

Butler County Employees Retirement Plan

Investment Performance Review
Period Ending December 31, 2024

MARINER

4th Quarter 2024 Market Environment

The Economy

- The US Federal Reserve (the Fed) continued to loosen its policy stance during the quarter with two fed funds rate cuts totaling 0.50%, bringing the year-end rate to a range of 4.25%-4.50%. While the Fed conveyed a degree of confidence that the fight against inflation is progressing in its December press release, Fed Chairman Jerome Powell signaled in his post-meeting press conference that the pace and timing of future rate cuts is unclear. The Fed's December "Dot Plot" now projects only two quarter-point rate cuts in 2025, down from four anticipated cuts in September's plot.
- Growth in the US labor market continued during the fourth quarter. US payrolls grew by 256,000 in December, up from the previous month's total of 212,000, and well above the 155,000 projected. If strength in the labor market continues, this data could support a slower pace Fed action in the form of policy rate reductions in 2025.

Equity (Domestic and International)

- US equity results were modestly higher for the quarter. Markets also saw a return to the narrowly focused technology and communication services company exuberance which has dominated domestic performance in recent years. The S&P 500 Index rose 2.4% for the quarter with the small-cap Russell 2000 Index managing just a 0.3% rise. The rotation away from large cap growth stocks during the third quarter seemed to reverse as the Russell 1000 Growth Index once again outpaced the Russell 1000 Value Index by a large margin.
- Large-cap equity benchmarks continue to represent a heavy concentration among a limited number of stocks. As of quarter end, the weight of the top 10 stocks in the S&P 500 Index exceeded 35%.
- Most international stocks faltered during the fourth quarter and US Dollar (USD) denominated results were further exacerbated by a strengthening USD. The USD performance of international stocks fell short of local currency (LCL) returns in most regions for the quarter, albeit to varying degrees.

Fixed Income

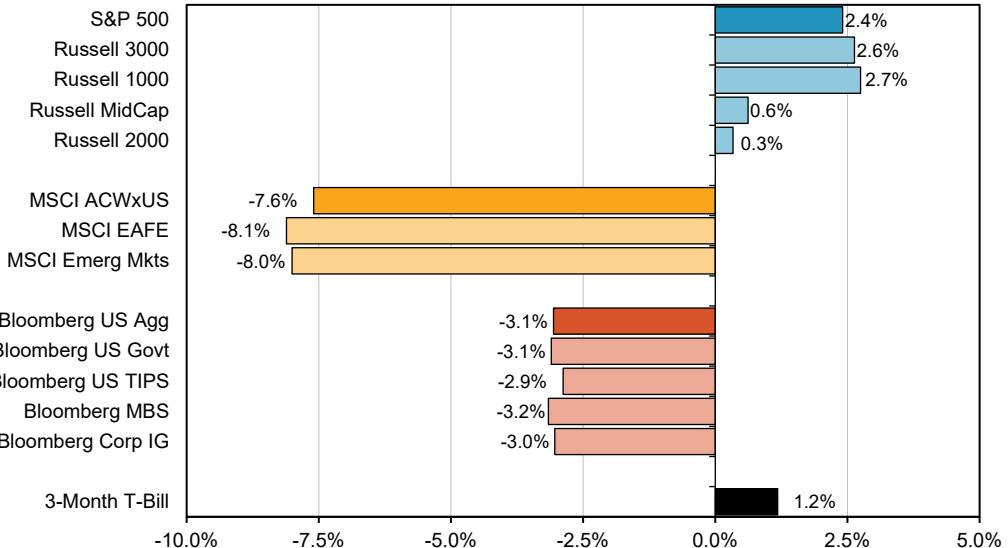
- Fixed-income markets traded lower during the quarter on the back of the Fed's ongoing policy actions. Short term Treasury yields fell while longer term yields rose, leading to a slight steepening in the yield curve. The yield on the bellwether 10-year Treasury advanced by 0.84% during the quarter, closing the year at a yield of 4.58%. The inverse relationship between prices and yields resulted in the Bloomberg US Aggregate Bond Index posting a -3.1% loss for the quarter.
- High-yield bonds outpaced the Bloomberg US Aggregate Bond Index for the quarter, largely due to higher coupons, a shorter duration profile, and a small narrowing of the option-adjusted spread (OAS) for the Bloomberg US High-Yield Index.
- Global bonds fell during the quarter, with the Bloomberg Global Aggregate ex-US returning -6.8% in USD terms. Like international equity results, global bond performance was dragged down by a strengthening USD during the quarter.

Market Themes

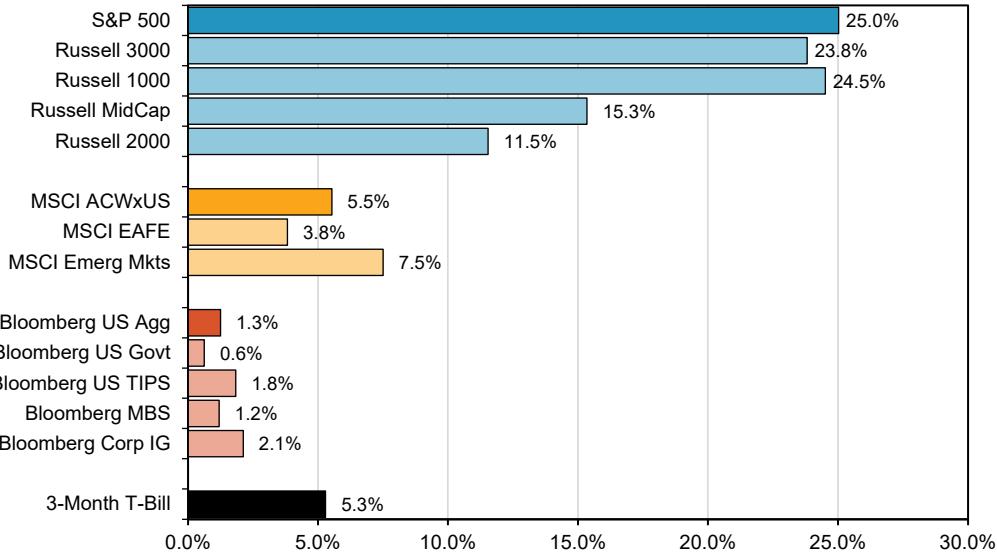
- Strength in the US Dollar during the quarter led to relative weakness in international markets. Many of the major currencies depreciated relative to the US Dollar as the year came to a close. Latin America saw the most significant decline during the period while the Pacific region was the only region to post positive LCL returns.
- The AI trade that has taken shape for much of the past two years continued in 2024 with the communication services and information technology sectors each posting gains of more than 35% for the year. This phenomenon contributed to narrow market leadership particularly within the large-cap segment of the market. The concentration in the large-cap indexes helped the S&P 500 post its second straight year of greater than a 20% return, further widening the performance gap between large and smaller capitalization benchmarks.
- Ongoing military conflicts in Ukraine and the Middle East, coupled with global economic uncertainty, continue to act as headwinds for international market results, further complicated by an advancing USD.
- The results of the most recent US presidential election appeared to please domestic equity markets in anticipation of the new administration supporting loosened regulations and pro-growth policies. As we move into the new year, equity markets will need to digest the anticipated effects of proposed tax legislation changes, a new view on foreign policy, and potential trade tariffs by the new administration.

- Domestic equity markets continued to climb higher during the quarter. Large-cap stocks returned to the forefront, outpacing small-cap stocks. The S&P 500 rose 2.4% during the quarter versus a muted gain of 0.3% for the Russell 2000 Index. The broad capitalization Russell 3000 Index, which benefited from strength in mid- and large-cap names, returned 2.6% for the quarter.
- International developed market equities reversed course and soured during the fourth quarter with the USD performance of the broad benchmarks each trading lower than (LCL) currency performance. The broad MSCI ACWI ex US Index delivered a disappointing -7.6% for the quarter but was down less than both the MSCI EAFE and MSCI EM indexes. The broad index was aided by Canada, which is not included in the EAFE or EM indexes. International developed market (DM) equities narrowly fell behind emerging market (EM) equities, returning -8.1% and -8.0%, respectively for the quarter. Negative performance for the international indexes was broad-based and not localized to any specific region.
- Broad market fixed-income benchmarks displayed a poor finish to the year as many of the core indexes succumbed to a steepening of the yield curve and the prospect of fewer rate cuts in 2025. The Bloomberg US Aggregate Index returned -3.1% for the quarter. The TIPS market, which is not part of the Aggregate Index, was also negative, posting a return of -2.9% for the quarter. While the performance differentials were small, the Mortgage-Backed Securities Index lagged other domestic bond market segments with a benchmark return of -3.2% for the quarter.
- Domestic equity indexes finished the year by adding to their already strong returns over the trailing one-year period. The S&P 500 Index gained 25.0% for the year and the Russell 1000 Index returned 24.5%. The weakest performing capitalization range of domestic equities for the year was the small-cap Russell 2000 Index, which still managed a double-digit climb over the last 12 months, returning a solid 11.5%.
- Domestic bond indexes' results were mixed throughout the year but still managed to deliver positive annual results. While the performance spread was narrow, investment-grade corporate bonds led bond index results for the year, returning a muted 2.1%. The government bond index lagged for the year, but was also positive, posting a return of 0.6%.
- International equity markets also delivered positive results for the trailing one-year period. The MSCI EM Index was the best international performer, returning 7.5%, while the MSCI EAFE and MSCI ACWI ex US indexes posted returns of 3.8% and 5.5%, respectively.

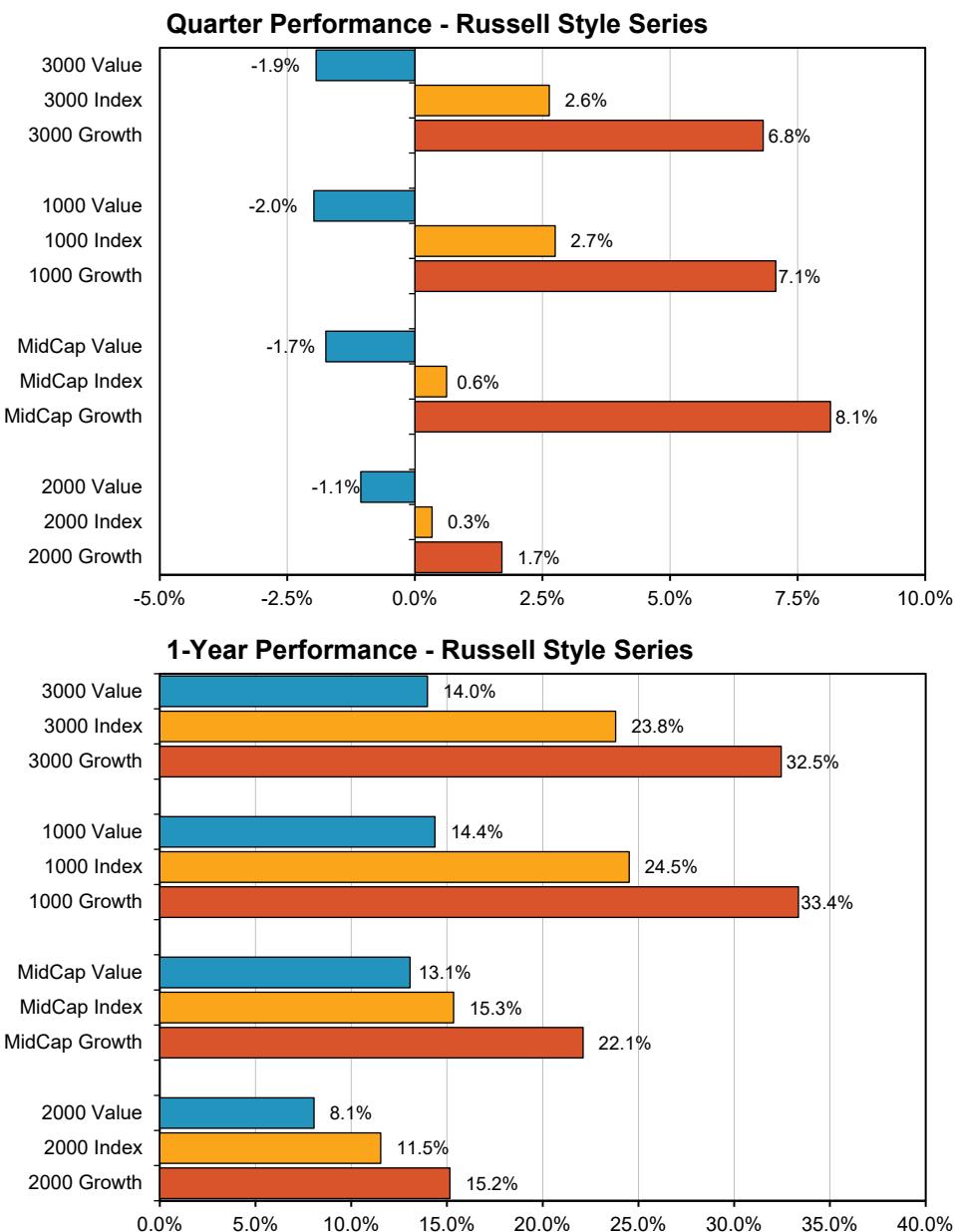
Quarter Performance



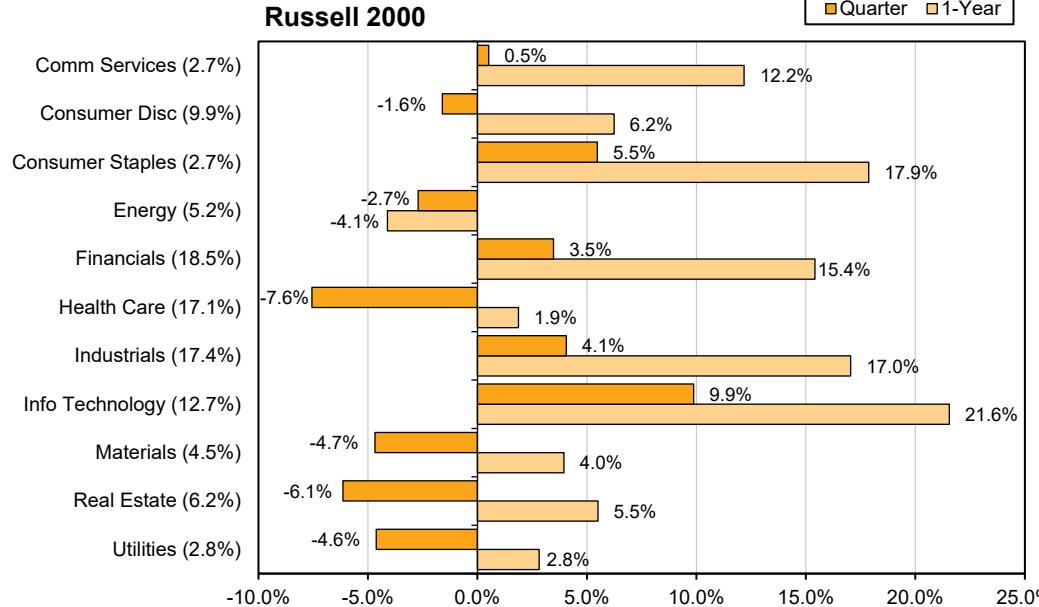
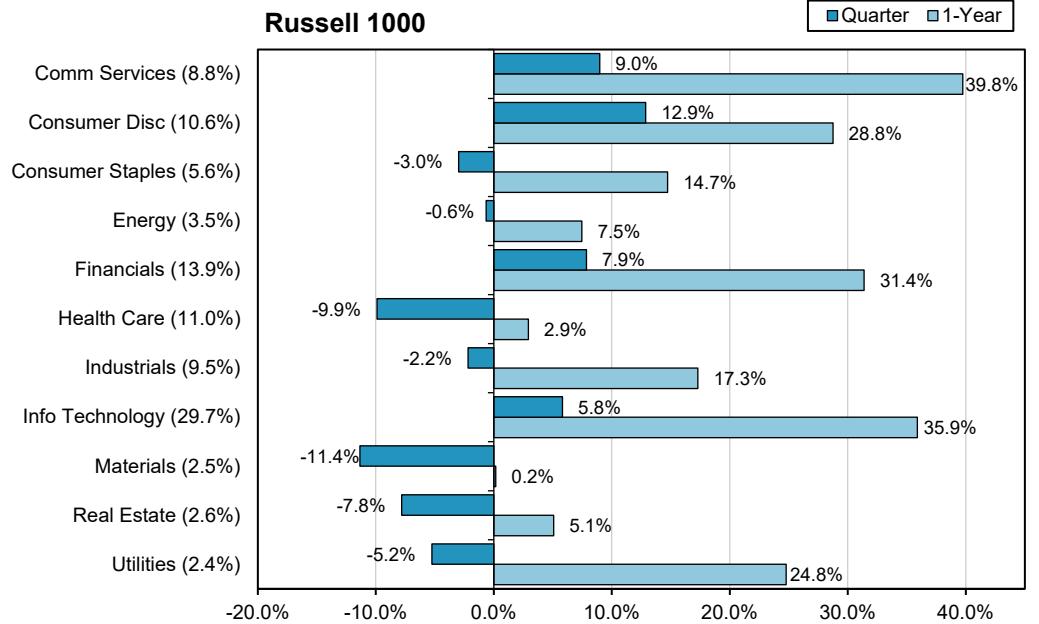
1-Year Performance



- Domestic equity benchmarks exhibited a return to their long-run trend of growth style companies vastly outperforming value during the fourth quarter. This theme was relatively consistent across the capitalization spectrum with growth benchmarks dominating performance results while value benchmarks each posted negative returns for the quarter.
- The broadest disparity between growth and value was visible in the mid-cap index. The Russell Mid Cap Value Index return of -1.7% trailed the Russell Mid Cap Growth Index return of 8.1%, a performance span of nearly 10%. The Russell Mid Cap Growth Index was also the best performing segment of the equity market during the quarter. Conversely, the worst performing segment of the market was large cap value which returned a disappointing -2.0% during the fourth quarter.
- This quarter's ascension of the growth indexes widened their performance gaps relative to the value indexes for the trailing year. The Russell 1000 Growth Index amassed a staggering 33.4% for the year, leading the way among style and market capitalization index performance. Much of the year's strong performance has been attributable to the emergence of the "Magnificent 7" stocks (Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia, and Tesla) which have dominated the large-cap core and growth indexes and the headlines over the past several years. The 10 largest stocks in the Russell 1000 Index have contributed more than 50% of the index's total performance over the trailing 12-month period. The weakest performing index for the year was the Russell 2000 Value Index, which still climbed 8.1%.
- The strength of growth sectors is also evident in the trailing one-year period with the chart on the right showing growth benchmarks at all capitalization ranges outpacing their value counterparts. The performance gap between the Russell 1000 Growth Index and the Russell 1000 Value Index was nearly 20% and the gaps for mid- and small-cap indexes were narrower, but still wide.



- Economic sector performance delivered mixed results in the fourth quarter as just four of the 11 economic sectors moved higher in the large-cap index. While performance during the year could be characterized by broader participation in the domestic equity markets, this was not the case during the fourth quarter as only the communication services, consumer discretionary, financials, and information technology sectors managed to post positive returns. Within the large cap index, consumer discretionary stocks led the way, collectively returning 12.9% for the quarter while the materials sector struggled, falling -11.4% during the period.
- Full year results during 2024 showcased strong performance across the economic sector classifications. Communication services narrowly outpaced information technology for the year, posting returns of 39.8% and 35.9%, respectively, with financials coming in third with a return of 31.4%. While all sectors posted positive returns for the year, the broad index's strong performance during 2024 was largely driven by three of the five most heavily weighted index sectors.
- Similar to the large cap benchmark, just five of the 11 small-cap economic sectors gained value during the quarter. Communication services, consumer staples, financials, industrials, and information technology led the way with information technology as the best performing sector during the quarter. Health care faltered as the worst-performing sector with a return of -7.6% during the quarter, followed closely by real estate, which finished the quarter with a return of -6.1%.
- Despite their struggles during the most recent quarter, small-cap stocks delivered strong results for the year. Ten small-cap sectors advanced higher during the trailing one-year period, making energy the lone negative performer over the period. The sector's -2.7% return during the fourth quarter pushed the sector's performance to -4.1% for the trailing year. Information technology (up 21.6%) was the only sector to cross the 20% return threshold, but four others also amassed double digit positive returns for the calendar year.



Source: Morningstar Direct

As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.

Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000

As of December 31, 2024

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	6.6%	7.6%	30.7%	Information Technology
NVIDIA Corp	5.8%	10.6%	171.2%	Information Technology
Microsoft Corp	5.8%	-1.8%	12.9%	Information Technology
Amazon.com Inc	3.8%	17.7%	44.4%	Consumer Discretionary
Meta Platforms Inc Class A	2.4%	2.4%	66.0%	Communication Services
Tesla Inc	2.1%	54.4%	62.5%	Consumer Discretionary
Alphabet Inc Class A	2.1%	14.3%	36.0%	Communication Services
Broadcom Inc	2.0%	34.7%	110.4%	Information Technology
Alphabet Inc Class C	1.7%	14.0%	35.6%	Communication Services
Berkshire Hathaway Inc Class B	1.5%	-1.5%	27.1%	Financials

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
FTAI Aviation Ltd	0.5%	8.6%	214.7%	Industrials
Sprouts Farmers Market Inc	0.5%	15.1%	164.1%	Consumer Staples
Insmed Inc	0.4%	-5.4%	122.8%	Health Care
Vaxcyte Inc Ordinary Shares	0.4%	-28.4%	30.4%	Health Care
Credo Technology Group Holding Ltd	0.4%	118.2%	245.2%	Information Technology
Applied Industrial Technologies Inc	0.3%	7.5%	39.7%	Industrials
Mueller Industries Inc	0.3%	7.4%	70.5%	Industrials
Rocket Lab USA Inc	0.3%	161.8%	360.6%	Industrials
Fluor Corp	0.3%	3.4%	25.9%	Industrials
IonQ Inc Class A	0.3%	377.9%	237.1%	Information Technology

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Astera Labs Inc	0.0%	152.8%	N/A	Information Technology
AppLovin Corp Ordinary Shares	0.2%	148.1%	712.6%	Information Technology
Trump Media & Technology Group	0.0%	112.2%	N/A	Communication Services
Palantir Technologies Inc Ordinary	0.3%	103.3%	340.5%	Information Technology
SoFi Technologies Inc Ordinary Shares	0.0%	95.9%	54.8%	Financials
Amer Sports Inc	0.0%	75.3%	N/A	Consumer Discretionary
MicroStrategy Inc	0.1%	71.8%	358.5%	Information Technology
United Airlines Holdings Inc	0.1%	70.2%	135.3%	Industrials
New Fortress Energy Inc	0.0%	66.3%	-59.3%	Utilities
Twilio Inc Class A	0.0%	65.7%	42.5%	Information Technology

Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Rigetti Computing Inc	0.1%	1848.7%	1449.4%	Information Technology
D-Wave Quantum Inc.	0.0%	754.6%	854.4%	Information Technology
Scholar Rock Holding Corp	0.1%	439.6%	129.9%	Health Care
IonQ Inc Class A	0.3%	377.9%	237.1%	Information Technology
SoundHound AI Inc Ordinary Shares	0.2%	325.8%	835.8%	Information Technology
Kodiak Sciences Inc	0.0%	281.2%	227.3%	Health Care
The RealReal Inc	0.0%	248.1%	443.8%	Consumer Discretionary
SES AI Corp	0.0%	242.3%	19.7%	Industrials
Poseida Therapeutics Inc Ordinary	0.0%	235.7%	185.7%	Health Care
Archer Aviation Inc Class A	0.1%	221.8%	58.8%	Industrials

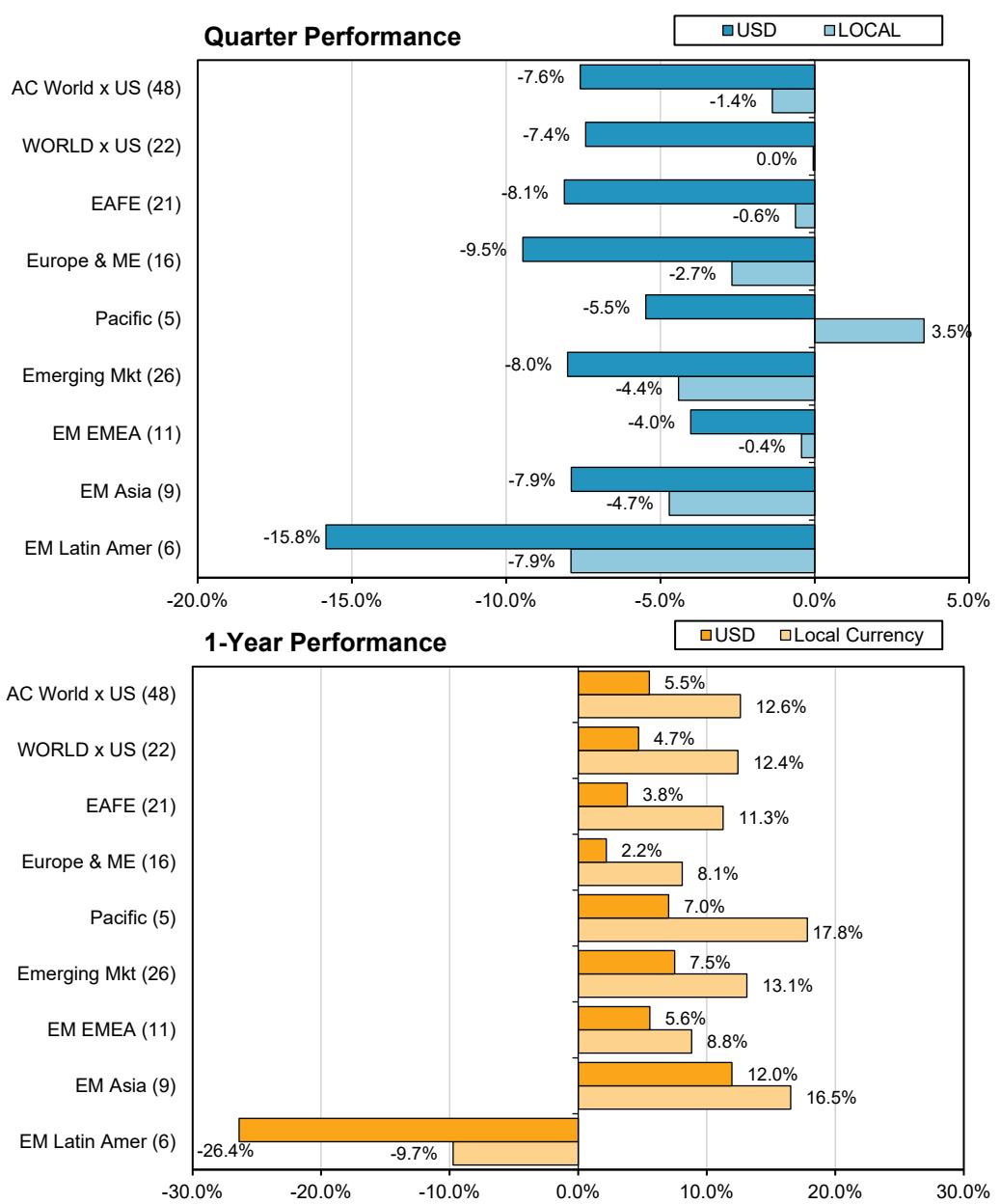
Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Capri Holdings Ltd	0.0%	-50.4%	-58.1%	Consumer Discretionary
Celanese Corp Class A	0.0%	-48.8%	-54.6%	Materials
Rocket Companies Inc Ordinary	0.0%	-41.3%	-22.2%	Financials
Enphase Energy Inc	0.0%	-39.2%	-48.0%	Information Technology
Moderna Inc	0.0%	-37.8%	-58.2%	Health Care
Acadia Healthcare Co Inc	0.0%	-37.5%	-49.0%	Health Care
Viking Therapeutics Inc	0.0%	-36.4%	116.2%	Health Care
10x Genomics Inc Ordinary	0.0%	-36.4%	-74.3%	Health Care
Monolithic Power Systems Inc	0.1%	-35.9%	-5.6%	Information Technology
The AES Corp	0.0%	-35.1%	-30.3%	Utilities

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Q32 Bio Inc	0.0%	-92.3%	0.0%	Health Care
Cassava Sciences Inc	0.0%	-92.0%	-89.5%	Health Care
Applied Therapeutics Inc	0.0%	-89.9%	-74.4%	Health Care
Perspective Therapeutics Inc	0.0%	-76.1%	-20.6%	Health Care
Keros Therapeutics Inc	0.0%	-72.7%	-60.2%	Health Care
Bioage Labs Inc	0.0%	-72.2%	N/A	Health Care
Inovio Pharmaceuticals Inc	0.0%	-68.3%	-70.1%	Health Care
PACS Group Inc	0.0%	-67.2%	N/A	Health Care
Shattuck Labs Inc Ordinary Shares	0.0%	-65.3%	-83.0%	Health Care
Sunnova Energy International Inc	0.0%	-64.8%	-77.5%	Utilities

Source: Morningstar Direct

The Market Environment
International and Regional Market Index Performance (Country Count)
As of December 31, 2024

- Results in USD terms among the headline international equity indexes were sharply lower during the quarter. The strengthening USD relative to many major currencies during the quarter was a substantial headwind for the USD performance of non-US regional benchmarks' returns. The developed-market MSCI EAFE Index returned a muted -0.6% in LCL terms but fell -8.1% in USD terms. The MSCI ACWI ex-US Index pulled back -7.6% in USD and -1.4% in LCL terms for the quarter.
- Latin America continued to lag other regions during the quarter in USD terms, posting an outsized loss of -15.8%. Weakening currencies in the region put added pressure on realized performance for US investors. The MSCI Pacific benchmark was the only regional benchmark to deliver positive performance in LCL terms with a return of 3.5%, but USD strength led to a -5.5% decline in USD terms for the quarter. Regional LCL currency performance was disparate for the quarter, with some regional indexes remaining relatively flat over the final three months of the year.
- Full year results by country show Taiwan and Malaysia as the biggest winners during the year in USD terms. These two countries advanced 34.4% and 20.8%, respectively. China was not far behind with the largest economy in the emerging market world climbing 19.4% in USD terms for the year despite declining 7.7% during the fourth quarter. Much of the broad-based MSCI Emerging Market Index's returns are attributable to the health of the dominant Chinese economy, which came under pressure during the year due to troubles in the manufacturing and commercial property sectors.
- Much like domestic markets, trailing one-year results for international developed and emerging markets benchmarks were strongly positive. Higher LCL versus USD returns for most international benchmarks demonstrate the USD's relative strength over the trailing one-year period, which represents a drag on results for US investors.
- Most broad and regional indexes were positive for the trailing 12 months in both USD and LCL terms. The exception to these positive results is the EM Latin America index, where negative LCL performance was exacerbated by the region's currency weakness, which led to a more severe - 26.4% return in USD terms. The MSCI Pacific Index led the way with a return of 17.8% in LCL terms for the trailing year, but US investor returns were dampened to just 7.0% in USD terms.



Source: MSCI Global Index Monitor (Returns are Net)

The Market Environment
US Dollar International Index Attribution & Country Detail
As of December 31, 2024

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	4.8%	-4.7%	11.2%
Consumer Discretionary	11.3%	-4.3%	1.4%
Consumer Staples	8.3%	-12.6%	-7.9%
Energy	3.5%	-8.3%	-10.5%
Financials	21.9%	-2.3%	20.9%
Health Care	12.4%	-14.1%	-1.5%
Industrials	17.8%	-6.4%	9.6%
Information Technology	8.8%	-7.2%	3.8%
Materials	6.1%	-17.8%	-12.9%
Real Estate	2.0%	-13.4%	-3.9%
Utilities	3.2%	-12.8%	-4.1%
Total	100.0%	-8.1%	3.8%

MSCI - ACWixUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.9%	-6.8%	12.4%
Consumer Discretionary	11.2%	-8.1%	4.6%
Consumer Staples	7.0%	-12.4%	-7.8%
Energy	5.0%	-7.9%	-3.5%
Financials	23.7%	-2.8%	17.5%
Health Care	8.8%	-13.9%	-1.4%
Industrials	14.0%	-7.1%	7.5%
Information Technology	13.5%	-1.8%	13.3%
Materials	6.3%	-17.2%	-12.6%
Real Estate	1.8%	-11.5%	-1.7%
Utilities	3.0%	-12.8%	-2.0%
Total	100.0%	-7.6%	5.5%

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	9.4%	-8.1%	15.9%
Consumer Discretionary	13.1%	-14.5%	11.8%
Consumer Staples	4.8%	-13.9%	-11.1%
Energy	4.6%	-14.5%	-5.9%
Financials	23.7%	-5.0%	11.0%
Health Care	3.5%	-11.7%	-0.9%
Industrials	6.6%	-10.9%	0.6%
Information Technology	24.3%	1.1%	20.4%
Materials	5.7%	-18.6%	-19.6%
Real Estate	1.7%	-6.5%	3.8%
Utilities	2.7%	-14.1%	3.3%
Total	100.0%	-8.0%	7.5%

Country	MSCI-EAFE Weight	MSCI-ACWixUS Weight	Quarter Return	1- Year Return
Japan	23.2%	14.5%	-3.6%	8.3%
United Kingdom	14.9%	9.3%	-6.8%	7.5%
France	11.1%	6.9%	-10.3%	-5.3%
Switzerland	9.6%	6.0%	-11.3%	-2.0%
Germany	9.2%	5.8%	-5.7%	10.2%
Australia	7.4%	4.6%	-11.4%	1.2%
Netherlands	4.6%	2.9%	-12.4%	1.4%
Sweden	3.6%	2.2%	-14.0%	-3.7%
Denmark	2.9%	1.8%	-21.5%	-12.9%
Italy	2.8%	1.7%	-6.7%	11.3%
Spain	2.8%	1.7%	-9.2%	9.8%
Hong Kong	2.0%	1.2%	-9.8%	0.1%
Singapore	1.7%	1.0%	3.2%	32.3%
Belgium	1.0%	0.6%	-8.3%	8.5%
Finland	1.0%	0.6%	-13.1%	-7.3%
Israel	1.0%	0.6%	14.1%	38.3%
Norway	0.6%	0.4%	-5.4%	-4.3%
Ireland	0.3%	0.2%	-12.6%	14.0%
New Zealand	0.2%	0.1%	-6.0%	-1.5%
Austria	0.2%	0.1%	1.1%	18.3%
Portugal	0.2%	0.1%	-22.7%	-25.2%
Total EAFE Countries	100.0%	62.3%	-8.1%	3.8%
Canada		8.1%	-1.8%	11.9%
Total Developed Countries		70.4%	-7.4%	4.7%
China		8.2%	-7.7%	19.4%
Taiwan		5.8%	3.3%	34.4%
India		5.8%	-11.3%	11.2%
Korea		2.7%	-19.2%	-23.4%
Saudi Arabia		1.2%	-1.5%	0.6%
Brazil		1.2%	-19.4%	-29.8%
South Africa		0.9%	-12.1%	6.7%
Mexico		0.5%	-10.6%	-27.1%
Malaysia		0.5%	-6.9%	20.8%
Indonesia		0.4%	-15.6%	-13.0%
Thailand		0.4%	-10.1%	1.3%
United Arab Emirates		0.4%	9.0%	19.6%
Qatar		0.3%	-0.2%	6.1%
Poland		0.2%	-11.5%	-6.7%
Kuwait		0.2%	1.2%	10.5%
Turkey		0.2%	-3.2%	17.8%
Philippines		0.2%	-13.9%	-0.7%
Greece		0.1%	-6.2%	8.9%
Chile		0.1%	-6.8%	-7.5%
Peru		0.1%	-9.1%	15.8%
Hungary		0.1%	-2.3%	14.0%
Czech Republic		0.0%	0.9%	4.0%
Colombia		0.0%	-0.2%	7.9%
Egypt		0.0%	-9.0%	-31.2%
Total Emerging Countries		29.7%	-8.0%	7.5%
Total ACWixUS Countries		100.0%	-7.6%	5.5%

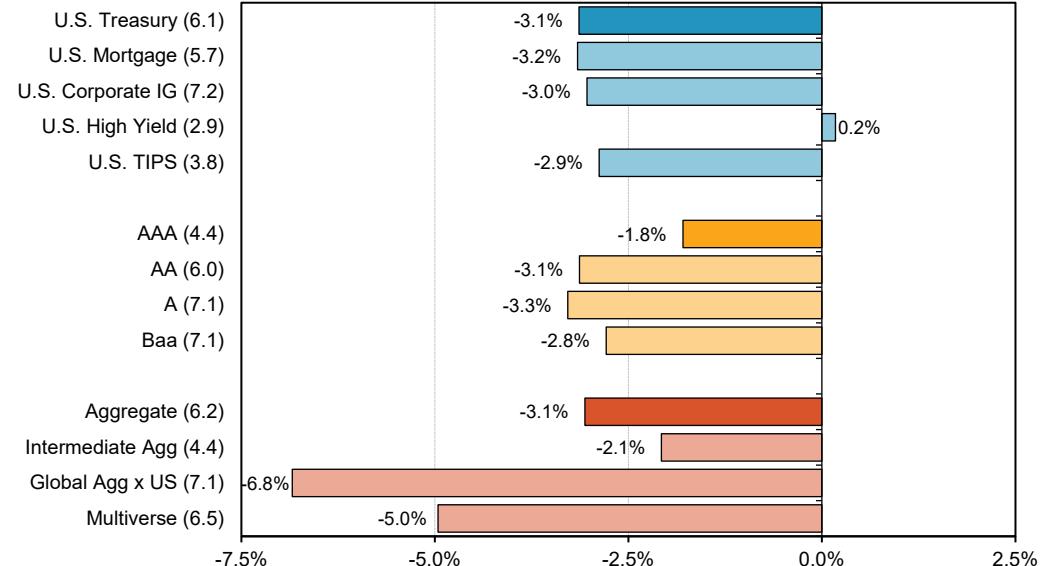
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

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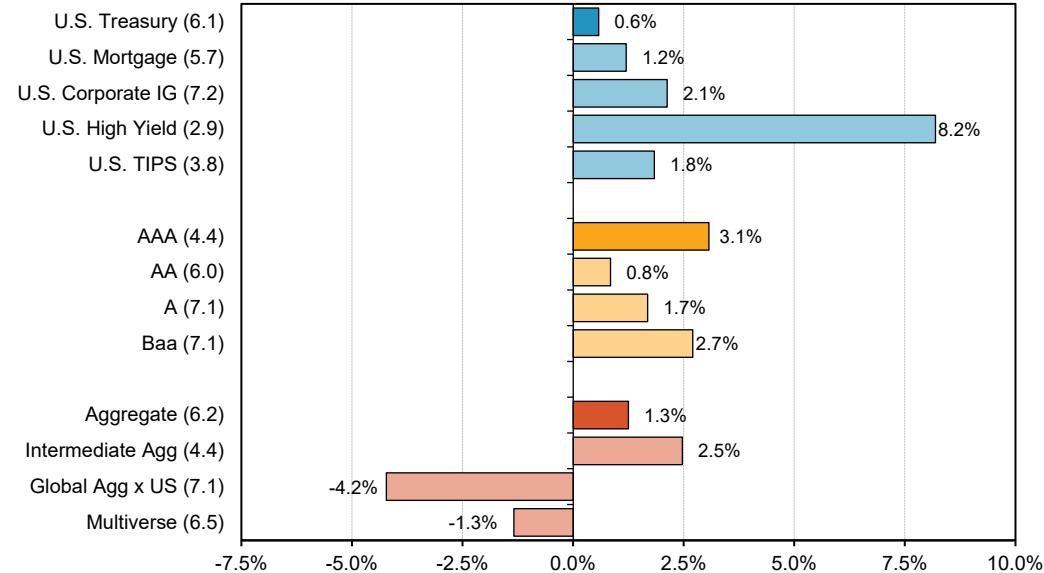
The Market Environment
Domestic Bond Sector & Broad/Global Bond Market Performance (Duration)
As of December 31, 2024

- Domestic fixed-income markets declined during the fourth quarter despite two additional 0.25% rate cuts by the Fed. Although the Fed's action moved short-term rates lower, longer-term yields advanced during the quarter, leading to a modest steepening of the Treasury Yield Curve. The Fed's target range is now set at 4.25%-4.50% at year-end, down a full percentage point, including the first 0.50% cut in September of 2024.
- While the Fed's first rate cut in September was initially celebrated by fixed income investors and boosted the levels of the indexes during the third quarter, many of the core indexes fell during the fourth quarter as longer-term yields advanced and worked against the Fed's short-term rate declines. Performance across the investment-grade index's segments declined with the Treasury, Mortgage-Backed and Corporate IG indexes falling in a tight range around -3.0%. Higher quality issues performed better, as BBB issues fell by -2.8%, while AAA issues fell a smaller -1.8% due in large part to their lower duration (4.4 vs. 7.1 years).
- High Yield bonds outperformed investment grade issues as longer-term yields climbed. This was primarily due to the high-yield benchmark's lower duration and higher coupon income. Despite their lower credit quality, below-investment grade issues returned just 0.2% for the quarter, but still outpaced all other broad-based investment-grade fixed income indexes.
- Over the trailing one-year period, the Bloomberg US Aggregate Bond Index posted a return of 1.3%. The benchmark's sub-components also posted positive performance over the trailing 12 months with the Bloomberg US Corporate Investment Grade Index rising 2.1% and the US Mortgage Index returning 1.2%. US TIPS, which are excluded from the Bloomberg US Aggregate Bond Index, returned 1.8% for the trailing year.
- Results were mixed across credit qualities of investment grade issues. The performance of AAA issues was aided by their lower duration and returned 3.1% while AA issues returned only 0.8% for the year. High yield bonds were also the best performing segment of the market for the year, returning an outsized 8.2%, more than double any other segment of the domestic fixed income market. Results in high yield were spurred by stable credit spreads and higher coupon income.
- The Bloomberg Global Aggregate ex-US Index finished both the quarter and the year significantly weaker than its domestic benchmark counterpart. Strength in the USD was a primary driver in the international index's weak -6.8% fourth quarter performance and its -4.2% return for the calendar year.

Quarter Performance

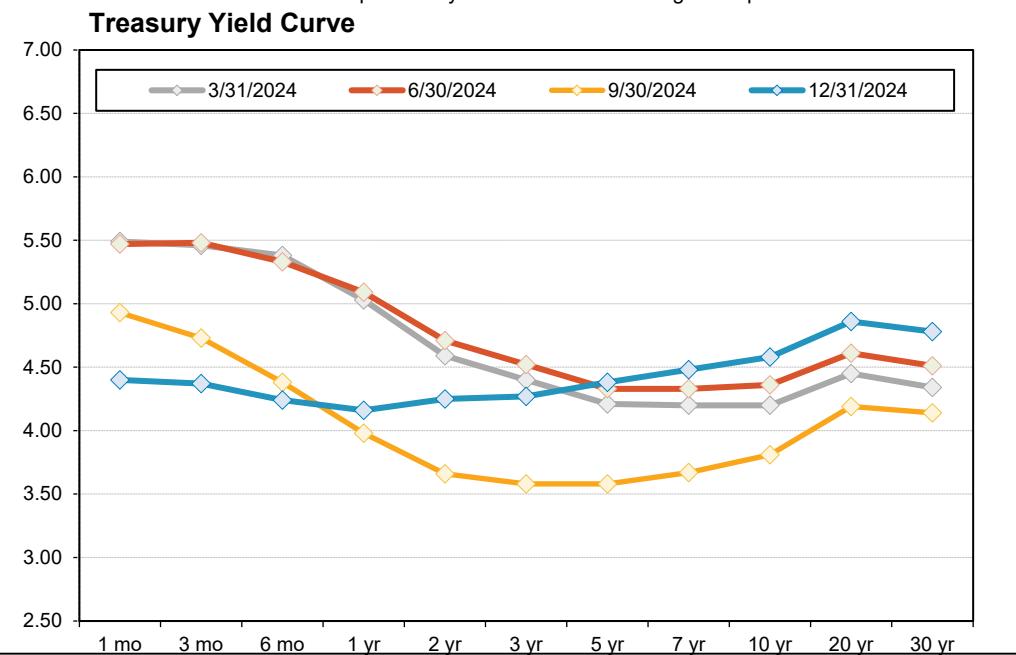
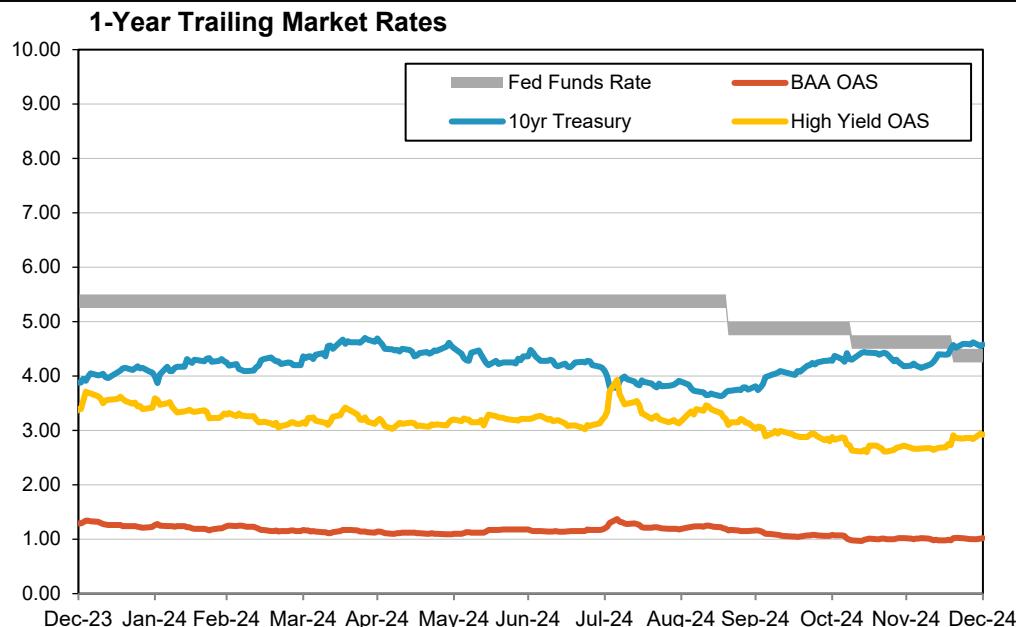


1-Year Performance



Source: Bloomberg

- The gray band across the graph illustrates the fed funds target rate range over the last 12 months. During the fourth quarter, the Federal Open Market Committee (FOMC) cut its policy rates by 0.50% with two successive 0.25% cuts in November and December. The target policy range now stands at 4.25-4.50%, a level not seen since January of 2023. With inflation declining and unemployment remaining largely stable, the Fed has pivoted from its restrictive monetary policy stance. The most recent FOMC press release continued to emphasize economic data-dependent outcomes while placing greater emphasis on the second part of the committee's dual mandate: full employment. The CME FedWatch tool, which forecasts rates based on fed fund futures pricing, showed a greater than 90% probability of no rate decrease at the FOMC January meeting at the time of this writing. Fed officials and market participants continue to express concern that leaving rates at their current elevated levels for an extended period could tip the US economy into a recession.
- The yield on the US 10-year Treasury (blue line of the top chart) rose 0.84% during the quarter. The bellwether benchmark rate opened the quarter at a yield of 3.74% and finished December at a yield of 4.58%, which is its highest level since May 2024.
- The red line in the top chart shows the option-adjusted spread (OAS) for BAA-rated corporate bonds. This measure quantifies the additional yield premium investors require to purchase and hold non-US Treasury issues with the lowest investment grade rating. During the quarter, the yield spread experienced a slight decline, beginning October at 1.13% and finishing December at 1.02%. High-yield OAS spreads (represented by the yellow line in the top chart) also remained relatively stable, despite a sharp spike in early August spurred by an unwinding of the yen carry trade. The high-yield OAS fell by 0.11% over the quarter from 3.03% to 2.92%. The spread measure's relative stability over the trailing year results from steady economic growth, stable monetary policy, and falling inflation readings.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four quarters. For the first time since November 2022, the quarter-end yield on the 30-year Treasury was higher than the one-month Treasury. Furthermore, the spread between the two-year yield and the 10-year yield continued to widen during the quarter, growing from 0.15% in October to 0.30% at year end. The yield curve had been inverted for much of the last two years. This 2-10-year yield curve inversion is a common heuristic used to foretell a pending recession.



[CME FedWatch Tool - CME Group](#)

[Effective Federal Funds Rate - FEDERAL RESERVE BANK of NEW YORK \(newyorkfed.org\)](#)

[ICE BofA US High Yield Index Option-Adjusted Spread \(BAMLH0A0HYM2\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

[When will the Federal Reserve start cutting interest rates? | J.P. Morgan Asset Management \(jpmorgan.com\)](#)

[U.S. Department of the Treasury](#)

[China's Economy Limps Into 2024 – WSJ Support Site - Global Index Lens: Index Returns – MSCI](#)

[Federal Reserve issues FOMC statement](#)

[The Fed - Meeting calendars and information \(federalreserve.gov\)](#)

[The Federal Reserve's latest dot plot, explained – and what it says about interest rates | Bankrate](#)

[Why Chinese banks are now vanishing \(economist.com\)](#)

[Fed rate cut: Here's what changed in the central bank's statement \(cnbc.com\)](#)

[10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity \(T10Y2Y\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

[The Fed's dot plot shows only two rate cuts in 2025, fewer than previously projected](#)

PLEASE NOTE ALL PERFORMANCE IN THIS REPORT IS NET OF FEES.

Comparative Performance
Total Fund
As of December 31, 2024

Comparative Performance Trailing Returns												
	QTR	FYTD	1 YR	2 YR	3 YR	5 YR	10 YR	15 YR	Inception	Inception Date		
Total Fund Performance	-2.14	(91)	9.07	(81)	9.07	(81)	12.06	(51)	1.95	(79)	5.82	(86)
Total Fund Policy	-2.04	(88)	9.22	(79)	9.22	(79)	12.10	(50)	2.21	(71)	6.26	(77)
Allocation Index	-2.13	(90)	9.50	(76)	9.50	(76)	12.26	(46)	2.07	(73)	5.92	(84)
All Public Plans-Total Fund Median	-0.95	10.94	10.94	12.06	2.71	6.96	7.03	7.86	6.10			
All Public Plan Sponsor Universes with 50% or Less Equities												
Total Fund Performance	-2.14	(90)	9.07	(50)	9.07	(50)	12.06	(23)	1.95	(64)	5.82	(68)
Total Fund Policy	-2.04	(83)	9.22	(49)	9.22	(49)	12.10	(22)	2.21	(59)	6.26	(57)
All Public Plans <= 50% Equities Median	-1.12	8.97	8.97	10.44	2.39	6.42	6.62	7.41	6.03			
All Public Plan Sponsor Universes with 60% or More Equities												
Total Fund Performance	-2.14	(91)	9.07	(95)	9.07	(95)	12.06	(71)	1.95	(83)	5.82	(95)
Total Fund Policy	-2.04	(90)	9.22	(95)	9.22	(95)	12.10	(70)	2.21	(75)	6.26	(90)
All Public Plans >=60% Equities Median	-0.86	11.41	11.41	12.87	2.87	7.29	7.31	8.07	6.46			

Returns for periods greater than one year are annualized.
 Returns are expressed as percentages.

Comparative Performance

Total Fund

As of December 31, 2024

	QTR	FYTD	1 YR	2 YR	3 YR	5 YR	10 YR	15 YR	Inception	Inception Date
Domestic Equity										
Total Fund Domestic Equity	1.18	17.91	17.91	20.22	6.43	11.76	11.07	N/A	11.04	07/01/2014
Vanguard Inst'l Index Fund (VINIX)	2.40	(30)	24.97	(23)	24.97	(23)	25.61	(21)	8.90	(22)
S&P 500 Index	2.41	(28)	25.02	(22)	25.02	(22)	25.65	(20)	8.94	(21)
Large Blend Median	2.05	23.23		23.23		24.04		7.88		13.39
Vanguard Growth Index (VIGIX)	6.97	(24)	32.68	(32)	32.68	(32)	39.55	(20)	9.20	(20)
Vanguard Growth Index Hybrid	6.98	(24)	32.73	(32)	32.73	(32)	39.62	(19)	9.24	(20)
Russell 1000 Growth Index	7.07	(22)	33.36	(28)	33.36	(28)	37.94	(29)	10.47	(8)
Large Growth Median	5.26	30.00		30.00		35.15		7.36		15.68
Vanguard Value Index (VIVIX)	-2.52	(74)	15.98	(31)	15.98	(31)	12.57	(52)	7.47	(26)
Vanguard Value Index Hybrid	-2.51	(73)	16.00	(30)	16.00	(30)	12.54	(53)	7.46	(26)
Russell 1000 Value Index	-1.98	(56)	14.37	(50)	14.37	(50)	12.91	(47)	5.63	(62)
Large Value Median	-1.81	14.36		14.36		12.70		6.25		9.27
Vanguard Mid-Cap 400 Index Fund I (VSPMX)	0.32	(36)	13.85	(45)	13.85	(45)	15.10	(46)	4.80	(27)
S&P MidCap 400 Index	0.34	(34)	13.93	(44)	13.93	(44)	15.18	(44)	4.87	(25)
Mid-Cap Blend Median	0.04	13.61		13.61		14.91		4.02		9.77
Vanguard Small-Cap 600 Index I (VSMSX)	-0.60	(63)	8.63	(75)	8.63	(75)	12.25	(65)	1.84	(54)
S&P SmallCap 600 Index	-0.58	(63)	8.70	(74)	8.70	(74)	12.31	(64)	1.91	(53)
Small Blend Median	-0.02	10.93		10.93		13.53		2.10		8.21
									7.88	10.47
									8.37	

Returns for periods greater than one year are annualized.
 Returns are expressed as percentages.

Comparative Performance

Total Fund

As of December 31, 2024

	QTR	FYTD	1 YR	2 YR	3 YR	5 YR	10 YR	15 YR	Inception	Inception Date
International Equity										
Total Fund Performance - International Equity	-7.01	5.80	5.80	9.86	-0.54	3.02	4.38	N/A	3.26	07/01/2014
Vanguard Intl Value (VTRIX)	-9.21 (87)	1.04 (83)	1.04 (83)	8.33 (84)	1.21 (83)	N/A	N/A	N/A	2.76 (86)	12/01/2021
MSCI AC World ex USA Value	-7.15 (48)	6.87 (25)	6.87 (25)	12.36 (22)	5.13 (24)	5.20 (38)	4.73 (37)	4.56 (54)	6.79 (25)	
Foreign Large Value Median	-7.35	4.49	4.49	10.51	3.43	4.61	4.39	4.64	5.17	
Vanguard Intl Growth (VWILX)	-5.44 (22)	9.48 (20)	9.48 (20)	12.11 (48)	-4.54 (78)	N/A	N/A	N/A	-4.83 (85)	12/01/2021
MSCI AC World ex USA Growth	-7.84 (62)	5.38 (57)	5.38 (57)	9.79 (69)	-2.37 (57)	3.75 (82)	5.70 (80)	5.65 (91)	-1.35 (60)	
Foreign Large Growth Median	-7.25	5.60	5.60	11.69	-1.62	4.82	6.43	7.08	-0.77	
Vanguard FTSE AW ex-US SC Index (VFSNX)	-7.41 (24)	2.63 (50)	2.63 (50)	8.73 (44)	-2.36 (58)	N/A	N/A	N/A	11.42 (54)	04/01/2020
FTSE Global ex U.S. Small Cap Index (Net)	-7.43 (25)	2.83 (46)	2.83 (46)	8.91 (40)	-2.38 (58)	3.21 (62)	4.46 (83)	N/A	11.33 (59)	
Foreign Small/Mid Blend Median	-8.02	2.60	2.60	8.27	-1.46	3.40	5.30	6.19	11.46	
Vanguard Developed Markets Index (VTMNX)	-8.17 (67)	3.00 (66)	3.00 (66)	10.17 (49)	0.91 (41)	4.77 (36)	5.48 (32)	5.45 (45)	6.59 (49)	07/01/2009
Vanguard Spliced Developed ex U.S. Index (Net)	-7.89 (60)	3.36 (61)	3.36 (61)	10.42 (44)	0.97 (40)	4.79 (35)	5.43 (34)	5.40 (48)	6.58 (49)	
MSCI EAFE (Net) Index	-8.11 (66)	3.82 (54)	3.82 (54)	10.80 (38)	1.65 (31)	4.73 (36)	5.20 (42)	5.24 (55)	6.43 (56)	
Foreign Median	-7.51	4.19	4.19	10.11	0.22	4.19	4.93	5.34	6.55	
Vanguard Emerging Markets Index (VEMIX)	-5.36 (17)	11.04 (15)	11.04 (15)	10.11 (37)	-0.09 (21)	3.02 (33)	4.02 (37)	N/A	2.72 (39)	10/01/2010
FTSE Emerging Mkts All Cap China A Inclusion Index	-6.33 (34)	11.99 (11)	11.99 (11)	10.96 (26)	0.62 (15)	3.73 (25)	4.58 (25)	3.94 (25)	3.35 (26)	
MSCI Emerging Markets (Net) Index	-8.01 (81)	7.50 (35)	7.50 (35)	8.66 (52)	-1.92 (40)	1.70 (49)	3.64 (45)	3.01 (50)	2.44 (47)	
Diversified Emerging Mkts Median	-6.88	6.34	6.34	8.89	-3.04	1.49	3.39	3.01	2.24	

Returns for periods greater than one year are annualized.
 Returns are expressed as percentages.

Comparative Performance

Total Fund

As of December 31, 2024

	QTR	FYTD	1 YR	2 YR	3 YR	5 YR	10 YR	15 YR	Inception	Inception Date
Fixed Income										
Total Fund Performance - Fixed Income	-2.26	3.25	3.25	5.45	-0.45	1.05	2.27	N/A	2.11	07/01/2014
Vanguard Short Term Bond Index (VBIRX)	-0.76 (86)	3.73 (89)	3.73 (89)	4.30 (85)	0.89 (83)	1.26 (82)	1.62 (68)	N/A	1.49 (65)	04/01/2013
Bloomberg 1-5 Year Gov/Credit Idx	-0.71 (84)	3.76 (88)	3.76 (88)	4.32 (84)	0.94 (81)	1.29 (80)	1.66 (65)	1.85 (64)	1.53 (62)	
Short-Term Bond Median	0.04	4.88	4.88	5.20	1.68	1.78	1.87	2.04	1.67	
Vanguard Total Bond Index (VBTIX)	-3.04 (47)	1.25 (66)	1.25 (66)	3.46 (54)	-2.40 (44)	-0.30 (54)	N/A	N/A	-0.39 (54)	09/01/2019
Blmbg. U.S. Aggregate Index	-3.06 (50)	1.25 (66)	1.25 (66)	3.37 (61)	-2.41 (45)	-0.33 (57)	1.35 (46)	2.37 (53)	-0.37 (52)	
Intermediate Core Bond Median	-3.07	1.48	1.48	3.50	-2.46	-0.26	1.31	2.40	-0.35	
Vanguard High Yield Bond Fund (VWEAX)	-0.27 (85)	6.38 (84)	6.38 (84)	9.03 (79)	2.66 (47)	3.43 (56)	4.60 (36)	N/A	4.52 (28)	12/01/2014
Vanguard High Yield Corporate Composite Index	-0.19 (80)	6.59 (79)	6.59 (79)	9.33 (70)	2.35 (60)	3.76 (40)	4.79 (25)	6.00 (23)	4.64 (23)	
High Yield Bond Median	0.20	7.63	7.63	9.77	2.58	3.55	4.38	5.63	4.16	
Vanguard International Bond (VTIFX)	0.12 (4)	3.74 (11)	3.74 (11)	6.27 (6)	-0.55 (24)	0.13 (25)	N/A	N/A	1.99 (10)	05/01/2015
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	0.20 (4)	3.79 (11)	3.79 (11)	6.24 (6)	-0.50 (23)	0.20 (23)	2.08 (7)	N/A	2.01 (9)	
Global Bond Median	-5.27	-1.43	-1.43	2.42	-4.53	-2.18	0.06	1.11	0.11	
Vanguard EM Bond (VEGBX)	-1.75 (53)	7.11 (40)	7.11 (40)	10.41 (15)	1.97 (10)	N/A	N/A	N/A	2.49 (8)	12/01/2021
Blmbg. Emerging Markets USD Aggregate Index	-1.47 (44)	6.58 (54)	6.58 (54)	7.83 (66)	-0.49 (74)	0.63 (50)	3.20 (35)	4.59 (5)	-0.17 (73)	
Emerging Markets Bond Median	-1.72	6.71	6.71	8.63	0.13	0.62	2.91	3.92	0.58	
REIT										
Vanguard Real Estate Index Fund (VGSNX)	-7.63 (68)	4.94 (71)	4.94 (71)	8.33 (68)	-4.68 (61)	3.01 (68)	5.09 (55)	N/A	8.05 (45)	10/01/2010
Vanguard Spliced REIT Index	-7.61 (68)	5.05 (66)	5.05 (66)	8.45 (64)	-4.57 (57)	3.12 (64)	5.18 (53)	8.99 (44)	8.12 (44)	
Real Estate Median	-6.97	6.02	6.02	8.89	-4.17	3.47	5.24	8.83	7.97	

Returns for periods greater than one year are annualized.
 Returns are expressed as percentages.

Comparative Performance
Total Fund
As of December 31, 2024

	QTR	FYTD	1 YR	2 YR	3 YR	5 YR	10 YR	15 YR	Inception	Inception Date
Total Fund - Domestic Equity	1.18	17.91	17.91	20.22	6.43	11.76	11.07	N/A	11.04	07/01/2014
Total Domestic Large Cap Equity	2.35	24.46	24.46	25.29	8.79	13.28	12.25	N/A	12.36	06/01/2014
S&P 500 Index	2.41	25.02	25.02	25.65	8.94	14.53	13.10	13.88	13.19	
Large Cap Growth	6.97	32.68	32.68	39.55	9.20	18.60	15.88	N/A	15.87	06/01/2014
Vanguard Growth Index Hybrid	6.98	32.73	32.73	39.62	9.24	18.41	15.80	15.90	15.78	
Russell 1000 Growth Index	7.07	33.36	33.36	37.94	10.47	18.96	16.78	16.45	16.67	
Large Cap Core	2.40	24.97	24.97	25.72	8.94	12.36	11.58	N/A	11.69	06/01/2014
S&P 500 Index	2.41	25.02	25.02	25.65	8.94	14.53	13.10	13.88	13.19	
Large Cap Value	-2.52	15.98	15.98	12.65	7.52	9.97	10.07	N/A	10.24	06/01/2014
Vanguard Value Index Hybrid	-2.51	16.00	16.00	12.54	7.46	9.93	10.01	11.67	10.20	
Russell 1000 Value Index	-1.98	14.37	14.37	12.91	5.63	8.68	8.49	10.75	8.74	
Mid Cap Equity	0.32	13.85	13.85	15.18	4.85	10.29	9.21	N/A	9.53	06/01/2014
Mid Cap Hybrid Index	0.34	13.93	13.93	15.18	4.87	10.34	9.22	N/A	9.54	
Small Cap Equity	-0.60	8.63	8.63	12.25	1.84	8.33	8.07	N/A	8.21	06/01/2014
Small Cap Hybrid Index	-0.58	8.70	8.70	12.31	1.91	8.36	8.09	10.93	8.23	
Total Fund - International Equity	-7.01	5.80	5.80	9.86	-0.54	3.02	4.38	N/A	3.26	07/01/2014
Small Cap - International Equity	-7.41	2.63	2.63	8.73	-2.36	N/A	N/A	N/A	5.83	03/01/2020
FTSE Global ex U.S. Small Cap Index (Net)	-7.43	2.83	2.83	8.91	-2.38	3.21	4.46	N/A	6.12	
Developed Markets - International Equity	-8.17	3.00	3.00	10.17	0.91	4.77	5.46	N/A	4.22	06/01/2014
Vanguard Spliced Developed ex U.S. Index (Net)	-7.89	3.36	3.36	10.42	0.97	4.79	5.43	5.40	4.27	
Emerging Markets - International Equity	-5.36	11.04	11.04	10.11	-0.09	3.05	3.99	N/A	3.46	06/01/2014
FTSE Emerging Mkts All Cap China A Inclusion Index	-6.33	11.99	11.99	10.96	0.62	3.73	4.58	3.94	4.21	
MSCI Emerging Markets (Net) Index	-8.01	7.50	7.50	8.66	-1.92	1.70	3.64	3.01	2.89	

Returns for periods greater than one year are annualized.
 Returns are expressed as percentages.

Comparative Performance

Total Fund

As of December 31, 2024

	QTR	FYTD	1 YR	2 YR	3 YR	5 YR	10 YR	15 YR	Inception	Inception Date
Total Fund - Fixed Income	-2.26	3.25	3.25	5.45	-0.45	1.05	2.27	N/A	2.11	07/01/2014
Short - Term Fixed Income	-0.76	3.73	3.73	4.30	0.89	1.26	1.60	N/A	1.53	06/01/2014
Bloomberg 1-5 Year Gov/Credit Iidx	-0.71	3.76	3.76	4.32	0.94	1.29	1.66	1.85	1.60	
High Yield - Fixed Income	-0.27	6.38	6.38	9.03	2.66	3.43	4.52	N/A	4.50	11/01/2014
Blmbg. U.S. Corp High Yield	0.17	8.19	8.19	10.79	2.92	4.21	5.17	6.44	4.86	
Non-US Fixed Income	0.12	3.74	3.74	6.27	-0.55	0.13	N/A	N/A	2.05	05/01/2015
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	0.20	3.79	3.79	6.24	-0.50	0.20	2.08	N/A	2.01	
Real Estate	-7.63	4.94	4.94	8.33	-4.68	3.01	5.09	N/A	5.81	06/01/2014
Vanguard Spliced REIT Index	-7.61	5.05	5.05	8.45	-4.57	3.12	5.18	8.99	6.02	

Returns for periods greater than one year are annualized.
 Returns are expressed as percentages.

Comparative Performance
Total Fund
As of December 31, 2024

Comparative Performance Trailing Returns										
	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Fund Performance	15.13	-15.61	14.00	9.84	20.21	-5.76	13.91	8.58	-0.72	8.24
Total Fund Policy	15.06	-15.03	13.87	11.44	19.29	-4.90	13.72	8.64	-0.63	8.19
Allocation Index	15.09	-15.63	14.11	9.90	19.76	-5.32	14.25	7.44	-0.62	N/A
Domestic Equity										
Total Fund Domestic Equity	22.57	-16.59	26.91	13.96	29.77	-7.16	20.07	13.45	-0.10	N/A
Twin Capital Low Volatility	N/A	N/A	N/A	5.51 (91)	29.24 (54)	-5.37 (48)	19.16 (77)	16.03 (8)	-1.31 (79)	12.91 (46)
S&P 500 Index	26.29 (29)	-18.11 (62)	28.71 (30)	18.40 (41)	31.49 (27)	-4.38 (32)	21.83 (45)	11.96 (24)	1.38 (44)	13.69 (31)
IM U.S. Large Cap Core Equity (SA+CF) Median	23.86	-16.87	26.89	16.02	29.50	-5.66	21.58	9.86	1.05	12.64
Twin Capital Enhanced Index	N/A	N/A	N/A	15.07 (60)	29.73 (42)	-6.43 (65)	20.37 (77)	11.66 (58)	2.42 (24)	13.42 (53)
S&P 500 Index	26.29 (39)	-18.11 (50)	28.71 (49)	18.40 (46)	31.49 (34)	-4.38 (26)	21.83 (58)	11.96 (56)	1.38 (39)	13.69 (45)
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median	25.61	-18.11	28.63	16.88	29.41	-5.63	22.08	12.21	0.90	13.60
Vanguard Inst'l Index Fund (VINIX)	26.24 (25)	-18.14 (49)	28.67 (21)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
S&P 500 Index	26.29 (24)	-18.11 (48)	28.71 (20)	18.40 (38)	31.49 (23)	-4.38 (24)	21.83 (33)	11.96 (25)	1.38 (25)	13.69 (18)
Large Blend Median	24.66	-18.23	26.79	17.64	30.03	-5.50	21.18	10.56	0.29	12.01
Vanguard Growth Index (VIGIX)	46.78 (17)	-33.14 (66)	27.27 (17)	40.20 (35)	37.25 (14)	-3.32 (69)	27.82 (63)	6.11 (25)	3.23 (65)	13.70 (18)
Vanguard Growth Index Hybrid	46.86 (17)	-33.13 (66)	27.30 (17)	40.27 (35)	37.31 (14)	-3.34 (69)	27.86 (62)	6.16 (25)	3.38 (64)	13.69 (18)
Russell 1000 Growth Index	42.68 (33)	-29.14 (34)	27.60 (15)	38.49 (40)	36.39 (20)	-1.51 (52)	30.21 (41)	7.08 (18)	5.67 (45)	13.05 (25)
Large Growth Median	39.34	-31.16	21.89	36.16	32.89	-1.36	29.22	2.56	5.12	10.64
Vanguard Value Index (VIVIX)	9.26 (66)	-2.05 (18)	26.48 (43)	2.30 (57)	25.83 (47)	-5.42 (17)	17.14 (40)	16.87 (26)	-0.81 (18)	13.20 (17)
Vanguard Value Index Hybrid	9.17 (67)	-2.01 (18)	26.51 (43)	2.26 (58)	25.85 (47)	-5.40 (17)	17.16 (39)	16.93 (26)	-0.86 (19)	13.29 (17)
Russell 1000 Value Index	11.46 (47)	-7.54 (69)	25.16 (62)	2.80 (51)	26.54 (37)	-8.27 (42)	13.66 (79)	17.34 (22)	-3.83 (58)	13.45 (15)
Large Value Median	11.05	-5.52	25.98	2.83	25.59	-8.81	16.31	14.32	-3.40	11.03
Vanguard Mid-Cap 400 Index Fund I (VSPMX)	16.36 (39)	-13.11 (25)	24.67 (40)	13.58 (39)	26.13 (57)	N/A	N/A	N/A	N/A	N/A
S&P MidCap 400 Index	16.44 (37)	-13.06 (24)	24.76 (39)	13.66 (38)	26.20 (56)	-11.08 (45)	16.24 (46)	20.74 (5)	-2.18 (28)	9.77 (37)
Mid-Cap Blend Median	15.96	-14.59	24.17	13.07	27.02	-11.29	15.98	14.98	-3.02	9.25
Vanguard Small-Cap 600 Index I (VSMSX)	15.99 (56)	-16.18 (39)	26.74 (24)	11.46 (57)	22.74 (69)	N/A	N/A	N/A	N/A	N/A
S&P SmallCap 600 Index	16.05 (55)	-16.10 (37)	26.82 (23)	11.29 (58)	22.78 (69)	-8.48 (12)	13.23 (50)	26.56 (10)	-1.97 (24)	5.76 (38)
Small Blend Median	16.35	-16.80	22.80	12.84	24.65	-11.99	13.19	20.64	-4.39	4.94

Returns for periods greater than one year are annualized.
 Returns are expressed as percentages.

Comparative Performance
Total Fund
As of December 31, 2024

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
International Equity										
Total Fund Performance - International Equity	14.07	-18.46	6.98	10.24	21.55	-14.50	28.00	5.26	-5.56	N/A
Vanguard Intl Value (VTRIX)	16.15 (67)	-11.66 (70)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI AC World ex USA Value	18.13 (44)	-7.95 (34)	11.13 (54)	-0.21 (70)	16.45 (72)	-13.45 (23)	23.35 (46)	9.59 (12)	-9.59 (91)	-4.60 (35)
Foreign Large Value Median	17.78	-9.83	11.58	2.61	18.29	-16.16	22.89	2.37	-3.19	-5.62
Vanguard Intl Growth (VWILX)	14.81 (69)	-30.79 (83)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI AC World ex USA Growth	14.40 (75)	-22.80 (34)	5.37 (69)	22.56 (47)	27.84 (56)	-14.10 (50)	32.47 (35)	0.50 (30)	-0.91 (72)	-2.29 (29)
Foreign Large Growth Median	15.97	-25.05	8.70	22.14	28.14	-14.20	31.14	-2.44	0.36	-3.70
Vanguard FTSE AW ex-US SC Index (VFSNX)	15.19 (37)	-21.25 (81)	12.76 (54)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FTSE Global ex U.S. Small Cap Index (Net)	15.35 (31)	-21.58 (85)	13.02 (49)	11.40 (36)	21.55 (59)	-18.91 (37)	29.78 (84)	3.93 (37)	-0.61 (94)	-4.34 (17)
Foreign Small/Mid Blend Median	14.73	-18.74	12.92	9.83	21.91	-19.83	32.96	1.33	6.30	-6.02
Vanguard Developed Markets Index (VTMNX)	17.84 (33)	-15.34 (41)	11.44 (40)	10.27 (50)	22.14 (54)	-14.49 (39)	26.46 (53)	2.46 (30)	-0.19 (47)	-5.62 (58)
Vanguard Spliced Developed ex U.S. Index (Net)	17.97 (31)	-15.58 (43)	11.57 (39)	10.00 (51)	22.34 (53)	-14.79 (42)	26.31 (54)	2.29 (32)	-0.28 (48)	-4.85 (47)
MSCI EAFE (Net) Index	18.24 (28)	-14.45 (33)	11.26 (42)	7.82 (63)	22.01 (55)	-13.79 (30)	25.03 (65)	1.00 (45)	-0.81 (55)	-4.90 (47)
Foreign Median	16.24	-16.87	10.65	10.17	22.57	-15.52	26.87	0.61	-0.47	-5.11
Vanguard Emerging Markets Index (VEMIX)	9.18 (67)	-17.74 (20)	0.92 (35)	15.26 (66)	20.37 (52)	-14.54 (30)	31.43 (70)	11.76 (25)	-15.39 (68)	0.72 (17)
FTSE Emerging Mkts All Cap China A Inclusion Index	9.95 (60)	-17.26 (18)	1.76 (31)	15.84 (63)	20.81 (49)	-14.49 (29)	31.46 (70)	10.66 (34)	-13.28 (47)	2.96 (7)
MSCI Emerging Markets (Net) Index	9.83 (60)	-20.09 (30)	-2.54 (58)	18.31 (47)	18.42 (65)	-14.57 (30)	37.28 (43)	11.19 (30)	-14.92 (63)	-2.19 (43)
Diversified Emerging Mkts Median	10.90	-22.45	-1.69	17.61	20.58	-16.37	35.46	8.46	-13.67	-2.90

Returns for periods greater than one year are annualized.
 Returns are expressed as percentages.

Comparative Performance
Total Fund
As of December 31, 2024

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fixed Income										
Total Fund Performance - Fixed Income	7.70	-11.27	0.05	6.75	10.16	-0.71	3.82	4.79	-0.18	N/A
Vanguard Short Term Bond Index (VBIRX)	4.88 (75)	-5.61 (66)	-0.97 (82)	4.71 (30)	4.84 (40)	1.37 (19)	1.19 (73)	1.51 (68)	0.98 (10)	1.32 (37)
Bloomberg 1-5 Year Gov/Credit Idx	4.89 (74)	-5.50 (63)	-0.97 (82)	4.71 (30)	5.01 (35)	1.38 (18)	1.27 (68)	1.56 (65)	0.97 (11)	1.42 (35)
Short-Term Bond Median	5.50	-4.95	-0.31	3.90	4.62	0.92	1.60	1.87	0.36	1.02
Vanguard Total Bond Index (VBTIX)	5.72 (43)	-13.15 (34)	-1.65 (54)	7.73 (54)	N/A	N/A	N/A	N/A	N/A	N/A
Bloomberg U.S. Aggregate Index	5.53 (56)	-13.01 (27)	-1.55 (49)	7.51 (60)	8.72 (38)	0.01 (24)	3.54 (45)	2.65 (50)	0.55 (22)	5.97 (27)
Intermediate Core Bond Median	5.58	-13.41	-1.57	7.84	8.50	-0.43	3.43	2.64	0.20	5.54
Vanguard High Yield Bond Fund (VWEAX)	11.74 (61)	-8.97 (23)	3.78 (77)	5.38 (49)	15.90 (8)	-2.87 (49)	7.13 (35)	11.27 (80)	-1.31 (16)	N/A
High Yield Bond Median	12.11	-10.67	4.82	5.32	13.55	-2.90	6.70	13.64	-3.72	1.65
Vanguard High Yield Corporate Composite Index	12.14 (50)	-10.32 (43)	4.35 (64)	7.53 (13)	14.61 (30)	-1.71 (21)	6.60 (55)	13.41 (53)	-2.53 (33)	3.34 (14)
Vanguard International Bond (VTIFX)	8.85 (9)	-12.89 (36)	-2.17 (22)	4.59 (84)	7.89 (33)	3.00 (4)	2.43 (94)	4.69 (29)	N/A	N/A
Bloomberg Global Agg ex-USD Flt Adj RIC Cpd (H)	8.75 (10)	-12.72 (36)	-2.10 (21)	4.75 (83)	8.06 (29)	3.16 (4)	2.57 (92)	4.90 (27)	1.34 (1)	9.14 (1)
Global Bond Median	6.10	-15.66	-5.00	9.09	6.92	-2.40	7.66	2.73	-4.31	1.04
Vanguard EM Bond (VEGBX)	13.80 (9)	-13.02 (32)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bloomberg Emerging Markets USD Aggregate Index	9.09 (84)	-15.26 (52)	-1.65 (23)	6.52 (38)	13.11 (59)	-2.46 (8)	8.17 (85)	9.88 (60)	1.29 (14)	4.76 (18)
Emerging Markets Bond Median	11.33	-15.11	-2.97	5.70	13.63	-5.81	10.39	10.46	-2.67	1.57
REIT										
Vanguard Real Estate Index Fund (VGSNX)	11.82 (57)	-26.20 (48)	40.47 (63)	-4.67 (48)	29.02 (35)	-5.93 (52)	4.93 (60)	8.51 (15)	2.56 (62)	30.17 (42)
Vanguard Spliced REIT Index	11.96 (52)	-26.12 (45)	40.56 (62)	-4.55 (47)	29.03 (35)	-5.86 (51)	5.07 (57)	8.60 (15)	2.52 (62)	30.38 (35)
Real Estate Median	12.07	-26.29	41.44	-4.84	27.78	-5.85	5.37	6.07	3.00	29.80

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Comparative Performance
Total Fund
As of December 31, 2024

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Fund - Domestic Equity	22.57	-16.59	26.91	13.96	29.77	-7.16	20.07	13.45	-0.10	N/A
Total Domestic Large Cap Equity	26.14	-17.98	27.04	14.02	30.31	-5.16	20.67	13.09	1.00	N/A
S&P 500 Index	26.29	-18.11	28.71	18.40	31.49	-4.38	21.83	11.96	1.38	13.69
Large Cap Growth	46.78	-33.14	27.27	41.61	37.36	-3.51	27.82	5.87	3.78	N/A
Vanguard Growth Index Hybrid	46.86	-33.13	27.30	40.27	37.31	-3.34	27.86	6.16	3.38	13.69
Russell 1000 Growth Index	42.68	-29.14	27.60	38.49	36.39	-1.51	30.21	7.08	5.67	13.05
Large Cap Core	26.46	-18.20	27.04	9.03	29.41	-5.71	19.57	14.29	0.18	N/A
S&P 500 Index	26.29	-18.11	28.71	18.40	31.49	-4.38	21.83	11.96	1.38	13.69
Large Cap Value	9.42	-2.05	26.48	2.30	25.83	-5.50	17.14	16.87	-0.27	N/A
Vanguard Value Index Hybrid	9.17	-2.01	26.51	2.26	25.85	-5.40	17.16	16.93	-0.86	13.29
Russell 1000 Value Index	11.46	-7.54	25.16	2.80	26.54	-8.27	13.66	17.34	-3.83	13.45
Mid Cap Equity	16.52	-13.11	24.67	13.58	26.13	-10.44	19.29	11.23	-1.31	N/A
Mid Cap Hybrid Index	16.44	-13.06	24.76	13.66	26.20	-10.67	19.30	11.25	-1.28	13.83
Small Cap Equity	15.99	-16.18	26.74	11.46	22.74	-10.45	16.25	18.32	-3.63	N/A
Small Cap Hybrid Index	16.05	-16.10	26.82	11.29	22.78	-10.32	16.24	18.26	-3.68	7.54
Total Fund - International Equity	14.07	-18.46	6.98	10.24	21.55	-14.50	28.00	5.26	-5.56	N/A
Small Cap - International Equity	15.19	-21.25	12.76	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FTSE Global ex U.S. Small Cap Index (Net)	15.35	-21.58	13.02	11.40	21.55	-18.91	29.78	3.93	-0.61	-4.34
Developed Markets - International Equity	17.84	-15.34	11.44	10.27	22.14	-14.49	26.46	2.46	-0.41	N/A
Vanguard Spliced Developed ex U.S. Index (Net)	17.97	-15.58	11.57	10.00	22.34	-14.79	26.31	2.29	-0.28	4.85
Emerging Markets - International Equity	9.18	-17.74	1.10	15.26	20.37	-14.54	31.43	11.76	-15.80	N/A
FTSE Emerging Mkts All Cap China A Inclusion Index	9.95	-17.26	1.76	15.84	20.81	-14.49	31.46	10.66	-13.28	2.96
MSCI Emerging Markets (Net) Index	9.83	-20.09	-2.54	18.31	18.42	-14.57	37.28	11.19	-14.92	-2.19

Returns for periods greater than one year are annualized.
 Returns are expressed as percentages.

Comparative Performance
Total Fund
As of December 31, 2024

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Fund - Fixed Income	7.70	-11.27	0.05	6.75	10.16	-0.71	3.82	4.79	-0.18	N/A
Short - Term Fixed Income	4.88	-5.61	-0.97	4.71	4.71	1.37	1.19	1.51	0.98	N/A
Bloomberg 1-5 Year Gov/Credit Idx	4.89	-5.50	-0.97	4.71	5.01	1.38	1.27	1.56	0.97	1.42
High Yield - Fixed Income	11.74	-8.97	3.78	5.38	15.90	-2.87	6.65	10.89	-1.28	N/A
Vanguard High Yield Corporate Composite Index	12.14	-10.32	4.35	7.53	14.61	-1.71	6.60	13.41	-2.53	3.34
Non-US Fixed Income	8.85	-12.89	-2.17	4.59	7.89	3.00	2.43	4.69	N/A	N/A
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	8.75	-12.72	-2.10	4.75	8.06	3.16	2.57	4.90	1.34	9.14
Real Estate	11.82	-26.20	40.47	-4.67	29.02	-5.93	4.93	8.51	2.56	N/A
Vanguard Spliced REIT Index	11.96	-26.12	40.56	-4.55	29.03	-5.86	5.07	8.60	2.52	30.38

Returns for periods greater than one year are annualized.
 Returns are expressed as percentages.

Multi Time Period Statistics
Butler County Employees Retirement Plan
As of December 31, 2024

Multi Time Period Statistics												
	3 YR Return		3 YR Standard Deviation		3 YR Sharpe Ratio		5 YR Return		5 YR Standard Deviation		5 YR Sharpe Ratio	
Total Fund Performance	1.95		13.19		-0.08		5.82		13.29		0.31	
Total Fund Policy	2.21		12.54		-0.07		6.26		12.83		0.35	
Vanguard Instl Indx;Inst (VINIX) *	8.90	(22)	17.15	(43)	0.37	(24)	14.49	(19)	18.06	(50)	0.71	(18)
S&P 500 Index	8.94		17.15		0.37		14.53		18.06		0.71	
Large Blend Median	7.88		17.13		0.31		13.39		18.06		0.65	
Vanguard Growth Index (VIGIX)	9.20	(20)	21.76	(34)	0.34	(23)	18.37	(14)	21.43	(28)	0.79	(19)
Vanguard Growth Index Hybrid	9.24		21.77		0.34		18.41		21.44		0.79	
Large Growth Median	7.36		20.59		0.27		15.68		20.54		0.69	
Vanguard Value Index (VIVIX)	7.47	(26)	15.53	(66)	0.30	(23)	9.94	(35)	17.60	(72)	0.49	(30)
Vanguard Value Index Hybrid	7.46		15.52		0.30		9.93		17.60		0.49	
Large Value Median	6.25		16.15		0.22		9.27		18.39		0.44	
Vanguard S&P MC400;Inst (VSPMX) *	4.80	(27)	20.75	(25)	0.15	(26)	10.26	(26)	22.26	(24)	0.44	(32)
S&P MidCap 400 Index	4.87		20.75		0.15		10.34		22.27		0.45	
Mid-Cap Blend Median	4.02		19.81		0.11		9.77		21.20		0.43	
Vanguard S&P SC600;Inst (VSMSX) *	1.84	(54)	22.90	(20)	0.03	(51)	8.33	(49)	24.35	(30)	0.35	(51)
S&P SmallCap 600 Index	1.91		22.90		0.03		8.36		24.34		0.35	
Small Blend Median	2.10		21.81		0.03		8.21		23.62		0.35	

* Mutual fund returns were used for this report if 3 & 5 year client specific results were not available.

The Vanguard Emerging Market Stock Index Fund performance shown may be different than actual performance as the client was invested in the ETF before transferring to the mutual fund.
All performance is reported net of fees.

Multi Time Period Statistics
Butler County Employees Retirement Plan
As of December 31, 2024

	3 YR Return		3 YR Standard Deviation		3 YR Sharpe Ratio		5 YR Return		5 YR Standard Deviation		5 YR Sharpe Ratio	
Vanguard Intl Val;Inv (VTRIX)*	1.21	(35)	16.91	(63)	-0.07	(37)	4.06	(61)	19.09	(13)	0.18	(62)
MSCI EAFE Index	2.17		16.61		-0.02		5.24		17.69		0.24	
Foreign Large Blend Median	0.67		17.17		-0.10		4.35		18.14		0.19	
Vanguard Intl Gro;Adm (VWILX)*	-4.54	(70)	22.40	(13)	-0.27	(55)	6.64	(11)	22.33	(8)	0.29	(15)
MSCI EAFE Growth Index	-2.26		18.90		-0.23		4.34		18.11		0.19	
Foreign Large Growth Median	-2.68		19.19		-0.26		3.79		19.01		0.17	
Vanguard FTSEUSSC;Ins (VFSNX) *	-2.35	(6)	17.52	(93)	-0.27	(10)	3.28	(26)	20.07	(65)	0.14	(27)
FTSE Global ex U.S. Small Cap Index (Net)	-2.38		17.14		-0.28		3.21		19.89		0.14	
Foreign Small/Mid Growth Median	-7.04		19.98		-0.46		1.27		20.63		0.05	
Vanguard Developed Markets Index (VTMNX)	0.91	(41)	17.77	(38)	-0.08	(39)	4.77	(36)	18.69	(48)	0.21	(36)
Vanguard Spliced Developed ex U.S. Index (Net)	0.97		16.96		-0.08		4.79		18.20		0.21	
Foreign Median	0.22		17.46		-0.13		4.19		18.60		0.18	
Vanguard Emerging Markets Index (VEMIX)	-0.09	(21)	16.12	(83)	-0.17	(24)	3.02	(33)	17.54	(89)	0.12	(34)
FTSE Emerging Mkts All Cap China A Inclusion Index	0.62		15.94		-0.12		3.73		17.46		0.16	
Diversified Emerging Mkts Median	-3.04		17.71		-0.29		1.49		19.04		0.05	
Vanguard Short Term Bond Index (VBIRX)	0.89	(83)	3.51	(30)	-0.87	(70)	1.26	(82)	2.85	(64)	-0.42	(82)
Bloomberg 1-5 Year Gov/Credit Idx	0.94		3.48		-0.87		1.29		2.83		-0.41	
Short-Term Bond Median	1.68		2.90		-0.76		1.78		3.08		-0.19	
Vanguard Tot Bd:Inst (VBTIX) *	-2.40	(44)	7.65	(61)	-0.80	(49)	-0.30	(54)	6.36	(67)	-0.40	(61)
Blmbg. U.S. Aggregate Index	-2.41		7.72		-0.79		-0.33		6.37		-0.41	
Intermediate Core Bond Median	-2.46		7.71		-0.80		-0.26		6.46		-0.38	
Vanguard High Yield Bond Fund (VWEAX)	2.66	(47)	8.25	(46)	-0.11	(46)	3.43	(56)	8.58	(76)	0.15	(56)
Vanguard High Yield Corporate Composite Index	2.35		8.01		-0.15		3.76		8.56		0.19	
High Yield Bond Median	2.58		8.18		-0.12		3.55		9.12		0.16	

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Multi Time Period Statistics
Butler County Employees Retirement Plan
As of December 31, 2024

	3 YR Return		3 YR Standard Deviation		3 YR Sharpe Ratio		5 YR Return		5 YR Standard Deviation		5 YR Sharpe Ratio	
Vanguard Tot Itl Bl;Inst (VTIFX) *	-0.55	(24)	6.27	(87)	-0.69	(35)	0.12	(25)	5.35	(93)	-0.41	(42)
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	-0.50		6.03		-0.71		0.20		5.17		-0.41	
Global Bond Median	-4.53		9.82		-0.78		-2.18		8.82		-0.45	
Vanguard Em Mkt Bond;Adm (VEGBX)*	1.96	(14)	11.02	(75)	-0.12	(13)	3.81	(1)	11.43	(75)	0.17	(1)
JPM GBI-EM Diversified	-2.28		11.78		-0.47		-2.96		11.66		-0.41	
Emerging-Markets Local-Currency Bond Median	0.47		11.16		-0.24		-0.52		12.23		-0.18	
Vanguard Real Estate Index Fund (VGSNX)	-4.68	(61)	21.54	(16)	-0.29	(54)	3.01	(68)	21.63	(23)	0.13	(67)
Vanguard Spliced REIT Index	-4.57		21.54		-0.29		3.12		21.62		0.14	
Real Estate Median	-4.17		20.96		-0.29		3.47		21.01		0.15	

* Mutual fund returns were used for this report if 3 & 5 year client specific results were not available.

The Vanguard Emerging Market Stock Index Fund performance shown may be different than actual performance as the client was invested in the ETF before transferring to the mutual fund.
All performance is reported net of fees.

Multi Time Period Statistics
Butler County Employees Retirement Plan
As of December 31, 2024

Multi Time Period Statistics												
	10 YR Return		10 YR Standard Deviation		10 YR Sharpe Ratio		15 YR Return		15 YR Standard Deviation		15 YR Sharpe Ratio	
Total Fund Performance	6.32		11.31		0.45		7.77		10.84		0.64	
Total Fund Policy	6.56		11.03		0.48		8.08		10.76		0.67	
Vanguard Instl Indx;Inst (VINIX) *	13.07	(8)	15.46	(56)	0.78	(7)	13.85	(7)	15.01	(62)	0.88	
S&P 500 Index	13.10		15.46		0.78		13.88		15.01		0.88	
Large Blend Median	11.89		15.54		0.70		12.76		15.31		0.80	
Vanguard Growth Index (VIGIX)	15.75	(19)	18.80	(43)	0.80	(22)	N/A		N/A		N/A	
Vanguard Growth Index Hybrid	15.80		18.82		0.80		15.90		17.62		0.88	
Large Growth Median	14.42		18.44		0.74		14.41		17.65		0.80	
Vanguard Value Index (VIVIX)	10.01	(14)	15.05	(72)	0.60	(11)	11.63	(13)	14.78	(69)	0.75	
Vanguard Value Index Hybrid	10.01		15.04		0.60		11.67		14.78		0.75	
Large Value Median	8.65		15.70		0.50		10.36		15.53		0.64	
Vanguard S&P MC400;Inst (VSPMX)*	9.61	(19)	19.07	(30)	0.49	(27)	N/A		N/A		N/A	
S&P MidCap 400 Index	9.68		19.08		0.50		11.92		18.48		0.65	
Mid-Cap Blend Median	8.94		18.43		0.46		10.89		18.01		0.60	
Vanguard S&P SC600;Inst (VSMSX)*	8.94	(18)	21.07	(40)	0.44	(25)	N/A		N/A		N/A	
S&P SmallCap 600 Index	8.96		21.06		0.44		11.66		20.06		0.60	
Small Blend Median	7.88		20.86		0.39		10.47		20.03		0.54	

* Mutual fund returns were used for this report if 10 & 15 year client specific results were not available.

The Vanguard Emerging Market Stock Index Fund performance shown may be different than actual performance as the client was invested in the ETF before transferring to the mutual fund.

All performance is reported net of fees.

Multi Time Period Statistics
Butler County Employees Retirement Plan
As of December 31, 2024

	10 YR Return		10 YR Standard Deviation		10 YR Sharpe Ratio		15 YR Return		15 YR Standard Deviation		15 YR Sharpe Ratio	
Vanguard Intl Val;Inv (VTRIX)*	4.61	(68)	17.51	(23)	0.25	(71)	4.63	(75)	17.73	(18)	0.28	(77)
MSCI EAFE Index	5.71		16.25		0.32		5.74		16.32		0.36	
Foreign Large Blend Median	4.92		16.81		0.27		5.15		16.86		0.31	
Vanguard Intl Gro;Adm (VWILX)*	8.68	(6)	21.74	(9)	0.41	(13)	8.10	(7)	20.72	(3)	0.42	(18)
MSCI EAFE Growth Index	6.22		16.94		0.34		6.33		16.69		0.38	
Foreign Large Growth Median	5.52		18.02		0.29		5.83		17.69		0.34	
Vanguard FTSEUSSC;Ins (VFSNX)*	4.71	(55)	18.92	(81)	0.25	(55)	5.24	(81)	18.92	(58)	0.31	(82)
FTSE Global ex U.S. Small Cap Index (Net)	4.46		18.82		0.24		N/A		N/A		N/A	
Foreign Small/Mid Growth Median	4.86		20.10		0.26		6.42		19.09		0.36	
Vanguard Developed Markets Index (VTMNX)	5.48	(32)	16.90	(64)	0.30	(29)	5.45	(45)	17.01	(59)	0.33	(43)
Vanguard Spliced Developed ex U.S. Index (Net)	5.43		16.71		0.30		5.40		16.64		0.33	
Foreign Median	4.93		17.43		0.27		5.34		17.27		0.32	
Vanguard Emerging Markets Index (VEMIX)	4.02	(37)	17.24	(91)	0.22	(35)	N/A		N/A		N/A	
FTSE Emerging Mkts All Cap China A Inclusion Index	4.58		17.26		0.25		3.94		17.16		0.25	
Diversified Emerging Mkts Median	3.39		18.64		0.18		3.01		18.49		0.19	
Vanguard Sh-Tm B;Inst (VBITX)*	1.62	(68)	2.59	(64)	-0.04	(69)	1.77	(71)	2.25	(65)	0.28	(66)
Bloomberg 1-5 Year Gov/Credit Idx	1.66		2.59		-0.03		1.85		2.25		0.31	
Short-Term Bond Median	1.87		2.75		0.06		2.04		2.44		0.36	
Vanguard Tot Bd;Inst (VBTIX)*	1.34	(47)	5.30	(50)	-0.05	(47)	2.35	(56)	4.72	(48)	0.26	(54)
Blmbg. U.S. Aggregate Index	1.35		5.27		-0.05		2.37		4.68		0.27	
Intermediate Core Bond Median	1.31		5.30		-0.06		2.40		4.71		0.27	
Vanguard HY Corp;Adm (VWEAX)*	4.60	(36)	7.34	(86)	0.42	(25)	5.93	(27)	6.70	(90)	0.72	(8)
Vanguard High Yield Corporate Composite Index	4.79		7.59		0.43		6.00		6.88		0.71	
High Yield Bond Median	4.38		8.34		0.36		5.63		7.73		0.59	

* Mutual fund returns were used for this report if 10 & 15 year client specific results were not available.

The Vanguard Emerging Market Stock Index Fund performance shown may be different than actual performance as the client was invested in the ETF before transferring to the mutual fund.

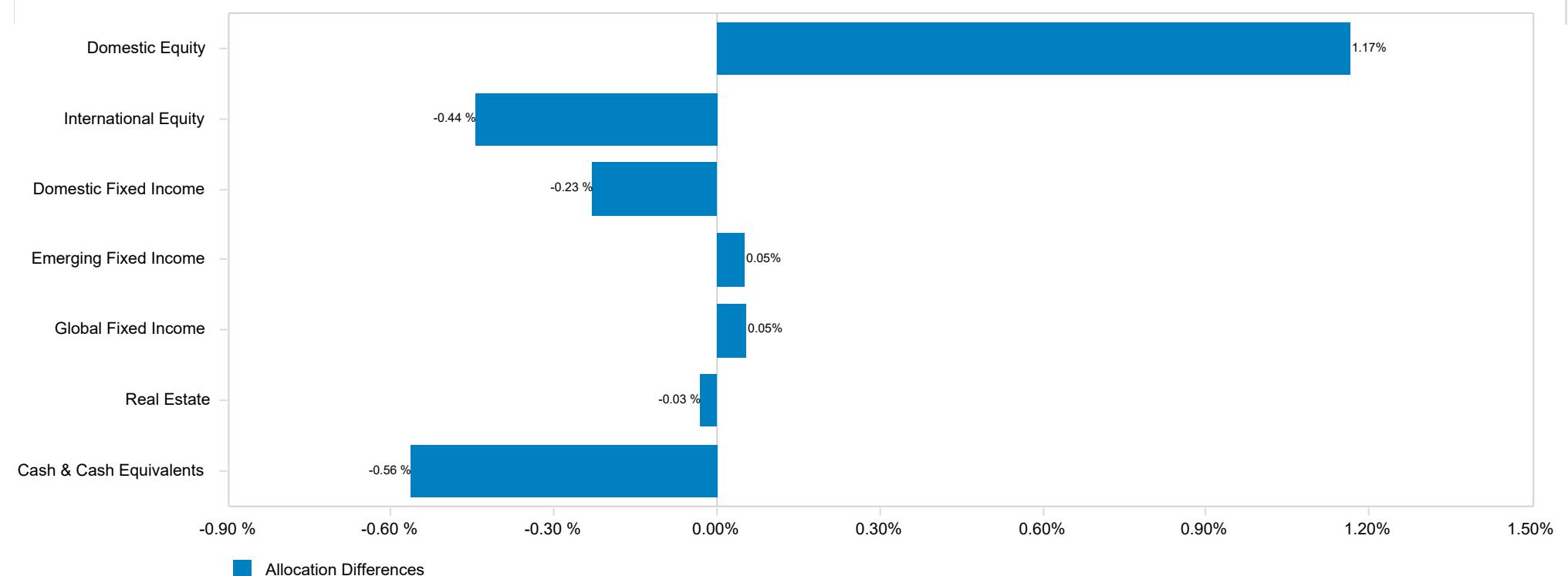
All performance is reported net of fees.

Multi Time Period Statistics
Butler County Employees Retirement Plan
As of December 31, 2024

	10 YR Return		10 YR Standard Deviation		10 YR Sharpe Ratio		15 YR Return	15 YR Standard Deviation	15 YR Sharpe Ratio
Vanguard Tot Itl Bl;Inst (VTIFX)*	1.94	(7)	4.61	(95)	0.06	(7)	N/A	N/A	N/A
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	2.08		4.55		0.09		N/A	N/A	N/A
Global Bond Median	0.06		8.10		-0.16		1.11	7.49	0.03
Vanguard Em Mkt Bond;Adm (VEGBX)*	N/A		N/A		N/A		N/A	N/A	N/A
JPM GBI-EM Diversified	-0.19		12.58		-0.09		0.78	12.22	0.03
Emerging-Markets Local-Currency Bond Median	0.44		13.30		-0.03		1.31	12.69	0.07
Vanguard Real Estate Index Fund (VGSNX)	5.09		17.84		0.27		N/A	N/A	N/A
Vanguard Spliced REIT Index	5.18		17.86		0.28		8.99	17.00	0.53

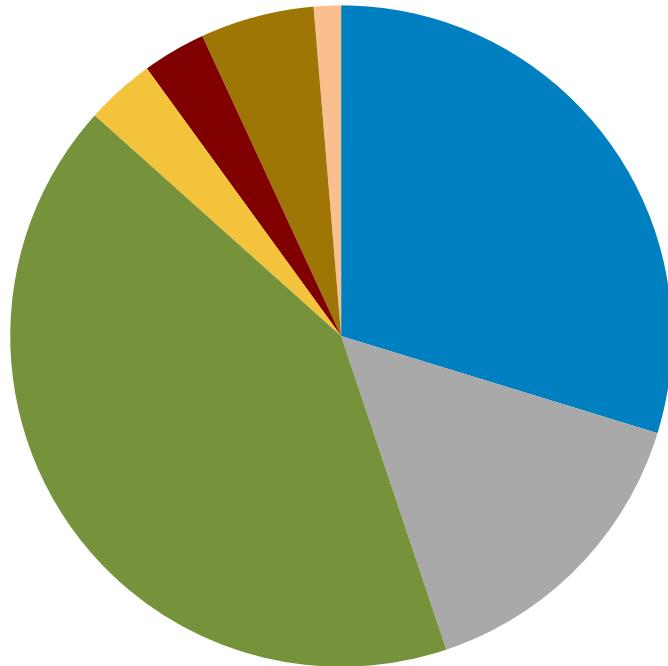
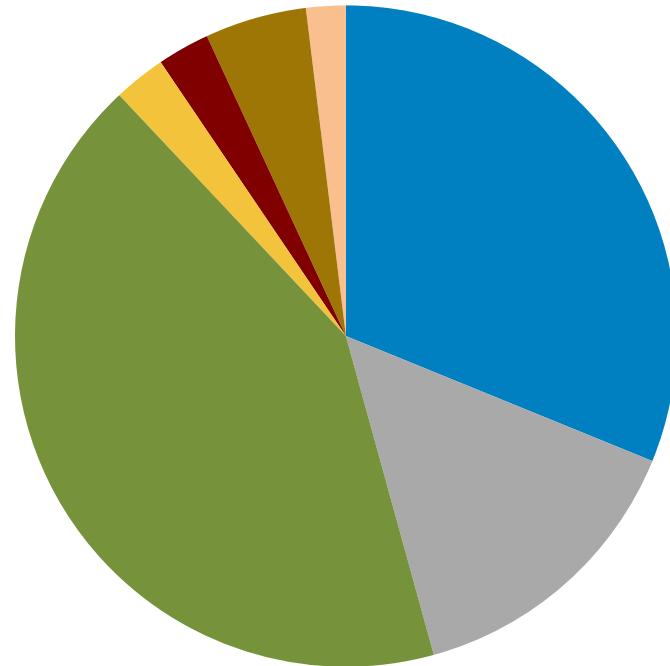
* Mutual fund returns were used for this report if 10 & 15 year client specific results were not available.

The Vanguard Emerging Market Stock Index Fund performance shown may be different than actual performance as the client was invested in the ETF before transferring to the mutual fund.
All performance is reported net of fees.



Asset Allocation Compliance

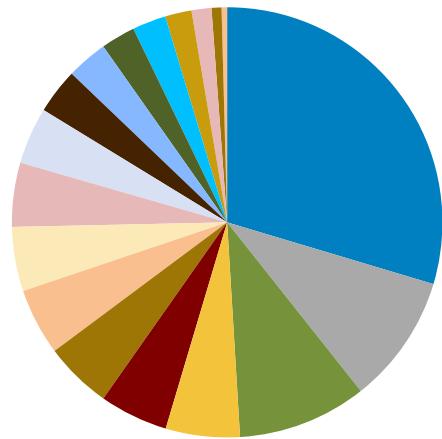
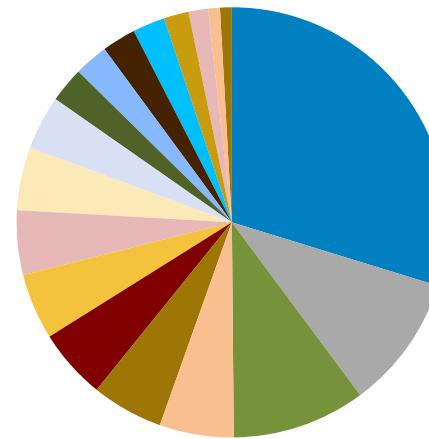
	Current Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)
Domestic Equity	31.17	30.00	5.00	55.00
International Equity	14.56	15.00	5.00	30.00
Domestic Fixed Income	42.27	42.50	15.00	70.00
Emerging Fixed Income	2.55	2.50	0.00	5.00
Global Fixed Income	2.55	2.50	0.00	5.00
Real Estate	4.97	5.00	0.00	10.00
Cash & Cash Equivalents	1.94	2.50	0.00	5.00
Total Fund	100.00	100.00	N/A	N/A

Asset Allocation By Segment as of
September 30, 2024 : \$283,849,917Asset Allocation By Segment as of
December 31, 2024 : \$274,086,387**Allocation**

Segments	Market Value	Allocation
Domestic Equity	84,423,103	29.7
International Equity	42,902,468	15.1
Domestic Fixed Income	118,559,404	41.8
Emerging Fixed Income	9,613,904	3.4
Global Fixed Income	8,781,831	3.1
Real Estate	15,784,489	5.6
Cash	3,784,718	1.3

Allocation

Segments	Market Value	Allocation
Domestic Equity	85,419,516	31.2
International Equity	39,894,861	14.6
Domestic Fixed Income	115,854,228	42.3
Emerging Fixed Income	6,991,118	2.6
Global Fixed Income	6,997,736	2.6
Real Estate	13,620,845	5.0
Cash	5,308,082	1.9

Asset Allocation By Manager as of
Sep-2024 : \$283,849,917Asset Allocation By Manager as of
Dec-2024 : \$274,086,387

Allocation

	Market Value	Allocation
Vanguard Total Bond Index (VBTIX)	84,106,881	29.6
Vanguard Mid-Cap 400 Index Fund I (VSPMX)	27,563,654	9.7
Vanguard High Yield Bond Fund (VWEAX)	27,546,135	9.7
Vanguard Real Estate Index Fund (VGSNX)	15,784,489	5.6
Vanguard Small-Cap 600 Index I (VSMSX)	14,579,479	5.1
Vanguard Inst'l Index Fund (VINIX)	14,385,549	5.1
Vanguard Growth Index (VIGIX)	14,256,821	5.0
Vanguard Emerging Markets Index (VEMIX)	13,716,251	4.8
Vanguard Value Index (VIVIX)	13,637,601	4.8
Vanguard Developed Markets Index (VTMNX)	12,126,362	4.3
Vanguard EM Bond (VEGBX)	9,660,395	3.4
Vanguard International Bond (VTIFX)	8,798,724	3.1
Vanguard Short Term Bond Index (VBIRX)	7,317,186	2.6
Vanguard FTSE AW ex-US SC Index (VFSNX)	7,179,771	2.5
Vanguard Intl Value (VTRIX)	5,635,911	2.0
Vanguard Intl Growth (VWILX)	4,244,173	1.5
Disbursement & MF Cash	2,111,444	0.7
NMA	1,199,089	0.4

Allocation

	Market Value	Allocation
Vanguard Total Bond Index (VBTIX)	81,551,626	29.8
Vanguard Mid-Cap 400 Index Fund I (VSPMX)	27,652,303	10.1
Vanguard High Yield Bond Fund (VWEAX)	27,470,432	10.0
Vanguard Growth Index (VIGIX)	15,250,314	5.6
Vanguard Inst'l Index Fund (VINIX)	14,730,905	5.4
Vanguard Small-Cap 600 Index I (VSMSX)	14,492,484	5.3
Vanguard Real Estate Index Fund (VGSNX)	13,620,845	5.0
Vanguard Value Index (VIVIX)	13,293,511	4.9
Vanguard Emerging Markets Index (VEMIX)	12,981,696	4.7
Vanguard Developed Markets Index (VTMNX)	11,135,174	4.1
Vanguard Short Term Bond Index (VBIRX)	7,261,821	2.6
Vanguard International Bond (VTIFX)	6,997,736	2.6
Vanguard EM Bond (VEGBX)	6,991,118	2.6
Vanguard FTSE AW ex-US SC Index (VFSNX)	6,647,840	2.4
Vanguard Intl Value (VTRIX)	5,116,652	1.9
Vanguard Intl Growth (VWILX)	4,013,499	1.5
NMA	2,443,305	0.9
Disbursement & MF Cash	2,435,127	0.9

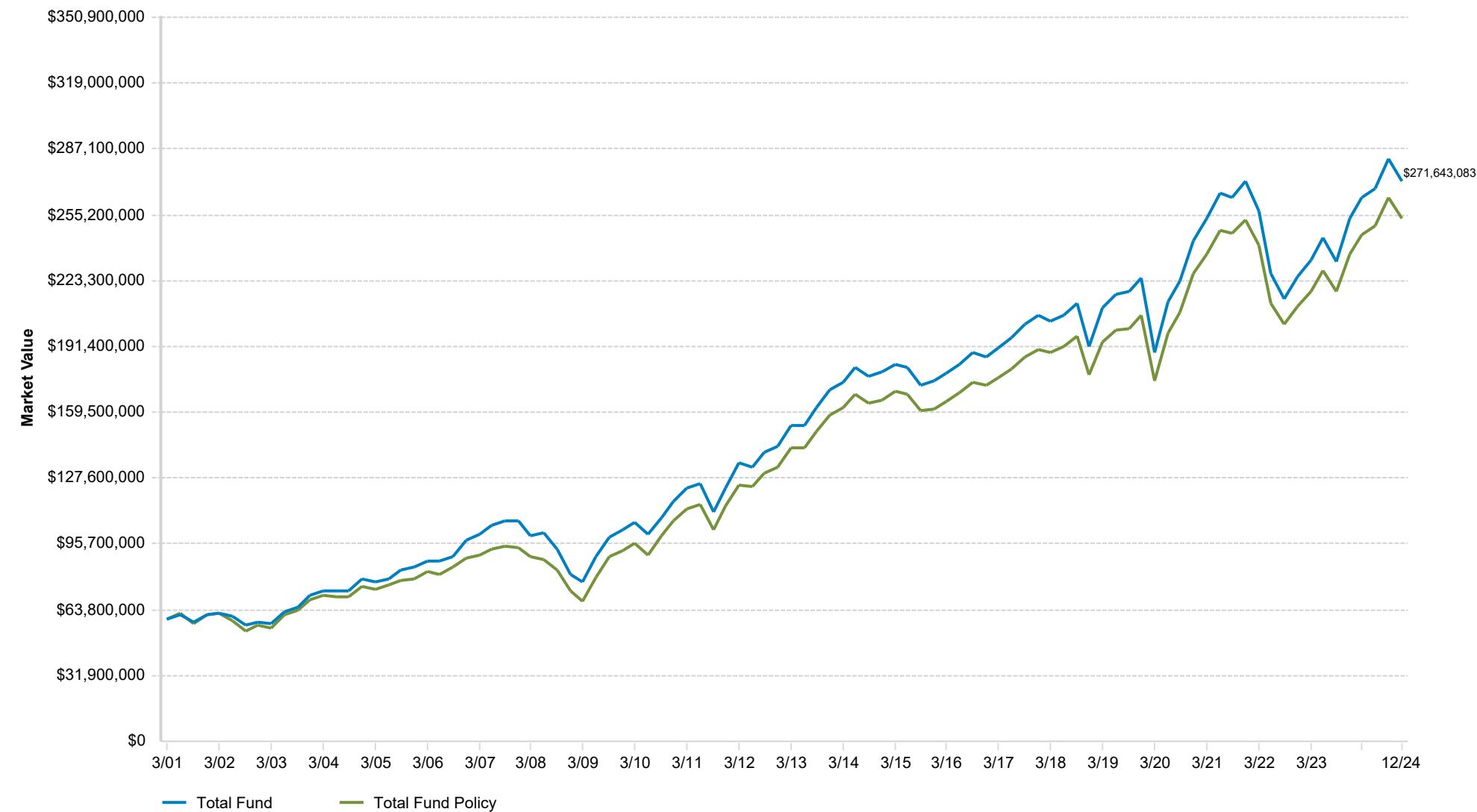
Asset Allocation Attributes																	
	Domestic Equity		International Equity		Domestic Fixed Income		Emerging Fixed Income		Global Fixed Income		Real Estate		Cash		Total Fund		
	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	
Vanguard Inst'l Index Fund (VINIX)	14,731	100.0	-	-	-	-	-	-	-	-	-	-	-	-	14,731	5.4	
Vanguard Value Index (VIVIX)	13,294	100.0	-	-	-	-	-	-	-	-	-	-	-	-	13,294	4.9	
Vanguard Small-Cap 600 Index I (VSMSX)	14,492	100.0	-	-	-	-	-	-	-	-	-	-	-	-	14,492	5.3	
Vanguard Mid-Cap 400 Index Fund I (VSPMX)	27,652	100.0	-	-	-	-	-	-	-	-	-	-	-	-	27,652	10.1	
Vanguard Growth Index (VIGIX)	15,250	100.0	-	-	-	-	-	-	-	-	-	-	-	-	15,250	5.6	
Twin Capital Enhanced Index	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	
Vanguard Intl Value (VTRIX)	-	-	5,117	100.0	-	-	-	-	-	-	-	-	-	-	5,117	1.9	
Vanguard Intl Growth (VWILX)	-	-	4,013	100.0	-	-	-	-	-	-	-	-	-	-	4,013	1.5	
Vanguard FTSE AW ex-US SC Index (VFSNX)	-	-	6,648	100.0	-	-	-	-	-	-	-	-	-	-	6,648	2.4	
Vanguard Developed Markets Index (VTMNX)	-	-	11,135	100.0	-	-	-	-	-	-	-	-	-	-	11,135	4.1	
Vanguard Emerging Markets Index (VEMIX)	-	-	12,982	100.0	-	-	-	-	-	-	-	-	-	-	12,982	4.7	
Vanguard High Yield Bond Fund (VWEAX)	-	-	-	-	27,328	99.5	-	-	-	-	-	-	-	142	0.5	27,470	10.0
Vanguard Short Term Bond Index (VBIRX)	-	-	-	-	7,239	99.7	-	-	-	-	-	-	-	22	0.3	7,262	2.6
Vanguard Total Bond Index (VBTIX)	-	-	-	-	81,287	99.7	-	-	-	-	-	-	-	265	0.3	81,552	29.8
Vanguard International Bond (VTIFX)	-	-	-	-	-	-	-	-	6,998	100.0	-	-	-	-	6,998	2.6	
Vanguard EM Bond (VEGBX)	-	-	-	-	-	-	6,991	100.0	-	-	-	-	-	-	6,991	2.6	
Vanguard Real Estate Index Fund (VGSNX)	-	-	-	-	-	-	-	-	-	-	13,621	100.0	-	-	13,621	5.0	
Disbursement & MF Cash	-	-	-	-	-	-	-	-	-	-	-	-	2,435	100.0	2,435	0.9	
NMA	-	-	-	-	-	-	-	-	-	-	-	-	2,443	100.0	2,443	0.9	
Total Fund	85,420	31.2	39,895	14.6	115,854	42.3	6,991	2.6	6,998	2.6	13,621	5.0	5,308	1.9	274,086	100.0	

Schedule of Investable Assets

Total Fund

January 1, 2001 To December 31, 2024

Schedule of Investable Assets



Schedule of Investable Assets

Periods Ending	Beginning Market Value \$	Net Cash Flow \$	Gain/Loss \$	Ending Market Value \$	%Return
Jan-2001 To Dec-2024	59,528,253	-34,252,915	246,367,744	271,643,083	350.65

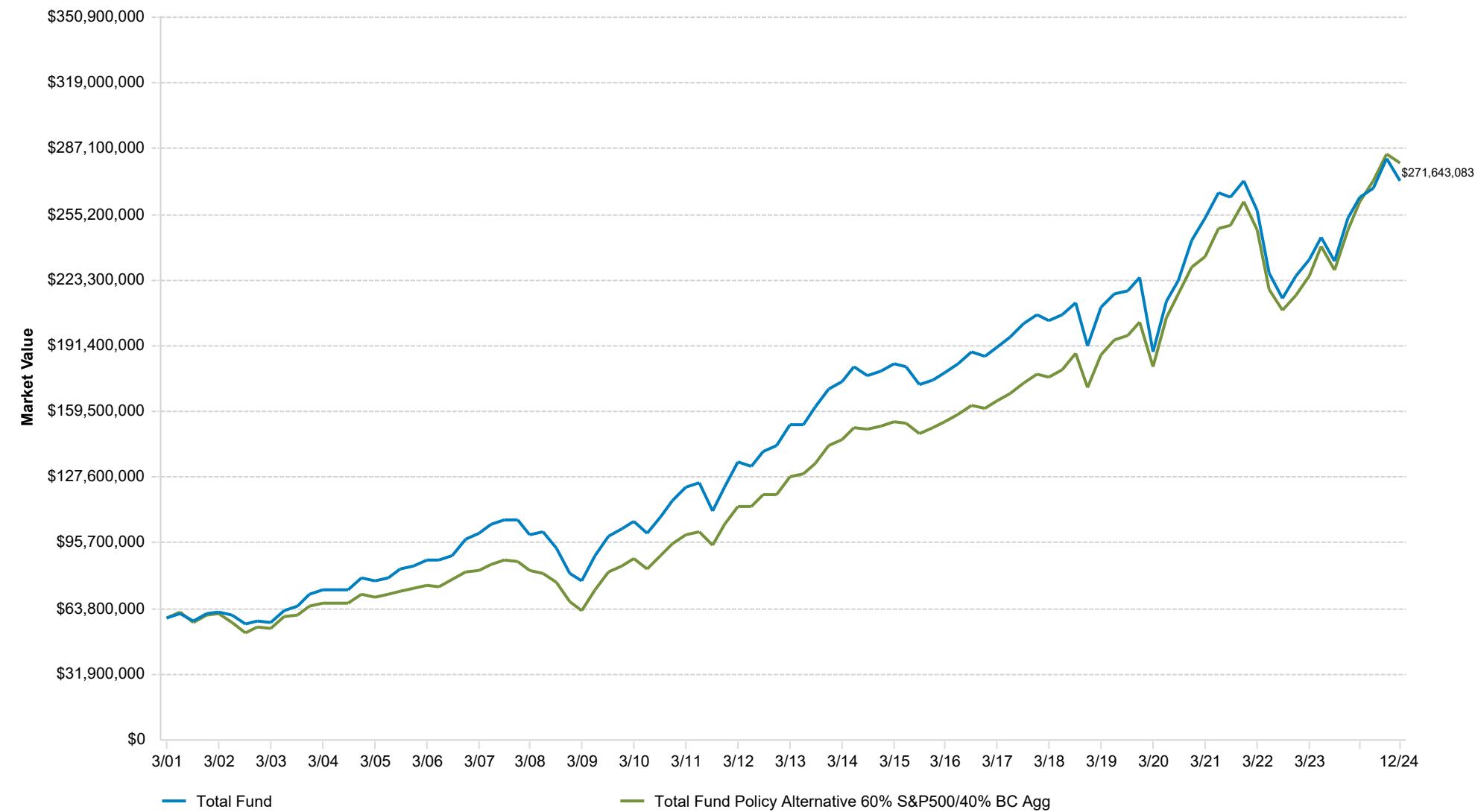
Does not include Non-Measured Assets (NMA).

Schedule of Investable Assets

Total Fund

January 1, 2001 To December 31, 2024

Schedule of Investable Assets



Schedule of Investable Assets

Periods Ending	Beginning Market Value \$	Net Cash Flow \$	Gain/Loss \$	Ending Market Value \$	%Return
Jan-2001 To Dec-2024	59,528,253	-34,252,915	246,367,744	271,643,083	350.65

Does not include Non-Measured Assets (NMA).

Fee Analysis
Total Fund
As of December 31, 2024

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Vanguard Inst'l Index Fund (VINIX)	0.03	14,730,905	4,419	0.03 % of Assets
Vanguard Growth Index (VIGIX)	0.04	15,250,314	6,100	0.04 % of Assets
Vanguard Value Index (VIVIX)	0.04	13,293,511	5,317	0.04 % of Assets
Vanguard Mid-Cap 400 Index Fund I (VSPMX)	0.08	27,652,303	22,122	0.08 % of Assets
Vanguard Small-Cap 600 Index I (VSMSX)	0.08	14,492,484	11,594	0.08 % of Assets
Vanguard Intl Value (VTRIX)	0.35	5,116,652	17,908	0.35 % of Assets
Vanguard Intl Growth (VWILX)	0.33	4,013,499	13,245	0.33 % of Assets
Vanguard FTSE AW ex-US SC Index (VFSNX)	0.11	6,647,840	7,313	0.11 % of Assets
Vanguard Developed Markets Index (VTMNX)	0.05	11,135,174	5,568	0.05 % of Assets
Vanguard Emerging Markets Index (VEMIX)	0.10	12,981,696	12,982	0.10 % of Assets
Vanguard Short Term Bond Index (VBIRX)	0.07	7,261,821	5,083	0.07 % of Assets
Vanguard Total Bond Index (VBTIX)	0.03	81,551,626	24,465	0.03 % of Assets
Vanguard High Yield Bond Fund (VWEAX)	0.13	27,470,432	35,712	0.13 % of Assets
Vanguard International Bond (VTIFX)	0.07	6,997,736	4,898	0.07 % of Assets
Vanguard EM Bond (VEGBX)	0.45	6,991,118	31,460	0.45 % of Assets
Vanguard Real Estate Index Fund (VGSNX)	0.10	13,620,845	13,621	0.10 % of Assets
Total Fund Performance	0.08	271,643,083	221,807	

Does not include Non-Measured Assets (NMA).

Fee information on this page is an illustrative estimate of management fees based on current reported portfolio values. Fee estimates do not reflect actual calculation methodologies or applicable carried interest.

Financial Reconciliation
Total Fund
as of December 31, 2024

Quarter To Date	Market Value 10/01/2024	Management Fees	Net Flows	Return On Investment	Market Value 12/31/2024
Domestic Equity					
Vanguard Inst'l Index Fund (VINIX)	14,385,549	-	-	345,355	14,730,905
Vanguard Value Index (VIVIX)	13,637,601	-	-	-344,090	13,293,511
Vanguard Small-Cap 600 Index I (VSMSX)	14,579,479	-	-	-86,995	14,492,484
Vanguard Mid-Cap 400 Index Fund I (VSPMX)	27,563,654	-	-	88,650	27,652,303
Vanguard Growth Index (VIGIX)	14,256,821	-	-	993,493	15,250,314
International Equity					
Vanguard Intl Value (VTRIX)	5,635,911	-	-	-519,259	5,116,652
Vanguard Intl Growth (VWILX)	4,244,173	-	-	-230,675	4,013,499
Vanguard FTSE AW ex-US SC Index (VFSNX)	7,179,771	-	-	-531,931	6,647,840
Vanguard Developed Markets Index (VTMNX)	12,126,362	-	-	-991,188	11,135,174
Vanguard Emerging Markets Index (VEMIX)	13,716,251	-	-	-734,555	12,981,696
Fixed Income					
Vanguard Short Term Bond Index (VBIRX)	7,317,186	-	-	-55,366	7,261,821
Vanguard Total Bond Index (VBTIX)	84,106,881	-	-	-2,555,255	81,551,626
Vanguard High Yield Bond Fund (VWEAX)	27,546,135	-	-	-75,703	27,470,432
Vanguard International Bond (VTIFX)	8,798,724	-	-1,800,000	-988	6,997,736
Vanguard EM Bond (VEGBX)	9,660,395	-	-2,500,000	-169,278	6,991,118
REIT					
Vanguard Real Estate Index Fund (VGSNX)	15,784,489	-	-1,000,000	-1,163,644	13,620,845
Disbursement & MF Cash	2,111,444	-	292,894	30,789	2,435,127
Total Fund Performance	282,650,827	-	-5,007,106	-6,000,639	271,643,083
NMA	1,199,089	-	1,244,215	-	2,443,305
Total Fund	283,849,917	-	-3,762,891	-6,000,639	274,086,387

Financial Reconciliation
Total Fund
as of December 31, 2024

Year To Date	Market Value 01/01/2024	Management Fees	Net Flows	Return On Investment	Market Value 12/31/2024
Domestic Equity					
Vanguard Inst'l Index Fund (VINIX)	40,081,751	-	-30,000,000	4,649,154	14,730,905
Vanguard Value Index (VIVIX)	13,359,679	-	-2,000,000	1,933,832	13,293,511
Vanguard Small-Cap 600 Index I (VSMSX)	13,340,645	-	-	1,151,839	14,492,484
Vanguard Mid-Cap 400 Index Fund I (VSPMX)	27,191,747	-	-3,000,000	3,460,557	27,652,303
Vanguard Growth Index (VIGIX)	14,317,772	-	-3,000,000	3,932,542	15,250,314
International Equity					
Vanguard Intl Value (VTRIX)	5,063,789	-	-	52,864	5,116,652
Vanguard Intl Growth (VWILX)	3,665,897	-	-	347,602	4,013,499
Vanguard FTSE AW ex-US SC Index (VFSNX)	6,477,533	-	-	170,307	6,647,840
Vanguard Developed Markets Index (VTMNX)	10,811,007	-	-	324,167	11,135,174
Vanguard Emerging Markets Index (VEMIX)	11,690,738	-	-	1,290,958	12,981,696
Fixed Income					
Vanguard Short Term Bond Index (VBIRX)	3,980,762	-	3,000,000	281,059	7,261,821
Vanguard Total Bond Index (VBTIX)	44,387,626	-	35,000,000	2,164,000	81,551,626
Vanguard High Yield Bond Fund (VWEAX)	25,821,779	-	-	1,648,653	27,470,432
Vanguard International Bond (VTIFX)	8,491,754	-	-1,800,000	305,982	6,997,736
Vanguard EM Bond (VEGBX)	8,860,878	-	-2,500,000	630,240	6,991,118
REIT					
Vanguard Real Estate Index Fund (VGSNX)	13,893,100	-	-1,000,000	727,745	13,620,845
Disbursement & MF Cash	1,706,370	-	551,127	177,630	2,435,127
Total Fund Performance	253,142,827	-	-4,748,873	23,249,128	271,643,083
NMA	3,360,184	-	-916,879	-	2,443,305
Total Fund	256,503,010	-	-5,665,751	23,249,128	274,086,387

Goals

- Maintain the actuarial soundness of the Plan in order to meet future obligations by preserving the inflation adjusted value of the Plan's assets after all investment expenses, administrative costs, benefit payments and refunds.
- Obtain an average annual rate of investment return equal to or greater than the actuarial assumed rate of 6.9% (net of fees), with an emphasis over a longer term (fifteen year) trailing period.

Asset Allocation Ranges (Based on IPS Addendum)

Asset Class	Minimum	Target	Maximum
Large Cap Core	0%	5%	10%
Large Cap Value	0%	5%	10%
Large Cap Growth	0%	5%	10%
Mid Cap Core	5%	10%	15%
Small Cap Core	0%	5%	10%
International Developed Markets	5%	7.5%	15%
International Emerging Markets	0%	5%	10%
All World ex US Small Cap	0%	2.5%	5%
Aggregate Fixed Income	10%	30%	50%
Short-Term Fixed Income	0%	2.5%	5%
High Yield Fixed Income	5%	10%	15%
Non-US Fixed Income	0%	5%	10%
Real Estate	0%	5%	10%
Cash	0%	2.5%	5%

Rebalancing Policy

The Investment Consultant will monitor the asset allocation policy and shall recommend any necessary rebalancing on a quarterly basis, or more frequently. At each quarterly Board meeting, the Investment Consultant will provide the Plan's actual and target allocations (including ranges). Upon any Board approval, the Investment Consultant will initiate rebalancing.

Other Portfolio Guidelines and Restrictions

- Additional investment policies and guidelines are contained in the formal Investment Policy Statement.

Portfolio Guidelines and Restrictions

Equity Guidelines

- Equity investment manager of a separate account should diversify their portfolio in an attempt to minimize the impact of a substantial loss in any specific sector, industry or company.
- No more than 5% of each manager's equity holdings shall be invested in the securities of any one company (valued at market).
- The economic sector weightings shall not exceed the greater of two and half times the appropriate benchmark, valued at market, or 15% of the equity portfolio.
- The market for individual security holdings in the equity portfolio shall be liquid enough to allow for easy monetization.

Fixed Income Guidelines

- A fixed income investment manager of a separate account should diversify their portfolio in an attempt to minimize the adverse effects of interest rate fluctuations and default risk.
- No more than 5% of the fixed income portfolio in any one issuer, excluding direct and/or indirect obligations of the US Government.
- The market for individual security holdings in the fixed income shall be liquid enough to allow for easy monetization.
- The minimum quality rating for any fixed income security is an "investment grade" rating as determined by at least one nationally recognized credit ratings agency. Bond held in the fixed income portfolio must be rated investment grade ("Baa/BBB") or better by at least one agency, with the exception of securities held in a high-yield bond fund.
- The duration of the bonds held in the portfolios are at the discretion of the investment manager(s). However, the effective duration of the fixed income security should be within +/-20% of the index.

Cash & Equivalents Restrictions

- Commercial paper must be rated A-1 or P-1 by at least one nationally recognized credit rating agency.

Permissible Investments

- Permissible investments include those identified in the Plan's Asset Allocation Policy, subject to state statute and local ordinance.

Prohibited Investments

- Prohibited investments include those not specifically identified in the Plan's Asset Allocation Policy without prior approval of the Board, upon recommendation of the Investment Consultant.

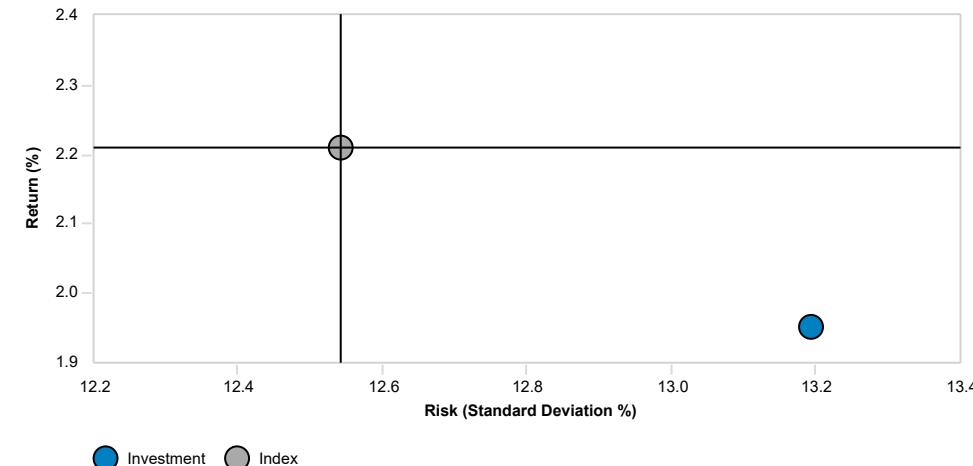
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	1.95	13.19	-0.08	104.48	7	106.25	5
Index	2.21	12.54	-0.07	100.00	7	100.00	5

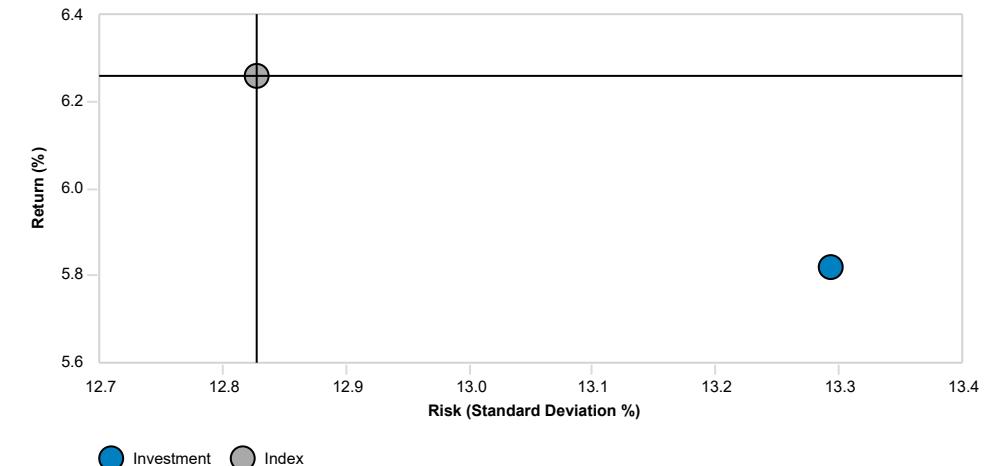
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	5.82	13.29	0.31	102.25	13	105.72	7
Index	6.26	12.83	0.35	100.00	13	100.00	7

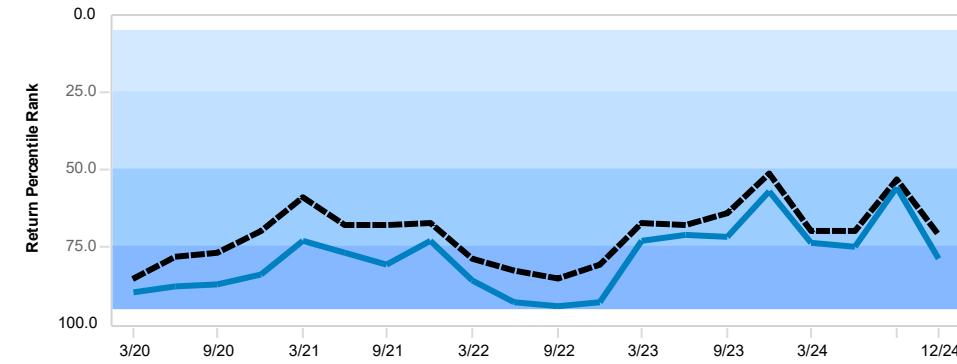
Risk and Return 3 Years



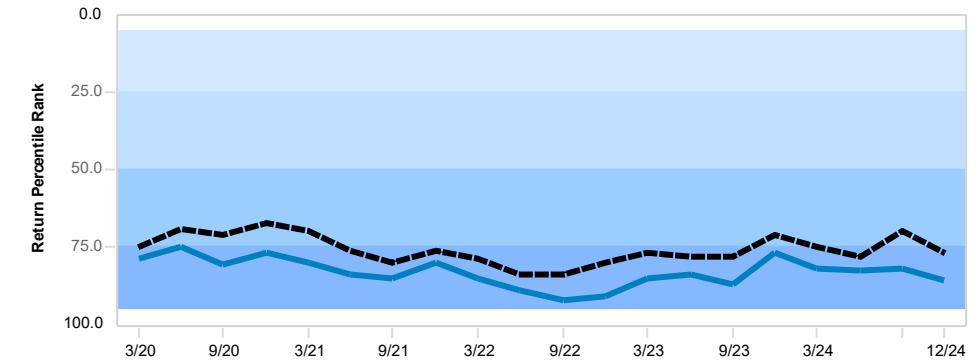
Risk and Return 5 Years



3 Year Rolling Percentile Rank All Public Plans-Total Fund



5 Year Rolling Percentile Rank All Public Plans-Total Fund

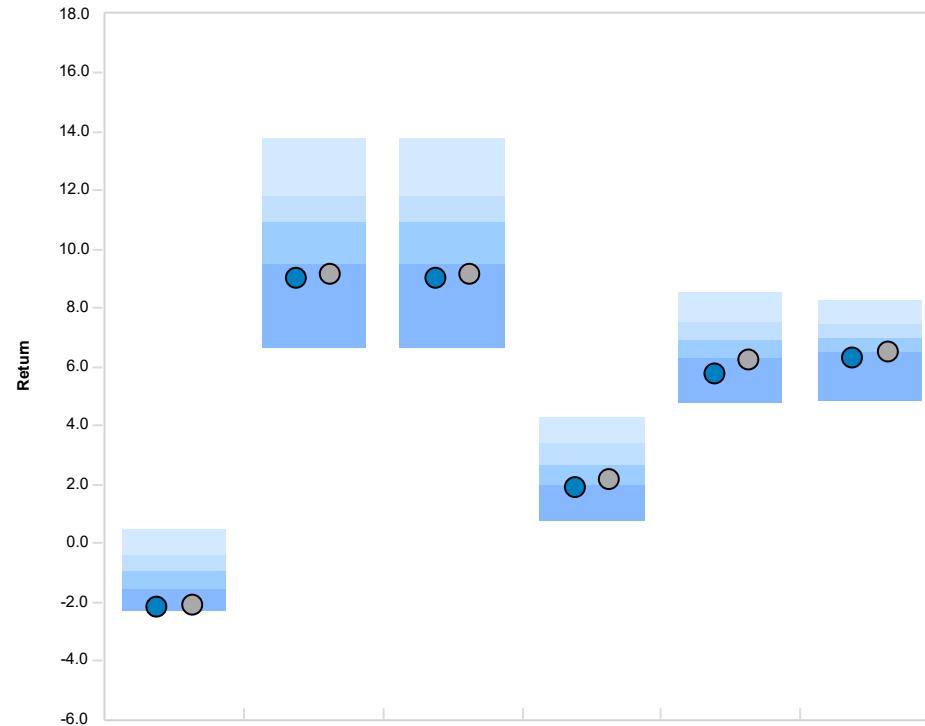


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	0 (0%)	9 (45%)	11 (55%)
Index	20	0 (0%)	0 (0%)	13 (65%)	7 (35%)

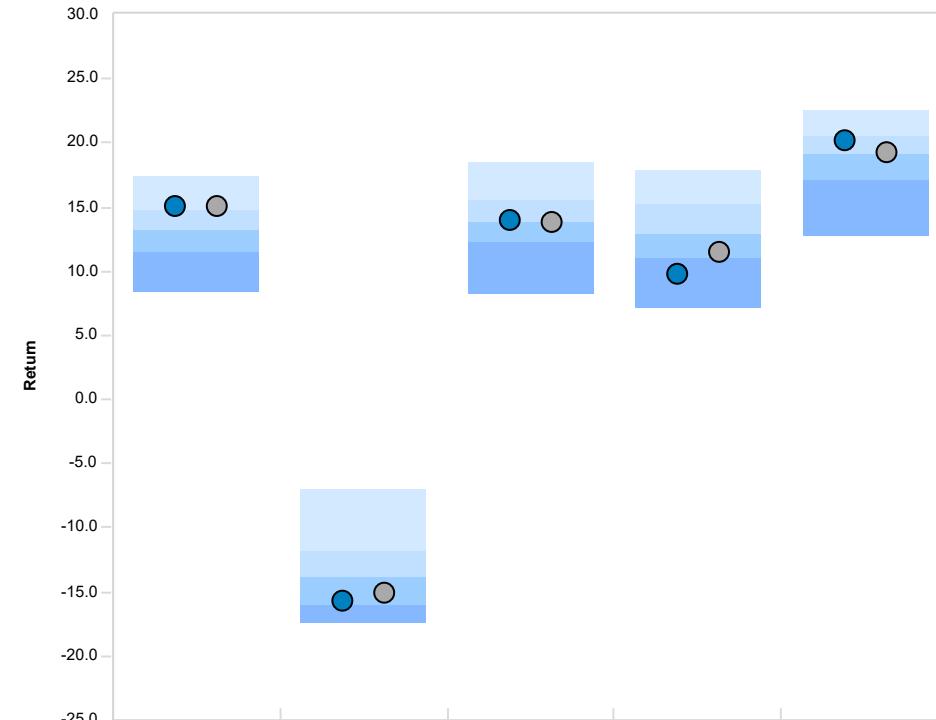
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	0 (0%)	1 (5%)	19 (95%)
Index	20	0 (0%)	0 (0%)	8 (40%)	12 (60%)

Does not include Non-Measured Assets (NMA).

Plan Sponsor Peer Group Analysis vs. All Public Plans-Total Fund



Plan Sponsor Peer Group Analysis vs. All Public Plans-Total Fund



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
● Investment	-2.14 (91)	9.07 (81)	9.07 (81)	1.95 (79)	5.82 (86)	6.32 (81)
○ Index	-2.04 (88)	9.22 (79)	9.22 (79)	2.21 (71)	6.26 (77)	6.56 (75)
Median	-0.95	10.94	10.94	2.71	6.96	7.03

	2023	2022	2021	2020	2019
● Investment	15.13 (20)	-15.61 (73)	14.00 (47)	9.84 (85)	20.21 (34)
○ Index	15.06 (20)	-15.03 (66)	13.87 (50)	11.44 (69)	19.29 (49)
Median	13.27	-13.80	13.80	12.96	19.18

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 04/01/2001	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	59,528,253	-35,098,955	247,213,785	271,643,083

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	6.57	0.11	4.47	10.06	-3.29	3.29
Index	6.69	0.28	4.20	9.66	-2.92	3.37

Does not include Non-Measured Assets (NMA).

Strategy Review
Vanguard Institutional Index I | S&P 500 Index
As of December 31, 2024

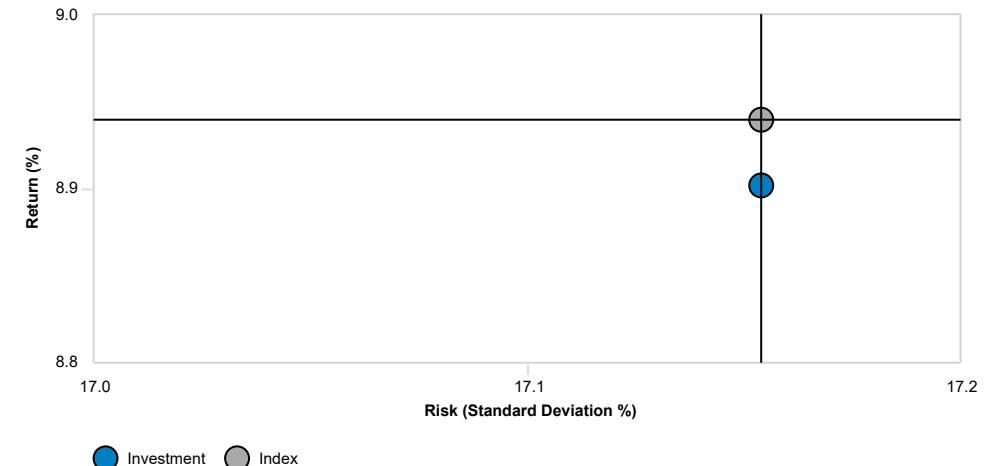
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	8.90	17.15	0.37	99.93	8	100.06	4
Index	8.94	17.15	0.37	100.00	8	100.00	4

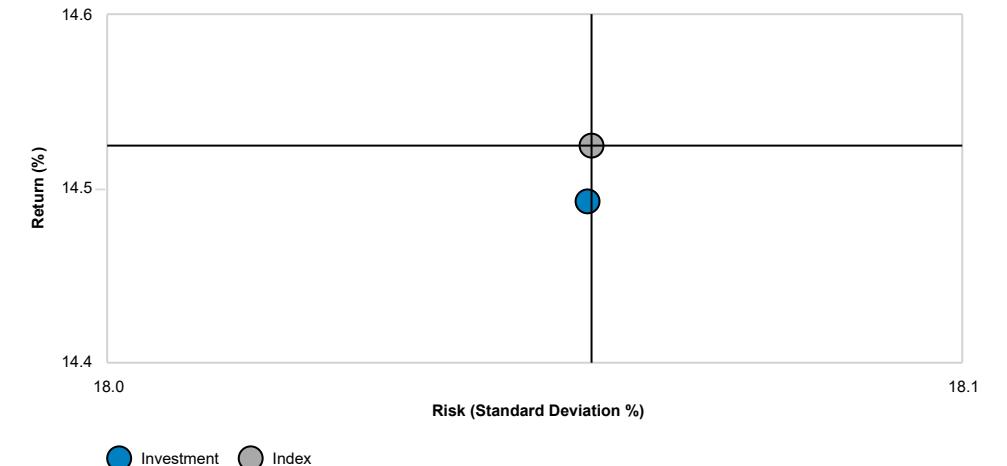
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	14.49	18.06	0.71	99.95	15	100.05	5
Index	14.53	18.06	0.71	100.00	15	100.00	5

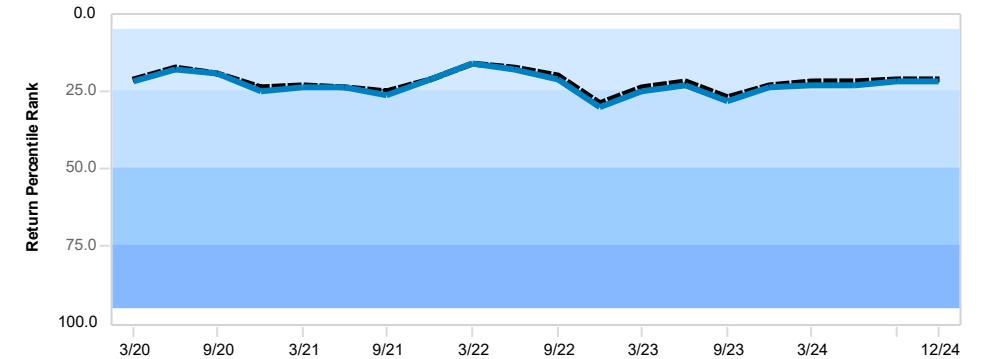
Risk and Return 3 Years



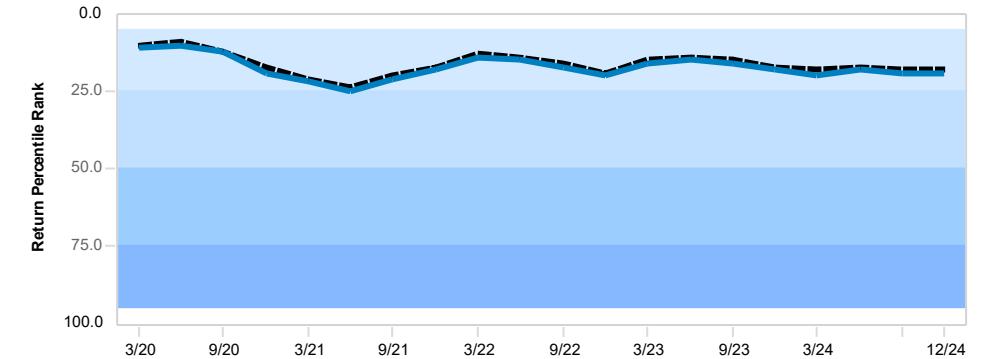
Risk and Return 5 Years



3 Year Rolling Percentile Rank Large Blend



5 Year Rolling Percentile Rank Large Blend

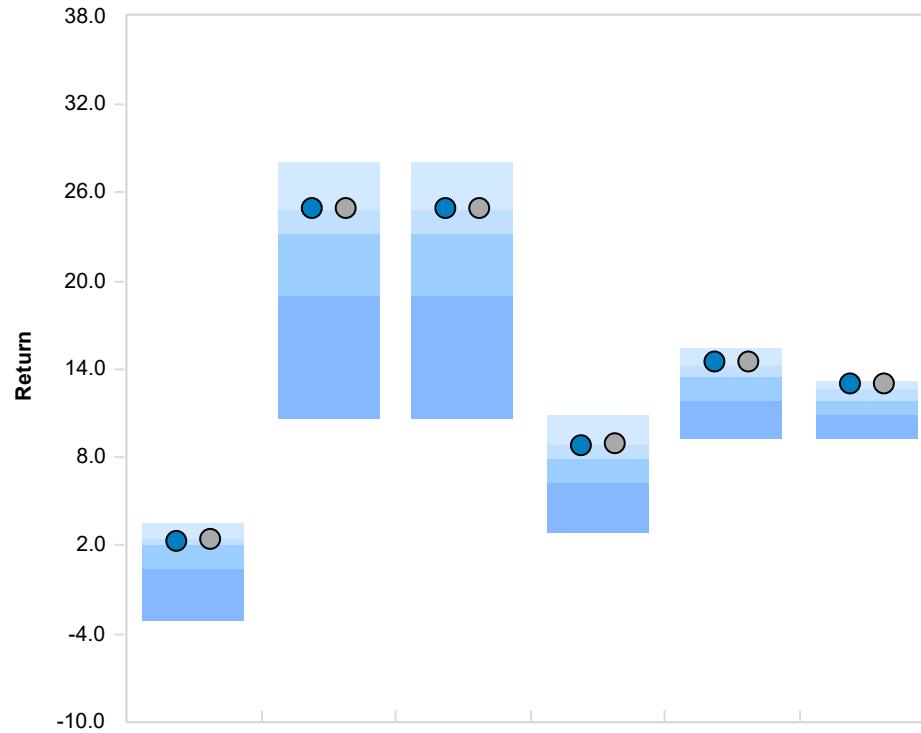


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	17 (85%)	3 (15%)	0 (0%)	0 (0%)
Index	20	18 (90%)	2 (10%)	0 (0%)	0 (0%)

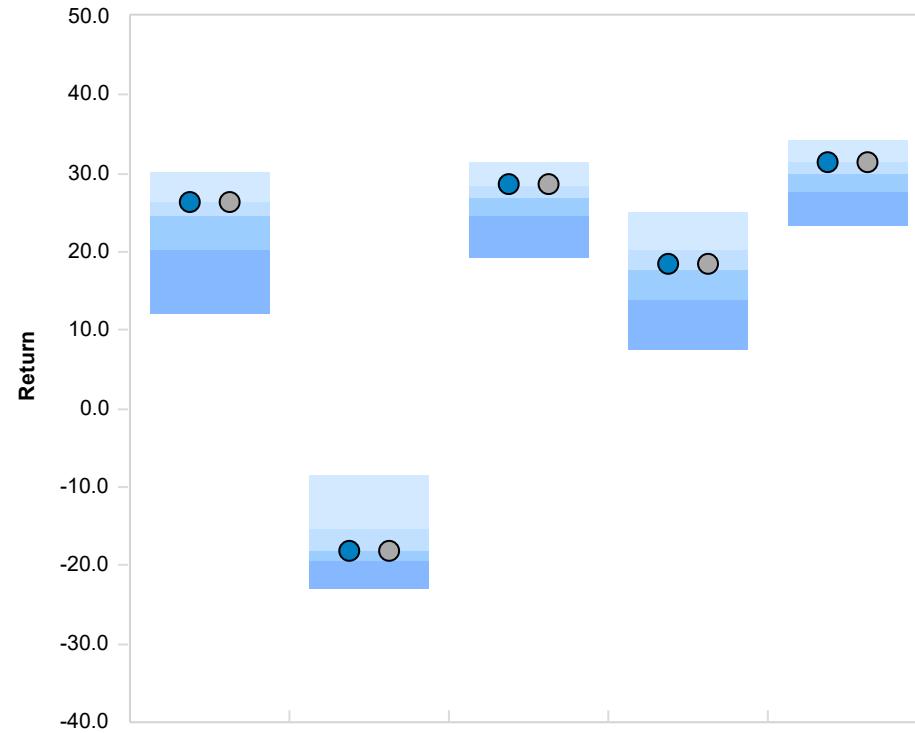
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	20 (100%)	0 (0%)	0 (0%)	0 (0%)
Index	20	20 (100%)	0 (0%)	0 (0%)	0 (0%)

Inception date for VINIX is 12/2020. Manager returns for VINIX have been used for this report.

Peer Group Analysis - Large Blend



Peer Group Analysis - Large Blend



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	2.40 (29)	24.97 (23)	24.97 (23)	8.90 (22)	14.49 (19)	13.07 (8)
Index	2.41 (28)	25.02 (22)	25.02 (22)	8.94 (21)	14.53 (18)	13.10 (8)
Median	2.05	23.23	23.23	7.88	13.39	11.89

	2023	2022	2021	2020	2019
Investment	26.24 (25)	-18.14 (49)	28.67 (21)	18.39 (38)	31.46 (23)
Index	26.29 (24)	-18.11 (48)	28.71 (20)	18.40 (38)	31.49 (23)
Median	24.66	-18.23	26.79	17.64	30.03

Financial Reconciliation Since Inception Ending December 31, 2024

No data found.

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	5.88 (40)	4.28 (20)	10.54 (44)	11.68 (48)	-3.28 (50)	8.73 (23)
Index	5.89 (39)	4.28 (19)	10.56 (43)	11.69 (47)	-3.27 (49)	8.74 (22)
Median	5.76	3.28	10.47	11.64	-3.28	8.07

Inception date for VINIX is 12/2020. Manager returns for VINIX have been used for this report.

Fund Information As of 12/31/2024

Fund Name :	Vanguard Institutional Index I	Portfolio Assets :	\$125,535 Million
Fund Family :	Vanguard	Portfolio Manager :	Birkett,N/Louie,M
Ticker :	VINIX	PM Tenure :	7 Years 1 Month
Inception Date :	07/31/1990	Fund Style :	Large Blend
Fund Assets :	\$314,898 Million	Style Benchmark :	Russell 1000 Index
Portfolio Turnover :	3%		

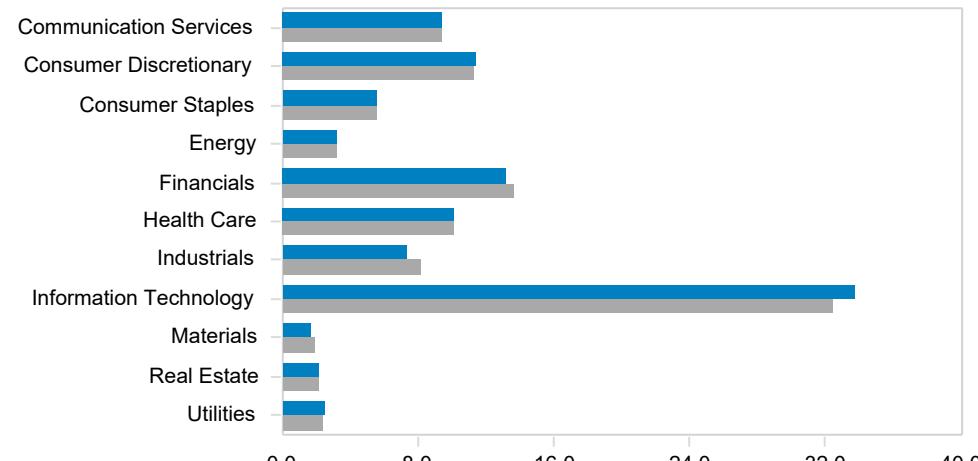
Portfolio Characteristics As of 12/31/2024

	Portfolio	Benchmark
Total Securities	506	503
Avg. Market Cap	-	-
Price/Earnings (P/E)	21.83	27.07
Price/Book (P/B)	4.33	5.13
Dividend Yield	1.43	1.30
Annual EPS	N/A	N/A
5 Yr EPS	N/A	N/A
3 Yr EPS Growth	N/A	N/A
Beta (3 Years, Monthly)	1.00	1.00

Top Ten Securities As of 12/31/2024

Apple Inc	7.6 %
NVIDIA Corp	6.6 %
Microsoft Corp	6.3 %
Amazon.com Inc	4.1 %
Meta Platforms Inc Class A	2.6 %
Tesla Inc	2.3 %
Alphabet Inc Class A	2.2 %
Broadcom Inc	2.2 %
Alphabet Inc Class C	1.8 %
Berkshire Hathaway Inc Class B	1.7 %
Total	37.3 %

Sector Weights As of 12/31/2024



Region (%) As of 12/31/2024

No data found.

Strategy Review
Vanguard Growth Index (VIGIX) | Vanguard Growth Index Hybrid
As of December 31, 2024

Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.20	21.76	0.34	99.90	7	100.01	5
Index	9.24	21.77	0.34	100.00	7	100.00	5

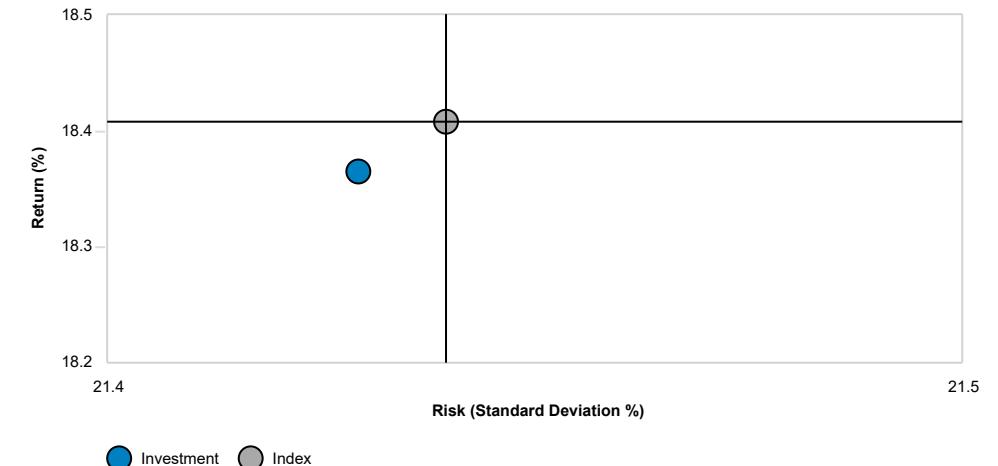
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	18.37	21.43	0.79	99.91	14	100.01	6
Index	18.41	21.44	0.79	100.00	14	100.00	6

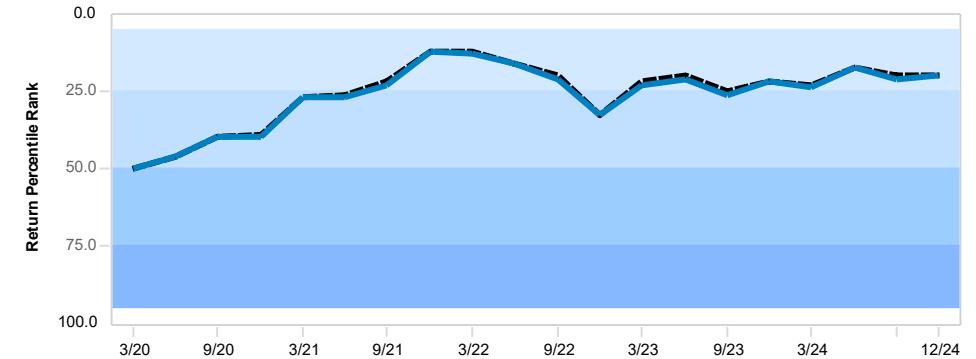
Risk and Return 3 Years



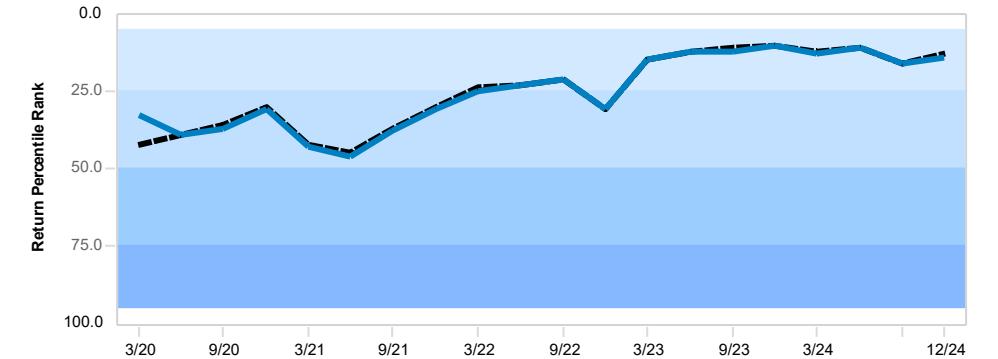
Risk and Return 5 Years



3 Year Rolling Percentile Rank Large Growth



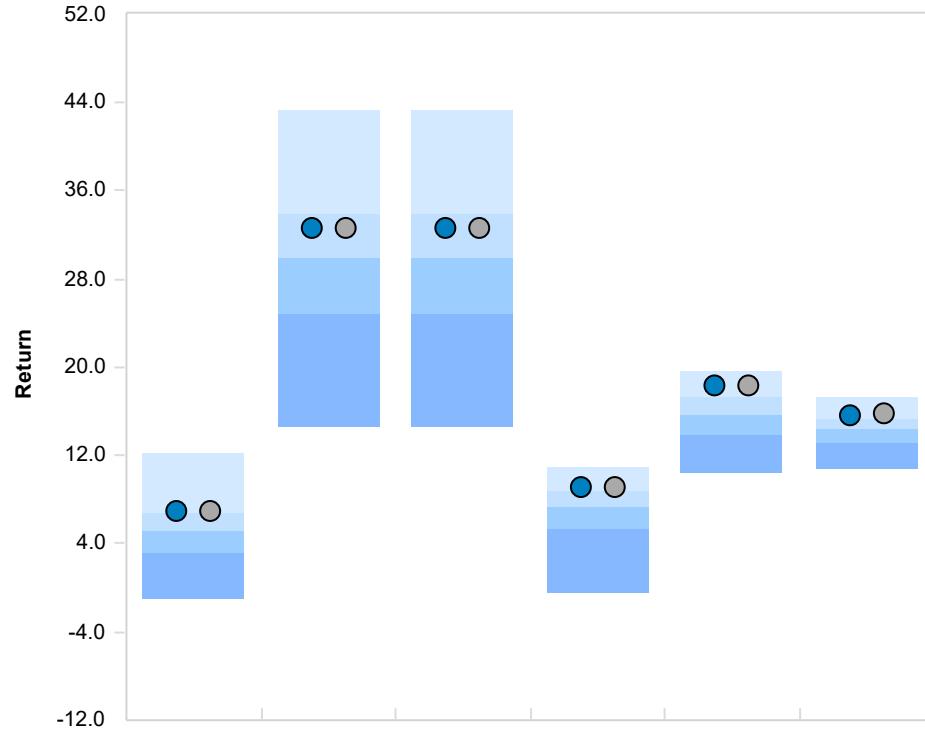
5 Year Rolling Percentile Rank Large Growth



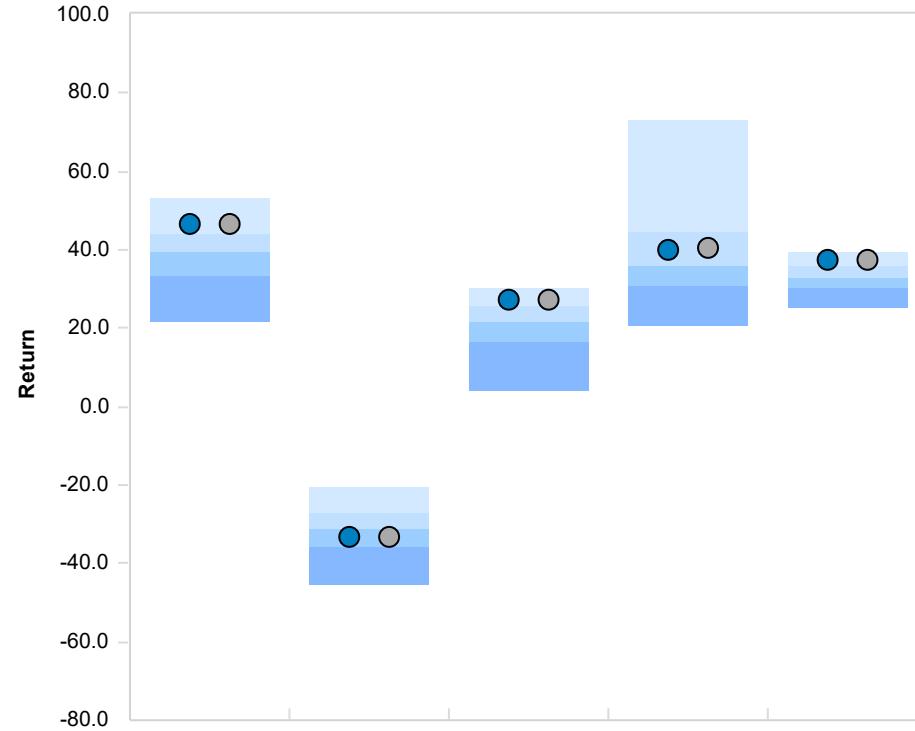
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	12 (60%)	8 (40%)	0 (0%)	0 (0%)
Index	20	13 (65%)	7 (35%)	0 (0%)	0 (0%)

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	11 (55%)	9 (45%)	0 (0%)	0 (0%)
Index	20	11 (55%)	9 (45%)	0 (0%)	0 (0%)

Peer Group Analysis - Large Growth



Peer Group Analysis - Large Growth



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	6.97 (24)	32.68 (32)	32.68 (32)	9.20 (20)	18.37 (14)	15.75 (19)
Index	6.98 (24)	32.73 (32)	32.73 (32)	9.24 (20)	18.41 (13)	15.80 (18)
Median	5.26	30.00	30.00	7.36	15.68	14.42

	2023	2022	2021	2020	2019
Investment	46.78 (17)	-33.14 (66)	27.27 (17)	40.20 (35)	37.25 (14)
Index	46.86 (17)	-33.13 (66)	27.30 (17)	40.27 (35)	37.31 (14)
Median	39.34	-31.16	21.89	36.16	32.89

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 05/01/2010	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	16,642,537	-30,644,975	29,252,752	15,250,314

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	2.92 (53)	8.66 (12)	10.91 (69)	14.41 (37)	-3.69 (51)	13.61 (23)
Index	2.93 (53)	8.68 (12)	10.91 (69)	14.42 (36)	-3.68 (50)	13.63 (22)
Median	3.14	6.00	12.52	14.02	-3.69	12.01

Fund Information As of 12/31/2024

Fund Name : Vanguard Growth Index Institutional
 Fund Family : Vanguard
 Ticker : VIGIX
 Inception Date : 05/14/1998
 Fund Assets : \$284,412 Million
 Portfolio Turnover : 5%

Portfolio Assets : \$39,106 Million
 Portfolio Manager : Nejman,W/O'Reilly,G
 PM Tenure : 30 Years
 Fund Style : Large Growth
 Style Benchmark : Russell 1000 Growth Index

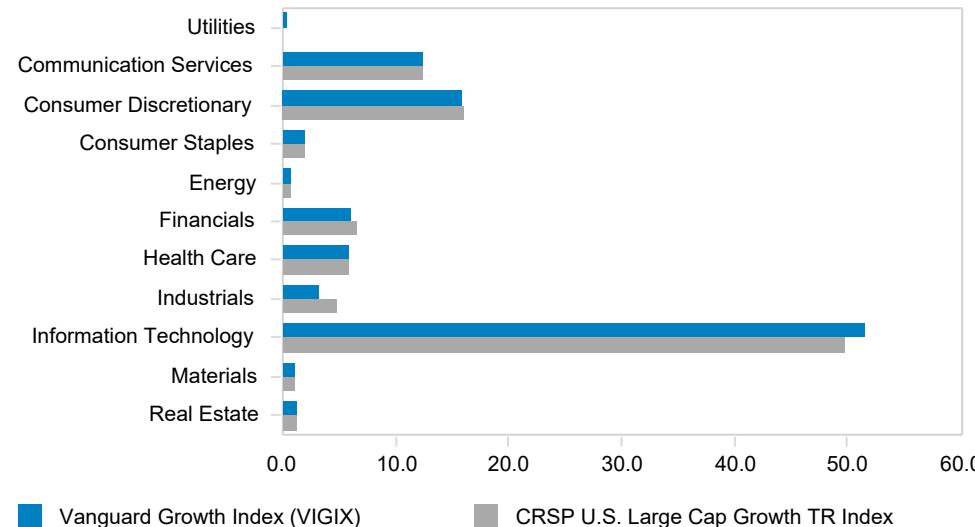
Portfolio Characteristics As of 12/31/2024

	Portfolio	Benchmark
Total Securities	182	178
Avg. Market Cap	-	-
Price/Earnings (P/E)	31.54	38.31
Price/Book (P/B)	10.07	11.92
Dividend Yield	0.52	0.49
Annual EPS	N/A	N/A
5 Yr EPS	N/A	N/A
3 Yr EPS Growth	N/A	N/A
Beta (5 Years, Monthly)	1.00	1.00

Top Ten Securities As of 12/31/2024

Apple Inc	13.4 %
Microsoft Corp	11.1 %
NVIDIA Corp	11.0 %
Amazon.com Inc	7.3 %
Meta Platforms Inc Class A	4.5 %
Tesla Inc	3.9 %
Alphabet Inc Class A	3.0 %
Alphabet Inc Class C	2.4 %
Eli Lilly and Co	2.3 %
Broadcom Inc	1.9 %
Total	61.0 %

Sector Weights As of 12/31/2024



Region (%) As of 12/31/2024

No data found.

Strategy Review
Vanguard Value Index (VIVIX) | Vanguard Value Index Hybrid
As of December 31, 2024

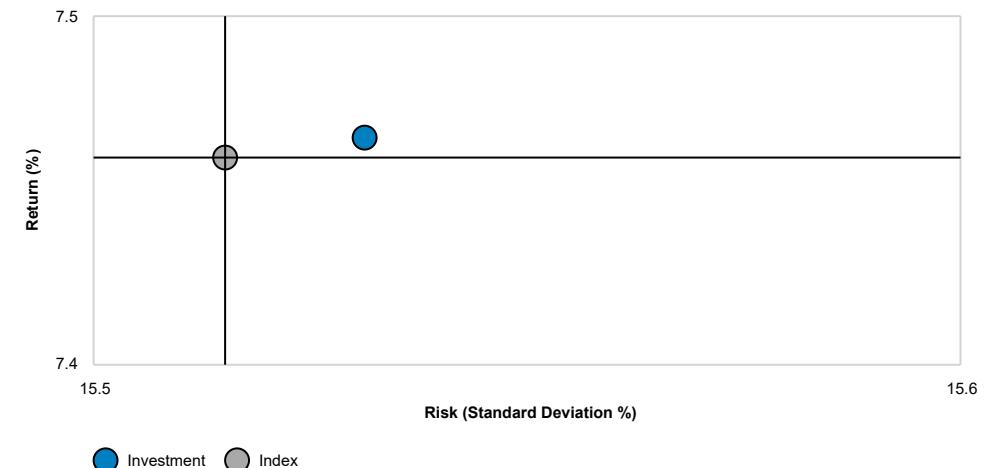
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	7.47	15.53	0.30	100.08	6	100.07	6
Index	7.46	15.52	0.30	100.00	6	100.00	6

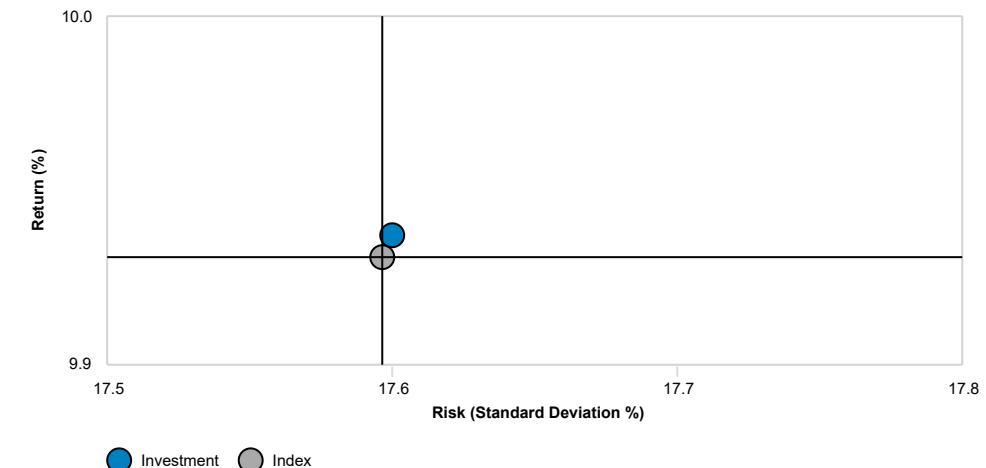
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.94	17.60	0.49	100.02	12	100.00	8
Index	9.93	17.60	0.49	100.00	12	100.00	8

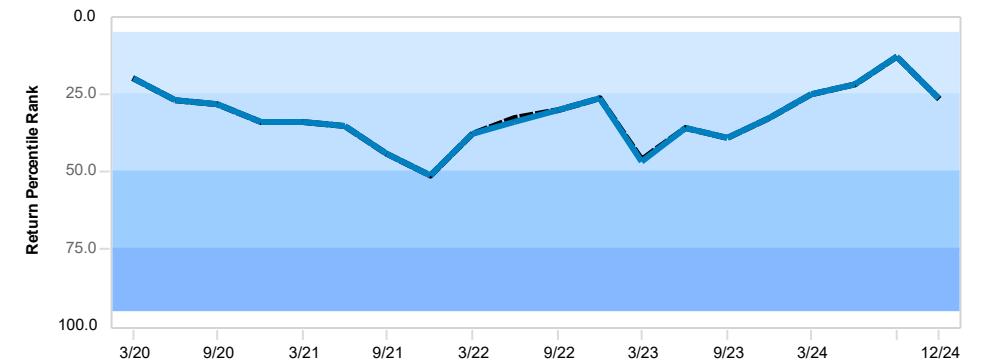
Risk and Return 3 Years



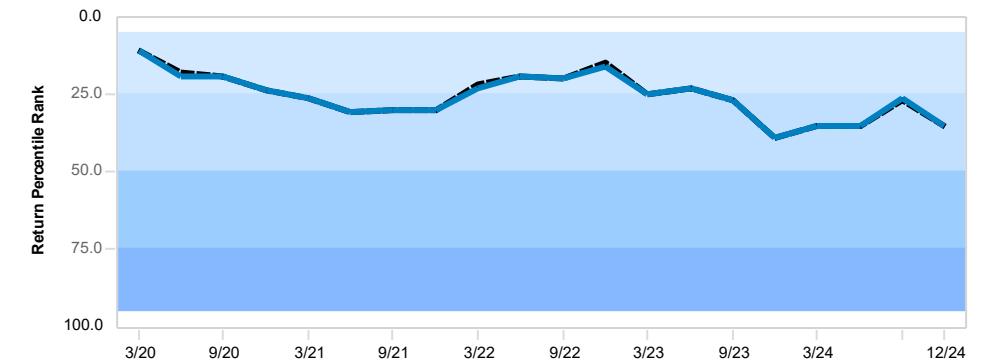
Risk and Return 5 Years



3 Year Rolling Percentile Rank Large Value



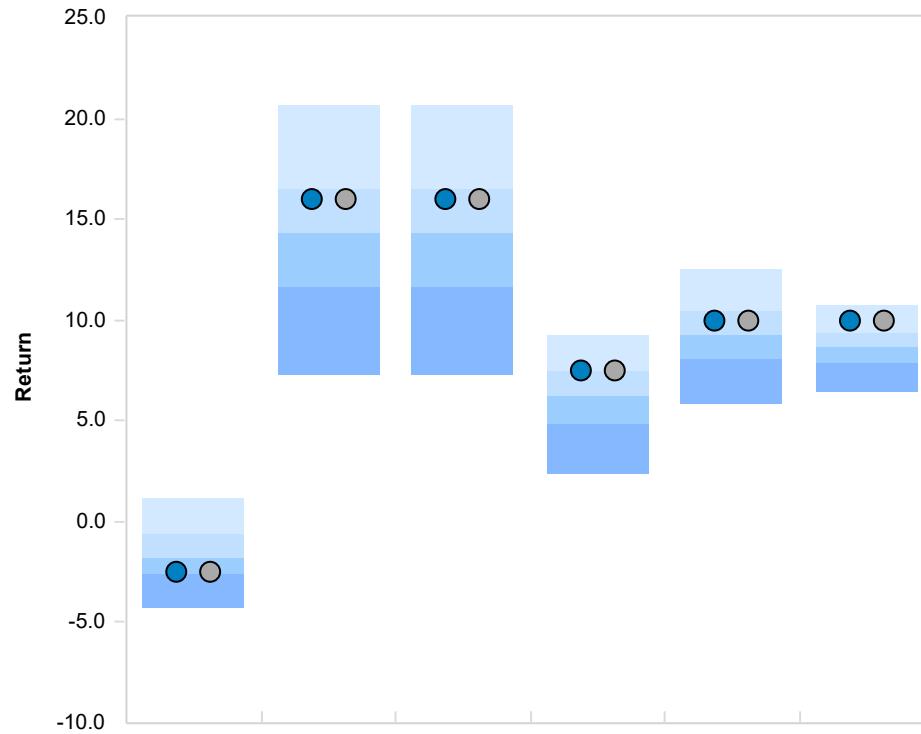
5 Year Rolling Percentile Rank Large Value



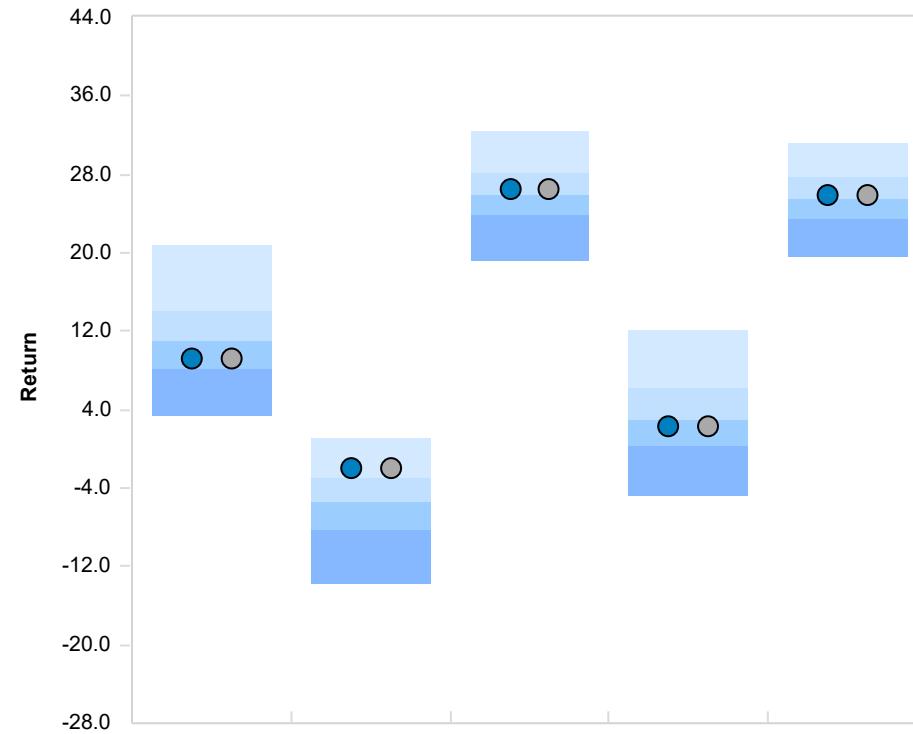
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	4 (20%)	15 (75%)	1 (5%)	0 (0%)
Index	20	4 (20%)	15 (75%)	1 (5%)	0 (0%)

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	10 (50%)	10 (50%)	0 (0%)	0 (0%)
Index	20	10 (50%)	10 (50%)	0 (0%)	0 (0%)

Peer Group Analysis - Large Value



Peer Group Analysis - Large Value



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	-2.52 (74)	15.98 (31)	15.98 (31)	7.47 (26)	9.94 (35)	10.01 (14)
Index	-2.51 (73)	16.00 (30)	16.00 (30)	7.46 (26)	9.93 (35)	10.01 (14)
Median	-1.81	14.36	14.36	6.25	9.27	8.65

	2023	2022	2021	2020	2019
Investment	9.26 (66)	-2.05 (18)	26.48 (43)	2.30 (57)	25.83 (47)
Index	9.17 (67)	-2.01 (18)	26.51 (43)	2.26 (58)	25.85 (47)
Median	11.05	-5.52	25.98	2.83	25.59

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 07/01/2009	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	1,021,656	-4,963,564	17,235,419	13,293,511

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	9.43 (21)	-0.93 (36)	9.76 (35)	9.09 (63)	-2.33 (40)	3.57 (53)
Index	9.44 (20)	-0.93 (36)	9.75 (35)	9.01 (65)	-2.33 (40)	3.57 (53)
Median	8.11	-1.41	8.80	9.54	-2.67	3.66

Fund Information As of 12/31/2024

Fund Name : Vanguard Value Index I
 Fund Family : Vanguard
 Ticker : VIVIX
 Inception Date : 07/02/1998
 Fund Assets : \$183,521 Million
 Portfolio Turnover : 10%

Portfolio Assets : \$17,782 Million
 Portfolio Manager : Nejman,W/O'Reilly,G
 PM Tenure : 30 Years
 Fund Style : Large Value
 Style Benchmark : Russell 1000 Value Index

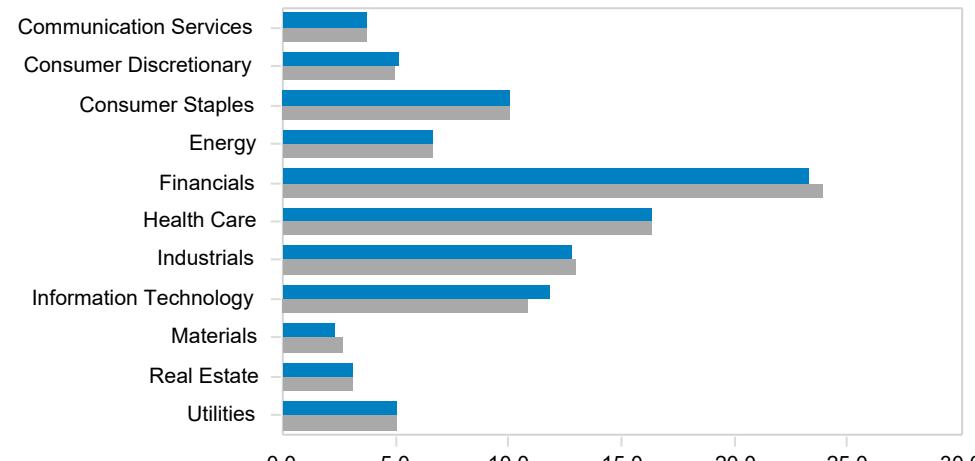
Portfolio Characteristics As of 12/31/2024

	Portfolio	Benchmark
Total Securities	341	338
Avg. Market Cap	-	-
Price/Earnings (P/E)	16.01	19.99
Price/Book (P/B)	2.57	2.98
Dividend Yield	2.40	2.29
Annual EPS	N/A	N/A
5 Yr EPS	N/A	N/A
3 Yr EPS Growth	N/A	N/A
Beta (5 Years, Monthly)	1.00	1.00

Top Ten Securities As of 12/31/2024

Berkshire Hathaway Inc Class B	3.2 %
JPMorgan Chase & Co	3.1 %
Broadcom Inc	2.5 %
Exxon Mobil Corp	2.2 %
UnitedHealth Group Inc	2.2 %
Walmart Inc	1.9 %
Procter & Gamble Co	1.8 %
The Home Depot Inc	1.8 %
Johnson & Johnson	1.6 %
AbbVie Inc	1.5 %
Total	21.8 %

Sector Weights As of 12/31/2024



Region (%) As of 12/31/2024

No data found.

Vanguard Value Index (VIVIX)

CRSP U.S. Large Cap Value TR Index

Statistics provided by Morningstar. Most recent available data shown.

Strategy Review
Vanguard Mid-Cap 400 Index Fund I (VSPMX) | S&P MidCap 400 Index
As of December 31, 2024

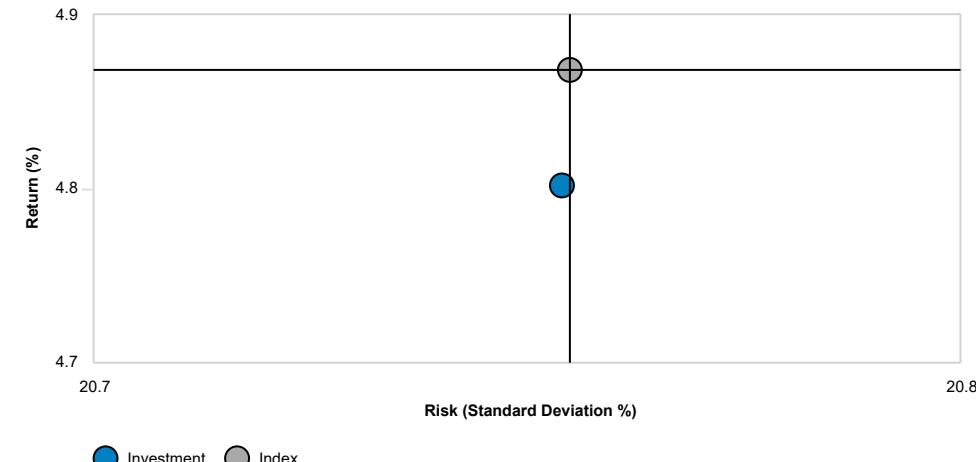
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	4.80	20.75	0.15	99.91	7	100.12	5
Index	4.87	20.75	0.15	100.00	7	100.00	5

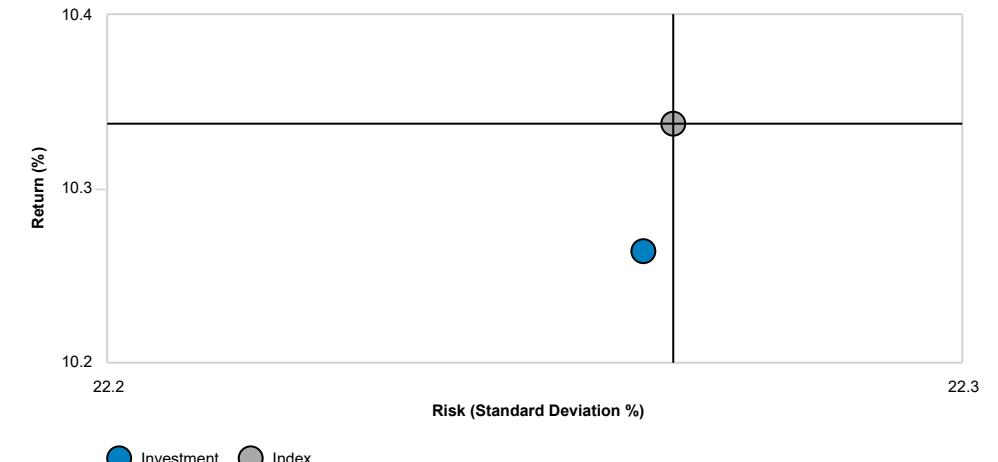
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	10.26	22.26	0.44	99.89	13	100.10	7
Index	10.34	22.27	0.45	100.00	13	100.00	7

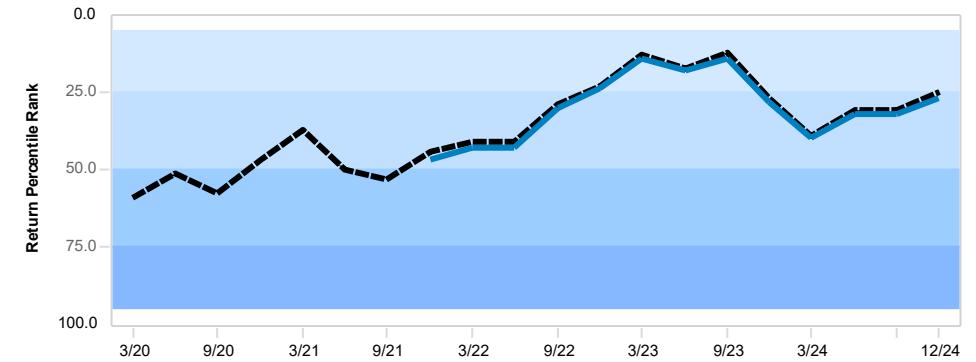
Risk and Return 3 Years



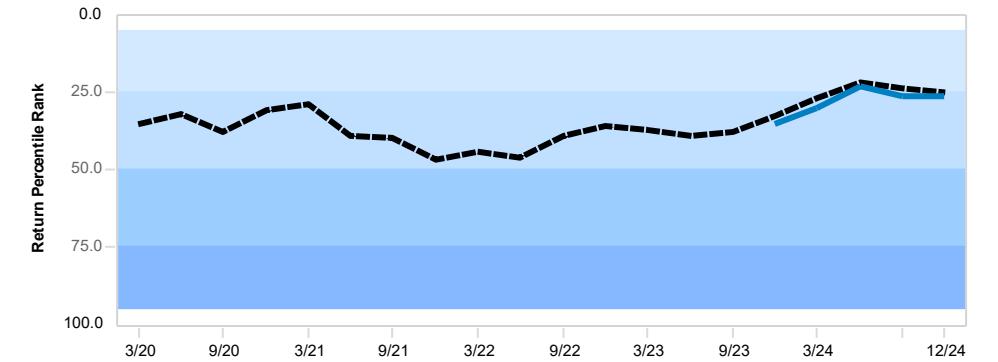
Risk and Return 5 Years



3 Year Rolling Percentile Rank Mid-Cap Blend



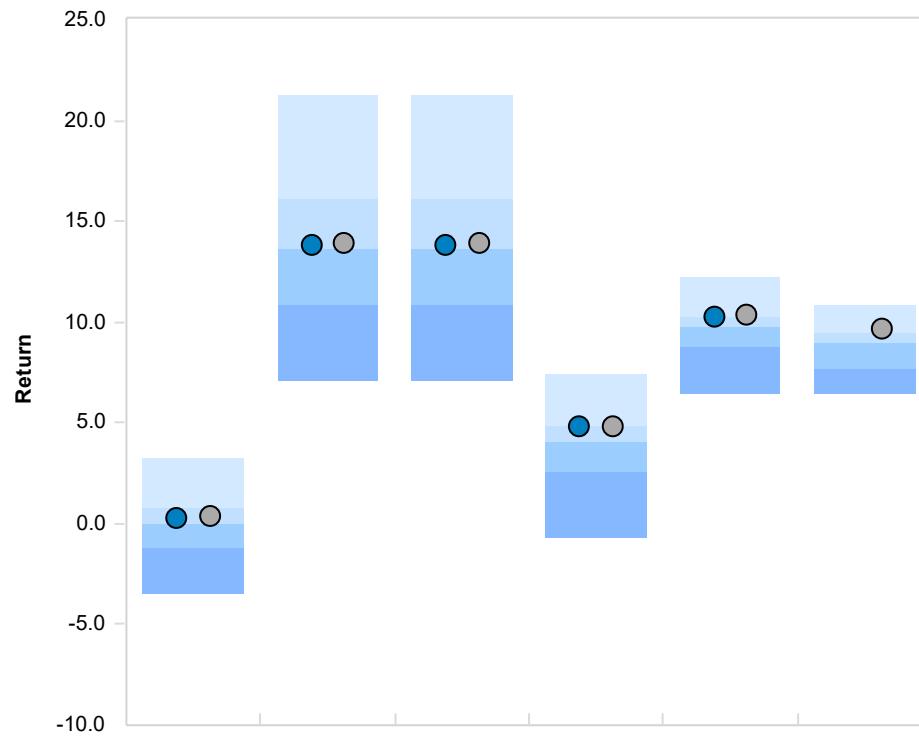
5 Year Rolling Percentile Rank Mid-Cap Blend



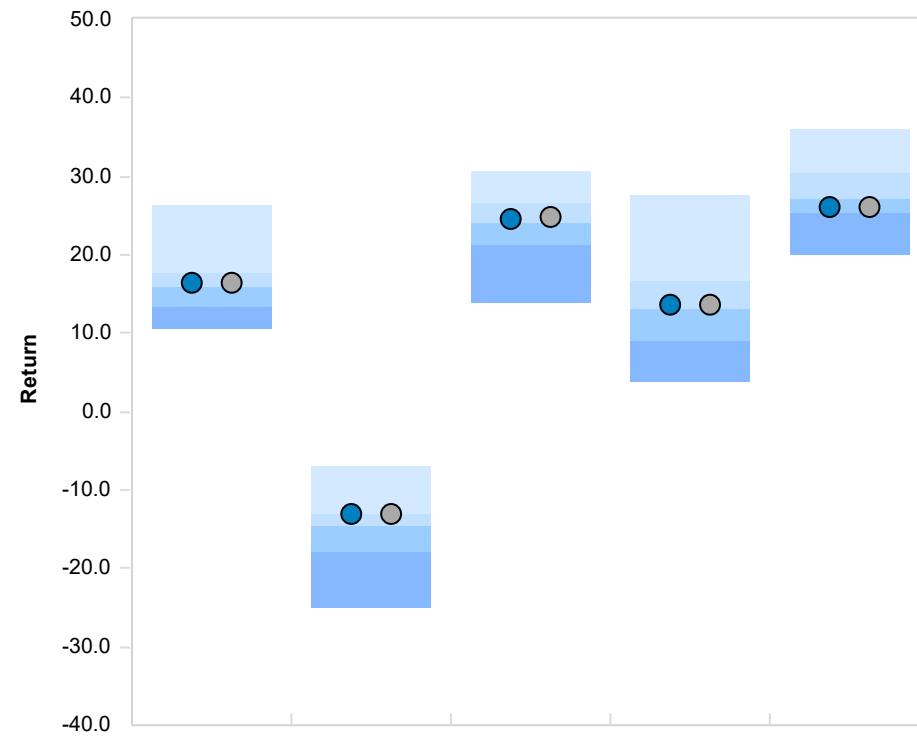
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	13	4 (31%)	9 (69%)	0 (0%)	0 (0%)
Index	20	5 (25%)	11 (55%)	4 (20%)	0 (0%)

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	5	1 (20%)	4 (80%)	0 (0%)	0 (0%)
Index	20	3 (15%)	17 (85%)	0 (0%)	0 (0%)

Peer Group Analysis - Mid-Cap Blend



Peer Group Analysis - Mid-Cap Blend



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	0.32 (36)	13.85 (45)	13.85 (45)	4.80 (27)	10.26 (26)	N/A
Index	0.34 (34)	13.93 (44)	13.93 (44)	4.87 (25)	10.34 (25)	9.68 (17)
Median	0.02	13.61	13.61	4.02	9.77	8.94

	2023	2022	2021	2020	2019
Investment	16.36 (39)	-13.11 (25)	24.67 (40)	13.58 (39)	26.13 (57)
Index	16.44 (37)	-13.06 (24)	24.76 (39)	13.66 (38)	26.20 (56)

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 12/01/2018	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	21,384,601	-9,500,000	15,767,702	27,652,303

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	6.92 (77)	-3.46 (38)	9.94 (30)	11.65 (49)	-4.22 (42)	4.83 (43)
Index	6.94 (76)	-3.45 (36)	9.95 (29)	11.67 (48)	-4.20 (41)	4.85 (42)
Median	7.94	-3.59	9.34	11.61	-4.30	4.75

Mutual Fund Holdings Analysis
Vanguard Mid-Cap 400 Index Fund I (VSPMX)
December 31, 2024

Fund Information As of 12/31/2024

Fund Name : Vanguard S&P Mid-Cap 400 Index I
Fund Family : Vanguard
Ticker : VSPMX
Inception Date : 03/28/2011
Fund Assets : \$3,971 Million
Portfolio Turnover : 19%

Portfolio Assets : \$1,580 Million
Portfolio Manager : Narzikul,K
PM Tenure : 1 Year 10 Months
Fund Style : Mid-Cap Blend
Style Benchmark : Russell Midcap Index

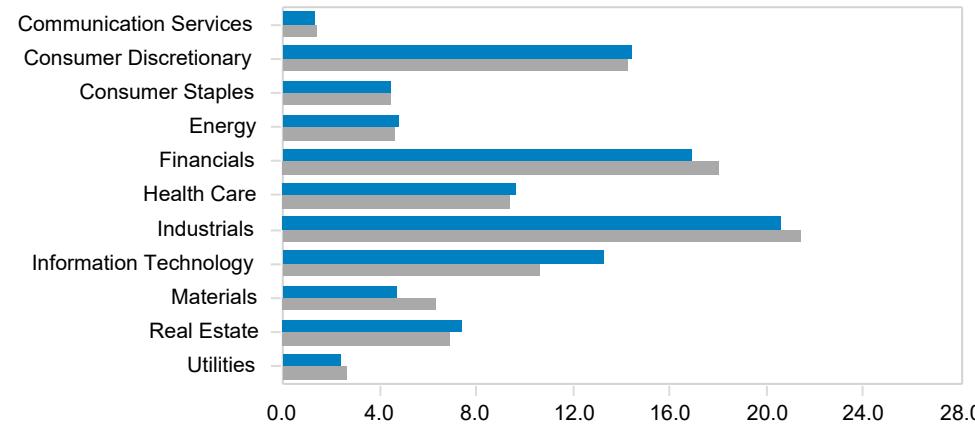
Portfolio Characteristics As of 12/31/2024

	Portfolio	Benchmark
Total Securities	404	401
Avg. Market Cap	-	-
Price/Earnings (P/E)	16.04	19.66
Price/Book (P/B)	2.15	2.74
Dividend Yield	1.64	1.53
Annual EPS	N/A	N/A
5 Yr EPS	N/A	N/A
3 Yr EPS Growth	N/A	N/A
Beta (5 Years, Monthly)	1.00	1.00

Top Ten Securities As of 12/31/2024

Williams-Sonoma Inc	0.8 %
Illumina Inc	0.7 %
Expand Energy Corp Ordinary Shares	0.7 %
EMCOR Group Inc	0.7 %
Interactive Brokers Group Inc Class	0.7 %
Pure Storage Inc Class A	0.7 %
DocuSign Inc	0.6 %
Burlington Stores Inc	0.6 %
Carlisle Companies Inc	0.6 %
RB Global Inc	0.6 %
Total	6.7 %

Sector Weights As of 12/31/2024



Region (%) As of 12/31/2024

No data found.

Statistics provided by Morningstar. Most recent available data shown.

Strategy Review
Vanguard Small-Cap 600 Index I (VSMSX) | S&P SmallCap 600 Index
As of December 31, 2024

Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	1.84	22.90	0.03	99.90	6	100.11	6
Index	1.91	22.90	0.03	100.00	6	100.00	6

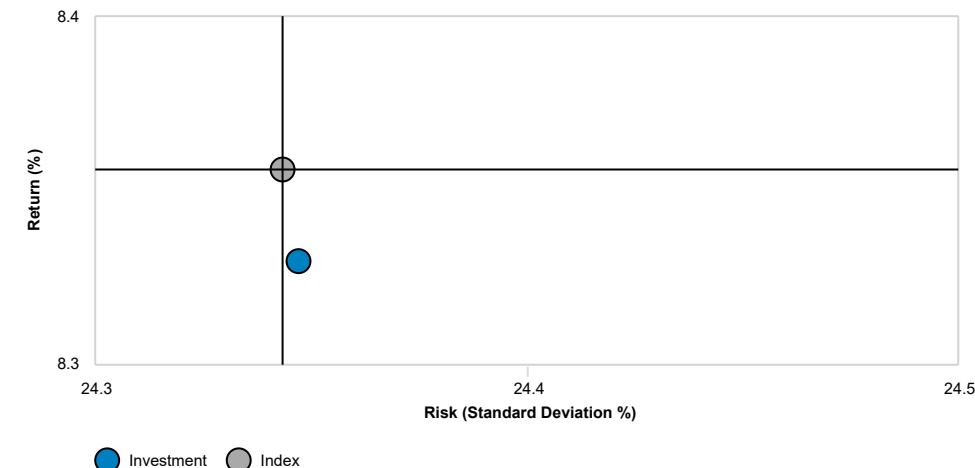
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	8.33	24.35	0.35	100.00	12	100.08	8
Index	8.36	24.34	0.35	100.00	12	100.00	8

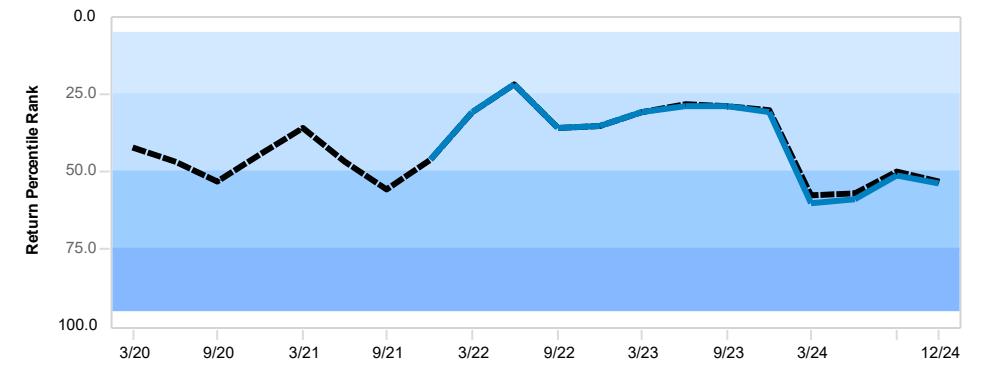
Risk and Return 3 Years



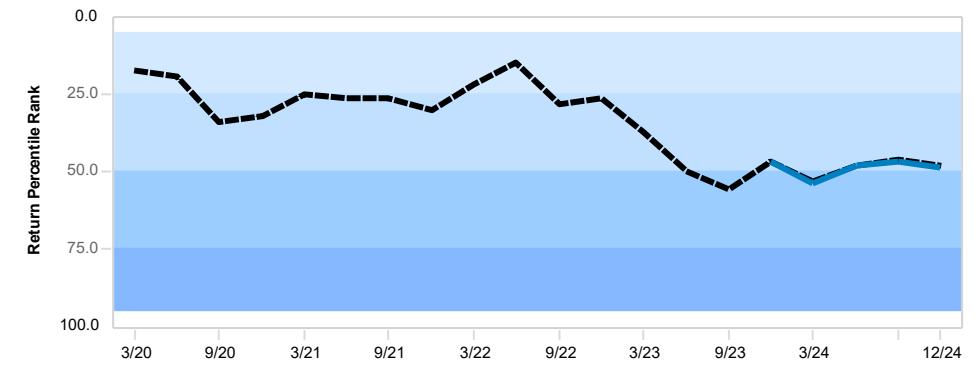
Risk and Return 5 Years



3 Year Rolling Percentile Rank Small Blend



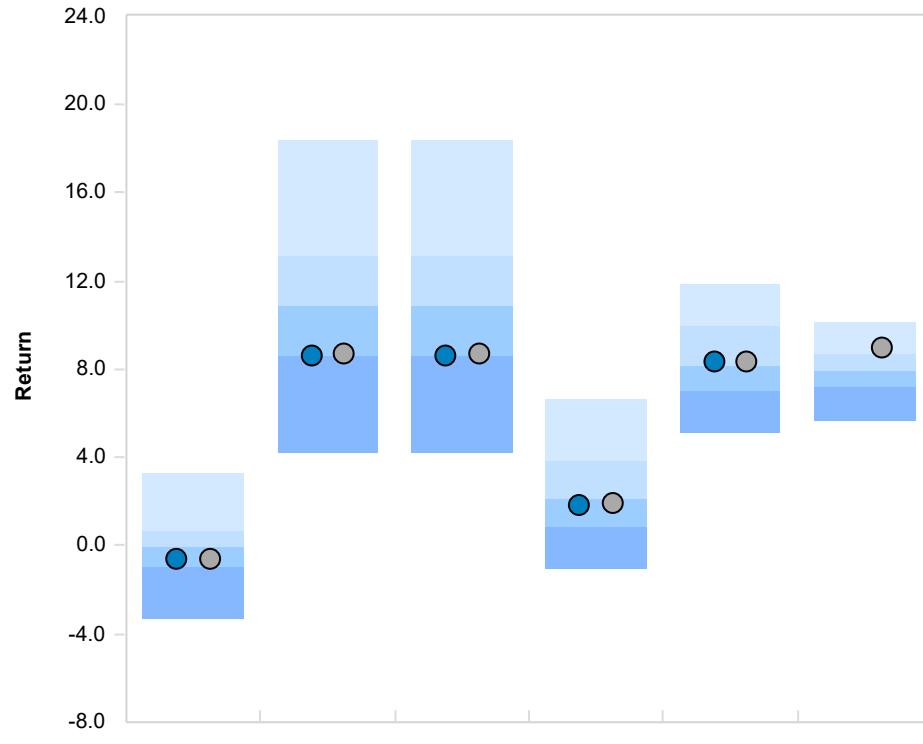
5 Year Rolling Percentile Rank Small Blend



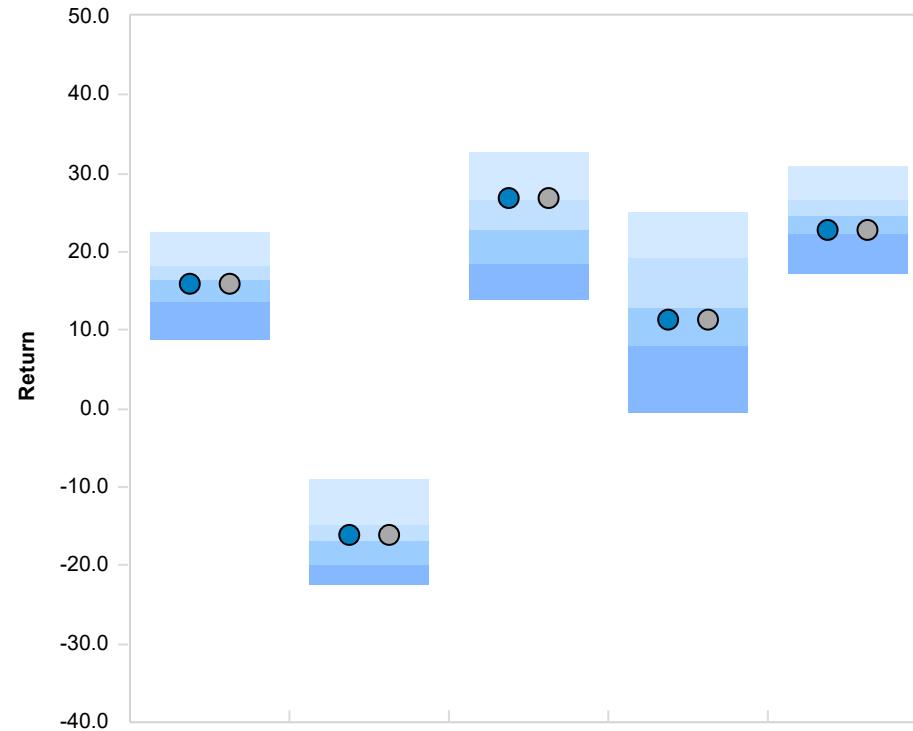
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	13	1 (8%)	8 (62%)	4 (31%)	0 (0%)
Index	20	1 (5%)	14 (70%)	5 (25%)	0 (0%)

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	5	0 (0%)	4 (80%)	1 (20%)	0 (0%)
Index	20	5 (25%)	13 (65%)	2 (10%)	0 (0%)

Peer Group Analysis - Small Blend



Peer Group Analysis - Small Blend



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	-0.60 (63)	8.63 (75)	8.63 (75)	1.84 (54)	8.33 (49)	N/A
Index	-0.58 (63)	8.70 (74)	8.70 (74)	1.91 (53)	8.36 (48)	8.96 (17)
Median	-0.02	10.93	10.93	2.10	8.21	7.88

	2023	2022	2021	2020	2019
Investment	15.99 (56)	-16.18 (39)	26.74 (24)	11.46 (57)	22.74 (69)
Index	16.05 (55)	-16.10 (37)	26.82 (23)	11.29 (58)	22.78 (69)
Median	16.35	-16.80	22.80	12.84	24.65

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 12/01/2018	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	10,695,104	-2,500,000	6,297,379	14,492,484

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	10.11 (14)	-3.12 (40)	2.45 (92)	15.10 (6)	-4.94 (64)	3.37 (73)
Index	10.13 (13)	-3.11 (40)	2.46 (92)	15.12 (6)	-4.93 (62)	3.38 (73)
Median	8.81	-3.36	5.74	12.93	-4.61	4.53

Fund Information As of 12/31/2024

Fund Name :	Vanguard S&P Small-Cap 600 Index I	Portfolio Assets :	\$1,641 Million
Fund Family :	Vanguard	Portfolio Manager :	Birkett,N/Narzikul,K
Ticker :	VSMSX	PM Tenure :	1 Year 10 Months
Inception Date :	04/01/2011	Fund Style :	Small Blend
Fund Assets :	\$4,728 Million	Style Benchmark :	Russell 2000 Index
Portfolio Turnover :	26%		

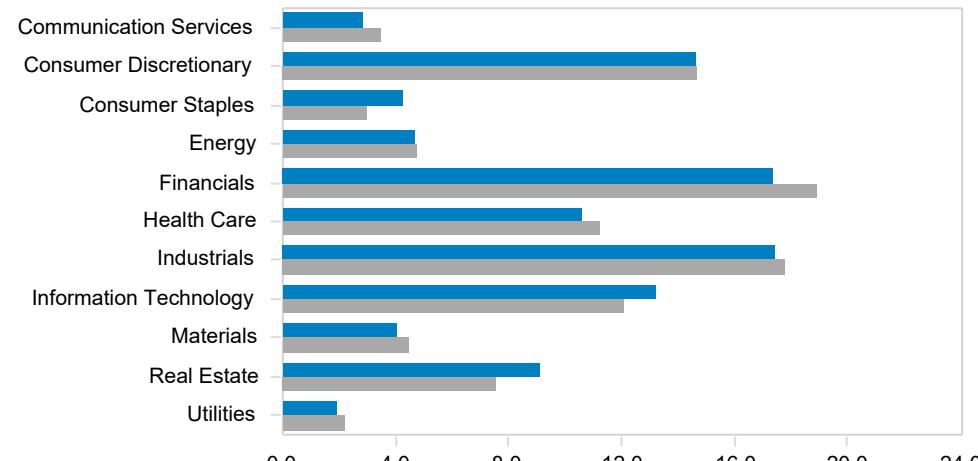
Portfolio Characteristics As of 12/31/2024

	Portfolio	Benchmark
Total Securities	608	602
Avg. Market Cap	-	-
Price/Earnings (P/E)	14.89	17.87
Price/Book (P/B)	1.63	2.25
Dividend Yield	1.82	1.64
Annual EPS	N/A	N/A
5 Yr EPS	N/A	N/A
3 Yr EPS Growth	N/A	N/A
Beta (5 Years, Monthly)	1.00	1.00

Top Ten Securities As of 12/31/2024

Bath & Body Works Inc	0.6 %
Glaukos Corp	0.6 %
Alaska Air Group Inc	0.6 %
ATI Inc	0.6 %
Robert Half Inc	0.5 %
VF Corp	0.5 %
SPS Commerce Inc	0.5 %
SPX Technologies Inc	0.5 %
Qorvo Inc	0.5 %
Jackson Financial Inc	0.5 %
Total	5.4 %

Sector Weights As of 12/31/2024



Region (%) As of 12/31/2024

No data found.

█ Vanguard Small-Cap 600 Index I (VSMSX) █ S&P SmallCap 600 Index

Statistics provided by Morningstar. Most recent available data shown.

Strategy Review
Vanguard Developed Markets Index (VTMNX) | Vanguard Spliced Developed ex U.S. Index (Net)
As of December 31, 2024

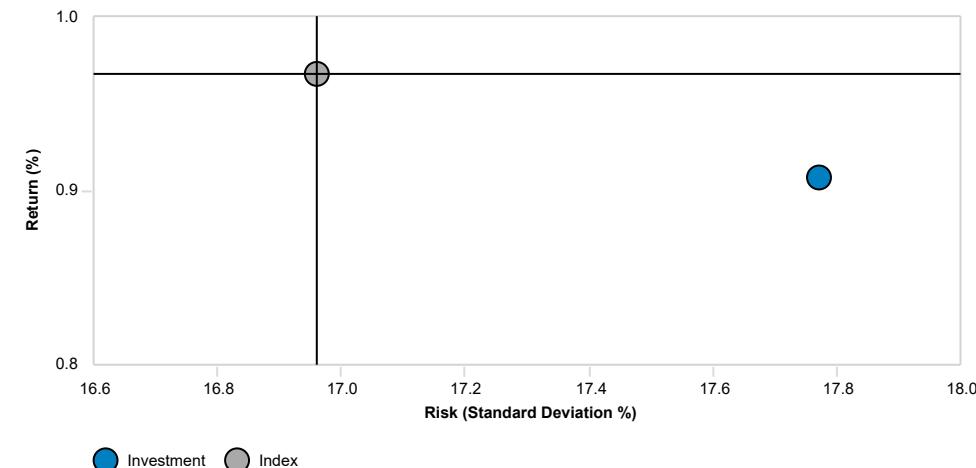
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	0.91	17.77	-0.08	107.24	6	107.69	6
Index	0.97	16.96	-0.08	100.00	6	100.00	6

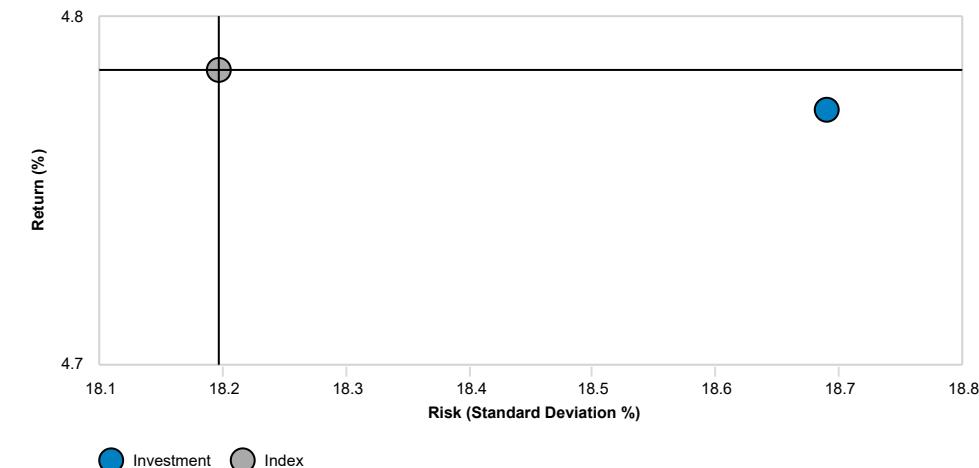
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	4.77	18.69	0.21	104.43	12	105.35	8
Index	4.79	18.20	0.21	100.00	12	100.00	8

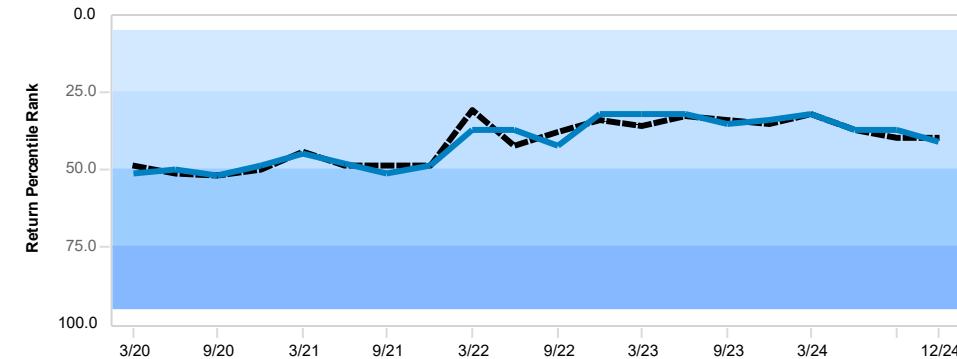
Risk and Return 3 Years



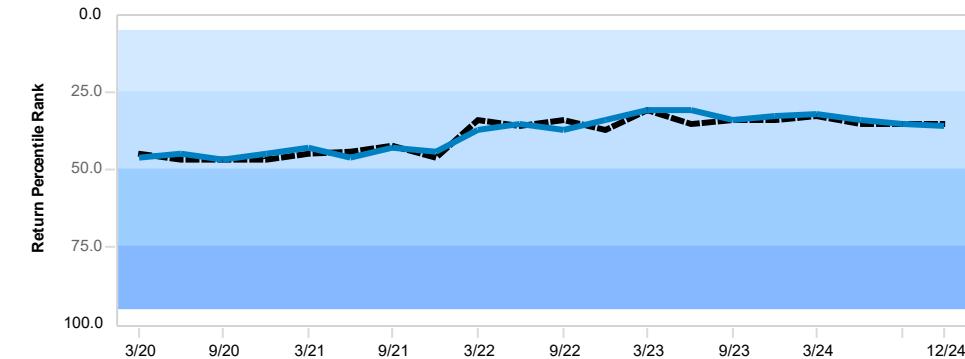
Risk and Return 5 Years



3 Year Rolling Percentile Rank Foreign



5 Year Rolling Percentile Rank Foreign

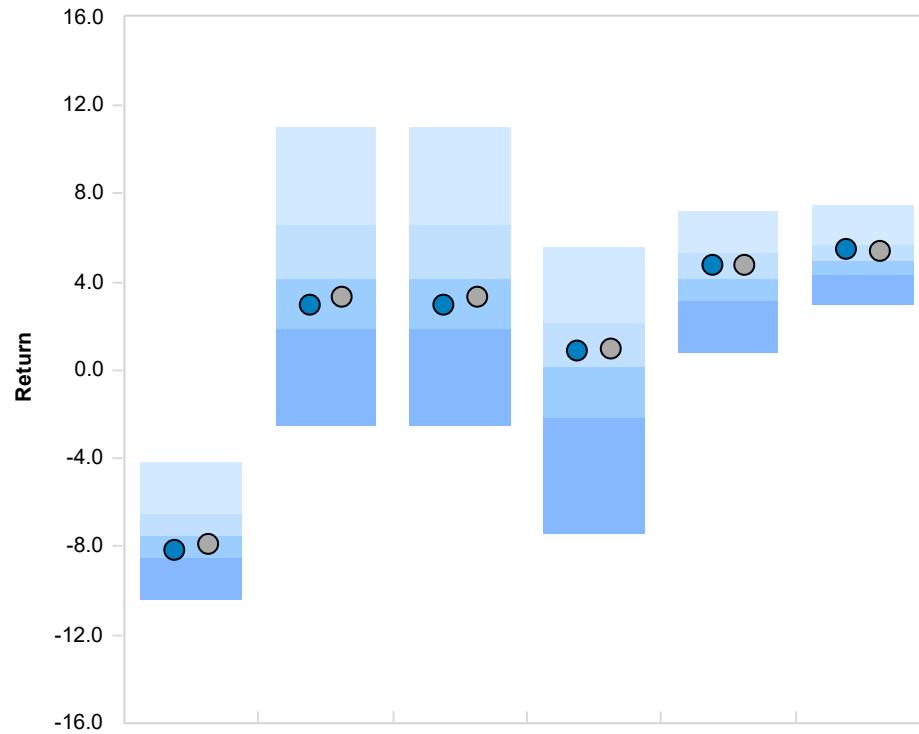


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	17 (85%)	3 (15%)	0 (0%)
Index	20	0 (0%)	18 (90%)	2 (10%)	0 (0%)

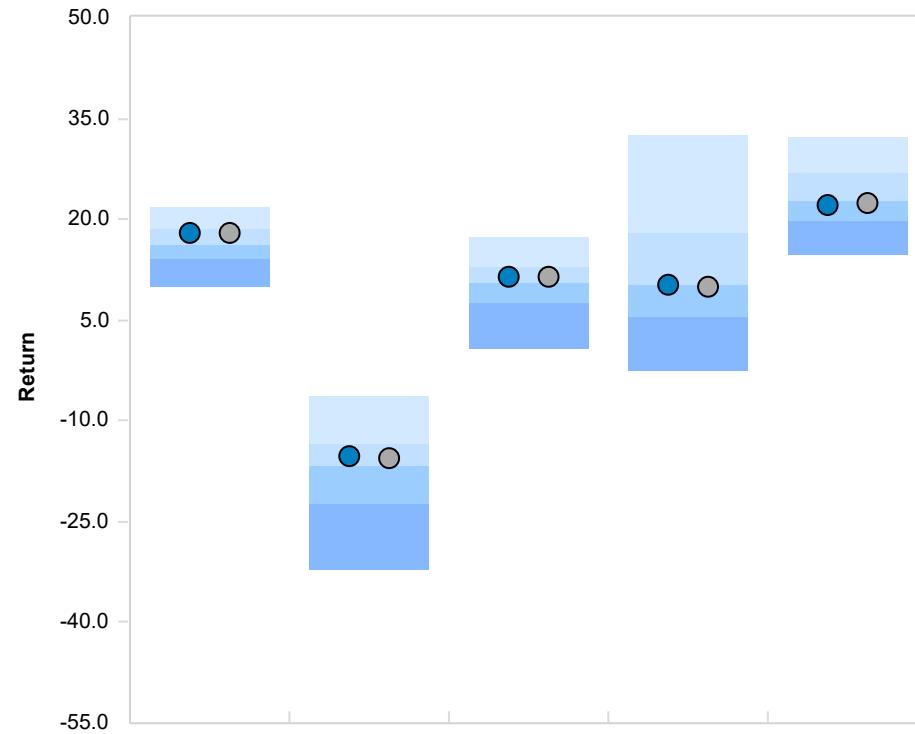
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	20 (100%)	0 (0%)	0 (0%)
Index	20	0 (0%)	20 (100%)	0 (0%)	0 (0%)

Strategy Review
Vanguard Developed Markets Index (VTMNX) | Vanguard Spliced Developed ex U.S. Index (Net)
As of December 31, 2024

Peer Group Analysis - Foreign



Peer Group Analysis - Foreign



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	-8.17 (67)	3.00 (66)	3.00 (66)	0.91 (41)	4.77 (36)	5.48 (32)
Index	-7.89 (60)	3.36 (61)	3.36 (61)	0.97 (40)	4.79 (35)	5.43 (34)
Median	-7.51	4.19	4.19	0.22	4.19	4.93

	2023	2022	2021	2020	2019
Investment	17.84 (33)	-15.34 (41)	11.44 (40)	10.27 (50)	22.14 (54)
Index	17.97 (31)	-15.58 (43)	11.57 (39)	10.00 (51)	22.34 (53)
Median	16.24	-16.87	10.65	10.17	22.57

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 07/01/2009	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	253,831	45,927	10,835,415	11,135,174

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	7.49 (46)	-0.75 (72)	5.14 (47)	11.18 (28)	-4.67 (48)	3.15 (33)
Index	7.56 (45)	-0.75 (72)	5.11 (48)	10.83 (35)	-3.97 (34)	3.00 (39)
Median	7.25	-0.09	4.92	10.27	-4.76	2.71

Fund Information As of 12/31/2024

Fund Name :	Vanguard Developed Markets Index Instl	Portfolio Assets :	\$13,336 Million
Fund Family :	Vanguard	Portfolio Manager :	Franquin,C/Perre,M
Ticker :	VTMNX	PM Tenure :	11 Years 10 Months
Inception Date :	01/04/2001	Fund Style :	Foreign Large Blend
Fund Assets :	\$191,386 Million	Style Benchmark :	MSCI AC World ex USA Index (Net)
Portfolio Turnover :	3%		

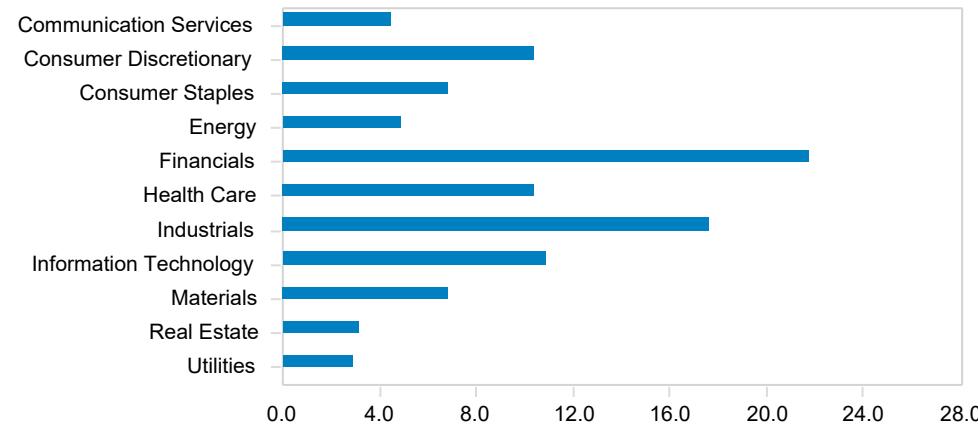
Portfolio Characteristics As of 12/31/2024

	Portfolio	Benchmark
Total Securities	3,926	N/A
Avg. Market Cap	-	-
Price/Earnings (P/E)	13.13	N/A
Price/Book (P/B)	1.56	N/A
Dividend Yield	3.30	N/A
Annual EPS	N/A	N/A
5 Yr EPS	N/A	N/A
3 Yr EPS Growth	N/A	N/A
Beta (5 Years, Monthly)	1.04	1.00

Top Ten Securities As of 12/31/2024

ASML Holding NV	1.2 %
SAP SE	1.2 %
Novo Nordisk AS Class B	1.2 %
Toyota Motor Corp	1.0 %
Nestle SA	0.9 %
AstraZeneca PLC	0.9 %
Novartis AG Registered Shares	0.9 %
Roche Holding AG	0.9 %
Shell PLC	0.9 %
HSBC Holdings PLC	0.8 %
Total	9.9 %

Sector Weights As of 12/31/2024



█ Vanguard Developed Markets Index (VTMNX)

█ FTSE Developed x North America Index (Net)

Region (%) As of 12/31/2024

No data found.

Strategy Review
Vanguard Emerging Markets Index (VEMIX) | FTSE Emerging Mkts All Cap China A Inclusion Index
As of December 31, 2024

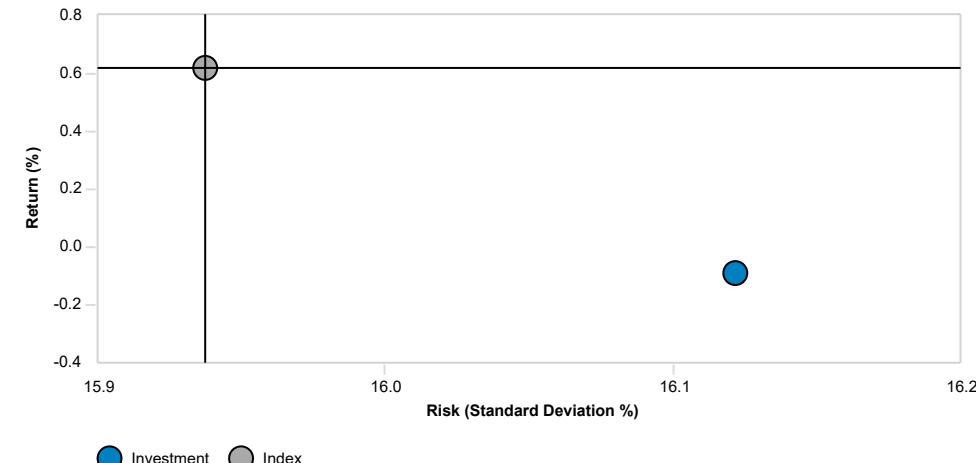
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment Index	-0.09 0.62	16.12 15.94	-0.17 -0.12	97.40 100.00	7 7	100.51 100.00	5 5

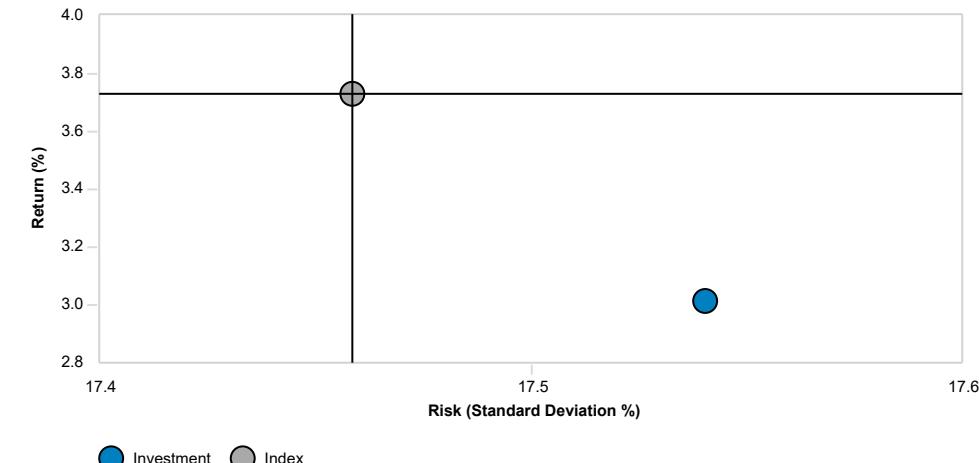
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment Index	3.02 3.73	17.54 17.46	0.12 0.16	97.44 100.00	12 12	100.06 100.00	8 8

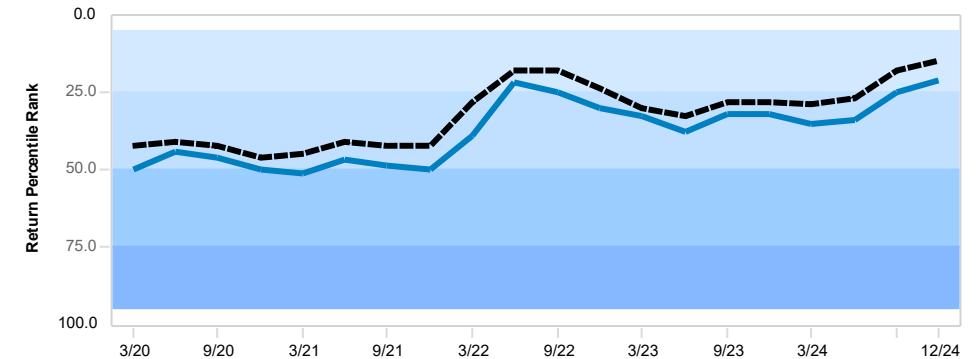
Risk and Return 3 Years



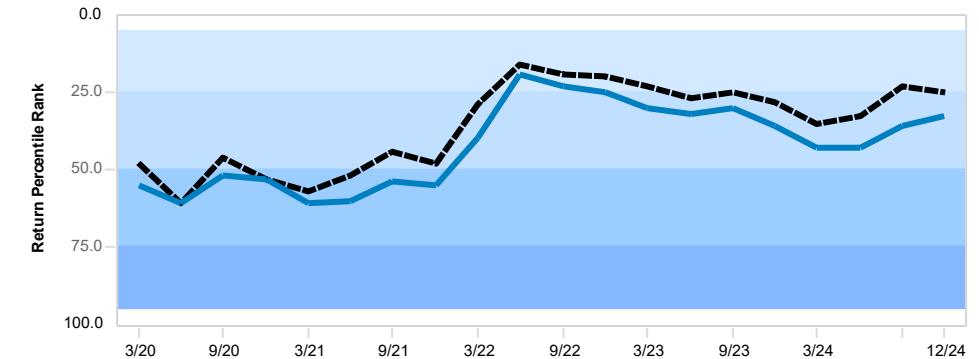
Risk and Return 5 Years



3 Year Rolling Percentile Rank Diversified Emerging Mkts



5 Year Rolling Percentile Rank Diversified Emerging Mkts

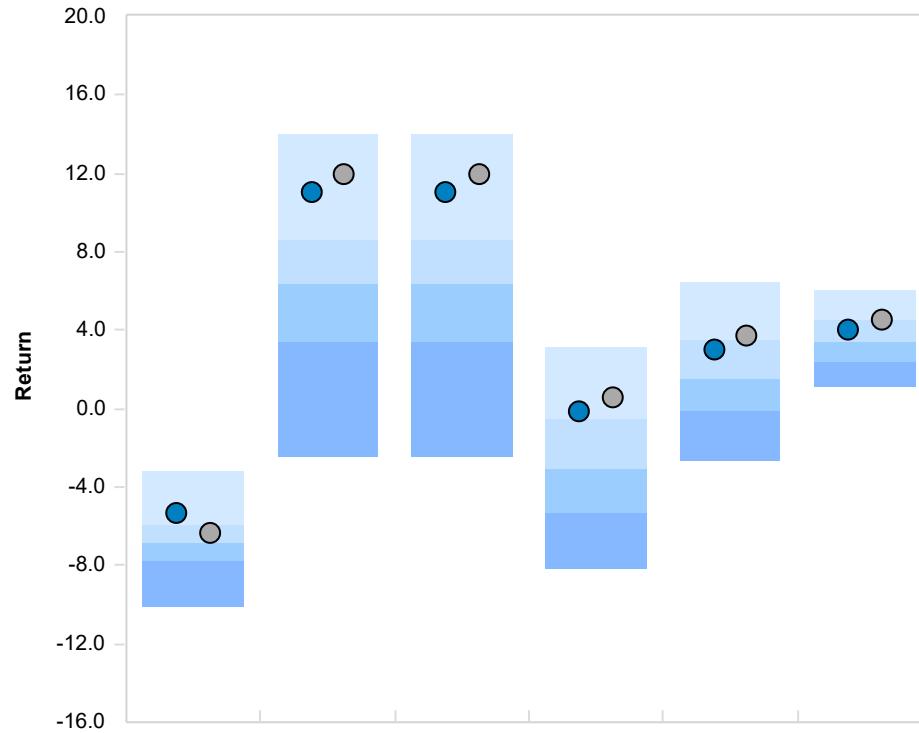


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	4 (20%)	15 (75%)	1 (5%)	0 (0%)
Index	20	5 (25%)	15 (75%)	0 (0%)	0 (0%)

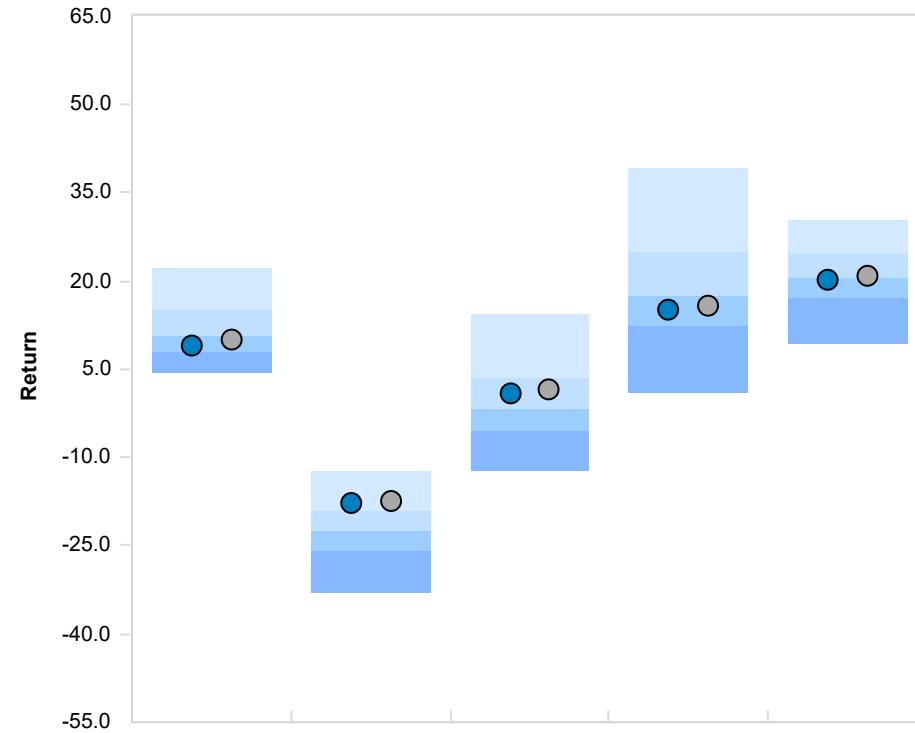
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	3 (15%)	9 (45%)	8 (40%)	0 (0%)
Index	20	7 (35%)	9 (45%)	4 (20%)	0 (0%)

Strategy Review
Vanguard Emerging Markets Index (VEMIX) | FTSE Emerging Mkts All Cap China A Inclusion Index
As of December 31, 2024

Peer Group Analysis - Diversified Emerging Mkts



Peer Group Analysis - Diversified Emerging Mkts



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	-5.36 (17)	11.04 (15)	11.04 (15)	-0.09 (21)	3.02 (33)	4.02 (37)
Index	-6.33 (34)	11.99 (11)	11.99 (11)	0.62 (15)	3.73 (25)	4.58 (25)
Median	-6.88	6.34	6.34	-3.04	1.49	3.39

	2023	2022	2021	2020	2019
Investment	9.18 (67)	-17.74 (20)	0.92 (35)	15.26 (66)	20.37 (52)
Index	9.95 (60)	-17.26 (18)	1.76 (31)	15.84 (63)	20.81 (49)
Median	10.90	-22.45	-1.69	17.61	20.58

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 10/01/2010	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	5,147,163	3,164,289	4,670,244	12,981,696

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	9.29 (12)	5.31 (29)	1.94 (72)	6.53 (79)	-2.14 (24)	1.09 (69)
Index	10.74 (4)	5.74 (23)	2.09 (68)	6.82 (75)	-1.35 (17)	1.19 (66)
Median	6.35	4.19	3.03	7.77	-3.80	1.82

Fund Information As of 12/31/2024

Fund Name :	Vanguard Emerging Mkts Stock Idx Instl	Portfolio Assets :	\$7,755 Million
Fund Family :	Vanguard	Portfolio Manager :	Miller,J/Perre,M
Ticker :	VEMIX	PM Tenure :	16 Years 4 Months
Inception Date :	06/22/2000	Fund Style :	Diversified Emerging Mkts
Fund Assets :	\$108,964 Million	Style Benchmark :	MSCI Emerging Markets (Net)
Portfolio Turnover :	8%		

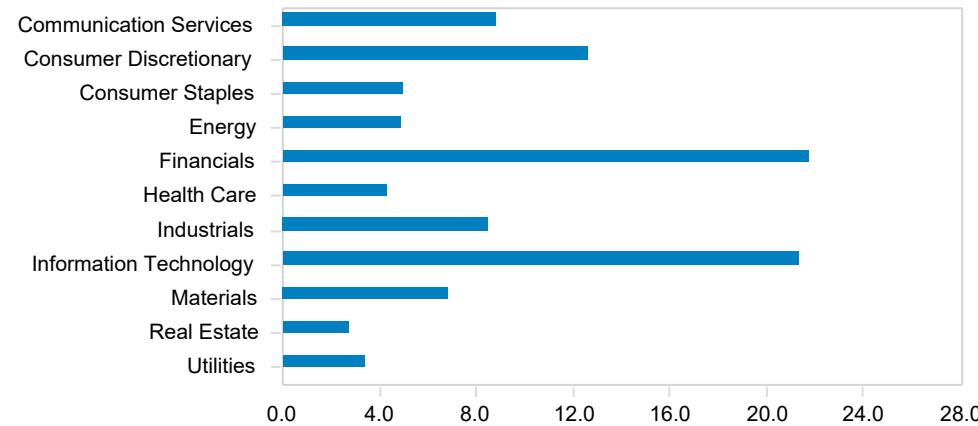
Portfolio Characteristics As of 12/31/2024

	Portfolio	Benchmark
Total Securities	4,919	N/A
Avg. Market Cap	-	-
Price/Earnings (P/E)	13.14	N/A
Price/Book (P/B)	1.76	N/A
Dividend Yield	3.09	N/A
Annual EPS	N/A	N/A
5 Yr EPS	N/A	N/A
3 Yr EPS Growth	N/A	N/A
Beta (5 Years, Monthly)	1.00	1.00

Top Ten Securities As of 12/31/2024

Taiwan Semiconductor Manufacturing	9.0 %
Tencent Holdings Ltd	3.8 %
Alibaba Group Holding Ltd Ordinary	2.1 %
HDFC Bank Ltd	1.3 %
Meituan Class B	1.2 %
Reliance Industries Ltd	1.1 %
China Construction Bank Corp Class	0.9 %
Infosys Ltd	0.9 %
Xiaomi Corp Class B	0.8 %
PDD Holdings Inc ADR	0.8 %
Total	21.8 %

Sector Weights As of 12/31/2024



█ Vanguard Emerging Markets Index (VEMIX)

█ FTSE Emerging Mkts All Cap China A Inclusion Index

Region (%) As of 12/31/2024

No data found.

Strategy Review
Vanguard Short Term Bond Index (VBIRX) | Bloomberg 1-5 Year Gov/Credit Idx
As of December 31, 2024

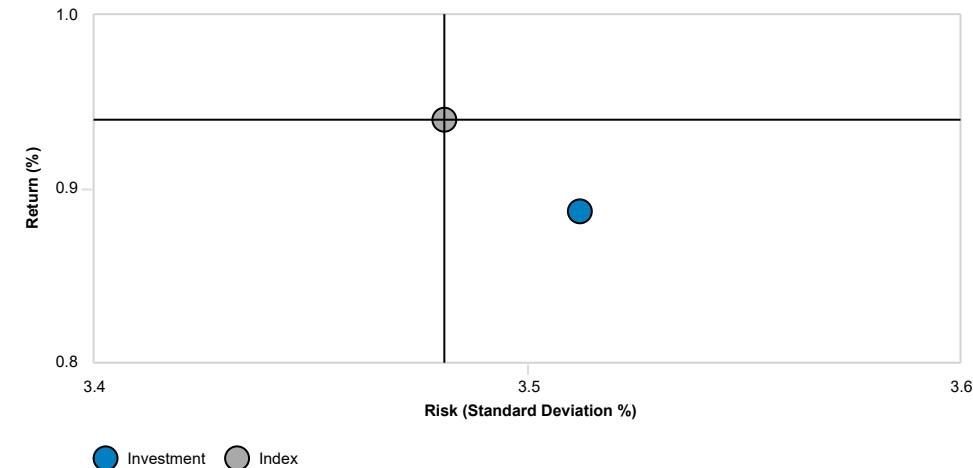
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	0.89	3.51	-0.87	100.33	7	101.51	5
Index	0.94	3.48	-0.87	100.00	7	100.00	5

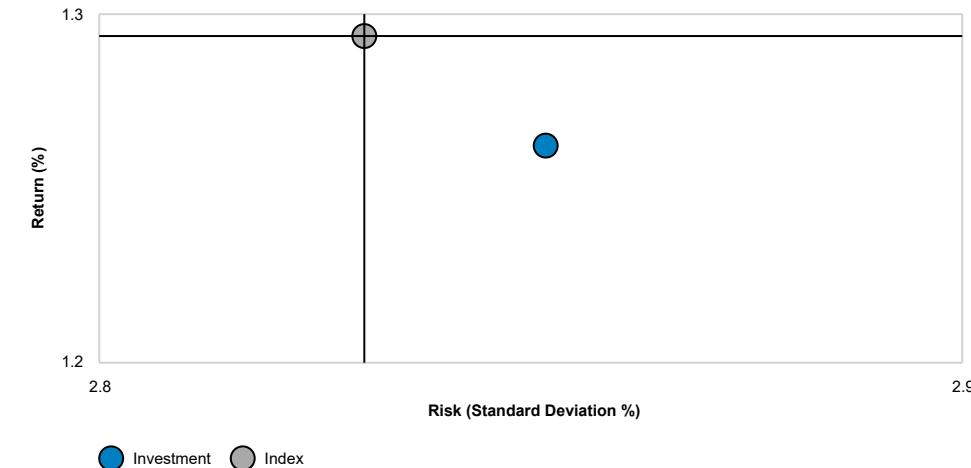
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	1.26	2.85	-0.42	100.00	12	100.96	8
Index	1.29	2.83	-0.41	100.00	13	100.00	7

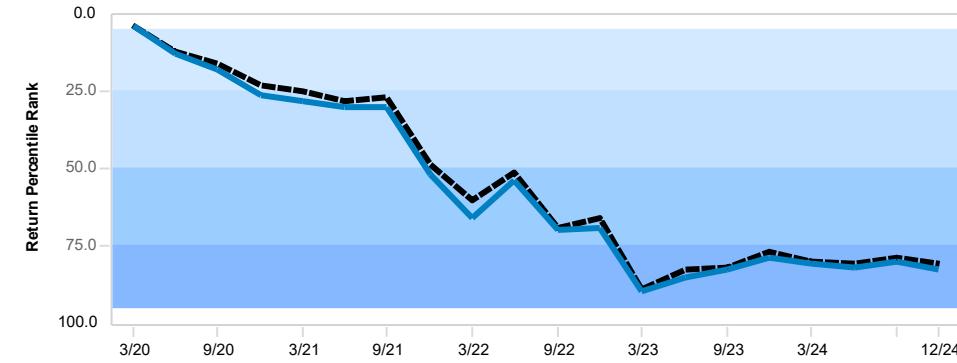
Risk and Return 3 Years



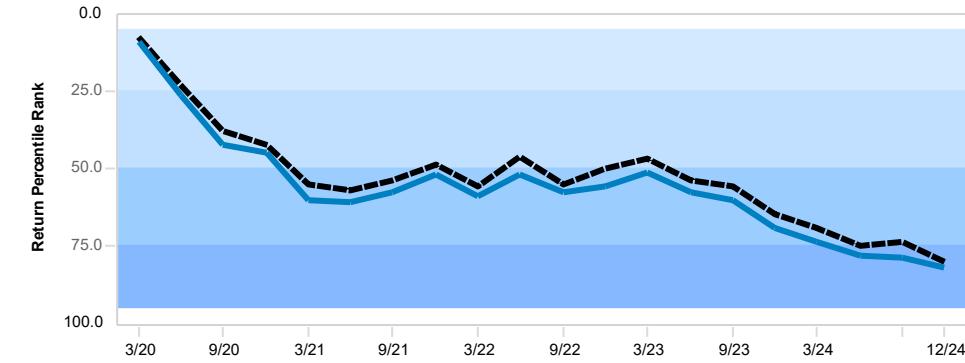
Risk and Return 5 Years



3 Year Rolling Percentile Rank Short-Term Bond



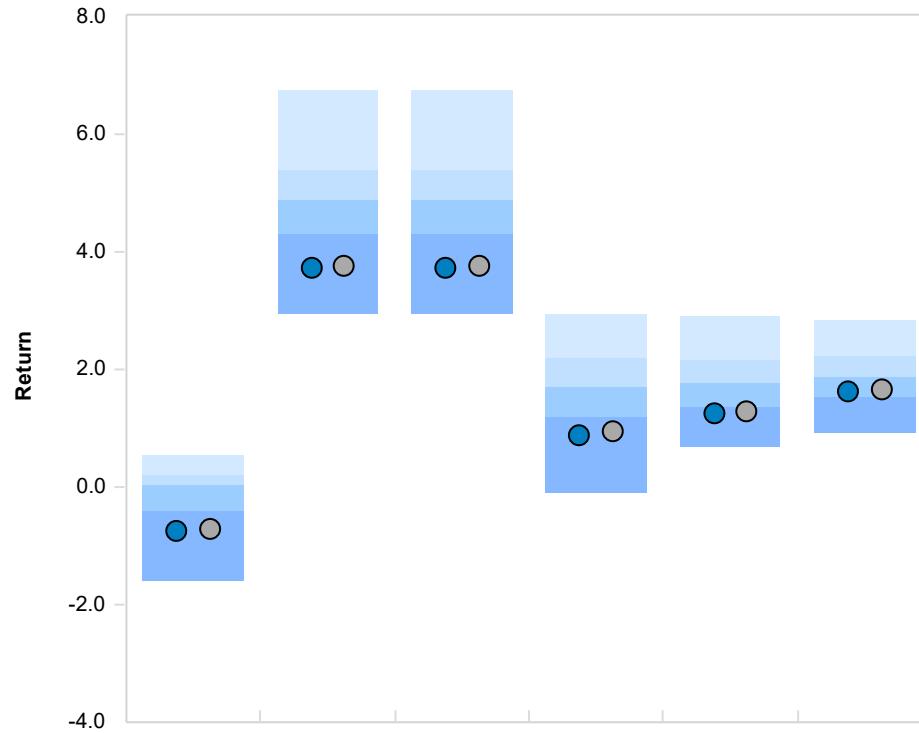
5 Year Rolling Percentile Rank Short-Term Bond



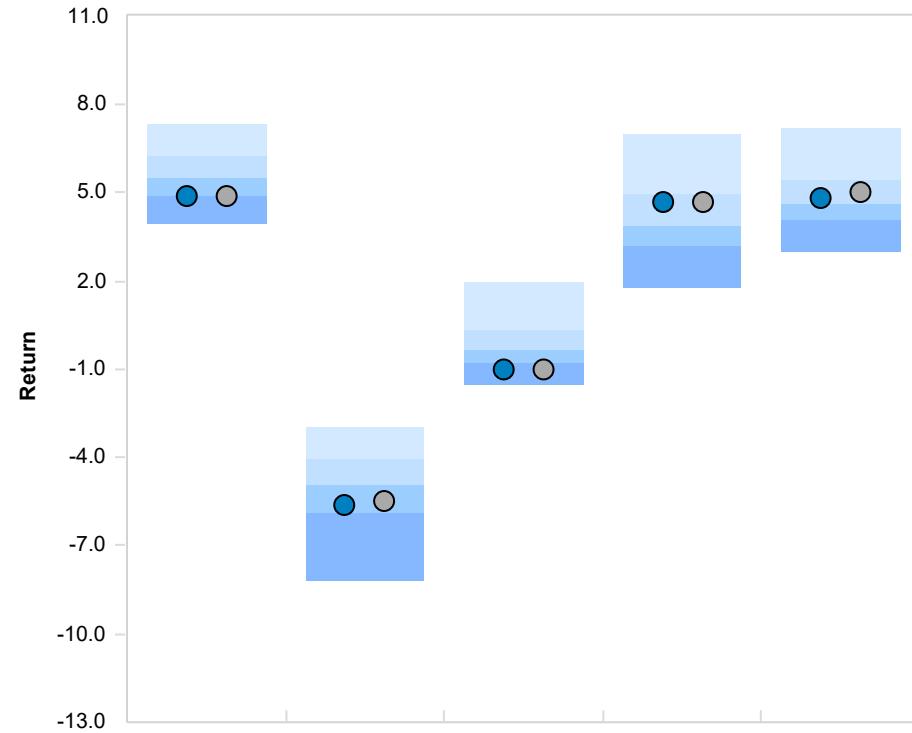
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	3 (15%)	4 (20%)	5 (25%)	8 (40%)
Index	20	5 (25%)	3 (15%)	4 (20%)	8 (40%)

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	1 (5%)	3 (15%)	13 (65%)	3 (15%)
Index	20	2 (10%)	6 (30%)	11 (55%)	1 (5%)

Peer Group Analysis - Short-Term Bond



Peer Group Analysis - Short-Term Bond



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	-0.76 (86)	3.73 (89)	3.73 (89)	0.89 (83)	1.26 (82)	1.62 (68)
Index	-0.71 (84)	3.76 (88)	3.76 (88)	0.94 (81)	1.29 (80)	1.66 (65)
Median	0.04	4.88	4.88	1.68	1.78	1.87

	2023	2022	2021	2020	2019
Investment	4.88 (75)	-5.61 (66)	-0.97 (82)	4.71 (30)	4.84 (40)
Index	4.89 (74)	-5.50 (63)	-0.97 (82)	4.71 (30)	5.01 (35)
Median	5.50	-4.95	-0.31	3.90	4.62

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 04/01/2013	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	10,001,804	-4,569,350	1,829,367	7,261,821

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	3.48 (24)	0.83 (81)	0.17 (91)	3.39 (35)	0.15 (82)	-0.64 (85)
Index	3.50 (24)	0.83 (81)	0.14 (92)	3.44 (32)	0.21 (78)	-0.62 (84)
Median	3.07	1.02	0.75	3.14	0.73	-0.08

Mutual Fund Holdings Analysis
Vanguard Short Term Bond Index (VBIRX)
December 31, 2024

Fund Information As of 12/31/2024

Fund Name :	Vanguard Short-Term Bond Index Adm	Portfolio Assets :	\$12,154 Million
Fund Family :	Vanguard	Portfolio Manager :	Barrickman,J
Ticker :	VBIRX	PM Tenure :	11 Years 10 Months
Inception Date :	11/12/2001	Fund Style :	Short-Term Bond
Fund Assets :	\$58,309 Million	Style Benchmark :	Bloomberg U.S. Government/Credit 1-3 Year Index
Portfolio Turnover :	64%		

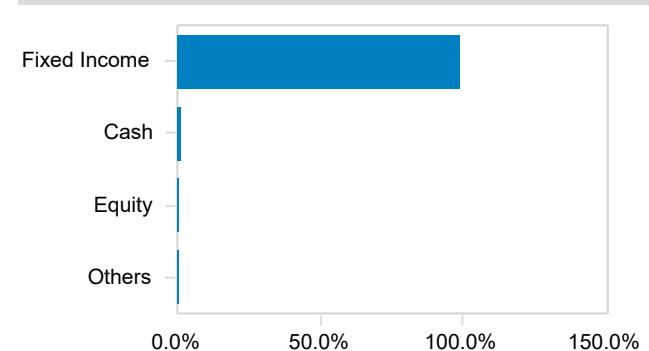
Fund Characteristics As of 12/31/2024

Avg. Coupon	3.23 %
Avg. Effective Maturity	2.8 Years
Avg. Effective Duration	2.61 Years
Avg. Credit Quality	AA
Yield To Maturity	4.37 %
SEC Yield	4.38 %

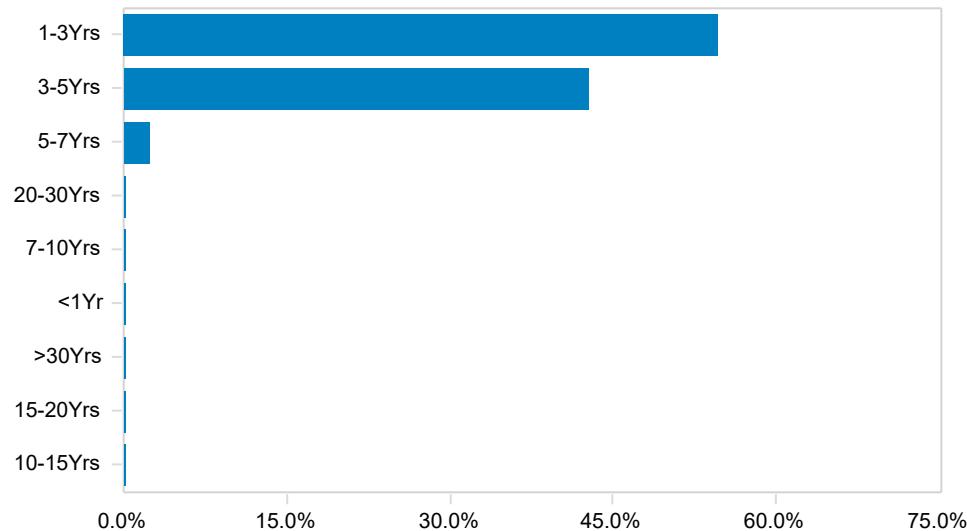
Top Ten Securities As of 12/31/2024

United States Treasury Notes	1.3 %
United States Treasury Notes	0.9 %
United States Treasury Notes	0.9 %
United States Treasury Notes	0.7 %
United States Treasury Notes	0.7 %
United States Treasury Notes	0.7 %
United States Treasury Notes	0.7 %
United States Treasury Notes	0.7 %
United States Treasury Notes	0.7 %
Total	8.0 %

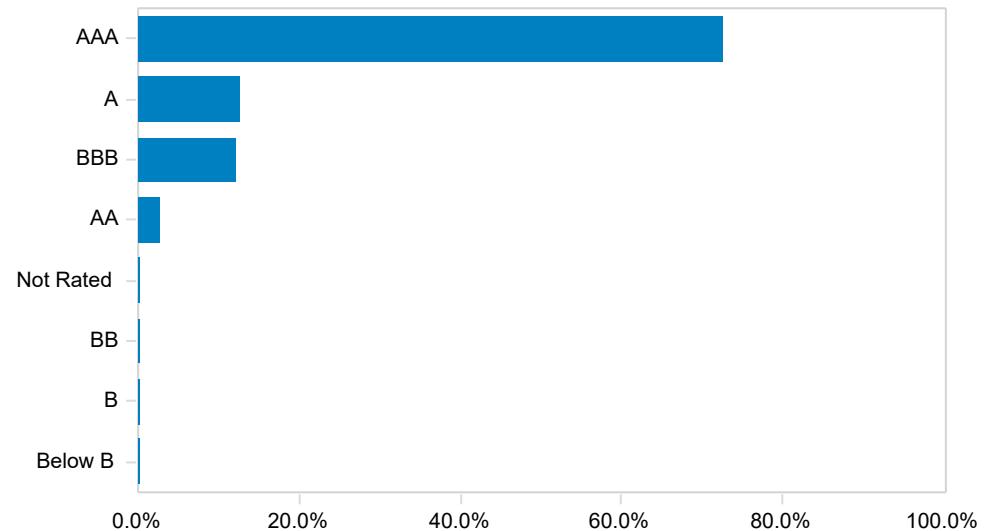
Asset Allocation As of 11/30/2024



Maturity Distribution As of 12/31/2024



Quality Allocation As of 10/31/2024



Strategy Review
Vanguard Total Bond Index (VBTIX) | Blmbg. U.S. Aggregate Index
As of December 31, 2024

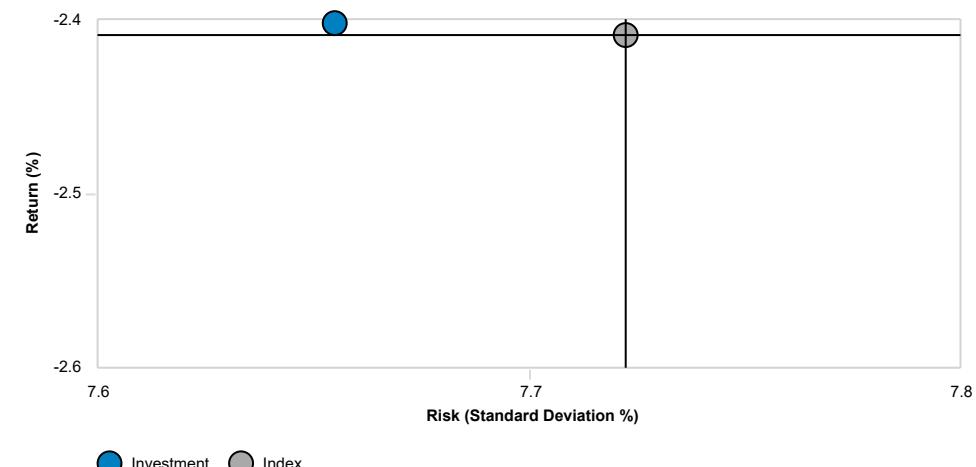
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	-2.40	7.65	-0.80	99.01	5	99.16	7
Index	-2.41	7.72	-0.79	100.00	5	100.00	7

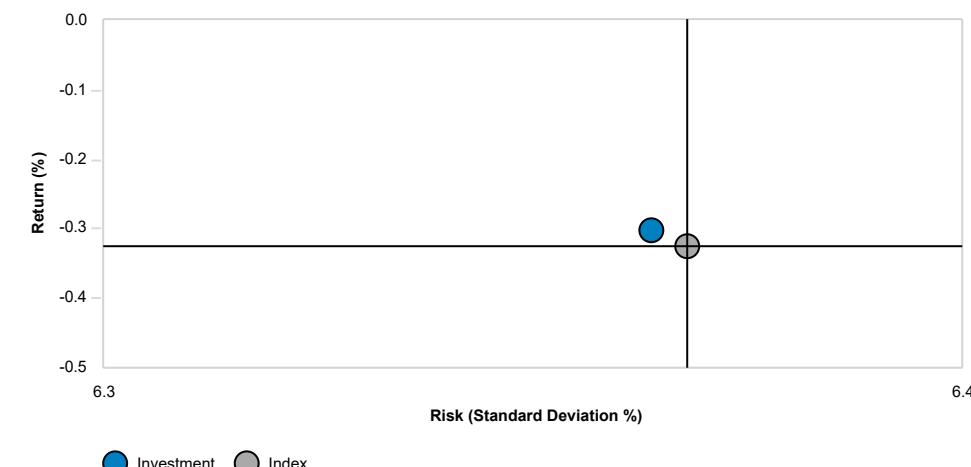
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	-0.30	6.36	-0.40	100.99	11	100.70	9
Index	-0.33	6.37	-0.41	100.00	12	100.00	8

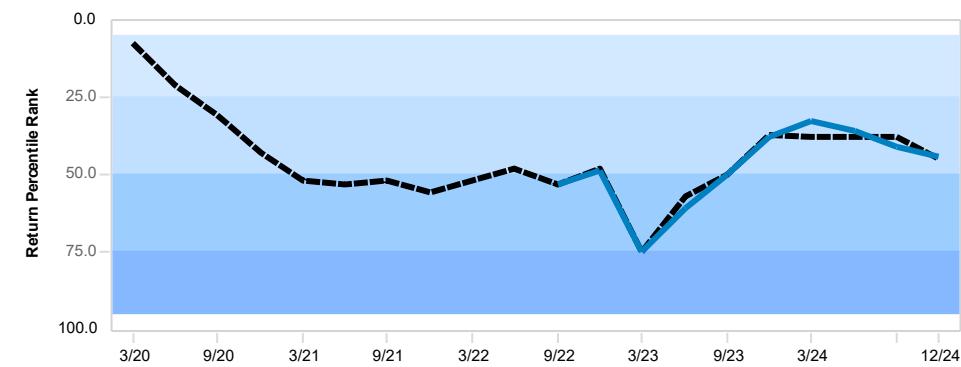
Risk and Return 3 Years



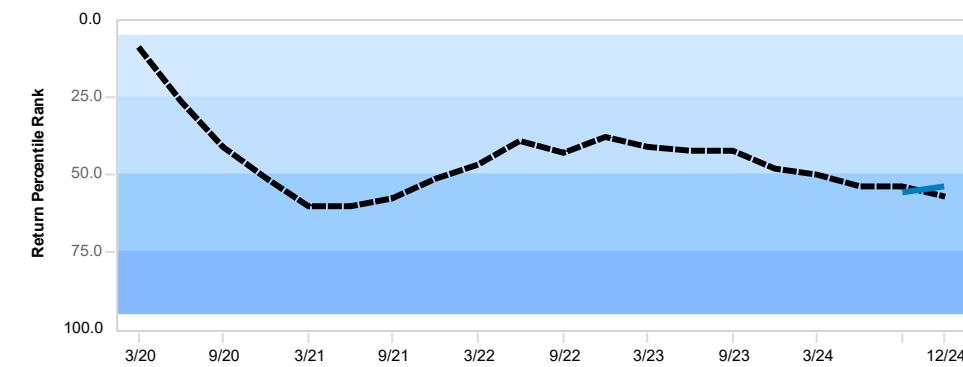
Risk and Return 5 Years



3 Year Rolling Percentile Rank Intermediate Core Bond



5 Year Rolling Percentile Rank Intermediate Core Bond

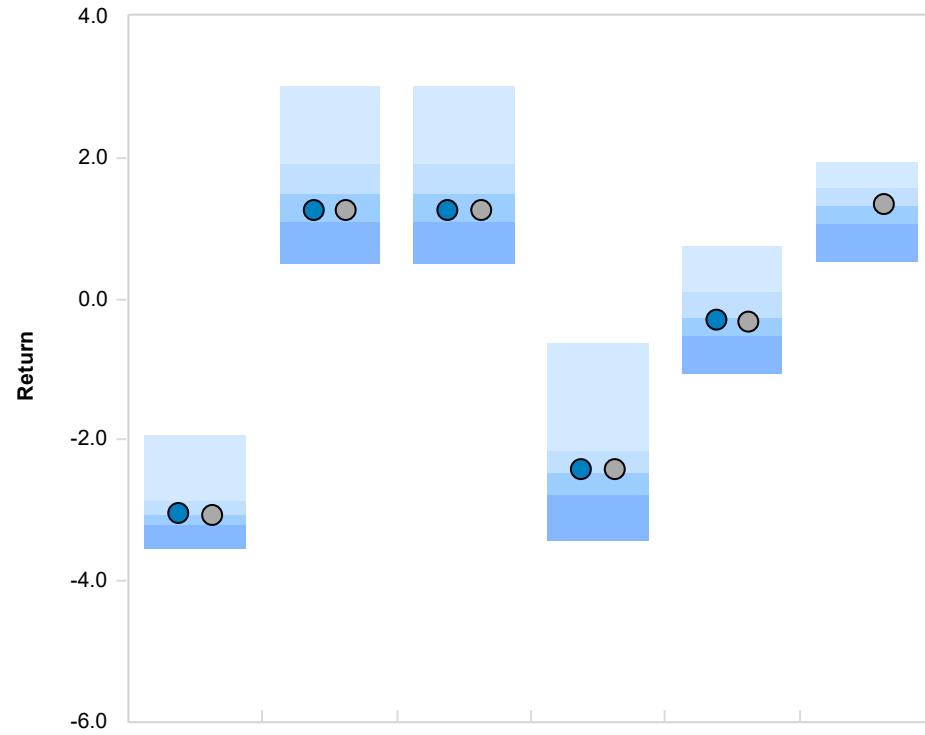


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	10	0 (0%)	7 (70%)	3 (30%)	0 (0%)
Index	20	2 (10%)	10 (50%)	8 (40%)	0 (0%)

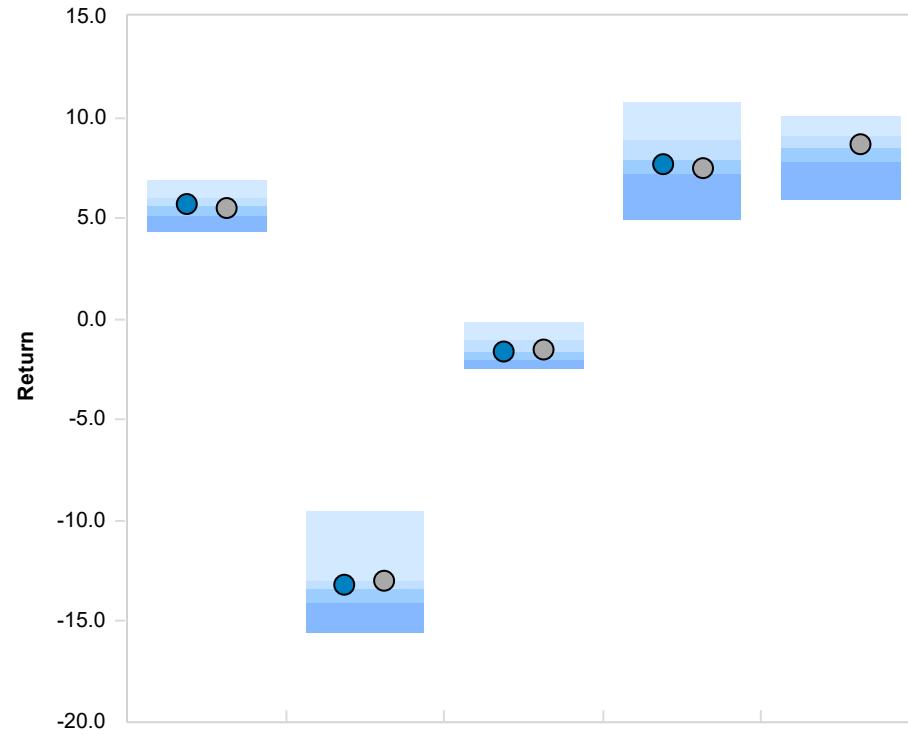
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	2	0 (0%)	0 (0%)	2 (100%)	0 (0%)
Index	20	1 (5%)	11 (55%)	8 (40%)	0 (0%)

Inception Date for VBTIX is 9/2019. Manager returns for VBTIX have been used for this report.

Peer Group Analysis - Intermediate Core Bond



Peer Group Analysis - Intermediate Core Bond



Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 09/01/2019	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	5,041,017	75,803,437	707,172	81,551,626

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	5.07 (62)	0.18 (49)	-0.79 (73)	6.69 (50)	-3.08 (40)	-0.90 (57)
Index	5.20 (37)	0.07 (78)	-0.78 (72)	6.82 (35)	-3.23 (61)	-0.84 (48)
Median	5.13	0.17	-0.63	6.69	-3.16	-0.86

Inception Date for VBTIX is 9/2019. Manager returns for VBTIX have been used for this report.

Fund Information As of 12/31/2024

Fund Name :	Vanguard Total Bond Market Index I	Portfolio Assets :	\$44,341 Million
Fund Family :	Vanguard	Portfolio Manager :	Barrickman,J
Ticker :	VBTIX	PM Tenure :	11 Years 10 Months
Inception Date :	09/18/1995	Fund Style :	Intermediate Core Bond
Fund Assets :	\$342,038 Million	Style Benchmark :	Bloomberg U.S. Aggregate Index
Portfolio Turnover :	36%		

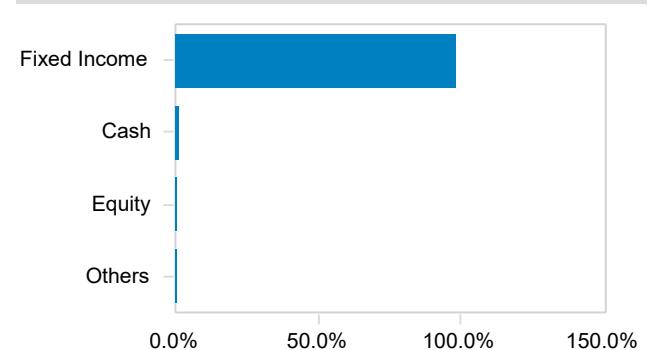
Fund Characteristics As of 12/31/2024

Avg. Coupon	3.56 %
Avg. Effective Maturity	8.4 Years
Avg. Effective Duration	5.95 Years
Avg. Credit Quality	AA
Yield To Maturity	4.73 %
SEC Yield	4.5 %

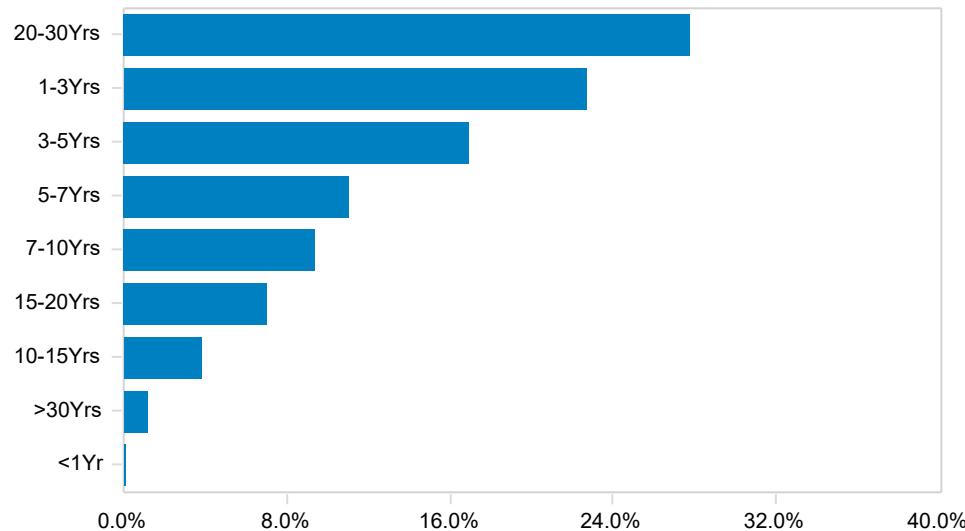
Top Ten Securities As of 12/31/2024

United States Treasury Notes	0.7 %
United States Treasury Notes	0.4 %
United States Treasury Notes	0.4 %
United States Treasury Notes	0.4 %
United States Treasury Notes	0.4 %
United States Treasury Notes	0.4 %
United States Treasury Notes	0.4 %
United States Treasury Notes	0.4 %
United States Treasury Notes	0.4 %
Total	4.4 %

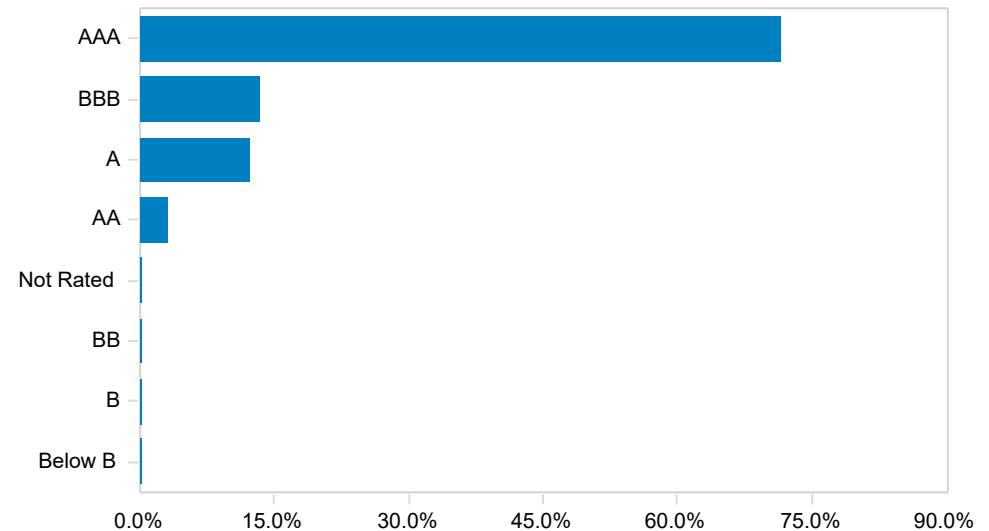
Asset Allocation As of 11/30/2024



Maturity Distribution As of 12/31/2024



Quality Allocation As of 10/31/2024



Strategy Review

Vanguard High Yield Bond Fund (VWEAX) | Vanguard High Yield Corporate Composite Index

As of December 31, 2024

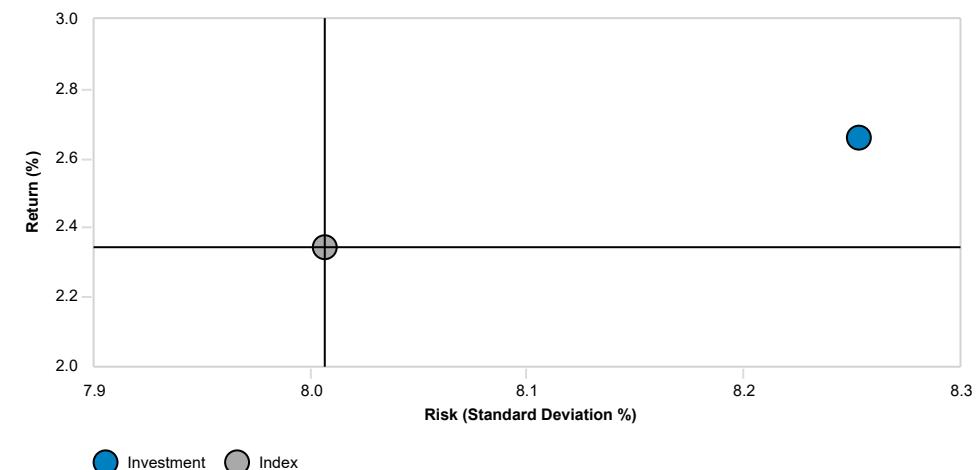
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.66	8.25	-0.11	102.44	7	99.60	5
Index	2.35	8.01	-0.15	100.00	8	100.00	4

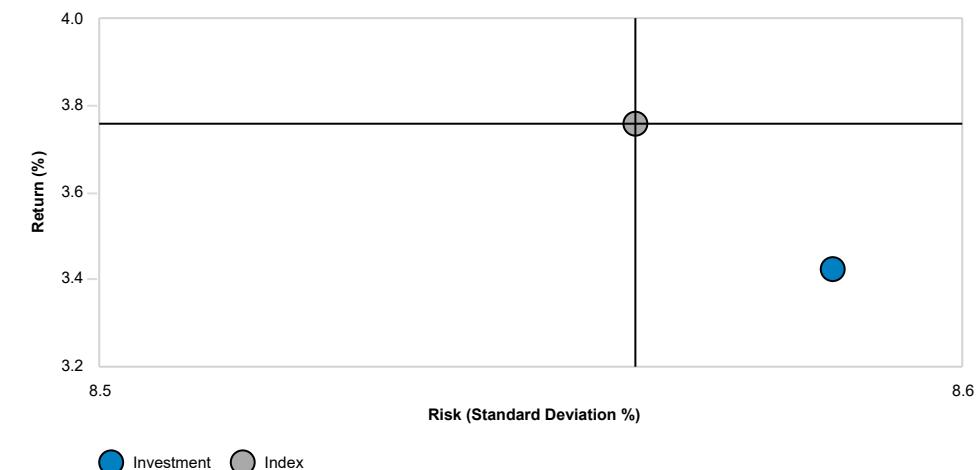
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.43	8.58	0.15	96.83	13	99.18	7
Index	3.76	8.56	0.19	100.00	15	100.00	5

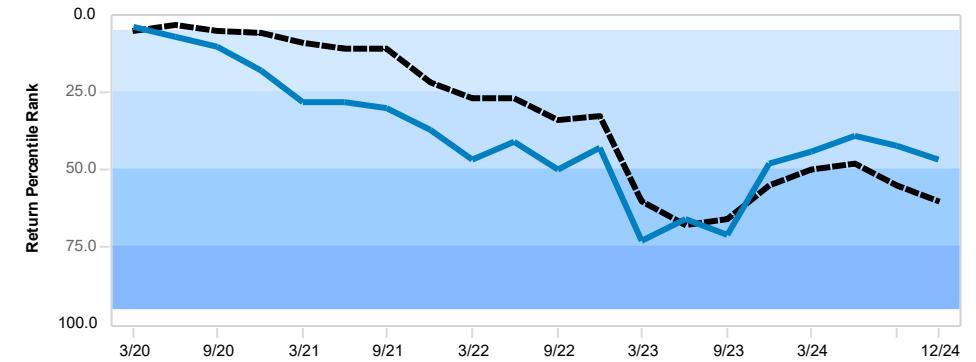
Risk and Return 3 Years



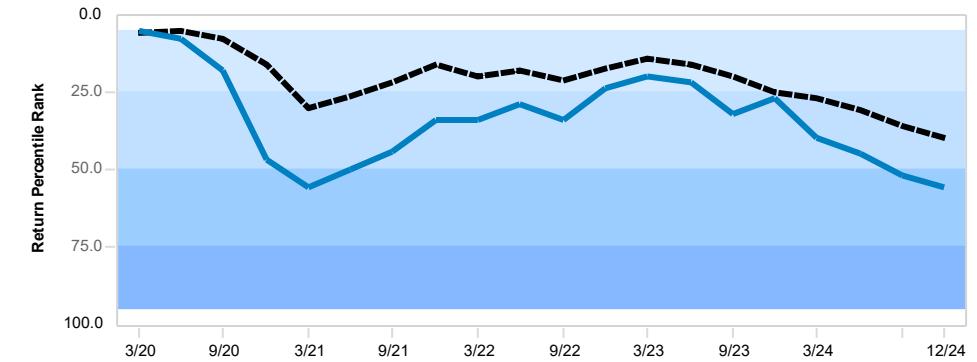
Risk and Return 5 Years



3 Year Rolling Percentile Rank High Yield Bond



5 Year Rolling Percentile Rank High Yield Bond

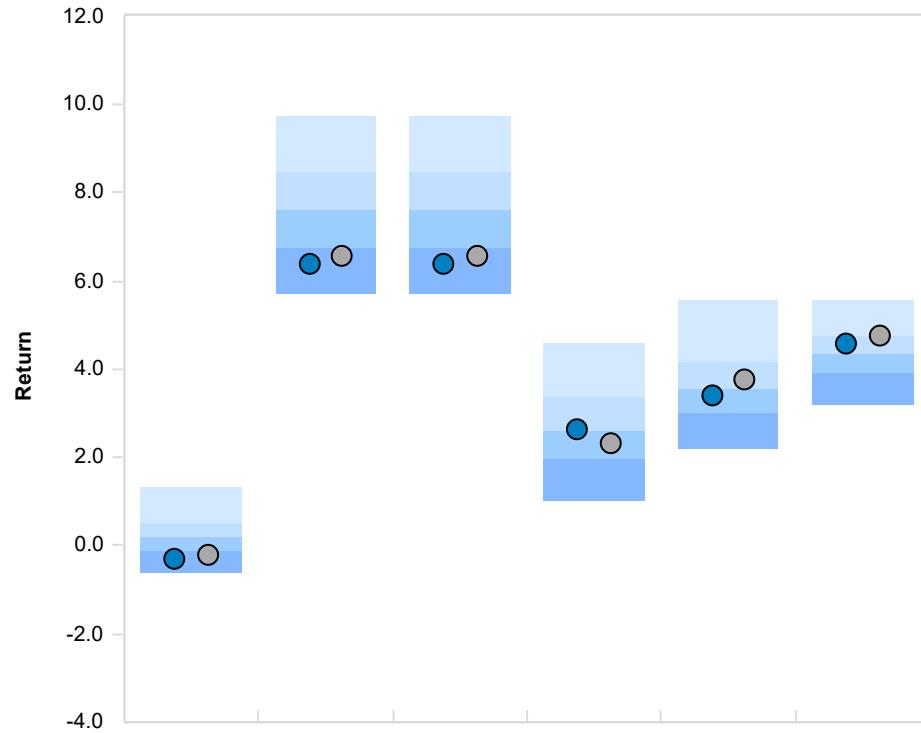


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	4 (20%)	13 (65%)	3 (15%)	0 (0%)
Index	20	8 (40%)	6 (30%)	6 (30%)	0 (0%)

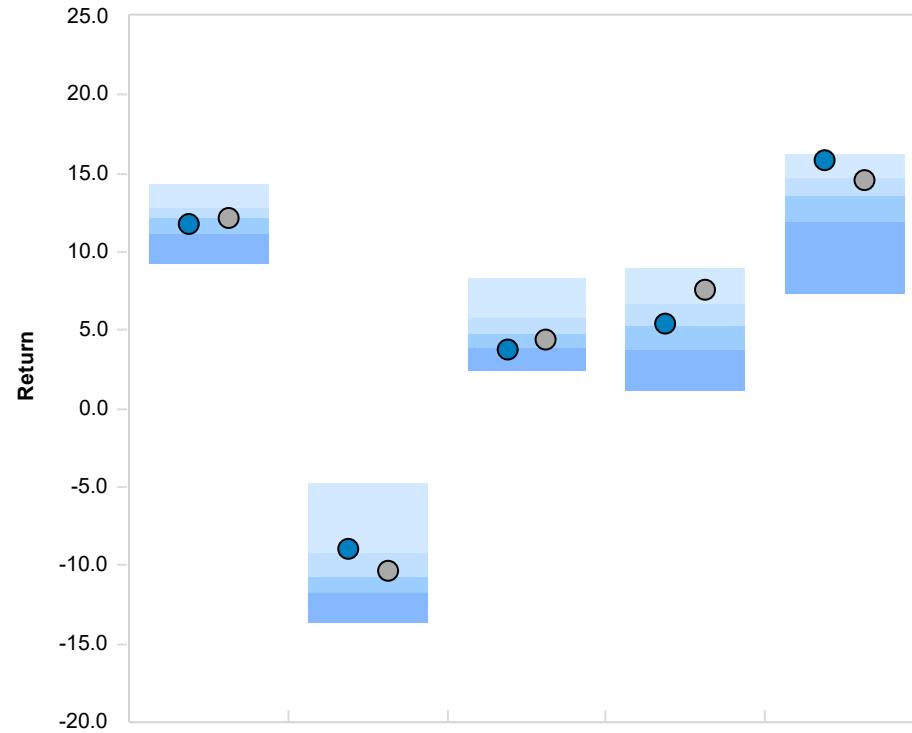
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	6 (30%)	11 (55%)	3 (15%)	0 (0%)
Index	20	14 (70%)	6 (30%)	0 (0%)	0 (0%)

Strategy Review
Vanguard High Yield Bond Fund (VWEAX) | Vanguard High Yield Corporate Composite Index
As of December 31, 2024

Peer Group Analysis - High Yield Bond



Peer Group Analysis - High Yield Bond



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	-0.27 (85)	6.38 (84)	6.38 (84)	2.66 (47)	3.43 (56)	4.60 (36)
Index	-0.19 (80)	6.59 (79)	6.59 (79)	2.35 (60)	3.76 (40)	4.79 (25)
Median	0.20	7.63	7.63	2.58	3.55	4.38

	2023	2022	2021	2020	2019
Investment	11.74 (61)	-8.97 (23)	3.78 (77)	5.38 (49)	15.90 (8)
Index	12.14 (50)	-10.32 (43)	4.35 (64)	7.53 (13)	14.61 (30)
Median	12.11	-10.67	4.82	5.32	13.55

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 12/01/2014	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	12,642,764	5,350,000	9,477,668	27,470,432

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	4.41 (59)	1.39 (26)	0.77 (96)	7.30 (9)	-0.20 (90)	1.12 (74)
Index	4.32 (66)	1.17 (54)	1.19 (75)	6.99 (22)	0.17 (76)	1.24 (65)
Median	4.51	1.20	1.59	6.48	0.53	1.39

Mutual Fund Holdings Analysis
Vanguard High Yield Bond Fund (VWEAX)
December 31, 2024

Fund Information As of 12/31/2024

Fund Name :	Vanguard High-Yield Corporate Adm	Portfolio Assets :	\$21,580 Million
Fund Family :	Vanguard	Portfolio Manager :	Chang,M/Shortsleeve,E
Ticker :	VWEAX	PM Tenure :	2 Years 4 Months
Inception Date :	11/12/2001	Fund Style :	High Yield Bond
Fund Assets :	\$24,627 Million	Style Benchmark :	ICE BofA U.S. High Yield Cash Pay Index
Portfolio Turnover :	36%		

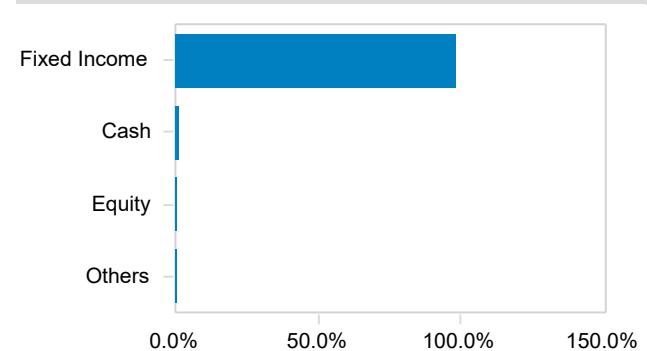
Fund Characteristics As of 12/31/2024

Avg. Coupon	5.62 %
Avg. Effective Maturity	3.8 Years
Avg. Effective Duration	2.88 Years
Avg. Credit Quality	BB
Yield To Maturity	6.14 %
SEC Yield	6.24 %

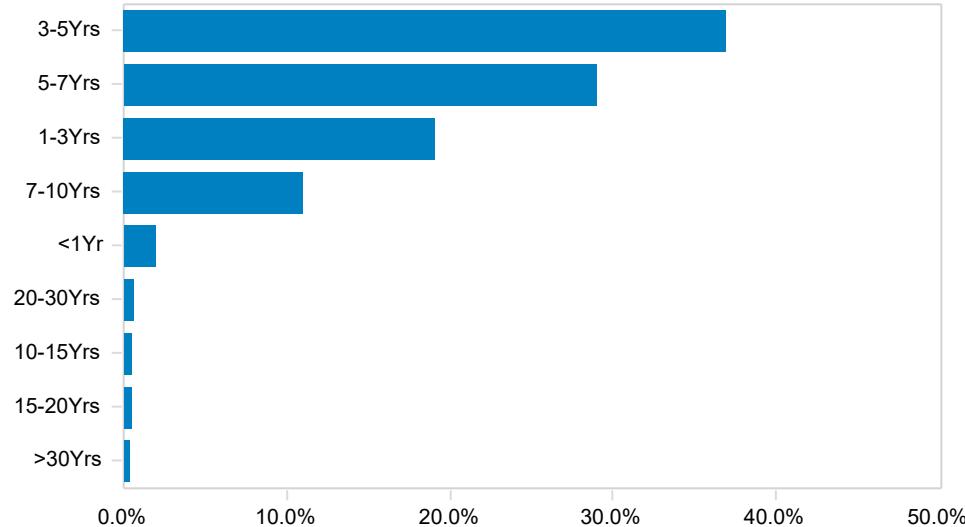
Top Ten Securities As of 09/30/2024

Imola Merger Corp.	0.8 %
United States Treasury Notes	0.7 %
United States Treasury Bills	0.7 %
United States Treasury Notes	0.7 %
Herc Holdings Inc	0.6 %
SS&C Technologies, Inc.	0.6 %
Frontier Communications Parent	0.6 %
1011778 B.C. Unlimited Liability	0.5 %
United States Treasury Notes	0.5 %
Boyd Gaming Corporation	0.5 %
Total	6.0 %

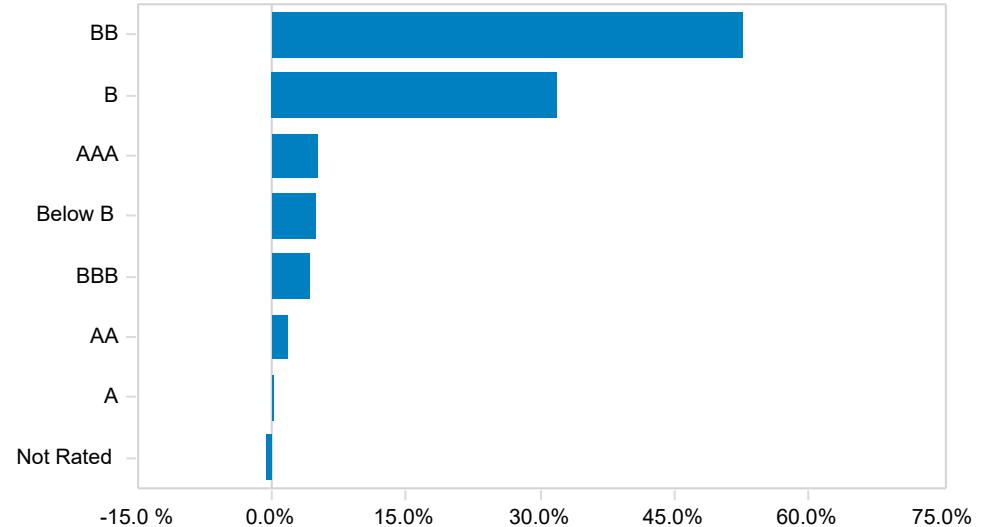
Asset Allocation As of 09/30/2024



Maturity Distribution As of 09/30/2024



Quality Allocation As of 09/30/2024



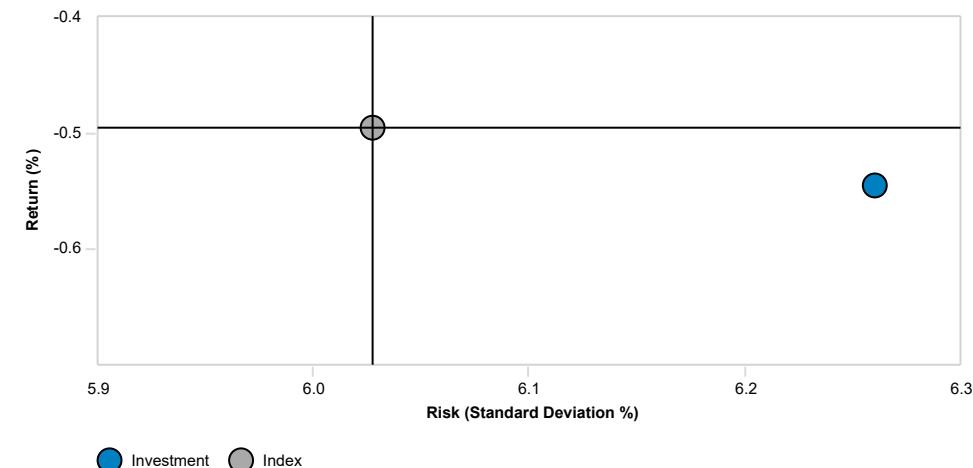
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	-0.55	6.26	-0.69	102.28	6	102.61	6
Index	-0.50	6.03	-0.71	100.00	7	100.00	5

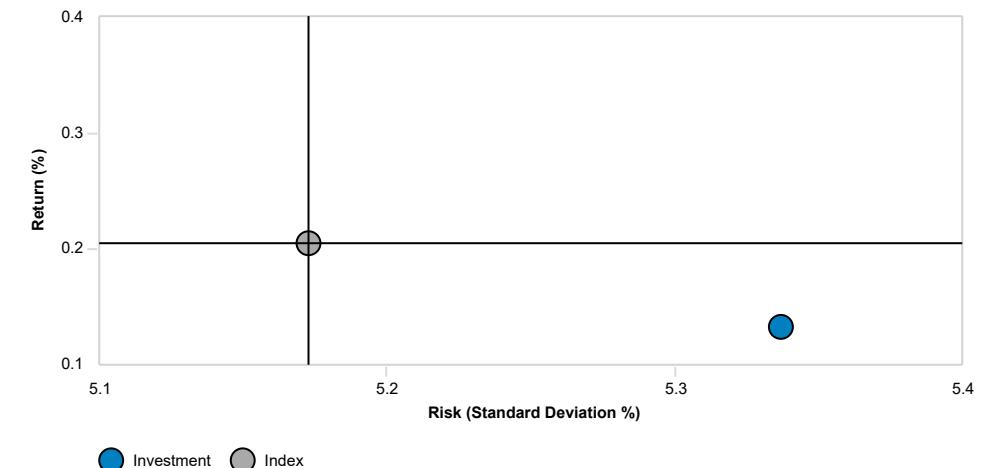
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	0.13	5.34	-0.41	100.80	12	101.78	8
Index	0.20	5.17	-0.41	100.00	12	100.00	8

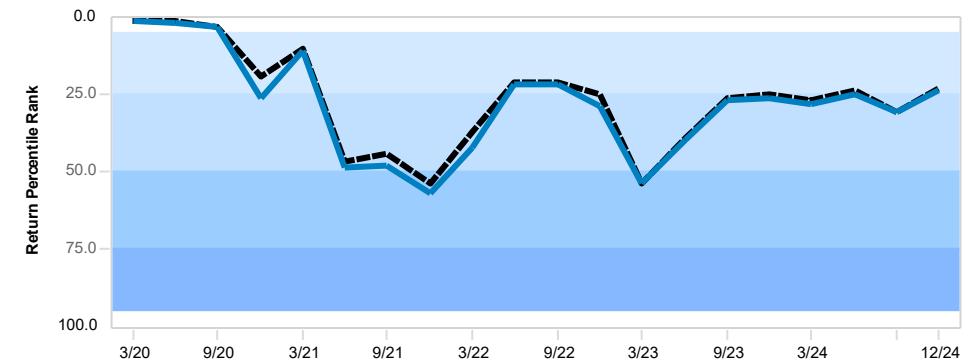
Risk and Return 3 Years



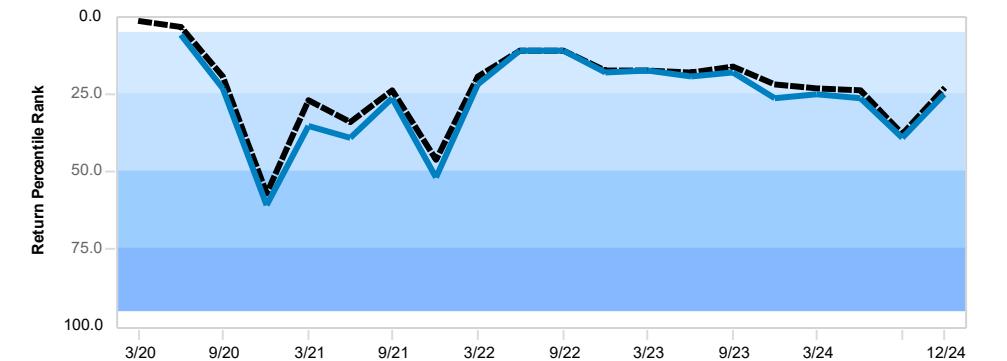
Risk and Return 5 Years



3 Year Rolling Percentile Rank Global Bond



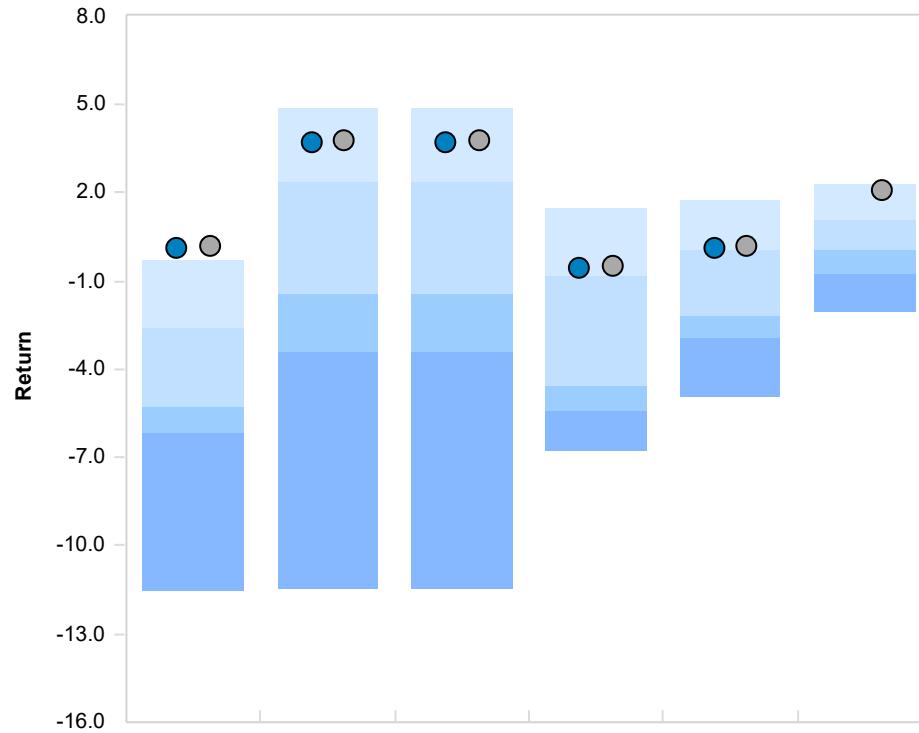
5 Year Rolling Percentile Rank Global Bond



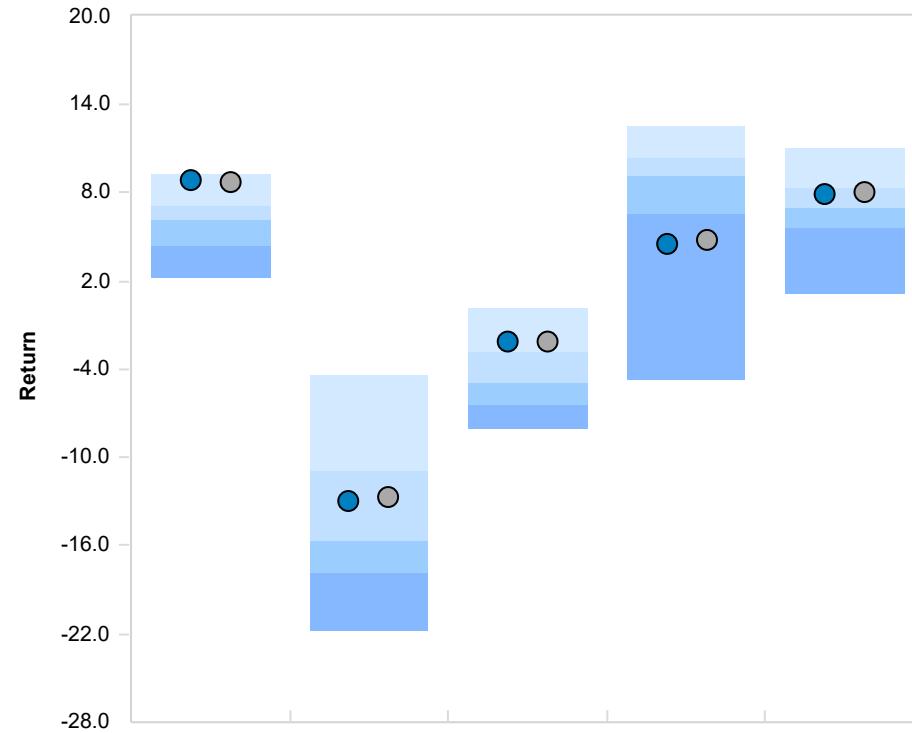
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	8 (40%)	10 (50%)	2 (10%)	0 (0%)
Index	20	11 (55%)	7 (35%)	2 (10%)	0 (0%)

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	19	11 (58%)	6 (32%)	2 (11%)	0 (0%)
Index	20	15 (75%)	4 (20%)	1 (5%)	0 (0%)

Peer Group Analysis - Global Bond



Peer Group Analysis - Global Bond



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	0.12 (4)	3.74 (11)	3.74 (11)	-0.55 (24)	0.13 (25)	N/A
Index	0.20 (4)	3.79 (11)	3.79 (11)	-0.50 (23)	0.20 (23)	2.08 (7)
Median	-5.27	-1.43	-1.43	-4.53	-2.18	0.06

	2023	2022	2021	2020	2019
Investment	8.85 (9)	-12.89 (36)	-2.17 (22)	4.59 (84)	7.89 (33)
Index	8.75 (10)	-12.72 (36)	-2.10 (21)	4.75 (83)	8.06 (29)
Median	6.10	-15.66	-5.00	9.09	6.92

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 06/01/2015	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	9,329,282	-4,225,000	1,893,454	6,997,736

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	4.12 (87)	-0.55 (32)	0.06 (12)	6.50 (79)	-1.46 (17)	0.14 (17)
Index	3.90 (92)	-0.39 (26)	0.09 (11)	6.38 (82)	-1.29 (16)	0.37 (15)
Median	6.90	-1.12	-1.60	8.25	-3.63	-1.42

Fund Information As of 12/31/2024

Fund Name :	Vanguard Total Intl Bd Idx Institutional	Portfolio Assets :	\$13,870 Million
Fund Family :	Vanguard	Portfolio Manager :	Barrickman,J/Talone,T
Ticker :	VTIFX	PM Tenure :	11 Years 7 Months
Inception Date :	05/31/2013	Fund Style :	Global Bond-USD Hedged
Fund Assets :	\$99,474 Million	Style Benchmark :	Bloomberg Global Aggregate Index (Hedged)
Portfolio Turnover :	26%		

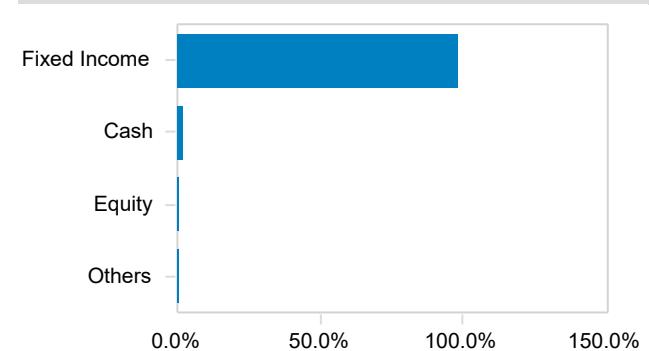
Fund Characteristics As of 12/31/2024

Avg. Coupon	2.5 %
Avg. Effective Maturity	8.8 Years
Avg. Effective Duration	7.16 Years
Avg. Credit Quality	BBB
Yield To Maturity	4.7 %
SEC Yield	2.9 %

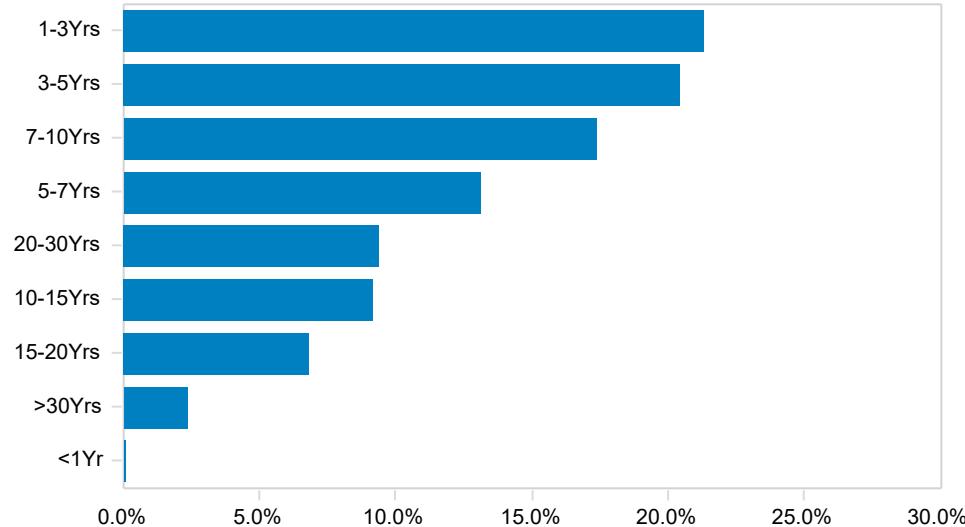
Top Ten Securities As of 12/31/2024

France (Republic Of)	0.4 %
Germany (Federal Republic Of)	0.4 %
United Kingdom of Great Britain	0.4 %
Italy (Republic Of)	0.4 %
United Kingdom of Great Britain	0.3 %
France (Republic Of)	0.3 %
France (Republic Of)	0.3 %
Germany (Federal Republic Of)	0.3 %
Italy (Republic Of)	0.3 %
Total	3.5 %

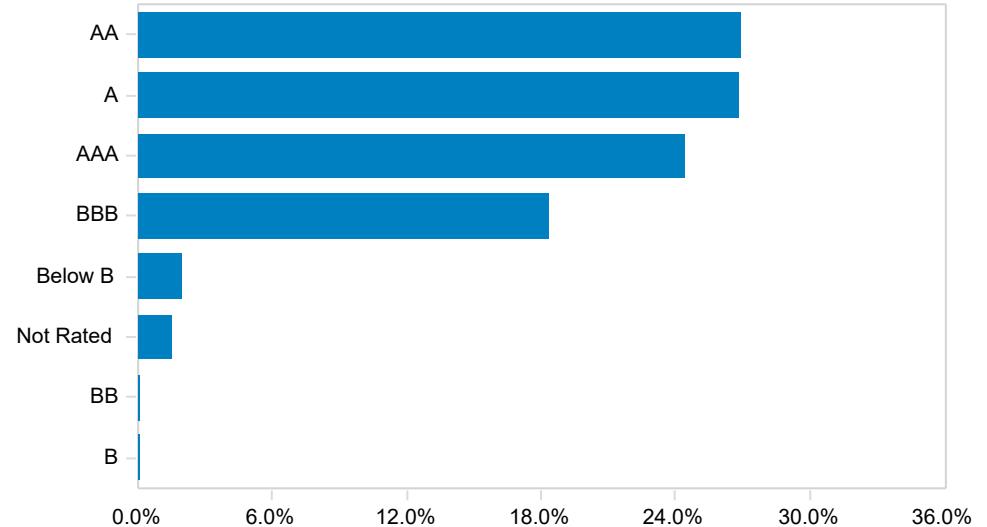
Asset Allocation As of 11/30/2024



Maturity Distribution As of 12/31/2024



Quality Allocation As of 10/31/2024



Strategy Review
Vanguard Real Estate Index Fund (VGSNX) | Vanguard Spliced REIT Index
As of December 31, 2024

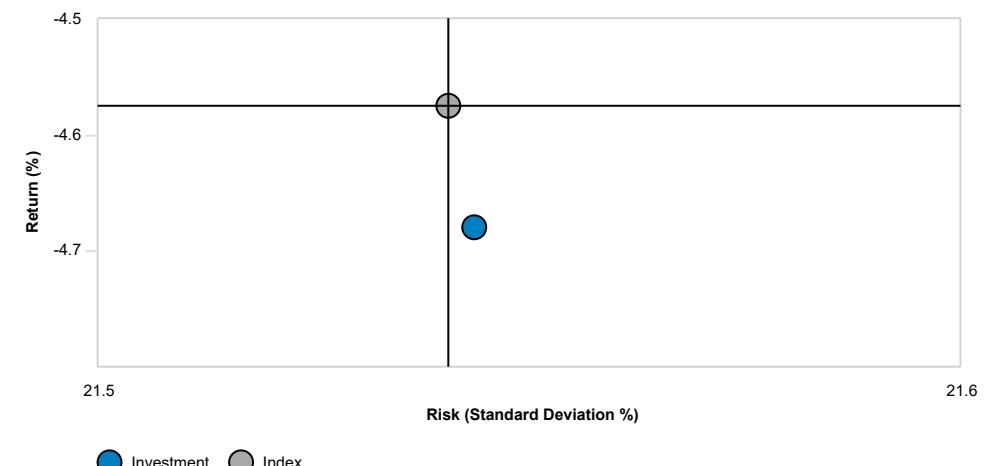
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	-4.68	21.54	-0.29	99.84	5	100.17	7
Index	-4.57	21.54	-0.29	100.00	5	100.00	7

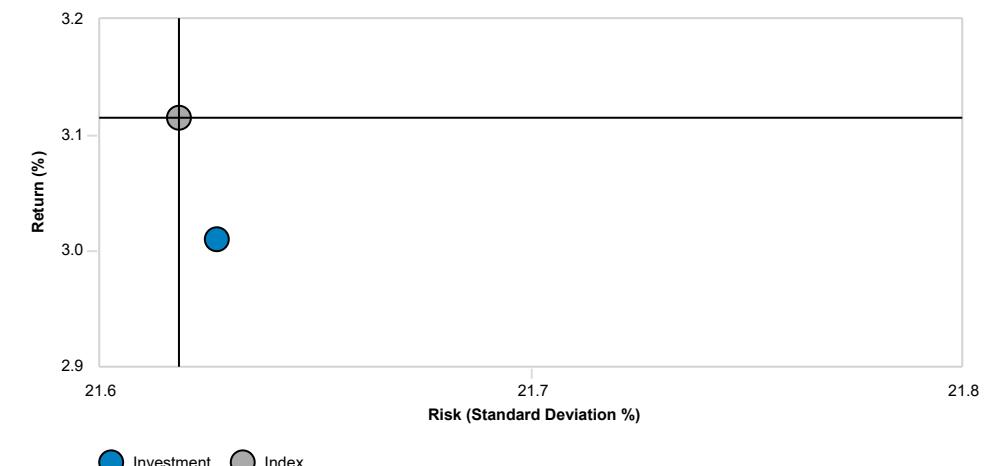
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.01	21.63	0.13	99.85	12	100.17	8
Index	3.12	21.62	0.14	100.00	12	100.00	8

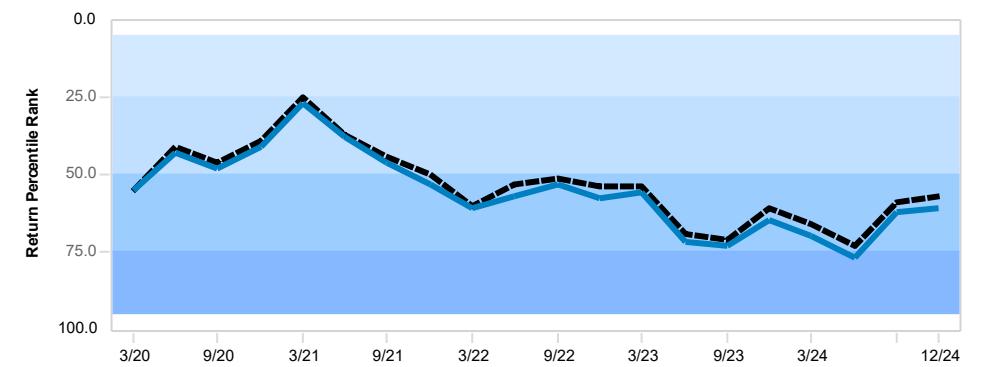
Risk and Return 3 Years



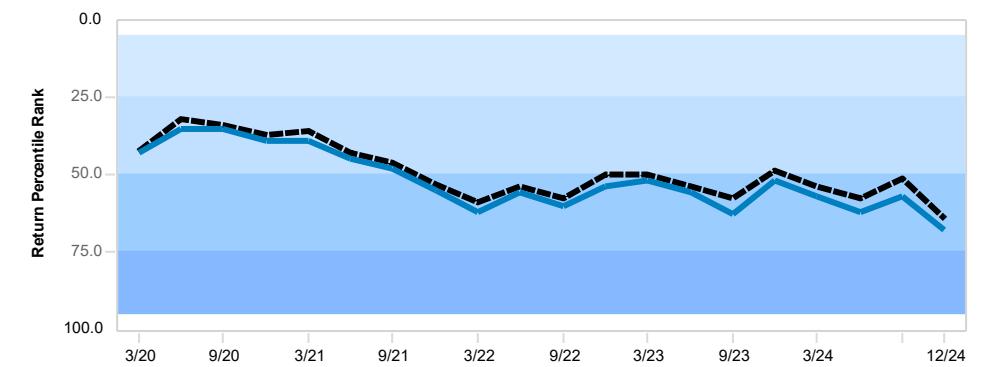
Risk and Return 5 Years



3 Year Rolling Percentile Rank Real Estate



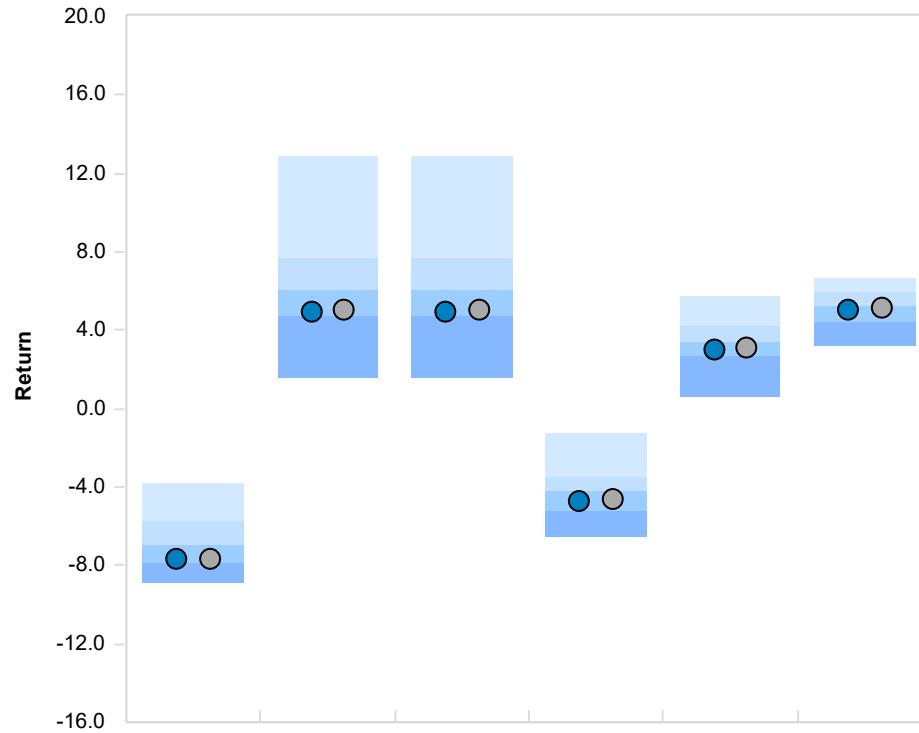
5 Year Rolling Percentile Rank Real Estate



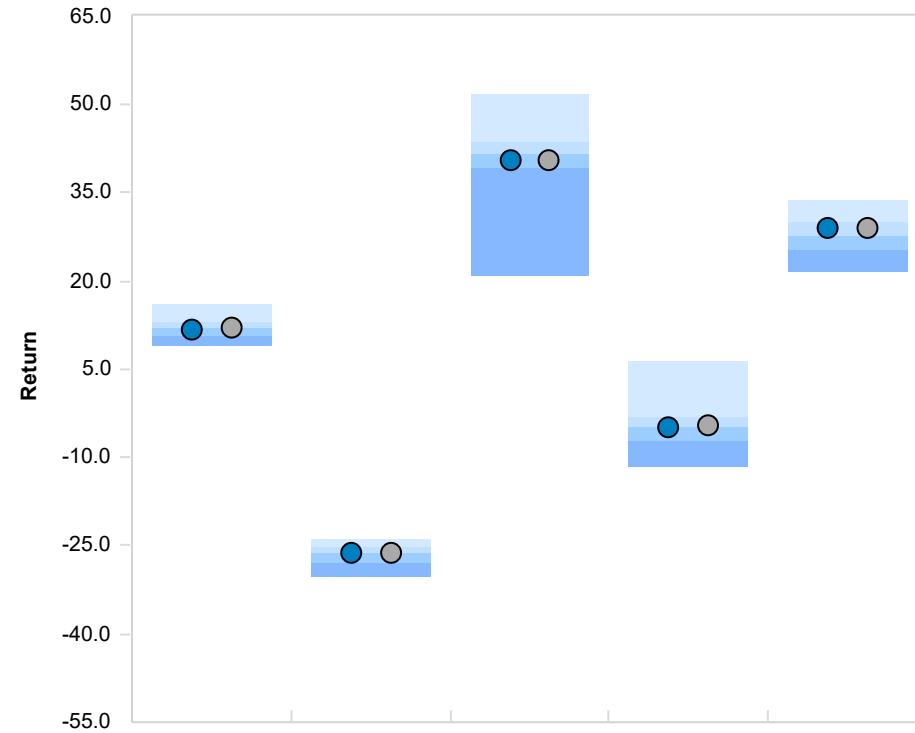
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	6 (30%)	13 (65%)	1 (5%)
Index	20	1 (5%)	6 (30%)	13 (65%)	0 (0%)

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	7 (35%)	13 (65%)	0 (0%)
Index	20	0 (0%)	10 (50%)	10 (50%)	0 (0%)

Peer Group Analysis - Real Estate



Peer Group Analysis - Real Estate



	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Investment	-7.63 (68)	4.94 (71)	4.94 (71)	-4.68 (61)	3.01 (68)	5.09 (55)
Index	-7.61 (68)	5.05 (66)	5.05 (66)	-4.57 (57)	3.12 (64)	5.18 (53)
Median	-6.97	6.02	6.02	-4.17	3.47	5.24

	2023	2022	2021	2020	2019
Investment	11.82 (57)	-26.20 (48)	40.47 (63)	-4.67 (48)	29.02 (35)
Index	11.96 (52)	-26.12 (45)	40.56 (62)	-4.55 (47)	29.03 (35)
Median	12.07	-26.29	41.44	-4.84	27.78

Financial Reconciliation Since Inception Ending December 31, 2024

	Market Value 10/01/2010	Net Flows	Return On Investment	Market Value 12/31/2024
Investment	4,801,552	-2,776,630	11,595,923	13,620,845

Comparative Performance

	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Investment	17.19 (13)	-1.91 (85)	-1.16 (57)	18.13 (11)	-8.50 (74)	1.63 (58)
Index	17.23 (10)	-1.88 (83)	-1.15 (57)	18.18 (10)	-8.50 (75)	1.68 (54)
Median	15.92	-0.75	-1.05	16.40	-7.80	1.79

Fund Information As of 12/31/2024

Fund Name :	Vanguard Real Estate Index Institutional	Portfolio Assets :	\$9,993 Million
Fund Family :	Vanguard	Portfolio Manager :	Nejman,W/O'Reilly,G
Ticker :	VGSNX	PM Tenure :	28 Years 7 Months
Inception Date :	12/02/2003	Fund Style :	Real Estate
Fund Assets :	\$64,704 Million	Style Benchmark :	S&P U.S. REIT
Portfolio Turnover :	9%		

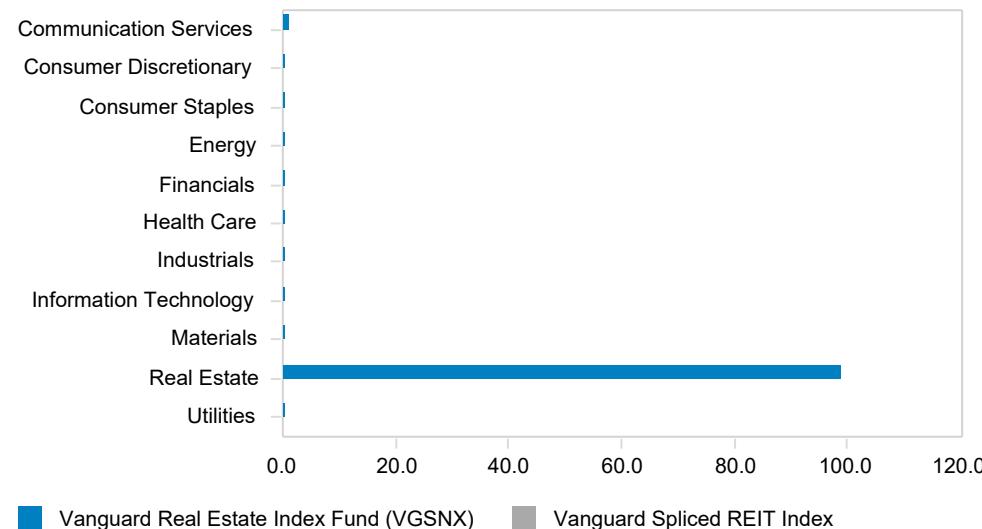
Portfolio Characteristics As of 12/31/2024

	Portfolio	Benchmark
Total Securities	162	N/A
Avg. Market Cap	-	-
Price/Earnings (P/E)	34.27	N/A
Price/Book (P/B)	2.32	N/A
Dividend Yield	3.95	N/A
Annual EPS	N/A	N/A
5 Yr EPS	N/A	N/A
3 Yr EPS Growth	N/A	N/A
Beta (5 Years, Monthly)	1.00	1.00

Top Ten Securities As of 12/31/2024

Vanguard Real Estate II Index	13.9 %
Prologis Inc	5.8 %
Equinix Inc	5.2 %
American Tower Corp	5.1 %
Welltower Inc	4.5 %
Digital Realty Trust Inc	3.5 %
Simon Property Group Inc	3.3 %
Public Storage	2.8 %
Realty Income Corp	2.8 %
CBRE Group Inc Class A	2.4 %
Total	49.3 %

Sector Weights As of 12/31/2024



Region (%) As of 12/31/2024

No data found.

Total Fund Policy			
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jan-1979		Jul-2014	
Russell 1000 Growth Index	20.00	CRSP U.S. Large Cap Value TR Index	8.00
Russell 1000 Value Index	20.00	CRSP U.S. Large Cap Growth TR Index	8.00
MSCI EAFE (Net) Index	10.00	CRSP U.S. Mid Cap TR Index	10.00
Bloomberg Intermediate US Govt/Credit Idx	40.00	CRSP U.S. Small Cap TR Index	5.00
Russell 2000 Index	10.00	Vanguard Spliced Emerging Markets Index (Net)	4.00
90 Day U.S. Treasury Bill	0.00	Vanguard Spliced Developed ex U.S. Index (Net)	9.00
Jun-2010		Blmbg. U.S. Gov/Credit: 5-10 Yr	7.50
Russell 1000 Value Index	15.00	Bloomberg U.S. TIPS Index	7.50
MSCI US Prime Market Growth	15.00	Bloomberg 1-5 Year Gov/Credit Idx	7.50
MSCI US Mid Cap 450 Index	10.00	Bloomberg US TIPS 0-5 Year Index	7.50
Russell 2000 Index	10.00	Vanguard Spliced REIT Index	10.00
MSCI EAFE (Net) Index	10.00	90 Day U.S. Treasury Bill	1.00
MSCI Emerging Markets (Net) Index	5.00	S&P 500 Index	15.00
Blmbg. U.S. Gov/Credit: 5-10 Yr	15.00		
Bloomberg U.S. TIPS Index	15.00		
Vanguard Spliced REIT Index	5.00		
Jun-2013			
CRSP U.S. Large Cap Value TR Index	15.00		
CRSP U.S. Large Cap Growth TR Index	15.00		
CRSP U.S. Mid Cap TR Index	10.00		
CRSP U.S. Small Cap TR Index	10.00		
Vanguard Spliced Emerging Markets Index (Net)	5.00		
Vanguard Spliced Developed ex U.S. Index (Net)	10.00		
Blmbg. U.S. Gov/Credit: 5-10 Yr	7.50		
Bloomberg U.S. TIPS Index	7.50		
Bloomberg 1-5 Year Gov/Credit Idx	7.50		
Bloomberg US TIPS 0-5 Year Index	7.50		
Vanguard Spliced REIT Index	4.00		
90 Day U.S. Treasury Bill	1.00		

Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jun-2015		Oct-2019	
CRSP U.S. Large Cap Value TR Index	5.00	S&P 500 Index	15.00
CRSP U.S. Large Cap Growth TR Index	5.00	CRSP U.S. Large Cap Value TR Index	5.00
CRSP U.S. Mid Cap TR Index	10.00	CRSP U.S. Large Cap Growth TR Index	5.00
CRSP U.S. Small Cap TR Index	5.00	S&P MidCap 400 Index	10.00
Vanguard Spliced Emerging Markets Index (Net)	5.00	S&P SmallCap 600 Index	5.00
Vanguard Spliced Developed ex U.S. Index (Net)	10.00	FTSE Developed All Cap ex-U.S. Index	10.00
Blmbg. U.S. Gov/Credit: 5-10 Yr	7.50	FTSE Emerging Mkts All Cap China A Inclusion Index	5.00
Bloomberg U.S. TIPS Index	5.00	Blmbg. U.S. Aggregate Index	20.00
Bloomberg 1-5 Year Gov/Credit Idx	7.50	Bloomberg 1-5 Year Gov/Credit Idx	2.50
Bloomberg US TIPS 0-5 Year Index	5.00	Blmbg. U.S. Corp High Yield	10.00
Vanguard Spliced REIT Index	5.00	Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	5.00
90 Day U.S. Treasury Bill	2.50	Vanguard Spliced REIT Index	5.00
S&P 500 Index	15.00	90 Day U.S. Treasury Bill	2.50
Blmbg. U.S. Corp High Yield	7.50		
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	5.00		
Dec-2018		Mar-2020	
CRSP U.S. Large Cap Value TR Index	5.00	S&P 500 Index	15.00
CRSP U.S. Large Cap Growth TR Index	5.00	CRSP U.S. Large Cap Value TR Index	5.00
S&P MidCap 400 Index	10.00	CRSP U.S. Large Cap Growth TR Index	5.00
S&P SmallCap 600 Index	5.00	S&P MidCap 400 Index	10.00
Vanguard Spliced Emerging Markets Index (Net)	5.00	S&P SmallCap 600 Index	5.00
Vanguard Spliced Developed ex U.S. Index (Net)	10.00	FTSE Developed All Cap ex-U.S. Index	7.50
Blmbg. U.S. Gov/Credit: 5-10 Yr	7.50	FTSE Emerging Mkts All Cap China A Inclusion Index	5.00
Bloomberg U.S. TIPS Index	5.00	FTSE Global ex U.S. Small Cap Index (Net)	2.50
Bloomberg 1-5 Year Gov/Credit Idx	7.50	Blmbg. U.S. Aggregate Index	20.00
Bloomberg US TIPS 0-5 Year Index	5.00	Bloomberg 1-5 Year Gov/Credit Idx	2.50
Vanguard Spliced REIT Index	5.00	Blmbg. U.S. Corp High Yield	10.00
90 Day U.S. Treasury Bill	2.50	Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	5.00
S&P 500 Index	15.00	Vanguard Spliced REIT Index	5.00
Blmbg. U.S. Corp High Yield	7.50	90 Day U.S. Treasury Bill	2.50
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	5.00		

Allocation Mandate	Weight (%)
May-2024	
S&P 500 Index	5.00
CRSP U.S. Large Cap Value TR Index	5.00
CRSP U.S. Large Cap Growth TR Index	5.00
S&P MidCap 400 Index	10.00
S&P SmallCap 600 Index	5.00
FTSE Developed All Cap ex-U.S. Index	7.50
FTSE Emerging Mkts All Cap China A Inclusion Index	5.00
FTSE Global ex U.S. Small Cap Index (Net)	2.50
Blmbg. U.S. Aggregate Index	30.00
Bloomberg 1-5 Year Gov/Credit Idx	2.50
Blmbg. U.S. Corp High Yield	10.00
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	5.00
Vanguard Spliced REIT Index	5.00
90 Day U.S. Treasury Bill	2.50

Mid Cap Index Policy	
Allocation Mandate	Weight (%)
Oct-2010	
Vanguard Spliced Mid Cap Index	100.00
Dec-2018	
S&P MidCap 400 Index	100.00

Small Cap Index Policy	
Allocation Mandate	Weight (%)
Jul-2009	
Vanguard Spliced Small Cap Index	100.00
Dec-2018	
S&P SmallCap 600 Index	100.00

Vanguard Spliced REIT Index History

MSCI US REIT Index adjusted to include a 2% cash position (Lipper Money Market Average) through April 30, 2009

MSCI US REIT Index through February 1, 2018

MSCI US Investable Market Real Estate 25/50 Transition Index through July 24, 2018

MSCI US Investable Market Real Estate 25/50 Index thereafter

Active Return	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
Alpha	- A measure of the difference between a portfolio's actual performance and its expected return based on its level of risk as determined by beta. It determines the portfolio's non-systemic return, or its historical performance not explained by movements of the market.
Beta	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
Consistency	- The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. Higher consistency indicates the manager has contributed more to the product's performance.
Distributed to Paid In (DPI)	- The ratio of money distributed to Limited Partners by the fund, relative to contributions. It is calculated by dividing cumulative distributions by paid in capital. This multiple shows the investor how much money they got back. It is a good measure for evaluating a fund later in its life because there are more distributions to measure against.
Down Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
Downside Risk	- A measure similar to standard deviation that utilizes only the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. A higher factor is indicative of a riskier product.
Excess Return	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
Excess Risk	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
Information Ratio	- This calculates the value-added contribution of the manager and is derived by dividing the active rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.
Public Market Equivalent (PME)	- Designs a set of analyses used in the Private Equity Industry to evaluate the performance of a Private Equity Fund against a public benchmark or index.
R-Squared	- The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.
Return	- Compounded rate of return for the period.
Sharpe Ratio	- Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.
Standard Deviation	- A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.
Total Value to Paid In (TVPI)	- The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. It is a good measure of performance before the end of a fund's life
Tracking Error	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
Treynor Ratio	- Similar to Sharpe ratio but utilizes beta rather than excess risk as determined by standard deviation. It is calculated by taking the excess rate of return above the risk free rate divided by beta to derive the absolute rate of return per unit of risk. A higher value indicates a product has achieved better historical risk-adjusted performance.
Up Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.

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Methodology for this Award: For the 2022 Greenwich Quality Award for Overall U.S. Investment Consulting – Midsized Consultants – Between February and November 2022, Coalition Greenwich conducted interviews with 727 individuals from 590 of the largest tax-exempt funds in the United States. These U.S.-based institutional investors are corporate and union funds, public funds, and endowment and foundation funds, with either pension or investment pool assets greater than \$150 million. Study participants were asked to provide quantitative and qualitative evaluations of their asset management and investment consulting providers, including qualitative assessments of those firms soliciting their business and detailed information on important market trends.

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