FTSE Emerging Markets All Cap China A Inclusion Index.

The index measures the investment return of stocks issued by companies located in emerging market countries. The fund employs an indexing investment approach designed to track the performance of the FTSE Emerging Markets All Cap China A Inclusion Index. It invests by sampling the index, meaning that it holds a broadly diversified collection of securities that, in the aggregate, approximates the index in terms of key characteristics.

Mutual Fund Allocation as of March 31, 2024



Fund Characteristics as of March 31, 2024

Versus Spliced Emerging Markets Index

Sharpe Ratio (3 Year)	-0.39
Average Market Cap (\$mm)	22,561.06
Price/Earnings	12.80
Price/Book	1.53
Price/Sales	1.35
Price/Cash Flow	6.66
Dividend Yield	3.66
Number of Equity Holdings	4,808
R-Squared (3 Year)	0.98
Alpha (3 Year)	-0.04%

Portfolio Fund Information as of March 31, 2024

Ticker	VEMAX
Morningstar Category	Diversified Emerging Mkts
Average Market Cap (\$mm)	22,561.06
Net Assets (\$mm)	15,595.09
% Assets in Top 10 Holdings	18.38
Total Number of Holdings	4,878
Manager Name	Michael Perre
Manager Tenure	16
Expense Ratio	0.14%
Closed to New Investors	No

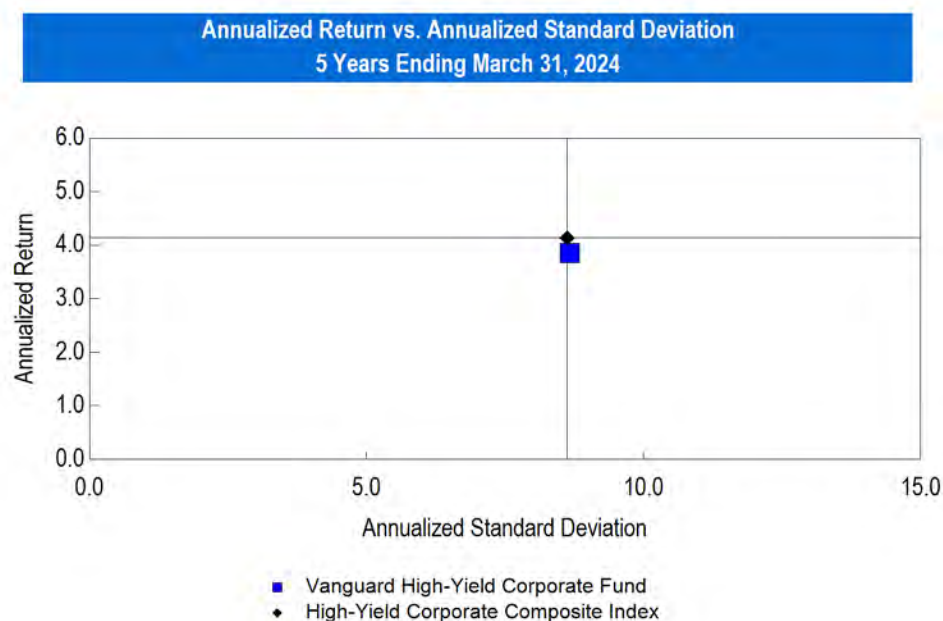
Sector Allocation as of March 31, 2024

BASIC MATERIALS	8.17%
COMMUNICATION SERVICES	8.28%
CONSUMER CYCLICAL	12.16%
CONSUMER DEFENSIVE	5.91%
ENERGY	5.88%
FINANCIAL SERVICES	21.51%
HEALTHCARE	4.21%
INDUSTRIALS	8.45%
REAL ESTATE	2.65%
TECHNOLOGY	19.13%
UTILITIES	3.64%

Top Holdings as of March 31, 2024

TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	6.80%
TENCENT HOLDINGS LTD	3.01%
ALIBABA GROUP HOLDING LTD ORDINARY SHARES	1.92%
RELIANCE INDUSTRIES LTD	1.51%
HDFC BANK LTD	1.22%
PDD HOLDINGS INC ADR	0.88%
MEITUAN CLASS B	0.83%
INFOSYS LTD	0.79%
HON HAI PRECISION INDUSTRY CO LTD	0.73%
CHINA CONSTRUCTION BANK CORP CLASS H	0.71%

Account Information	
Account Name	Vanguard High-Yield Corporate Fund
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	10/01/18
Account Type	Fixed Income
Benchmark	High-Yield Corporate Composite Index
Universe	



3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard High-Yield Corporate Fund	2.1%	8.3%	101.5%	99.7%
High-Yield Corporate Composite Index	1.9%	8.0%	100.0%	100.0%

5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard High-Yield Corporate Fund	3.8%	8.7%	96.5%	99.6%
High-Yield Corporate Composite Index	4.1%	8.6%	100.0%	100.0%

	Calendar Years										Inception Date
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Vanguard High-Yield Corporate Fund	0.8%	9.1%	2.1%	3.8%	11.7%	-9.0%	3.8%	5.4%	15.9%	4.0%	Oct-18
High-Yield Corporate Composite Index	1.2%	9.8%	1.9%	4.1%	12.1%	-10.3%	4.4%	7.6%	14.6%	4.4%	Oct-18

Note: Returns are net of fees.

Vanguard High-Yield Corporate Fund

Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide a high level of current income.

The fund invests primarily in a diversified group of high-yielding, higher-risk corporate bonds-commonly known as "junk bonds"-with medium- and lower-range credit-quality ratings. It invests at least 80% of its assets in corporate bonds that are rated below Baa by Moody's Investors Service, Inc. (Moody's); have an equivalent rating by any other independent bond-rating agency; or, if unrated, are determined to be of comparable quality by the fund's advisor. The fund's high-yield bonds and loans mostly have short- and intermediate-term maturities.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VWEAX
Morningstar Category	High Yield Bond
Average Market Cap (\$mm)	
Net Assets (\$mm)	20,786.50
% Assets in Top 10 Holdings	6.23
Total Number of Holdings	879
Manager Name	Michael Chang
Manager Tenure	2
Expense Ratio	0.13%
Closed to New Investors	No

Top Holdings as of March 31, 2024

IMOLA MERGER CORP.	0.83%
UNITED STATES TREASURY NOTES	0.68%
UNITED STATES TREASURY BILLS	0.66%
UNITED STATES TREASURY NOTES	0.65%
HERC HOLDINGS INC	0.62%
UNITED STATES TREASURY NOTES	0.62%
SS&C TECHNOLOGIES, INC.	0.58%
EMRLD BORROWER LP / EMERALD CO-ISSUER INC.	0.55%
AERCAP GLOBAL AVIATION TRUST	0.53%
FRONTIER COMMUNICATIONS PARENT INC	0.51%

Fund Characteristics as of March 31, 2024

Versus High-Yield Corporate Composite Index

Sharpe Ratio (3 Year)	-0.06
Average Duration	3.27
Average Coupon	5.47%
Average Effective Maturity	4.20
R-Squared (3 Year)	0.99
Alpha (3 Year)	0.01%
Beta (3 Year)	1.03

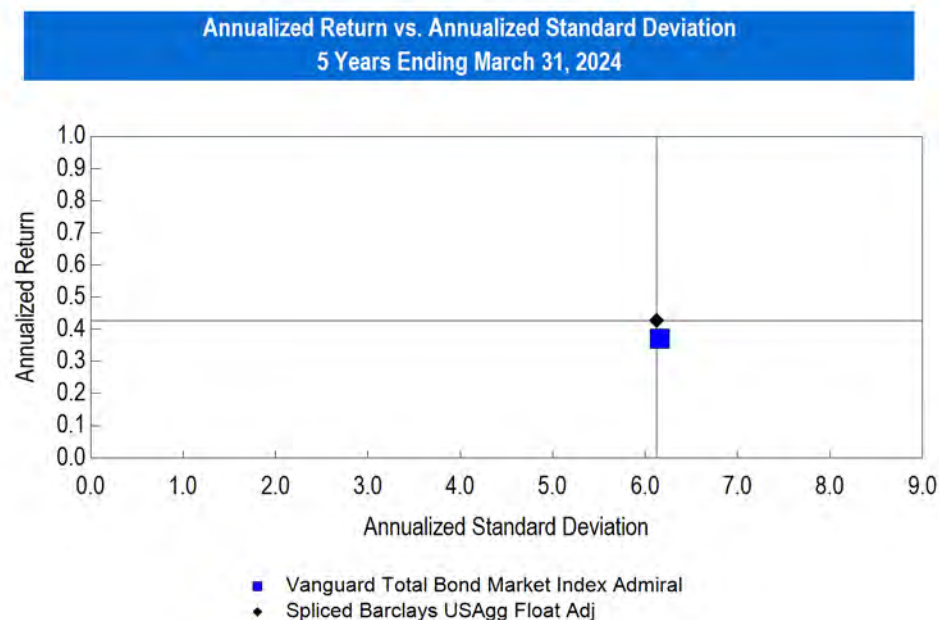
Fixed Income Sectors as of March 31, 2024

GOVERNMENT	5.52%
MUNICIPAL	0.00%
CORPORATE	90.83%
SECURITIZED	0.07%
CASH & EQUIVALENTS	3.57%
DERIVATIVE	0.00%

Account Information	
Account Name	Vanguard Total Bond Market Index Admiral
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	1/01/17
Account Type	Fixed Income
Benchmark	Spliced Barclays USAgg Float Adj
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Total Bond Market Index Admiral	-2.4%	7.2%	100.6%	100.6%
Spliced Barclays USAgg Float Adj	-2.4%	7.2%	100.0%	100.0%

5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Total Bond Market Index Admiral	0.4%	6.2%	100.3%	100.8%
Spliced Barclays USAgg Float Adj	0.4%	6.1%	100.0%	100.0%



	Calendar Years										Inception Date
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
Vanguard Total Bond Market Index Admiral	-0.8%	1.7%	-2.4%	0.4%	5.7%	-13.2%	-1.7%	7.7%	8.7%	1.1%	Jan-17
Spliced Barclays USAgg Float Adj	-0.7%	1.8%	-2.4%	0.4%	5.6%	-13.1%	-1.6%	7.7%	8.9%	1.2%	Jan-17

Note: Returns are net of fees.

Vanguard Total Bond Market Index Admiral

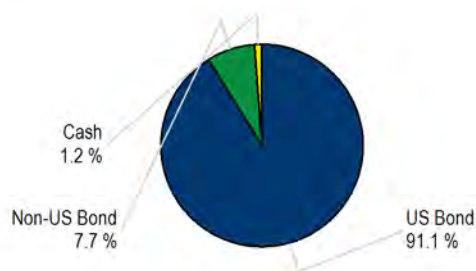
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to track the performance of the Bloomberg U.S. Aggregate Float Adjusted Index.

This index measures the performance of a wide spectrum of public, investment-grade, taxable, fixed income securities in the United States-including government, corporate, and international dollar-denominated bonds, as well as mortgage-backed and asset-backed securities-all with maturities of more than 1 year. All of the fund's investments will be selected through the sampling process, and at least 80% of its assets will be invested in bonds held in the index.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VBTLX
Morningstar Category	Intermediate Core Bond
Average Market Cap (\$mm)	
Net Assets (\$mm)	98,643.73
% Assets in Top 10 Holdings	4.25
Total Number of Holdings	17,816
Manager Name	Joshua C. Barrickman
Manager Tenure	11
Expense Ratio	0.05%
Closed to New Investors	No

Top Holdings as of March 31, 2024

UNITED STATES TREASURY NOTES	0.47%
UNITED STATES TREASURY NOTES	0.46%
UNITED STATES TREASURY NOTES	0.45%
UNITED STATES TREASURY NOTES	0.44%
UNITED STATES TREASURY NOTES	0.43%
UNITED STATES TREASURY NOTES	0.42%
UNITED STATES TREASURY NOTES	0.40%
UNITED STATES TREASURY NOTES	0.39%

Fund Characteristics as of March 31, 2024

Versus Spliced Barclays USAgg Float Adj

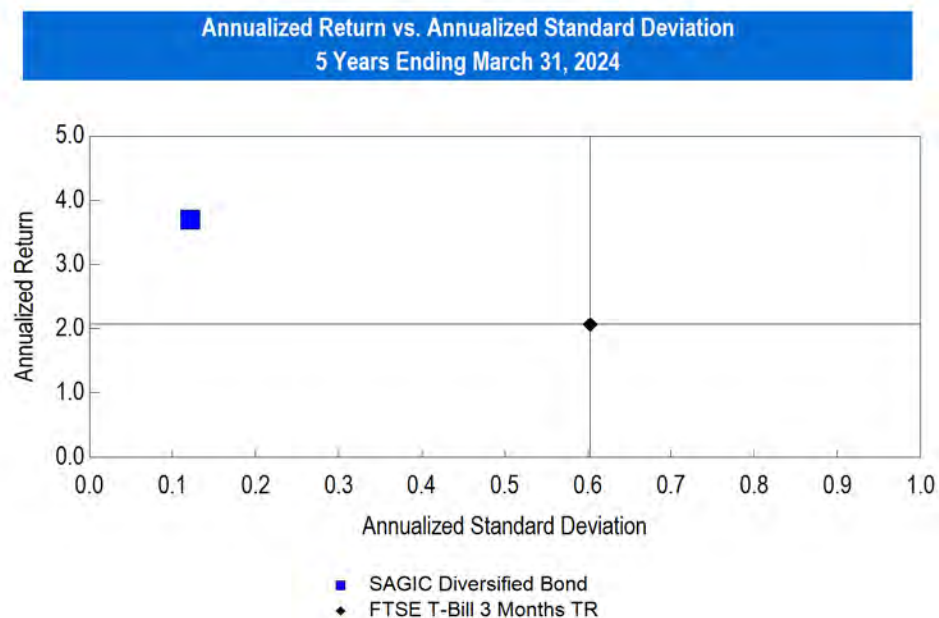
Sharpe Ratio (3 Year)	-0.70
Average Duration	6.08
Average Coupon	3.32%
Average Effective Maturity	8.50
R-Squared (3 Year)	1.00
Alpha (3 Year)	0.00%
Beta (3 Year)	1.00

Fixed Income Sectors as of March 31, 2024

GOVERNMENT	49.40%
MUNICIPAL	0.57%
CORPORATE	26.53%
SECURITIZED	22.31%
CASH & EQUIVALENTS	1.18%
DERIVATIVE	0.00%

Account Information	
Account Name	SAGIC Diversified Bond
Account Structure	Separate Account
Investment Style	Active
Inception Date	1/01/16
Account Type	Stable Value
Benchmark	FTSE T-Bill 3 Months TR
Universe	

3 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
SAGIC Diversified Bond	3.7%	0.1%	136.6%	--
FTSE T-Bill 3 Months TR	2.7%	0.7%	100.0%	--



5 Years Ending March 31, 2024				
	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
SAGIC Diversified Bond	3.7%	0.1%	184.7%	--
FTSE T-Bill 3 Months TR	2.1%	0.6%	100.0%	--

	Calendar Years										Inception Date
	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	
SAGIC Diversified Bond	1.1%	4.2%	3.7%	3.7%	4.1%	3.4%	3.3%	3.8%	3.8%	3.6%	Jan-16
FTSE T-Bill 3 Months TR	1.4%	5.5%	2.7%	2.1%	5.3%	1.5%	0.0%	0.6%	2.3%	1.7%	Jan-16

Note: Returns are net of fees.

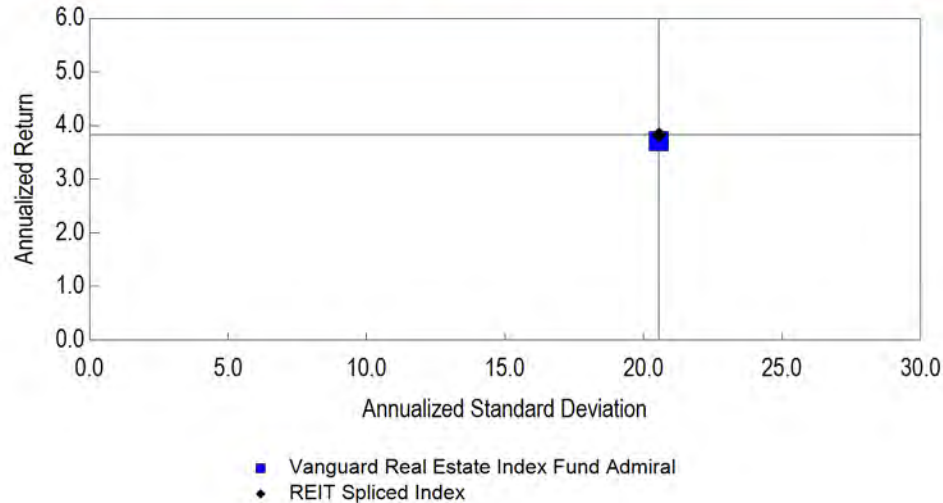
Account Information

Account Name	Vanguard Real Estate Index Fund Admiral
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	8/01/21
Account Type	Real Estate
Benchmark	REIT Spliced Index
Universe	

3 Years Ending March 31, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Real Estate Index Fund Admiral	1.7%	21.8%	99.7%	100.1%
REIT Spliced Index	1.9%	21.8%	100.0%	100.0%

Annualized Return vs. Annualized Standard Deviation 5 Years Ending March 31, 2024



5 Years Ending March 31, 2024

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Real Estate Index Fund Admiral	3.7%	20.5%	99.6%	100.1%
REIT Spliced Index	3.8%	20.6%	100.0%	100.0%

Calendar Years

	2024 Q1	1 Yr	3 Yrs	5 Yrs	2023	2022	2021	2020	2019	Inception	Inception Date
Vanguard Real Estate Index Fund Admiral	-1.2%	8.5%	1.7%	3.7%	11.8%	-26.2%	40.4%	-4.7%	28.9%	-3.8%	Aug-21
REIT Spliced Index	-1.1%	8.7%	1.9%	3.8%	12.0%	-26.1%	40.6%	-4.6%	29.0%	-3.6%	Aug-21

Note: Returns are net of fees.

Vanguard Real Estate Index Fund Admiral

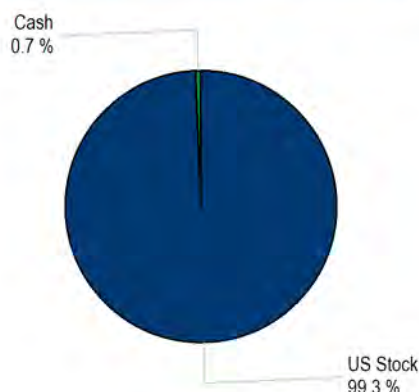
Master Consulting Services Report as of March 31, 2024

Description:

The investment seeks to provide a high level of income and moderate long-term capital appreciation by tracking the performance of the MSCI US Investable Market Real Estate 25/50 Index that measures the performance of publicly traded equity REITs and other real estate-related investments.

The advisor attempts to track the index by investing all, or substantially all, of its assets-either directly or indirectly through a wholly owned subsidiary, which is itself a registered investment company-in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index. The fund is non-diversified.

Mutual Fund Allocation as of March 31, 2024



Portfolio Fund Information as of March 31, 2024

Ticker	VGSLX
Morningstar Category	Real Estate
Average Market Cap (\$mm)	23,974.50
Net Assets (\$mm)	20,408.31
% Assets in Top 10 Holdings	49.00
Total Number of Holdings	162
Manager Name	Gerard C. O'Reilly
Manager Tenure	28
Expense Ratio	0.12%
Closed to New Investors	No

Top Holdings as of March 31, 2024

VANGUARD REAL ESTATE II INDEX	13.03%
PROLOGIS INC	7.59%
AMERICAN TOWER CORP	5.81%
EQUINIX INC	4.89%
SIMON PROPERTY GROUP INC	3.22%
WELLTOWER INC	3.15%
CROWN CASTLE INC	2.90%
PUBLIC STORAGE	2.90%
REALTY INCOME CORP	2.84%
DIGITAL REALTY TRUST INC	2.67%

Fund Characteristics as of March 31, 2024

Versus REIT Spliced Index

Sharpe Ratio (3 Year)	-0.04
Average Market Cap (\$mm)	23,974.50
Price/Earnings	34.64
Price/Book	2.23
Price/Sales	4.59
Price/Cash Flow	14.66
Dividend Yield	4.07
Number of Equity Holdings	158
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.01%

Sector Allocation as of March 31, 2024

BASIC MATERIALS	0.00%
COMMUNICATION SERVICES	0.76%
CONSUMER CYCLICAL	0.00%
CONSUMER DEFENSIVE	0.00%
ENERGY	0.00%
FINANCIAL SERVICES	0.00%
HEALTHCARE	0.00%
INDUSTRIALS	0.00%
REAL ESTATE	99.24%
TECHNOLOGY	0.00%
UTILITIES	0.00%

Footnotes

- Select overseas (MFS/Harris) funds were transferred to EuroPacific Growth (American) on June 18, 2008. Select Diversified Value (Benstein) closed on July 1, 2009.
- NFJ Small Cap Value (Allianz) was funded on June 1, 2009.
- Small Cap Growth (Van Kampen) was funded on June 1, 2009.
- Large Cap Value (Eaton Vance) was funded on June 1, 2009.
- Balanced (Ultra Aggressive Journey) was funded on October 1, 2009.
- On July 15, 2010 the fund invested in the following funds:

Adv Dow Jones Target Today (Wells Fargo)	Dow Jones Target 2030
Dow Jones Target 2010	Dow Jones Target 2035
Dow Jones Target 2015	Dow Jones Target 2040
Dow Jones Target 2020	Dow Jones Target 2045
Dow Jones Target 2025	Dow Jones Target 2050
- The above Dow Jones Target funds replaced the Journey Funds previously held by the Fund.
- Small Cap Growth (Invesco Van Kampen) name changed to Small Cap Discovery (Invesco) SIA-RD for the 3Q 2012 report.
- Domestic equity (Select Sands/Delaware Growth Opportunities Fund), domestic equity (New Horizons - T. Rowe Price), domestic equity (Invesco Comstock A Load Waived), and domestic equity (Wells Fargo Advantage Special Mid Cap Value) were funded November 1, 2013.
- Investment grade fixed income (MetWest Total Return Bond Fund) replaced investment grade fixed income (Select PIMCO Total Return) on October 1, 2014.
- Investment grade fixed income (Stable Return II) closed on June 1, 2015 and was replaced with investment grade fixed income (Blended Stable Value Fund).
- During 1Q 2016, all assets from investment grade fixed income (Blended Stable Value) were transferred to investment grade fixed income (SAGIC Diversified Bond).
- During 1Q 2017, the fund invested in the following Funds:

Vanguard Target Retirement 2010 Fund	Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2015 Fund	Vanguard Target Retirement 2045 Fund
Vanguard Target Retirement 2020 Fund	Vanguard Target Retirement 2050 Fund
Vanguard Target Retirement 2025 Fund	Vanguard Target Retirement 2055 Fund
Vanguard Target Retirement 2030 Fund	Vanguard Target Retirement 2060 Fund
Vanguard Target Retirement 2035 Fund	Vanguard Target Retirement Income Fund
- The above Vanguard Target Retirement Funds replaced the Dow Jones funds previously held by the Fund.

- During 1Q 2017, the following funds were removed from investment:

MM S&P 500 Index Fund	Invesco Comstock A Load Waived Fund
Select Sands/Delaware Growth Opportunities Fund	Wells Fargo Advantage Spec Md Cap Val Inv Fund
Sel Mid Cap Growth II Fund	NFJ Small Cap Value Fund
New Horizons - T. Rowe Price Fund	EuroPacific Growth Fund
- The above funds were replaced with the following Vanguard Funds:

Total Bond Market Index Fund	Small Cap Index Fund
500 Index Fund	Developed Markets Index Fund Admiral
Mid-Cap Index Fund	FTSE All-World ex-US Index Fund
- On July 21, 2017, balanced (Vanguard Target Retirement 2010) merged into balanced (Vanguard Target Retirement Income Fund).
- On October 1, 2018, high yield fixed income (Vanguard High-Yield Corporate Fund) was added to the Fund.
- On October 1, 2018, international equity (Vanguard FTSE All-World ex-US SmallCap Index) was added to the Fund.
- Effective June 26, 2019, international equity (Vanguard Index Funds) merged with international equity (Admiral Share Class), the merger had no impact on current values.
- Effective August 16, 2021, international equity (Vanguard FTSE All-World ex-US Index Fund Admiral) was eliminated and all assets were merged with international equity (Vanguard Developed Markets Index Fund Admiral).
- Effective August 16, 2021, balanced (Vanguard Target Retirement 2065 - Institutional) was added to the Fund.
- Effective August 16, 2021, emerging markets (Vanguard Emerging Markets Index Fund Admiral) was added to the Fund.
- Effective August 16, 2021, real estate (Vanguard Real Estate Index Fund Admiral) was added to the Fund.
- Effective August 16, 2021, all Vanguard Target Retirement Funds were converted to Institutional share class for fee savings.
- Effective February 11, 2022, the Vanguard Target Date Retirement Series implemented share class mergers in which the investment options Institutional Class shares became Investor Class shares. The merger had no impact on current values or the investment option's gross expense ratio.
- On July 8, 2022, target date funds (Vanguard Target Retirement 2015 - Investor) merged into target date funds (Vanguard Target Retirement Income Fund - Investor).

- On April 11, 2023, participant assets that were involved in error in the MassMutual US Govt Money Market Fund - Class R5 were transferred by the participant into domestic equity (Vanguard 500 Index Fund) and fixed income (Vanguard High-Yield Corporate Fund).
- Effective August 1, 2023, target date funds (Vanguard Target Retirement 2070 - Investor) was added to the Fund.
- Effective August 1, 2023, domestic equity (Vanguard Growth Index Fund Admiral Shares) was added to the Fund.
- Effective August 1, 2023, domestic equity (Vanguard Value Index Fund Admiral Shares) was added to the Fund.
- Benchmark indexes listed in report were identified by the recordkeeper, Empower and the fund company prospectus.
- 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.
- 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.



IUOE Local 77 Annuity Fund

Annual Plan Review

Presented by:

Jennifer Mink

Senior Consultant | Senior Partner

May 14, 2024

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PLAN OVERVIEW



Plan Overview

IUOE Local 77 Annuity Fund	
Inception Date	May 1, 2000
Plan Year-End	December 31
Recordkeeper	Empower
Qualified Default Investment Alternative (QDIA)	Vanguard Target Retirement Funds Investor Share Class
Target Date Funds	1 Series/12 Funds
Core Investment Options	12 Offerings
Plan Fee Structure	Per Participant
Participants	3,141
Recordkeeper Cost per Participant	\$55
Total Plan Assets as of 12/31/2023	\$45,441,929



RECORDKEEPER REVIEW



Recordkeeper Services & Cost

Empower Plan services include:

Custodian of investment assets	Maintain plan/participant accounting
Process participant transfer/rollover requests	Process participant account inquiry calls
Provide quarterly participant statements	Administer benefit payments
Update participant data	Maintain participant website
Unlimited participant education	Attend BOT meetings as needed

- Annual recordkeeping fee for standard Plan services is \$55 per participant, which is deducted monthly from participant accounts and appears on each participant's quarterly statement as a \$13.75 charge.
- Only Qualified Domestic Relation Orders ("QDRO") and distribution fees are charged to participants¹.
- No additional fees are charged to the Plan to administer participant mailings or to make any changes to the investment line-up. Additionally, Empower's fee includes quarterly participant statements, required annual regulatory mailings, and one additional mailing per year.
- 125 participants are currently utilizing Empower's managed accounts, a discretionary portfolio management service that makes investment decisions for individual participants. Managed account costs for 2023 totaled \$1,186, which was paid for by the participants utilizing the service and follows the schedule below:

Balance	Fee
Up to \$100k	0.50%
Next \$150k	0.40%
Next \$150k	0.30%
Over \$400k	0.30%

Recommendation: None.

¹ QDROs are \$400 for review and approval, and distributions fees are \$50.



Recordkeeper Summary

- Historically, educational meetings have been held during the annual company picnic and occasionally during monthly union meetings.
- In 2023, Empower provided onsite education at two events where an education representative answered participant questions and assisted in registering accounts online and navigating the Empower app:
 - Family picnic-June 3rd
 - Member only Bull Roast-October 7th
- Participant education is a very important component of retirement benefit programs. Empower should continue to communicate with the Plan Administrator and Trustees regarding setup of a participant education campaign and the Trustees should work with Empower to take advantage of the unlimited participant education meetings as provided for in the current recordkeeping contract. A best practice is to offer quarterly educational sessions, both on-site and virtual.
- Best practices for participant education program include the following elements:
 - Updates on how to navigate participant website & mobile app
 - Holistic retirement projections
 - On-demand modules and self-service education about the Plan & investments
 - On-site education & virtual meetings
 - Mailings and e-mails to participants
 - Posters & flyers
 - Expert Q & A sessions

Recommendation: Request Empower continue scheduling quarterly education days in 2024.



Recordkeeper Summary

Empower acquisition of Mass Mutual:

- Effective January 4, 2021, Empower Retirement acquired the retirement business of Mass Mutual. Effective October 28, 2022, the Plan migrated from the MassMutual platform to the Empower platform with Plan balances and historical data for three years being transferred. The Plan went live on the Empower platform on November 1st, 2022.

IUOE Local 77 Annuity Plan Summary:

- At the May 10, 2022 meeting, IPS presented an Annual Plan Review and recommended the Trustees approve the issuance of an RFP for recordkeeping services after the close of the Empower/Prudential transaction.
- The Trustees approved the recommendation, and the RFP results were presented at the November 8, 2022 meeting.
- The Trustees elected to retain Empower at a reduced annual recording fee of \$55 per participant, effective August 1, 2023. This represented a 26% savings from the previous \$74 fee, which equated to \$58,000 in savings to the participants.
- Empower maintains an errors and omissions insurance policy for wrongful acts in rendering or failure to render professional services. The primary policy has limits of \$10 million per claim, and \$10 million in aggregate, with a range of \$1 million to \$10 million retention. This policy also includes coverage for breach of fiduciary duty. Empower maintains a standalone cybersecurity liability insurance policy with a minimum primary limit of \$15 million per claim (Canadian currency).

Recommendation: None.



TOTAL PLAN COST

Investment Line-up Cost and Revenue Disclosure

Investment Options	Plan Assets 12/31/2023	Net Expense Ratio	Revenue Sharing Fee %	Revenue Sharing Fee \$	Net Inv Mgmt Expense Ratio	Net Inv Mgmt Cost
	(A)	(B)	(C)	D= (AxC)	E= (B-C)	F= (AxB)-D
Target Date Funds						
Vanguard Target Retirement Income Fund - Investor (VTINX)	\$407,459	0.08%	0.00%	\$0	0.08%	\$326
Vanguard Target Retirement 2020 - Investor (VTWNX)	\$1,993,349	0.08%	0.00%	\$0	0.08%	\$1,595
Vanguard Target Retirement 2025 - Investor (VTTVX)	\$6,891,739	0.08%	0.00%	\$0	0.08%	\$5,513
Vanguard Target Retirement 2030 - Investor (VTHRX)	\$5,444,990	0.08%	0.00%	\$0	0.08%	\$4,356
Vanguard Target Retirement 2035 - Investor (VTTHX)	\$4,830,286	0.08%	0.00%	\$0	0.08%	\$3,864
Vanguard Target Retirement 2040 - Investor (VFORX)	\$4,811,794	0.08%	0.00%	\$0	0.08%	\$3,849
Vanguard Target Retirement 2045 - Investor (VTIVX)	\$4,084,855	0.08%	0.00%	\$0	0.08%	\$3,268
Vanguard Target Retirement 2050 - Investor (VFIFX)	\$3,430,466	0.08%	0.00%	\$0	0.08%	\$2,744
Vanguard Target Retirement 2055 - Investor (VFFVX)	\$2,092,682	0.08%	0.00%	\$0	0.08%	\$1,674
Vanguard Target Retirement 2060 - Investor (VTTSX)	\$1,011,798	0.08%	0.00%	\$0	0.08%	\$809
Vanguard Target Retirement 2065 - Investor (VLXVX)	\$186,508	0.08%	0.00%	\$0	0.08%	\$149
Vanguard Target Retirement 2070 - Investor (VSVNX)	\$9,872	0.08%	0.00%	\$0	0.08%	\$8
Domestic Equity						
Vanguard 500 Index Fund (VFIAX)	\$2,453,265	0.04%	0.00%	\$0	0.04%	\$981
Vanguard Growth Index Fund Admiral Shares (VIGAX)	\$44,403	0.05%	0.00%	\$0	0.05%	\$22
Vanguard Value Index Fund Admiral Shares (VVIAX)	\$15,918	0.05%	0.00%	\$0	0.05%	\$8
Vanguard Mid-Cap Index Fund (VIMAX)	\$713,171	0.05%	0.00%	\$0	0.05%	\$357
Vanguard Small Cap Index Fund (VSMAX)	\$253,928	0.05%	0.00%	\$0	0.05%	\$127
International Equity						
Vanguard Developed Markets Index Fund Admiral (VTMGX)	\$514,134	0.07%	0.00%	\$0	0.07%	\$360
Vanguard FTSE All-World ex-US SmallCap Index (VFSAX)	\$29,595	0.16%	0.00%	\$0	0.16%	\$47
Vanguard Emerging Markets Index Fund Admiral (VEMAX)	\$33,492	0.14%	0.00%	\$0	0.14%	\$47
Fixed Income						
Vanguard High-Yield Corporate Fund (VWEAX)	\$40,180	0.13%	0.00%	\$0	0.13%	\$52
Vanguard Total Bond Market Index Admiral (VBTIX)	\$681,209	0.05%	0.00%	\$0	0.05%	\$341
Stable Value						
SAGIC Diversified Bond ¹	\$5,436,913	0.42%	0.00%	\$0	0.42%	\$22,835
Real Estate (REIT)						
Vanguard Real Estate Index Fund Admiral (VGSLX)	\$29,922	0.12%	0.00%	\$0	0.12%	\$36
Total	\$45,441,928	0.12%	0.00%	\$0	0.12%	\$53,370

¹SAGIC Diversified Bond market value does not reflect unallocated assets (forfeitures) and the 0.42% fee is netted out of the funds returns.

Annual Plan Cost Summary

	Fee Type	Cost	Total
A.	Total Investment Expense	0.12%	\$53,370
B.	Total Recordkeeping Expense	0.39%	\$178,270
	Paid by Participants	\$178,270	
	Per Participant Fee (\$55 x 3,141 participants)	\$172,755	
	Participant transaction fees	\$4,329	
	Managed account fees	\$1,186	
A.+ B.	Est. 2023 Total Plan Cost¹	0.51%	\$231,640

¹Data based on 12/31/23 market value of \$45,441,928.

Of note:

- Effective August 1, 2023, Empower reduced its annual recording fee from \$74 to \$55 per participant.
- Participant transaction fees include:
 1. \$50 distribution fees
 2. \$400 QDRO fees

Recommendation: None.





INVESTMENT REVIEW



Investment Offerings Overview

QDIA

**Vanguard Target Retirement Funds
Investor Share Class**

Stable Value Fund

SAGIC Diversified Bond Fund

Current Rate on Stable Value

4.35% as of 12/31/2023

**Total number of
Investment Options**

**Target Date Fund Series plus 12
standalone investment options**

**Changes to investment
offerings past 12 months**

**Effective 8/1/2023, Vanguard Large Cap
Value Index, Vanguard Growth Index, and
Vanguard Target Retirement 2070 funds
were added to the lineup.**



IUOE Local No. 77 Annuity Fund

Master Consulting Services Report as of December 31, 2023

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending December 31, 2023												Expense Ratio
			2023 Q4	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	7 Yrs	Rank	10 Yrs	Rank	
Total Fund	\$45,441,929	100.0%													
Total Target Date Funds	\$35,195,798	77.5%													
Vanguard Target Retirement Income Fund - Investor	\$407,459	0.9%	7.3%	--	10.7%	--	0.6%	--	4.8%	--	4.3%	--	--	--	0.08%
Target Retirement Income Composite			7.3%	--	10.8%	--	0.8%	--	5.1%	--	4.6%	--	--	--	
Vanguard Target Retirement 2020 - Investor	\$1,993,349	4.4%	8.0%	--	12.5%	--	1.5%	--	6.6%	--	6.0%	--	--	--	0.08%
Target Retirement 2020 Composite			8.0%	--	12.6%	--	1.7%	--	7.0%	--	6.3%	--	--	--	
Vanguard Target Retirement 2025 - Investor	\$6,891,739	15.2%	8.9%	--	14.5%	--	2.0%	--	7.6%	--	6.8%	--	--	--	0.08%
Target Retirement 2025 Composite			8.8%	--	14.7%	--	2.4%	--	8.0%	--	7.1%	--	--	--	
Vanguard Target Retirement 2030 - Investor	\$5,444,990	12.0%	9.5%	--	16.0%	--	2.7%	--	8.4%	--	7.5%	--	--	--	0.08%
Target Retirement 2030 Composite			9.5%	--	16.2%	--	3.0%	--	8.8%	--	7.8%	--	--	--	
Vanguard Target Retirement 2035 - Investor	\$4,830,286	10.6%	9.9%	--	17.1%	--	3.3%	--	9.2%	--	8.1%	--	--	--	0.08%
Target Retirement 2035 Composite			9.9%	--	17.4%	--	3.7%	--	9.6%	--	8.5%	--	--	--	
Vanguard Target Retirement 2040 - Investor	\$4,811,794	10.6%	10.2%	--	18.3%	--	4.0%	--	10.0%	--	8.8%	--	--	--	0.08%
Target Retirement 2040 Composite			10.2%	--	18.6%	--	4.4%	--	10.4%	--	9.1%	--	--	--	
Vanguard Target Retirement 2045 - Investor	\$4,084,855	9.0%	10.6%	--	19.5%	--	4.7%	--	10.8%	--	9.3%	--	--	--	0.08%
Target Retirement 2045 Composite			10.5%	--	19.8%	--	5.1%	--	11.2%	--	9.7%	--	--	--	
Vanguard Target Retirement 2050 - Investor	\$3,430,466	7.5%	10.8%	--	20.2%	--	4.9%	--	10.9%	--	9.4%	--	--	--	0.08%
Target Retirement 2050 Composite			10.8%	--	20.5%	--	5.3%	--	11.4%	--	9.8%	--	--	--	
Vanguard Target Retirement 2055 - Investor	\$2,092,682	4.6%	10.8%	--	20.2%	--	4.9%	--	10.9%	--	9.4%	--	--	--	0.08%
Target Retirement 2055 Composite			10.8%	--	20.5%	--	5.3%	--	11.4%	--	9.8%	--	--	--	
Vanguard Target Retirement 2060 - Investor	\$1,011,798	2.2%	10.8%	--	20.2%	--	4.9%	--	10.9%	--	9.4%	--	--	--	0.08%
Target Retirement 2060 Composite			10.8%	--	20.5%	--	5.3%	--	11.4%	--	9.8%	--	--	--	
Vanguard Target Retirement 2065 - Investor	\$186,508	0.4%	10.8%	--	20.1%	--	4.9%	--	10.9%	--	--	--	--	--	0.08%
Target Retirement 2065 Composite			10.8%	--	21.6%	--	5.6%	--	11.6%	--	--	--	--	--	
Vanguard Target Retirement 2070 - Investor	\$9,872	0.0%	10.8%	--	20.2%	--	--	--	--	--	--	--	--	--	0.08%
Target Retirement 2070 Composite			10.8%	--	20.5%	--	--	--	--	--	--	--	--	--	

IUOE Local No. 77 Annuity Fund

Master Consulting Services Report as of December 31, 2023

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending December 31, 2023												Expense Ratio
			2023 Q4	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	7 Yrs	Rank	10 Yrs	Rank	
Total Domestic Equity	\$3,480,686	7.7%													
Vanguard 500 Index Fund	\$2,453,265	5.4%	11.7%	49	26.2%	27	10.0%	29	15.6%	21	13.4%	20	12.0%	12	0.04%
S&P 500			11.7%	48	26.3%	25	10.0%	27	15.7%	19	13.4%	17	12.0%	11	
Vanguard Growth Index Fund Admiral Shares	\$44,403	0.1%	14.4%	37	46.8%	15	7.7%	27	19.2%	8	16.8%	20	14.0%	14	0.05%
CRSP US Large Cap Growth TR USD			14.4%	37	46.9%	14	7.7%	26	19.2%	8	16.9%	19	14.0%	13	
Vanguard Value Index Fund Admiral Shares	\$15,918	0.0%	9.1%	65	9.2%	72	10.6%	45	11.7%	52	9.8%	34	9.7%	17	0.05%
CRSP US Large Cap Value TR USD			9.0%	66	9.2%	73	10.6%	45	11.7%	52	9.9%	33	9.7%	17	
Vanguard Mid-Cap Index Fund	\$713,171	1.6%	12.3%	38	16.0%	54	5.5%	68	12.7%	33	10.2%	21	9.4%	13	0.05%
CRSP US Mid Cap TR USD			12.3%	38	16.0%	54	5.5%	67	12.7%	31	10.2%	18	9.4%	9	
Vanguard Small Cap Index Fund	\$253,928	0.6%	13.4%	35	18.2%	26	4.7%	68	11.7%	34	9.0%	20	8.4%	20	0.05%
CRSP US Small Cap TR USD			13.4%	36	18.1%	26	4.6%	68	11.7%	36	9.0%	20	8.4%	24	
Total International Equity	\$577,222	1.3%													
Vanguard Developed Markets Index Fund Admiral	\$514,134	1.1%	11.1%	18	17.7%	36	3.6%	33	8.4%	33	7.1%	32	4.5%	29	0.07%
FTSE-Developed All Cap Ex U.S. Index			10.9%	27	18.3%	24	3.9%	27	8.7%	25	7.3%	23	--	--	
Vanguard FTSE All-World ex-US SmallCap Index	\$29,595	0.1%	10.4%	54	15.1%	47	0.7%	59	6.8%	67	5.7%	65	3.9%	93	0.16%
FTSE - Global Small Cap Ex U.S. Index			10.3%	59	15.9%	28	1.2%	50	7.2%	55	6.0%	50	4.1%	70	
Vanguard Emerging Markets Index Fund Admiral	\$33,492	0.1%	6.6%	75	9.2%	64	-3.3%	36	4.7%	48	5.0%	51	3.0%	45	0.14%
Spliced Emerging Markets Index			6.8%	72	9.5%	62	-2.9%	34	5.0%	40	5.2%	48	3.1%	43	
Total Fixed Income	\$721,389	1.6%													
Vanguard High-Yield Corporate Fund	\$40,180	0.1%	7.3%	--	11.7%	--	1.8%	--	5.2%	--	4.3%	--	4.4%	--	0.13%
High-Yield Corporate Composite Index			7.0%	--	12.1%	--	1.6%	--	5.3%	--	4.4%	--	4.5%	--	
Vanguard Total Bond Market Index Admiral	\$681,209	1.5%	6.7%	--	5.7%	--	-3.4%	--	1.1%	--	1.3%	--	1.8%	--	0.05%
Spliced Barclays USAgg Float Adj			6.7%	--	5.6%	--	-3.3%	--	1.2%	--	1.3%	--	1.8%	--	

Performance Detail (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending December 31, 2023												Expense Ratio
			2023 Q4	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	7 Yrs	Rank	10 Yrs	Rank	
Total Stable Value	\$5,436,913	12.0%													
SAGIC Diversified Bond	\$5,436,913	12.0%	1.1%	--	4.1%	--	3.6%	--	3.7%	--	3.8%	--	--	--	0.42%
FTSE T-Bill 3 Months TR			1.4%	--	5.3%	--	2.2%	--	1.9%	--	1.8%	--	--	--	
Total Real Estate (REIT)	\$29,922	0.1%													
Vanguard Real Estate Index Fund Admiral	\$29,922	0.1%	18.1%	--	11.8%	--	5.0%	--	7.3%	--	5.0%	--	7.4%	--	0.12%
REIT Spliced Index			18.2%	--	12.0%	--	5.2%	--	7.4%	--	5.1%	--	7.5%	--	

Note: SAGIC Diversified Bond market value does not reflect unallocated assets (forfeitures).

Target Date Funds

Vanguard Target Retirement Series	Share Class	Annual Net Expense
Income Fund	Investor	8 bps
2020	Investor	8 bps
2025	Investor	8 bps
2030	Investor	8 bps
2035	Investor	8 bps
2040	Investor	8 bps
2045	Investor	8 bps
2050	Investor	8 bps
2055	Investor	8 bps
2060	Investor	8 bps
2065	Investor	8 bps
2070	Investor	8 bps

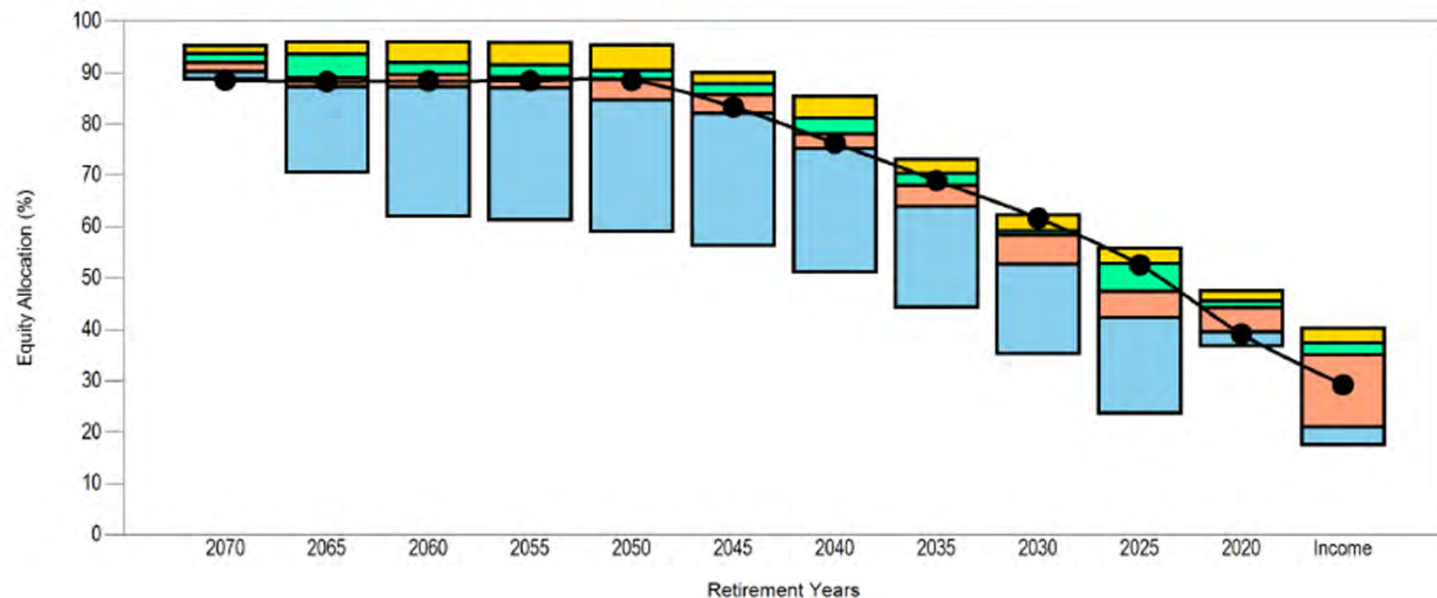
- The Vanguard Target Retirement Funds are professionally managed portfolios diversified by asset class and holdings, designed to balance risk and reward for investors throughout their lifetime.
- Vanguard Target Date Retirement Funds (Institutional share class) became the QDIA effective August 16, 2021. In early 2021, Vanguard lowered the minimum investment requirement for the Institutional share class and the Plan was eligible to amend the QDIA from the Investor share class to the lower cost Institutional share class.
- In November 2021, Vanguard announced a share class merger in which the Institutional share class (9 bps) became the Investor share class (8 bps) effective February 11, 2022.
- The 2070 vintage year fund was added effective 8/1/2023.
- The prospectus benchmark is the Target Retirement Composite Index, a proprietary custom benchmark representative of the strategic asset allocation of the funds' glidepath.

Recommendation: None.



Investment Review – Target Date Funds

Vanguard Target Date Investments Equity Allocation vs. Universe of Target Date Families
As of December 31, 2023



	Allocation (Rank)											
5th Percentile	88.9	70.7	62.2	61.4	59.2	56.4	51.2	44.4	35.3	23.8	36.9	17.6
25th Percentile	90.3	87.4	87.3	87.1	84.7	82.2	75.3	64.0	52.8	42.5	39.7	21.2
Median	92.1	89.1	89.7	89.2	88.8	85.8	78.2	68.1	58.4	47.5	44.4	35.2
75th Percentile	93.8	93.7	92.1	91.5	90.5	88.0	81.2	70.5	59.3	52.9	45.6	37.4
95th Percentile	95.2	96.0	96.0	95.8	95.3	89.9	85.3	73.1	62.3	55.8	47.5	40.2
# of Portfolios	2	16	24	24	24	24	23	24	23	24	16	18
● Vanguard Inv	88.6 (1)	88.3 (47)	88.4 (44)	88.4 (48)	88.5 (48)	83.3 (31)	76.3 (37)	69.0 (57)	61.7 (91)	52.6 (70)	39.1 (20)	29.2 (42)

Note: The above chart illustrates the Vanguard target date funds' total equity allocation by retirement fund year relative to the peer universe. A higher Rank indicates a greater allocation to equities relative to peers. For example, a Rank of 100 indicates the highest equity allocation among peers and a Rank of 1 indicates the lowest equity allocation. Vanguard Target Date Funds have below average equity allocations in longer vintage years (2070 through 2035) and above average equity allocations in the shorter vintage years (2030 and 2025).



Investment Review – Equity

Equity Investment Options	Asset Class	Fund Structure	Investment Style	Cost
Vanguard S&P 500 Index	US Large Core	Mutual Fund	Passive	4 bps
Vanguard Growth Index Fund	US Large Growth	Mutual Fund	Passive	5 bps
Vanguard Value Index Fund	US Large Value	Mutual Fund	Passive	5 bps
Vanguard Mid Cap Index	US Mid Core	Mutual Fund	Passive	5 bps
Vanguard Small Cap Index	US Small Core	Mutual Fund	Passive	5 bps
Vanguard Developed Markets Index	International Large Cap (Developed)	Mutual Fund	Passive	7 bps
Vanguard FTSE All World ex-US Small Cap Index	International Small Cap	Mutual Fund	Passive	16 bps
Vanguard Emerging Markets Index	Emerging Markets	Mutual Fund	Passive	14 bps
Vanguard Real Estate Index	Real Estate Investment Trust ¹	Mutual Fund	Passive	12 bps

¹Real estate investment trusts (“REITs”) are a type of real estate security organized to take advantage of a special tax structure to avoid the double-taxation of dividends. REITs are cash-flow-oriented businesses and are required to pay out nearly all taxable income to shareholders.

The Plan’s equity options consist of passive investments that offer broad asset class coverage. The passive index options are low cost and have generally performed in-line with their respective benchmarks as expected.

The passive investment options include Vanguard mutual fund offerings in various share classes with different minimum initial investments and expense ratios. The Plan is invested in the lowest cost share class available at this time.

Recommendation: None.



Investment Review – Fixed Income

Fixed Income Investment Options	Asset Class	Fund Structure	Investment Style	Cost
Vanguard Total Bond Market Index	Intermediate Core Bond	Mutual Fund	Passive	5 bps
Vanguard High Yield Corporate Fund	High Yield Bond	Mutual Fund	Active	13 bps

The Plan's fixed income options provide participants with one active and one passive investment option. Active investment options carry a higher investment management fee than passive investment options. As expected, the passive investment option has generally performed in line with the respective benchmark index. The commentary below outlines performance details of the actively managed fixed income investment option:

- The Vanguard High-Yield Corporate fund underperformed its benchmark (High-Yield Corporate Composite Index) by 70 basis points in 2023 and lagged the benchmark over most longer-term trailing periods. Underperformance in 2023 was primarily driven by the fund's higher quality positioning, particularly an overweight to investment grade bonds which underperformed lower-quality high yield bonds in 2023 by a large margin. Over the long-term, the fund has experienced performance headwinds versus the high yield benchmark due to a combination of a cash drag (typically holds ~5-10% cash/treasuries) and exposure to investment grade corporate credit, both of which have resulted in a lower yield relative to the benchmark. Given the minimal amount of bond defaults over the past decade, this more conservative positioning and lower yield have been a drag on relative performance. This would be expected to reverse in a period of elevated corporate defaults.
- The mutual fund offerings from Vanguard are invested in the lowest cost share class available at this time.

Recommendation: None.



Investment Review – Stable Value

SAGIC Diversified Bond Fund Historical Net Crediting Rate	
As of 12/31	Rate
2022	3.79%
2021	2.65%
2020	3.75%
2019	3.59%
2018	3.15%

SAGIC Diversified Bond Fund	
Current Net Crediting Rate as of 12/31/2023	4.35%
Rate Reset	Quarterly

Note: Crediting rates are influenced by the interest rate environment and will fluctuate as rates change over time.

- The Plan is invested in the Empower Separate Account Guaranteed Interest Contract (SAGIC) stable value product. Following the close of Empower's acquisition of Mass Mutual's retirement plan business, Great-West Capital Management (GWCM) assumed management of SAGIC. Contract guarantees are provided by Great-West Life & Annuity Insurance Company (GWLA).
- The SAGIC market-to-book ratio is currently 90.0% (as of 12/31/2023). There is no put provision; however, contract terminations are paid at the lesser of market value or book value in installments.
- As of 12/31/2023, assets invested in the SAGIC Diversified Bond Fund totaled 12.0% of total Plan assets, a decrease from 13.9% of assets at the end of 2022.
- In March 2023, IPS was notified that Empower had to manually recreate investment performance for the fund due to a data migration error during the Mass Mutual-Empower transition. In April 2023, IPS was notified that the project was completed and there was no impact on investors.
- The fund expense ratio is 0.42% and is deducted from the return.

Recommendation: None.



Investment Review – Asset Allocation

The chart below summarizes the asset class options currently offered in your investment line-up:

Asset Class	Style	Investment Lineup	Management
QDIA	Target Date Funds	Vanguard Target Retirement	Passive
Domestic Equity	Large Cap Core	Vanguard 500 Index Admiral	Passive
	Large Cap Value	Vanguard Value Index Fund	Passive
	Large Cap Growth	Vanguard Growth Index Fund	Passive
	Mid Cap Core	Vanguard Mid Cap Index Fund	Passive
	International (Developed) Large Cap	Vanguard Developed Markets Index	Passive
International Equity	International Small Cap	Vanguard FTSE All-World ex-US SmCap Idx Ins	Passive
	Emerging Markets Equity	Vanguard Emerging Markets Index	Passive
Investment Grade Fixed Income	Intermediate Core Bond	Vanguard Total Bond Market Index Adm	Passive
High Yield Fixed Income	High Yield Bond	Vanguard High Yield Corporate Fund	Active
Stable Value	Stable Value	Guaranteed Long -Term Fund	Active
Real Estate	REIT	Vanguard Real Estate Index Admiral	Passive

Recommendation: None.



RECOMMENDATIONS



Summary of Recommendations

Recommendation: Request Empower continue scheduling quarterly education days in 2024.





EXECUTIVE SUMMARY



Executive Summary

Recordkeeper:

- Empower has served as the Plan's recordkeeper since January 4, 2021 with the acquisition of Mass Mutual's recordkeeping business.
- Effective October 28, 2022, the Plan migrated from the MassMutual platform to the Empower platform with Plan balances and historical data for three years being transferred. The Plan went live on the Empower platform on November 1st, 2022
- Effective August 1, 2023, Empower reduced its annual recording fee to \$55 per participant.

Investment Options:

- The Trustees' approved changes of adding the Vanguard Large Cap Value, Vanguard Large Cap Growth and Vanguard 2070 Target Retirement funds were effective August 1, 2023.
- The Plan is invested in the lowest cost share classes available at this time.
- IPS will continue to monitor investment performance and evaluate enhancements to overall Plan design.

Recommendation: Request Empower continue scheduling quarterly education days in 2024.





APPENDIX

SECURE ACT 2.0

The chart below is intended to outline the required provisions of The SECURE Act 2.0. Trustees should be aware of the effective dates and may want to work with Fund counsel to enact any new plan design changes accordingly.

SECURE Act 2.0		
The chart below is intended to outline the required provisions of The SECURE Act 2.0. Trustees should be aware of the effective dates and may want to work with counsel to enact any new Plan design changes accordingly.		
Provision	Details	Effective Date
RMD penalties & corrections	Reduce the penalty for failing to take a minimum required distribution from 50% to 25%. If a correction is made within two years (subject to some limitations), the tax is further reduced to 10%.	1/1/2023
Required minimum distributions (RMDs) beginning age changes	Increases the age for required minimum distributions from 72 to 73 effective Jan. 1, 2023, and to 75 effective Jan. 1, 2033.	1/1/2023
Increase in force-out limit	Plans may cash out participants, involuntarily, with balances up to \$7,000. These balances must be rolled over to an IRA.	1/1/2024
In-plan Roth RMD	Eliminate the pre-death distribution requirement for in-plan Roth accounts.	1/1/2024
Increase in catch-up contribution limits	Individuals aged 60-63 may make catch-up contributions to the greater of \$10,000 or 150% of catch-up limit. This is indexed to inflation.	1/1/2025
Long-term, part-time employee eligible after 2 years	Long-Term Part-Time Employees, which are those who complete at least 500 hours of service in each of two consecutive 12-month periods, must be eligible to make elective deferrals.	1/1/2025
Annual paper benefit statement required	Participants may opt out of receiving paper statements if e-delivery is available.	1/1/2026
Catch-up Contributions – Roth requirements	Participants with prior year wages greater than \$145k (indexed to inflation) will only be able to make catch-up contributions with Roth accounts. Plans will need a Roth option.	1/1/2026



Glossary of Investment Terminology

Total Return	The annual return on an investment including appreciation, depreciation and income (interest, dividends, net operating income).
Alpha	The excess return (positive or negative) generated by active portfolio management and security selection, relative to a benchmark.
Beta	A historical 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.
Standard Deviation	Standard deviation is a statistical measurement of the dispersion of a set of data from its mean. The more spread apart the data are, the greater the standard deviation.
Risk	For an investment portfolio, risk is typically defined as the volatility of the returns, as measured by calculating the standard deviation. The risk does not necessarily indicate the risk of loss, but does indicate the risk of inconsistent returns.
Capture Ratio	Calculates how well a manager performs in a rising or falling market as a percentage of a benchmark. In a rising market, a percentage of 100 or better is preferred, and indicates the manager exceeded the benchmark (upside capture ratio). In a falling market, a percentage of less than 100 is preferred, indicating that the manager lost less than the benchmark (downside capture ratio).
Correlation	A statistical measure of how two asset classes perform in relation to each other. Asset classes with a correlation of 1.0 have perfect positive correlation (exactly the same). Assets with perfect negative correlation of -1.0 will perform equally but in opposite directions.
Efficient Frontier	A series of portfolios with the maximum expected return for any level of risk, which is calculated based on assumptions of risk, return and correlation. These portfolios are shown graphically on a risk and return chart, and represent the most efficient tradeoff between risk and return.
Market Cap	The dollar value of a corporation, which is calculated by multiplying the share price and the number of outstanding shares.
Large Cap	Stocks which typically have a market capitalization of \$10 billion or higher.
Mid Cap	Stocks which typically have a market capitalization of \$2 to \$10 billion.
Small Cap	Stocks which typically have a market capitalization of \$2 billion or less.
Geometric Calculation	Geometric Calculations are used when determining an annualized investment return and 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.
Compound Annual Returns	Compound annual returns show the annual investment return, assuming the investment grew at a constant rate, and reflects the impact of the time in the calculation of an investment return.
Return/Risk Ratio	The return/risk ratio is 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

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EPIC

May 3-5, 2023

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.

Amalgamated Bank of Chicago	GoldenTree Asset Management	Oaktree Capital Management
American Realty Advisors	Great Lakes Advisors	Old Glory Asset Management
Ares Management	Hamilton Lane Advisors	Partners Group
Aristotle	Hardman Johnston Global Advisors	Patriot Financial Partners
ASB Real Estate Investments	HPS Partners	PNC Capital Advisors
Atlanta Capital Management	Intercontinental Real Estate Corp.	Post Advisory Group
Barrow Hanley Global Investors	Invesco Advisers, Inc.	Principal Financial Group
BentallGreenOak	Janus Henderson Investors	Principal Life Insurance
BNY Mellon Asset Management (Mellon)	John Hancock	Raymond James Investment Management
Boston Partners Global Investors	JP Morgan Asset Management	Richmond Capital Mgmt
Boyd Watterson Asset Management	Kearney Capital LLC	Schroders Investment Management
Capital Group	Kelson Group	Segall Bryant & Hamill
Chartwell Investment Partners	Lazard Asset Management	Sierra Investment Partners
Christenson Investment Partners	Loomis, Sayles & Company	Smith Graham & Co.
Columbia Threadneedle Investments	Lord Abnett & Co.	State Street Global Advisors
Constitution Capital Equity Partners	LSV Asset Management	Stonepeak Partners
Corbin Capital Partners	Lyrical Asset Management	Ullico Investment Company
Earnest Partners	MacKay Shields	Vanguard
Empower	McMorgan & Company	Victory Capital Management
EnTrust Global	Manning & Napier	Vista Underwriting
Fidelity Investments	Manulife	Washington Capital Management
First Eagle Investment Mgmt.	Mesirow Private Equity	WEDGE Capital Management
Foundry Partners	National Investment Services	Wellington Management Company
Fred Alger Management	National Real Estate Investors	Westfield Capital Management
GAMCO Asset Management	Neuberger Berman	Westport Capital Partners
GCM Grosvenor	Northern Trust Asset Management	William Blair & Company
Glouston Capital Partners	Nuveen Investment Group	Xponance