

Defined Contribution Committee Meeting Agenda

Tuesday, December 17, 2024 10:00A.M.

I. Market Update and Performance Review - Callan

(Information Only)

- a. MDC
- b. ORP
- II. <u>Mississippi Deferred Compensation-Empower Contract Renewal</u> (Intended Outcome- Approval of Staff Recommendation)
- III. Watchlist (Information Only)
- IV. Miscellaneous Updates (Information Only)

Callan

September 30, 2024

Public Employees Retirement System of Mississippi Deferred Compensation Plan

Investment Measurement Service Quarterly Review

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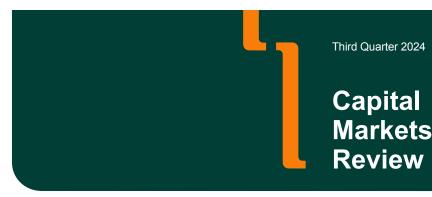


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Strong U.S. Economy Refuses to Cooperate

ECONOMY

GDP rose 2.8% in 3Q24 after an equally robust 2Q figure. Job creation has clearly slowed, but the unemployment rate is still low. Overall, economic growth is solid, yet a downbeat mood is pervasive, in seeming defiance of these sunny economic reports.

Rate Cut Spurs Rally With More Expected

FIXED INCOME

After the Fed cut rates 50 bps, fixed income rallied. The Fed "dot plot" expects two more cuts by year-end. The Aggregate had its second-best quarter in nearly 30 years. Global bonds also did well, and the U.S. dollar weakened against major currencies.

Managers Outperform Leveraged Loans

PRIVATE CREDIT

Private credit gained 1.8% in 2Q24. Fundraising, by number of funds, is off historical levels but capital raised is in line with the last few years. Interest in the asset class by institutional investors has stayed strong, especially by public DB plans.

Strong Year for Gains; Still Lag Benchmark

INSTITUTIONAL INVESTORS

All institutional investor types saw strong gains over the trailing one year ended 3Q24 but still lag a 60% stocks/40% bonds benchmark. Gains over longer time periods also lagged the benchmark. For institutional investors, their main focus now is on the Fed, after its first rate cut.

Funds See Gains and REITs Top Equities

REAL ESTATE/REAL ASSETS

After eight consecutive quarters of negative returns, valuations have adjusted to reflect higher borrowing costs. Income returns were positive across sectors and regions in 3Q24, with Hotels the top performer. All property sectors saw flat or positive appreciation, except for Office.

High Beta Managers Have Strong Quarter

HEDGE FUNDS/MACs

In 3Q, hedge funds had another strong performance, as strategies with higher beta to equity markets saw gains. Equity hedge strategies led returns, driven by generalist managers and those with a focus on health care. Multi-asset class (MAC) strategies also saw gains.

Record High in U.S. And Big Global Gains

EQUITY

The U.S. equity markets hit a record high after a disappointing start to 3Q24. But narrow leadership (the Magnificant Seven) continues to be an issue. Global markets outpaced U.S. markets, and global ex-U.S. markets did well as tech stocks in the U.S. faced pressure.

Fewer Funds but More Fundraising

PRIVATE EQUITY

The number of funds raised is significantly down, but the amount raised is higher than comparable periods in 2022 and 2023. Other activity has been similar to trends in 2023. Public equity outperformed private equity in the quarter, but not over longer time periods.

Index Gains Slow in 2Q24; Balances Up

DEFINED CONTRIBUTION

The Callan DC Index rose 1.7% in 2Q24.

Balances also rose, with investment gains the driver of the growth. U.S. large cap equity saw the largest percentage increases in allocation, while stable value had the largest decrease in allocation due to net outflows.

Broad Market Quarterly Returns

U.S. Equity Russell 3000



Global ex-U.S. Equity MSCI ACWI ex USA



8.1%

U.S. Fixed Income Bloomberg Agg



5.2%

Global ex-U.S. Fixed Income Bloomberg Global Agg ex US



8.5%

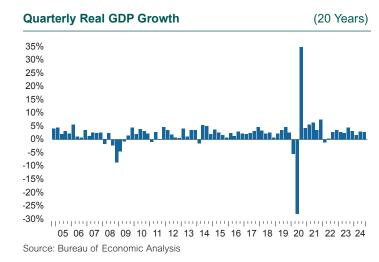
Sources: Bloomberg, FTSE Russell, MSCI

Strong U.S. Economy Refuses to Cooperate

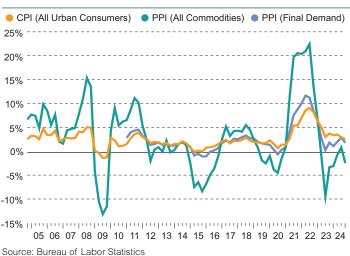
ECONOMY | Jay Kloepfer

Growth in the U.S. economy continues to defy a steady drumbeat of negative perception. Real GDP clocked a 2.8% rate of growth in 3Q24, after an equally robust 3.0% rate in 2Q. The rate of job creation has clearly slowed from that of 2022 and 2023, but September saw a monthly gain of 254,000, and the U.S. economy has averaged 200,000 new jobs per month so far this year. The rule of thumb in economics is that a rate of monthly job creation at or above 200,000 means the economy is expanding. The unemployment rate is still low at 4.1%, and weekly claims for unemployment benefits have dropped over the five months ending in September. So overall economic growth is solid, far stronger than expected at the start of the year, the job market is robust, and incomes and wages have risen substantially. Yet a downbeat mood is pervasive, in seeming defiance of these sunny economic reports.

Inflation has eased, but it doesn't feel like it to households and businesses alike. The cumulative impact on the cost of living from a generational spike in inflation looms large and is likely the chief culprit in the overall "bummer mood," to use the technical term, in the economy. The annual rate of inflation may have come back to 2.4% in September, but it is still positive, which means prices are still rising, just less quickly. Even if inflation goes to zero, prices will remain elevated; we'd need deflation to bring prices down. Deflation is kryptonite to economic policy. For businesses and government, the cost of goods and labor are now at substantially higher levels than four years ago. For households, higher wages help offset the higher costs of goods, services, and shelter, which is good. Average hourly earnings rose 20% between September 2020 and September 2024. However, the cost of new homes, rent, utilities, and groceries rose faster than wages over this period. Auto and home insurance are the new thorns in the consumer's side; the price index for auto insurance rose 16.3% year-over-year in September. The 2.4% rise in CPI in September was held down by a 15.3% drop in gasoline prices and similar declines in other energy-related sectors. Note that utility prices did not benefit from this drop in fuel prices over the past year, as they rose 3.4%.



Inflation Year-Over-Year



Digging through some of the details in the economic reports, the main driver of the strong 3Q GDP was consumer spending, spurred in large part by the strong job market. The leading categories of spending on services were health care (think outpatient services), hospitality, and accommodation; these are highly discretionary expenditures. Within goods, prescription drugs led non-durable goods, while motor vehicles and parts led durable goods spending. Business spending on equipment and intellectual property continued a long run of positive growth, likely driven in

part by the frenzy around AI. However, one of the main detractors to growth in 3Q24 was a reduction in inventory investment, the fifth negative quarter for inventory since the start of 2023. The steady drumbeat of a coming recession and Fed rate cuts may be to blame for spooking inventory investment. Finally, the housing market contracted for the second consecutive quarter, with "contraction" defined as a decline in residential housing investment. Housing prices remain elevated due to an unusual combination of high interest rates and limited supply. High rates would normally soften demand and push down prices, but the supply of homes for sale is limited, as existing homeowners choose to stay in their homes rather than face the higher cost of a new mortgage.

The Fed stepped up and cut interest rates 50 bps in September. only to now face the reality of a stronger economy than expected. The concern for some market participants is that the Fed move will spur exuberance in spending, and goose the stock market further, and this exuberance will potentially trigger a return of inflationary pressures, or at the least, slow the progress on bringing inflation down and keeping it there. The market sentiment on rate changes has been so far ahead of itself these past two years; it has become an unreliable narrator. If rates remain high for a while longer, that scenario suggests continuing economic growth—a good thing, right? If rates start to tail down, that scenario is often an indicator of growing economic problems. The challenge for Fed policy is that no elected official wants higher interest rates, at least not on their watch, and this is an election year.

The Long-Term View

		Р	eriods	Ended	9/30/24
Index	3Q24	1 Yr	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	6.2	35.2	15.3	12.8	8.4
S&P 500	5.9	36.4	16.0	13.4	8.2
Russell 2000	9.3	26.8	9.4	8.8	8.3
Global ex-U.S. Equity					
MSCI EAFE	7.3	24.8	8.2	5.7	4.6
MSCI ACWI ex USA	8.1	25.4	7.6	5.2	
MSCI Emerging Markets	8.7	26.1	5.7	4.0	
MSCI ACWI ex USA Small Cap	8.9	23.3	8.2	6.1	6.8
Fixed Income					
Bloomberg Agg	5.2	11.6	0.3	1.8	4.1
90-Day T-Bill	1.4	5.5	2.3	1.6	1.9
Bloomberg Long G/C	8.0	17.2	-2.0	2.3	5.6
Bloomberg GI Agg ex US	8.5	12.3	-1.9	-0.5	2.6
Real Estate					
NCREIF Property	0.8	-3.5	3.3	5.9	7.7
FTSE Nareit Equity	16.1	34.7	5.5	7.8	10.1
Alternatives					
Cambridge PE*	1.0	4.6	13.8	13.1	12.7
Cambridge Senior Debt*	1.2	7.5	6.9	6.8	4.3
HFRI Fund Weighted	2.9	12.7	7.4	5.1	6.1
Bloomberg Commodity	0.7	1.0	7.8	0.0	2.2
Inflation – CPI-U	0.4	2.4	4.2	2.9	2.6

^{*}Data for most recent period lags. Data as of 2Q24.

Sources: Bloomberg, Bureau of Economic Analysis, FTSE Russell, Hedge Fund Research, MSCI, NCREIF, Refinitiv/Cambridge, S&P Dow Jones Indices

Recent Quarterly Economic Indicators

	3Q24	2Q24	1Q24	4Q23	3Q23	2Q23
Employment Cost: Total Compensation Growth	3.9%	4.1%	4.2%	4.2%	4.3%	4.5%
Nonfarm Business: Productivity Growth	2.2%	2.1%	0.7%	3.1%	3.8%	3.7%
GDP Growth	2.8%	3.0%	1.6%	3.2%	4.4%	2.4%
Manufacturing Capacity Utilization	76.8%	77.2%	77.1%	77.6%	78.1%	78.4%
Consumer Sentiment Index (1966=100)	68.1	71.1	78.4	64.9	69.6	62.3

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan

Strong Year for Gains but Still Lag Benchmark

INSTITUTIONAL INVESTORS

- All institutional investor types saw extremely strong gains over the trailing one year ending 3Q24, counterbalanced by much weaker gains over the last three years.
- Despite that, they still continued to significantly lag stocks and a 60% stocks/40% bonds benchmark over shorter time frames.
- Nonprofits did best over the trailing one year, followed closely by corporate and public defined benefit (DB) plans, with Taft-Hartley plans lagging behind.
- Gains over the last 10 and 20 years significantly lagged the 60% stocks/40% bonds benchmark.
- For institutional investors, their primary focus now is on the Fed.
- After its first rate cut in over four years, are more cuts on the table?
- It is "much closer" to its 2% target, Fed Chair Jerome Powell said.

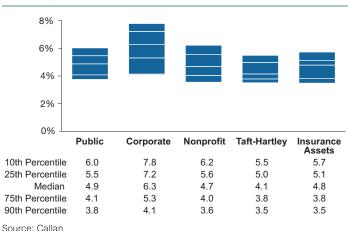
Public defined benefit (DB) plans

- Return enhancement and risk mitigation are the most significant concerns.
- Interest in private real estate has taken some twists and turns. It was low four years ago, then took two consecutive

- big jumps in our exclusive survey of Callan clients, dropped back down, and then spiked again.
- In a sharp reversal, there was a jump in the share of clients planning to increase global ex-U.S. equity allocations after a big share said they planned to cut allocations in 1Q24, according to our survey.
- There was almost no interest in changing allocations to other public markets asset classes, either increasing allocations or decreasing them.

(9/30/24)

Quarterly Returns, Callan Database Groups



Callan Database Median and Index Returns* for Periods Ended 9/30/24

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	4.9	19.4	4.7	8.5	7.5	7.4
Corporate Database	6.3	19.6	1.1	5.4	6.0	6.7
Nonprofit Database	4.7	19.9	4.6	8.5	7.1	7.2
Taft-Hartley Database	4.1	17.6	4.3	8.0	7.3	7.0
Insurance Assets Database	4.8	14.0	2.6	4.4	4.3	4.6
All Institutional Investors	5.0	19.4	4.1	7.9	7.1	7.1
Large (>\$1 billion)	4.6	17.5	4.1	8.3	7.4	7.3
Medium (\$100mm - \$1bn)	4.9	19.5	4.2	8.0	7.1	7.2
Small (<\$100 million)	5.2	20.6	4.1	7.8	6.8	6.8
60% S&P 500/40% Bloomberg Agg	5.6	26.1	6.6	9.9	8.9	8.0

^{*}Returns less than one year are not annualized.

Source: Callan. Callan's database includes the following groups: public defined benefit (DB) plans, corporate DB plans, nonprofits, insurance assets, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

Corporate DB plans

- Pension risk transfer (PRT) is now the top issue, according to our survey.
- In 3Q21, we started asking consultants about corporate DB plans with a focus on three key areas: funded status, funded basis, and plan goals.
- For the first time, PRT was the top goal of corporate DB plans.
- Closing the funding gap, which had typically been the top goal, was No. 2 in 3Q24.
- The share of plans with a funded status above 100% has held fairly steady, with more than 4 of 10 plans at that level. And the vast majority of plans have a funded status above 91%.
- Funded basis has also held fairly steady, with every client this quarter citing projected benefit obligation (PBO).

Defined contribution (DC) plans

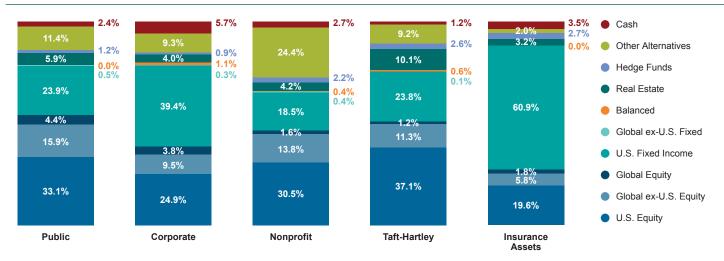
- Roughly 10% have a private real estate or real assets product in the target date fund, according to our survey.
- Fees remain the top issue for DC plans, as they have been for years.

- The percentage of clients with a private real estate or real assets product has held steady since 3Q21.
- Before that, nearly a fifth of plans on a consistent basis had such a product.
- Another issue coming to the forefront for many DC plan sponsors is retirement income.

Nonprofits

- They have little interest in changes to alternative asset allocations, our survey found.
- Nonprofit clients indicated they planned no or only small adjustments for every alternative asset class in 3Q24.
- The percentage of clients that planned to increase private equity fell to 0% from 11% in 1Q24.
- At the same time, the share planning to cut hedge fund allocations also fell, to 3% from 15%.
- Interest in adding to private real estate allocations also dropped after holding relatively steady since 1Q22 and hit the lowest level since 3Q21.

Average Asset Allocation, Callan Database Groups



Note: Charts may not sum to 100% due to rounding. Other alternatives include but is not limited to: diversified multi-asset, private credit, private equity, and real assets. Source: Callan

Equity

U.S. Equities

U.S. market reaches record high after spike in volatility

- The U.S. equity market had a disappointing start to 3Q24 as the S&P 500 Index dropped in July.
- But the market rallied in the last months of 3Q to end the quarter at a record high.
- All sectors within the S&P 500 posted positive returns over the quarter except for the Energy sector. As a result of the Fed's rate cut decision, the bond proxy sectors (Real Estate and Utilities) performed the best.
- During 3Q, value outperformed growth across the market cap spectrum. Small cap stocks outperformed large cap stocks.
- Narrow leadership continues to be an issue for U.S. stocks.
 YTD, the "Magnificent Seven" stock returns accounted for 45% of the returns of the S&P 500 Index.

Top performers have broadened out

- The "Magnificent Seven" stocks experienced increased volatility and mixed results in 3Q. Four of these stocks underperformed the S&P 500 Index.
- Better earnings growth expectations for the market relative to the "Magnificent Seven" could result in broader market leadership.
- Although the long-term trend may have reversed in the last quarter, a large percentage of S&P 500 Index returns since 2021 are attributable to the "Magnificent Seven."

Small cap valuations

 Small cap relative valuations are historically low across numerous forward and trailing valuation multiples.

- Small cap continues to trade at large discounts relative to large cap.
- This may be indicative of an attractive entry point for increased allocation.

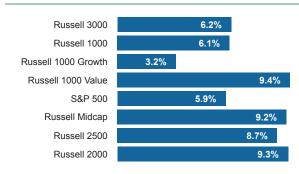
Global Equities

Global ex-U.S. markets outpace U.S. as technology lags

Global equity markets rose while central banks began easing monetary policy and cutting interest rates.

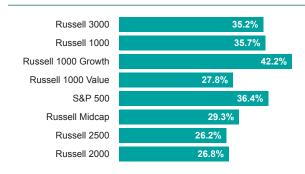
U.S. Equity: Quarterly Returns

(9/30/24)



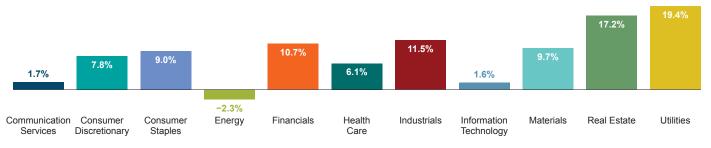
U.S. Equity: One-Year Returns

(9/30/24)



Sources: FTSE Russell and S&P Dow Jones Indices

Quarterly Performance of Industry Sectors (9/30/24)



Source: S&P Dow Jones Indices

- Market gains broadened to include more value stocks and previously underperforming sectors.
- Global ex-U.S. markets outpaced U.S. markets as the technology sector, a large portion of the U.S. market, faced pressure from AI spending scrutiny.
- Emerging markets outperformed developed markets with Asia being the strongest region within emerging markets.

Emerging markets

 China led a sharp rally higher in emerging markets after the Chinese government announced extensive stimulus measures aimed at tackling weakening economic activity, deflation, and its deteriorating property market.

Growth vs. value

Generally, value-oriented sectors led markets higher as the technology sector hindered growth concerns. One exception was China, as stimulus announcements boosted beaten-down Chinese tech companies.

U.S. dollar strength

The U.S. Dollar Index (DXY) declined over 3Q amid a muchanticipated rate cut by the U.S. Federal Reserve.

Quality growth managers struggle

While outperforming in 2022, global quality growth managers have struggled since 2023, as high-growth names, often viewed as low-quality, have driven much of the market.

High growth rewarded last 18 months

- While high-growth managers were punished in 2022, they performed exceptionally well in 2023 and 2024.
- Still, on a three-year basis, quality growth managers have tended to outperform high-growth managers but still struggle against the ACWI index.

China's stimulus: what and why

- On Sept. 24, 2024, China announced a broad economic stimulus package. This is likely due to declining consumer sentiment and investor pressure.

Results

- Stock markets initially rallied between 10%-30%, moving into YTD gain territory. Valuations are still at 10-year lows.
- China has the worst pass-through from GDP growth to earnings and investor returns since 2010. While the stimulus may assist with GDP growth, it may not correlate to better stock performance.

Global ex-U.S. Equity: Quarterly Returns (U.S. Dollar, 9/30/24)



Global ex-U.S. Equity: One-Year Returns (U.S. Dollar, 9/30/24)



Source: MSCI

Fixed Income

U.S. Fixed Income

Rate cut spurs market rally

- The Fed lowered rates for the first time since 2020, reducing its overnight target by 50 bps; Fed "dot plot" indicates two more cuts by year-end.
- U.S. Treasuries fell across the curve; 10-year Treasury yield declined to 3.81% from 4.36% at the beginning of the quarter.
- The yield curve took a step toward normalization with the 2s/10s ending positive, though rates at the front-end remain elevated vs. intermediate- and long-term.

Performance and drivers

- The Bloomberg US Aggregate Index gained 5.2%, the second-best quarter in nearly 30 years, led by the rally in rates.
- Investment grade corporates and all securitized sectors outperformed U.S. Treasuries on a duration-adjusted basis.
- High yield corporate excess returns (+1.7%) outpaced investment grade corporate excess returns (+0.8%).

Valuations

- Despite significant widening in late July, both IG and HY spreads ended tighter over the quarter.
- HY defaults declined to 1.8%, while bank loans rose to 3.1%, widening the gap between them to the highest since 2014.
- New issuance continued to be strong, adding \$424 billion in IG and \$78 billion in HY debt.

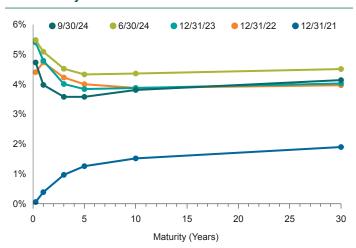
Munis posted gains but underperformed U.S. Treasuries

Bloomberg Municipal Bond Index (+2.7%) vs. Bloomberg US
 Treasury Index (+4.7%)

AAA-rated muni yield curve normalized

- 2-year and 10-year AAA rates fell by 77 bps and 23 bps, respectively; spread now +24 bps
- Maximum inversion of -50 bps was April 2024.
- Followed path of U.S. Treasury yield curve, which also normalized during the quarter (2-year vs 10-year)

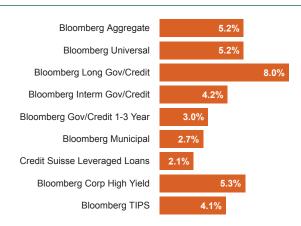
U.S. Treasury Yield Curves



Source: Bloomberg

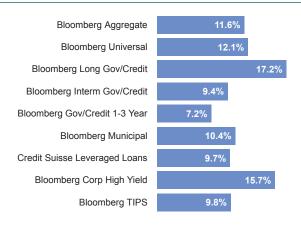
U.S. Fixed Income: Quarterly Returns

(9/30/24)



U.S. Fixed Income: One-Year Returns

(9/30/24)



Sources: Bloomberg and Credit Suisse

FIXED INCOME (Continued)

Muni valuations vs. U.S. Treasuries remain rich

- 10-year AAA Muni/10-year U.S. Treasury yield ratio rich relative to 10-year median (69% now vs. 85% historical)
- Need for increased infrastructure spending could benefit municipal bond issuance in years to come

Corporate new debt issuance remains robust

- Investment-grade corporate issuers continued the surge of new debt, issuing \$424 billion in 3Q, bringing the total YTD to more than \$1.3 trillion, already more than 7 of the last 10 years. At the current pace, new issuance will surpass \$1.7 trillion by year-end, the second-highest total on record.
- High yield new issuance was also robust, with approximately \$78 billion issued over the quarter. This brings the total issuance YTD to nearly \$250 billion, more than each of the last two calendar years.

Global Fixed Income

Macro environment

- Developed market rates declined as growth and inflation expectations moved lower.
- Several central banks cut rates over the quarter while the Bank of Japan unexpectedly raised its target to 0.25%, its highest rate since 2008.

U.S. dollar weakens

- The U.S. dollar weakened relative to major currencies, reversing the trend from the first half of the year and enhancing returns for unhedged investors.
- Within the U.S. Dollar Index (DXY), Japanese yen saw the largest relative gain, rising 12% vs. the U.S. dollar.

Emerging market debt posts strong quarter

- EM central banks broadly continued their easing policies, though Brazil raised its rate and signaled future hikes.
- The rally in EM currencies enhanced returns for EM debt, with the JPM GBI-EM Global Diversified Index gaining 9.0%.

Change in 10-Year Global Government Bond Yields

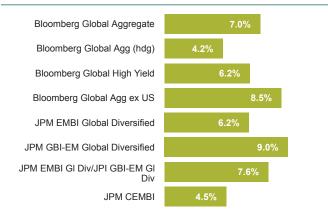
2Q24 to 3Q24



Source: Bloomberg

Global Fixed Income: Quarterly Returns

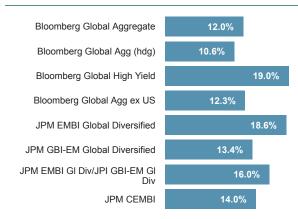
(9/30/24)



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns

(9/30/24)



Sources: Bloomberg and JPMorgan Chase

Funds See Gains and REITs Top Equities

REAL ESTATE/REAL ASSETS | Munir Iman

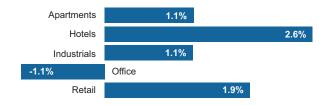
Valuations reflect higher interest rates

- After eight consecutive quarters of negative returns, valuations have adjusted to reflect higher borrowing costs.
- Income returns were positive across sectors and regions in 3Q24, with Hotels the top performer.
- All property sectors experienced flat or positive appreciation, except for Office, which dropped 2.5%.

REITs top equities

- Global REITs outperformed in 3Q24, up 16.1% compared to a 6.4% increase for global equities (MSCI World).
- U.S. REITs gained 16.0% in 3Q24, in contrast with the S&P 500 Index, which rose 5.9%.
- REITs are trading at a premium to NAV (+2.0%) for the first time since January 2022.
- Historically, global REITS have traded at a -3.8% discount to NAV.

Sector Quarterly Returns by Property Type (9/30/24)



Source: NCREIF

Over \$250 billion in dry powder

- ODCE redemption queues are approximately 18.9% of net asset value, with a median queue of 15.0%. This compares to the GFC when queues peaked at approximately 15% of net asset value (NAV).
- Outstanding redemption requests for most large ODCE funds are approximately 6% to 33% of NAV (with one outlier at 56%).
- For a large proportion of funds, these redemptions are partial redemptions, due to portfolio rebalancing and liquidity needs.
 For a smaller underperforming subset, redemption requests are full redemptions indicative of manager termination.

Pricing, transaction volumes on the rise

- Transaction volume is increasing on a rolling four-quarter basis yet remains below five-year averages.
- In 3Q24, transaction volume increased slightly on a quarterover-quarter basis. Transaction volume remains significantly lower compared to 2022.
- The rise in interest rates is the driving force behind the slowdown in transactions. Increasing transactions are driven by rising confidence in multi-family and industrial values.
 Valuations have largely adjusted to higher borrowing costs.

Callan Database Median and Index Returns* for Periods Ended 9/30/24

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	20 Years
Real Estate ODCE Style	0.1	-2.8	-8.0	-0.6	2.4	5.6	5.6
NFI-ODCE (value-weighted, net)	0.0	-3.2	-8.0	-1.0	2.1	5.2	5.7
NCREIF Property	0.8	-0.5	-3.5	0.9	3.3	5.9	7.2
NCREIF Farmland	-0.2	0.3	2.6	6.2	5.6	6.7	12.0
NCREIF Timberland	1.5	5.4	10.0	10.9	7.5	5.9	7.1
Public Real Estate							
Global Real Estate Style	15.9	13.2	31.1	2.0	4.0	6.4	7.5
FTSE EPRA Nareit Developed	13.9	15.2	28.2	6.1	4.8	6.3	
Global ex-U.S. Real Estate Style	16.1	10.8	29.7	-2.1	2.1	5.0	
FTSE EPRA Nareit Dev ex US	16.8	8.0	24.1	-4.0	-1.6	1.6	
U.S. REIT Style	15.9	15.3	33.7	4.3	6.4	8.4	8.9
FTSE EPRA Nareit Equity REITs	16.1	15.9	34.7	5.1	5.5	7.8	8.1

*Returns less than one year are not annualized. Sources: Callan, FTSE Russell, NCREIF

Fewer Funds but More Fundraising

PRIVATE EQUITY | Ashley Kahn

Fundraising ► The first half of 2024 showed mixed signals in terms of fundraising. The number of funds raised is significantly down from years prior, but the amount raised actually exceeds the first halves of both 2022 and 2023. As was the case in 2023, capital continues to concentrate with larger funds. Small venture capital funds, which historically make up a large portion of the number of funds raised, have experienced the greatest challenges fundraising today.

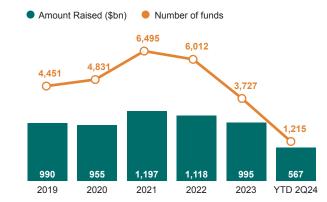
Buyouts ▶ Buyout activity levels in 2024 are similar to 2023, which represents a return to the pre-pandemic activity levels of 2019. In hindsight, 2021-22 appear to be the exceptional years, characterized by exuberance in deal activity, while 2023-24 are much closer to historical levels.

Venture Capital and Growth Equity ▶ The first half of 2024 represents a continuation of the slower pace of activity in 2023, although managers are generally more optimistic about making new investments. This year has seen a notable recovery in late-stage valuations. Companies able to raise followon financing typically do so at an up round. Similarly, earlystage valuations in 2024 rose by 25% from the prior year.

Exits ► The first half of 2024 represents a continuation of the slower pace of exits in 2023, although managers are generally more optimistic about seeking an exit this year. Both

Annual Fundraising

(6/30/24)



Source: Pltchbook

IPOs and M&A exits are down in 1H24 compared to 1H23 by roughly 10%. Persistent buyer-seller valuation gaps continue to dampen exit activity, and the interest rate cut is not yet reflected in the 2Q24 data.

Returns Public equity's exceptional performance in the first half of the year (led by the "Magnificent Seven" technology stocks) has left private equity in its wake. Private equity returns are not as volatile as the public markets, and private equity doesn't typically outperform when public equity is at record highs (it likewise doesn't drop as sharply when public equity drops). Over the long term, private equity consistently outperforms public equity by 1%-3%.

Private Equity Performance (%) (Pooled Horizon IRRs through 6/30/24*)

		_				
Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
All Venture	-0.8%	-1.3%	-3.2%	14.7%	15.0%	12.4%
Growth Equity	1.4%	4.1%	0.2%	13.4%	13.0%	13.4%
All Buyouts	1.4%	6.6%	6.8%	14.8%	13.3%	14.0%
Mezzanine	2.3%	9.4%	9.3%	11.2%	10.9%	11.3%
Credit Opportunities	1.8%	8.5%	7.6%	8.5%	7.2%	9.2%
Control Distressed	0.6%	2.8%	9.0%	13.4%	10.7%	11.3%
All Private Equity	1.0%	4.6%	3.8%	14.0%	13.0%	13.1%

Note: Private equity returns are net of fees. Sources: LSEG/Cambridge and S&P Dow Jones Indices *Most recent data available at time of publication

Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the Capital Markets Review and other Callan publications.

Outperformed Leveraged Loans over 5, 10, and 20 Years

PRIVATE CREDIT | Cos Braswell and Daniel Brown

Private credit gained 1.8% in 2Q24, the most recent quarter available, roughly even with a leveraged loan index and above a high yield index. Over longer time periods it has handily outperformed both indices. Fundraising, by number of funds, is off historical levels but capital raised is in line with the last few years. Interest in the asset class by institutional investors has stayed strong.

- Private credit performance varies across sub-asset class and underlying return drivers. Over the past 10 years the asset class has generated a net IRR of 7.9% as of 2Q24, outperforming leveraged loans. Higher-risk strategies have performed better than lower-risk strategies.
- The number of funds closed in 2Q24 was the lowest we've seen in years; however, aggregate capital raised is in line with the last few years and outpaced historical quarters.
- While direct lending continues to dominate fundraises, we are noticing increased interest in specialty finance strategies for more mature PC portfolios.

- Private credit stayed in high demand among Callan clients, and a number of large DB plans are looking to increase their allocations from 2%–3% to 5%–10%.
- Private credit AUM stood at over \$1.5 trillion at the end of 2023, with Preqin forecasting the asset class could grow to over \$2.5 trillion by 2028. Private credit AUM growth is expected to remain steady across geographies. While CAGR grew at about 17.5% from 2016 to 2022, CAGR is forecasted at 11.1% from 2024 to 2028.
- About 90% of investors expect either to maintain or increase their allocation in the next year.
- Direct lending is expected to grow steadily through 2028 as investors increase their private credit allocations. Distressed exposure should grow a bit more slowly with other strategies such as specialty finance and other niche diversifiers growing more quickly.

Private Credit Performance (%) (Pooled Horizon IRRs through 6/30/24*)



Private Credit Performance (%) (Pooled Horizon IRRs by Strategy through 6/30/24*)

Strategy	Quarter	1 Year	5 Years	10 Years	20 Years
Senior Debt	1.2	7.5	7.1	7.1	7.3
Subordinated	2.3	9.4	11.2	10.9	11.2
Credit Opportunities	1.8	8.5	8.5	7.2	9.0
Total Private Credit	1.8	8.4	8.7	7.9	9.2

18/198

Source: LSEG/Cambridge

*Most recent data available at time of publication

Higher Beta Hedge Fund Strategies Have a Strong Quarter

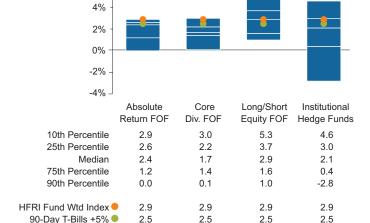
HEDGE FUNDS/MACs | Joe McGuane

The market backdrop served as a strong tailwind for most hedge fund strategies in 3Q24. U.S. equity markets ended a volatile quarter higher, driven by strong corporate earnings and the Federal Reserve's larger-than-expected interest rate cut in September. Credit indices saw gains across the board, with investment grade and high yield bond indices outperforming levered loans. Emerging, European, and Asian markets were mixed. Within emerging markets, China outperformed its peers due to improved investor sentiment following the government's announcement of a monetary stimulus package.

In 3Q, hedge funds had another strong performance, as strategies with higher beta to equity markets saw gains. Equity hedge strategies led returns, driven by generalist managers and those with a focus on health care. Relative value strategies were positive, as performance was driven by fundamental and systematic equity relative value. Event-driven strategies also had a strong quarter, as a focus on deep value companies and mergers drove performance. Macro strategies ended slightly lower, as gains from long positions in U.S., European, and U.K.

Hedge Fund Style Group Returns

(9/30/24)



2.5

Sources: Callan, Credit Suisse, Federal Reserve

rates, fixed income relative value trading in the U.S., and long gold were offset by losses from shorting Japanese rates, long positions in the U.S. dollar, and going long Japanese equities.

Callan Peer Group Median and Index Returns* for Periods Ended 9/30/24

Hedge Fund Universe	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Callan Institutional Hedge Fund Peer Group	2.1	9.4	5.9	7.5	6.7	7.3
Callan Fund-of-Funds Peer Group	1.9	10.3	4.3	6.2	4.6	5.0
Callan Absolute Return FOF Style	2.4	9.6	5.4	6.1	4.5	4.9
Callan Core Diversified FOF Style	1.7	10.3	4.4	6.3	4.1	4.9
Callan Long/Short Equity FOF Style	2.9	13.6	1.9	6.5	5.7	5.7
HFRI Fund Weighted Index	2.9	12.7	4.0	7.4	5.1	5.1
HFRI Fixed Convertible Arbitrage	3.6	10.9	4.9	7.1	5.5	5.7
HFRI Distressed/Restructuring	3.6	13.1	4.1	7.7	4.7	5.9
HFRI Emerging Markets	4.7	14.9	1.0	5.6	4.0	3.8
HFRI Equity Market Neutral	1.5	9.8	5.2	4.4	3.6	3.2
HFRI Event-Driven	4.6	13.4	4.5	7.4	5.1	5.8
HFRI Relative Value	2.6	9.4	4.3	5.1	4.2	5.3
HFRI Macro	-0.6	3.9	4.3	5.2	3.2	2.6
HFRI Equity Hedge	4.0	17.4	3.6	9.0	6.1	5.9
HFRI Multi-Strategy	4.7	13.5	2.2	6.5	3.6	4.1
HFRI Merger Arbitrage	3.5	7.5	4.4	6.0	4.9	4.4
90-Day T-Bill + 5%	2.6	10.5	8.5	7.3	6.6	6.1

*Net of fees. Sources: Callan, Credit Suisse, Hedge Fund Research

Serving as a proxy for large, broadly diversified hedge funds with low-beta exposure to equity markets, the median Callan Institutional Hedge Fund Peer Group member rose 2.1%. Within this style group of 50 peers, the average hedge credit manager gained 2.9%, driven by interest rate volatility. Meanwhile, the average hedge equity manager added 0.3%, as those focused on health care, utilities, and real estate drove performance. The median Callan Institutional hedge rates manager rose 2.9%, largely driven by relative value fixed income trades.

Within the HFRI indices, the best-performing strategy in 3Q24 was event-driven, which was up 4.6%, as managers were able to profit off their positioning to out-of-favor equities. Equity hedge strategies gained 4.0%, as managers benefited from dispersion in utilities, health care, and real estate. Relative value strategies were up 2.6% due to the Fed lowering interest rates. Macro strategies were down 0.6%, as a weakening dollar offset gains from rates positioning during the quarter.

Across the Callan Hedge FOF database, the median Callan Long-Short Equity FOF ended 2.9% higher, as managers with a more generalist approach were able to profit off dispersion across sectors. Meanwhile, the median Callan Core Diversified FOF gained 1.7%, as equity and event-driven strategies drove performance. The median Callan Absolute Return FOF gained 2.4%, as a higher allocation to relative value strategies drove performance.

Since the Global Financial Crisis, liquid alternatives to hedge funds have become popular among investors for their attractive risk-adjusted returns that are similarly uncorrelated with traditional stock and bond investments but offered at a lower cost.

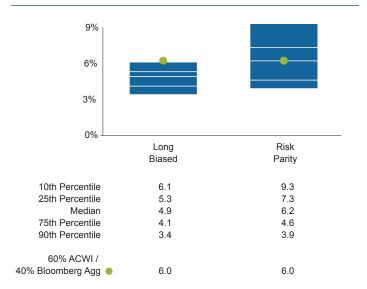
Within Callan's database of liquid alternative solutions, the median Callan MAC Long Biased manager rose 4.9%, as the strong equity rally pushed performance higher. The Callan MAC Risk Parity peer group rose 6.2%, as equities and fixed income positioning drove performance.

If consensus expectations are met for a sustained stable growth and low inflation environment, markets can continue to

grind higher, and corporate profit margins and balance sheets for the largest companies can remain healthy. With markets priced close to perfection, one bad data point can cause markets to sell off. Against this current backdrop, Callan is focused on managers with the skill to generate alpha both on the long and short side across equities, fixed income, rates, currencies, and commodities.

MAC Style Group Returns

(9/30/24)



Sources: Bloomberg, Callan, Eurekahedge, S&P Dow Jones Indices

HFRI Hedge Fund-Weighted Strategy Returns (9/30/24)



Source: HFRI

Index Gains Slow in 2Q24

DEFINED CONTRIBUTION | Scotty Lee

Performance: Index gains slow in 2Q24

The Callan DC Index™ gained 1.68% in 2Q24, which brought the Index's trailing one-year gain to 15.3%. The Age 45 Target Date Fund (analogous to the 2045 vintage) had a higher quarterly return (1.74%).

Growth Sources: Balances rise due to investment gains

Balances within the DC Index rose by 1.1% after a 6.6% increase in the previous quarter. Investment gains (1.7%) were the driver of the gain, while net flows (-0.6%) had a contrary effect.

Turnover: Net transfers fall

Turnover (i.e., net transfer activity levels within DC plans) in the DC Index decreased to 0.17% from the previous quarter's measure of 0.44%. The Index's historical average (0.54%) remained steady.

Net Cash Flow Analysis: TDFs remain in top spot

Target date funds (TDFs) garnered 75.8% of quarterly net flows. Within equities, investors withdrew assets from U.S. large cap equity (-32.6%) and U.S. small/mid-cap equity (-18.7%). Notably, stable value (-29.6%) saw relatively large outflows for the seventh consecutive quarter.

Equity Allocation: Exposure rises

 The Index's overall allocation to equity (73.7%) rose slightly from the previous quarter's level (73.5%).

Asset Allocation: Fixed income exposure falls

U.S. large cap equity (28.5%) and target date funds (35.6%) were among the asset classes with the largest percentage increases in allocation, while stable value (6.4%) had the largest decrease in allocation from the previous quarter due to net outflows.

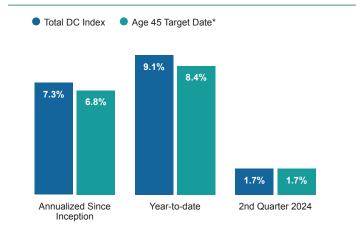
Prevalence of Asset Class: Global equity funds fall

The prevalence of global equity funds (17.9%) fell by 2.1 percentage points along with a decrease in the prevalence of emerging markets (17.9%) by 1.4 percentage points.

Underlying fund performance, asset allocation, and cash flows of more than 100 large defined contribution plans representing approximately \$400 billion in assets are tracked in the Callan DC Index.

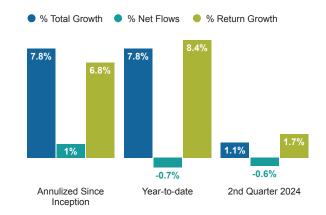
Investment Performance

(6/30/24)



Growth Sources

(6/30/24)



Net Cash Flow Analysis 2Q24)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	75.9%
Brokerage Window	12.4%
Stable Value	-29.6%
U.S. Large Cap	-32.6%
Total Turnover**	0.2%

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

Note: DC Index inception date is January 2006.

- The Age 45 Fund transitioned from the average 2035 TDF to the 2040 TDF in June 2018.
- ** Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

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The *Capital Markets Review* is a quarterly macroeconomic indicator newsletter that provides thoughtful insights on the economy and recent performance in the equity, fixed income, alternatives, real estate, and other capital markets.

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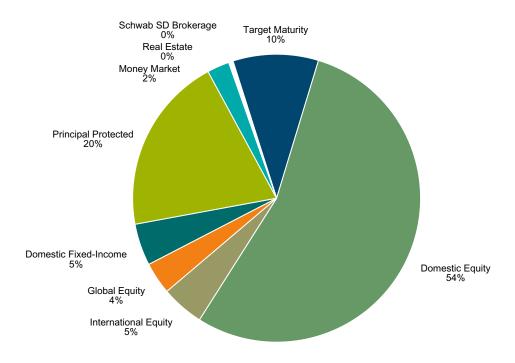
Atlanta Chicago Denver **New Jersey** Portland

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Actual Asset Allocation As of September 30, 2024

The chart below shows the Fund's asset allocation as of September 30, 2024.

Actual Asset Allocation



Asset Class	\$000s Actual	Weight Actual
Target Maturity	233,557	9.6%
Domestic Equity	1,318,841	54.3%
International Equity	115,631	4.8%
Global Equity	87,817	3.6%
Domestic Fixed-Income	113,058	4.7%
Principal Protected	484,614	20.0%
Money Market	60,516	2.5%
Real Estate	10,609	0.4%
Schwab SD Brokerage	2,329	0.1%
Total	2,426,973	100.0%

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of September 30, 2024, with the distribution as of June 30, 2024. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	September 3	0, 2024			June 30, 2	2024
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Principal Protected	\$484,613,719	19.97%	\$(8,633,520)	\$3,704,773	\$489,542,466	20.95%
MDC Stable Value	484,613,719	19.97%	(8,633,520)	3,704,773	489,542,466	20.95%
Money Market	\$60,516,165	2.49%	\$2,641,449	\$807,880	\$57,066,835	2.44%
BlackRock Money Market	60,516,165	2.49%	2,641,449	807,880	57,066,835	2.44%
Domestic Equity	\$1,318,841,382	54.34%	\$(28,704,481)	\$87,467,938	\$1,260,077,925	53.92%
NT S&P 500 Index	450,132,978	18.55%	(7,539,269)	25,131,529	432,540,718	18.51%
Vanguard Windsor	109,074,134	4.49%	(2,055,195)	7,645,017	103,484,312	4.43%
Loomis Sayles LC Growth	392,261,716	16.16%	(12,918,589)	18,701,997	386,478,308	16.54%
PGI Mid-Cap Equity Fund	291,976,051	12.03%	(7,507,548)	29,257,014	270,226,585	11.56%
Miss DC - RBC Small Cap Core	2	0.00%	0	0	2	0.00%
NT R2000 Index Fund	33,545,205	1.38%	2,653,232	2,686,449	28,205,524	1.21%
Wellington Small Cap Opps	41,851,296	1.72%	(1,337,113)	4,045,932	39,142,477	1.67%
International Equity	\$115,630,809	4.76%	\$1,309,995	\$8,308,129	\$106,012,686	4.54%
NT EAFE Index Fund	43,114,271	1.78%	2,894,964	2,832,882	37,386,426	1.60%
T Rowe Price Intl Growth Equity Trus (1)	72,516,538	2.99%	(1,584,970)	5,475,247	68,626,260	2.94%
Global Equity	\$87,817,212	3.62%	\$(3,934,980)	\$4,923,133	\$86,829,058	3.72%
American Funds New Perspective	87,817,212	3.62%	(3,934,980)	4,923,133	86,829,058	3.72%
Domestic Fixed-Income	\$113,058,397	4.66%	\$4,657,978	\$5,233,783	\$103,166,636	4.41%
NT Aggregate Bond Index	50,175,842	2.07%	3,324,736	2,379,064	44,472,042	1.90%
Voya Intermediate Bond R6	36,901,417	1.52%	30,705	1,850,293	35,020,419	1.50%
NT TIPS Index Fund	25,981,138	1.07%	1,302,538	1,004,425	23,674,174	1.01%
Real Estate	\$10,609,403	0.44%	\$(432,190)	\$1,657,980	\$9,383,613	0.40%
BNY Mellon EB US RE Securities	10,609,403	0.44%	(432,190)	1,657,980	9,383,613	0.40%
Target Maturity	\$233,556,655	9.62%	\$(2,270,278)	\$13,295,212	\$222,531,720	9.52%
Vanguard Target Retirement Inc	43,199,384	1.78%	(1,516,518)	2,135,425	42,580,477	1.82%
Vanguard Target Retirement 2020	19,288,596	0.79%	(207,605)	991,905	18,504,297	0.79%
Vanguard Target Retirement 2025	34,544,930	1.42%	(338,646)	1,925,235	32,958,342	1.41%
Vanguard Target Retirement 2030	36,956,318	1.52%	(564,006)	2,170,279	35,350,044	1.51%
Vanguard Target Retirement 2035	31,491,782	1.30%	101,116	1,859,902	29,530,763	1.26%
Vanguard Target Retirement 2040	21,485,460	0.89%	(16,859)	1,295,952	20,206,367	0.86%
Vanguard Target Retirement 2045	18,276,983	0.75%	68,075	1,128,882	17,080,026	0.73%
Vanguard Target Retirement 2050	12,623,502	0.52%	(300,965)	797,603	12,126,865	0.52%
Vanguard Target Retirement 2055	6,662,657	0.27%	1,134	421,336	6,240,187	0.27%
Vanguard Target Retirement 2060	4,724,295	0.19%	634.300	300,663	3,789,331	0.16%
Vanguard Target Retirement 2065	4,302,747	0.18%	(130,305)	268,032	4,165,021	0.18%
Schwab Self-Directed Brokerage	\$2,328,786	0.10%	\$43,572	\$18,663	\$2,266,552	0.10%
Total Plan	\$2,426,972,528	100.0%	\$(35,322,454)	\$125,417,491	\$2,336,877,491	100.0%

⁽¹⁾ Changed share class in 3Q16 from T. Rowe Price International Growth Mutual Fund to T. Rowe Price International Growth Equity Trust.



Investment Fund Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns and Rankings for Periods Ended September 30, 2024

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 10 Years	
Principal Protected MDC Stable Value FTSE 3 Month T-Bill + 100 bp Callan Stable Value	0.75% 1.61% 0.62%	10 1	2.98% 6.63% 2.41%	12 1	2.46% 4.63% 1.99%	9 1	2.34% 3.38% 1.82%	6 1	2.29% 2.67% 1.72%	1
Money Market BlackRock Money Market FTSE 3 Mo T-Bill Callan Money Market Funds	1.39% 1.37% 1.31%	36 38	5.70% 5.63% 5.36%	36 36	3.83% 3.63% 3.39%	8 15	2.55% 2.38% 2.20%	20 26	1.88% 1.67% 1.48%	21 26
Domestic Equity NT S&P 500 Index Fund S&P 500 Index Callan Large Cap Core MFs	5.88% 5.89% 4.94%	28 28	36.33% 36.35% 34.69%	36 36	11.90% 11.91% 12.02%	51 51	15.97% 15.98% 15.62%	45 42	13.37% 13.38% 12.12%	22 22
Vanguard Windsor Russell 1000 Value Index Callan Lg Cap Value MF	7.44% 9.43% 7.30%	45 21	24.15% 27.76% 27.46%	79 48	10.51% 9.03% 9.88%	38 71	13.74% 10.69% 11.77%	16 65	10.32% 9.23% 9.44%	22 60
Loomis Sayles LC Growth Russell 1000 Growth Index Callan Large Cap Grwth MF	5.03% 3.19% 2.55%	19 36	40.33% 42.19% 41.69%	57 46	12.96% 12.02% 8.89%	3 8	18.51% 19.74% 16.88%	23 9	16.33% 16.52% 14.77%	7 5
PGI Mid-Cap Equty Fund Russell MidCap Index Callan Mid Cap MFs	10.99% 9.21% 6.66%	3 19	37.93% 29.33% 25.79%	2 25	8.74% 5.75% 3.58%	27 42	13.20% 11.30% 10.85%	12 33	13.51% 10.19% 9.90%	1 38
NT Russell 2000 Index Fund Russell 2000 Index Callan Small Cap MFs	9.27% 9.27% 7.83%	18 18	26.71% 26.76% 24.53%	33 32	1.84% 1.84% 2.56%	56 56	9.38% 9.39% 10.20%	64 63	- 8.78% 9.39%	69
Wellington Small Cap Opps* Russell 2000 Index Callan Small Cap MFs	10.48% 9.27% 7.83%	8 18	26.45% 26.76% 24.53%	34 32	5.85% 1.84% 2.56%	29 56	10.41% 9.39% 10.20%	43 63	11.87% 8.78% 9.39%	12 69
International Equity NT EAFE Index Fund MSCI EAFE Index Callan Intl Eq Dev Mkt MF	7.27% 7.26% 7.70%	58 58	25.08% 24.77% 24.70%	39 49	5.95% 5.48% 4.70%	26 29	8.54% 8.20% 8.48%	49 54	- 5.71% 5.79%	54
T Rowe Price International Gr Trust** Custom Benchmark*** Callan Non US Equity MFs	8.13% 8.06% 7.58%	38 39	25.30% 25.35% 24.87%	41 41	3.00% 4.14% 4.77%	69 54	7.53% 7.59% 8.19%	65 65	6.71% 5.22% 5.62%	22 61
Global Equity American Funds New Perspective MSCI World Index Callan Global Equity MFs	5.86% 6.36% 5.03%	36 33	31.71% 32.43% 30.07%	36 34	5.46% 9.08% 5.31%	49 7	13.85% 13.04% 11.14%	17 26	11.77% 10.07% 9.45%	11 42
Domestic Fixed Income NT Aggregate Bond Index Fund Blmbg Aggregate Index Callan Core Bond MFs	5.18% 5.20% 5.23%	63 60	11.51% 11.57% 12.23%	91 91	(1.40%) (1.39%) (1.30%)	63 57	0.29% 0.33% 0.74%	93 93	1.80% 1.84% 2.06%	95 86
Voya Intermediate Bond R6 Blmbg Aggregate Index Callan Core Plus MFs	5.25% 5.20% 5.27%	56 64	13.40% 11.57% 12.74%	23 95	(0.94%) (1.39%) (1.12%)	41 63	0.88% 0.33% 0.97%	54 91	2.47% 1.84% 2.33%	37 90
NT TIPS Index Fund Blmbg US TIPS Index Morningstar Infl-Prot Bd	4.11% 4.12% 4.14%	54 52	9.83% 9.79% 9.75%	43 43	(0.56%) (0.57%) (0.65%)	40 40	2.64% 2.62% 2.55%	39 41	2.53% 2.54% 2.37%	23 23
Real Estate BNY Mellon EB US RE Securities NAREIT All Equity Index**** Callan Real Estate MFs	17.73% 16.79% 16.03%	6 23	37.06% 34.77% 33.20%	8 23	4.12% 3.51% 3.32%	26 44	4.99% 3.72% 5.28%	60 85	8.08% 6.94% 7.56%	35 76



^{*}Inception 1Q2020, returns for longer time periods are that of the Collective Trust.

**Changed share class in 3Q16 from T Rowe Price International Growth Mutual Fund to T Rowe Price International Growth

Equity Trust.

***Custom Benchmark is MSCI EAFE Index through 12/31/07 and MSCI AC World ex US USD (Net) thereafter.

****NAREIT Equity Index through 4/30/2020; then NAREIT All Equity Index thereafter.

Investment Fund Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns and Rankings for Periods Ended September 30, 2024

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 10 Years	
Target Maturity	Quarter		I Cai		I Cai S		I Cai S		I Cai S	
Vanguard Target Retirement Inc.	5.12%	57	16.22%	67	2.21%	63	4.51%	65	4.55%	52
Vanguard Tgt Income Index	5.14%	56	16.32%	64	2.38%	52	4.74%	54	4.74%	34
Callan Tgt Date Ret Inc	5.27%		17.30%		2.41%		4.79%		4.56%	
Vanguard Target Retirement 2020	5.37%	55	18.25%	73	2.89%	57	6.04%	56	6.02%	41
Vanguard Tgt 2020 Index	5.41%	45	18.31%	69	3.10%	43	6.37%	26	6.26%	22
Callan Target Date 2020	5.38%		18.95%		2.95%		6.07%		5.89%	
Vanguard Target Retirement 2025	5.85%	34	21.13%	29	3.70%	27	7.14%	29	6.78%	19
Vanguard Tgt 2025 Index	5.89%	23	21.22%	25	4.00%	16	7.54%	10	7.06%	10
Callan Target Date 2025	5.72%		20.34%		3.32%		6.87%		6.45%	
Vanguard Target Retirement 2030	6.17%	29	23.27%	33	4.42%	31	8.08%	37	7.38%	34
Vanguard Tgt 2030 Index	6.27%	21	23.36%	30	4.73%	18	8.49%	12	7.68%	13
Callan Target Date 2030	5.93%		22.92%		4.14%		7.88%		7.23%	
Vanguard Target Retirement 2035	6.30%	36	24.76%	57	5.10%	42	8.98%	51	7.97%	45
Vanguard Tgt 2035 Index	6.44%	25	24.90%	50	5.40%	26	9.40%	23	8.26%	25
Callan Target Date 2035	6.18%		24.85%		4.99%		9.01%		7.87%	
Vanguard Target Retirement 2040	6.43%	40	26.33%	64	5.78%	56	9.88%	52	8.52%	44
Vanguard Tgt 2040 Index	6.61%	26	26.45%	61	6.05%	43	10.28%	29	8.83%	26
Callan Target Date 2040	6.28%		27.02%		5.82%		9.90%		8.46%	
Vanguard Target Retirement 2045	6.57%	38	27.82%	60	6.41%	53	10.75%	48	9.00%	43
Vanguard Tgt 2045 Index	6.77%	28	28.01%	57	6.71%	33	11.17%	26	9.31%	17
Callan Target Date 2045	6.44%		28.60%		6.50%		10.72%		8.83%	
Vanguard Target Retirement 2050	6.71%	30	28.91%	57	6.85%	42	11.08%	43	9.16%	42
Vanguard Tgt 2050 Index	6.91%	25	29.18%	51	7.14%	21	11.50%	17	9.48%	20
Callan Target Date 2050	6.45%		29.28%		6.79%		10.92%		9.11%	
Vanguard Target Retirement 2055	6.73%	35	28.92%	65	6.84%	49	11.08%	50	9.15%	53
Vanguard Tgt 2055 Index	6.91%	30	29.18%	58	7.14%	26	11.50%	25	9.48%	26
Callan Target Date 2055	6.52%		29.47%		6.78%		11.08%		9.19%	
Vanguard Target Retirement 2060	6.72%	30	28.93%	66	6.84%	47	11.09%	51	9.15%	59
Vanguard Tgt 2060 Index	6.91%	23	29.18%	60	7.14%	27	11.50%	29	9.48%	39
Callan Target Date 2060	6.48%		29.52%		6.79%		11.13%		9.26%	
Vanguard Target Retirement 2065	6.74%	40	28.95%	72	6.88%	42	11.06%	63	-	
Vanguard Tgt 2065 Index	6.91%	29	29.18%	67	7.14%	30	11.50%	27	-	
Callan Target Date 2065	6.53%		29.66%		6.57%		11.24%		-	

Returns for Target Date funds are Investor share class through September 2015; then Institutional share class through December 2021; and Investor share class thereafter.



Fund	Style	Fund Balance	Estimated Fund Expense	Fund Net Expense Ratio	Median Net Expense Ratio*	Net Expense Difference
Principal Protected						
MDC Stable Value	Principal Protected	484,613,719.13	1,308,457.04	0.27%	0.57%	-0.30%
Money Market						
BlackRock Money Market	Money Market	60,516,164.52	30,258.08	0.05%	0.36%	-0.31%
Domestic Equity						
NT S&P 500 Index Fund	Large Cap Core	450,132,978.19	45,013.30	0.01%	0.91%	-0.90%
Vanguard Windsor	Large Cap Value	109,074,133.61	349,037.23	0.32%	0.99%	-0.67%
Loomis Sayles	Large Cap Growth	392,261,715.97	1,765,177.72	0.45%	1.00%	-0.55%
PGI Mid-Cap Equity Fund	US Mid Cap Eq	291,976,051.20	1,197,101.81	0.41%	1.11%	-0.70%
Wellington Small Cap Opps	US Small Cap Eq	41,851,295.91	326,440.11	0.78%	1.15%	-0.37%
NT Russell 2000 Index Fund	US Small Cap Eq	33,545,205.40	10,063.56	0.03%	1.15%	-1.12%
International Equity						
NT EAFE Index Fund	Intl Equity	43,114,271.34	17,245.71	0.04%	1.07%	-1.03%
T Rowe Price International	Intl Equity	72,516,537.68		0.63%	1.07%	-0.44%
Global Equity	. ,					
American Funds New Perspective	Global Equity	87,817,211.65	368,832.29	0.42%	1.13%	-0.71%
Domestic Fixed Income						
Voya Intermediate Bond R6	US Fixed-Income	36,901,416.51	107,014.11	0.29%	0.66%	-0.37%
NT Aggregate Bond	US Fixed-Income	50,175,842.45	15,052.75	0.03%	0.66%	-0.63%
NT TIPS Index Fund	TIPS	25,981,137.94	7,794.34	0.03%	0.65%	-0.62%
Real Estate						
BNY Mellon EB US RE Securities	Real Estate	10,609,403.32	58,351.72	0.55%	0.95%	-0.40%
Target Maturity						
Vanguard Target Retirement Inc	Target Maturity	43,199,383.94	34,559.51	0.08%	0.39%	-0.31%
Vanguard Target Retirement 2020	Target Maturity	19,288,596.39	15,430.88	0.08%	0.39%	-0.31%
Vanguard Target Retirement 2025	Target Maturity	34,544,930.38	27,635.94	0.08%	0.40%	-0.32%
Vanguard Target Retirement 2030	Target Maturity	36,956,317.62	29,565.05	0.08%	0.41%	-0.33%
Vanguard Target Retirement 2035	Target Maturity	31,491,781.71	25,193.43	0.08%	0.40%	-0.32%
Vanguard Target Retirement 2040	Target Maturity	21,485,460.09	17,188.37	0.08%	0.42%	-0.34%
Vanguard Target Retirement 2045	Target Maturity	18,276,982.65	14,621.59	0.08%	0.41%	-0.33%
Vanguard Target Retirement 2050	Target Maturity	12,623,502.49	10,098.80	0.08%	0.42%	-0.34%
Vanguard Target Retirement 2055	Target Maturity	6,662,657.26	5,330.13	0.08%	0.40%	-0.32%
Vanguard Target Retirement 2060	Target Maturity	4,724,294.74	3,779.44	0.08%	0.41%	-0.33%
Vanguard Target Retirement 2065	Target Maturity	4,302,747.41	3,442.20	0.08%	0.40%	-0.32%
TOTAL		2,424,643,739.50	6,249,539.28	0.26%	0.83%	-0.58%
*Median net expense ratio as defir	ned by the respective		d Groups			



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MDC Stable Value Period Ended September 30, 2024

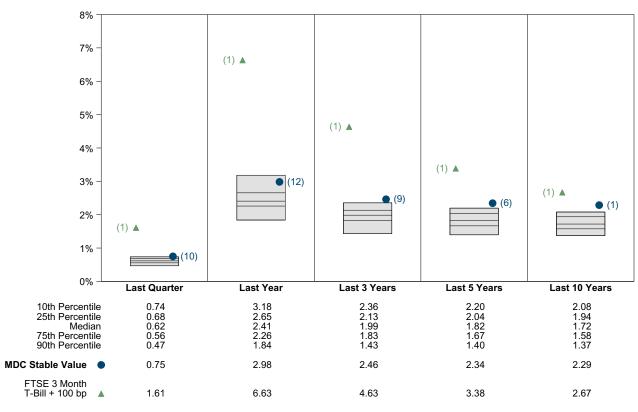
Investment Philosophy

The fund provides a stable rate of return while preserving capital by investing in a pool of securities issued by the US government or its agencies as well as high-quality corporate bonds.

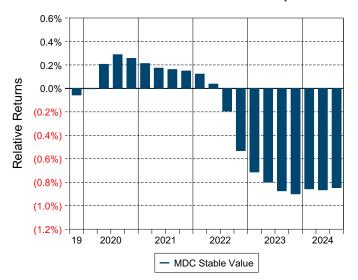
Quarterly Summary and Highlights

- MDC Stable Value's portfolio posted a 0.75% return for the quarter placing it in the 10 percentile of the Callan Stable Value group for the quarter and in the 12 percentile for the last year.
- MDC Stable Value's portfolio underperformed the FTSE 3 Month T-Bill + 100 bp by 0.86% for the quarter and underperformed the FTSE 3 Month T-Bill + 100 bp for the year by 3.65%.

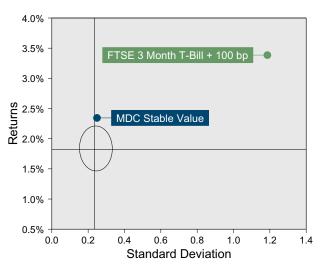
Performance vs Callan Stable Value (Institutional Net)



Relative Returns vs FTSE 3 Month T-Bill + 100 bp



Callan Stable Value (Institutional Net)
Annualized Five Year Risk vs Return



BlackRock Money Market Period Ended September 30, 2024

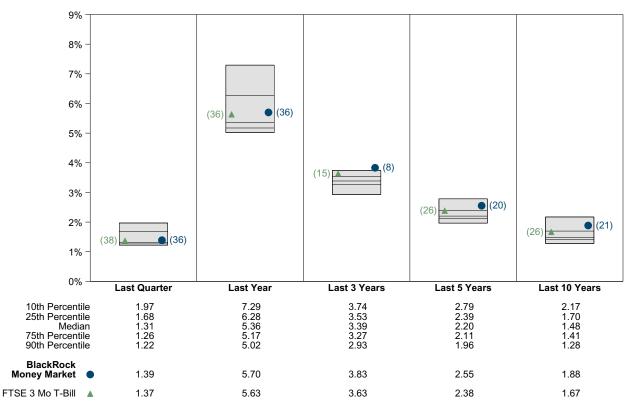
Investment Philosophy

The Money Market Funds Database consists of actively managed short term funds. These funds invest in low-risk, highly liquid, short-term financial instruments.

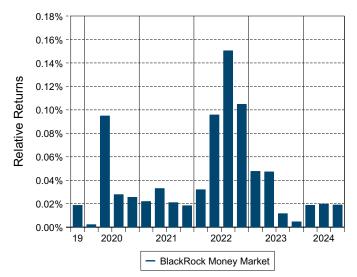
Quarterly Summary and Highlights

- BlackRock Money Market's portfolio posted a 1.39% return for the quarter placing it in the 36 percentile of the Callan Money Market Funds group for the quarter and in the 36 percentile for the last year.
- BlackRock Money Market's portfolio outperformed the FTSE 3 Mo T-Bill by 0.02% for the quarter and outperformed the FTSE 3 Mo T-Bill for the year by 0.07%.

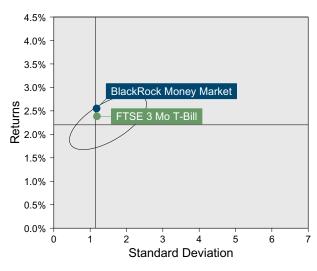
Performance vs Callan Money Market Funds (Institutional Net)



Relative Return vs FTSE 3 Mo T-Bill



Callan Money Market Funds (Institutional Net) Annualized Five Year Risk vs Return





NT S&P 500 Index Fund* Period Ended September 30, 2024

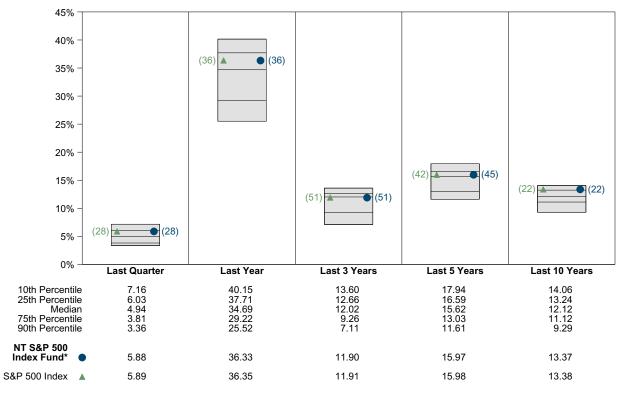
Investment Philosophy

Northern Trust seeks to replicate the risk and returns of the S&P 500 equity index and believes that a passive approach to portfolio management will provide index-like returns with minimal transaction costs. *Fund inception 1Q18; returns for longer time periods are that of the Collective Trust.

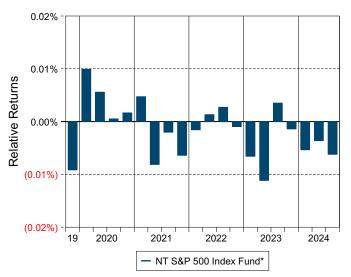
Quarterly Summary and Highlights

- NT S&P 500 Index Fund*'s portfolio posted a 5.88% return for the quarter placing it in the 28 percentile of the Callan Large Cap Core Mutual Funds group for the quarter and in the 36 percentile for the last year.
- NT S&P 500 Index Fund*'s portfolio underperformed the S&P 500 Index by 0.01% for the quarter and underperformed the S&P 500 Index for the year by 0.02%.

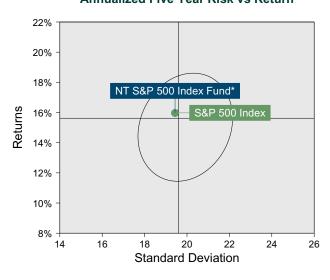
Performance vs Callan Large Cap Core Mutual Funds (Institutional Net)



Relative Return vs S&P 500 Index



Callan Large Cap Core Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return



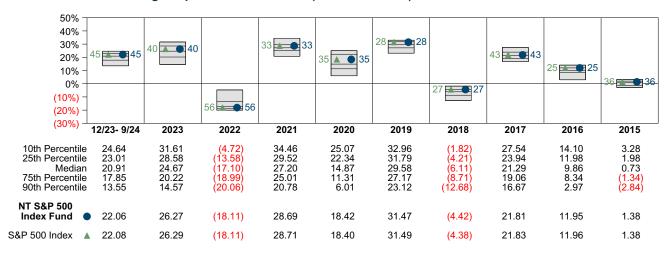


NT S&P 500 Index Fund Return Analysis Summary

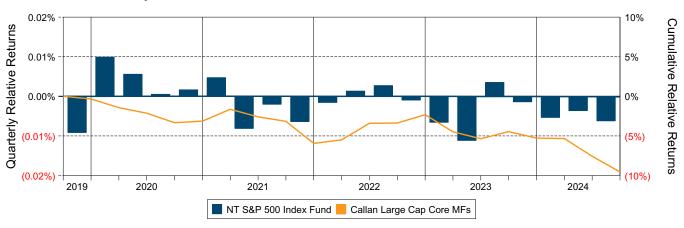
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

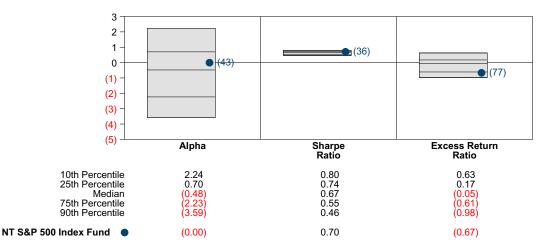
Performance vs Callan Large Cap Core Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs S&P 500 Index



Risk Adjusted Return Measures vs S&P 500 Index Rankings Against Callan Large Cap Core Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



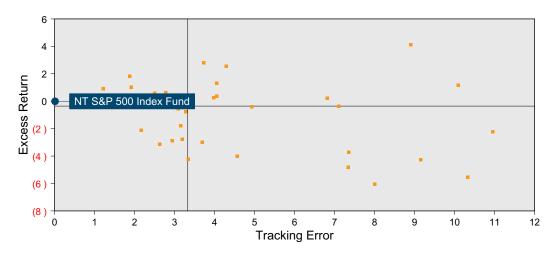


NT S&P 500 Index Fund Risk Analysis Summary

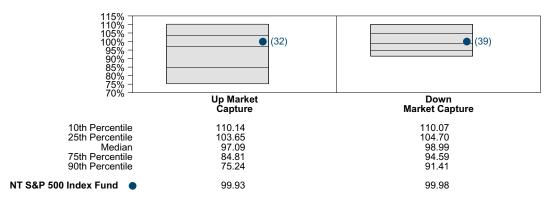
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

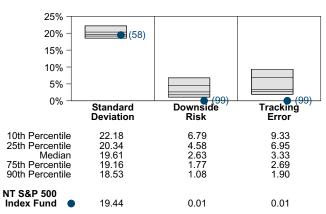
Risk Analysis vs Callan Large Cap Core Mutual Funds (Institutional Net) Five Years Ended September 30, 2024

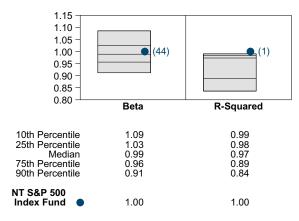


Market Capture vs S&P 500 Index Rankings Against Callan Large Cap Core Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Risk Statistics Rankings vs S&P 500 Index Rankings Against Callan Large Cap Core Mutual Funds (Institutional Net) Five Years Ended September 30, 2024







Vanguard Windsor Period Ended September 30, 2024

Investment Philosophy

Vanguard Windsor Fund seeks long-term growth of capital and income; current income is a secondary consideration. The fund invests primarily in common stocks of medium-size and large companies. Management typically selects securities that it believes have relatively low P/E ratios and meaningful income yields. The fund may also invest in preferred stocks, fixed-income securities, convertible securities, and money-market instruments.

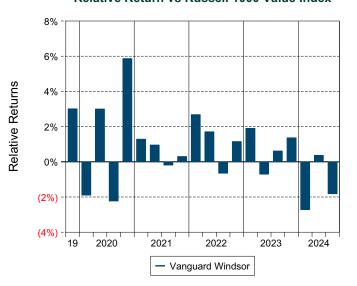
Quarterly Summary and Highlights

- Vanguard Windsor's portfolio posted a 7.44% return for the quarter placing it in the 45 percentile of the Callan Large Cap Value Mutual Funds group for the quarter and in the 79 percentile for the last year.
- Vanguard Windsor's portfolio underperformed the Russell 1000 Value Index by 1.99% for the quarter and underperformed the Russell 1000 Value Index for the year by 3.61%.

Performance vs Callan Large Cap Value Mutual Funds (Institutional Net)



Relative Return vs Russell 1000 Value Index



Callan Large Cap Value Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return



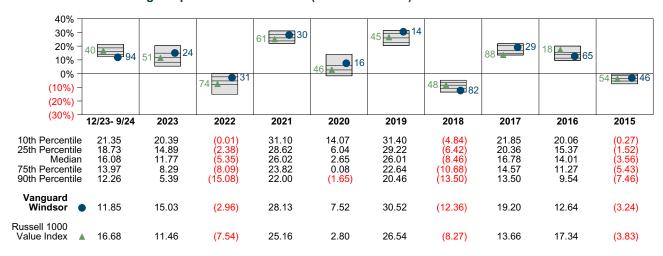


Vanguard Windsor Return Analysis Summary

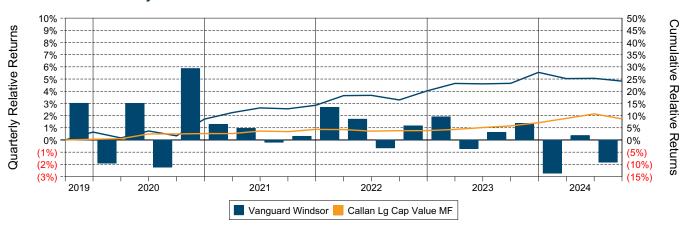
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

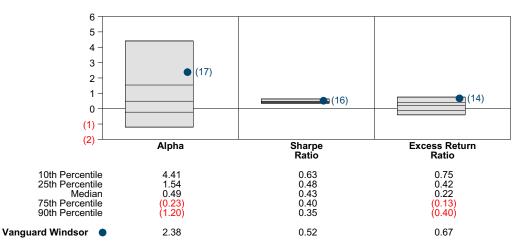
Performance vs Callan Large Cap Value Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Russell 1000 Value Index



Risk Adjusted Return Measures vs Russell 1000 Value Index Rankings Against Callan Large Cap Value Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



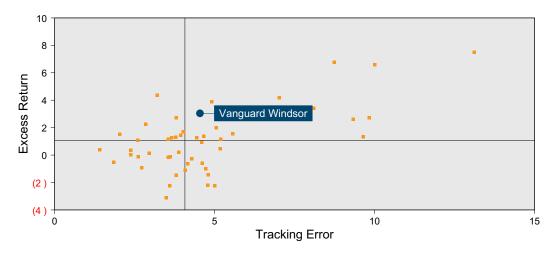


Vanguard Windsor Risk Analysis Summary

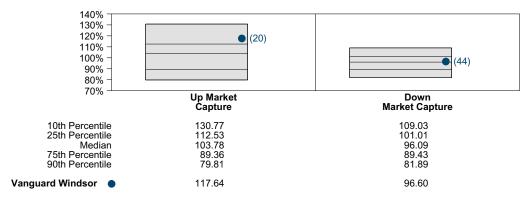
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

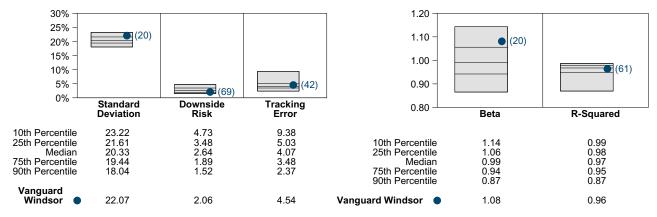
Risk Analysis vs Callan Large Cap Value Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Market Capture vs Russell 1000 Value Index Rankings Against Callan Large Cap Value Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Risk Statistics Rankings vs Russell 1000 Value Index Rankings Against Callan Large Cap Value Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



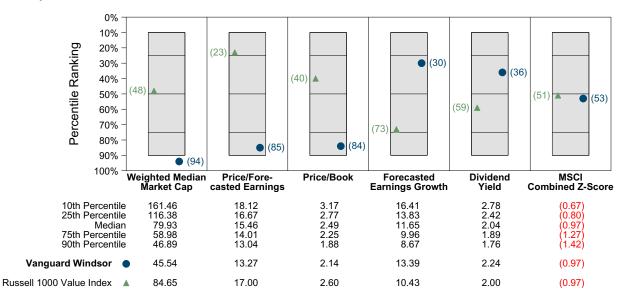


Vanguard Windsor Equity Characteristics Analysis Summary

Portfolio Characteristics

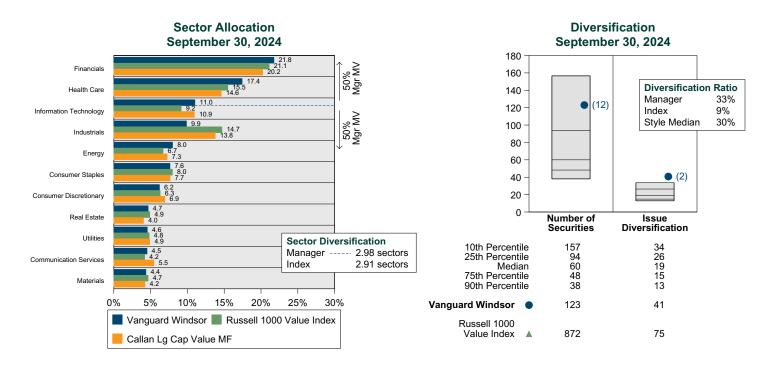
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Value Mutual Funds as of September 30, 2024



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





Vanguard Windsor Top 10 Portfolio Holdings Characteristics as of September 30, 2024

10 Largest Holdings

					Price/		
		Percent			Forecasted		Forecasted
		of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Wells Fargo & Co New	Financials	2.2%	(4.16)%	192.28	10.53	2.83%	8.16%
Morgan Stanley	Financials	1.9%	8.22%	168.65	13.93	3.55%	18.55%
Pfizer	Health Care	1.9%	4.84%	163.99	10.33	5.81%	18.60%
Edison International	Utilities	1.8%	22.60%	33.63	16.01	3.58%	8.15%
Tyson Foods Inc CI A	Consumer Staples	1.7%	5.03%	17.02	16.58	3.29%	51.20%
Metlife Inc	Financials	1.6%	18.44%	57.76	8.63	2.64%	5.83%
Delta Air Lines Inc Del	Industrials	1.5%	7.43%	32.78	7.27	1.18%	8.42%
Voya Finl Inc Com	Financials	1.4%	12.07%	7.79	8.52	2.27%	16.10%
Humana	Health Care	1.4%	(14.99)%	38.14	16.62	1.12%	1.60%
American Tower Corp New	Real Estate	1.3%	19.64%	108.62	34.41	2.79%	32.26%

10 Best Performers

					Price/		
		Percent			Forecasted		Forecasted
		of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Mohawk Industries	Consumer Discretionary	0.7%	41.46%	10.14	14.32	0.00%	12.75%
Builders Firstsource Inc	Industrials	0.6%	40.06%	22.58	16.29	0.00%	1.50%
Tpg Partners LLC Cl A Com	Financials	0.7%	40.06%	5.54	23.08	2.92%	29.04%
Cb Richard Ellis Group Inc Cl A	Real Estate	0.2%	39.69%	38.14	22.11	0.00%	3.86%
Knight-Swift Transportation Holdings	Industrials	0.8%	36.16%	8.73	25.76	1.19%	34.10%
Techtronic Industries Co	Industrials	0.9%	34.45%	27.86	21.78	1.74%	12.01%
Jones Lang Lasalle Inc	Real Estate	0.6%	31.44%	12.81	17.87	0.00%	(5.13)%
Globe Life Inc	Financials	0.6%	29.10%	9.51	8.21	0.91%	13.26%
Kenvue Inc	Consumer Staples	0.8%	28.46%	44.30	19.12	3.55%	1.45%
Bristol-Myers Squibb Co	Health Care	0.7%	26.47%	104.90	9.52	4.64%	(4.05)%

10 Worst Performers

					Price/		
		Percent			Forecasted		Forecasted
		of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Dollar Gen Corp New	Consumer Staples	0.8%	(35.75)%	18.60	13.75	2.79%	(3.30)%
Edwards Lifesciences Corp	Health Care	0.9%	(28.56)%	39.75	24.50	0.00%	7.55%
Micron Technology Inc	Information Technology	0.7%	(21.08)%	115.00	11.20	0.44%	6.79%
Airbnb Inc Cl A Com Usd0.0001 Cl A	Consumer Discretionary	0.8%	(16.37)%	55.80	28.31	0.00%	18.60%
Nov Inc	Energy	0.3%	(15.59)%	6.29	9.15	1.88%	52.11%
McKesson Corp	Health Care	0.1%	(15.24)%	64.11	14.59	0.57%	13.55%
Humana	Health Care	1.4%	(14.99)%	38.14	16.62	1.12%	1.60%
Qualcomm Inc	Information Technology	0.8%	(14.18)%	189.44	15.27	2.00%	12.63%
Halliburton Co	Energy	0.6%	(13.51)%	25.65	8.47	2.34%	13.00%
Valero Energy Corp New	Energy	0.9%	(13.27)%	43.26	11.49	3.17%	(13.50)%

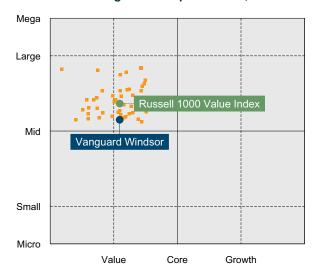


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Current Holdings Based Style Analysis Vanguard Windsor As of September 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

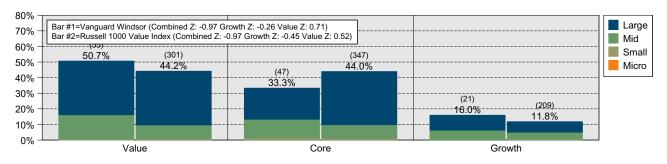
Style Map vs Callan Lg Cap Value MF Holdings as of September 30, 2024



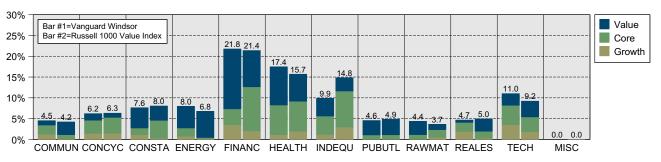
Style Exposure Matrix Holdings as of September 30, 2024

	Value	Core	Growth	Total
	44.2% (301)	44.0% (347)	11.8% (209)	100.0% (857)
Total				
	50.7% (55)	33.3% (47)	16.0% (21)	100.0% (123)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Micro				
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.6% (47)	1.0% (73)	0.5% (38)	2.1% (158)
Small				
	0.4% (1)	1.1% (2)	0.0% (0)	1.5% (3)
	9.0% (152)	8.8% (184)	4.5% (127)	22.2% (463)
Mid				
	15.8% (19)	12.2% (18)	6.3% (8)	34.2% (45)
	34.6% (102)	34.2% (90)	6.9% (44)	75.7% (236)
Large	(33)		(12)	(10)
	34.6% (35)	20.1% (27)	9.7% (13)	64.3% (75)

Combined Z-Score Style Distribution Holdings as of September 30, 2024



Sector Weights Distribution Holdings as of September 30, 2024





Loomis Sayles LC Growth* Period Ended September 30, 2024

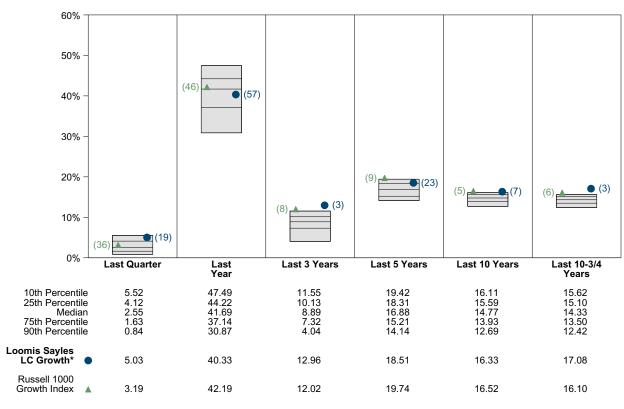
Investment Philosophy

The Large Cap Growth team believes successful investing is the result of identifying a small number of high quality companies capable of sustaining above average, long-term cash flow growth and purchasing them at discounted prices to their intrinsic value. * Fund Inception 4Q2013.

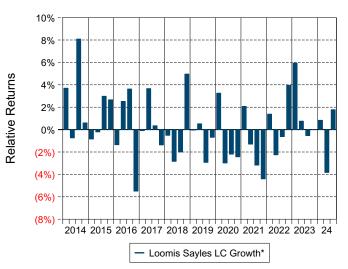
Quarterly Summary and Highlights

- Loomis Sayles LC Growth*'s portfolio posted a 5.03% return for the quarter placing it in the 19 percentile of the Callan Large Cap Growth Mutual Funds group for the quarter and in the 57 percentile for the last year.
- Loomis Sayles LC Growth*'s portfolio outperformed the Russell 1000 Growth Index by 1.84% for the quarter and underperformed the Russell 1000 Growth Index for the year by 1.86%.

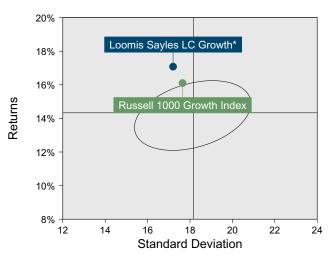
Performance vs Callan Large Cap Growth Mutual Funds (Institutional Net)



Relative Return vs Russell 1000 Growth Index



Callan Large Cap Growth Mutual Funds (Institutional Net) Annualized Ten and Three-Quarter Year Risk vs Return



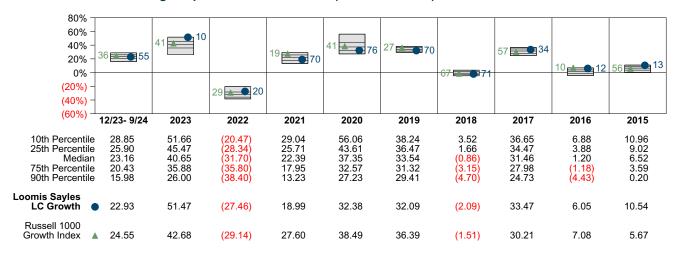


Loomis Sayles LC Growth Return Analysis Summary

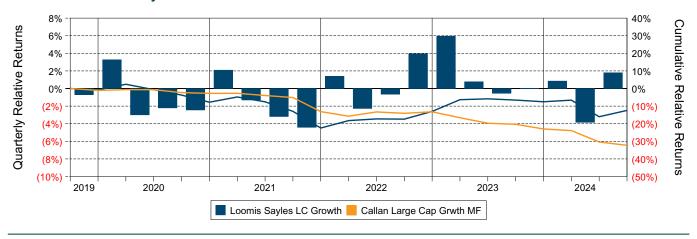
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

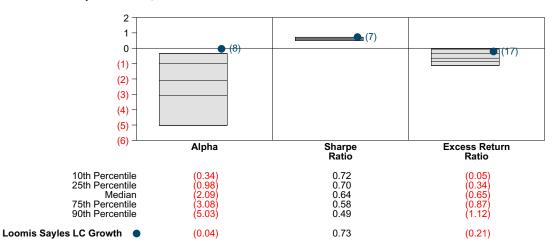
Performance vs Callan Large Cap Growth Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Russell 1000 Growth Index



Risk Adjusted Return Measures vs Russell 1000 Growth Index Rankings Against Callan Large Cap Growth Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



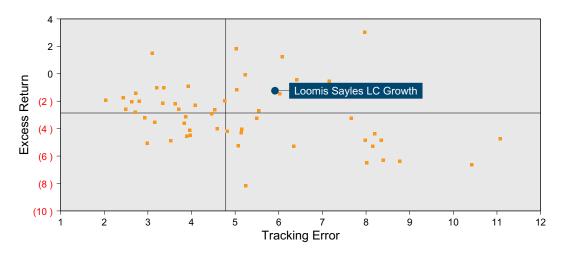


Loomis Sayles LC Growth Risk Analysis Summary

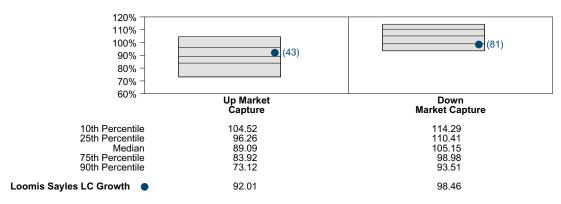
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

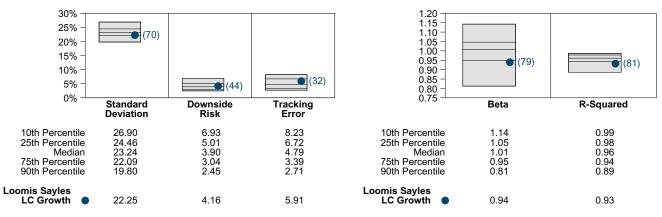
Risk Analysis vs Callan Large Cap Growth Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Market Capture vs Russell 1000 Growth Index Rankings Against Callan Large Cap Growth Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Risk Statistics Rankings vs Russell 1000 Growth Index Rankings Against Callan Large Cap Growth Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



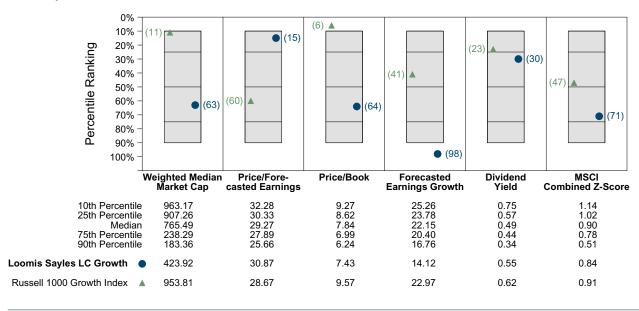


Loomis Sayles LC Growth Equity Characteristics Analysis Summary

Portfolio Characteristics

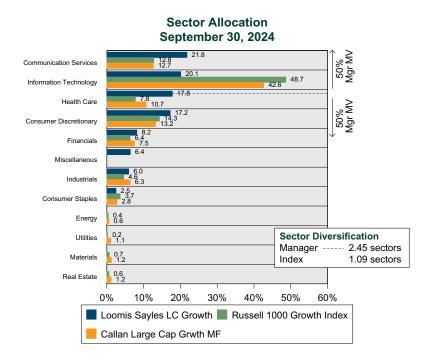
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

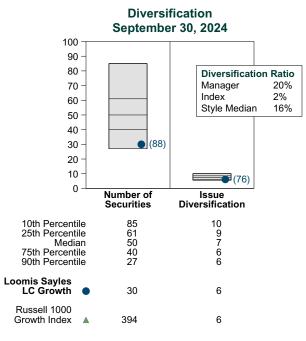
Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Growth Mutual Funds as of September 30, 2024



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.







Loomis Sayles LC Growth Top 10 Portfolio Holdings Characteristics as of September 30, 2024

10 Largest Holdings

	Ending	Percent			Forecasted		Forecasted		
	Market	of	Qtrly	Market	Earnings	Dividend	Growth in		
Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings		
Communication Services	\$860,555,197	12.7%	13.64%	1250.63	24.38	0.35%	13.60%		
Health Care	\$632,140,740	9.3%	(12.83)%	399.33	28.53	1.26%	27.20%		
Consumer Discretionary	\$504,074,934	7.4%	32.22%	834.39	90.28	0.00%	1.45%		
Information Technology	\$424,469,967	6.3%	21.02%	472.19	25.90	0.94%	11.20%		
Consumer Discretionary	\$410,238,848	6.1%	(3.58)%	1955.64	33.57	0.00%	31.75%		
Financials	\$322,439,914	4.8%	4.96%	459.29	24.84	0.76%	12.59%		
Communication Services	\$295,817,689	4.4%	(8.83)%	971.71	19.63	0.48%	21.00%		
Industrials	\$266,693,516	3.9%	(16.47)%	93.68	99.76	0.00%	(31.46)%		
Information Technology	\$252,976,266	3.7%	21.39%	97.09	63.25	0.00%	34.20%		
Information Technology	\$194,392,462	2.9%	11.33%	59.23	31.04	0.00%	11.39%		
	Communication Services Health Care Consumer Discretionary Information Technology Consumer Discretionary Financials Communication Services Industrials Information Technology	Sector Market Value Communication Services \$860,555,197 Health Care \$632,140,740 Consumer Discretionary \$500,074,934 Information Technology \$424,469,967 Consumer Discretionary \$410,238,848 Financials \$322,439,914 Communication Services \$295,817,689 Industrials \$266,693,516 Information Technology \$252,976,266	Sector Market Value of Portfolio Communication Services Health Care \$860,555,197 12.7% Health Care \$632,140,740 9.3% Consumer Discretionary Information Technology Consumer Discretionary Financials \$424,469,967 6.3% Communication Services Industrials \$322,439,914 4.8% Communication Services Industrials \$266,693,516 3.9% Information Technology \$252,976,266 3.7%	Sector Market Value of Value Qtrly Portfolio Communication Services Health Care \$860,555,197 12.7% 13.64% Health Care \$632,140,740 9.3% (12.83)% Consumer Discretionary \$504,074,934 7.4% 32.22% Information Technology \$424,469,967 6.3% 21.02% Consumer Discretionary \$410,238,848 6.1% (3.58)% Financials \$322,439,914 4.8% 4.96% Communication Services \$295,817,689 4.4% (8.83)% Industrials \$266,693,516 3.9% (16.47)% Information Technology \$252,976,266 3.7% 21.39%	Market of Value Qtrly Portfolio Market Return Communication Services \$860,555,197 12.7% 13.64% 1250.63 Health Care \$632,140,740 9.3% (12.83)% 399.33 Consumer Discretionary \$504,074,934 7.4% 32.22% 834.39 Information Technology \$424,469,967 6.3% 21.02% 472.19 Consumer Discretionary \$410,238,848 6.1% (3.58)% 1955.64 Financials \$322,439,914 4.8% 4.96% 459.29 Communication Services \$295,817,689 4.4% (8.83)% 971.71 Industrials \$266,693,516 3.9% (16.47)% 93.68 Information Technology \$252,976,266 3.7% 21.39% 97.09	Sector Warket Value of Portfolio Qtrly Return Market Capital Ratio Communication Services \$860,555,197 12.7% 13.64% 1250.63 24.38 Health Care \$632,140,740 9.3% (12.83)% 399.33 28.53 Consumer Discretionary \$504,074,934 7.4% 32.22% 834.39 90.28 Information Technology \$424,469,967 6.3% 21.02% 472.19 25.90 Consumer Discretionary \$410,238,848 6.1% (3.58)% 1955.64 33.57 Financials \$322,439,914 4.8% 4.96% 459.29 24.84 Communication Services \$295,817,689 4.4% (8.83)% 971.71 19.63 Industrials \$266,693,516 3.9% (16.47)% 93.68 99.76 Information Technology \$252,976,266 3.7% 21.39% 97.09 63.25	Sector Value Percent of Portfolio Qtrly Return Market Capital Forecasted Earnings Point Ratio Dividend Yield Communication Services \$860,555,197 12.7% 13.64% 1250.63 24.38 0.35% Health Care \$632,140,740 9.3% (12.83)% 399.33 28.53 1.26% Consumer Discretionary \$504,074,934 7.4% 32.22% 834.39 90.28 0.00% Information Technology \$424,469,967 6.3% 21.02% 472.19 25.90 0.94% Consumer Discretionary \$410,238,848 6.1% (3.58)% 1955.64 33.57 0.00% Financials \$322,439,914 4.8% 4.96% 459.29 24.84 0.76% Communication Services \$295,817,689 4.4% (8.83)% 971.71 19.63 0.48% Industrials \$266,693,516 3.9% (16.47)% 93.68 99.76 0.00% Information Technology \$252,976,266 3.7% 21.39% 97.09 63.25 0		

10 Best Performers

		Price/					
	Ending	Percent			Forecasted		Forecasted
	Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Information Technology	\$61,510,229	0.9%	53.75%	254.67	11.21	0.94%	7.00%
Consumer Discretionary	\$67,653,590	1.0%	53.00%	17.31	18.75	1.42%	11.20%
Consumer Discretionary	\$504,074,934	7.4%	32.22%	834.39	90.28	0.00%	1.45%
Information Technology	\$252,976,266	3.7%	21.39%	97.09	63.25	0.00%	34.20%
Information Technology	\$424,469,967	6.3%	21.02%	472.19	25.90	0.94%	11.20%
Consumer Discretionary	\$156,446,518	2.3%	17.82%	106.21	27.48	1.67%	7.10%
Health Care	\$125,253,186	1.8%	16.07%	252.21	14.61	3.40%	9.70%
Communication Services	\$860,555,197	12.7%	13.64%	1250.63	24.38	0.35%	13.60%
Financials	\$84,782,085	1.3%	12.91%	17.49	26.58	0.90%	4.70%
Industrials	\$36,010,154	0.5%	12.09%	114.18	18.17	1.41%	(11.05)%
	Information Technology Consumer Discretionary Consumer Discretionary Information Technology Information Technology Consumer Discretionary Health Care Communication Services Financials	Sector Market Value Information Technology \$61,510,229 Consumer Discretionary \$67,653,590 Consumer Discretionary \$504,074,934 Information Technology \$252,976,266 Information Technology \$424,469,967 Consumer Discretionary \$156,446,518 Health Care \$125,253,186 Communication Services \$860,555,197 Financials \$84,782,085	Sector Market Value of Portfolio Information Technology Consumer Discretionary Information Technology Information Technology Information Technology Information Technology Information Technology Section	Market of Qtrly Sector Value Portfolio Return Information Technology \$61,510,229 0.9% 53.75% Consumer Discretionary \$67,653,590 1.0% 53.00% Consumer Discretionary \$504,074,934 7.4% 32.22% Information Technology \$252,976,266 3.7% 21.39% Information Technology \$424,469,967 6.3% 21.02% Consumer Discretionary \$156,446,518 2.3% 17.82% Health Care \$125,253,186 1.8% 16.07% Communication Services \$860,555,197 12.7% 13.64% Financials \$84,782,085 1.3% 12.91%	Market of Value Qtrly Portfolio Market Return Information Technology \$61,510,229 0.9% 53.75% 254.67 Consumer Discretionary \$67,653,590 1.0% 53.00% 17.31 Consumer Discretionary \$504,074,934 7.4% 32.22% 834.39 Information Technology \$252,976,266 3.7% 21.39% 97.09 Information Technology \$424,469,967 6.3% 21.02% 472.19 Consumer Discretionary \$156,446,518 2.3% 17.82% 106.21 Health Care \$125,253,186 1.8% 16.07% 252.21 Communication Services \$860,555,197 12.7% 13.64% 1250.63 Financials \$84,782,085 1.3% 12.91% 17.49	Sector Value Percent portfolio Return Capital Particular Information Technology \$61,510,229 0.9% 53.75% 254.67 11.21 Consumer Discretionary \$67,653,590 1.0% 53.00% 17.31 18.75 Consumer Discretionary \$504,074,934 7.4% 32.22% 834.39 90.28 Information Technology \$252,976,266 3.7% 21.39% 97.09 63.25 Information Technology \$424,469,967 6.3% 21.02% 472.19 25.90 Consumer Discretionary \$156,446,518 2.3% 17.82% 106.21 27.48 Health Care \$125,253,186 1.8% 16.07% 252.21 14.61 Communication Services \$860,555,197 12.7% 13.64% 1250.63 24.38 Financials \$84,782,085 1.3% 12.91% 17.49 26.58	Sector Value Portfolio Return Capital Forecasted Dividend Information Technology \$61,510,229 0.9% 53.75% 254.67 11.21 0.94% Consumer Discretionary \$67,653,590 1.0% 53.00% 17.31 18.75 1.42% Consumer Discretionary \$504,074,934 7.4% 32.22% 834.39 90.28 0.00% Information Technology \$252,976,266 3.7% 21.39% 97.09 63.25 0.00% Information Technology \$424,469,967 6.3% 21.02% 472.19 25.90 0.94% Consumer Discretionary \$156,446,518 2.3% 17.82% 106.21 27.48 1.67% Health Care \$125,253,186 1.8% 16.07% 252.21 14.61 3.40% Communication Services \$860,555,197 12.7% 13.64% 125.063 24.38 0.35% Financials \$84,782,085 1.3% 12.91% 17.49 26.58 0.90%

10 Worst Performers

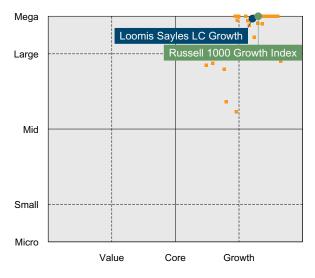
					Price/				
		Ending	Percent			Forecasted		Forecasted	
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in	
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings	
Boeing Co	Industrials	\$266,693,516	3.9%	(16.47)%	93.68	99.76	0.00%	(31.46)%	
Qualcomm Inc	Information Technology	\$115,185,748	1.7%	(14.18)%	189.44	15.27	2.00%	12.63%	
Novo-Nordisk A S Adr	Health Care	\$632,140,740	9.3%	(12.83)%	399.33	28.53	1.26%	27.20%	
Grail Inc Com	Health Care	\$68,125,010	1.0%	(10.48)%	0.43	(0.24)	0.00%	-	
Alphabet Inc Cl A	Communication Services	\$295,817,689	4.4%	(8.83)%	971.71	19.63	0.48%	21.00%	
Alphabet Inc CI C	Communication Services	\$112,030,508	1.7%	(8.73)%	933.76	19.80	0.48%	21.00%	
Amazon.Com	Consumer Discretionary	\$410,238,848	6.1%	(3.58)%	1955.64	33.57	0.00%	31.75%	
Disney Walt Co Com Disney	Communication Services	\$171,057,082	2.5%	(2.67)%	174.45	18.56	0.78%	15.95%	
Regeneron Pharmaceutical	Health Care	\$145,126,836	2.1%	0.02%	115.88	22.03	0.00%	10.50%	
Square Inc CI A	Financials	\$59,713,948	0.9%	4.09%	37.27	15.40	0.00%	65.60%	



Current Holdings Based Style Analysis Loomis Sayles LC Growth As of September 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

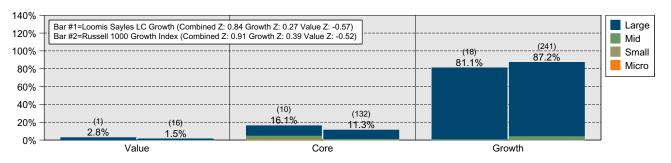
Style Map vs Callan Large Cap Grwth MF Holdings as of September 30, 2024



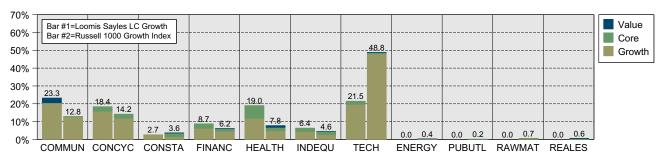
Style Exposure Matrix Holdings as of September 30, 2024

	1.5% (16)	11.3% (132)	87.2% (241)	100.0% (389)
Total				
	2.8% (1)	16.1% (10)	81.1% (18)	100.0% (29)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Micro	, ,	, ,	, ,	, ,
	0.0% (0)	1.1% (1)	0.0% (0)	1.1% (1)
•a	0.0% (3)	0.1% (19)	0.2% (25)	0.3% (47)
Small	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (4)	1.4% (58)	4.3% (130)	5.7% (192)
Mid	0.00/ (4)	1 /10/ (50)	4 20/ (420)	5 79/ (402)
	0.0% (0)	4.0% (3)	1.1% (1)	5.1% (4)
_ u.go	1.4% (9)	9.8% (55)	82.7% (86)	93.9% (150)
Large	2.8% (1)	11.0% (6)	80.0% (17)	93.8% (24)

Combined Z-Score Style Distribution Holdings as of September 30, 2024



Sector Weights Distribution Holdings as of September 30, 2024





PGI Mid-Cap Equty Fund* Period Ended September 30, 2024

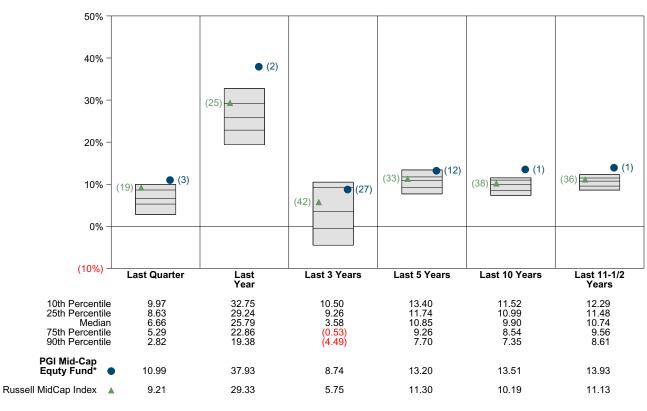
Investment Philosophy

The Principal Mid-Cap Core team believes that superior stock selection combined with disciplined risk management will produce superior investment returns over time. *Fund inception 1Q20; returns for longer time periods are that of the Collective Trust.

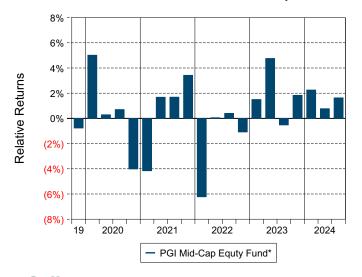
Quarterly Summary and Highlights

- PGI Mid-Cap Equty Fund*'s portfolio posted a 10.99% return for the quarter placing it in the 3 percentile of the Callan Mid Cap Mutual Funds group for the quarter and in the 2 percentile for the last year.
- PGI Mid-Cap Equty Fund*'s portfolio outperformed the Russell MidCap Index by 1.78% for the quarter and outperformed the Russell MidCap Index for the year by 8.60%.

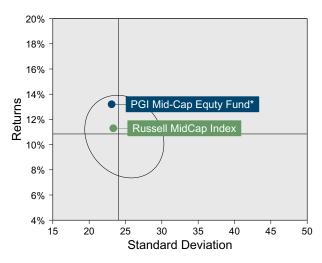
Performance vs Callan Mid Cap Mutual Funds (Institutional Net)



Relative Return vs Russell MidCap Index



Callan Mid Cap Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return



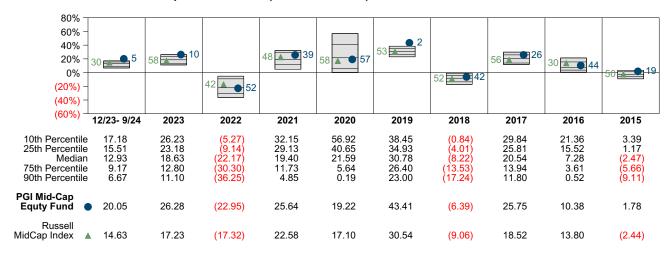


PGI Mid-Cap Equty Fund Return Analysis Summary

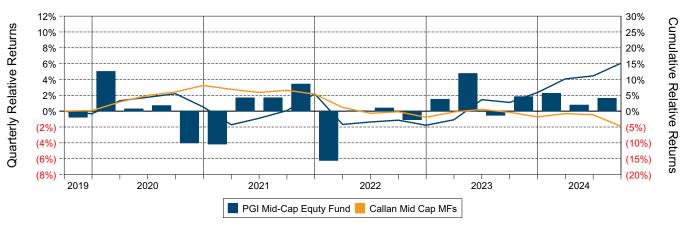
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

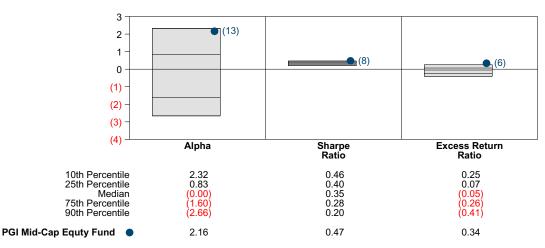
Performance vs Callan Mid Cap Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Russell MidCap Index



Risk Adjusted Return Measures vs Russell MidCap Index Rankings Against Callan Mid Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



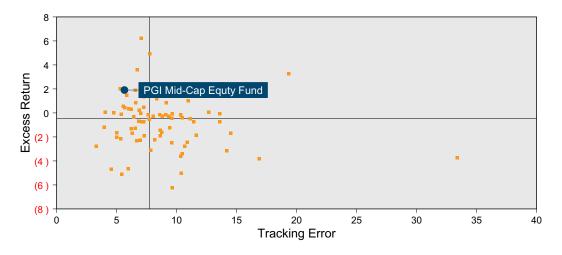


PGI Mid-Cap Equty Fund Risk Analysis Summary

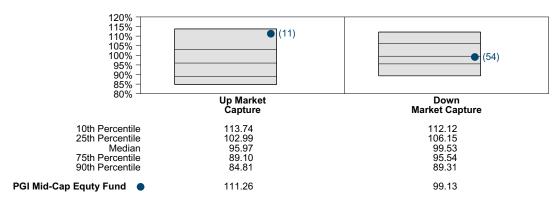
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

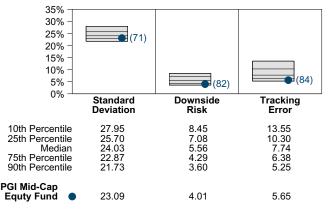
Risk Analysis vs Callan Mid Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024

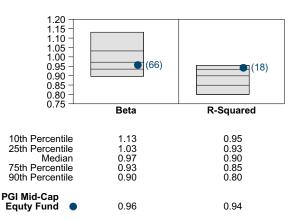


Market Capture vs Russell Mid-Cap Index Rankings Against Callan Mid Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Risk Statistics Rankings vs Russell Mid-Cap Index Rankings Against Callan Mid Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024





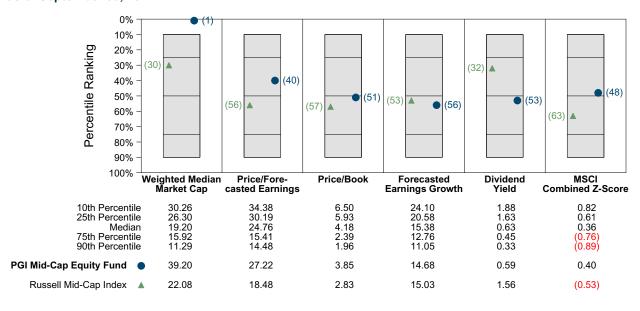


PGI Mid-Cap Equity Fund Equity Characteristics Analysis Summary

Portfolio Characteristics

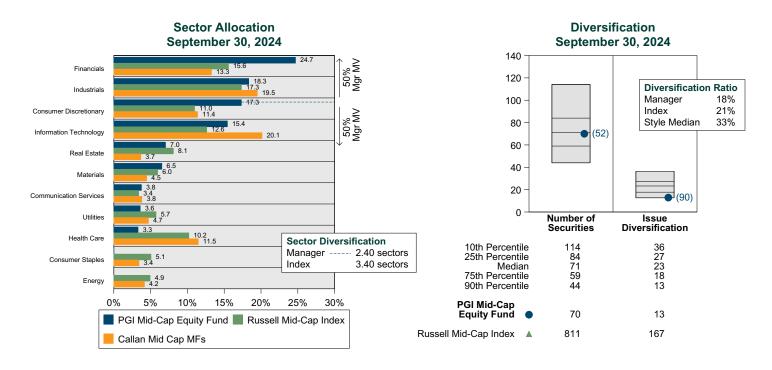
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Mid Cap Mutual Funds as of September 30, 2024



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





PGI Mid-Cap Equity Fund Top 10 Portfolio Holdings Characteristics as of September 30, 2024

10 Largest Holdings

					Price/		
		Percent			Forecasted		Forecasted
		of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Brookfield Asset Mgmt Inc CI A Ltd V	Financials	5.1%	29.81%	87.44	13.06	0.60%	26.04%
Heico Corp New CI A	Industrials	5.0%	14.85%	17.07	48.20	0.11%	9.96%
Transdigm Group Inc	Industrials	4.8%	11.70%	80.08	35.26	0.00%	20.80%
Kkr & Co Inc Cl A	Financials	4.8%	24.27%	115.88	22.84	0.54%	30.80%
Hilton Worldwide Hldgs Inc	Consumer Discretionary	4.5%	5.71%	56.80	29.35	0.26%	14.30%
Copart Inc	Industrials	4.4%	(3.25)%	50.48	33.23	0.00%	20.66%
O Reilly Automotive Inc New	Consumer Discretionary	4.2%	9.05%	66.80	25.73	0.00%	11.10%
Brown & Inc	Financials	3.5%	16.02%	29.55	26.16	0.50%	11.70%
Vulcan Matls Co	Materials	3.1%	0.89%	33.07	28.03	0.73%	12.35%
Costar Group Inc	Real Estate	3.0%	1.75%	30.92	69.59	0.00%	(2.20)%

10 Best Performers

					Price/			
		Percent			Forecasted		Forecasted	
		of	Qtrly	Market	Earnings	Dividend	Growth in	
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings	
Perimeter Solutions	Materials	0.4%	71.77%	1.95	27.67	0.00%	-	
Cb Richard Ellis Group Inc Cl A	Real Estate	2.4%	39.69%	38.14	22.11	0.00%	3.86%	
Liberty Media Liberty Live Series C	Communication Services	0.0%	34.12%	3.27	(75.93)	0.00%	-	
Liberty Media Liberty Live Series A	Communication Services	0.0%	32.00%	1.27	-	0.00%	-	
Brookfield Infrastructure Partners L	Utilities	2.6%	30.97%	16.18	43.37	4.62%	(4.29)%	
Fair Isaac Corp	Information Technology	1.5%	30.55%	47.65	66.37	0.00%	24.33%	
Brookfield Asset Mgmt Inc Cl A Ltd V	Financials	5.1%	29.81%	87.44	13.06	0.60%	26.04%	
Nvr Inc	Consumer Discretionary	1.4%	29.30%	30.20	18.84	0.00%	7.60%	
Sherwin-Williams Co	Materials	0.4%	28.15%	96.28	30.46	0.75%	10.10%	
Brkf.Astmgmt.Rein. Ptns. A	Financials	0.0%	28.03%	2.31	5.88	0.60%	-	

10 Worst Performers

					Price/		
		Percent			Forecasted		Forecasted
		of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Entegris Inc	Information Technology	0.3%	(16.82)%	16.99	28.15	0.36%	23.68%
Dominos Pizza Inc	Consumer Discretionary	1.8%	(16.38)%	15.04	24.78	1.40%	10.90%
Lumine Group Inc Sub Vtg	Information Technology	0.0%	(13.33)%	6.00	35.17	0.00%	-
Microchip Technology	Information Technology	1.3%	(11.75)%	43.08	30.42	2.26%	(10.90)%
Appfolio Inc Com Cl A	Information Technology	0.1%	(3.75)%	5.26	46.02	0.00%	46.09%
Copart Inc	Industrials	4.4%	(3.25)%	50.48	33.23	0.00%	20.66%
Vail Resorts Inc Cdt-Cl 2 Com	Consumer Discretionary	0.8%	(3.24)%	6.53	22.54	5.09%	13.05%
Roper Technologies Inc	Information Technology	2.6%	(1.15)%	59.65	28.51	0.54%	8.00%
Ansys Inc	Information Technology	0.4%	(0.89)%	27.84	30.36	0.00%	6.40%
Ccc Intelligent Solutions HI	Information Technology	0.8%	(0.54)%	6.89	28.05	0.00%	11.50%

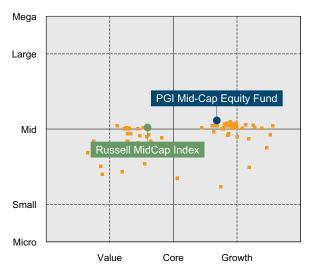


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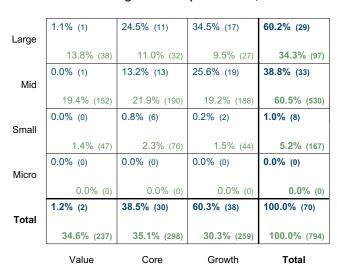
Current Holdings Based Style Analysis PGI Mid-Cap Equity Fund As of September 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

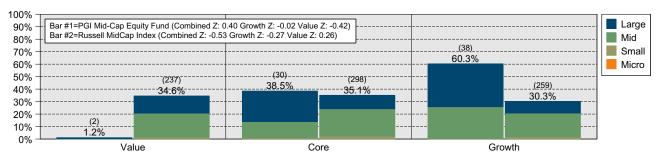
Style Map vs Callan Mid Cap MFs Holdings as of September 30, 2024



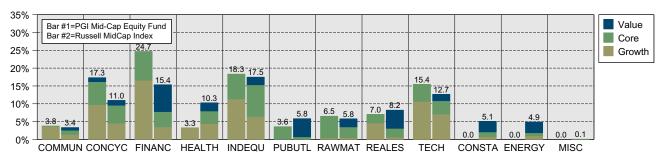
Style Exposure Matrix Holdings as of September 30, 2024



Combined Z-Score Style Distribution Holdings as of September 30, 2024



Sector Weights Distribution Holdings as of September 30, 2024





Wellington Small Cap Opps* Period Ended September 30, 2024

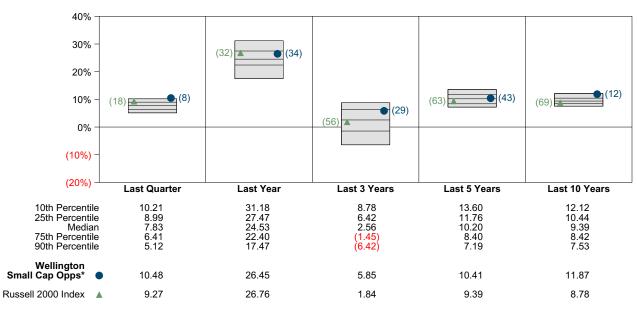
Investment Philosophy

Wellington Management is a Boston-based, employee owned investment firm with over \$1.2 trillion in assets under management and nearly 1,000 employees globally. The Wellington Small Cap Opportunities strategy is part of the Opportunities boutique within Wellington and seeks to outperform the benchmark by 200 basis points net of fees over a full market cycle by investing in equity securities of high quality small companies. The investment team is led by DJ Fitzpatrick, who is supported by two dedicated analysts (Paul Elia, Jessica Lebo Costello) and leverages the expertise of the 52 member Global Industry Analyst group within Wellington. The investment process is fundamentally driven, focused on identifying quality companies via superior corporate management teams. The end portfolio tends to plot core in style and is consistent with small cap market capitalization range. *Fund inception 1Q20; returns for longer time periods are that of the Collective Trust.

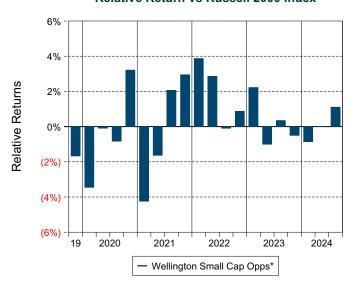
Quarterly Summary and Highlights

- Wellington Small Cap Opps*'s portfolio posted a 10.48% return for the quarter placing it in the 8 percentile of the Callan Small Cap Mutual Funds group for the quarter and in the 34 percentile for the last year.
- Wellington Small Cap Opps*'s portfolio outperformed the Russell 2000 Index by 1.21% for the quarter and underperformed the Russell 2000 Index for the year by 0.31%.

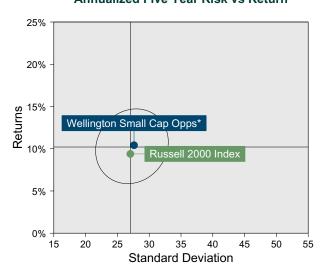
Performance vs Callan Small Cap Mutual Funds (Institutional Net)



Relative Return vs Russell 2000 Index



Callan Small Cap Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return



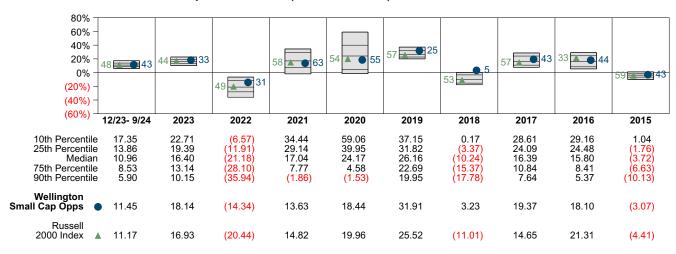


Wellington Small Cap Opps Return Analysis Summary

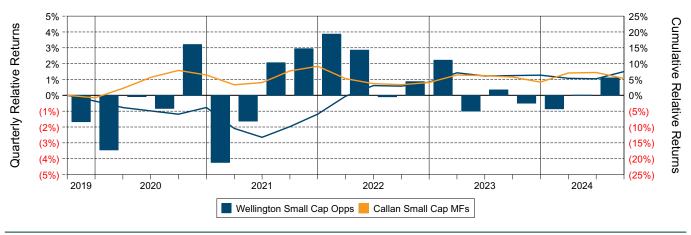
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

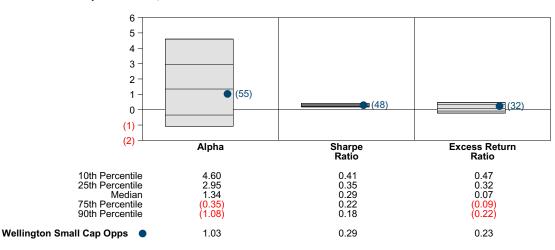
Performance vs Callan Small Cap Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Russell 2000 Index



Risk Adjusted Return Measures vs Russell 2000 Index Rankings Against Callan Small Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



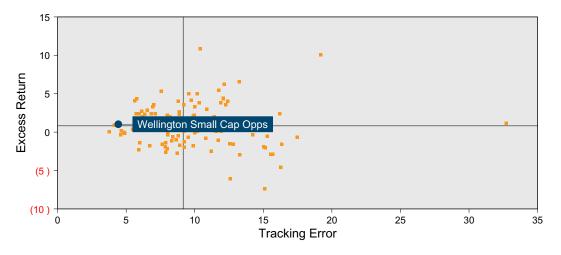


Wellington Small Cap Opps Risk Analysis Summary

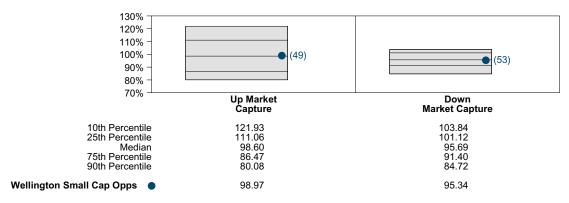
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

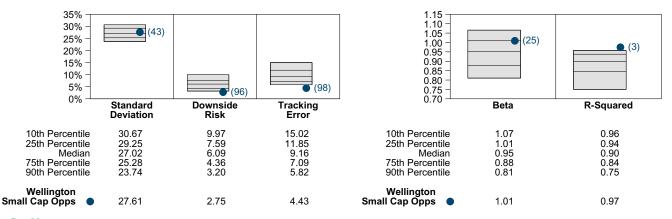
Risk Analysis vs Callan Small Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Market Capture vs Russell 2000 Index Rankings Against Callan Small Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Risk Statistics Rankings vs Russell 2000 Index Rankings Against Callan Small Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



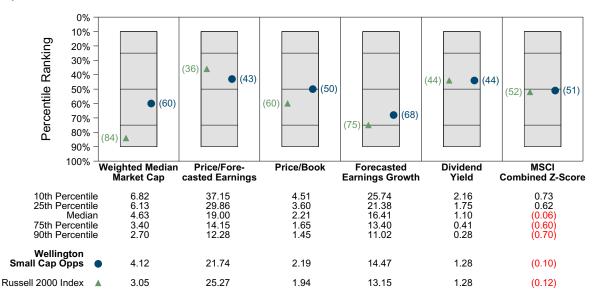


Wellington Small Cap Opps Equity Characteristics Analysis Summary

Portfolio Characteristics

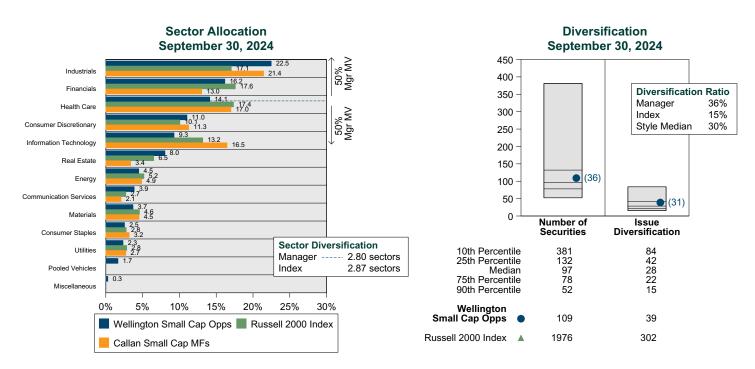
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Mutual Funds as of September 30, 2024



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





Wellington Small Cap Opps Top 10 Portfolio Holdings Characteristics as of September 30, 2024

10 Largest Holdings

	_			F		
	Percent			Forecasted		Forecasted
	of	Qtrly	Market	Earnings	Dividend	Growth in
Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Industrials	1.8%	9.55%	8.17	15.05	0.00%	10.80%
Real Estate	1.7%	80.38%	3.99	178.77	3.83%	-
Industrials	1.6%	26.62%	3.28	13.49	1.36%	31.85%
Industrials	1.5%	2.26%	7.09	18.83	0.00%	22.41%
Materials	1.4%	22.13%	6.13	14.29	1.54%	15.26%
Energy	1.4%	21.81%	4.64	21.21	5.23%	72.15%
Financials	1.4%	24.21%	4.31	12.67	0.96%	4.46%
Communication Services	1.4%	8.98%	9.10	27.66	0.93%	11.05%
Financials	1.3%	8.50%	1.60	13.21	2.66%	6.21%
Financials	1.3%	13.51%	5.82	11.52	3.14%	1.11%
	Industrials Real Estate Industrials Industrials Materials Energy Financials Communication Services Financials	Sector Portfolio Industrials 1.8% Real Estate 1.7% Industrials 1.6% Industrials 1.5% Materials 1.4% Energy 1.4% Financials 1.4% Communication Services 1.4% Financials 1.3%	Sector of Portfolio Qtrly Return Industrials 1.8% 9.55% Real Estate 1.7% 80.38% Industrials 1.6% 26.62% Industrials 1.5% 2.26% Materials 1.4% 22.13% Energy 1.4% 21.81% Financials 1.4% 24.21% Communication Services 1.4% 8.98% Financials 1.3% 8.50%	Sector of Portfolio Qtrly Return Market Capital Industrials 1.8% 9.55% 8.17 Real Estate 1.7% 80.38% 3.99 Industrials 1.6% 26.62% 3.28 Industrials 1.5% 2.26% 7.09 Materials 1.4% 22.13% 6.13 Energy 1.4% 21.81% 4.64 Financials 1.4% 24.21% 4.31 Communication Services 1.4% 8.98% 9.10 Financials 1.3% 8.50% 1.60	Sector Of Portfolio Qtrly Return Market Capital Earnings Ratio Industrials 1.8% 9.55% 8.17 15.05 Real Estate 1.7% 80.38% 3.99 178.77 Industrials 1.6% 26.62% 3.28 13.49 Industrials 1.5% 2.26% 7.09 18.83 Materials 1.4% 22.13% 6.13 14.29 Energy 1.4% 21.81% 4.64 21.21 Financials 1.4% 24.21% 4.31 12.67 Communication Services 1.4% 8.98% 9.10 27.66 Financials 1.3% 8.50% 1.60 13.21	Percent of Of Portfolio Qtrly Return Market Capital Ratio Earnings Piece Dividend Yield Piece Industrials 1.8% 9.55% 8.17 15.05 0.00% Real Estate 1.7% 80.38% 3.99 178.77 3.83% Industrials 1.6% 26.62% 3.28 13.49 1.36% Industrials 1.5% 2.26% 7.09 18.83 0.00% Materials 1.4% 22.13% 6.13 14.29 1.54% Energy 1.4% 21.81% 4.64 21.21 5.23% Financials 1.4% 24.21% 4.31 12.67 0.96% Communication Services 1.4% 8.98% 9.10 27.66 0.93% Financials 1.3% 8.50% 1.60 13.21 2.66%

10 Best Performers

					Price/		
		Percent			Forecasted		Forecasted
		of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
American Healthcare Reit	Real Estate	1.7%	80.38%	3.99	178.77	3.83%	-
Kymera Therapeutics Inc	Health Care	0.4%	58.55%	3.05	(14.80)	0.00%	-
Veracyte Inc	Health Care	0.5%	57.08%	2.61	119.44	0.00%	-
Apogee Therapeutics	Health Care	0.4%	49.27%	2.64	(16.57)	0.00%	-
Evolent Health Inc Cl A	Health Care	1.0%	47.91%	3.29	17.40	0.00%	56.16%
Skyline Champion Corporation	Consumer Discretionary	1.3%	40.00%	5.46	25.99	0.00%	37.27%
Surgery Partners Inc	Health Care	1.0%	35.52%	4.10	26.53	0.00%	46.10%
Ultragenyx Pharmaceutical In	Health Care	0.5%	35.16%	5.12	(10.22)	0.00%	-
Douglas Emmett Inc	Real Estate	1.0%	33.43%	2.94	(95.49)	4.33%	(12.52)%
Modine Mfg Co	Consumer Discretionary	1.1%	32.54%	6.96	31.23	0.00%	34.00%

10 Worst Performers

					Price/		
		Percent			Forecasted		Forecasted
		of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Rambus Inc Del	Information Technology	0.0%	(28.15)%	4.55	18.30	0.00%	12.96%
Apellis Pharmaceuticals Inc	Health Care	0.3%	(24.82)%	3.51	(101.55)	0.00%	-
Formfactor Inc	Information Technology	0.8%	(24.00)%	3.56	28.05	0.00%	20.00%
Goodyear Tire & Rubr Co	Consumer Discretionary	0.7%	(22.03)%	2.52	6.08	0.00%	(0.45)%
Sprout Social A	Information Technology	0.6%	(18.53)%	1.47	45.56	0.00%	86.05%
Rocket Pharmaceuticals Inc	Health Care	0.4%	(14.21)%	1.68	(6.84)	0.00%	-
Methanex Corp	Materials	1.0%	(13.90)%	2.79	11.74	1.82%	38.50%
Sitio Royalties Corp Class A Com	Energy	0.8%	(10.54)%	1.68	55.28	5.76%	13.71%
Shoals Technologies Group In CI A	Industrials	0.4%	(10.08)%	0.93	12.61	0.00%	12.20%
Crane Hldgs Co	Information Technology	1.0%	(8.41)%	3.20	12.03	1.14%	(3.19)%

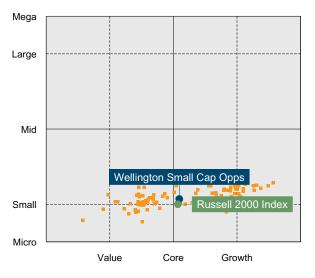


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Current Holdings Based Style Analysis Wellington Small Cap Opps As of September 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

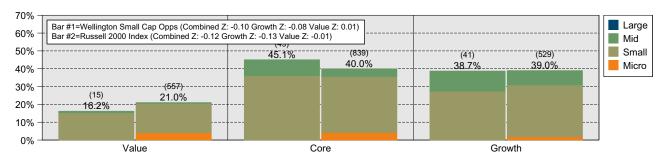
Style Map vs Callan Small Cap MFs Holdings as of September 30, 2024



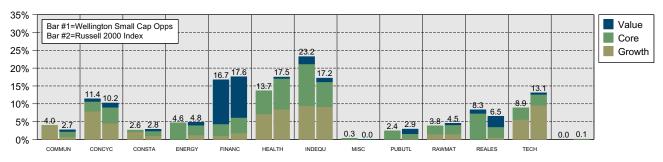
Style Exposure Matrix Holdings as of September 30, 2024

Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	,		, ,	
Mid	1.0% (1)	9.0% (9)	11.3% (9)	21.4% (19)
	0.5% (2)	4.4% (18)	8.1% (30)	13.0% (50)
	15.2% (14)	36.0% (40)	27.4% (32)	78.6% (86)
Small				
	16.5% (228)	31.5% (427)	29.1% (346)	77.0% (1001)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Micro	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Micro	0.0% (0) 4.0% (327)	0.0% (0) 4.1% (394)	0.0% (0)	0.0% (0)
Micro	, ,	, ,	, ,	, ,
Micro	4.0% (327)	4.1% (394)	1.8% (153)	10.0% (874)
	4.0% (327)	4.1% (394)	1.8% (153)	10.0% (874)

Combined Z-Score Style Distribution Holdings as of September 30, 2024



Sector Weights Distribution Holdings as of September 30, 2024





NT Russell 2000 Index Fund* Period Ended September 30, 2024

Investment Philosophy

Northern Trust Asset Management's objective is to create a fund which replicates the risk and total return characteristics of the Russell 2000 Index while keeping transaction costs associated with the trading of the securities as low as possible. Fund Inception 1Q2018.

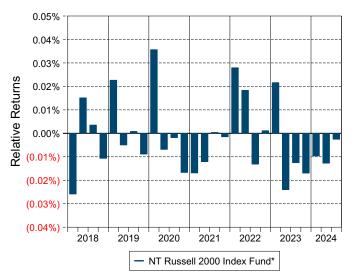
Quarterly Summary and Highlights

- NT Russell 2000 Index Fund*'s portfolio posted a 9.27% return for the quarter placing it in the 18 percentile of the Callan Small Cap Mutual Funds group for the quarter and in the 33 percentile for the last year.
- NT Russell 2000 Index Fund*'s portfolio underperformed the Russell 2000 Index by 0.00% for the quarter and underperformed the Russell 2000 Index for the year by 0.05%.

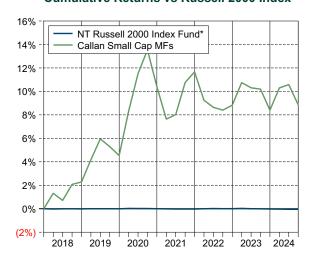
Performance vs Callan Small Cap Mutual Funds (Institutional Net)



Relative Return vs Russell 2000 Index



Cumulative Returns vs Russell 2000 Index





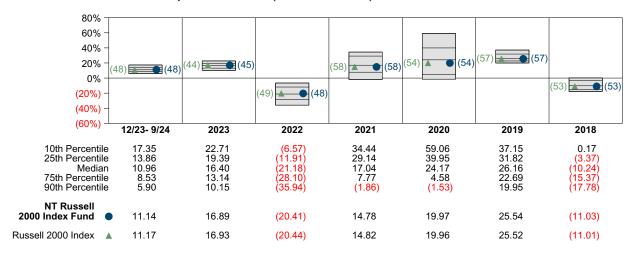
Cumulative Relative Returns

NT Russell 2000 Index Fund Return Analysis Summary

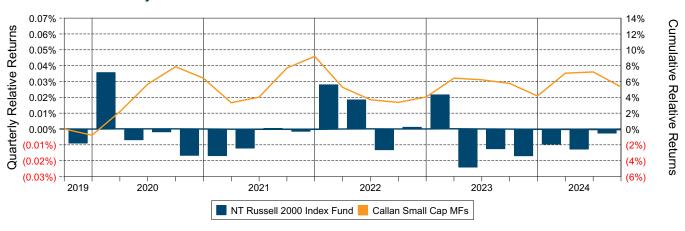
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

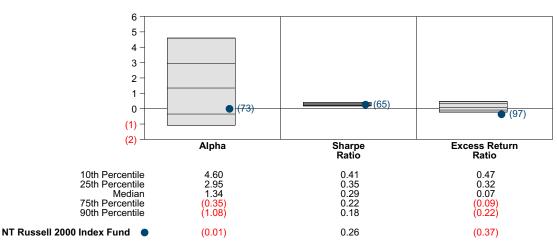
Performance vs Callan Small Cap Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Russell 2000 Index



Risk Adjusted Return Measures vs Russell 2000 Index Rankings Against Callan Small Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



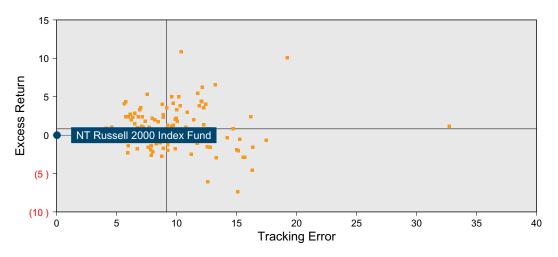


NT Russell 2000 Index Fund Risk Analysis Summary

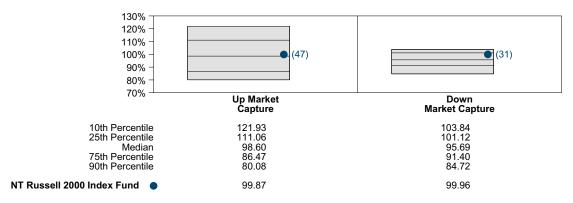
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

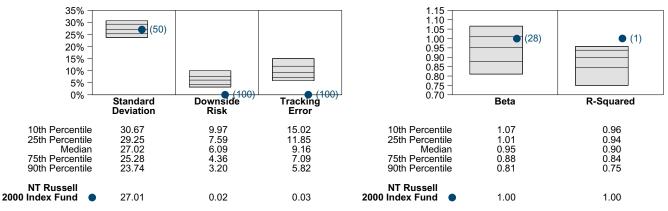
Risk Analysis vs Callan Small Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Market Capture vs Russell 2000 Index Rankings Against Callan Small Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Risk Statistics Rankings vs Russell 2000 Index Rankings Against Callan Small Cap Mutual Funds (Institutional Net) Five Years Ended September 30, 2024





NT EAFE Index Fund* Period Ended September 30, 2024

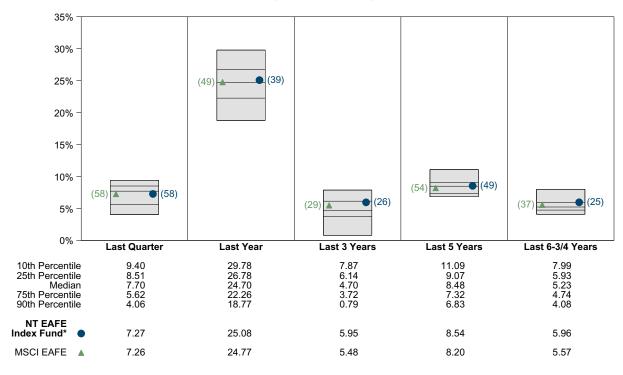
Investment Philosophy

NTGI's philosophy in managing EAFE index fund portfolios is to create a portfolio which replicates the risk and total return characteristics of the MSCI EAFE Index while minimizing transaction costs in a model-driven optimization approach. This system seeks to achieve lower transaction costs, as well as low tracking error. By limiting the number of stocks in their trade lists, the model-driven optimization strategy generally attempts to bear lower costs and increased potential for improved returns relative to replication strategies. *Fund Inception 1Q2018.

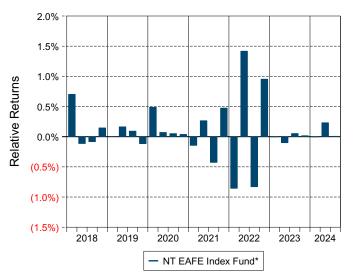
Quarterly Summary and Highlights

- NT EAFE Index Fund*'s portfolio posted a 7.27% return for the quarter placing it in the 58 percentile of the Callan Intl Eq Developed Mkts MFs group for the quarter and in the 39 percentile for the last year.
- NT EAFE Index Fund*'s portfolio outperformed the MSCI EAFE by 0.01% for the quarter and outperformed the MSCI EAFE for the year by 0.31%.

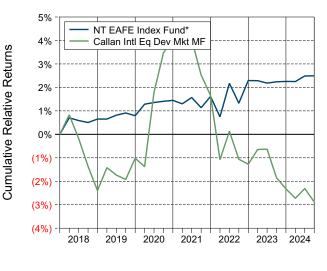
Performance vs Callan Intl Eq Developed Mkts MFs (Institutional Net)



Relative Return vs MSCI EAFE



Cumulative Returns vs MSCI EAFE



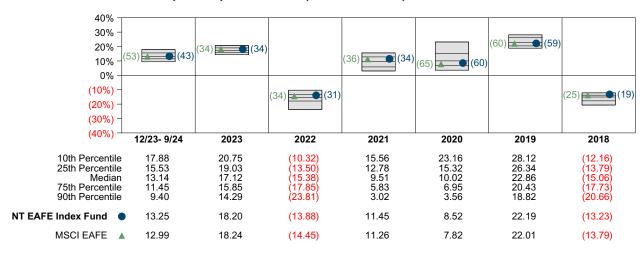


NT EAFE Index Fund Return Analysis Summary

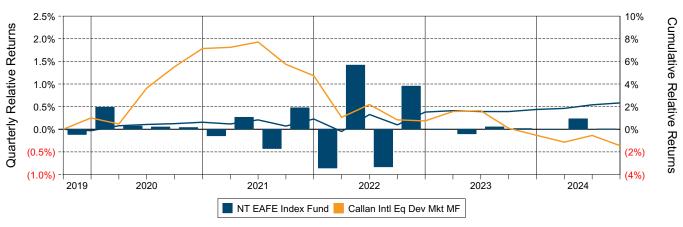
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

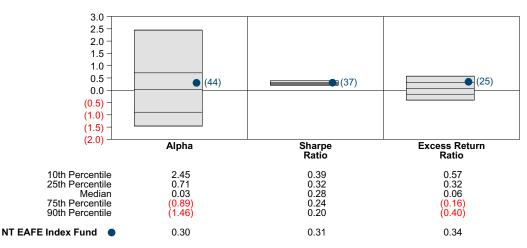
Performance vs Callan Intl Eq Developed Mkts MFs (Institutional Net)



Cumulative and Quarterly Relative Returns vs MSCI EAFE



Risk Adjusted Return Measures vs MSCI EAFE Rankings Against Callan Intl Eq Developed Mkts MFs (Institutional Net) Five Years Ended September 30, 2024



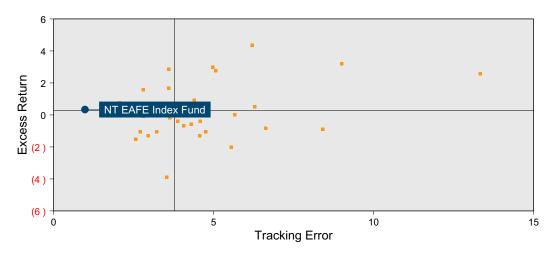


NT EAFE Index Fund Risk Analysis Summary

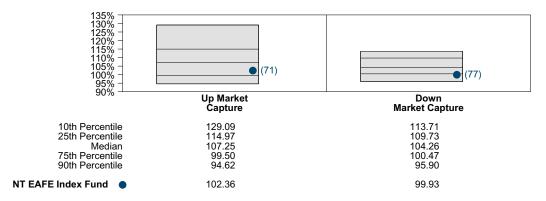
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

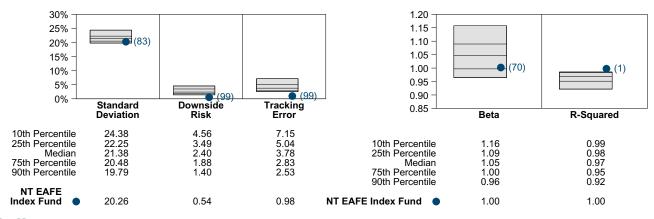
Risk Analysis vs Callan Intl Eq Developed Mkts MFs (Institutional Net) Five Years Ended September 30, 2024



Market Capture vs MSCI EAFE Rankings Against Callan Intl Eq Developed Mkts MFs (Institutional Net) Five Years Ended September 30, 2024



Risk Statistics Rankings vs MSCI EAFE Rankings Against Callan Intl Eq Developed Mkts MFs (Institutional Net) Five Years Ended September 30, 2024





T.Rowe Price International Gr Trust* Period Ended September 30, 2024

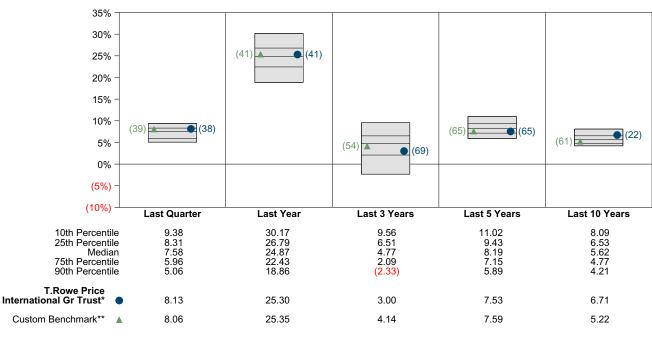
Investment Philosophy

T. Rowe believes international growth companies are often mispriced by global investors due to misperceptions about companies' ability to grow earnings and cash flow for sustainable periods beyond market expectations. By successfully identifying such companies and buying them at reasonable valuations, the firm believes it can generate value for client portfolios over time. The teams commitment to bottom-up stock selection supported by independent fundamental research distinguishes their investment philosophy from others. *Changed share class in 3Q16 from T Rowe Price International Growth Mutual Fund to T Rowe Price International Growth Equity Trust. Returns prior to this are that of the Mutual Fund. **Custom Benchmark is MSCI EAFE Index through 12/31/07 and MSCI AC World ex US USD thereafter.

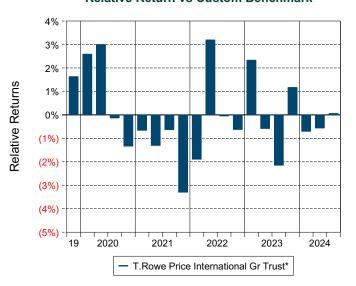
Quarterly Summary and Highlights

- T.Rowe Price International Gr Trust*'s portfolio posted a 8.13% return for the quarter placing it in the 38 percentile of the Callan Non US Equity Mutual Funds group for the quarter and in the 41 percentile for the last year.
- T.Rowe Price International Gr Trust*'s portfolio outperformed the Custom Benchmark** by 0.07% for the quarter and underperformed the Custom Benchmark** for the year by 0.06%.

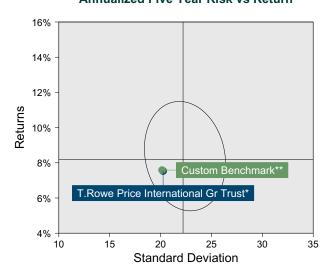
Performance vs Callan Non US Equity Mutual Funds (Institutional Net)



Relative Return vs Custom Benchmark**



Callan Non US Equity Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return



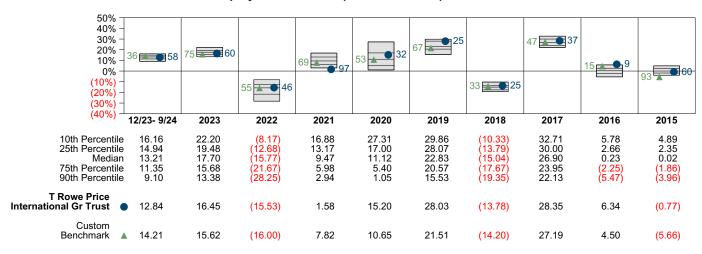


T Rowe Price International Gr Trust Return Analysis Summary

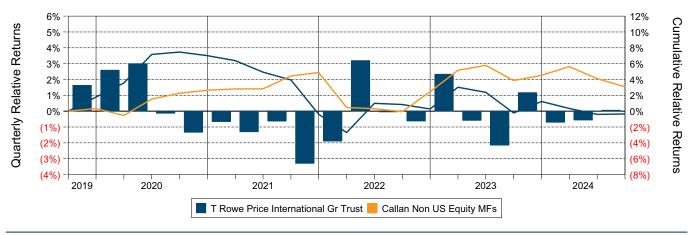
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

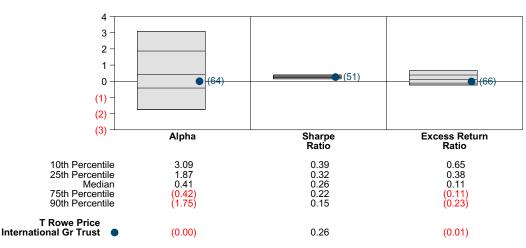
Performance vs Callan Non US Equity Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Custom Benchmark



Risk Adjusted Return Measures vs Custom Benchmark Rankings Against Callan Non US Equity Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



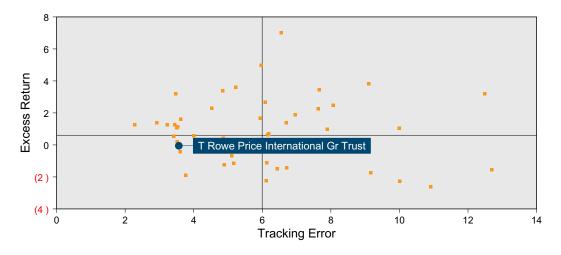


T Rowe Price International Gr Trust Risk Analysis Summary

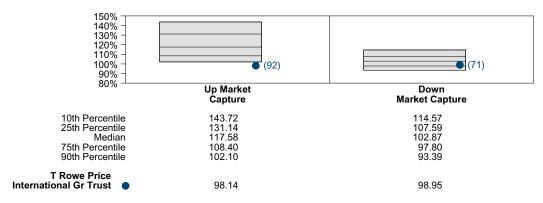
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

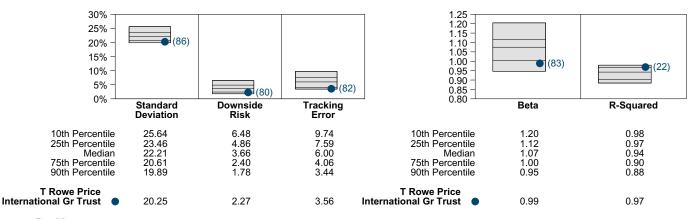
Risk Analysis vs Callan Non US Equity Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Market Capture vs Custom Benchmark Rankings Against Callan Non US Equity Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Risk Statistics Rankings vs Custom Benchmark Rankings Against Callan Non US Equity Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



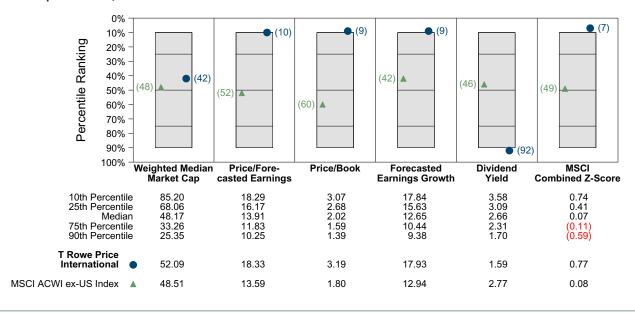


T Rowe Price International Equity Characteristics Analysis Summary

Portfolio Characteristics

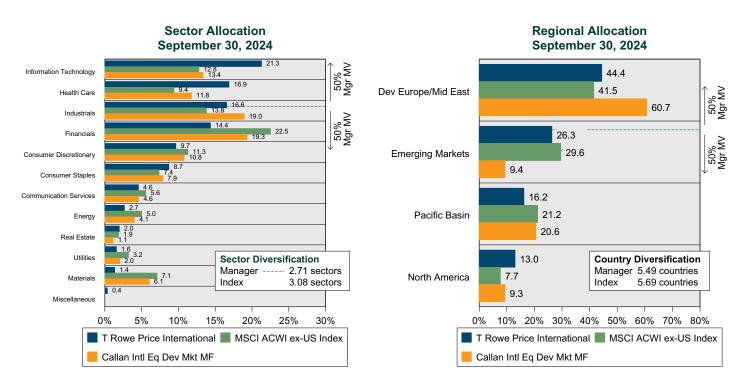
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Intl Eq Developed Mkts MFs as of September 30, 2024



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.





T Rowe Price International Top 10 Portfolio Holdings Characteristics as of September 30, 2024

10 Largest Holdings

					Price/		
		Percent			Forecasted		Forecasted
		of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Taiwan Semicond Manufac Co L Shs	Information Technology	5.4%	1.99%	784.21	18.82	1.57%	24.26%
Asml Holding N V Asml Rev Stk Spl	Information Technology	2.5%	(19.32)%	332.51	27.53	0.83%	18.00%
Prosus N	Consumer Discretionary	2.1%	22.92%	108.98	13.93	0.08%	34.25%
Novo-Nordisk A S Adr	Health Care	2.1%	(12.83)%	399.33	28.53	1.26%	27.20%
Deutsche Telekom	Communication Services	1.7%	17.60%	147.20	13.34	2.91%	7.32%
Sap Se Shs	Information Technology	1.6%	12.61%	279.91	36.18	1.00%	11.80%
Mercadolibre Inc	Consumer Discretionary	1.6%	24.86%	104.03	44.45	0.00%	41.80%
National Thermal Power Corp Shs	Utilities	1.6%	17.47%	51.28	18.76	1.75%	17.20%
Siemens	Industrials	1.5%	9.11%	162.50	16.12	2.58%	8.30%
Safran Sa	Industrials	1.5%	11.36%	100.66	25.90	1.04%	26.75%

10 Best Performers

					Price/		
		Percent			Forecasted		Forecasted
		of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Bridgepoint Group	Financials	0.5%	67.90%	3.79	19.01	2.61%	6.26%
Beigene Ltd Sponsored Adr	Health Care	0.9%	64.16%	23.55	(64.91)	0.00%	-
Alibaba Group Hldg Ltd Sponsored Ads	Information Technology	1.0%	53.75%	254.67	11.21	0.94%	7.00%
Ke Hldgs Inc Sposored Ad	Real Estate	1.4%	46.79%	23.17	17.56	1.76%	1.75%
Sea Ltd Adr	Communication Services	0.6%	39.55%	49.67	53.51	0.00%	-
Chugai Pharmaceutical Co Ltd Shs	Health Care	1.3%	36.38%	81.37	30.23	1.17%	7.60%
Kyushu Railway	Industrials	0.1%	34.92%	4.55	13.40	2.25%	18.10%
Shimadzu Corp Shs	Information Technology	0.4%	34.09%	9.88	23.05	1.26%	18.25%
Aia Group Ltd Com Par Usd 1	Financials	1.3%	33.18%	98.28	14.99	2.35%	0.82%
Weg Sa Elmj Shs	Industrials	0.3%	32.36%	41.92	35.18	1.19%	30.25%

10 Worst Performers

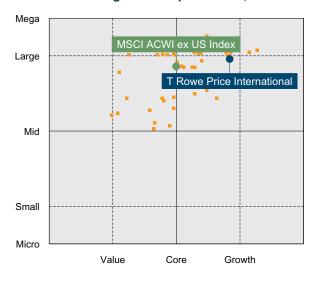
		Percent			Price/ Forecasted		Forecasted
Stock	Sector	of Portfolio	Qtrly Return	Market Capital	Earnings Ratio	Dividend Yield	Growth in Earnings
Disco Corp	Information Technology	0.7%	(30.75)%	28.41	28.60	0.82%	33.10%
Evotec Ag Shs	Health Care	0.2%	(24.11)%	1.28	(33.93)	0.00%	135.86%
Renesas Electronics Corp Shs	Information Technology	1.0%	(22.29)%	27.19	9.24	1.35%	4.30%
Samsung Electronics Co Ltd Ord	Information Technology	1.3%	(20.22)%	280.75	8.93	2.35%	36.10%
Asml Holding N V Asml Rev Stk Spl	Information Technology	2.5%	(19.32)%	332.51	27.53	0.83%	18.00%
Nextage	Consumer Discretionary	0.4%	(14.03)%	1.04	8.25	1.74%	20.90%
Ermenegildo Zegna	Consumer Discretionary	0.2%	(13.46)%	2.48	19.26	1.22%	3.21%
Novo-Nordisk A S Adr	Health Care	2.1%	(12.83)%	399.33	28.53	1.26%	27.20%
Galp Energia	Energy	0.8%	(9.98)%	13.41	14.07	3.27%	40.11%
Daiichi Sankyo Co	Health Care	0.6%	(8.09)%	64.10	35.70	1.06%	21.00%



Current Holdings Based Style Analysis T Rowe Price International As of September 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

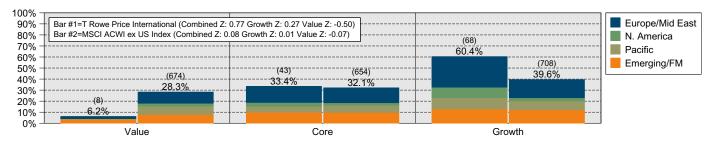
Style Map vs Callan Intl Eq Dev Mkt MF Holdings as of September 30, 2024



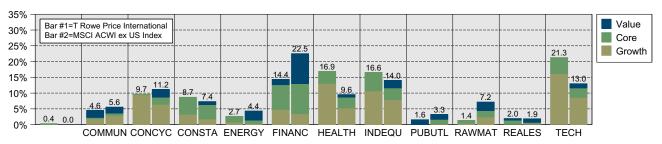
Style Exposure Matrix Holdings as of September 30, 2024

	Value	Core	Growth	Total
	28.3% (674)	32.1% (654)	39.6% (708)	100.0% (2036)
Total				
	6.2% (8)	33.4% (43)	60.4% (68)	100.0% (119)
Emerging/ FM	7.9% (388)	9.8% (391)	12.1% (445)	29.8% (1224)
	3.6% (4)	9.9% (14)	12.9% (15)	26.3% (33)
	7.5% (117)	6.4% (89)	8.2% (97)	22.1% (303)
Pacific	0.070 (2)	0.170 (17	101070 (10)	101270 (22)
	0.5% (2)	5.4% (7)	10.3% (13)	16.2% (22)
	2.6% (26)	2.3% (24)	2.8% (35)	7.7% (85)
N. America	, ,	, ,	, ,	` ,
	0.0% (0)	3.5% (4)	9.5% (10)	13.0% (14)
Europe/ Mid East	10.3% (143)	13.6% (150)	16.5% (131)	40.4% (424)
_ ,	2.1% (2)	14.6% (18)	27.7% (30)	44.4% (50)

Combined Z-Score Style Distribution Holdings as of September 30, 2024



Sector Weights Distribution Holdings as of September 30, 2024



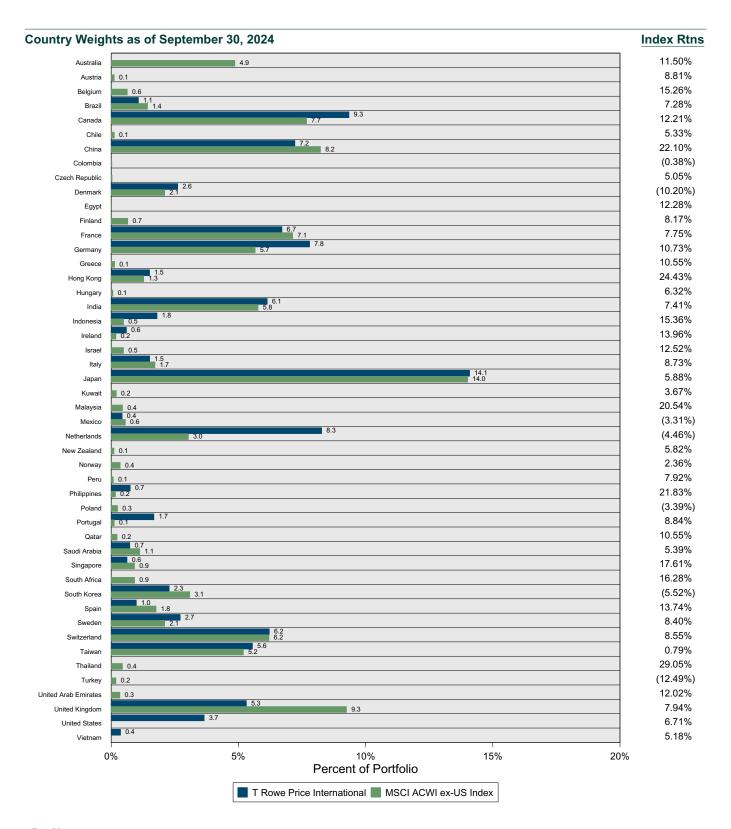


Country Allocation

T Rowe Price International VS MSCI ACWI ex-US Index

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2024. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





American Funds New Perspective Period Ended September 30, 2024

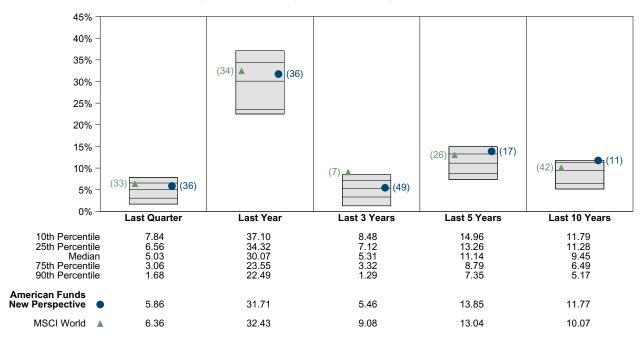
Investment Philosophy

The New Perspective Fund seeks to provide long-term growth of capital through investments all over the world. The Fund invests in blue chip companies, emphasizing multinational or global companies and focusing on opportunities generated by changes in global trade patterns and economic and political relationships. The Fund is divided among seven portfolio managers and two research sleeves. Each portfolio manager has sole responsibility for selecting securities for his/her portion of the portfolio. The research sleeves are run by the senior analysts and are overseen by a research coordinator. The portfolio is highly diversified. There are no formal sector or country constraints, however, over the last ten years, the Fund's exposure to the US has fluctuated between 30-50%. Emerging markets exposure has been relatively limited.

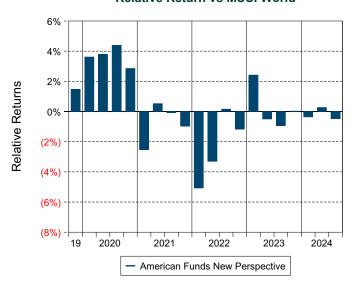
Quarterly Summary and Highlights

- American Funds New Perspective's portfolio posted a 5.86% return for the quarter placing it in the 36 percentile of the Callan Global Equity Mutual Funds group for the quarter and in the 36 percentile for the last year.
- American Funds New Perspective's portfolio underperformed the MSCI World by 0.50% for the quarter and underperformed the MSCI World for the year by 0.71%.

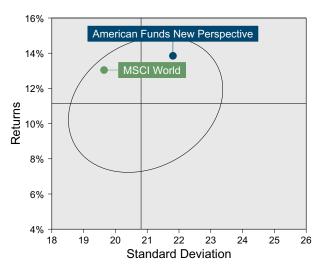
Performance vs Callan Global Equity Mutual Funds (Institutional Net)



Relative Return vs MSCI World



Callan Global Equity Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return



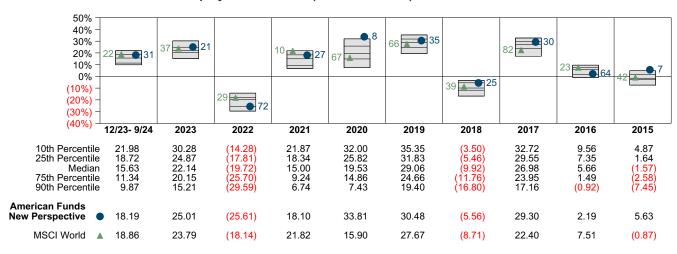


American Funds New Perspective Return Analysis Summary

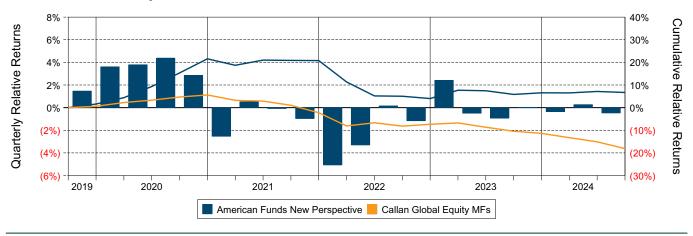
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

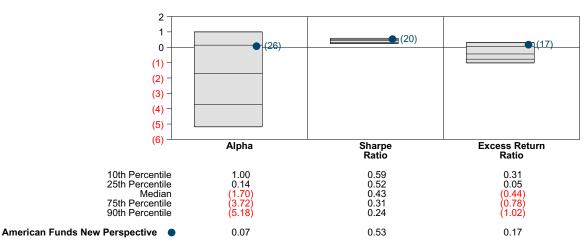
Performance vs Callan Global Equity Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs MSCI World



Risk Adjusted Return Measures vs MSCI World Rankings Against Callan Global Equity Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



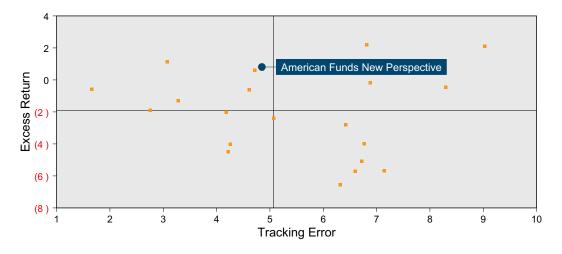


American Funds New Perspective Risk Analysis Summary

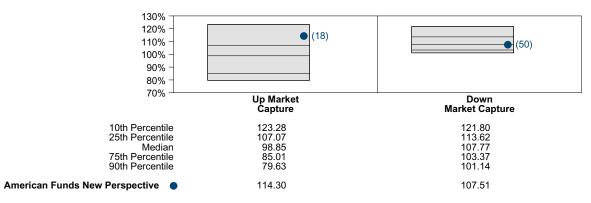
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

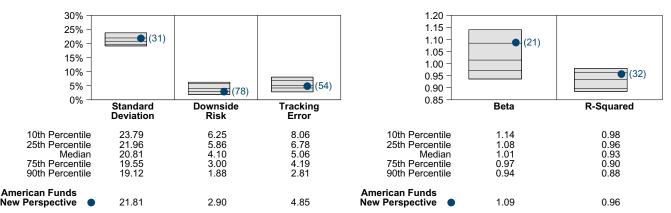
Risk Analysis vs Callan Global Equity Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Market Capture vs MSCI World (Net) Rankings Against Callan Global Equity Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Risk Statistics Rankings vs MSCI World (Net) Rankings Against Callan Global Equity Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



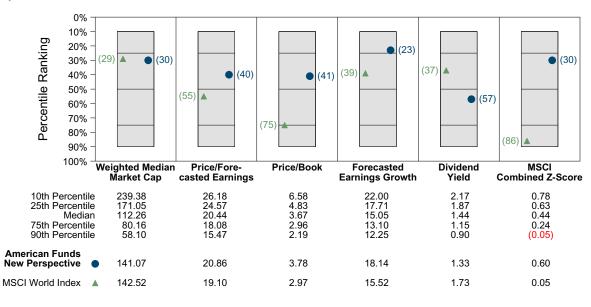


American Funds New Perspective Equity Characteristics Analysis Summary

Portfolio Characteristics

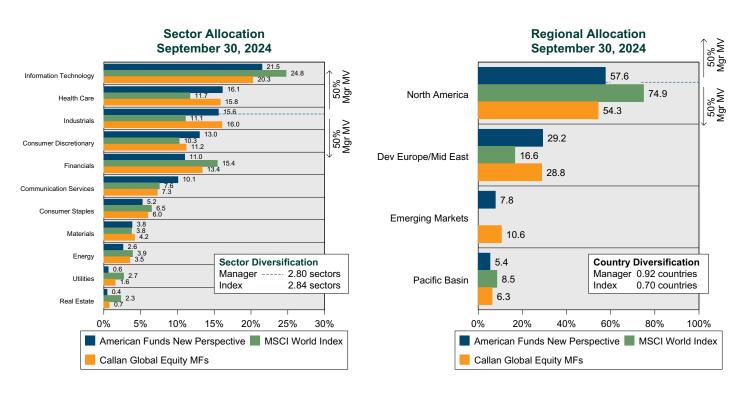
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Global Equity Mutual Funds as of September 30, 2024



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.





American Funds New Perspective Top 10 Portfolio Holdings Characteristics as of September 30, 2024

10 Largest Holdings

						Forecasted
	of	Qtrly	Market	Earnings	Dividend	Growth in
Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Communication Services	3.7%	13.64%	1250.63	24.38	0.35%	13.60%
Information Technology	3.4%	(3.55)%	3198.44	31.62	0.77%	14.72%
Information Technology	3.0%	1.99%	784.21	18.82	1.57%	24.26%
Information Technology	2.7%	7.78%	805.67	28.49	1.23%	19.90%
Health Care	2.6%	(18.19)%	399.33	28.53	1.26%	27.20%
Consumer Discretionary	2.0%	32.22%	834.39	90.28	0.00%	1.45%
Information Technology	2.0%	(1.69)%	2978.92	33.47	0.03%	52.53%
Health Care	1.6%	0.13%	240.97	17.20	2.02%	12.50%
Health Care	1.5%	(2.01)%	842.02	41.45	0.59%	74.00%
Communication Services	1.3%	5.10%	304.39	32.19	0.00%	25.80%
	Communication Services Information Technology Information Technology Information Technology Health Care Consumer Discretionary Information Technology Health Care Health Care	SectorPortfolioCommunication Services3.7%Information Technology3.4%Information Technology3.0%Information Technology2.7%Health Care2.6%Consumer Discretionary2.0%Information Technology2.0%Health Care1.6%Health Care1.5%	Sector of Portfolio Qtrly Return Communication Services 3.7% 13.64% Information Technology 3.4% (3.55)% Information Technology 3.0% 1.99% Information Technology 2.7% 7.78% Health Care 2.6% (18.19)% Consumer Discretionary 2.0% 32.22% Information Technology 2.0% (1.69)% Health Care 1.6% 0.13% Health Care 1.5% (2.01)%	Sector of Portfolio Qtrly Return Market Capital Communication Services 3.7% 13.64% 1250.63 Information Technology 3.4% (3.55)% 3198.44 Information Technology 3.0% 1.99% 784.21 Information Technology 2.7% 7.78% 805.67 Health Care 2.6% (18.19)% 399.33 Consumer Discretionary 2.0% 32.22% 834.39 Information Technology 2.0% (1.69)% 2978.92 Health Care 1.6% 0.13% 240.97 Health Care 1.5% (2.01)% 842.02	Sector Portfolio Qtrly Return Market Capital Forecasted Earnings Ratio Communication Services 3.7% 13.64% 1250.63 24.38 Information Technology 3.4% (3.55)% 3198.44 31.62 Information Technology 3.0% 1.99% 784.21 18.82 Information Technology 2.7% 7.78% 805.67 28.49 Health Care 2.6% (18.19)% 399.33 28.53 Consumer Discretionary 2.0% 32.22% 834.39 90.28 Information Technology 2.0% (1.69)% 2978.92 33.47 Health Care 1.6% 0.13% 240.97 17.20 Health Care 1.5% (2.01)% 842.02 41.45	Sector Of Portfolio Qtrly Return Market Capital Earnings Ratio Dividend Yield Communication Services 3.7% 13.64% 1250.63 24.38 0.35% Information Technology 3.4% (3.55)% 3198.44 31.62 0.77% Information Technology 3.0% 1.99% 784.21 18.82 1.57% Information Technology 2.7% 7.78% 805.67 28.49 1.23% Health Care 2.6% (18.19)% 399.33 28.53 1.26% Consumer Discretionary 2.0% 32.22% 834.39 90.28 0.00% Information Technology 2.0% (1.69)% 2978.92 33.47 0.03% Health Care 1.6% 0.13% 240.97 17.20 2.02% Health Care 1.5% (2.01)% 842.02 41.45 0.59%

10 Best Performers

					Price/		
		Percent			Forecasted		Forecasted
		of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Portfolio	Return	Capital	Ratio	Yield	Earnings
Beigene	Health Care	0.0%	75.11%	23.55	(64.91)	0.00%	-
Beigene Ltd Sponsored Adr	Health Care	0.4%	64.16%	23.55	(64.91)	0.00%	-
Ge Vernova LLC Com	Industrials	0.1%	48.67%	70.07	45.01	0.00%	21.00%
Grifols S A Sp Adr Rep B Nvt	Health Care	0.1%	46.66%	2.36	8.53	0.00%	(19.55)%
Contemporary Amperex Technology A	Industrials	0.1%	45.96%	158.05	19.55	2.00%	10.50%
Dsv As Shs	Industrials	0.8%	34.98%	44.29	22.95	0.51%	7.45%
Techtronic Industries Co	Industrials	0.1%	34.45%	27.86	21.78	1.74%	12.01%
Hong Kong Exchanges & Cleari Shs	Financials	0.2%	33.50%	53.24	32.81	2.54%	1.60%
Aia Group Ltd Com Par Usd 1	Financials	0.5%	33.18%	98.28	14.99	2.35%	0.82%
Tesla Mtrs Inc	Consumer Discretionary	2.0%	32.22%	834.39	90.28	0.00%	1.45%

10 Worst Performers

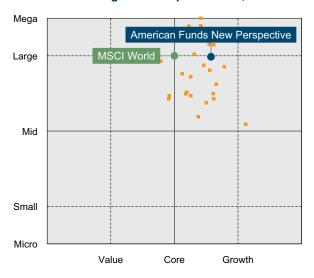
				Price/		
	Percent			Forecasted		Forecasted
	of	Qtrly	Market	Earnings	Dividend	Growth in
Sector	Portfolio	Return	Capital	Ratio	Yield	(16.31)% 7.55% (8.90)% 6.79%
Information Technology	0.0%	(57.38)%	1.23	(3.29)	0.00%	(16.31)%
Health Care	0.1%	(28.56)%	39.75	24.50	0.00%	7.55%
Information Technology	0.1%	(24.51)%	27.10	13.48	0.70%	(8.90)%
Information Technology	0.1%	(21.08)%	115.00	11.20	0.44%	6.79%
Health Care	0.0%	(20.96)%	11.91	14.54	0.00%	-
Information Technology	0.3%	(20.22)%	280.75	8.93	2.35%	36.10%
Information Technology	0.8%	(19.32)%	332.51	27.53	0.83%	18.00%
Health Care	0.0%	(19.14)%	6.52	25.01	1.12%	20.00%
Health Care	2.6%	(18.19)%	399.33	28.53	1.26%	27.20%
Information Technology	0.1%	(17.81)%	83.39	21.56	1.55%	23.27%
	Information Technology Health Care Information Technology Information Technology Health Care Information Technology Information Technology Health Care Health Care	Sector Portfolio Information Technology 0.0% Health Care 0.1% Information Technology 0.1% Information Technology 0.1% Health Care 0.0% Information Technology 0.3% Information Technology 0.8% Health Care 0.0% Health Care 0.0% Health Care 2.6%	Sector Of Portfolio Qtrly Return Information Technology Health Care 0.0% (57.38)% Information Technology Information Informa	Sector of Portfolio Qtrly Return Market Capital Information Technology Health Care 0.0% (57.38)% 1.23 Health Care 0.1% (28.56)% 39.75 Information Technology 0.1% (24.51)% 27.10 Information Technology 0.1% (21.08)% 115.00 Health Care 0.0% (20.96)% 11.91 Information Technology 0.3% (20.22)% 280.75 Information Technology 0.8% (19.32)% 332.51 Health Care 0.0% (19.14)% 6.52 Health Care 2.6% (18.19)% 399.33	Sector Portfolio Qtrly Market Earnings Forecasted Earnings Information Technology 0.0% (57.38)% 1.23 (3.29) Health Care 0.1% (28.56)% 39.75 24.50 Information Technology 0.1% (24.51)% 27.10 13.48 Information Technology 0.1% (21.08)% 115.00 11.20 Health Care 0.0% (20.96)% 11.91 14.54 Information Technology 0.3% (20.22)% 280.75 8.93 Information Technology 0.8% (19.32)% 332.51 27.53 Health Care 0.0% (19.14)% 6.52 25.01 Health Care 2.6% (18.19)% 399.33 28.53	Sector Portfolio Qtrly Market Capital Earnings Pation Dividend Pation Information Technology 0.0% (57.38)% 1.23 (3.29) 0.00% Health Care 0.1% (28.56)% 39.75 24.50 0.00% Information Technology 0.1% (24.51)% 27.10 13.48 0.70% Information Technology 0.1% (21.08)% 115.00 11.20 0.44% Health Care 0.0% (20.96)% 11.91 14.54 0.00% Information Technology 0.3% (20.22)% 280.75 8.93 2.35% Information Technology 0.8% (19.32)% 332.51 27.53 0.83% Health Care 0.0% (19.14)% 6.52 25.01 1.12% Health Care 2.6% (18.19)% 399.33 28.53 1.26%



Current Holdings Based Style Analysis American Funds New Perspective As of September 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

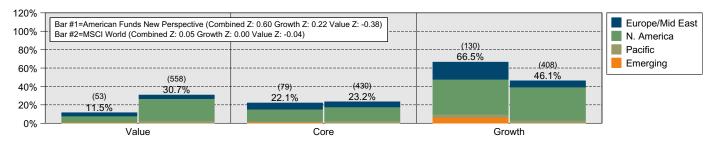
Style Map vs Callan Global Equity MFs Holdings as of September 30, 2024



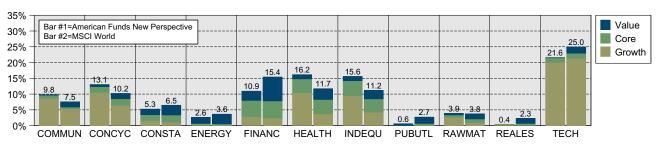
Style Exposure Matrix Holdings as of September 30, 2024

	3.7% (17)	6.8% (25)	18.7% (45)	29.2% (87)
Europe/				
Mid East	4.0% (138)	5.6% (151)	6.8% (139)	16.4% (428)
	6.8% (28)	13.1% (42)	37.9% (56)	57.8% (126)
N. America	, ,	, ,	, ,	,
	23.9% (306)	15.0% (190)	35.9% (167)	74.8% (663)
	0.5% (3)	1.2% (6)	3.6% (19)	5.4% (28)
Pacific				
	2.8% (113)	2.6% (89)	3.3% (101)	8.8% (303)
	0.5% (5)	0.9% (6)	6.2% (10)	7.5% (21)
Emerging				
	0.0% (1)	0.0% (0)	0.1% (1)	0.1% (2)
	11.5% (53)	22.1% (79)	66.5% (130)	100.0% (262)
Total				
	30.7% (558)	23.2% (430)	46.1% (408)	100.0% (1396)
	Value	Core	Growth	Total

Combined Z-Score Style Distribution Holdings as of September 30, 2024



Sector Weights Distribution Holdings as of September 30, 2024

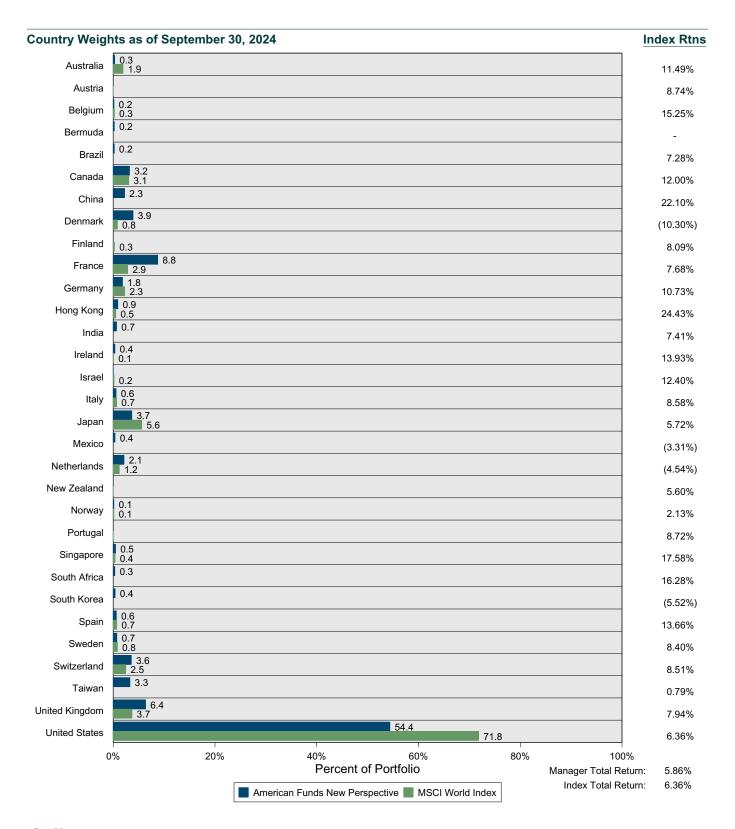




Country Allocation American Funds New Perspective VS MSCI World Index

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2024. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





NT Aggregate Bond Index Fund* Period Ended September 30, 2024

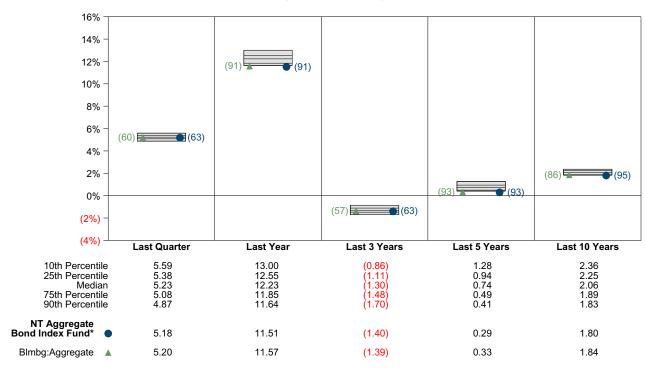
Investment Philosophy

The objective of Northern Trust's index trade generation process is to maximize liquidity and minimize market impact, while utilizing a multi-dimensional risk management process. The result of their intelligent indexing approach is a fully representative portfolio which seeks to control trading costs and eliminate the erosion of economic value. They pay particular attention to variances between market prices and index prices to control transaction costs. *Fund inception 1Q18; returns for longer time periods are that of the Collective Trust.

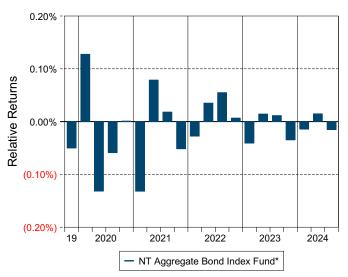
Quarterly Summary and Highlights

- NT Aggregate Bond Index Fund*'s portfolio posted a 5.18% return for the quarter placing it in the 63 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 91 percentile for the last year.
- NT Aggregate Bond Index Fund*'s portfolio underperformed the Blmbg:Aggregate by 0.02% for the quarter and underperformed the Blmbg:Aggregate for the year by 0.06%.

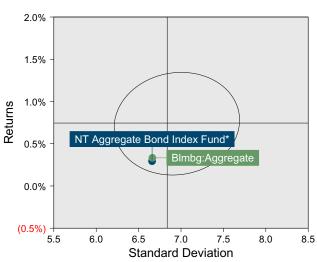
Performance vs Callan Core Bond Mutual Funds (Institutional Net)



Relative Return vs Blmbg:Aggregate



Callan Core Bond Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return



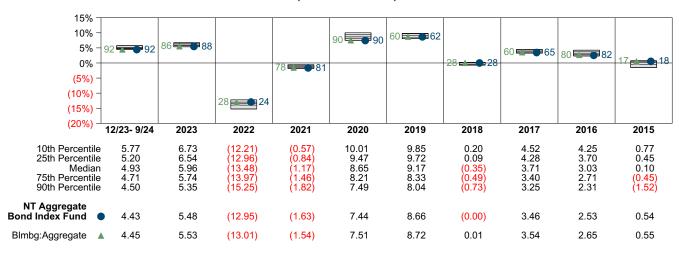


NT Aggregate Bond Index Fund Return Analysis Summary

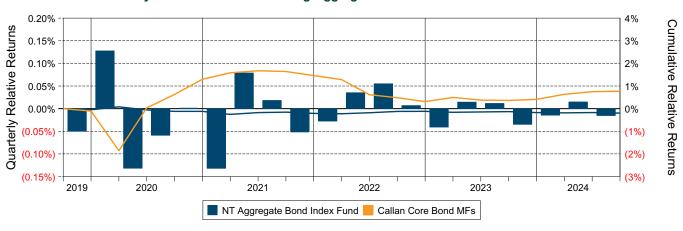
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

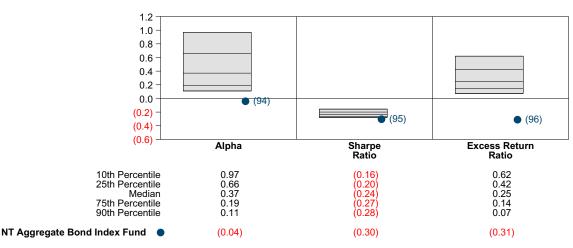
Performance vs Callan Core Bond Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Blmbg:Aggregate



Risk Adjusted Return Measures vs Blmbg:Aggregate Rankings Against Callan Core Bond Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



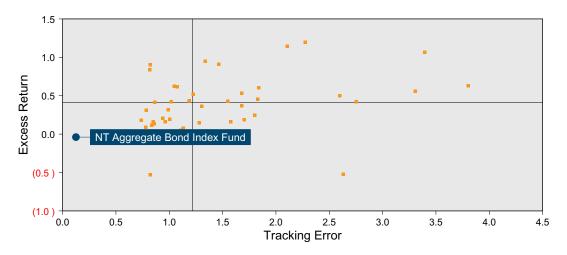


NT Aggregate Bond Index Fund Risk Analysis Summary

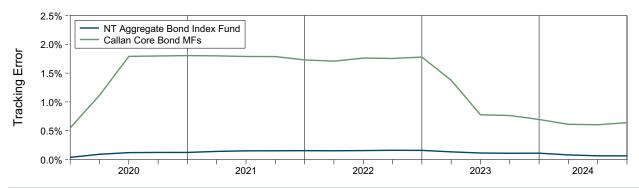
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

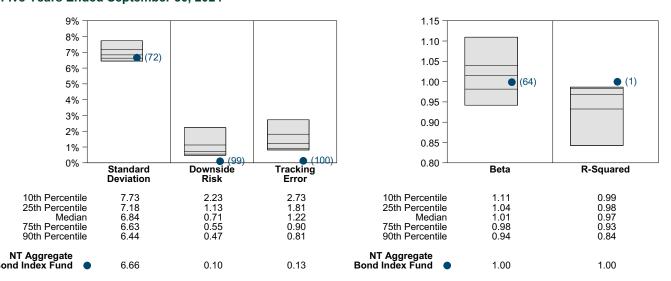
Risk Analysis vs Callan Core Bond Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Rolling 12 Quarter Tracking Error vs Bloomberg Aggregate



Risk Statistics Rankings vs Bloomberg Aggregate Rankings Against Callan Core Bond Mutual Funds (Institutional Net) Five Years Ended September 30, 2024





Voya Intermediate Bond R6* Period Ended September 30, 2024

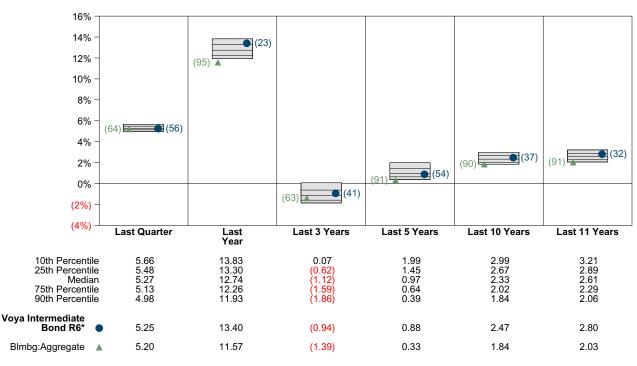
Investment Philosophy

The investment philosophy for the Voya Core Plus Fixed Income strategy is centered around the belief that consistent superior risk adjusted returns are achieved by recognizing how relationships among alpha sources change with the business cycle; utilizing far-reaching and well integrated research to discover unrecognized value ahead of consensus; balancing the investment process to exploit both macro and security-level investment inputs; and aligning active risk management to match portfolio exposures with client objectives. *Fund Inception 1Q2017. Returns prior to this are that of the Mutual Fund.

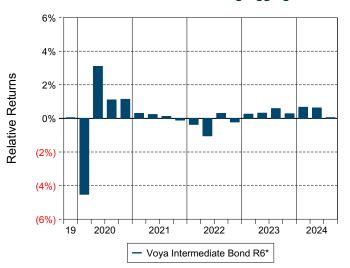
Quarterly Summary and Highlights

- Voya Intermediate Bond R6*'s portfolio posted a 5.25% return for the quarter placing it in the 56 percentile of the Callan
 Core Plus Mutual Funds group for the quarter and in the 23 percentile for the last year.
- Voya Intermediate Bond R6*'s portfolio outperformed the Blmbg:Aggregate by 0.06% for the quarter and outperformed the Blmbg:Aggregate for the year by 1.83%.

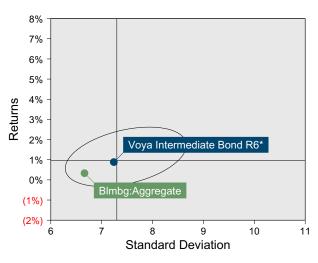
Performance vs Callan Core Plus Mutual Funds (Institutional Net)



Relative Return vs Blmbg:Aggregate



Callan Core Plus Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return



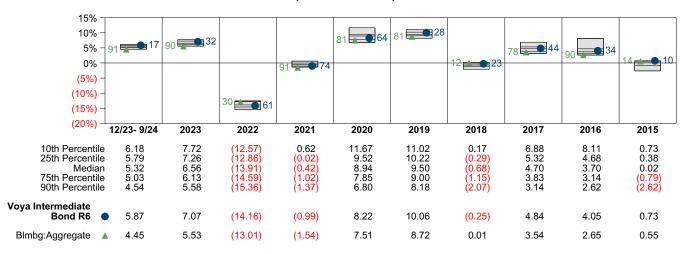


Voya Intermediate Bond R6 Return Analysis Summary

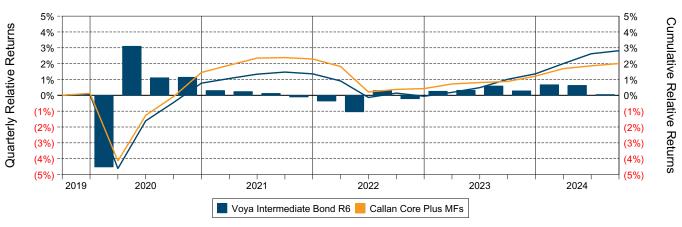
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

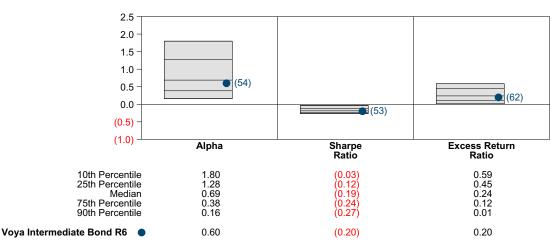
Performance vs Callan Core Plus Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Blmbg:Aggregate



Risk Adjusted Return Measures vs Blmbg:Aggregate Rankings Against Callan Core Plus Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



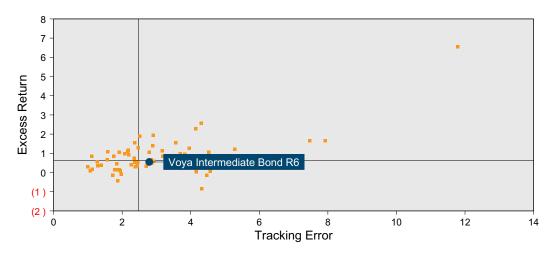


Voya Intermediate Bond R6 Risk Analysis Summary

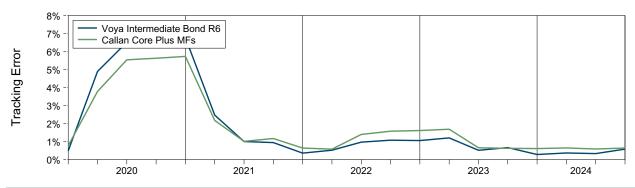
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

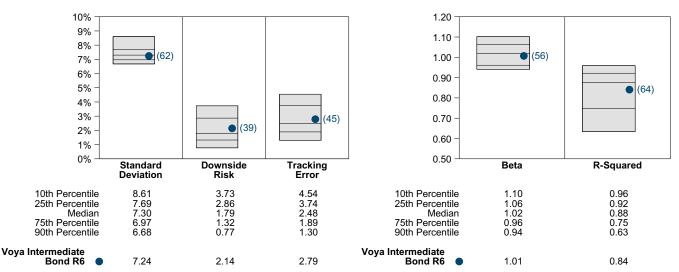
Risk Analysis vs Callan Core Plus Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



Rolling 4 Quarter Tracking Error vs Bloomberg Aggregate



Risk Statistics Rankings vs Bloomberg Aggregate Rankings Against Callan Core Plus Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



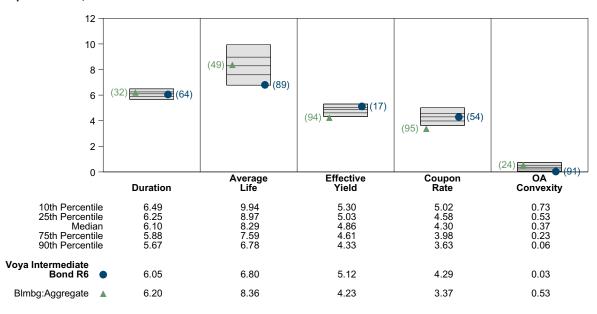


Voya Intermediate Bond R6 Bond Characteristics Analysis Summary

Portfolio Characteristics

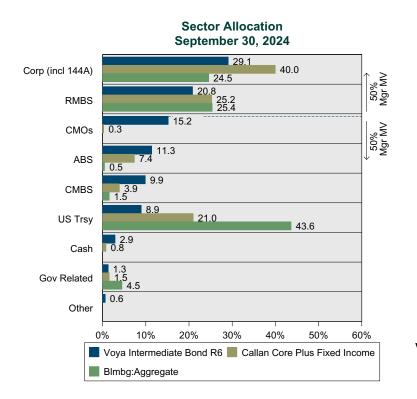
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

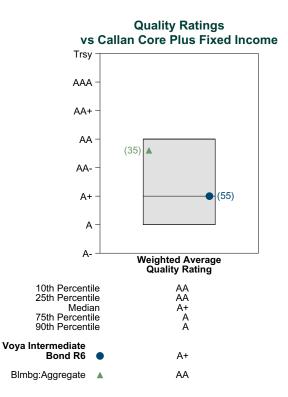
Fixed Income Portfolio Characteristics Rankings Against Callan Core Plus Fixed Income as of September 30, 2024



Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



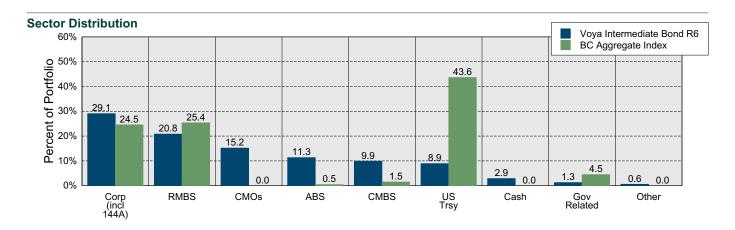


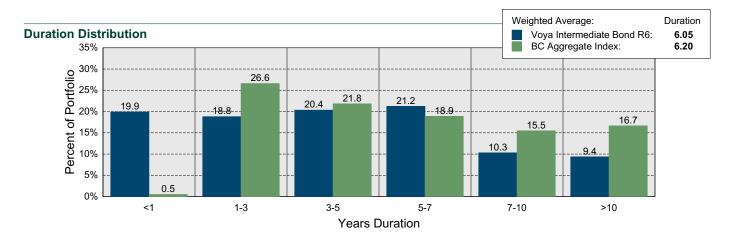


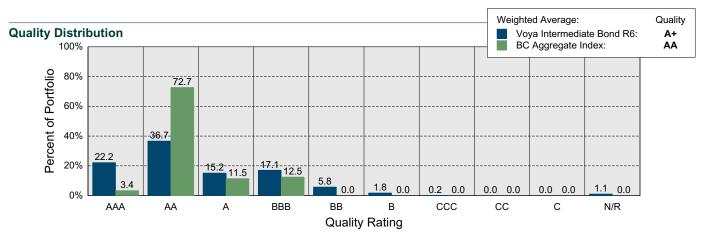
Voya Intermediate Bond R6 Portfolio Characteristics Summary As of September 30, 2024

Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.







NT TIPS Index Fund* Period Ended September 30, 2024

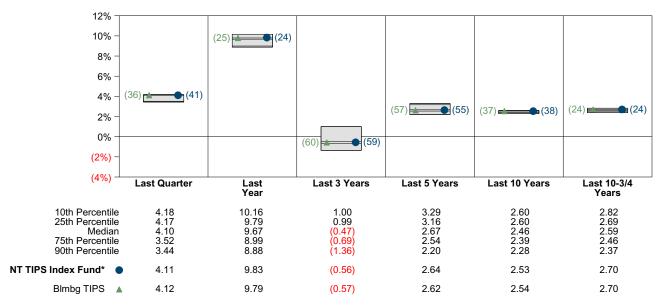
Investment Philosophy

The underlying philosophy that drives the management of all Northern Trust's portfolios is that the assumption of risk within a portfolio should be rewarded commensurate with the amount of risk taken. Within NT's passive portfolios, risk is defined to be the risk of variance in returns versus the benchmark. Thus, for these portfolios, differences in portfolio composition from the benchmark are undertaken only if justified by reductions in costs, particularly transaction costs. Differences in composition may result in tracking variances versus the benchmark, but these variances are expected to be diversified and mean-reverting over time, whereas transactions costs are always negative. The objective of the firm's passive portfolios is to provide investment results that closely approximate the return performance and risk characteristics of the securities in the underlying index. Within the context of the current regulatory framework and market environment, they design portfolios to meet client expectations and achieve the desired exposure at minimal cost. *Fund inception 1Q18; returns for longer time periods are that of the Collective Trust.

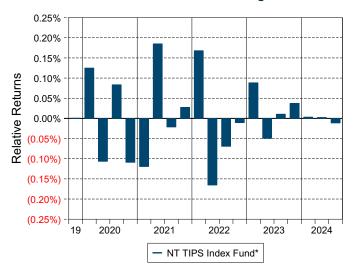
Quarterly Summary and Highlights

- NT TIPS Index Fund*'s portfolio posted a 4.11% return for the quarter placing it in the 41 percentile of the TIPS Domestic group for the quarter and in the 24 percentile for the last year.
- NT TIPS Index Fund*'s portfolio underperformed the Blmbg TIPS by 0.01% for the quarter and outperformed the Blmbg TIPS for the year by 0.03%.

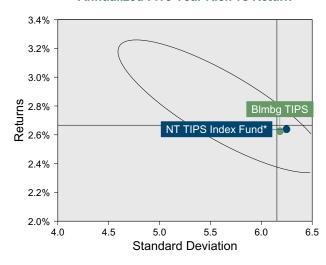
Performance vs TIPS Domestic (Institutional Net)



Relative Return vs Blmbg TIPS



TIPS Domestic (Institutional Net) Annualized Five Year Risk vs Return



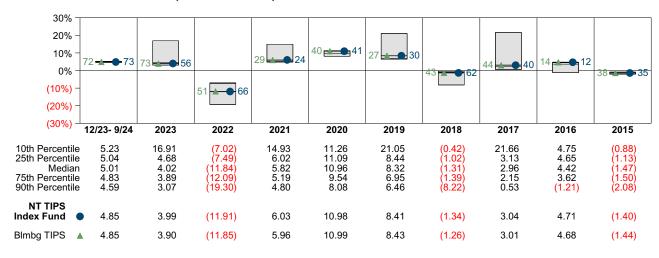


NT TIPS Index Fund Return Analysis Summary

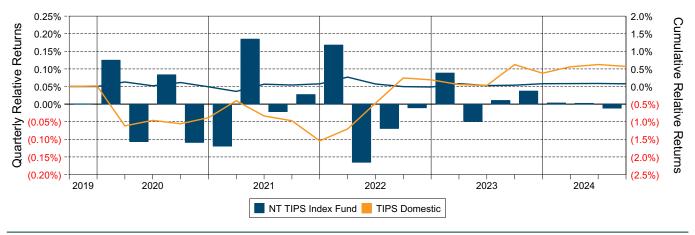
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

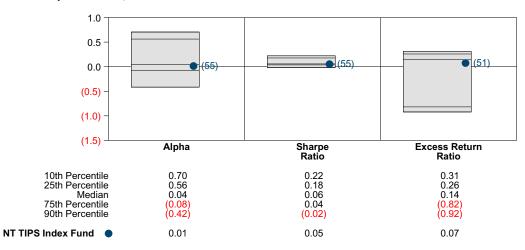
Performance vs TIPS Domestic (Institutional Net)



Cumulative and Quarterly Relative Returns vs Blmbg TIPS



Risk Adjusted Return Measures vs Blmbg TIPS Rankings Against TIPS Domestic (Institutional Net) Five Years Ended September 30, 2024



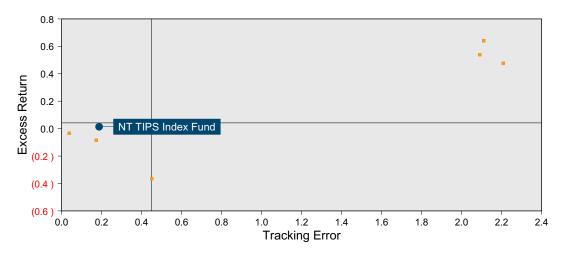


NT TIPS Index Fund Risk Analysis Summary

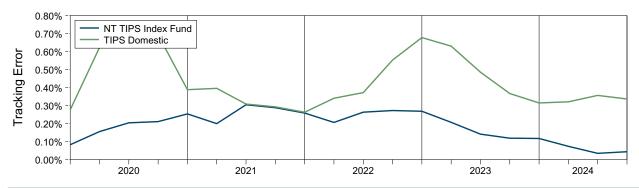
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

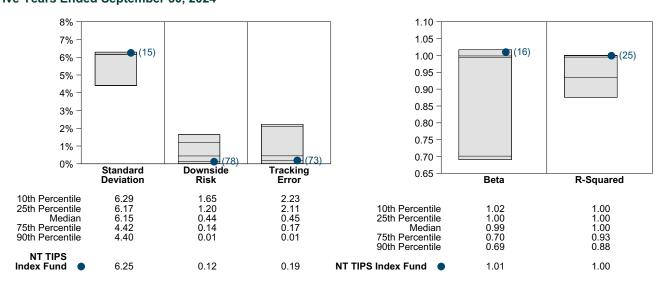
Risk Analysis vs TIPS Domestic (Institutional Net) Five Years Ended September 30, 2024



Rolling 4 Quarter Tracking Error vs Bloomberg TIPS



Risk Statistics Rankings vs Bloomberg TIPS Rankings Against TIPS Domestic (Institutional Net) Five Years Ended September 30, 2024





BNY Mellon EB US RE Securities Period Ended September 30, 2024

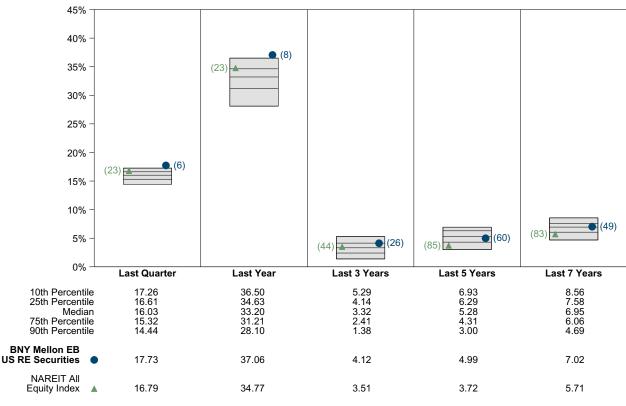
Investment Philosophy

CenterSquare's investment philosophy is based on the following three tenets: A value-oriented investment philosophy, both real estate and capital markets research and strong quantitative analysis.

Quarterly Summary and Highlights

- BNY Mellon EB US RE Securities's portfolio posted a 17.73% return for the quarter placing it in the 6 percentile of the Callan Real Estate Mutual Funds group for the quarter and in the 8 percentile for the last year.
- BNY Mellon EB US RE Securities's portfolio outperformed the NAREIT All Equity Index by 0.94% for the quarter and outperformed the NAREIT All Equity Index for the year by 2.29%.

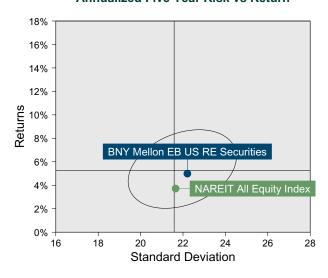
Performance vs Callan Real Estate Mutual Funds (Institutional Net)



Relative Return vs NAREIT All Equity Index



Callan Real Estate Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return



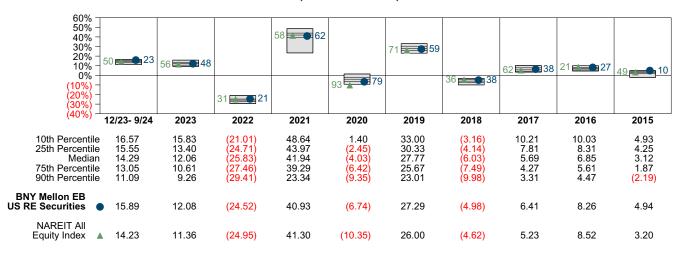


BNY Mellon EB US RE Securities Return Analysis Summary

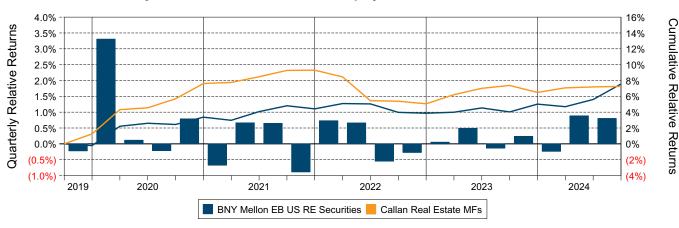
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

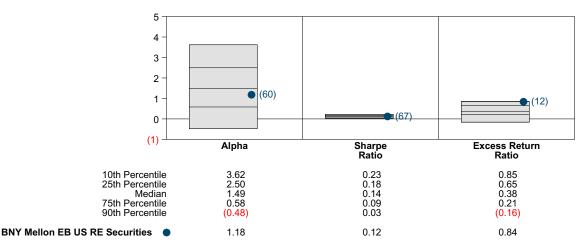
Performance vs Callan Real Estate Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs NAREIT All Equity Index



Risk Adjusted Return Measures vs NAREIT All Equity Index Rankings Against Callan Real Estate Mutual Funds (Institutional Net) Five Years Ended September 30, 2024



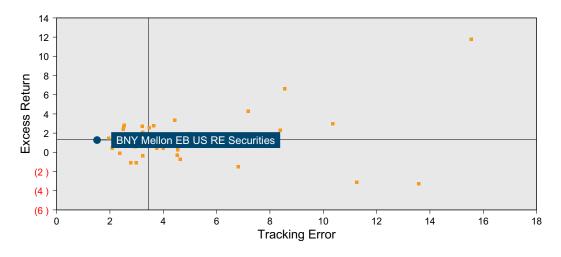


BNY Mellon EB US RE Securities Risk Analysis Summary

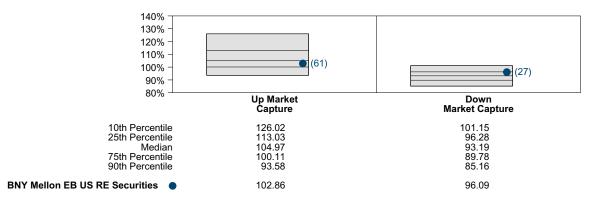
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

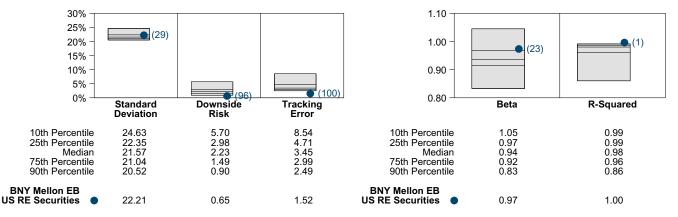
Risk Analysis vs Callan Real Estate Mutual Funds (Net) Five Years Ended September 30, 2024



Market Capture vs NAREIT All Equity Index Rankings Against Callan Real Estate Mutual Funds (Net) Five Years Ended September 30, 2024



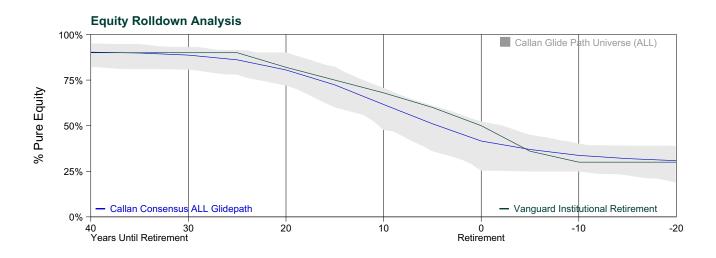
Risk Statistics Rankings vs NAREIT All Equity Index Rankings Against Callan Real Estate Mutual Funds (Net) Five Years Ended September 30, 2024

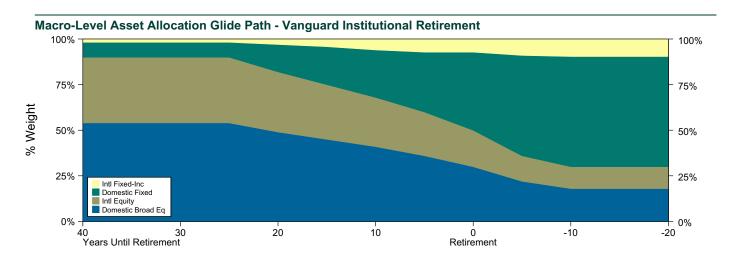


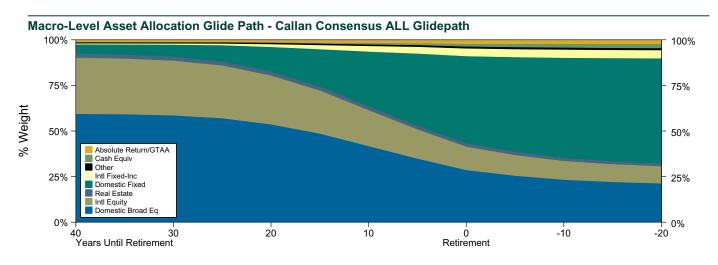


Vanguard Institutional Retirement Target Date Glide Path Analysis as of September 30, 2024

The following charts illustrate the asset allocation "glide path" underlying the relevant suite of target date funds. This analysis covers forty years of investor wealth accumulation up to retirement, as well as twenty years of wealth decumulation following retirement. The top chart shows the "pure" equity exposure (public equities excluding REITs) versus the peer group and index. The subsequent charts show more asset allocation detail at the high "macro" level.



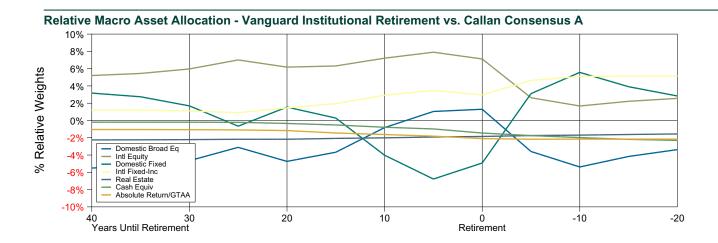




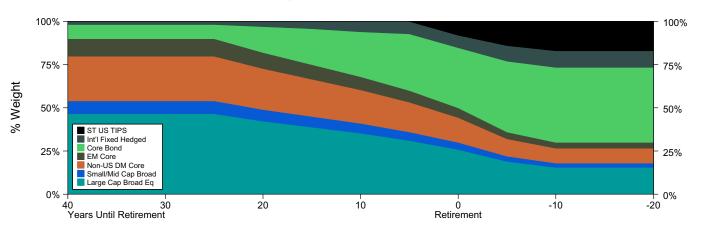


Vanguard Institutional Retirement Target Date Glide Path Analysis as of September 30, 2024

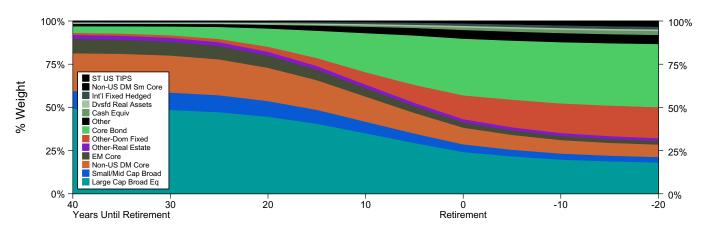
The following charts illustrate the asset allocation "glide path" underlying the relevant suite of target date funds. This analysis covers forty years of investor wealth accumulation up to retirement, as well as twenty years of wealth decumulation following retirement. The top chart highlights any significant "macro-level" differences between the manager's asset allocation glide path and that of the glide path index. The bottom two charts illustrate the asset allocation glide paths of both the manager and index at the more detailed "micro" level.



Micro-Level Asset Allocation Glide Path - Vanguard Institutional Retirement



Micro-Level Asset Allocation Glide Path - Callan Consensus ALL Glidepath

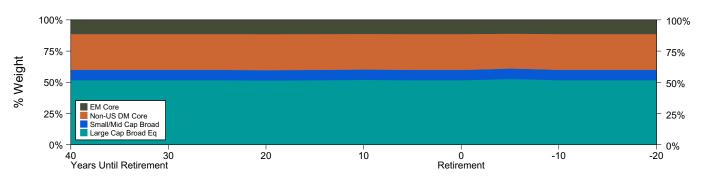




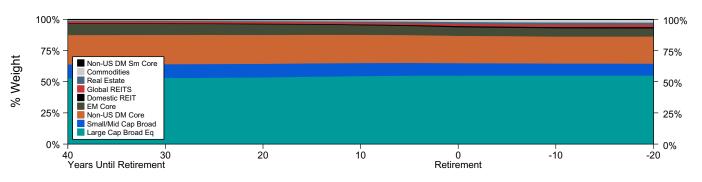
Vanguard Institutional Retirement Target Date Glide Path Analysis as of September 30, 2024

The first two charts below illustrate the detailed composition over time of the "risky", or "growth" portion of the glide paths for both the manager and index, defined to be all public equity and real estate asset classes. These charts highlight both the levels of diversification and aggressiveness within the wealth creation portion of the glide paths. The last two charts serve a similar purpose but focus on the composition over time of the remaining wealth preservation portion (non-equity) of the manager and index glide paths.

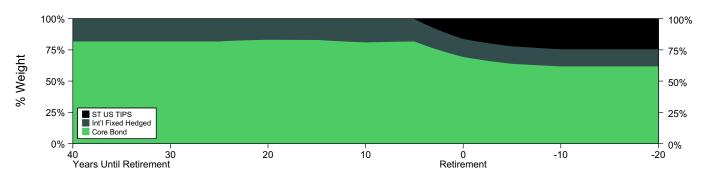
Micro-Level Equity Allocation Glide Path - Vanguard Institutional Retirement



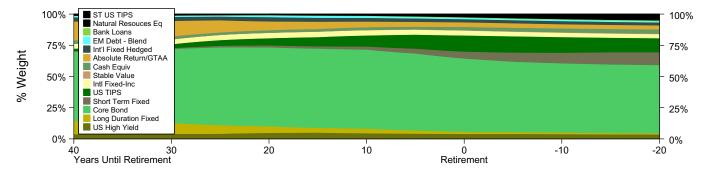
Micro-Level Equity Asset Allocation Glide Path - Callan Consensus ALL Glidepath



Micro-Level Non-Equity Allocation Glide Path - Vanguard Institutional Retirement



Micro-Level Non-Equity Asset Allocation Glide Path - Callan Consensus ALL Glidep





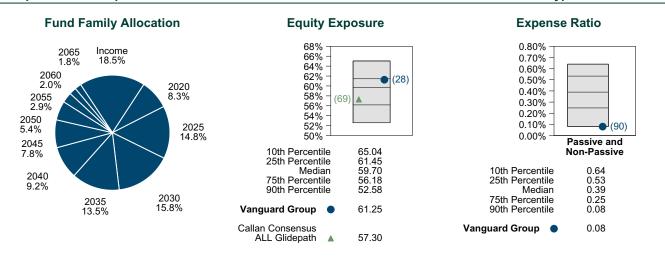
Mississippi Public Employees Retirement System - Vanguard Group Target Date Fund Family Analysis as of September 30, 2024

The following is an analysis of the client's suite of target date funds as an aggregated portfolio using actual proportions held by the client's participants. The upper-left pie chart shows the current client weights across target dates. The rest of the charts compare different attributes of the aggregated client target date portfolio to a peer group of target date fund families, as well as target date indices, by mimicking the client target date weights using these alternatives. The first two charts evaluate the aggregate client equity exposure and expense ratio via target date funds. The last two charts analyze aggregate client target date performance on both an actual return basis as well as a "glide path return" basis (simulated returns using each funds' asset allocation "glide path" weights and index returns).

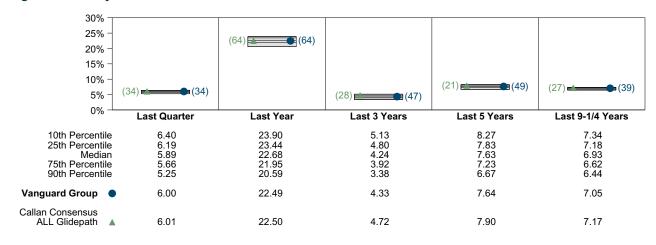


Passive and Non-Passive

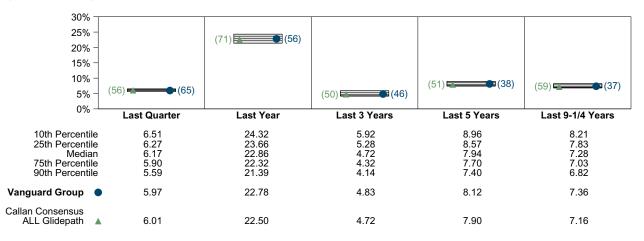
Fee/Return Type: Institutional Net



Target Date Family Performance vs Peer Families



Target Date Family Glide Path Returns vs Peer Families





Vanguard Target Retirement Inc. Period Ended September 30, 2024

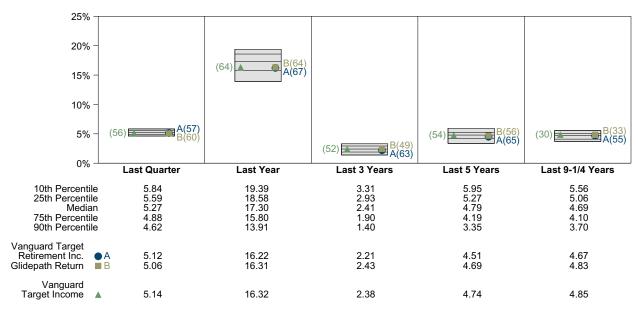
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

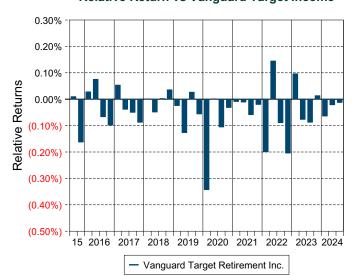
Quarterly Summary and Highlights

- Vanguard Target Retirement Inc.'s portfolio posted a 5.12% return for the quarter placing it in the 57 percentile of the Callan Target Date Retirement Income group for the quarter and in the 67 percentile for the last year.
- Vanguard Target Retirement Inc.'s portfolio underperformed the Vanguard Target Income by 0.01% for the quarter and underperformed the Vanguard Target Income for the year by 0.10%.

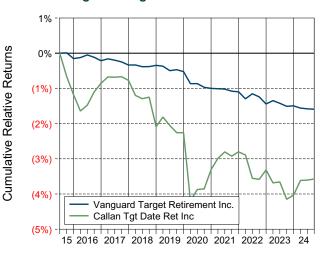
Performance vs Callan Target Date Retirement Income (Institutional Net)



Relative Return vs Vanguard Target Income



Cumulative Returns vs Vanguard Target Income

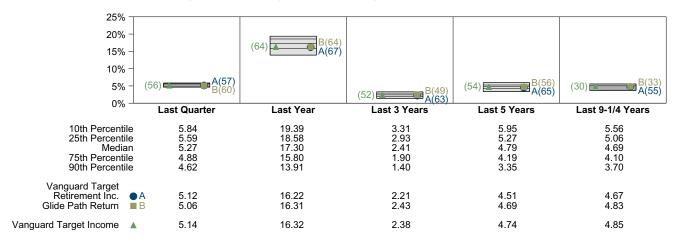




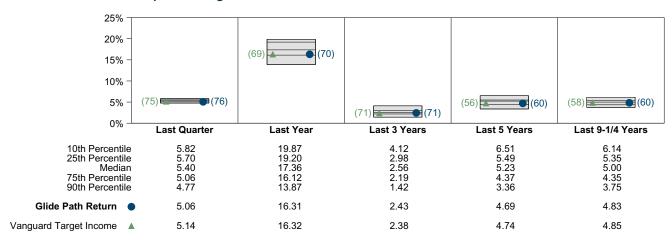
Vanguard Target Retirement Inc. Target Date Peer Group Analysis as of September 30, 2024

The charts below evaluate not only the total return performance of a target date fund but also two separate underlying sources of return: "glide path return" (asset allocation), and "implementation return" (value-added relative to glide path return). The top chart ranks the fund on a total return basis. The middle chart compares the fund's glide path return (passively implemented asset allocation glide path) to the peer group range of glide path returns. The bottom chart ranks the fund's implementation return (active management, style tilts, rebalancing strategy, fees, etc...) versus the range of peer group implementation returns.

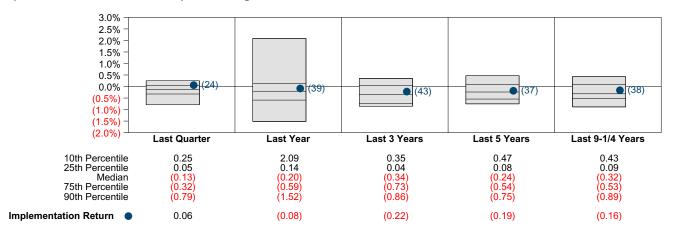
Total Returns - Group: Callan Tgt Date Ret Inc (Institutional Net)



Glide Path Returns - Group: Callan Tgt Date Ret Inc



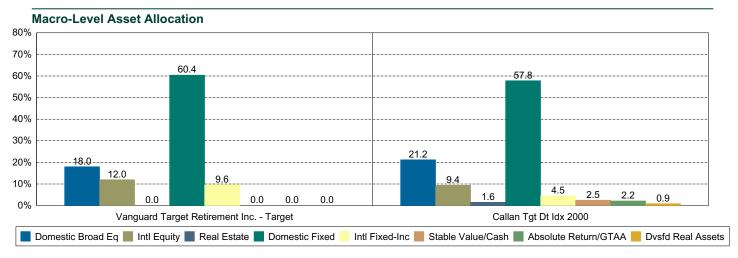
Implementation Returns - Group: Callan Tgt Date Ret Inc

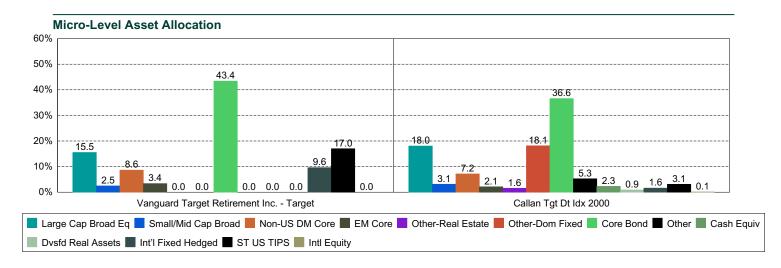




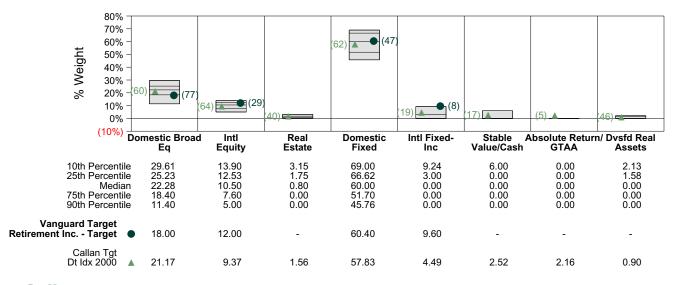
Vanguard Target Retirement Inc. Target Date Fund Asset Allocation as of September 30, 2024

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.





Macro Asset Allocation Rankings vs. Callan Target Date Retirement Income





Vanguard Target Retierment 2020 Period Ended September 30, 2024

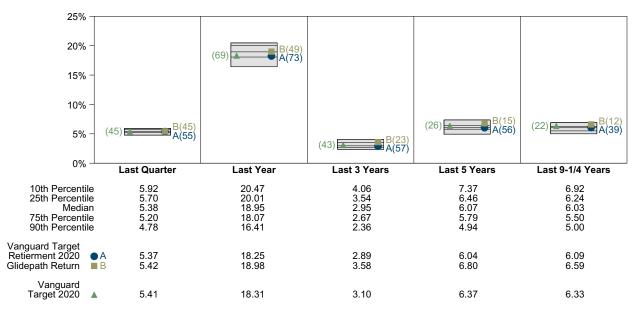
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

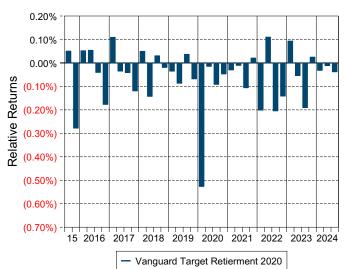
Quarterly Summary and Highlights

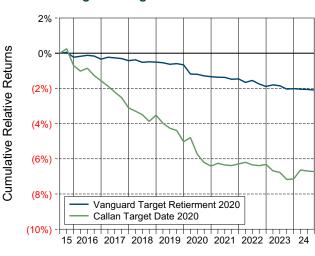
- Vanguard Target Retierment 2020's portfolio posted a 5.37% return for the quarter placing it in the 55 percentile of the Callan Target Date 2020 group for the quarter and in the 73 percentile for the last year.
- Vanquard Target Retierment 2020's portfolio underperformed the Vanquard Target 2020 by 0.04% for the guarter and underperformed the Vanguard Target 2020 for the year by 0.07%.

Performance vs Callan Target Date 2020 (Institutional Net)



Relative Return vs Vanguard Target 2020



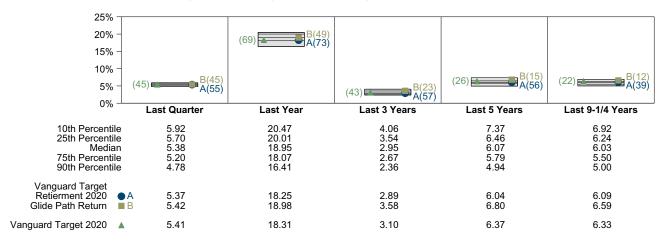




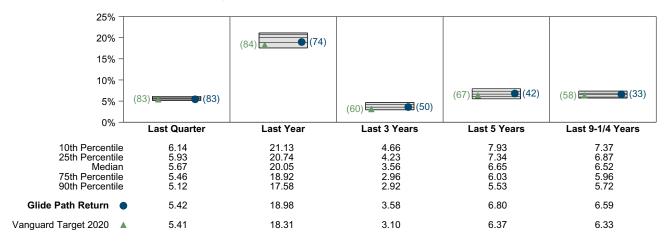
Vanguard Target Retierment 2020 Target Date Peer Group Analysis as of September 30, 2024

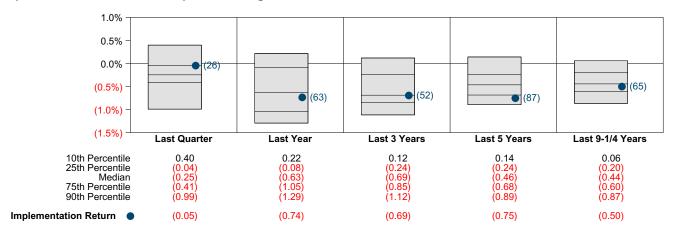
The charts below evaluate not only the total return performance of a target date fund but also two separate underlying sources of return: "glide path return" (asset allocation), and "implementation return" (value-added relative to glide path return). The top chart ranks the fund on a total return basis. The middle chart compares the fund's glide path return (passively implemented asset allocation glide path) to the peer group range of glide path returns. The bottom chart ranks the fund's implementation return (active management, style tilts, rebalancing strategy, fees, etc...) versus the range of peer group implementation returns.

Total Returns - Group: Callan Target Date 2020 (Institutional Net)



Glide Path Returns - Group: Callan Target Date 2020

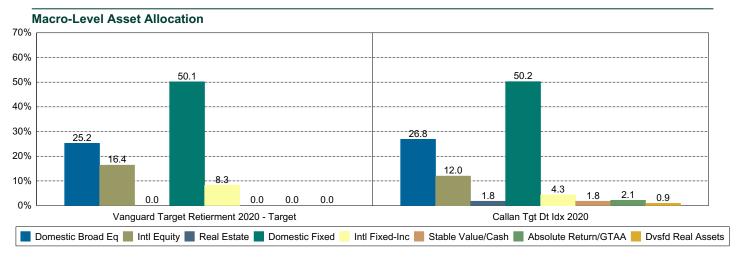


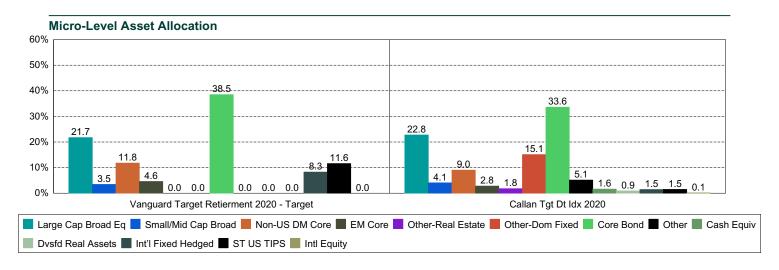


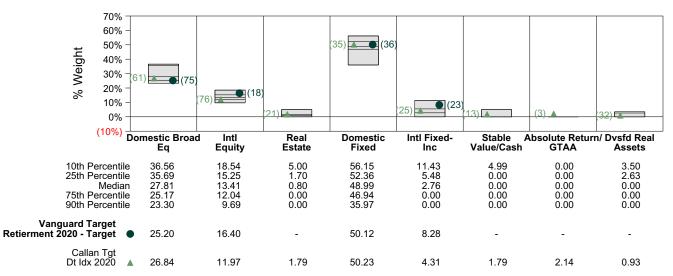


Vanguard Target Retierment 2020 Target Date Fund Asset Allocation as of September 30, 2024

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.









Vanguard Target Retirement 2025 Period Ended September 30, 2024

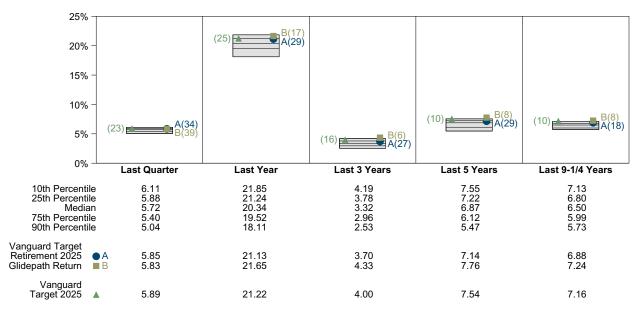
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

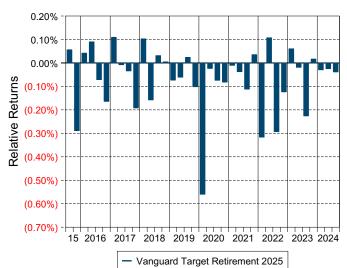
Quarterly Summary and Highlights

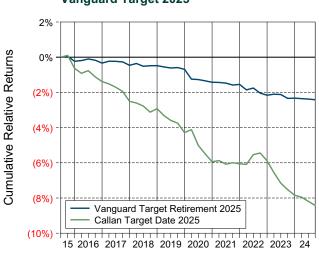
- Vanguard Target Retirement 2025's portfolio posted a 5.85% return for the quarter placing it in the 34 percentile of the Callan Target Date 2025 group for the quarter and in the 29 percentile for the last year.
- Vanquard Target Retirement 2025's portfolio underperformed the Vanquard Target 2025 by 0.04% for the guarter and underperformed the Vanguard Target 2025 for the year by 0.09%.

Performance vs Callan Target Date 2025 (Institutional Net)



Relative Return vs Vanguard Target 2025



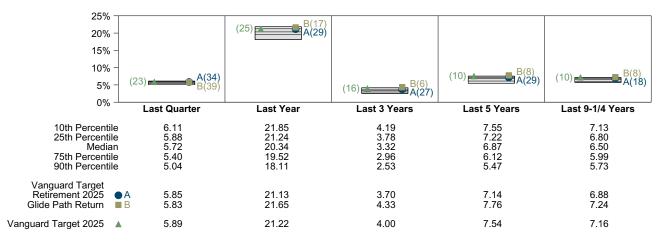




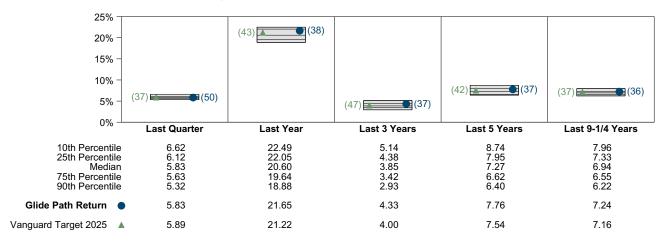
Vanguard Target Retirement 2025 Target Date Peer Group Analysis as of September 30, 2024

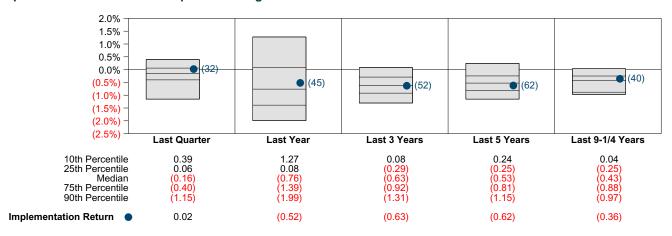
The charts below evaluate not only the total return performance of a target date fund but also two separate underlying sources of return: "glide path return" (asset allocation), and "implementation return" (value-added relative to glide path return). The top chart ranks the fund on a total return basis. The middle chart compares the fund's glide path return (passively implemented asset allocation glide path) to the peer group range of glide path returns. The bottom chart ranks the fund's implementation return (active management, style tilts, rebalancing strategy, fees, etc...) versus the range of peer group implementation returns.

Total Returns - Group: Callan Target Date 2025 (Institutional Net)



Glide Path Returns - Group: Callan Target Date 2025

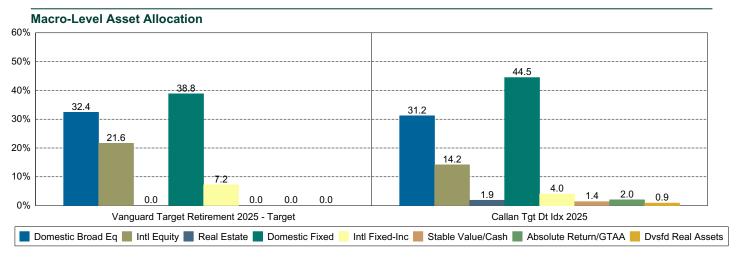


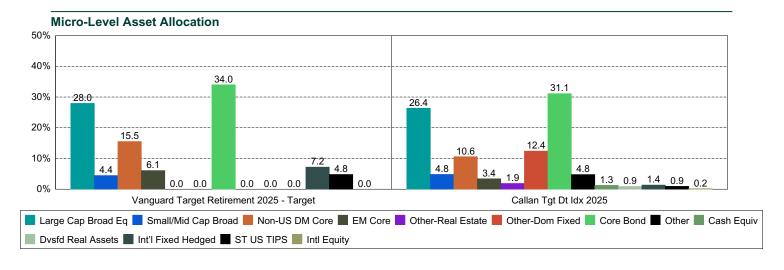


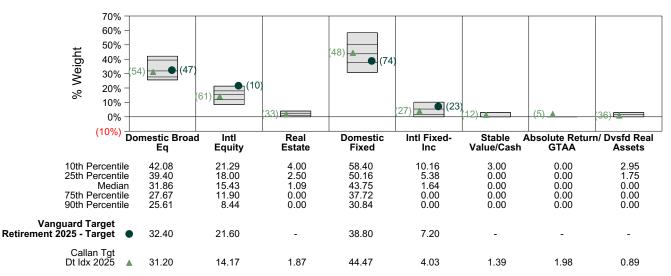


Vanguard Target Retirement 2025 Target Date Fund Asset Allocation as of September 30, 2024

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.









Vanguard Target Retirement 2030 Period Ended September 30, 2024

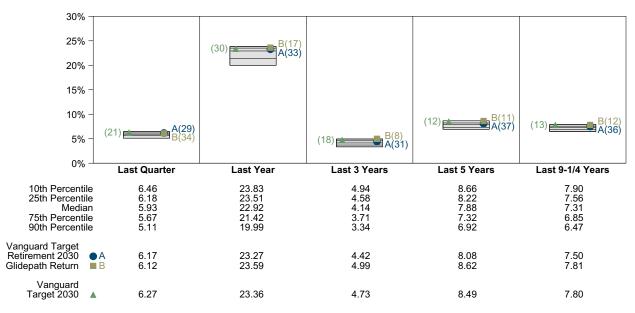
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

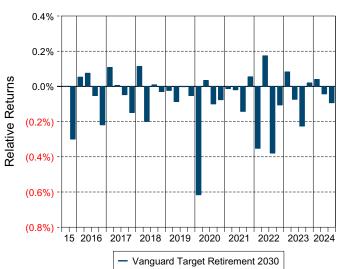
Quarterly Summary and Highlights

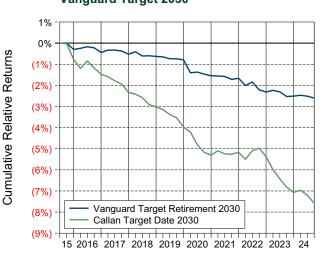
- Vanguard Target Retirement 2030's portfolio posted a 6.17% return for the quarter placing it in the 29 percentile of the Callan Target Date 2030 group for the quarter and in the 33 percentile for the last year.
- Vanguard Target Retirement 2030's portfolio underperformed the Vanguard Target 2030 by 0.10% for the quarter and underperformed the Vanguard Target 2030 for the year by 0.09%.

Performance vs Callan Target Date 2030 (Institutional Net)



Relative Return vs Vanguard Target 2030



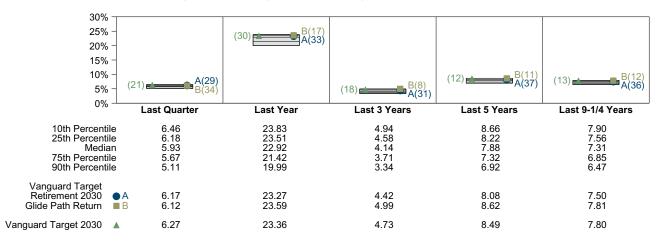




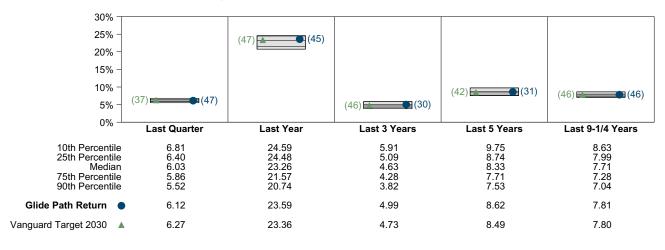
Vanguard Target Retirement 2030 Target Date Peer Group Analysis as of September 30, 2024

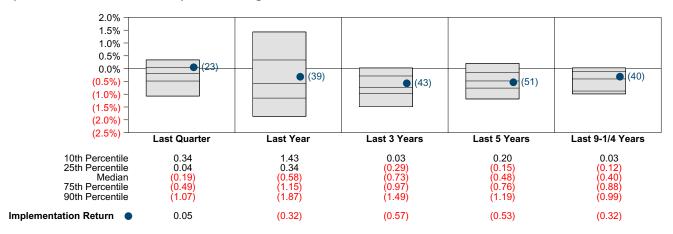
The charts below evaluate not only the total return performance of a target date fund but also two separate underlying sources of return: "glide path return" (asset allocation), and "implementation return" (value-added relative to glide path return). The top chart ranks the fund on a total return basis. The middle chart compares the fund's glide path return (passively implemented asset allocation glide path) to the peer group range of glide path returns. The bottom chart ranks the fund's implementation return (active management, style tilts, rebalancing strategy, fees, etc...) versus the range of peer group implementation returns.

Total Returns - Group: Callan Target Date 2030 (Institutional Net)



Glide Path Returns - Group: Callan Target Date 2030

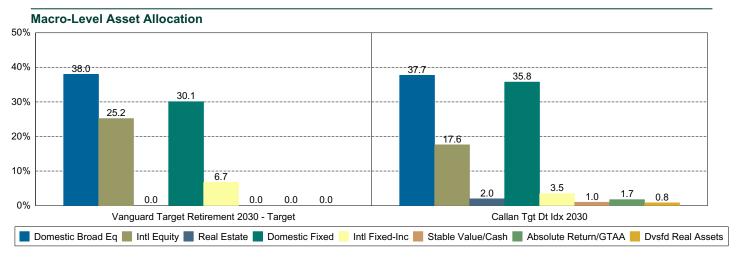


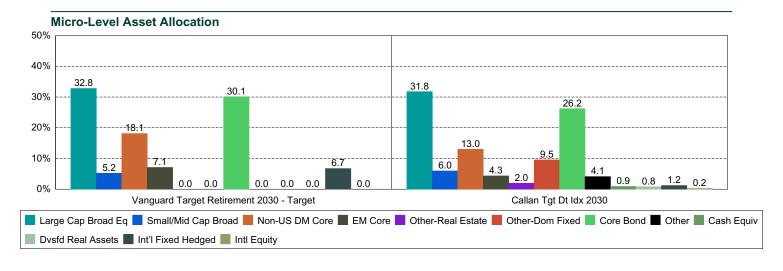


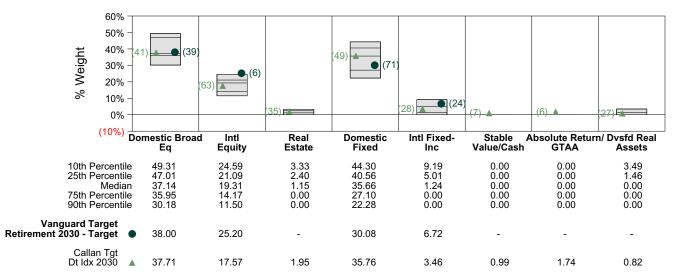


Vanguard Target Retirement 2030 Target Date Fund Asset Allocation as of September 30, 2024

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.









Vanguard Target Retiremen 2035 Period Ended September 30, 2024

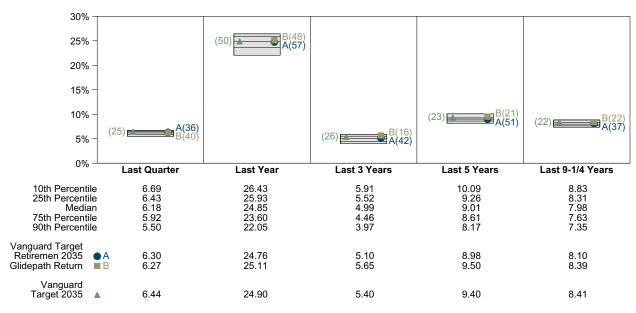
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

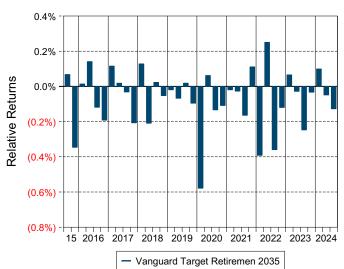
Quarterly Summary and Highlights

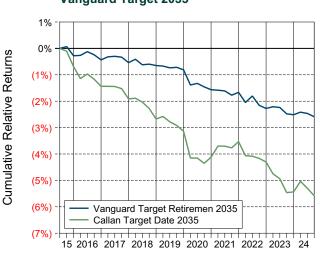
- Vanguard Target Retiremen 2035's portfolio posted a 6.30% return for the guarter placing it in the 36 percentile of the Callan Target Date 2035 group for the quarter and in the 57 percentile for the last year.
- Vanquard Target Retiremen 2035's portfolio underperformed the Vanquard Target 2035 by 0.14% for the guarter and underperformed the Vanguard Target 2035 for the year by 0.14%.

Performance vs Callan Target Date 2035 (Institutional Net)



Relative Return vs Vanguard Target 2035



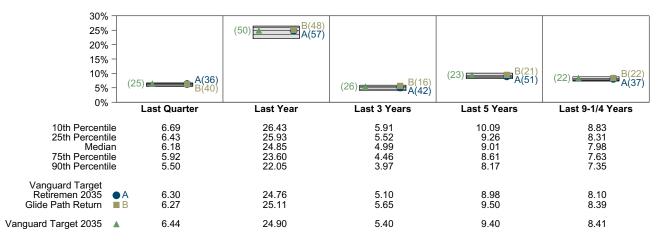




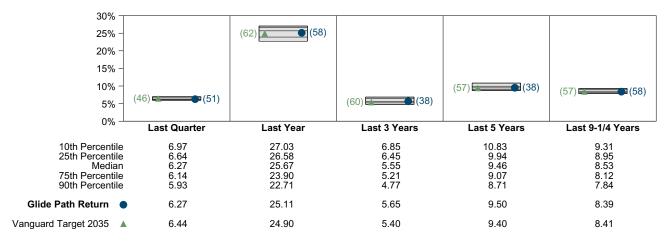
Vanguard Target Retiremen 2035 Target Date Peer Group Analysis as of September 30, 2024

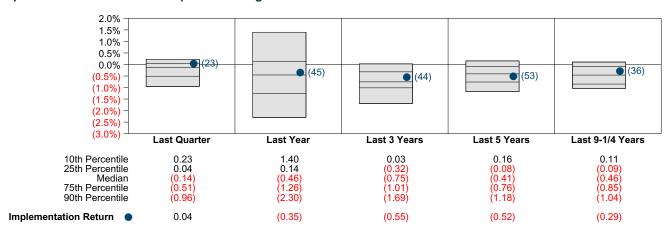
The charts below evaluate not only the total return performance of a target date fund but also two separate underlying sources of return: "glide path return" (asset allocation), and "implementation return" (value-added relative to glide path return). The top chart ranks the fund on a total return basis. The middle chart compares the fund's glide path return (passively implemented asset allocation glide path) to the peer group range of glide path returns. The bottom chart ranks the fund's implementation return (active management, style tilts, rebalancing strategy, fees, etc...) versus the range of peer group implementation returns.

Total Returns - Group: Callan Target Date 2035 (Institutional Net)



Glide Path Returns - Group: Callan Target Date 2035

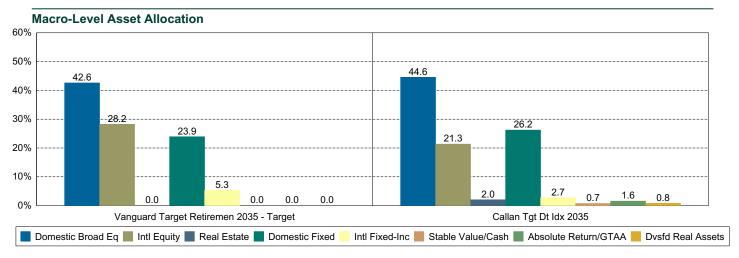


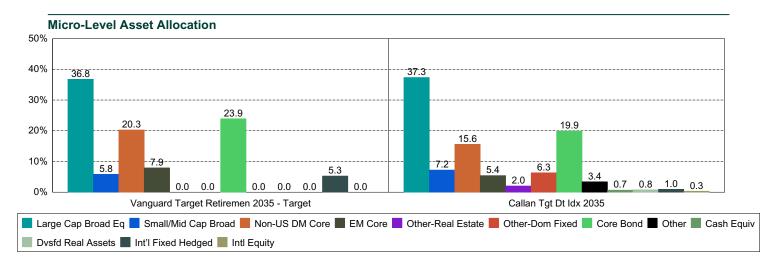


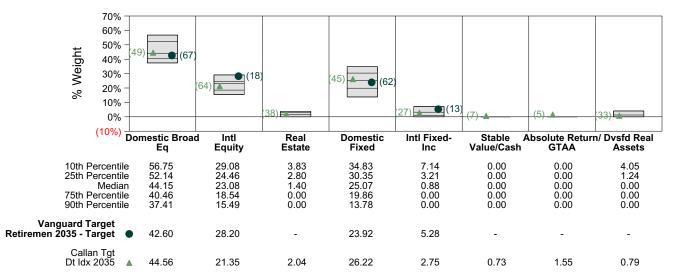


Vanguard Target Retiremen 2035 Target Date Fund Asset Allocation as of September 30, 2024

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.









Vanguard Target Retirement 2040 Period Ended September 30, 2024

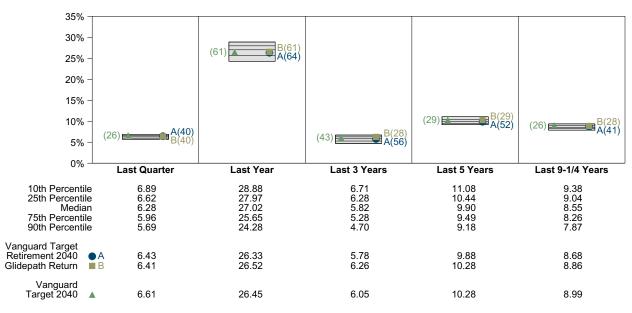
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

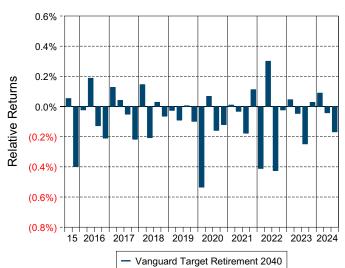
Quarterly Summary and Highlights

- Vanguard Target Retirement 2040's portfolio posted a 6.43% return for the quarter placing it in the 40 percentile of the Callan Target Date 2040 group for the quarter and in the 64 percentile for the last year.
- Vanguard Target Retirement 2040's portfolio underperformed the Vanguard Target 2040 by 0.18% for the quarter and underperformed the Vanguard Target 2040 for the year by 0.12%.

Performance vs Callan Target Date 2040 (Institutional Net)



Relative Return vs Vanguard Target 2040



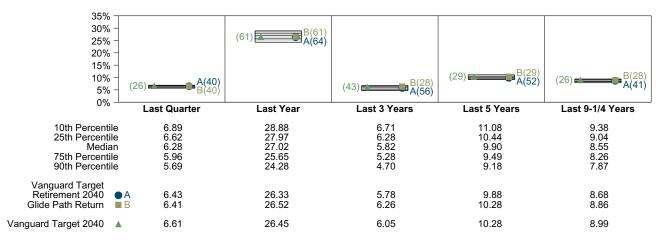




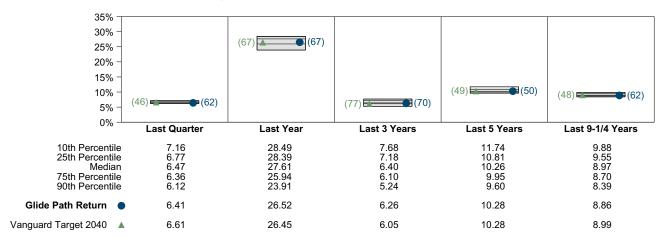
Vanguard Target Retirement 2040 Target Date Peer Group Analysis as of September 30, 2024

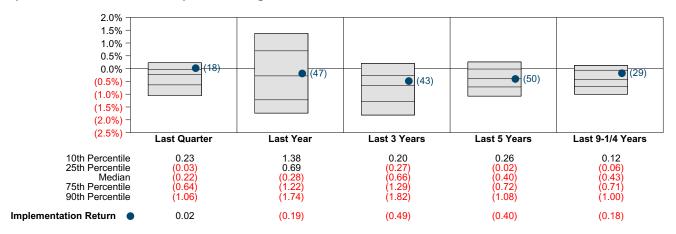
The charts below evaluate not only the total return performance of a target date fund but also two separate underlying sources of return: "glide path return" (asset allocation), and "implementation return" (value-added relative to glide path return). The top chart ranks the fund on a total return basis. The middle chart compares the fund's glide path return (passively implemented asset allocation glide path) to the peer group range of glide path returns. The bottom chart ranks the fund's implementation return (active management, style tilts, rebalancing strategy, fees, etc...) versus the range of peer group implementation returns.

Total Returns - Group: Callan Target Date 2040 (Institutional Net)



Glide Path Returns - Group: Callan Target Date 2040

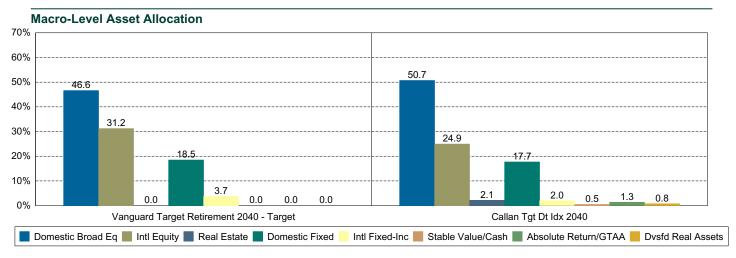


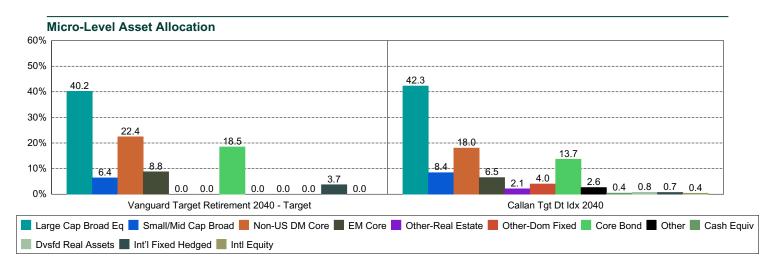


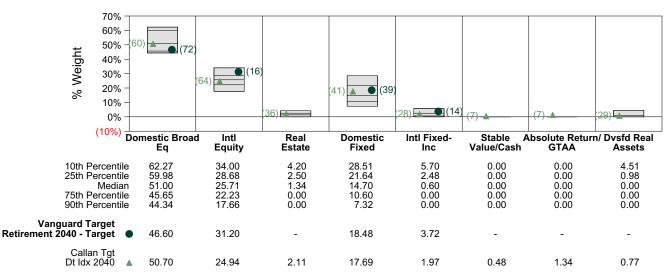


Vanguard Target Retirement 2040 Target Date Fund Asset Allocation as of September 30, 2024

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.









Vanguard Target Retirement 2045 Period Ended September 30, 2024

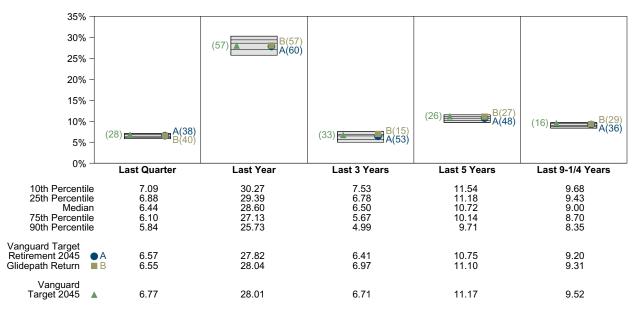
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

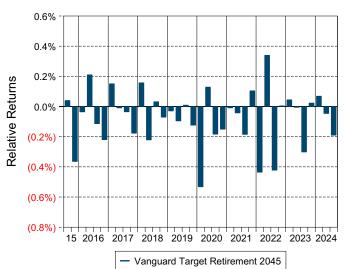
Quarterly Summary and Highlights

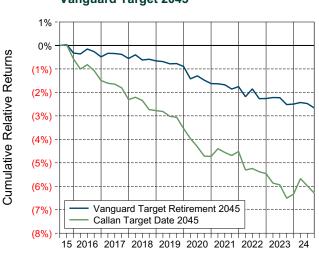
- Vanguard Target Retirement 2045's portfolio posted a 6.57% return for the quarter placing it in the 38 percentile of the Callan Target Date 2045 group for the quarter and in the 60 percentile for the last year.
- Vanguard Target Retirement 2045's portfolio underperformed the Vanguard Target 2045 by 0.20% for the quarter and underperformed the Vanguard Target 2045 for the year by 0.18%.

Performance vs Callan Target Date 2045 (Institutional Net)



Relative Return vs Vanguard Target 2045



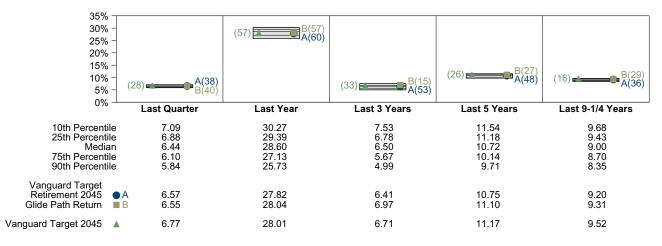




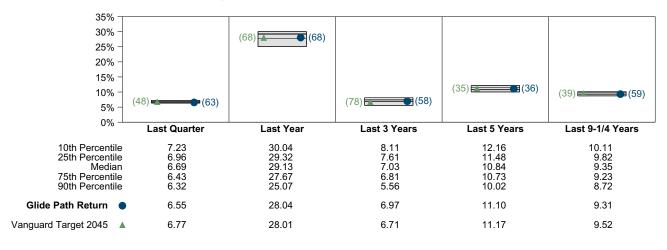
Vanguard Target Retirement 2045 Target Date Peer Group Analysis as of September 30, 2024

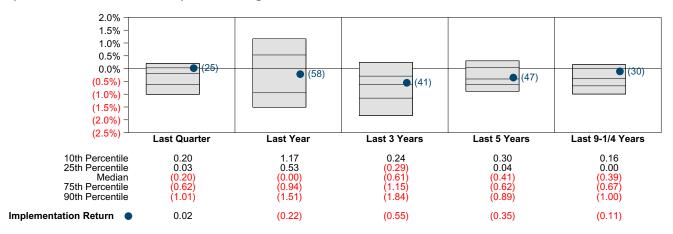
The charts below evaluate not only the total return performance of a target date fund but also two separate underlying sources of return: "glide path return" (asset allocation), and "implementation return" (value-added relative to glide path return). The top chart ranks the fund on a total return basis. The middle chart compares the fund's glide path return (passively implemented asset allocation glide path) to the peer group range of glide path returns. The bottom chart ranks the fund's implementation return (active management, style tilts, rebalancing strategy, fees, etc...) versus the range of peer group implementation returns.

Total Returns - Group: Callan Target Date 2045 (Institutional Net)



Glide Path Returns - Group: Callan Target Date 2045

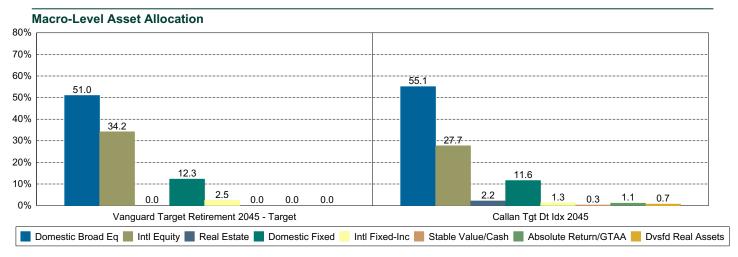


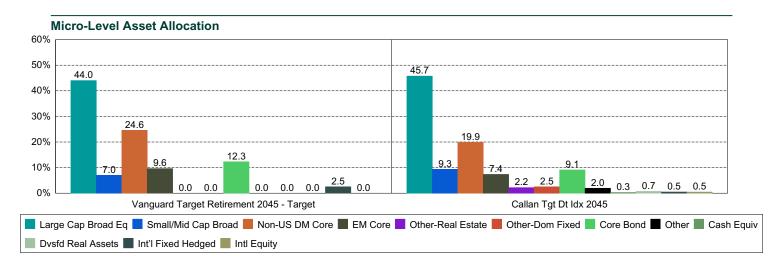


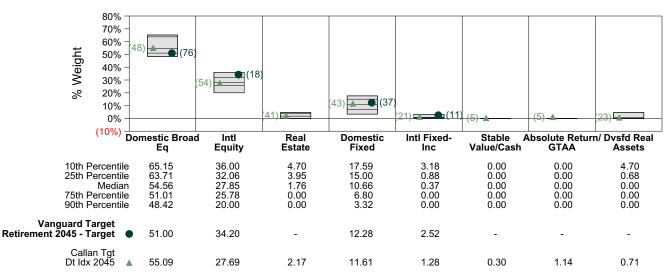


Vanguard Target Retirement 2045 Target Date Fund Asset Allocation as of September 30, 2024

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.









Vanguard Target Retirement 2050 Period Ended September 30, 2024

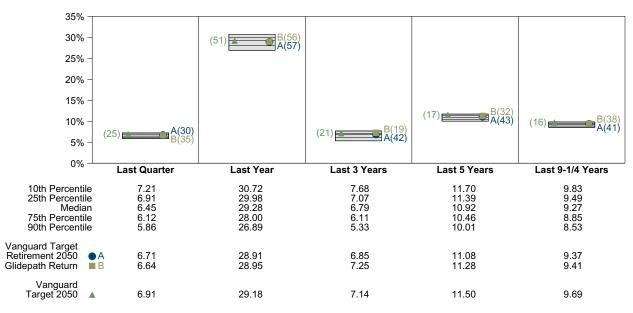
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

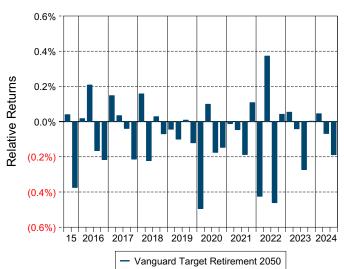
Quarterly Summary and Highlights

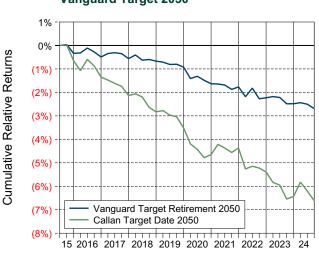
- Vanguard Target Retirement 2050's portfolio posted a 6.71% return for the quarter placing it in the 30 percentile of the Callan Target Date 2050 group for the quarter and in the 57 percentile for the last year.
- Vanguard Target Retirement 2050's portfolio underperformed the Vanguard Target 2050 by 0.20% for the quarter and underperformed the Vanguard Target 2050 for the year by 0.27%.

Performance vs Callan Target Date 2050 (Institutional Net)



Relative Return vs Vanguard Target 2050



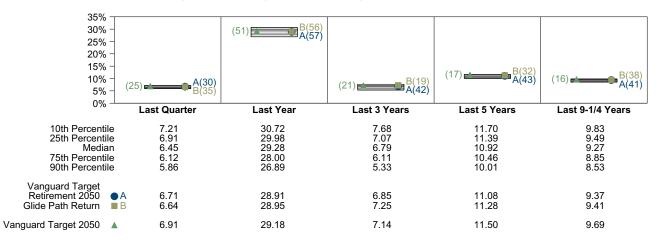




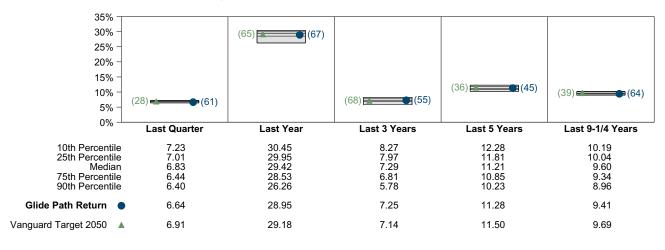
Vanguard Target Retirement 2050 Target Date Peer Group Analysis as of September 30, 2024

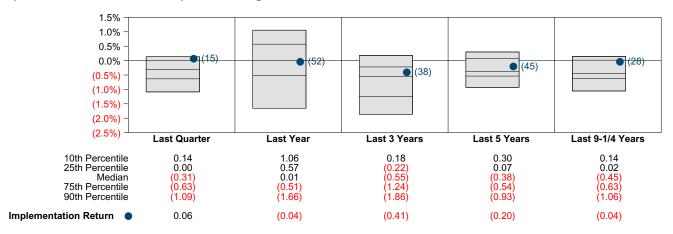
The charts below evaluate not only the total return performance of a target date fund but also two separate underlying sources of return: "glide path return" (asset allocation), and "implementation return" (value-added relative to glide path return). The top chart ranks the fund on a total return basis. The middle chart compares the fund's glide path return (passively implemented asset allocation glide path) to the peer group range of glide path returns. The bottom chart ranks the fund's implementation return (active management, style tilts, rebalancing strategy, fees, etc...) versus the range of peer group implementation returns.

Total Returns - Group: Callan Target Date 2050 (Institutional Net)



Glide Path Returns - Group: Callan Target Date 2050

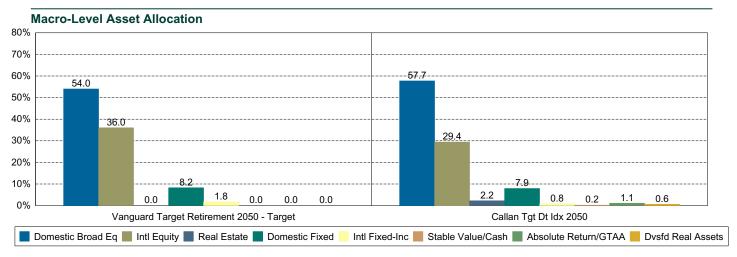


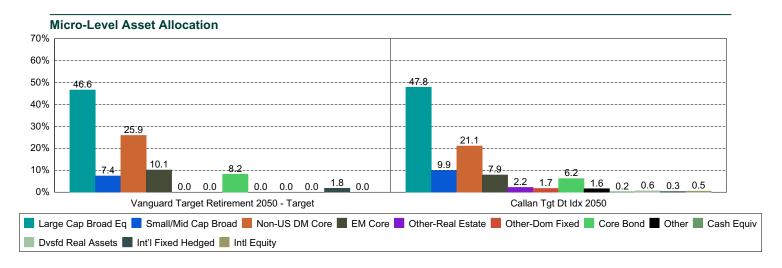


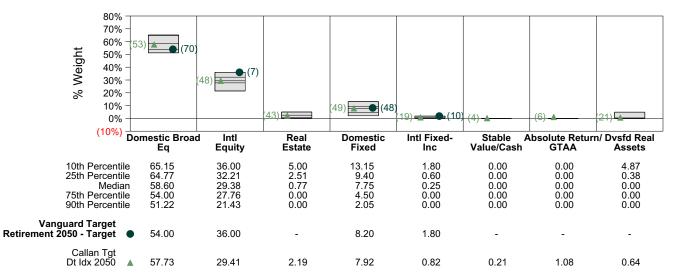


Vanguard Target Retirement 2050 Target Date Fund Asset Allocation as of September 30, 2024

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.









Vanguard Target Retirement 2055 Period Ended September 30, 2024

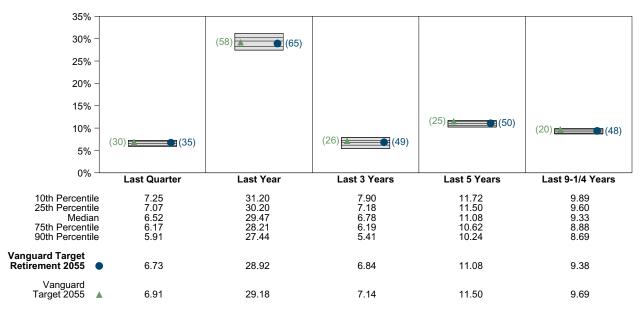
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

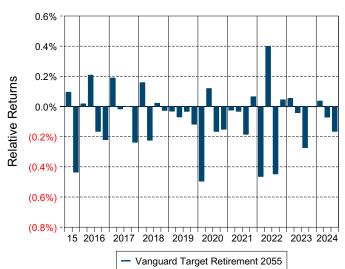
Quarterly Summary and Highlights

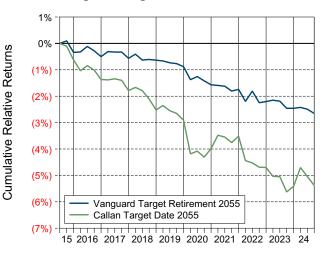
- Vanguard Target Retirement 2055's portfolio posted a 6.73% return for the quarter placing it in the 35 percentile of the Callan Target Date 2055 group for the quarter and in the 65 percentile for the last year.
- Vanguard Target Retirement 2055's portfolio underperformed the Vanguard Target 2055 by 0.18% for the quarter and underperformed the Vanguard Target 2055 for the year by 0.26%.

Performance vs Callan Target Date 2055 (Institutional Net)



Relative Return vs Vanguard Target 2055



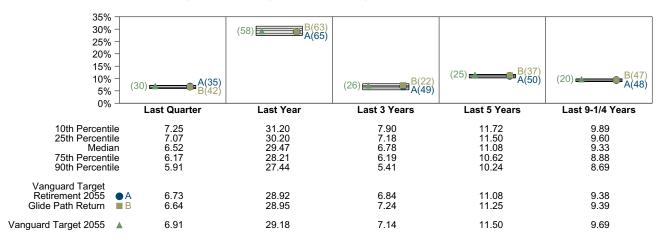




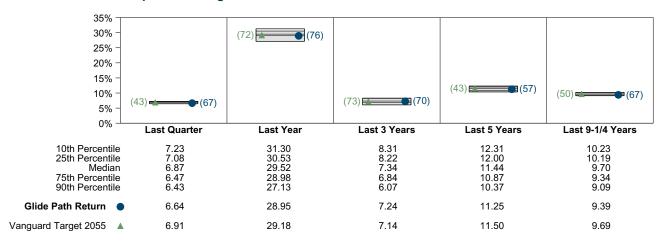
Vanguard Target Retirement 2055 Target Date Peer Group Analysis as of September 30, 2024

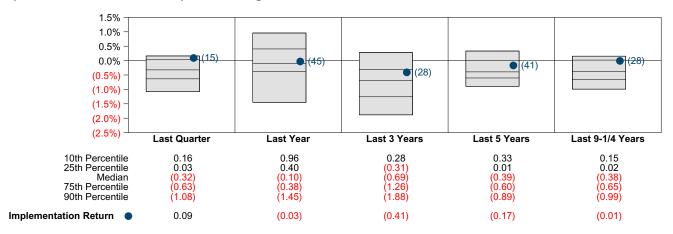
The charts below evaluate not only the total return performance of a target date fund but also two separate underlying sources of return: "glide path return" (asset allocation), and "implementation return" (value-added relative to glide path return). The top chart ranks the fund on a total return basis. The middle chart compares the fund's glide path return (passively implemented asset allocation glide path) to the peer group range of glide path returns. The bottom chart ranks the fund's implementation return (active management, style tilts, rebalancing strategy, fees, etc...) versus the range of peer group implementation returns.

Total Returns - Group: Callan Target Date 2055 (Institutional Net)



Glide Path Returns - Group: Callan Target Date 2055

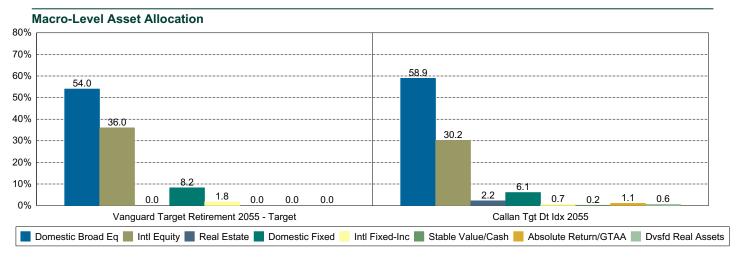


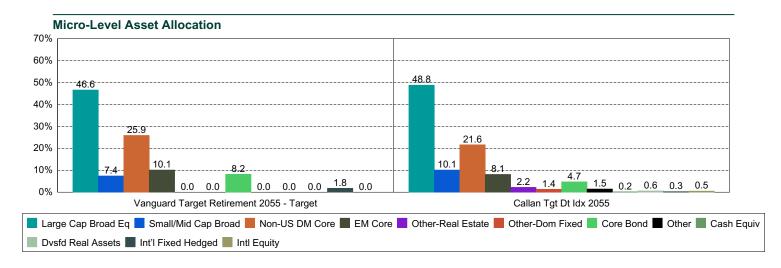


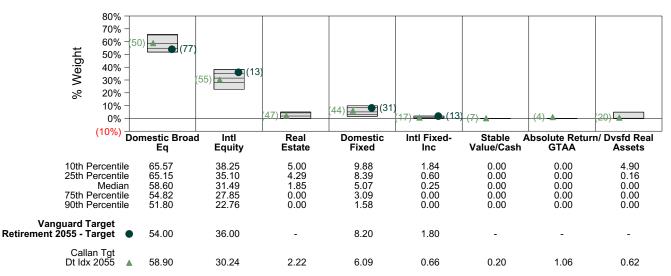


Vanguard Target Retirement 2055 Target Date Fund Asset Allocation as of September 30, 2024

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.









Vanguard Target Retirement 2060 Period Ended September 30, 2024

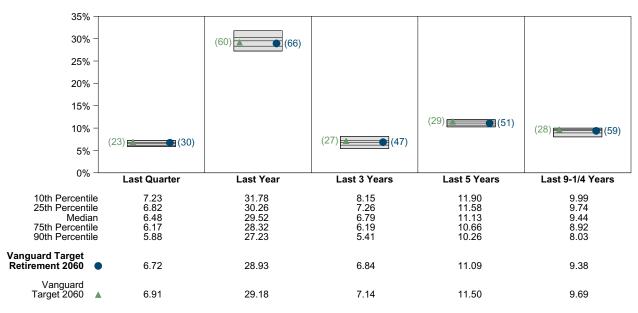
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

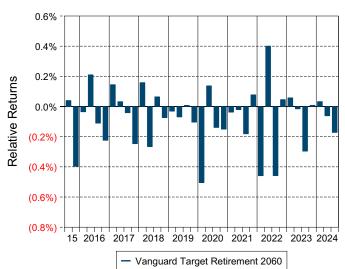
Quarterly Summary and Highlights

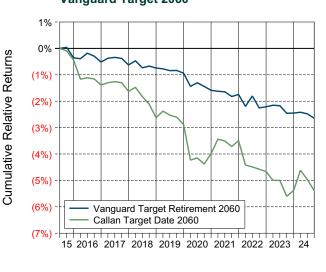
- Vanguard Target Retirement 2060's portfolio posted a 6.72% return for the quarter placing it in the 30 percentile of the Callan Target Date 2060 group for the quarter and in the 66 percentile for the last year.
- Vanguard Target Retirement 2060's portfolio underperformed the Vanguard Target 2060 by 0.18% for the quarter and underperformed the Vanguard Target 2060 for the year by 0.25%.

Performance vs Callan Target Date 2060 (Institutional Net)



Relative Return vs Vanguard Target 2060



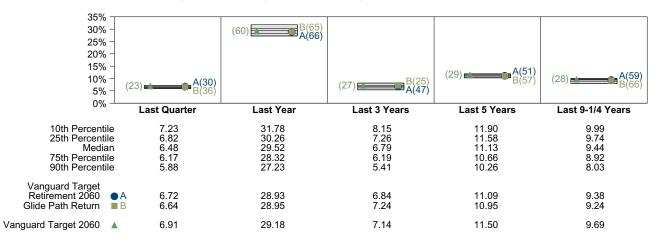




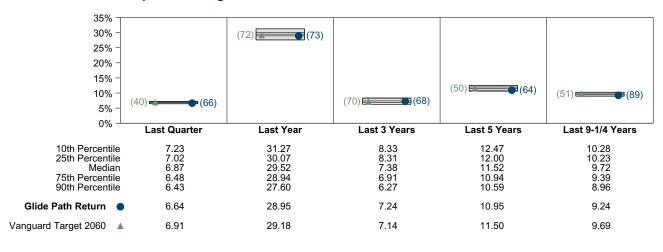
Vanguard Target Retirement 2060 Target Date Peer Group Analysis as of September 30, 2024

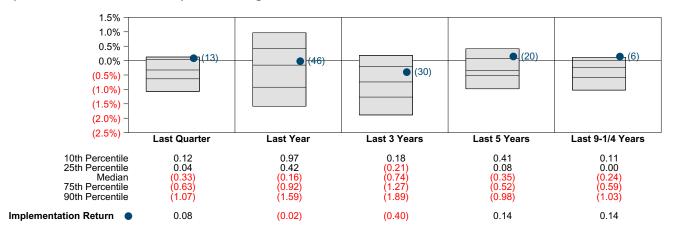
The charts below evaluate not only the total return performance of a target date fund but also two separate underlying sources of return: "glide path return" (asset allocation), and "implementation return" (value-added relative to glide path return). The top chart ranks the fund on a total return basis. The middle chart compares the fund's glide path return (passively implemented asset allocation glide path) to the peer group range of glide path returns. The bottom chart ranks the fund's implementation return (active management, style tilts, rebalancing strategy, fees, etc...) versus the range of peer group implementation returns.

Total Returns - Group: Callan Target Date 2060 (Institutional Net)



Glide Path Returns - Group: Callan Target Date 2060

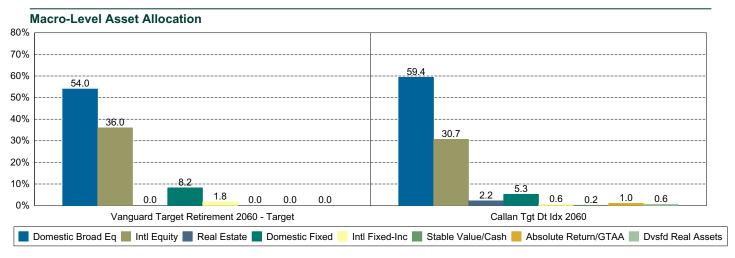


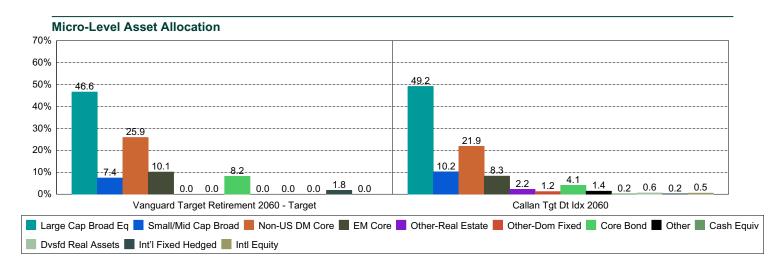


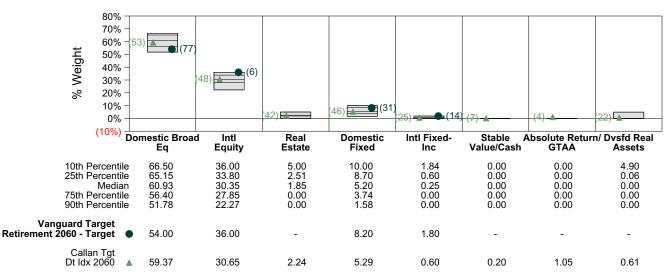


Vanguard Target Retirement 2060 Target Date Fund Asset Allocation as of September 30, 2024

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.









Vanguard Target Retirement 2065 Period Ended September 30, 2024

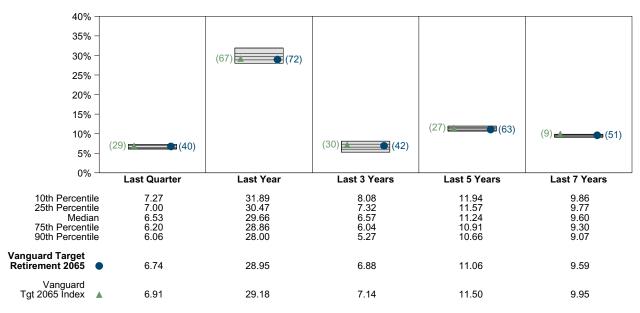
Investment Philosophy

The allocation of Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research group, which takes advantage of Vanguard's experience in providing investment advice to clients. Vanguard Target Retirement Funds are funds-of-funds designed to meet the needs of investors seeking broadly diversified investments. The objective of these funds is to provide straightforward, yet sophisticated, savings vehicles for investors seeking simple solutions. The original allocations were derived from research on the benefits gained through diversification and asset allocation using "efficient frontier" modeling. The results were then adapted to create a simple structure that is transparent to both participants and plan sponsors and easily communicated to fund investors. Similarly, the rolldown schedule was developed to provide a smooth, easy-to-understand, and transparent path.

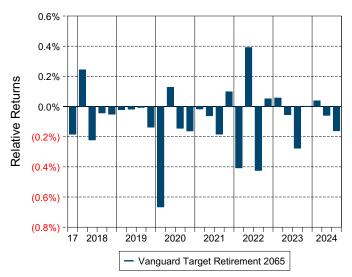
Quarterly Summary and Highlights

- Vanguard Target Retirement 2065's portfolio posted a 6.74% return for the quarter placing it in the 40 percentile of the Callan Target Date 2065 group for the quarter and in the 72 percentile for the last year.
- Vanguard Target Retirement 2065's portfolio underperformed the Vanguard Tgt 2065 Index by 0.17% for the quarter and underperformed the Vanguard Tgt 2065 Index for the year by 0.23%.

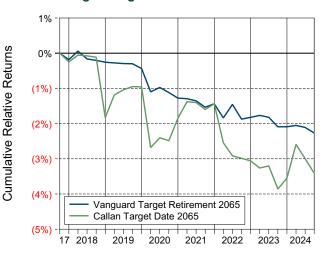
Performance vs Callan Target Date 2065 (Institutional Net)



Relative Return vs Vanguard Tgt 2065 Index



Cumulative Returns vs Vanguard Tgt 2065 Index

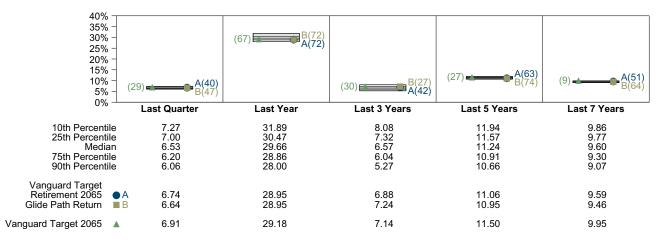




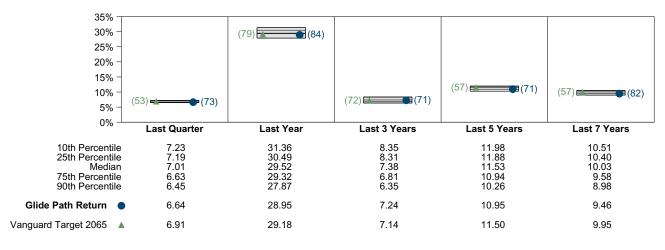
Vanguard Target Retirement 2065 Target Date Peer Group Analysis as of September 30, 2024

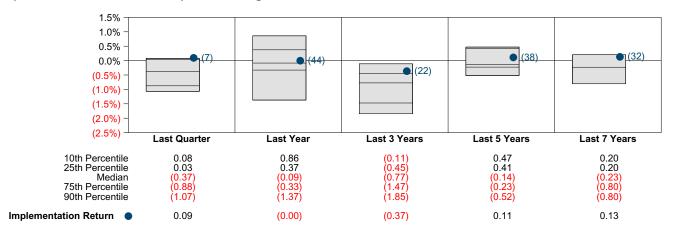
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Total Returns - Group: Callan Target Date 2065 (Institutional Net)



Glide Path Returns - Group: Callan Target Date 2065

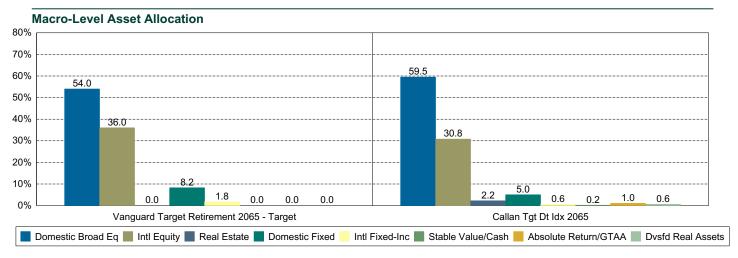


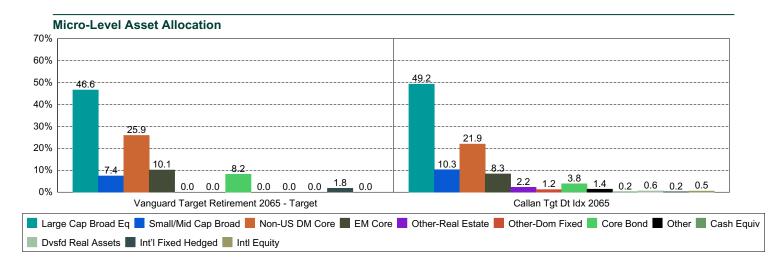


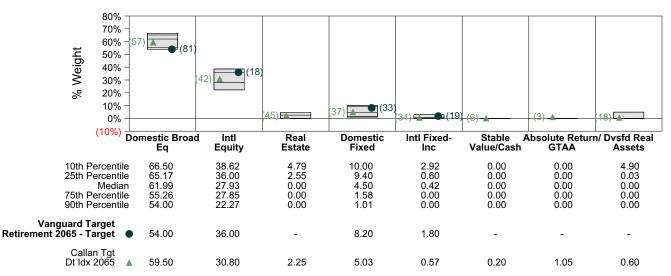


Vanguard Target Retirement 2065 Target Date Fund Asset Allocation as of September 30, 2024

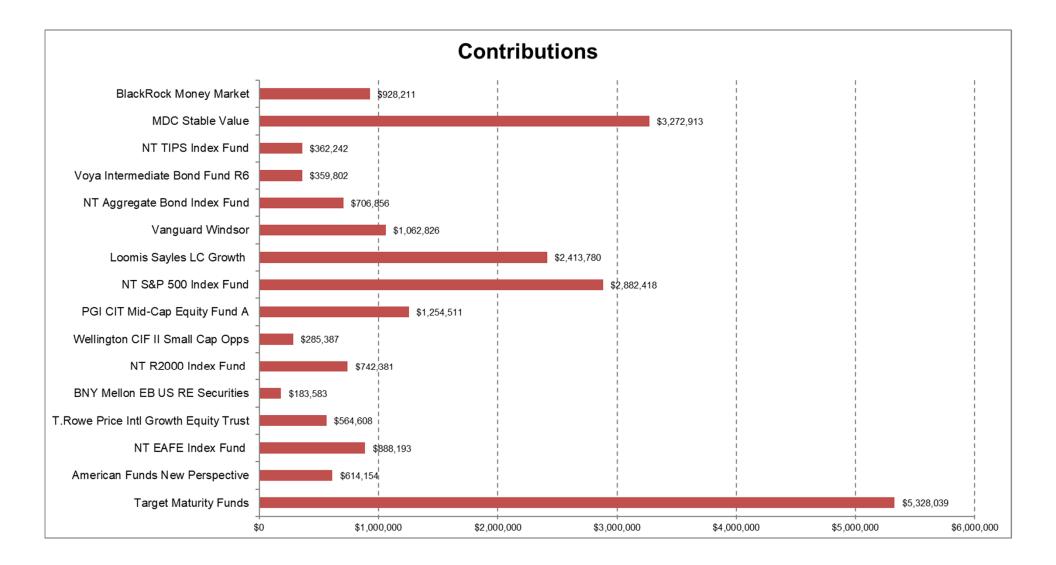
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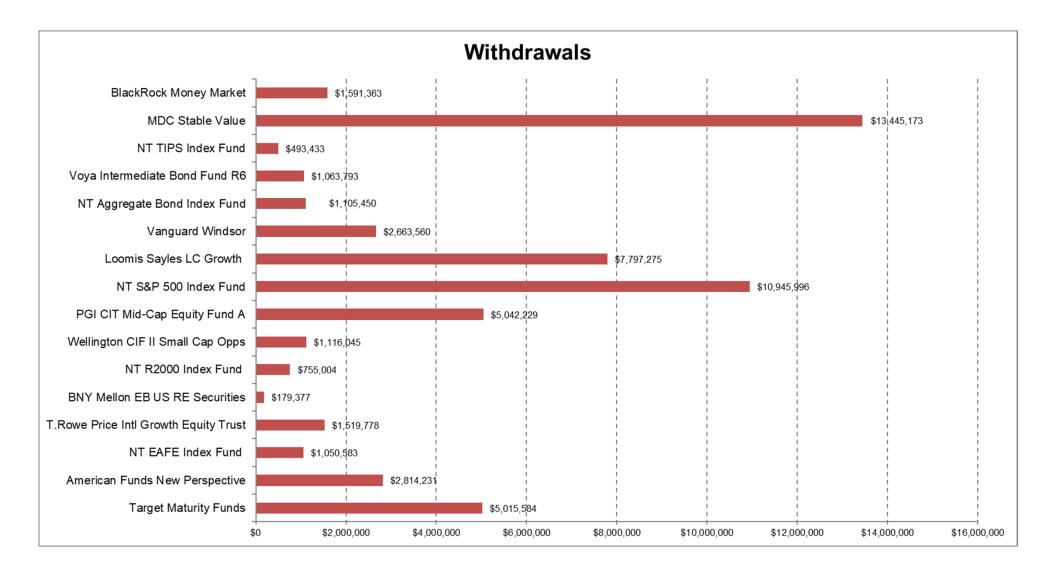






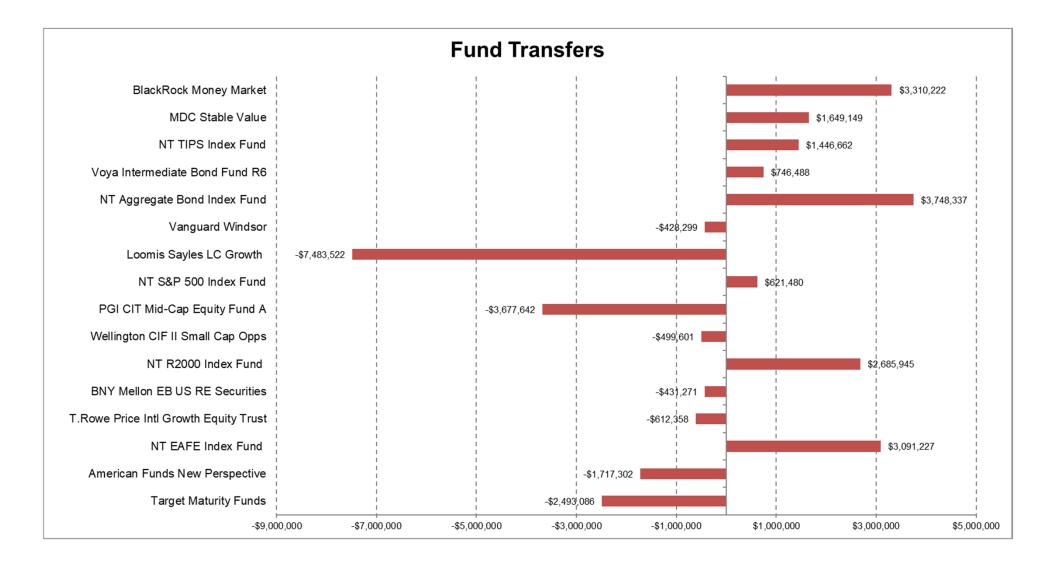
Callan

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Equity Market Indicators

The market indicators included in this report are regarded as measures of equity or fixed income performance results. The returns shown reflect both income and capital appreciation.

Russell 1000 Growth Index Measures the performance of the large-cap growth segment of the US equity universe. It includes those Russell 1000 companies with relatively higher price-to-book ratios, higher I/B/E/S forecast medium term (2 year) growth and higher sales per share historical growth (5 years). The Russell 1000 Growth Index is constructed to provide a comprehensive and unbiased barometer for the large-cap growth segment. The index is completely reconstituted annually to ensure new and growing equities are included and that the represented companies continue to reflect growth characteristics.

Russell 1000 Value Index Measures the performance of the large-cap value segment of the US equity universe. It includes those Russell 1000 companies with relatively lower price-to-book ratios, lower I/B/E/S forecast medium term (2 year) growth and lower sales per share historical growth (5 years). The Russell 1000 Value Index is constructed to provide a comprehensive and unbiased barometer for the large-cap value segment. The index is completely reconstituted annually to ensure new and growing equities are included and that the represented companies continue to reflect value characteristics

Russell 2000 Index Measures the performance of the small-cap segment of the US equity universe. The Russell 2000 Index is a subset of the Russell 3000 Index representing approximately 7% of the total market capitalization of that index, as of the most recent reconsitution. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership. The Russell 2000 is constructed to provide a comprehensive and unbiased small-cap barometer and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set.

S&P 500 Index Measures performance of top 500 companies in leading industries of U.S. economy. The index covers approximately 80% of available market capitalization.



Fixed Income Market Indicators

Bloomberg Aggregate Represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

Bloomberg TIPS Measures the performance of the US Treasury Inflation Protected Securities (""TIPS"") market. The index includes TIPS with one or more years remaining maturity with total outstanding issue size of \$500m or more.

FTSE 3 Month Treasury Bill Is intended to track the daily performance of 3 month US Treasury bills.

International Equity Market Indicators

MSCI ACWI xUS (Gross) Is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets, excluding the US.

MSCI EAFE (Net) Is composed of approximately 1000 equity securities representing the stock exchanges of Europe, Australia, New Zealand and the Far East. The index is capitalization-weighted and is expressed in terms of U.S. dollars.

MSCI World (Net) Is composed of approximately 1500 equity securities representing the stock exchanges of the USA, Europe, Canada, Australia, New Zealand and the Far East. The index is capitalization-weighted; includes currency changes and is expressed in terms of U.S. dollars.

Callan Databases

In order to provide comparative investment results for use in evaluating a fund's performance, Callan gathers rate of return data from investment managers. These data are then grouped by type of assets managed and by the type of investment manager. Except for mutual funds, the results are for tax-exempt fund assets. The databases, excluding mutual funds, represent investment managers who handle over 80% of all tax-exempt fund assets.

Equity Funds

Equity funds concentrate their investments in common stocks and convertible securities. The funds included maintain well-diversified portfolios.

Core Equity - Mutual funds whose portfolio holdings and characteristics are similar to that of the broader market as represented by the Standard & Poor's 500 Index, with the objective of adding value over and above the index, typically from sector or issue selection. The core portfolio exhibits similar risk characteristics to the broad market as measured by low residual risk with Beta and R-Squared close to 1.00.

Large Cap Growth - Mutual Funds that invest mainly in large companies that are expected to have above average prospects for long-term growth in earnings and profitability. Future growth prospects take precedence over valuation levels in the stock selection process. Invests in companies with P/E ratios, Price-to-Book values, Return-on-Assets values, Growth-in-Earnings values above the broader market. The companies typically have zero dividends or dividend yields below the broader market. Invests in securities which exhibit greater volatility than the broader market as measured by the securities' Beta and Standard Deviation.

Large Cap Value - Mutual funds that invest in predominantly large capitalization companies believed to be currently undervalued in the general market. The companies are expected to have a near-term earnings rebound and eventual realization of expected value. Valuation issues take precedence over near-term earnings prospects in the stock selection process. Invests in companies with P/E rations and Price-to-Book values below the broader market. Usually exhibits lower risk than the broader market as measured by the Beta and Standard Deviation.

Middle Capitalization - Mutual Funds who invest primarily in mid-range companies with market capitalizations between core equity companies and small capitalization companies. The average market capitalization is approximately \$7 billion. Invests in securities with greater volatility than the broader market as measured by the risk statistics Beta and Standard Deviation. The Middle Capitalization Style Group consists of the Middle Capitalization Growth Equity and the Middle Capitalization Value Equity Style Groups.

Non-U.S. Equity Style Mutual Funds - Mutual funds that invest their assets only in non-U.S. equity securities but exclude regional and index funds.

Small Capitalization - Mututal funds that invest in companies with relatively small capitalization. The average market capitalization is approximately \$1.4 billion. The companies typically have zero dividends or dividend yields below the broader market. The securities exhibit greater volatility than the broader market as measured by the risk statistics Beta and Standard Deviation. The Small Capitalization Style Group consists of the Small Capitalization (Growth) Style Group and the Small Capitalization (Value) Style Group.



Callan Databases

Fixed Income Funds

Fixed Income funds concentrate their investments in bonds, preferred stocks, and money market securities. The funds included maintain well-diversified portfolios.

Core Bond - Mutual Funds that construct portfolios to approximate the investment results of the Bloomberg Barclays Capital Government/Credit Bond Index or the Bloomberg Barclays Capital Aggregate Bond Index with a modest amount of variability in duration around the index. The objective is to achieve value added from sector and/or issue selection.

Core Plus Bond - Active managers whose objective is to add value by tactically allocating significant portions of their portfolios among non-benchmark sectors (e.g. high yield corporate, non-US\$ bonds, etc.) while maintaining majority exposure similar to the broad market.

Stable Value - The Stable Value database group is comprised of funds that invest primarily in Guaranteed Investment Contracts (GICs) and Synthetic Investment Contracts (SICs) to provide principal protection, stable book value and a guaranteed rate of return over a contractually specified time period. Common benchmarks for the universe include but not limited to, are the Ryan Labs GIC Master indices and the Hueler Stable Value Index.



Risk/Reward Statistics

The risk statistics used in this report examine performance characteristics of a manager or a portfolio relative to a benchmark (market indicator) which assumes to represent overall movements in the asset class being considered. The main unit of analysis is the excess return, which is the portfolio return minus the return on a risk free asset (3 month T-Bill).

Alpha measures a portfolio's return in excess of the market return adjusted for risk. It is a measure of the manager's contribution to performance with reference to security selection. A positive alpha indicates that a portfolio was positively rewarded for the residual risk which was taken for that level of market exposure.

Beta measures the sensitivity of rates of portfolio returns to movements in the market index. A portfolio's beta measures the expected change in return per 1% change in the return on the market. If a beta of a portfolio is 1.5, a 1 percent increase in the return on the market will result, on average, in a 1.5 percent increase in the return on the portfolio. The converse would also be true.

Downside Risk stems from the desire to differentiate between "good risk" (upside volatility) and "bad risk" (downside volatility). Whereas standard deviation punishes both upside and downside volatility, downside risk measures only the standard deviation of returns below the target. Returns above the target are assigned a deviation of zero. Both the frequency and magnitude of underperformance affect the amount of downside risk.

Excess Return Ratio is a measure of risk adjusted relative return. This ratio captures the amount of active management performance (value added relative to an index) per unit of active management risk (tracking error against the index.) It is calculated by dividing the manager's annualized cumulative excess return relative to the index by the standard deviation of the individual quarterly excess returns. The Excess Return Ratio can be interpreted as the manager's active risk/reward tradeoff for diverging from the index when the index is mandated to be the "riskless" market position.

Information Ratio measures the manager's market risk-adjusted excess return per unit of residual risk relative to a benchmark. It is computed by dividing alpha by the residual risk over a given time period. Assuming all other factors being equal, managers with lower residual risk achieve higher values in the information ratio. Managers with higher information ratios will add value relative to the benchmark more reliably and consistently.

R-Squared indicates the extent to which the variability of the portfolio returns are explained by market action. It can also be thought of as measuring the diversification relative to the appropriate benchmark. An r-squared value of .75 indicates that 75% of the fluctuation in a portfolio return is explained by market action. An r-squared of 1.0 indicates that a portfolio's returns are entirely related to the market and it is not influenced by other factors. An r-squared of zero indicates that no relationship exists between the portfolio's return and the market.

Relative Standard Deviation is a simple measure of a manager's risk (volatility) relative to a benchmark. It is calculated by dividing the manager's standard deviation of returns by the benchmark's standard deviation of returns. A relative standard deviation of 1.20, for example, means the manager has exhibited 20% more risk than the benchmark over that time period. A ratio of .80 would imply 20% less risk. This ratio is especially useful when analyzing the risk of investment grade fixed-income products where actual historical durations are not available. By using this relative risk measure over rolling time periods one can illustrate the "implied" historical duration patterns of the portfolio versus the benchmark.

Residual Portfolio Risk is the unsystematic risk of a fund, the portion of the total risk unique to the fund (manager) itself and not related to the overall market. This reflects the "bets" which the manager places in that particular asset market. These bets may reflect emphasis in particular sectors, maturities (for bonds), or other issue specific factors which the manager considers a good investment opportunity. Diversification of the portfolio will reduce or eliminate the residual risk of that portfolio.



Risk/Reward Statistics

Rising Declining Periods refer to the sub-asset class cycles vis-a-vis the broader asset class. This is determined by evaluating the cumulative relative sub-asset class index performance to that of the broader asset class index. For example, to determine the Growth Style cycle, the S&P 500 Growth Index (sub-asset class) performance is compared to that of the S&P 500 Index (broader asset class).

Sharpe Ratio is a commonly used measure of risk-adjusted return. It is calculated by subtracting the "risk-free" return (usually 3 Month Treasury Bill) from the portfolio return and dividing the resulting "excess return" by the portfolio's risk level (standard deviation). The result is a measure of return gained per unit of risk taken.

Sortino Ratio is a downside risk-adjusted measure of value-added. It measures excess return over a benchmark divided by downside risk. The natural appeal is that it identifies value-added per unit of truly bad risk. The danger of interpretation, however, lies in these two areas: (1) the statistical significance of the denominator, and (2) its reliance on the persistence of skewness in return distributions.

Standard Deviation is a statistical measure of portfolio risk. It reflects the average deviation of the observations from their sample mean. Standard deviation is used as an estimate of risk since it measures how wide the range of returns typically is. The wider the typical range of returns, the higher the standard deviation of returns, and the higher the portfolio risk. If returns are normally distributed (ie. has a bell shaped curve distribution) then approximately 2/3 of the returns would occur within plus or minus one standard deviation from the sample mean.

Total Portfolio Risk is a measure of the volatility of the quarterly excess returns of an asset. Total risk is composed of two measures of risk: market (non-diversifiable or systematic) risk and residual (diversifiable or unsystematic) risk. The purpose of portfolio diversification is to reduce the residual risk of the portfolio.

Tracking Error is a statistical measure of a portfolio's risk relative to an index. It reflects the standard deviation of a portfolio's individual quarterly or monthly returns from the index's returns. Typically, the lower the Tracking Error, the more "index-like" the portfolio.

Treynor Ratio represents the portfolio's average excess return over a specified period divided by the beta relative to its benchmark over that same period. This measure reflects the reward over the risk-free rate relative to the systematic risk assumed.

Note: Alpha, Total Risk, and Residual Risk are annualized.



List of Callan's Investment Manager Clients

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Adams Street Partners, LLC
Aegon Asset Management
AllianceBernstein
Allspring Global Investments, LLC
Altrinsic Global Advisors, LLC
American Century Investments
Amundi US, Inc.
Antares Capital LP
Apollo Global Management, Inc.
AQR Capital Management
Ares Management LLC
ARGA Investment Management, LP
Ariel Investments, LLC
Aristotle Capital Management, LLC
Atlanta Capital Management Co., LLC
Audax Private Debt

Manager Name
AXA Investment Managers
Baillie Gifford International, LLC
Baird Advisors
Barings LLC
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC
BentallGreenOak
Beutel, Goodman & Company Ltd.
BlackRock
Blackstone Group (The)
Blue Owl Capital, Inc.
BNY Mellon Asset Management
Boston Partners
Brandes Investment Partners, L.P.
Brandywine Global Investment Management, LLC
Brookfield Asset Management Inc.
Brown Brothers Harriman & Company
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Manager Name

Capital Group

CastleArk Management, LLC

Cercano Management LLC

CIBC Asset Management

CIM Group, LP

ClearBridge Investments, LLC

Cohen & Steers Capital Management, Inc.

Columbia Threadneedle Investments

Comvest Partners

Crescent Capital Group LP

Dana Investment Advisors, Inc.

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DoubleLine

DWS

EARNEST Partners, LLC

Fayez Sarofim & Company

Federated Hermes, Inc.

Fidelity Institutional Asset Management

Fiera Capital Corporation

First Eagle Investment Management, LLC

First Hawaiian Bank Wealth Management Division

Fisher Investments

Franklin Templeton

Fred Alger Management, LLC

GAMCO Investors, Inc.

GlobeFlex Capital, L.P.

Goldman Sachs

Golub Capital

GW&K Investment Management

Harbor Capital Group Trust

Hardman Johnston Global Advisors LLC

Heitman LLC

Hotchkis & Wiley Capital Management, LLC

HPS Investment Partners, LLC

IFM Investors

Impax Asset Management LLC

Income Research + Management

Insight Investment

Intercontinental Real Estate Corporation

Manager Name

Invesco

J.P. Morgan

Janus

Jennison Associates LLC

Jobs Peak Advisors

Kayne Anderson Rudnick Investment Management, LLC

King Street Capital Management, L.P.

Kohlberg Kravis Roberts & Co. L.P. (KKR)

Lazard Asset Management

LGIM America

Lincoln National Corporation

Longview Partners

Loomis, Sayles & Company, L.P.

Lord, Abbett & Company

LSV Asset Management

MacKay Shields LLC

Macquarie Asset Management

Manulife Investment Management

Manulife | CQS Investment Management

Marathon Asset Management, L.P.

Mawer Investment Management Ltd.

MetLife Investment Management

MFS Investment Management

Mondrian Investment Partners Limited

Montag & Caldwell, LLC

Morgan Stanley Investment Management

MUFG Bank, Ltd.

Natixis Investment Managers

Neuberger Berman

Newton Investment Management

Northern Trust Asset Management

Nuveen

Oaktree Capital Management, L.P.

Orbis Investment Management Limited

P/E Investments

Pacific Investment Management Company

Parametric Portfolio Associates LLC

Partners Group (USA) Inc.

Pathway Capital Management, LP

Peavine Capital



Manager Name

Peregrine Capital Management, LLC

PGIM DC Solutions

PGIM Fixed Income

PGIM Quantitative Solutions LLC

Pictet Asset Management

PineBridge Investments

Polen Capital Management, LLC

PPM America, Inc.

Pretium Partners, LLC

Principal Asset Management

Raymond James Investment Management

RBC Global Asset Management

Regions Financial Corporation

S&P Dow Jones Indices

Sands Capital Management

Schroder Investment Management North America Inc.

Segall Bryant & Hamill

SLC Management

Star Mountain Capital, LLC

State Street Global Advisors

Strategic Global Advisors, LLC

Manager Name

T. Rowe Price Associates, Inc.

TD Global Investment Solutions - TD Epoch

The D.E. Shaw Group

The TCW Group, Inc.

Thompson, Siegel & Walmsley LLC

TPG Angelo Gordon

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Walter Scott & Partners Limited

WCM Investment Management

Wellington Management Company LLP

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair & Company LLC

Xponance, Inc.



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Callan undertakes no obligation to update the information contained herein except as specifically requested by the client.

Past performance is no guarantee of future results.

Callan

September 30, 2024

Public Employees Retirement System of Mississippi Optional Retirement Plan

Investment Measurement Service Quarterly Review

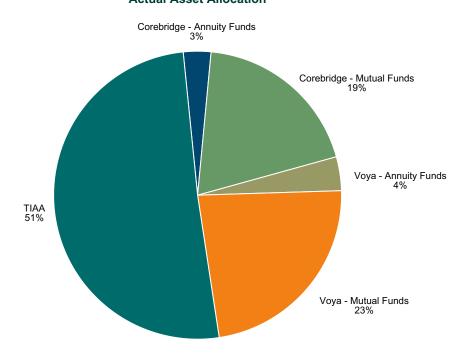
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Actual Asset Allocation As of September 30, 2024

The chart below shows the Fund's asset allocation as of September 30, 2024.

Actual Asset Allocation

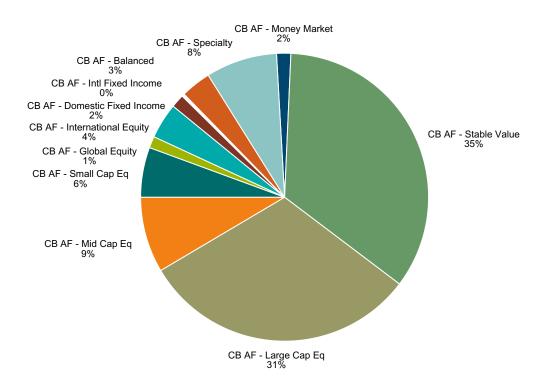


	\$Dollars	Weight
Asset Class	Actual	Actual
Corebridge - Annuity Funds	64,546,111	3.1%
Corebridge - Mutual Funds	398,281,580	19.2%
Voya - Annuity Funds	78,580,186	3.8%
Voya - Mutual Funds	480,674,485	23.1%
TIÃA	1,056,242,759	50.8%
Total	2,078,325,121	100.0%

Actual Asset Allocation As of September 30, 2024

The chart below shows the Fund's asset allocation as of September 30, 2024.

Actual Asset Allocation



	\$000s	Weight
Asset Class	Actual	Actual
CB AF - Money Market	1,052	1.6%
CB AF - Stable Value	22,322	34.6%
CB AF - Large Cap Eq	20,155	31.2%
CB AF - Mid Cap Eq	5,487	8.5%
CB AF - Small Cap Eq	3,583	5.6%
CB AF - Global Equity	825	1.3%
CB AF - International Equity	2,583	4.0%
CB AF - Domestic Fixed Income	986	1.5%
CB AF - Intl Fixed Income	204	0.3%
CB AF - Balanced	2,188	3.4%
CB AF - Specialty	5,160	8.0%
Total	64,546	100.0%

*CB is Corebridge Financial.



Investment Fund Balances

The table below compares the fund's investment fund balances as of September 30, 2024 with that of June 30, 2024.

Asset Distribution Across Investment Funds

Market Value Weight Market Value	2024	June 30, 20	2024	September 30,	
Stable Value Stab	Weight			•	
Stable Value S22,322,485 34,88% \$23,790,548 Fixed Account Plus 17,567,622 27,22% 18,250,079 55,40,469 17,567,622 27,22% 18,250,079 55,40,469 17,567,622 27,22% 18,250,079 55,40,469 31,250,079 35,40,469 34,754,863 7,37% 5,540,469 34,754,863 7,37% 5,540,469 34,754,863 7,37% 5,540,469 34,754,863 7,37% 5,540,469 34,754,863 7,37% 5,540,469 34,754,863 7,37% 3,201,804 32,701,8					Corebridge - Annuity Funds
Stable VIIC Govt MM Inst (1)	2.30%	\$1,537,121	1.63%	\$1,052,244	Money Market
Fixed Account Plus	2.30%				
Fixed Account Plus	35.61%	\$23,790,548	34.58%	\$22.322.485	Stable Value
Salanced S2,188,387 3.39% \$2,091,086	27.32%	18,250,079	27.22%	17,567,622	Fixed Account Plus
Asset Allocation (PineBridge) Vanguard Wellington 2,111,491 3,27% 2,018,047	8.29%	5,540,469	7.37%	4,754,863	Short-Term Fixed Account
Vanguard Wellington 2,111,491 3.27% 2,018,047 Domestic Equity \$29,225,969 45.28% \$29,601,161 Jarge Cap Equity \$20,155,096 31.23% \$20,377,347 Dividend Value (BlackRock/SunAmerica) 365,264 0.57% 347,050 Vanguard Windsor II 4,227,459 6.55% 4,293,735 Systematic Core Fd (Goldman Sachs) (2) 1,740,688 2,70% 1,846,354 Stock Index (SunAmerica) 8,673,388 13,44% 8,435,797 Growth Fund (American Century) 3,895,138 6,03% 4,114,028 Large Capital Gr (Mass. Financial) 1,253,180 1.94% 1,340,384 Mid Cap Equity \$5,487,389 8,50% \$5,631,062 Mid Cap Index (SunAmerica) 4,928,861 7,64% 5,088,613 Mid Cap Index (SunAmerica) 4,928,861 7,64% 5,088,613 Mid Cap Growth Fund (JP Morgan) (3) 922,982 1,43% 890,050 Small Cap Index (SunAmerica) 2,660,502 4,12% 890,050 Small Cap Index (SunAmerica) 3,283,484	3.13%	\$2,091,086	3.39%	\$2,188,387	Balanced
Section Sect	0.11%	73,038	0.12%	76,896	Asset Allocation (PineBridge)
Section	3.02%	2,018,047	3.27%	2,111,491	Vanguard Wellington
Dividend Value (BlackRock/SunAmerica) 365,284 0.57% 347,050 Vanguard Windsor II 4,227,459 6.55% 4,293,735 Systematic Core Fd (Goldman Sachs) (2) 1,740,688 2.70% 1,846,354 Stock Index (SunAmerica) 8,673,368 13,44% 8,435,797 Growth Fund (American Century) 3,895,138 6,03% 4,114,026 Large Capital Gr (Mass. Financial) 1,253,180 1,94% 1,340,384 Aid Cap Equity \$5,487,389 8,50% \$5,631,062 Mid Cap Index (SunAmerica) 4,928,861 7,64% 5,088,613 Mid Cap Strategic (RCM/Morgan Stanley) 558,529 0.87% 542,449 Small Cap Growth Fund (JP Morgan) (3) 922,982 1,43% 890,050 Small Cap Index (SunAmerica) 2,660,502 4,12% 2,702,703 Slobal Equity \$824,866 1,28% \$779,444 Int'I Socially Resp (SunAmerica) (4) 132,113 0,20% 123,597 Emerging Economies (JP Morgan) 245,667 0.38% 227,663 Global Strategy (Franklin Templeton) </td <td>44.31%</td> <td>\$29,601,161</td> <td>45.28%</td> <td>\$29,225,969</td> <td>Oomestic Equity</td>	44.31%	\$29,601,161	45.28%	\$29,225,969	Oomestic Equity
Dividend Value (BlackRock/SunAmerica) 365,284 0.57% 347,050 Vanguard Windsor II 4,227,459 6.55% 4,293,735 Systematic Core Fd (Goldman Sachs) (2) 1,740,688 2.70% 1,846,354 Stock Index (SunAmerica) 8,673,388 13,44% 8,435,797 Growth Fund (American Century) 3,895,138 6,03% 4,114,026 Large Capital Gr (Mass. Financial) 1,253,180 1,94% 1,340,384 flid Cap Equity \$5,487,389 8,50% \$5,631,062 Mid Cap Index (SunAmerica) 4,928,861 7,64% 5,088,613 Mid Cap Strategic (RCM/Morgan Stanley) 558,529 0.87% 542,449 Small Cap Growth Fund (JP Morgan) (3) 922,982 1,43% 890,050 Small Cap Index (SunAmerica) 2,660,502 4,12% 2,702,703 Sibbal Equity \$824,866 1,28% \$779,444 Int'l Socially Resp (SunAmerica) (4) 132,113 0,20% 123,597 Emerging Economies (JP Morgan) 245,667 0,38% 227,663 Global Strategy (Franklin Templeton)	30.50%	\$20.377.347	31.23%	\$20,155,096	arge Cap Equity
Vanguard Windsor II 4,227,459 6,55% 1,283,735 Systematic Core Fd (Goldman Sachs) (2) 1,740,688 2,70% 1,846,354 Stock Index (SunAmerica) 8,673,368 13,44% 8,435,797 Growth Fund (American Century) 3,895,138 6,03% 4,114,026 Large Capital Gr (Mass. Financial) 1,253,180 1,94% 1,340,384 Aid Cap Equity \$5,487,389 8,50% \$5,631,062 Mid Cap Index (SunAmerica) 4,928,861 7,64% 5,088,613 Mid Cap Strategic (RCM/Morgan Stanley) 558,529 0,87% 542,449 Small Cap Equity \$3,583,484 5,55% \$3,592,752 Small Cap Growth Fund (JP Morgan) (3) 922,982 1,43% 890,050 Small Cap Index (SunAmerica) 2,660,502 4,12% 2,702,703 Slobal Equity \$824,866 1,28% \$779,444 Int'l Socially Resp (SunAmerica) (4) 132,113 0,20% 123,597 Emerging Economies (JP Morgan) 245,667 0,38% 227,663 Global Strategy (Franklin Templeton) 447,085 0,69% 428,184 International Equity \$2,582,587 4,00% \$2,558,512 International Value (Templeton Global) 647,716 1,00% 624,746 International Equities (PineBridge) 856,343 1,33% 932,651 International Equities (PineBridge) 856,343 1,33% 932,651 International Equities (PineBridge) 856,343 1,33% 932,651 International Cont./Invesco/MFS) 1,078,529 1,67% 1,001,116 Domestic Fixed Income \$985,697 1,53% \$1,027,255 Core Bond Fund (Pinebridge) 3 85,463 0,13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0,27% 167,609 Vanguard Long-Term Investment Grade 298,266 0,46% 341,025 Vanguard Long-Term Treasury 430,072 0,67% 404,005 International Fixed Income 520,516 0,32% 5208,645 Intil Government Bond (PineBridge) 55,160,361 7,99% 55,216,719					
Systematic Core Fd (Goldman Sachs) (2)					
Stock Index (SunAmerica) 8,673,368 13,44% 8,435,797 Growth Fund (American Century) 3,895,138 6.03% 4,114,026 Large Capital Gr (Mass. Financial) 1,253,180 1.94% 1,340,384 flid Cap Equity \$5,487,389 8.50% \$5,631,062 Mid Cap Index (SunAmerica) 4,928,861 7.64% 5,088,613 Mid Cap Strategic (RCM/Morgan Stanley) 558,529 0.87% 542,449 Small Cap Equity \$3,583,484 5.55% \$3,592,752 Small Cap Growth Fund (JP Morgan) (3) 922,982 1.43% 890,050 Small Cap Index (SunAmerica) 2,660,502 4.12% 2,702,703 Slobal Equity \$824,866 1.28% \$779,444 Int'l Socially Resp (SunAmerica) (4) 132,113 0.20% 123,597 Emerging Economies (JP Morgan) 245,667 0.38% 227,663 Global Strategy (Franklin Templeton) 447,085 0.69% 428,184 nternational Value (Templeton Global) 647,716 1.00% 624,746 International Equity 856,343 <td></td> <td></td> <td></td> <td></td> <td></td>					
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Large Capital Gr (Mass. Financial) 1,253,180 1,94% 1,340,384 1,340 1,340,384 1,340,384 1,340,384 1,340,384 1,340,384 1,340,384 1,340,384 1,340,384 1,340,384 1,340,384 1,340,384 1,340 1,340,384					
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Mid Cap Strategic (RCM/Morgan Stanley) 558,529 0.87% 542,449 Small Cap Equity \$3,583,484 5.55% \$3,592,752 Small Cap Index (SunAmerica) 2,660,502 1.43% 890,050 Small Cap Index (SunAmerica) 2,660,502 4.12% 2,702,703 Slobal Equity \$824,866 1.28% \$779,444 Int'l Socially Resp (SunAmerica) (4) 132,113 0.20% 123,597 Emerging Economies (JP Morgan) 245,667 0.38% 227,663 Global Strategy (Franklin Templeton) 447,085 0.69% 428,184 International Equity \$2,582,587 4.00% \$2,558,512 International Value (Templeton Global) 647,716 1.00% 624,746 International Equities (PineBridge) 856,343 1.33% 932,651 Intl Growth (American Cent./Invesco/MFS) 1,078,529 1.67% 1,001,116 Domestic Fixed Income \$985,697 1.53% \$1,027,255 Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica)					
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Small Cap Index (SunAmerica) 2,660,502 4.12% 2,702,703 Slobal Equity \$824,866 1.28% \$779,444 Int'l Socially Resp (SunAmerica) (4) 132,113 0.20% 123,597 Emerging Economies (JP Morgan) 245,667 0.38% 227,663 Global Strategy (Franklin Templeton) 447,085 0.69% 428,184 International Equity \$2,582,587 4.00% \$2,558,512 International Value (Templeton Global) 647,716 1.00% 624,746 International Equities (PineBridge) 856,343 1.33% 932,651 Intl Growth (American Cent./Invesco/MFS) 1,078,529 1.67% 1,001,116 Domestic Fixed Income \$985,697 1.53% \$1,027,255 Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income					
Int'l Socially Resp (SunAmerica) (4) 132,113 0.20% 123,597 Emerging Economies (JP Morgan) 245,667 0.38% 227,663 Global Strategy (Franklin Templeton) 447,085 0.69% 428,184 International Equity \$2,582,587 4.00% \$2,558,512 International Value (Templeton Global) 647,716 1.00% 624,746 International Equities (PineBridge) 856,343 1.33% 932,651 Intl Growth (American Cent./Invesco/MFS) 1,078,529 1.67% 1,001,116 International Equities (PineBridge) 856,343 1.33% 932,651 Intl Growth (Pinebridge) 1,001,116 International Fixed Income \$985,697 1.53% \$1,027,255 Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income \$203,516 0.32% \$208,645 Intl Government Bond (PineBridge) \$5,160,361 7.99% \$5,216,719					
Int'l Socially Resp (SunAmerica) (4) 132,113 0.20% 123,597 Emerging Economies (JP Morgan) 245,667 0.38% 227,663 Global Strategy (Franklin Templeton) 447,085 0.69% 428,184 International Equity \$2,582,587 4.00% \$2,558,512 International Value (Templeton Global) 647,716 1.00% 624,746 International Equities (PineBridge) 856,343 1.33% 932,651 Intl Growth (American Cent./Invesco/MFS) 1,078,529 1.67% 1,001,116 Domestic Fixed Income \$985,697 1.53% \$1,027,255 Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income \$203,516 0.32% \$208,645 Intl Government Bond (PineBridge) \$5,160,361 7.99% \$5,216,719	1.17%	\$779.444	1.28%	\$824.866	Slobal Equity
Emerging Économies (JP Morgan) 245,667 0.38% 227,663 Global Strategy (Franklin Templeton) 447,085 0.69% 428,184 International Equity \$2,582,587 4.00% \$2,558,512 International Value (Templeton Global) 647,716 1.00% 624,746 International Equities (PineBridge) 856,343 1.33% 932,651 Intl Growth (American Cent./Invesco/MFS) 1,078,529 1.67% 1,001,116 Pomestic Fixed Income \$985,697 1.53% \$1,027,255 Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income \$203,516 0.32% \$208,645 Intl Government Bond (PineBridge) \$5,160,361 7.99% \$5,216,719	0.18%				
Strategy (Franklin Templeton) 447,085 0.69% 428,184 International Equity \$2,582,587 4.00% \$2,558,512 International Value (Templeton Global) 647,716 1.00% 624,746 International Equities (PineBridge) 856,343 1.33% 932,651 Intl Growth (American Cent./Invesco/MFS) 1,078,529 1.67% 1,001,116 International Equities (PineBridge) \$985,697 1.53% \$1,027,255 Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 Intl Government Bond (PineBridge) \$203,516 0.32% \$208,645 Intl Government Bond (PineBridge) \$5,160,361 7.99% \$5,216,719					
International Value (Templeton Global) 647,716 1.00% 624,746 International Equities (PineBridge) 856,343 1.33% 932,651 Intl Growth (American Cent./Invesco/MFS) 1,078,529 1.67% 1,001,116 International Equities (PineBridge) \$985,697 1.53% \$1,027,255 Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income \$203,516 0.32% \$208,645 Intl Government Bond (PineBridge) \$5,160,361 7.99% \$5,216,719					
International Value (Templeton Global) 647,716 1.00% 624,746 International Equities (PineBridge) 856,343 1.33% 932,651 Intl Growth (American Cent./Invesco/MFS) 1,078,529 1.67% 1,001,116 Domestic Fixed Income \$985,697 1.53% \$1,027,255 Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income \$203,516 0.32% \$208,645 Intl Government Bond (PineBridge) \$5,160,361 7.99% \$5,216,719	3.83%	\$2.558.512	4.00%	\$2.582.587	nternational Equity
International Equities (PineBridge) 856,343 1.33% 932,651 Intl Growth (American Cent./Invesco/MFS) 1,078,529 1.67% 1,001,116 Domestic Fixed Income \$985,697 1.53% \$1,027,255 Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income \$203,516 0.32% \$208,645 Intl Government Bond (PineBridge) \$5,160,361 7.99% \$5,216,719					
Intl Growth (American Cent./Invesco/MFS) 1,078,529 1.67% 1,001,116 Intermettic Fixed Income \$985,697 1.53% \$1,027,255 Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income \$203,516 0.32% \$208,645 Intl Government Bond (PineBridge) \$5,160,361 7.99% \$5,216,719	1.40%				
Core Bond Fund (Pinebridge) (3) 85,463 0.13% 114,616 Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income \$203,516 0.32% \$208,645 Intl Government Bond (PineBridge) 203,516 0.32% 208,645 pecialty \$5,160,361 7.99% \$5,216,719					
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Govt Securities (JP Morgan/SunAmerica) 171,895 0.27% 167,609 Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income \$203,516 0.32% \$208,645 Intl Government Bond (PineBridge) 203,516 0.32% 208,645 Specialty \$5,160,361 7.99% \$5,216,719					
Vanguard Long-Term Investment Grade 298,266 0.46% 341,025 Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income International Fixed Income International Fixed Intl Government Bond (PineBridge) \$203,516 0.32% \$208,645 Specialty \$5,160,361 7.99% \$5,216,719					
Vanguard Long-Term Treasury 430,072 0.67% 404,005 International Fixed Income Intl Government Bond (PineBridge) \$203,516 0.32% \$208,645 pecialty \$5,160,361 7.99% \$5,216,719		, , , , , ,		,	
Intl Government Bond (PineBridge) 203,516 0.32% 208,645 Specialty \$5,160,361 7.99% \$5,216,719		,		•	
Intl Government Bond (PineBridge) 203,516 0.32% 208,645 Specialty \$5,160,361 7.99% \$5,216,719	0.31%	\$208.645	0.32%	\$203.516	nternational Fixed Income
	7.81%	¢ 5 216 710	7 99%	\$5 16 0 361	Specialty
Corebridge - Annuity Funds Total \$64,546,111 100.00% \$66,810,491	100.00%	¢66 040 404	100.00%	\$64 E46 444	Carabridge Approise Funda Tatal



^{(1) 2}Q22 changed from Money Market I Fund (SunAmerica) to Goldman Sachs VIT Govt MMkt Instl.

⁽²⁾ Systematic Core Fund (Goldman Sachs) formerly Growth & INcome (JP Morgan); subadvisor change 1Q2020.

^{(3) 2}Q2021 Small Cap Growth Fund replaced Small Cap Fund. Core Bond Fund replaced Capital Preservation Fund. Core Equtiy Fund closed, assets rolled into Systematic Core Fund.
(4) 2Q19 name change from Global Social Awareness (Sun America) to International Socially Responsible (Sun America).

The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 10 Years	
Corebridge - Annuity Funds	<u> </u>									
Money Market										
Goldman Sachs VIT Govt MM Inst (1)	1.27%	71	5.30%	57	3.50%	29	2.19%	53	1.40%	79
FTSE 3 Mo T-Bill	1.37%	38	5.63%	36	3.63%	15	2.38%	26	1.67%	26
Callan Money Market Funds	1.31%		5.36%		3.39%		2.20%		1.48%	
Stable Value										
Fixed Account Plus	0.90%	2	3.57%	1	2.93%	1	2.52%	3	2.36%	1
Short-Term Fixed Account	0.25%	100	1.00%	100	1.00%	99	1.00%	98	1.00%	98
5 Yr US Treas Rolling	0.58%	65	2.19%	78	1.87%	69	1.79%	61	1.63%	69
Callan Stable Value	0.62%		2.41%		1.99%		1.82%		1.72%	
Balanced										
Asset Allocation (PineBridge)	5.51%	52	26.88%	30	7.05%	24	9.80%	43	6.80%	78
Custom Benchmark (2)	5.61%	49	25.98%	40	6.63%	34	9.78%	43	8.89%	27
Vanguard Wellington	5.17%	67	24.79%	56	6.09%	40	9.08%	57	8.60%	41
Wellington Composite Index (3)	5.80%	42	27.78%	29	7.30%	20	10.68%	22	9.67%	7
Callan Dom Balanced MFs	5.58%		24.89%		5.82%		9.47%		8.07%	
Domestic Equity										
Large Cap Equity										
Dividend Value (BlackRock/SunAmerica)	7.32%	49	26.33%	66	9.38%	60	10.11%	77	9.16%	63
Vanguard Windsor II	5.13%	94	29.15%	27	9.63%	59	14.40%	13	10.87%	17
Russell 1000 Value Index	9.43%	21	27.76%	48	9.03%	71	10.69%	65	9.23%	60
Callan Lg Cap Value MF	7.30%		27.46%		9.88%		11.77%		9.44%	
Systematic Core (Goldman Sachs) (4)	5.87%	28	33.73%	57	9.97%	68	15.66%	50	12.65%	34
Stock Index (SunAmerica)	5.80%	29	35.91%	42	11.56%	57	15.62%	50	13.01%	32
S&P 500 Index	5.89%	28	36.35%	36	11.91%	51	15.98%	42	13.38%	22
Callan Large Cap Core MFs	4.94%		34.69%		12.02%		15.62%		12.12%	
Growth Fund (American Century)	1.92%	69	43.32%	29	7.92%	64	17.02%	48	14.33%	67
Large Capital Gr (Mass. Financial)	5.60%	9	31.12%	90	9.21%	44	14.61%	85	14.10%	69
Russell 1000 Growth Index	3.19%	36	42.19%	46	12.02%	8	19.74%	9	16.52%	5
Callan Large Cap Grwth MF	2.55%		41.69%		8.89%		16.88%		14.77%	
Mid Cap Equity										
Mid Cap Index (SunAmerica)	6.84%	45	26.30%	42	7.06%	36	11.36%	30	9.96%	49
S&P Mid Cap 400 Index	6.94%	44	26.79%	39	7.47%	34	11.78%	24	10.32%	36
Callan Mid Cap MFs	6.66%		25.79%		3.58%		10.85%		9.90%	
Mid Cap Strategic (RCM/Morgan Stanley)	6.52%	26	32.61%	10	4.64%	8	12.88%	4	12.08%	5
Russell MidCap Growth Idx	6.54%	26	29.33%	22	2.32%	18	11.48%	10	11.30%	25
Callan Mid Cap Growth MFs	5.63%		24.73%		(0.32%)		10.08%		10.25%	
Small Cap Equity										
Small Cap Growth Fund (JP Morgan) (5)	3.96%	94	23.17%	62	(5.27%)	86	_		-	
Small Cap Index (SunAmerica)	9.20%	19	26.33%	34	1.47%	58	8.98%	69	8.49%	74
Russell 2000 Index	9.27%	18	26.76%	32	1.84%	56	9.39%	63	8.78%	69

^{(5) 2}Q2021 Small Cap Growth Fund replaced Small Cap Fund.



^{(1) 2}Q22 changed from Money Market I Fund (SunAmerica) to Goldman Sachs VIT Govt MMkt Instl.

⁽²⁾ Custom Benchmark is 60% S&P 500 Index, 40% Bloomberg Aggregate Index.

⁽³⁾ Wellington Composite Index is 65% S&P 500 Index and 35% Bloomberg Creidt A or better.

⁽⁴⁾ Systematic Core Fund (Goldman Sachs) formerly Growth & Income (JP Morgan); subadvisor change 1Q2020.

The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

					Last		Last		Last	
	Last		Last		3		5		10	
	Quarter		Year		Years		Years		Years	
Corebridge - Annuity Funds										
Global Equity										
Int'l Socially Resp (SunAmerica) (1)	7.24%	16	25.81%	65	4.87%	54	8.11%	81	7.69%	70
MSCI World Index	6.36%	33	32.43%	34	9.08%	7	13.04%	26	10.07%	42
Emerging Economies (JPMorgan)	8.18%	7	28.70%	52	0.17%	93	5.67%	98	3.85%	97
MSCI Emerging Markets Index	8.72%	4	26.05%	64	0.40%	92	5.75%	98	4.03%	97
Global Strategy (F. Templeton)	4.67%	53	25.24%	66	4.39%	60	5.31%	98	3.39%	98
Custom Benchmak (2)	5.66%	41	22.99%	81	4.89%	54	7.69%	84	6.75%	72
Callan Global Equity MFs	5.03%		30.07%		5.31%		11.14%		9.45%	
International Equity										
International Value (Templeton Glbl)	7.82%	47	22.37%	73	5.24%	32	7.75%	66	3.28%	98
Intl Equities (PineBridge)	6.92%	60	24.22%	56	5.12%	39	7.66%	67	5.29%	67
Intl Growth (Amer Cent/Invesco/MFS)	9.81%	6	26.58%	30	(3.02%)	96	7.80%	63	6.99%	14
MSCI EAFE Index	7.26%	58	24.77%	49	5.48%	29	8.20%	54	5.71%	54
Callan Intl Eq Dev Mkt MF	7.70%		24.70%		4.70%		8.48%		5.79%	
Domestic Fixed Income										
Core Bond Fund (Pinebridge) (4)	5.42%	17	12.69%	22	(1.38%)	57	-		_	
Blmbg Aggregate	5.20%	60	11.57%	91	(1.39%)	57	0.33%	93	1.84%	86
Govt Securities (JP Morgan/SunAmerica)	4.59%	99	10.58%	100	(1.28%)	40	0.01%	94	1.33%	100
Blmbg US Government	4.71%	98	9.68%	100	(1.72%)	91	(0.16%)	95	1.36%	100
Vanguard Long-Term Investment	8.19%	1	18.11%	1	(4.90%)	99	(0.96%)	100	3.39%	1
Blmbg Long Cred A+	8.22%	1	17.87%	1	(4.95%)	99	(1.09%)	100	2.86%	2
Vanguard Long-Term Treasury	7.73%	1	15.49%	1	(8.50%)	100	(4.29%)	100	1.00%	100
Blmbg Treasury Long	7.82%	1	15.43%	1	(8.36%)	100	(4.28%)	100	1.09%	100
Callan Core Bond MFs	5.23%		12.23%		(1.30%)		0.74%		2.06%	
International Fixed Income										
Intl Govt Bond (PineBridge)	6.44%	55	12.65%	43	(3.01%)	74	(0.81%)	52	0.70%	43
Custom Benchmark (3)	6.72%	54	13.26%	40	(3.19%)	77	(1.11%)	62	0.92%	42
Intl Income MFs	7.38%		11.34%		(1.05%)		(0.57%)		0.34%	
Specialty										
Science &Tech (T.Rowe/RCM/Welling)	(0.10%)	94	46.70%	1	6.99%	17	18.33%	1	17.15%	1
S&P N American Technology Idx	1.86%	90	50.52%	1	13.42%	3	22.37%	1	20.56%	1
Callan Health/Biotech MFs	5.77%		21.62%		2.78%		11.14%		9.45%	

^{(4) 2}Q2021 Core Bond Fund replaced Capital Preservation Fund.



^{(1) 2}Q19 name change from Global Social Awareness (Sun America) to International Socially Responsible (Sun America).

⁽²⁾ Custom Benchmark is 60% MSCI ACWI + 40% Bloomberg Global Aggregate Unhedged.

⁽³⁾ Custom Benchmark is 30% JPM EMBI Global Diversified and 70% FTSE WGBI.

Corebridge: Annuity Fund Fees and Expenses

Fund	Investment Vehicle Type (Variable Annuity Fund or Mutual Fund)	Gross Investment Expenses (inclusive of all other expenses, 12b-1 fees, management fees) (bps)	Expense reimbursements, fee rebates, waivers or revenue sharing waived or credited back to offset participant investment fees (bps)	Net Investment Expense charged to participants by Variable Annuity Fund or Mutual Fund (bps)	Net Recordkeeping Fee Separate Account or Mortality & Expense Charge (M&E) charged by Retirement Provider (bps)	Total Annual Fees Paid by Participants (Net Investment Expense + Net Record keeping Fee) (bps)
Asset Allocation Fund	Variable Annuity	70	5	65	80	145
Core Bond Fund	Variable Annuity	51	3	48	80	128
Dividend Value Fund	Variable Annuity	83	15	68	80	148
Emerging Economies Fund	Variable Annuity	95	-	95	80	175
Global Strategy Fund	Variable Annuity	71	6	65	80	145
Goldman Sachs VIT Government MMkt Instl	Variable Annuity	21	3	18	80	98
Government Securities Fund	Variable Annuity	68	8	60	80	140
Growth Fund	Variable Annuity	78	16	62	80	142
International Equities Index Fund	Variable Annuity	43	-	43	80	123
International Government Bond Fund	Variable Annuity	83	2	81	80	161
International Growth Fund	Variable Annuity	107	26	81	80	161
International Socially Responsible Fund	Variable Annuity	63	5	58	80	138
International Value Fund	Variable Annuity	85	7	78	80	158
Large Capital Growth Fund	Variable Annuity	75	5	70	80	150
Mid Cap Index Fund	Variable Annuity	36	1	35	80	115
Mid Cap Strategic Growth Fund	Variable Annuity	74	-	74	80	154
Science & Technology Fund	Variable Annuity	96	5	91	80	171
Small Cap Growth Fund	Variable Annuity	92	5	87	80	167
Small Cap Index Fund	Variable Annuity	43	6	37	80	117
Stock Index Fund	Variable Annuity	32	9	23	80	103
Systematic Core Fund	Variable Annuity	86	22	64	80	144
Vanguard Long-Term Inv Grade Fund	Variable Annuity	21	-	21	80	101
Vanguard Long-Term Treasury Fund	Variable Annuity	20	-	20	80	100
Vanguard Wellington Fund	Variable Annuity	26	-	26	105	131
Vanguard Windsor II Fund	Variable Annuity	34	-	34	105	139
Fixed Account Plus	Variable Annuity	N/A	N/A	N/A	N/A	N/A
Short-Term Fixed	Variable Annuity	N/A	N/A	N/A	N/A	N/A

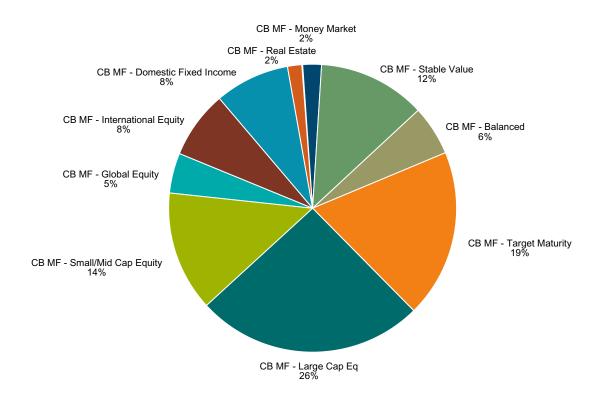


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Actual Asset Allocation As of September 30, 2024

The chart below shows the Fund's asset allocation as of September 30, 2024.

Actual Asset Allocation



	\$000s	Weight
Asset Class	Actual	Actual
CB MF - Money Market	8,180	2.1%
CB MF - Stable Value	48,071	12.1%
CB MF - Balanced	22,405	5.6%
CB MF - Target Maturity	75,455	18.9%
CB MF - Large Cap Eq	102,116	25.6%
CB MF - Small/Mid Cap Equity	53,906	13.5%
CB MF - Global Equity	18,103	4.5%
CB MF - International Equity	30,311	7.6%
CB MF - Domestic Fixed Income	33,533	8.4%
CB MF - Real Estate	6,202	1.6%
Total	398,282	100.0%

CB is Corebridge Financial.



Investment Fund Balances

The table below compares the fund's investment fund balances as of September 30, 2024 with that of June 30, 2024.

Asset Distribution Across Investment Funds

September 30, 2024 June 30, 2024 **Market Value** Weight **Market Value** Weight Corebridge - Mutual Funds Money Market \$8,180,296 2.05% \$8,240,680 2.19% 8,180,296 Vanguard Federal MM 2.05% 8,240,680 2.19% Stable Value 12.07% \$48,070,666 \$48,922,188 13.01% Invesco Stable Value Trust 20,558,622 5.16% 19,253,477 5.12% **Fixed Interest Option** 27,512,044 6.91% 29,668,711 7.89% \$21,258,646 **Balanced** \$22,404,592 5.63% 5.65% 22,404,592 Amer. Funds American Balanced 21.258.646 5.63% 5.65% 18.95% \$69,378,898 18.45% Target Maturity* \$75,454,736 Vanguard Target Ret Inc 1,087,967 0.27% 1,130,102 0.30% Vanguard Target Ret 2020 2,629,658 0.66% 2,548,311 0.68% Vanguard Target Ret 2025 4,008,215 3,735,321 0.99% 1.01% Vanguard Target Ret 2030 3,269,741 0.82% 2,956,656 0.79% Vanguard Target Ret 2035 5,038,440 5,512,722 1 38% 1.34% Vanguard Target Ret 2040 7.467.932 1 88% 6.822.255 1.81% Vanguard Target Ret 2045 12,632,665 3.17% 11,525,519 3.06% Vanguard Target Ret 2050 21,093,579 5.30% 19,130,484 5.09% Vanguard Target Ret 2055 11,027,919 2.77% 10,383,096 2.76% Vanguard Target Ret 2060 1.69% 6,108,713 1.62% 6,724,338 **Domestic Equity** \$156,021,606 39.17% \$146,926,417 39.06% **Large Cap Equity** \$102,115,794 25.64% \$96,508,189 25.66% Amer. Funds American Mutual 22,767,143 20,983,674 5.58% 5.72% Amer. Funds AMCAP 13,431,471 3.37% 12,492,206 3.32% State St S&P 500 Index 65,917,179 16.55% 63,032,309 16.76% Small/Mid Cap Equity \$53,905,813 13.53% \$50,418,228 13.41% GW&K Small/Mid Cap Core Eq 6,181,361 1.55% 5,750,157 1.53% State St Rus Sm/Mid Cp Indx Fund 47,724,452 11.98% 44,668,071 11.88% 4.55% 4.27% **Global Equity** \$18,102,838 \$16,057,253 Amer. Funds New Perspective 18,102,838 4.55% 16,057,253 4.27% International Equity \$30,311,393 7.61% \$29,335,164 7.80% Amer. Funds Euro Pacific Growth 30,311,393 7.61% 29,335,164 7.80% 8.09% \$33,533,451 8.42% \$30,424,839 **Domestic Fixed Income** Vanguard Total Bond Idx 26,724,737 6.71% 24,077,961 6.40% American Century Infl Adj Bond 6,161,392 6,588,086 1.65% 1.64% John Hancock Core PL Fixed Inc Trust 220,628 0.06% 185,486 0.05% 1.56% 1.48% Real Estate \$6,202,002 \$5.570.226 Cohen and Steers 6,202,002 1.56% 5,570,226 1.48% Corebridge - Mutual Funds Total \$398,281,580 100.00% \$376,114,312 100.00%

^{*}Vanguard Target Retirement Funds Institutional Share Class closed in 1Q2022; All funds were merged to the Investor Share Class.



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 10 Years	
Corebridge - Mutual Funds	Quarter		T ear		Tears		Tears		Tears	
Money Market Vanguard Federal Money Market FTSE 3 Mo T-Bill Callan Money Market Funds	1.32% 1.37% 1.31%	46 38	5.41% 5.63% 5.36%	45 36	3.54% 3.63% 3.39%	23 15	2.29% 2.38% 2.20%	33 26	1.61% 1.67% 1.48%	28 26
Stable Value Invesco Stable Value Trust (1) FTSE 3 Mo T Bill + 100bp Premium Fixed Interest Option 5 Yr US Treas Rolling Callan Stable Value	0.68% 1.61% 0.58% 0.58% 0.62%	26 1 67 65	2.70% 6.63% 2.32% 2.19% 2.41%	20 1 69 78	2.09% 4.63% 2.05% 1.87% 1.99%	34 1 40 69	1.94% 3.38% 1.99% 1.79% 1.82%	40 1 28 61	1.88% 2.67% 2.04% 1.63% 1.72%	27 1 15 69
Balanced Amer. Funds American Balanced Custom Benchmark (2) Callan Dom Bal Mod MF	5.44% 5.61% 5.49%	52 48	26.27% 25.98% 22.26%	16 23	7.25% 6.63% 5.25%	12 26	9.65% 9.78% 8.41%	28 28	8.77% 8.89% 7.42%	20 18
Target Maturity Vanguard Target Retirement Inc. (3) Vanguard Target Income Index Callan Tgt Dt Idx 2000 Callan Tgt Date Ret Inc	5.12% 5.14% 5.27% 5.27%	57 56 49	16.22% 16.32% 16.91% 17.30%	67 64 56	2.21% 2.38% 2.65% 2.41%	63 52 38	4.51% 4.74% 5.03% 4.79%	65 54 38	- 4.74% 4.81% 4.56%	34 28
Vanguard Target Retirement 2020 (3) Vanguard Target 2020 Index Callan Tgt Dt Idx 2020 Callan Target Date 2020	5.37% 5.41% 5.56% 5.38%	55 45 37	18.25% 18.31% 18.83% 18.95%	73 69 53	2.89% 3.10% 3.24% 2.95%	57 43 38	6.04% 6.37% 6.17% 6.07%	56 26 44	6.26% 5.88% 5.89%	22 51
Vanguard Target Retirement 2025 (3) Vanguard Target 2025 Index Callan Tgt Dt ldx 2025 Callan Target Date 2025	5.85% 5.89% 5.76% 5.72%	34 23 45	21.13% 21.22% 20.34% 20.34%	29 25 50	3.70% 4.00% 3.83% 3.32%	27 16 22	7.14% 7.54% 7.09% 6.87%	29 10 32	7.06% 6.59% 6.45%	10 37
Vanguard Target Retirement 2030 (3) Vanguard Target 2030 Index Callan Tgt Dt Idx 2030 Callan Target Date 2030	6.17% 6.27% 6.01% 5.93%	29 21 44	23.27% 23.36% 22.49% 22.92%	33 30 59	4.42% 4.73% 4.66% 4.14%	31 18 22	8.08% 8.49% 8.19% 7.88%	37 12 29	7.68% 7.37% 7.23%	13 34
Vanguard Target Retirement 2035 (3) Vanguard Target 2035 Index Callan Tgt Dt Idx 2035 Callan Target Date 2035	6.30% 6.44% 6.26% 6.18%	36 25 41	24.76% 24.90% 24.71% 24.85%	57 50 58	5.10% 5.40% 5.60% 4.99%	42 26 20	8.98% 9.40% 9.31% 9.01%	51 23 23	8.26% 8.11% 7.87%	25 27
Vanguard Target Retirement 2040 (3) Vanguard Target 2040 Index Callan Tgt Dt Idx 2040 Callan Target Date 2040	6.43% 6.61% 6.47% 6.28%	40 26 32	26.33% 26.45% 26.68% 27.02%	64 61 56	5.78% 6.05% 6.39% 5.82%	56 43 19	9.88% 10.28% 10.22% 9.90%	52 29 30	8.83% 8.67% 8.46%	26 36
Vanguard Target Retirement 2045 (3) Vanguard Target 2045 Index CallanTgt Dt Idx 2045 Callan Target Date 2045	6.57% 6.77% 6.64% 6.44%	38 28 35	27.82% 28.01% 28.12% 28.60%	60 57 56	6.41% 6.71% 6.96% 6.50%	53 33 15	10.75% 11.17% 10.85% 10.72%	48 26 38	9.31% 9.04% 8.83%	17 40
Vanguard Target Retirement 2050 (3) Vanguard Target 2050 Index Callan Tgt Dt Idx 2050 Callan Target Date 2050	6.71% 6.91% 6.73% 6.45%	30 25 29	28.91% 29.18% 28.97% 29.28%	57 51 54	6.85% 7.14% 7.29% 6.79%	42 21 18	11.08% 11.50% 11.16% 10.92%	43 17 37	9.48% 9.22% 9.11%	20 38
Vanguard Target Retirement 2055 (3) Vanguard Target 2055 Index Callan Tgt Dt Idx 2055 Callan Target Date 2055	6.73% 6.91% 6.77% 6.52%	35 30 32	28.92% 29.18% 29.36% 29.47%	65 58 53	6.84% 7.14% 7.43% 6.78%	49 26 15	11.08% 11.50% 11.29% 11.08%	50 25 34	9.48% 9.30% 9.19%	26 37
Vanguard Target Retirement 2060 (3) Vanguard Target 2060 Index Callan Tgt Dt Idx 2055 Callan Target Date 2060	6.72% 6.91% 6.77% 6.48%	30 23 27	28.93% 29.18% 29.36% 29.52%	66 60 57	6.84% 7.14% 7.43% 6.79%	47 27 16	11.09% 11.50% 11.29% 11.13%	51 29 42	9.48% 9.30% 9.26%	39 44

⁽¹⁾ Inception 1Q2021; returns prior to 1Q2021 are that of the Invesco Stable Value Tr CF. (2) Custom Benchmark is 60% S&P 500 Index and 40% Blmbg Aggregate Index (3) Returns are Vanguard Target Funds Investor Share Class; prior to 12/31/2021 returns are the Institutional Share Class.



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 10 Years	
Corebridge - Mutual Funds	Quarter		ı eai		16413		I cars		i cai s	
Domestic Equity										
Large Cap Equity										
Amer. Funds American Mutual	9.46%	21	29.01%	28	11.14%	30	11.56%	52	10.55%	18
Russell 1000 Value Index	9.43%	21	27.76%	48	9.03%	71	10.69%	65	9.23%	60
Callan Lg Cap Value MF	7.30%		27.46%		9.88%		11.77%		9.44%	
Amer. Funds AMCAP	4.93%	19	36.21%	79	6.41%	83	13.46%	91	11.44%	97
Russell 1000 Growth Index	3.19%	36	42.19%	46	12.02%	8	19.74%	9	16.52%	5
Callan Large Cap Grwth MF	2.55%		41.69%		8.89%		16.88%		14.77%	
State Str S&P 500 Index Fund (1)	5.89%	37	36.34%	44	11.90%	21	15.96%	39	13.36%	40
S&P 500 Index	5.89%	37	36.35%	44	11.91%	21	15.98%	38	13.38%	40
Callan Lg Cap Broad MF	5.14%		35.19%		9.78%		15.01%		12.53%	
Small/Mid Cap Equity										
GW&K Small/Mid Cap Core Eq (2)	7.20%	90	24.27%	83	3.61%	76	11.88%	25	10.85%	12
Russell 2500 Index	8.75%	52	26.17%	51	3.47%	78	10.43%	46	9.50%	44
Callan SMID Core MFs	8.86%		26.33%		5.15%		10.31%		9.02%	
State Str Russ Small/Mid Cap Idx Fd(3)	8.25%	70	28.99%	26	1.97%	91	11.21%	32	9.89%	35
Russell Sm Cap Completion Index	8.25%	69	28.81%	28	1.91%	91	11.24%	32	9.92%	34
Callan SMID Core MFs	8.86%		26.33%		5.15%		10.31%		9.02%	
Global Equity										
Amer. Funds New Perspective	5.86%	36	31.71%	36	5.46%	49	13.85%	17	11.77%	11
MSCI ACWI	6.61%	23	31.76%	36	8.09%	13	12.19%	42	9.39%	53
Callan Global Equity MFs	5.03%		30.07%		5.31%		11.14%		9.45%	
International Equity										
Amer. Funds Euro Pacific Growth	5.41%	80	24.71%	50	0.06%	92	7.52%	70	6.26%	22
MSCI ACWI ex US	8.06%	42	25.35%	37	4.14%	62	7.59%	68	5.22%	68
Callan Intl Eq Dev Mkt MF	7.70%		24.70%		4.70%		8.48%		5.79%	
Fixed Income										
Vanguard Total Bond Idx	5.07%	77	11.42%	92	(1.42%)	67	0.32%	93	1.83%	88
Vanguard Spl Blmbg Agg FA (4)	5.13%	71	11.47%	91	(1.38%)	56	0.36%	93	1.87%	77
Callan Core Bond MFs	5.23%		12.23%		(1.30%)		0.74%		2.06%	
American Century Inflat Adj Bd	4.13%	33	10.04%	15	(0.79%)	77	2.47%	78	-	
Blmbg US TIPS	4.12%	36	9.79%	25	(0.57%)	60	2.62%	57	2.54%	37
TIPS Domestic	4.10%		9.67%		(0.47%)		2.67%		2.46%	
JHancock Core Plus Fixed Trust (5)	5.34%	30	13.13%	9	(1.11%)	25	-		-	
Blmbg Aggregate Index	5.20%	60	11.57%	91	(1.39%)	57	0.33%	93	1.84%	86
Callan Core Bond MFs	5.23%		12.23%		(1.30%)		0.74%		2.06%	
Real Estate										
Cohen & Steers RE Securities	16.29%	42	37.02%	4	4.19%	17	6.71%	10	-	
FTSE NAREIT Equity Index	16.09%	45	34.74%	23	5.07%	4	5.46%	30	7.83%	34
Lipper Real Estate Funds	16.03%		33.25%		3.16%		4.91%		7.30%	

⁽⁵⁾ Inception 1Q2021; returns prior to 1Q2021 are that of the Manulife Core Fixed Income CIT Composite.



⁽¹⁾ Inception 1Q2021; returns prior to 1Q2021 are that of the State Street S&P 500 Index Fund

⁽²⁾ Inception 1Q2021; returns prior to 1Q2021 are that of the GW&K Small/Mid Cap Core Equity CIT Class A.

⁽³⁾ Inception 1Q2021; returns prior to 1Q2021 are that of the State Street Russell SMID NL Class K CIT.

⁽⁴⁾ Bloomberg Aggregate Index through 12/31/09; then Bloomberg Aggregate Float Adjusted therafter.

Corebridge: Mutual Fund Fees and Expenses

Fund Vehicle Type (MF, CIT, Ann (i Fd)		Gross Investment Expenses (inclusive of all other expenses, e.g., 12b-1 fees, management fees, etc.) (bps)	Fee Rebates or Waivers Revenue Sharing (credited back to participants to offset TPA fees) (bps)	Net Expense Ratio (bps)
American Century Inflation-Adjs Bond R6	MF	29	0	29
American Funds AMCAP R6	MF	34	0	34
American Funds American Balanced R6	MF	25	0	25
American Funds American Mutual R6	MF	27	0	27
American Funds Europacific Growth R6	MF	47	0	47
American Funds New Perspective R6	MF	42	0	42
DFA Emerging Markets I	MF	45	0	35
MFS Blended Research Core Equity I	MF	56	0	49
Cohen & Steers Real Estate Securities Z	MF	75	0	75
Vanguard Institutional Index I	MF	4	0	4
Vanguard Mid Cap Index Institutional	MF	4	0	4
Vanguard Federal Money Market Investor	MF	11	0	11
Vanguard Small Cap Index I	MF	4	0	4
Vanguard Target Retirement 2020 Fund	MF	8	0	8
Vanguard Target Retirement 2025 Fund	MF	8	0	8
Vanguard Target Retirement 2030 Fund	MF	8	0	8
Vanguard Target Retirement 2035 Fund	MF	8	0	8
Vanguard Target Retirement 2040 Fund	MF	8	0	8
Vanguard Target Retirement 2045 Fund	MF	8	0	8
Vanguard Target Retirement 2050 Fund	MF	8	0	8
Vanguard Target Retirement 2055 Fund	MF	8	0	8
Vanguard Target Retirement 2060 Fund	MF	8	0	8
Vanguard Target Retirement Income Fund	MF	8	0	8
Vanguard Total Bond Market Index I	MF	4	0	4
Invesco Stable Value Trust - C	CIT	54	0	54
State St Russell Sm/Mid Cp® Indx NL Cl K	CIT	4	0	4
State St S&P 500® Indx NL Cl K	CIT	1	0	1
GW&K S/M Cp Cor Eq Collective Invmt Fund	CIT	55	0	55
JHancock Core Plus Fixed Inc Trust I4	CIT	23	0	23
VALIC Fixed Interest Option	Group Fixed Annuity	NA	0	NA

Summary of Record Keeping Cost Paid by Participants to Retirement Provider

Annual Recordkeeping Fee Paid by Participant	\$85
Total Number of Participants with this Provider	2,653
Total Amount Paid to Service Provider (quarterly estimate)	\$56,376.25
Optional Fee for Advisory Services	0.40%

Represents all fees charged to participants



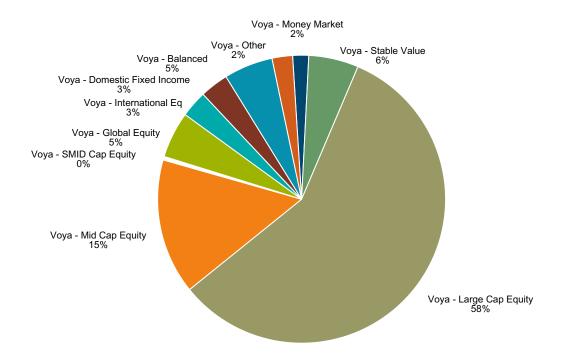
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Actual Asset Allocation As of September 30, 2024

The chart below shows the Fund's asset allocation as of September 30, 2024.

Actual Asset Allocation



Asset Class	\$000s Actual	Weight Actual
Voya - Money Market Voya - Stable Value	1,434	1.8%
Voya - Stable Value	4,403	5.6%
Voya - Large Cap Equity	45,427	57.8%
Voya - Mid Cap Equity	11,941	15.2%
Vova - SMID Cap Equity	304	0.4%
Voya - Global Equity	4,057	5.2%
Voya - International Eq	2,344	3.0%
Voya - Domestic Fixed Income	2,553	3.2%
Voya - Balanced	4,301	5.5%
Voya - Other	1,815	2.3%
Total	78,580	100.0%

Investment Fund Balances

The table below compares the fund's investment fund balances as of September 30, 2024 with that of June 30, 2024.

Asset Distribution Across Investment Funds

	September 30	, 2024	June 30, 20	24	
	Market Value	Weight	Market Value	Weight	
/oya - Annuity Funds		-			
Money Market	\$1,434,139	1.83%	\$1,498,080	1.95%	
Voya Money Market Portfolio - I	1,434,139	1.83%	1,498,080	1.95%	
, ,	., ,		1,102,020		
Stable Value	\$4,402,553	5.60%	\$4,475,444	5.82%	
Voya Fixed Account	537,876	0.68%	534,762	0.70%	
Voya Fixed Plus Account II	3,864,677	4.92%	3,940,682	5.13%	
Balanced	\$4,301,165	5.47%	\$4,100,699	5.33%	
Voya Solution Conservative Protfolio	2,333	0.00%	2,221	0.00%	
Voya Solution Aggressive Portfolio	6,908	0.01%	6,515	0.01%	
Voya Solution Balanced Portfolio	36,376	0.05%	34,463	0.04%	
Calvert VP SRI Balanced	506,769	0.64%	500,550	0.65%	
Voya Balanced Income Portfolio	1,461,712	1.86%	1,388,478	1.81%	
Voya Invesco Equity & Income Portfolio	2,287,067	2.91%	2,168,472	2.82%	
	, ,		, ,		
Domestic Equity	\$57,672,139	73.39%	\$56,060,221	72.91%	
arge Cap Equity	\$45,427,260	57.81%	\$44,362,918	57.70%	
Fidelity VIP Contrafund	14,188,752	18.06%	13,765,752	17.90%	
Voya Growth and Income	3,586,671	4.56%	3,457,568	4.50%	
Voya Index Plus Large Cap	4,276,824	5.44%	4,163,836	5.42%	
Invesco V.I. Core Equity	792,917	1.01%	753,003	0.98%	
Fidelity VIP Equity-Income	4,304,610	5.48%	4,176,740	5.43%	
Voya Invesco Comstock Portfolio	1,986,122	2.53%	1,872,414	2.44%	
Fidelity VIP Growth	7,106,286	9.04%	6,858,050	8.92%	
Voya Large Cap Growth	4,112,374	5.23%	4,331,884	5.63%	
Voya T. Rowe Price Growth Equity	4,026,871	5.12%	3,973,270	5.17%	
Invesco V.I. American Franchise Fund	1,045,833	1.33%	1,010,400	1.31%	
occo v v unonodin v. dinonico v. dino	1,010,000	110070	.,0.0,.00		
lid Cap Equity	\$11,940,917	15.20%	\$11,418,330	14.85%	
Voya TRowe Price Diversified MCG	7,539,884	9.60%	7,146,575	9.29%	
Voya Index Plus MidCap	4,401,033	5.60%	4,271,756	5.56%	
Global Equity	\$4,057,447	5.16%	\$3,989,354	5.19%	
Voya Invesco Global Portfolio (1)	4,057,447	5.16%	3,989,354	5.19%	
Voya Global High Div Low Vol (3)	303,962	0.39%	278,973	0.36%	
voya Global Flight Div Low Vol (5)	303,302	0.5570	210,313	0.3070	
nternational Equity	\$2,344,447	2.98%	\$2,302,319	2.99%	
Fidelity VIP Overseas	1,448,730	1.84%	1,380,116	1.79%	
Voya Intl High Div Low Volatility (2)	895,717	1.14%	922,203	1.20%	
Domestic Fixed Income	\$2,552,897	3.25%	\$2,648,573	3.44%	
Voya Intermediate Bond	1,535,517	1.95%	1,696,360	2.21%	
Voya Global Bond	1,017,380	1.29%	952,213	1.24%	
Other	¢4 04E 404	2 240/	\$4 04C 04F	2 260/	
	\$1,815,401 1,745,455	2.31%	\$1,816,015	2.36%	
Voya Short Term GAA	1,745,455	2.22%	1,746,598	2.27%	
Voya Long Term GAA	69,946	0.09%	69,417	0.09%	



^{(1) 2}Q19 Voya Oppenheimer Global Portfolio changed to Voya Invesco Oppenheimer Global Portfolio; 4Q21 name changed to Voya Invesco Global Portfolio.

^{(2) 2}Q19 Voya Templeton Foreign Equity Portfolio approved a sub-adviser change, as well as, a corresponding strategy change and name change to Voya International High Dividend Low Volatility Portfolio.
(3) 2Q20 Voya Global Equity changed to Voya Global High Dividend Low Volatility.

The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

					Last		Last		Last	
	Last		Last		3		5		10	
	Quarter		Year		Years		Years		Years	
Voya - Annuity Funds										
Money Market										
Voya Money Market Portfolio	1.08%	97	4.42%	97	2.64%	93	1.46%	96	1.09%	96
FTSE 3 Mo T-Bill	1.37%	38	5.63%	36	3.63%	15	2.38%	26	1.67%	26
Callan Money Market Funds	1.31%		5.36%		3.39%		2.20%		1.48%	
Stable Value										
Voya Fixed Account	0.75%	10	3.01%	12	3.01%	1	3.01%	1	2.53%	1
Voya Fixed Plus Account II	0.75%	10	3.01%	12	3.01%	1	3.01%	1	3.01%	1
FTSE 3 Mo T Bill + 100bp Premium	1.61%	1	6.63%	1	4.63%	1	3.38%	1	2.67%	1
Callan Stable Value	0.62%		2.41%		1.99%		1.82%		1.72%	
Balanced										
Voya Solution Conservative Protfolio	4.77%	72	17.59%	89	1.16%	97	4.31%	98	4.50%	96
Blmbg Aggregate	5.20%	66	11.57%	96	(1.39%)	99	0.33%	100	1.84%	99
Callan Dom Balanced MFs	5.58%		24.89%		5.82%		9.47%		8.07%	
Voya Solution Aggressive Portfolio	6.13%	34	26.94%	30	4.83%	79	9.00%	58	7.49%	64
Voya Solution Balanced Portfolio	5.38%	59	23.17%	62	3.50%	90	7.10%	85	6.36%	86
Russell 3000 Index	6.23%	32	35.19%	1	10.29%	7	15.26%	4	12.83%	3
Callan Dom Balanced MFs	5.58%		24.89%		5.82%		9.47%		8.07%	
Calvert VP SRI Balanced	5.09%	69	29.01%	13	6.62%	34	9.49%	48	8.30%	48
Voya Balanced Income Portfolio	5.29%	64	22.80%	63	4.07%	88	7.33%	84	6.30%	86
Voya Invesco Equity & Income Portfolio	5.99%	37	20.23%	82	5.33%	66	8.74%	61	7.15%	74
S&P 500 Index	5.89%	38	36.35%	1	11.91%	2	15.98%	3	13.38%	2
Custom Benchmark (1)	5.61%	50	26.07%	39	6.63%	34	9.92%	42	8.94%	25
Callan Dom Balanced MFs	5.58%		24.89%		5.82%		9.47%		8.07%	

⁽¹⁾ Custom Benchmark is 60% S&P 500 Index and 40% Blmbg Aggregate Index



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last		Last		Last 3	,	Last 5		Last 10	
	Quarter		Year		Years		Years		Years	
Voya - Annuity Funds										
Domestic Equity										
Large Cap Equity										
Fidelity VIP Contrafund	3.49%	87	43.44%	4	11.34%	61	17.79%	11	13.28%	23
Voya Growth and Income	5.18%	41	33.58%	57	11.53%	58	15.39%	58	12.10%	53
Voya Index Plus Large Cap	5.05%	44	34.23%	56	10.19%	68	14.23%	63	12.04%	55
Invesco V.I. Core Equity	5.30%	39	33.19%	58	8.74%	79	12.66%	80	8.80%	93
S&P 500 Index	5.89%	28	36.35%	36	11.91%	51	15.98%	42	13.38%	22
Russell 1000 Index	6.08%	22	35.68%	44	10.83%	66	15.64%	50	13.10%	30
Callan Large Cap Core MFs	4.94%		34.69%		12.02%		15.62%		12.12%	
Fidelity VIP Equity-Income	8.22%	37	28.10%	38	9.62%	59	11.53%	52	9.33%	55
Voya Invesco Comstock Portfolio	6.07%	80	23.76%	84	10.96%	34	12.63%	25	9.20%	62
Russell 1000 Value Index	9.43%	21	27.76%	48	9.03%	71	10.69%	65	9.23%	60
Russell 3000 Value Index	9.47%	21	27.65%	49	8.70%	73	10.61%	66	9.17%	63
Callan Lg Cap Value MF	7.30%		27.46%		9.88%		11.77%		9.44%	
Fidelity VIP Growth	3.23%	35	44.06%	27	11.85%	9	20.22%	8	16.12%	10
Voya Large Cap Growth	1.38%	81	41.71%	50	7.84%	66	14.67%	84	13.57%	80
Voya T. Rowe Price Growth Equity	1.35%	82	37.31%	74	3.20%	92	13.35%	93	13.14%	88
Invesco V.I. American Franchise Fund	2.38%	54	42.98%	39	7.16%	77	16.05%	62	13.27%	85
Russell 1000 Growth Index	3.19%	36	42.19%	46	12.02%	8	19.74%	9	16.52%	5
Russell 3000 Growth Index	3.42%	34	41.47%	53	11.31%	13	19.09%	13	16.04%	13
Callan Large Cap Grwth MF	2.55%		41.69%		8.89%		16.88%		14.77%	
Mid Cap Equity										
Voya TRowe Price Diversified MCG	6.31%	28	28.11%	23	2.38%	18	10.67%	39	11.49%	20
Russell MidCap Growth Idx	6.54%	26	29.33%	22	2.32%	18	11.48%	10	11.30%	25
Callan Mid Cap Growth MFs	5.63%		24.73%		(0.32%)		10.08%		10.25%	
Voya Index Plus MidCap	7.25%	42	27.15%	36	6.77%	37	10.69%	53	8.79%	69
S&P Mid Cap 400 Index	6.94%	44	26.79%	39	7.47%	34	11.78%	24	10.32%	36
Callan Mid Cap MFs	6.66%		25.79%		3.58%		10.85%		9.90%	
Global Equity										
Voya Invesco Global Portfolio (1)	3.58%	65	23.11%	80	0.04%	93	9.86%	65	8.64%	63
Voya Global High Div Low Vol (3)	8.96%	3	23.15%	79	7.30%	22	7.41%	86	-	
MSCI ACWI	6.61%	23	31.76%	36	8.09%	13	12.19%	42	9.39%	53
Callan Global Equity MFs	5.03%		30.07%		5.31%		11.14%		9.45%	
International Equity										
Fidelity VIP Overseas	6.27%	70	29.03%	13	2.98%	83	8.85%	32	6.63%	16
Voya Intl High Div Low Vol (2)	9.08%	13	21.44%	81	6.53%	23	6.39%	93	3.85%	96
MSCI EAFE	7.26%	58	24.77%	49	5.48%	29	8.20%	54	5.71%	54
MSCI World ex US	7.76%	48	24.98%	43	5.65%	28	8.36%	52	5.68%	55
Callan Intl Eq Dev Mkt MF	7.70%		24.70%		4.70%		8.48%		5.79%	
Fixed Income										
Voya Intermediate Bond	4.98%	86	12.70%	19	(1.71%)	90	0.12%	94	2.02%	55
Voya Global Bond	6.97%	1	13.08%	9	(4.11%)	99	(1.66%)	100	0.54%	100
Blmbg Aggregate	5.20%	60	11.57%	91	(1.39%)	57	0.33%	93	1.84%	86
Callan Core Bond MFs	5.23%		12.23%		(1.30%)		0.74%		2.06%	



^{(1) 2}Q19 Voya Oppenheimer Global Portfolio changed to Voya Invesco Oppenheimer Global Portfolio; 4Q21 name changed to Voya Invesco Global Portfolio.

^{(2) 2}Q19 Voya Templeton Foreign Equity Portfolio approved a sub-adviser change, as well as, a corresponding strategy change and name change to Voya International High Dividend Low Volatility Portfolio.
(3) 2Q20 Voya Global Equity changed to Voya Global High Dividend Low Volatility.

Voya: Annuity Fund Fees and Expenses

Fund	Investment Vehicle Type (Variable Annuity Fund or Mutual Fund)	Ticker or Fund ID	Gross Investment Expenses (inclusive of all other expenses, 12b-1 fees, management fees)	Expense reimbursements, fee rebates, waivers or revenue sharing waived or credited back to offset participant investment fees	Net Investment Expense charged to participants by Variable Annuity Fund or Mutual Fund	Net Recordkeeping Fee Separate Account or Mortality & Expense Charge (M&E) charged by Retirement Provider	Total Annual Fees Paid by Participants (Net Investment Expense + Net Record keeping Fee)
Voya Government Money Market Portfolio - Class I	Variable Annuity Fund	IVMXX	48	5	43	65	108
Voya Intermediate Bond Portfolio - Class I	Variable Annuity Fund	IPIIX	61	6	55	65	120
Voya Global Bond Portfolio - Initial Class	Variable Annuity Fund	IOSIX	86	18	68	65	133
Voya Solution Aggressive Portfolio - Initial Class	Variable Annuity Fund	IAVIX	102	13	89	65	154
Voya Solution Balanced Portfolio - Initial Class	Variable Annuity Fund	ISGJX	81	1	80	65	145
Voya Solution Conservative Portfolio - Initial Class	Variable Annuity Fund	ICGIX	91	25	66	65	131
Voya Balanced Income Portfolio - Inst CI	Variable Annuity Fund	IIFIX	65	4	61	65	126
Calvert VP SRI Balanced Portfolio	Variable Annuity Fund		65	0	65	65	130
VY® Invesco Equity and Income Portfolio - Initial Class	Variable Annuity Fund	IUAIX	72	8	64	65	129
Voya Growth and Income Portfolio - Class I	Variable Annuity Fund	IIVGX	69	2	67	65	132
Voya Index Plus LargeCap Portfolio - Class I	Variable Annuity Fund	IPLIX	57	2	55	65	120
Invesco V.I. Core Equity Fund - Series I Shares	Variable Annuity Fund		80	0	80	65	145
Fidelity VIP Equity-Income Portfolio - Initial Class	Variable Annuity Fund		47	0	47	65	112
VY® Invesco Comstock Portfolio - Service Class	Variable Annuity Fund	IVKSX	104	9	95	65	160
Fidelity VIP Growth Portfolio - Initial Class	Variable Annuity Fund		58	0	58	65	123
VY® T. Rowe Price Growth Equity Portfolio - Initial Class	Variable Annuity Fund	ITGIX	81	10	71	65	136
Fidelity VIP Contrafund Portfolio - Initial Class	Variable Annuity Fund		56	0	56	65	121
Invesco V.I. American Franchise Fund - Series I Shares	Variable Annuity Fund		86	0	86	65	151
Voya Large Cap Growth Portfolio - Institutional Class	Variable Annuity Fund	IEOHX	71	4	67	65	132
Voya Index Plus MidCap Portfolio - Class I	Variable Annuity Fund	IPMIX	68	8	60	65	125
VY® T. Rowe Price Diversified Mid Cap Growth Port - Initial	Variable Annuity Fund	IAXIX	87	7	80	65	145
Fidelity VIP Overseas Portfolio - Initial Class	Variable Annuity Fund		73	0	73	65	138
Voya Intl High Dividend Low Volatility Port - Initial Class	Variable Annuity Fund	IFTIX	74	0	74	65	139
Voya Global High Dividend Low Volatility Prtf - Class I	Variable Annuity Fund	IIGZX	66	6	60	65	125
Voya Global Insights Portfolio - Initial Class	Variable Annuity Fund	IGMIX	86	11	75	65	140

Summary of Fees Paid by Participants to Retirement Provider

Total Number of Participants with this Provider	767
Total Amount Paid to Service Provider (quarterly estimate)	\$172,035

Represents all fees charged to participants

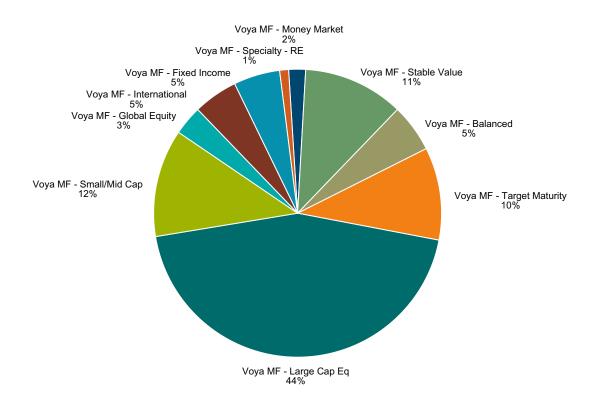


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Actual Asset Allocation As of September 30, 2024

The chart below shows the Fund's asset allocation as of September 30, 2024.

Actual Asset Allocation



	\$000s	Weight
Asset Class	Actual	Actual
Voya MF - Money Market	9,165	1.9%
Voya MF - Stable Value	54,146	11.3%
Voya MF - Balanced	26,195	5.4%
Voya MF - Target Maturity	50,165	10.4%
Voya MF - Large Cap Eq	213,186	44.4%
Voya MF - Small/Mid Cap	58,104	12.1%
Voya MF - Global Equity	16,087	3.3%
Voya MF - International	23,824	5.0%
Voya MF - Fixed Income	25,015	5.2%
Voya MF - Specialty - RE	4,787	1.0%
Total	480,674	100.0%



Investment Fund Balances

The table below compares the fund's investment fund balances as of September 30, 2024 with that of June 30, 2024.

Asset Distribution Across Investment Funds

	September 30	, 2024	June 30, 20)24
	Market Value	Weight	Market Value	Weight
/oya - Mutual Funds		-		
Money Market	\$9,165,341	1.91%	\$8,798,802	1.93%
BlackRock Liquidity Fed Trust	9,165,341	1.91%	8,798,802	1.93%
Stable Value	\$54,146,284	11.26%	\$53,698,642	11.81%
Invesco Stable Value Trust	16,357,022	3.40%	14,762,969	3.25%
Voya Fixed Plus Account III	37,789,262	7.86%	38,935,673	8.56%
Balanced	\$26,195,077	5.45%	\$24,395,261	5.36%
Vanguard Wellington	26,195,077	5.45%	24,395,261	5.36%
arget Maturity	\$50,165,219	10.44%	\$47,279,278	10.40%
T. Rowe Price Retirement 2015	875,886	0.18%	892,992	0.20%
T. Rowe Price Retirement 2020	1,127,251	0.23%	1.067.345	0.23%
T. Rowe Price Retirement 2025	1,215,433	0.25%	1,302,523	0.29%
T. Rowe Price Retirement 2030	4,423,571	0.92%	4,370,457	0.96%
T. Rowe Price Retirement 2035	2,016,064	0.42%	1,801,675	0.40%
T. Rowe Price Retirement 2035		1.50%		1.47%
	7,202,351		6,664,658	
T. Rowe Price Retirement 2045	6,493,766	1.35%	5,972,346	1.31%
T. Rowe Price Retirement 2050	9,121,459	1.90%	8,764,338	1.93%
T. Rowe Price Retirement 2055	8,958,890	1.86%	8,271,735	1.82%
T. Rowe Price Retirement 2060	7,245,397	1.51%	6,575,749	1.45%
T. Rowe Price Retirement 2065	1,485,151	0.31%	1,595,460	0.35%
Oomestic Equity	\$271,290,275	56.44%	\$255,815,288	56.25%
_arge Cap Equity	\$213,186,229	44.35%	\$200,964,498	44.19%
American Funds Fndmntl Investors	47,011,316	9.78%	44,573,196	9.80%
State Street S&P 500 Index NL	62,829,789	13.07%	58,327,889	12.83%
T. Rowe Price Inst Lg Cp Core Growth	66,764,764	13.89%	64,267,164	14.13%
Vanguard Equity Income	36,580,360	7.61%	33,796,249	7.43%
Small/Mid Cap Equity	\$58,104,046	12.09%	\$54,850,790	12.06%
GW&K Small/Mid Cap Core Equity	2,207,741	0.46%	1,934,461	0.43%
State Street Russ Small/Mid Cap Idx	55,896,305	11.63%	52,916,329	11.64%
·				
Global Equity	\$16,087,307	3.35%	\$14,930,017	3.28%
AB Global Core Equity	16,087,307	3.35%	14,930,017	3.28%
nternational Equity	\$23,823,554	4.96%	\$22,244,298	4.89%
Vanguard International Growth	23,823,554	4.96%	22,244,298	4.89%
Domestic Fixed Income	\$25,014,601	5.20%	\$23,659,864	5.20%
PIMCO Real Return	4,759,117	0.99%	4,718,358	1.04%
Metropolitan West Total Return	20,255,484	4.21%	18,941,506	4.17%
Specialty - Real Estate	\$4,786,826	1.00%	\$3,942,530	0.87%
Vanguard Real Estate ldx Fd	4,786,826	1.00%	3,942,530	0.87%



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 10 Years	
Voya - Mutual Funds	Quartor		1001		10010		10010		rouro	
Money Market BlackRock Liquidity Fed Trust FTSE 3 Mo T-Bill Callan Money Market Funds	1.30% 1.37% 1.31%	56 38	5.32% 5.63% 5.36%	54 36	3.44% 3.63% 3.39%	42 15	2.21% 2.38% 2.20%	47 26	1.53% 1.67% 1.48%	41 26
Stable Value Invesco Stable Value Trust (1) Voya Fixed Plus Account III FTSE 3 Mo T Bill + 100bp Premium Callan Stable Value	0.76% 0.75% 1.61% 0.62%	9 10 1	3.05% 3.01% 6.63% 2.41%	12 12 1	2.44% 3.01% 4.63% 1.99%	9 1 1	2.21% 3.01% 3.38% 1.82%	9 1 1	2.01% 3.01% 2.67% 1.72%	18 1 1
Balanced Vanguard Wellington Wellington Composite Index (2) Callan Dom Balanced MFs	5.19% 5.80% 5.58%	67 42	24.87% 27.78% 24.89%	54 29	6.17% 7.30% 5.82%	39 20	9.16% 10.68% 9.47%	56 22	8.69% 9.67% 8.07%	37 7
Target Maturity T. Rowe Price Retirement 2015 S&P Target Date 2015 Idx Callan Tgt Dt Idx 2015 Callan Target Date 2015	4.90% 5.26% 5.44% 5.26%	87 50 24	19.29% 17.79% 17.96% 17.85%	13 54 45	3.20% 3.32% 2.93% 2.69%	30 23 39	6.67% 5.75% 5.63% 5.66%	12 42 53	6.17% 5.51% 5.38% 5.46%	15 46 62
T. Rowe Price Retirement 2020 S&P Target Date 2020 ldx Callan Tgt Dt ldx 2020 Callan Target Date 2020	5.06% 5.43% 5.56% 5.38%	82 44 37	19.89% 19.05% 18.83% 18.95%	27 47 53	3.38% 3.73% 3.24% 2.95%	32 18 38	7.16% 6.15% 6.17% 6.07%	12 46 44	6.72% 5.93% 5.88% 5.89%	11 46 51
T. Rowe Price Retirement 2025 S&P Target Date 2025 ldx Callan Tgt Dt ldx 2025 Callan Target Date 2025	5.16% 5.59% 5.76% 5.72%	86 59 45	21.06% 19.81% 20.34% 20.34%	30 59 50	3.64% 4.09% 3.83% 3.32%	32 13 22	7.90% 7.01% 7.09% 6.87%	7 39 32	7.32% 6.55% 6.59% 6.45%	8 43 37
T. Rowe Price Retirement 2030 S&P Target Date 2030 ldx Callan Tgt Dt ldx 2030 Callan Target Date 2030	5.47% 5.97% 6.01% 5.93%	82 45 44	23.27% 22.17% 22.49% 22.92%	33 63 59	4.17% 4.95% 4.66% 4.14%	48 10 22	8.79% 8.10% 8.19% 7.88%	9 36 29	7.97% 7.28% 7.37% 7.23%	8 47 34
T. Rowe Price Retirement 2035 S&P Target Date 2035 ldx Callan Tgt Dt ldx 2035 Callan Target Date 2035	5.77% 6.25% 6.26% 6.18%	84 42 41	25.60% 24.56% 24.71% 24.85%	33 61 58	4.84% 5.81% 5.60% 4.99%	57 12 20	9.74% 9.25% 9.31% 9.01%	15 26 23	8.58% 8.03% 8.11% 7.87%	12 35 27
T. Rowe Price Retirement 2040 S&P Target Date 2040 ldx Callan Tgt Dt ldx 2040 Callan Target Date 2040	5.91% 6.49% 6.47% 6.28%	79 32 32	27.40% 26.62% 26.68% 27.02%	37 57 56	5.39% 6.63% 6.39% 5.82%	74 11 19	10.53% 10.17% 10.22% 9.90%	23 37 30	9.09% 8.61% 8.67% 8.46%	19 38 36
T. Rowe Price Retirement 2045 S&P Target Date 2045 ldx CallanTgt Dt ldx 2045 Callan Target Date 2045	6.00% 6.69% 6.64% 6.44%	83 32 35	28.52% 27.95% 28.12% 28.60%	51 57 56	5.85% 7.17% 6.96% 6.50%	73 13 15	11.12% 10.75% 10.85% 10.72%	27 48 38	9.41% 8.97% 9.04% 8.83%	13 45 40
T. Rowe Price Retirement 2050 S&P Target Date 2050 ldx Callan Tgt Dt ldx 2050 Callan Target Date 2050	5.98% 6.75% 6.73% 6.45%	84 28 29	28.84% 28.68% 28.97% 29.28%	58 59 54	6.01% 7.45% 7.29% 6.79%	78 13 18	11.22% 11.06% 11.16% 10.92%	35 43 37	9.46% 9.18% 9.22% 9.11%	21 41 38
T. Rowe Price Retirement 2055 S&P Target Date 2055 ldx Callan Tgt Dt ldx 2055 Callan Target Date 2055	6.06% 6.82% 6.77% 6.52%	85 31 32	29.01% 28.82% 29.36% 29.47%	60 67 53	6.02% 7.50% 7.43% 6.78%	79 14 15	11.21% 11.14% 11.29% 11.08%	42 46 34	9.45% 9.26% 9.30% 9.19%	27 39 37
T. Rowe Price Retirement 2060 S&P Target Date 2060 ldx Callan Tgt Dt ldx 2060 Callan Target Date 2060	6.03% 6.87% 6.79% 6.48%	83 24 26	29.01% 28.90% 29.53% 29.52%	62 68 50	6.01% 7.53% 7.49% 6.79%	78 14 15	11.21% 11.18% 11.36% 11.13%	46 47 38	9.45% 9.32% 9.33% 9.26%	40 43 43
T. Rowe Price Retirement 2065 S&P Target Date 2065 Callan Tgt Dt Idx 2065 Callan Target Date 2065	6.03% 6.85% 6.80% 6.53%	91 30 32	28.94% 29.29% 29.57% 29.66%	73 66 52	7.69% 7.51% 6.57%	13 17	- 11.28% 11.37% 11.24%	45 33	- 9.34% -	



⁽¹⁾ Inception 4Q2020; returns prior to 4Q2020 are that of Invesco Stable Value Trust Composite. (2) Wellington Composite Index is 65% S&P 500 Index and 35% Bloomberg Creidt A or better.

Investment Fund Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns and Rankings for Periods Ended September 30, 2024

				•	•					
	Last		Last		Last 3		Last 5		Last 10	
	Quarter		Year		Years		Years		Years	
Voya - Mutual Funds	Quarto:									
Domestic Equity										
Large Cap Equity										
American Funds Fndmntl Investors	5.61%	43	37.59%	37	11.69%	22	15.05%	49	12.50%	50
S&P 500 Index	5.89%	37	36.35%	44	11.91%	21	15.98%	38	13.38%	40
State Street S&P 500 Index Fd (1)	5.89%	37	36.34%	44	11.91%	21	15.96%	39	13.36%	40
S&P 500 Index	5.89%	37	36.35%	44	11.91%	21	15.98%	38	13.38%	40
Callan Lg Cap Broad MF	5.14%		35.19%		9.78%		15.01%		12.53%	
Vanguard Equity Income Fd	8.35%	35	26.44%	65	10.77%	36	11.56%	52	10.58%	18
Vanguard Spl Equity Inc Index (2)	8.81%	31	28.04%	38	10.90%	35	11.13%	55	10.27%	22
Callan Lg Cap Value MF	7.30%		27.46%		9.88%		11.77%		9.44%	
T. Rowe Price Inst Lg-Cp Core Gr (3)	2.67%	46	46.19%	18	7.16%	77	15.45%	70	14.86%	46
Russell 1000 Growth Index	3.19%	36	42.19%	46	12.02%	8	19.74%	9	16.52%	5
Callan Large Cap Grwth MF	2.55%		41.69%		8.89%		16.88%		14.77%	
Small/Mid Cap Equity										
GW&K Small/Mid Cap Core Eq (4)	7.20%	90	24.27%	83	3.61%	76	11.88%	25	10.85%	12
Russell 2500 Index	8.75%	52	26.17%	51	3.47%	78	10.43%	46	9.50%	44
State Street Russ Sm/Md Cap Idx (5)	8.25%	70	28.99%	26	1.96%	91	11.21%	32	9.89%	35
Russell Sm Cap Completion Index	8.25%	69	28.81%	28	1.91%	91	11.24%	32	9.92%	34
Callan SMID Core MFs	8.86%		26.33%		5.15%		10.31%		9.02%	
Global Equity										
AB Global Core Equity (6)	8.06%	8	27.44%	56	5.56%	48	9.83%	65	-	
MSCI ACWI Fund	6.61%	23	31.76%	36	8.09%	13	12.19%	42	9.39%	53
Callan Global Equity MFs	5.03%		30.07%		5.31%		11.14%		9.45%	
International Equity					(a.a=a()					
Vanguard International Growth	7.43%	57	28.94%	14	(3.65%)	97	10.76%	16	8.97%	6
Vanguard Spl Intl Growth Index (7)	8.06%	42	25.35%	37	4.14%	62	7.59%	68	5.22%	68
MSCI EAFE	7.26%	58	24.77%	49	5.48%	29	8.20%	54	5.71%	54
Callan Intl Eq Dev Mkt MF	7.70%		24.70%		4.70%		8.48%		5.79%	
Domestic Fixed Income	4.000/	-00	40.400/	4.5	(0.400()	40	0.040/	4-7	0.540/	00
PIMCO Real Return	4.30%	20	10.42%	15	(0.46%)	46	2.91%	47	2.51%	23
Blmbg US TIPS	4.12%	39	9.79%	30	(0.57%)	52	2.62%	60	2.54%	22
Lipper TIPS Funds	4.05%		9.67%		(0.50%)		2.78%		2.40%	
Metropolitan West Total Return	5.74%	8	12.65%	58	(1.84%)	88	0.46%	84	1.88%	88
Blmbg Aggregate	5.20%	64	11.57%	95	(1.39%)	63	0.33%	91	1.84%	90
Callan Core Plus MFs	5.27%		12.74%		(1.12%)		0.97%		2.33%	
Real Estate	47.400′	40	24.000/	20	0.500/	70	4 770/		7.000/	F0
Vanguard Real Estate Idx Fd	17.19%	13	34.20%	30	2.50%	70	4.77%	55	7.32%	50
Vanguard Spl REIT Index (8)	17.23%	10	34.38%	26	2.63%	62	4.90%	51	7.44%	44
NCREIF Total Index	0.78%	98	(3.47%)	99	0.87%	90	3.26%	80	5.88%	83
Lipper Real Estate Funds	16.03%		33.25%		3.16%		4.91%		7.30%	

⁽⁸⁾ MSCI REIT through 1/31/18; then MSCI US IMI Real Estate 25/50 Transition through 7/31/18; then MSCI US IMI Real Estate 25/50 thereafter.



⁽¹⁾ Inception 4Q2020; returns prior to 4Q2020 are that of the State Street S&P 500 Index NL Class K.

⁽²⁾ Russell 1000 Value Index through July 31, 2007; FTSE High Dividend Yield Index thereafter.

⁽³⁾ Inception 4Q2020; Returns are that of the T. Rowe Price Inst. Large Cap Core Growth Mutual Fund.

⁽⁴⁾ Inception 4Q2020; returns prior to 4Q2020 are that of the GW&K Small MidCap Core Equity CIT Class A.

⁽⁵⁾ Inception 4Q2020; returns prior to 4Q2020 are that of the State Street Russell SMID NL Class K CIT.

⁽⁶⁾ Inception 4Q2020; Returns are that of the AB Global Core Equity Commingled Fund.

⁽⁷⁾ MSCI EAFE Index through May 31, 2010; MSCI All Country World Index ex USA thereafter.

Voya: Mutual Fund Fees and Expenses

Fund	Vehicle Type (MF, CIT, Ann Fd)	management fees, etc.)	Fee Rebates or Waivers Revenue Sharing (credited back to participants to offset TPA fees) (bps)	Net Expense Ratio (bps)
AB Global Core Equity Port P1	CIT	73	0	73
American Funds® Fundamental Investors® - Class R-6	Mutual Fund	28	0	28
BlackRock Liquidity Federal Trust Fund - Inst Shares	Mutual Fund	23	6	17
GW&K Sm Md Cp Cr Eq Coll Inv I	CIT	65	0	65
Invesco Stable Value Trust C	CIT	26	0	26
TCW MetWest Total Return Bond Fund - Class I Shares	Mutual Fund	45	10	35
PIMCO Real Return Fund - Institutional Class	Mutual Fund	50	0	50
State Street Russ Small/Mid Cp Ind NL Fd K	CIT	4	0	4
State Street S&P 500 Index NL Fd K	CIT	1	0	1
T Rowe Prc Inst LgCp Core Grw	Mutual Fund	57	0	57
T. Rowe Price Retirement 2015 Fund	Mutual Fund	50	15	35
T. Rowe Price Retirement 2020 Fund	Mutual Fund	53	15	38
T. Rowe Price Retirement 2025 Fund	Mutual Fund	54	15	39
T. Rowe Price Retirement 2030 Fund	Mutual Fund	57	15	42
T. Rowe Price Retirement 2035 Fund	Mutual Fund	59	15	44
T. Rowe Price Retirement 2040 Fund	Mutual Fund	60	15	45
T. Rowe Price Retirement 2045 Fund	Mutual Fund	62	15	47
T. Rowe Price Retirement 2050 Fund	Mutual Fund	63	15	48
T. Rowe Price Retirement 2055 Fund	Mutual Fund	64	15	49
T. Rowe Price Retirement 2060 Fund	Mutual Fund	64	15	49
T. Rowe Price Retirement 2065 Fund	Mutual Fund	64	15	49
Vangrd Equity Income Fund Adm	Mutual Fund	18	0	18
Vanguard® International Growth Fund - Admiral Shares	Mutual Fund	31	0	31
Vanguard® REIT Index Fund - Admiral Shares	Mutual Fund	13	0	13
Vanguard® Wellington Fund - Admiral Shares	Mutual Fund	18	0	18

Summary of Record Keeping Cost Paid by Participants to Retirement Provider

Annual Record Keeping Fee Paid by Participant	\$82
Total Number of Participants with this Provider	2,835
Total Amount Paid to Service Provider (quarterly estimate)	\$58,118
Optional Fee for In Plan Guidance	0.25%

Represents all fees charged to participants



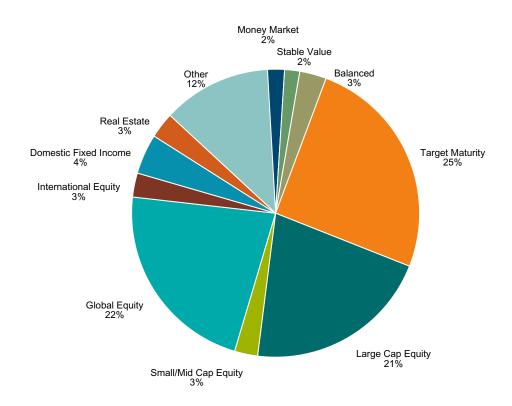
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Actual Asset Allocation As of September 30, 2024

The chart below shows the Fund's asset allocation as of September 30, 2024.

Actual Asset Allocation



	\$000s	Weight
Asset Class	Actual	Actual
Money Market	20,652	2.0%
Stable Value	18,062	1.7%
Balanced	32,113	3.0%
Target Maturity	266,967	25.3%
Large Cap Equity	221,435	21.0%
Small/Mid Cap Equity	27,711	2.6%
Global Equity	234,110	22.2%
International Equity	28,290	2.7%
Domestic Fixed Income	47,250	4.5%
Real Estate	30,987	2.9%
Other	128,667	12.2%
Total	1,056,243	100.0%

Investment Fund Balances

The table below compares the fund's investment fund balances as of September 30, 2024 with that of June 30, 2024.

Asset Distribution Across Investment Funds

September 30, 2024 June 30, 2024 **Market Value** Weight **Market Value** Weight 1.96% \$21,103,931 **Money Market** \$20,651,875 2.08% CREF Money Market* 14.119.490 1.34% 14.128.498 1.39% Vanguard Federal Money Mkt Fd 6,532,385 0.62% 6,975,433 0.69% Stable Value \$18,061,985 1.71% \$16,991,488 1.68% Invesco Stable Value Trust C 18,061,985 16,991,488 1.68% 1.71% \$32,112,596 3.04% \$28,308,273 2.79% Balanced **CREF Social Choice*** 32,112,596 3.04% 28,308,273 2.79% Target Maturity** \$266,966,713 25.28% \$253,901,823 25.06% Nuveen Lifecycle Ret. Inc. Founders 365,885 0.03% 0.03% 343.867 Nuveen Lifecycle 2010 Founders 2,250,164 2,072,316 0.20% 0.22% Nuveen Lifecycle 2015 Founders 2,568,484 0.24% 2,760,038 0.27% Nuveen Lifecycle 2020 Founders 8,840,664 0.84% 8,584,900 0.85% Nuveen Lifecycle 2025 Founders 16,118,318 1.53% 15,867,876 1.57% Nuveen Lifecycle 2030 Founders 15,123,255 1.43% 15,671,232 1.55% Nuveen Lifecycle 2035 Founders 35,162,915 3.33% 32,906,877 3.25% Nuveen Lifecycle 2040 Founders 45.101.558 4.27% 41.951.393 4.14% Nuveen Lifecycle 2045 Founders 6.00% 60,161,793 5 94% 63.338.934 49.707.289 Nuveen Lifecycle 2050 Founders 4.71% 46.581.107 4.60% Nuveen Lifecycle 2055 Founders 21,872,944 2.07% 20.770.731 2.05% Nuveen Lifecycle 2060 Founders 6,016,529 0.57% 5,442,533 0.54% Nuveen Lifecycle 2065 Founders 677,621 0.06% 609,311 0.06% **Domestic Equity** \$221,435,444 20.96% \$214,828,921 21.21% \$214,828,921 21.21% **Large Cap Equity** \$221,435,444 20.96% CREF Equity Index* 70,543,560 6.68% 68,280,215 6.74% 102,694,524 CREF Growth* 9.72% 102,731,337 10.14% Eaton Vance Large Cap Value 14,113,930 1.34% 13,318,398 1.31% State Str S&P 500 ldx NonLen K 34,083,429 3.23% 30,498,971 3.01% Small/Mid Cap Equity \$27,710,705 2.62% \$24,809,758 2.45% GW&K Small/Md Cp Core Equity I 5,934,245 0.56% 5,548,652 0.55% State Str Russ SmMd Idx NoLe K 21,776,460 2.06% 19,261,106 1.90% **Global Equity** 22.16% \$223,794,752 22.09% \$234,110,228 CREF Stock* 169,393,161 16.04% 162,956,144 16.09% CREF Global Equities* 64,717,067 6.13% 60,838,608 6.01% \$28,289,554 2.68% \$26,130,320 2.58% International Equity American Funds EuroPacific Growth 28,289,554 2.68% 26,130,320 2.58% 4.47% 4.41% **Domestic Fixed Income** \$47,250,377 \$44,635,391 **CREF Core Bond Market*** 20,505,885 1.94% 19,582,875 1.93% CREF Inflation-Linked Bond* 20,514,589 1.94% 19,558,150 1.93% John Hancock PI Fix Inc Trust 0.59% 0.54% 6,229,903 5,494,366 \$30,986,617 2.93% \$30,767,228 3.04% Real Estate 30,986,617 TIAA Real Estate 2.93% 30,767,228 3.04% \$128,666,664 12.18% \$127,724,017 12.61% TIAA Traditional Annuity 128,666,664 12.18% 127.724.017 12.61%

\$1,056,242,759

100.00%



Total Plan

\$1,012,995,902

100.00%

^{*1}Q2021 CREF Funds changed from R2 Share Class to R3 Share Class.

^{**}Target Maturity Funds had a name change during 2Q24 from TIAA Lifecycle to Nuveen Lifecycle. In 3Q2024 Nuveen Lifecycle Target Date Mutual Funds were moved to Nuveen Life CIT Founders Target Date Funds.

Investment Fund Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns and Rankings for Periods Ended September 30, 2024

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 10 Years	
Money Market CREF Money Market* Vanguard Federal Money Fund (1) FTSE 3 Mo T-Bill Callan Money Market Funds	1.29% 1.32% 1.37% 1.31%	59 45 38	5.28% 5.41% 5.63% 5.36%	59 45 36	3.36% 3.54% 3.63% 3.39%	56 23 15	2.16% 2.29% 2.38% 2.20%	62 33 26	1.42% 1.61% 1.67% 1.48%	73 28 26
Stable Value Invesco Stable Value Trust (2) FTSE 3 Mo T Bill + 100bp Premium Callan Stable Value	0.67% 1.61% 0.62%	29 1	2.70% 6.63% 2.41%	20 1	2.08% 4.63% 1.99%	35 1	1.93% 3.38% 1.82%	41 1	1.87% 2.67% 1.72%	27 1
Balanced CREF Social Choice* TIAA Social Choice Benchmark (3) Callan Dom Balanced MFs	6.12% 6.09% 5.58%	34 35	23.19% 23.58% 24.89%	62 61	4.42% 4.90% 5.82%	87 75	7.89% 8.20% 9.47%	77 74	7.11% 7.48% 8.07%	75 64
Target Maturity (4) Nuveen Lifecycle Ret. Inc. Founders CAI Tgt Dt Idx 2000 Callan Tgt Date Ret Inc	4.67% 5.27% 5.27%	84 49	17.34% 16.91% 17.30%	48 56	2.77% 2.65% 2.41%	31 38	5.53% 5.03% 4.79%	17 38	5.40% 4.81% 4.56%	9 28
Nuveen Lifecycle 2010 Founders CAI Tgt Dt Idx 2010 Callan Target Date 2010	4.52% 5.35% 5.03%	89 25	17.15% 17.42% 16.72%	42 41	2.73% 2.76% 2.60%	40 39	5.52% 5.31% 5.18%	31 39	5.51% 5.10% 5.13%	23 54
Nuveen Lifecycle 2015 Founders CAI Tgt Dt ldx 2015 Callan Target Date 2015	4.49% 5.44% 5.26%	97 24	17.48% 17.96% 17.85%	66 45	2.77% 2.93% 2.69%	44 39	5.86% 5.63% 5.66%	32 53	5.81% 5.38% 5.46%	29 62
Nuveen Lifecycle 2020 Founders CAI Tgt Dt Idx 2020 Callan Target Date 2020	4.53% 5.56% 5.38%	95 37	18.53% 18.83% 18.95%	62 53	3.05% 3.24% 2.95%	44 38	6.32% 6.17% 6.07%	35 44	6.22% 5.88% 5.89%	24 51
Nuveen Lifecycle 2025 Founders CAI Tgt Dt ldx 2025 Callan Target Date 2025	4.56% 5.76% 5.72%	99 45	19.76% 20.34% 20.34%	64 50	3.42% 3.83% 3.32%	45 22	7.07% 7.09% 6.87%	34 32	6.78% 6.59% 6.45%	19 37
Nuveen Lifecycle 2030 Founders CAI Tgt Dt ldx 2030 Callan Target Date 2030	4.71% 6.01% 5.93%	96 44	21.47% 22.49% 22.92%	73 59	4.03% 4.66% 4.14%	58 22	7.98% 8.19% 7.88%	46 29	7.40% 7.37% 7.23%	32 34
Nuveen Lifecycle 2035 Founders CAI Tgt Dt ldx 2035 Callan Target Date 2035	4.85% 6.26% 6.18%	97 41	23.56% 24.71% 24.85%	76 58	4.77% 5.60% 4.99%	61 20	8.97% 9.31% 9.01%	51 23	8.06% 8.11% 7.87%	30 27
Nuveen Lifecycle 2040 Founders CAI Tgt Dt ldx 2040 Callan Target Date 2040	4.83% 6.47% 6.28%	96 32	25.88% 26.68% 27.02%	69 56	5.68% 6.39% 5.82%	64 19	10.07% 10.22% 9.90%	39 30	8.73% 8.67% 8.46%	31 36
Nuveen Lifecycle 2045 Founders CAI Tgt Dt ldx 2045 Callan Target Date 2045	4.89% 6.64% 6.44%	98 35	27.34% 28.12% 28.60%	69 56	6.21% 6.96% 6.50%	65 15	10.93% 10.85% 10.72%	32 38	9.21% 9.04% 8.83%	29 40
Nuveen Lifecycle 2050 Founders CAI Tgt Dt ldx 2050 Callan Target Date 2050	4.85% 6.73% 6.45%	98 29	28.03% 28.97% 29.28%	73 54	6.42% 7.29% 6.79%	63 18	11.17% 11.16% 10.92%	36 37	9.36% 9.22% 9.11%	25 38
Nuveen Lifecycle 2055 Founders CAI Tgt Dt ldx 2055 Callan Target Date 2055	4.75% 6.77% 6.52%	99 32	28.09% 29.36% 29.47%	77 53	6.45% 7.43% 6.78%	62 15	11.27% 11.29% 11.08%	36 34	9.43% 9.30% 9.19%	28 37
Nuveen Lifecycle 2060 Founders Callan Tgt Dt ldx 2060 Callan Target Date 2060	4.78% 6.79% 6.48%	97 26	28.37% 29.53% 29.52%	74 50	6.57% 7.49% 6.79%	57 15	11.41% 11.36% 11.13%	32 38	9.53% 9.33% 9.26%	33 43
Nuveen Lifecycle 2065 Founders Callan Tgt Dt ldx 2065 Callan Target Date 2065	5.71% 6.80% 6.53%	96 32	29.70% 29.57% 29.66%	48 52	7.04% 7.51% 6.57%	33 17	- 11.37% 11.24%	33	9.34% -	



^{*1}Q2021 CREF Funds changed from R2 Share Class to R3 Share Class.

(1) Inception 1Q2021; returns prior to 1Q2021 are that of the Vanguard Federal Money Market Fund Inv Mutual Fund.

(2) Inception 1Q2021; returns prior to 1Q2021 are that of the Invesco Stable Value Trust Composite.

(3) TIAA Social Choice Benchmark: 60% S&P 500 and 40% Blmbg Agg through July 1, 2002. 60% Russell 3000 and 40% Blmbg Agg through April 1, 2008. 47% Russell 3000, 40% Blmbg Agg and 13% MSCI EAFE+Canada Index through December 31, 2018.

42% Russell 3000, 40% Blmbg Agg and 18% MSCI EAFE+Canada Index currently.

(4) 3Q2024 Nuveen Lifecycle Target Date Mutual Funds were moved to Nuveen Life CIT Founders Target Date Funds. Returns prior to August 2024, are those of the Mututal Fund.

Investment Fund Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns and Rankings for Periods Ended September 30, 2024

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 10 Years	
Domestic Equity	<u> </u>									
Large Cap Equity CREF Equity Index* Russell 3000 Index Callan Lg Cap Broad MF	6.17% 6.23% 5.14%	33 33	34.92% 35.19% 35.19%	51 50	10.14% 10.29% 9.78%	41 39	15.07% 15.26% 15.01%	49 47	12.58% 12.83% 12.53%	48 46
CREF Growth* Russell 1000 Growth Index Callan Large Cap Grwth MF	1.53% 3.19% 2.55%	77 36	42.80% 42.19% 41.69%	42 46	9.44% 12.02% 8.89%	42 8	17.74% 19.74% 16.88%	34 9	15.05% 16.52% 14.77%	37 5
Eaton Vance Large Cap Value Russell 1000 Value Index Callan Lg Cap Value MF	6.49% 9.43% 7.30%	73 21	24.00% 27.76% 27.46%	82 48	9.24% 9.03% 9.88%	65 71	10.53% 10.69% 11.77%	71 65	9.17% 9.23% 9.44%	63 60
State ST S&P 500 Index Fund (1) S&P 500 Index Callan Lg Cap Broad MF	5.89% 5.89% 5.14%	37 37	36.34% 36.35% 35.19%	44 44	11.91% 11.91% 9.78%	21 21	15.96% 15.98% 15.01%	39 38	13.36% 13.38% 12.53%	40 40
Small/Mid Cap Equity GW&K Small/Mid Cap Core Eq (2) Russell 2500 Index Callan SMID Core MFs	7.20% 8.75% 8.86%	90 52	24.27% 26.17% 26.33%	83 51	3.61% 3.47% 5.15%	76 78	11.88% 10.43% 10.31%	25 46	10.85% 9.50% 9.02%	12 44
State Str Russ Small/Mid Cap Idx (3) Russell Small Cap Completion Index Callan SMID Core MFs	8.25% 8.25% 8.86%	70 69	28.99% 28.81% 26.33%	26 28	1.96% 1.91% 5.15%	91 91	11.21% 11.24% 10.31%	32 32	9.89% 9.92% 9.02%	35 34
Global Equity CREF Stock* CREF Stock Benchmark (4) Russell 3000 Index Callan Global Equity MFs	5.91% 6.81% 6.23% 5.03%	36 21 34	31.19% 32.13% 35.19% 30.07%	40 35 18	7.66% 8.36% 10.29% 5.31%	16 11 3	12.38% 12.99% 15.26% 11.14%	41 27 4	9.96% 10.59% 12.83% 9.45%	46 33 7
CREF Global Equities* MSCI ACWI Index Callan Global Equity MFs	5.10% 6.61% 5.03%	47 23	32.24% 31.76% 30.07%	35 36	8.36% 8.09% 5.31%	11 13	13.33% 12.19% 11.14%	25 42	9.73% 9.39% 9.45%	48 53
Inernational Equity American Funds EuroPacific Growth MSCI ACWI x US (Net) Callan Intl Eq Dev Mkt MF	5.41% 8.06% 7.70%	80 42	24.71% 25.35% 24.70%	50 37	0.06% 4.14% 4.70%	92 62	7.52% 7.59% 8.48%	70 68	6.26% 5.22% 5.79%	22 68
Domestic Fixed Income CREF Core Bond Market* Blmbg Aggregate Callan Core Bond MFs	5.13% 5.20% 5.23%	71 60	12.30% 11.57% 12.23%	46 91	(1.00%) (1.39%) (1.30%)	16 57	0.74% 0.33% 0.74%	50 93	2.12% 1.84% 2.06%	39 86
JHancock Core Plus Fixed Inc (5) Blmbg Aggregate Callan Core Bond MFs	5.34% 5.20% 5.23%	30 60	13.13% 11.57% 12.23%	9 91	(1.11%) (1.39%) (1.30%)	25 57	0.33% 0.74%	93	1.84% 2.06%	86
CREF Inflation-Linked Bond* Blmbg US TIPS 1-10 Yr Lipper TIPS Funds	3.60% 3.50% 4.04%	63 64	9.15% 9.01% 9.51%	61 64	1.49% 1.00% (0.64%)	31 34	3.38% 3.26% 2.63%	22 28	2.58% 2.60% 2.27%	13 13
Real Estate TIAA Real Estate NCREIF Total Index Callan OE Core Cmngld RE	(0.34%) 0.78% 0.34%	90 16	(9.34%) (3.47%) (6.32%)	79 27	(1.91%) 0.87% 0.20%	72 44	1.05% 3.26% 2.96%	84 47	3.56% 5.88% 5.75%	89 45
Other TIAA Traditional Annuity 5 Yr US Treas Rolling Callan Stable Value	1.09% 0.58% 0.73%	1 93	4.51% 2.19% 2.88%	1 96	4.21% 1.87% 2.45%	1 94	3.97% 1.79% 2.37%	1 96	3.90% 1.63% 2.30%	1 97



^{*1}Q2021 CREF Funds changed from R2 Share Class to R3 Share Class. Returns prior to 1Q2021 are R2 Share Class.
(1) Inception 1Q2021; returns prior to 1Q2021 are that of the State Street S&P 500 Index NL Class K.
(2) Inception 1Q2021; returns prior to 1Q2021 are that of the GW&K Small/Mid Cap Core Equity CIT Class A.
(3) Inception 1Q2021; returns prior to 1Q2021 are that of the State Street Russell SMID NL Class K CIT.
(4) TIAA Stock Benchmark: 70% Russell 3000 Index, 24% MSCI EAFE + Canada Index, 6% MSCI Emerging Mkts Idx through 6/30/11 and 70% Russell 3000 Index, 30% MSCI ACWI ex-US IMI Index thereafter
(5) Inception 1Q2021; returns prior to 1Q2021 are that of the Manulife Core Fixed Income CIT Composite.

TIAA: Fund Fees and Expenses

Fund	Investment Vehicle Type (Variable Annuity Fund or Mutual Fund)	Gross Investment Expenses (inclusive of all other expenses, 12b-1 fees, management fees) (bps)	Expense reimbursements, fee rebates, waivers or revenue sharing waived or credited back to offset participant investment fees (bps)	Net Investment Expense charged to participants by Variable Annuity Fund or Mutual Fund (bps)	Net Recordkeeping Fee Separate Account or Mortality & Expense Charge (M&E) charged by Retirement Provider (bps)	Total Annual Fees Paid by Participants (Net Investment Expense + Net Record keeping Fee) (bps)
American EuroPac Growth R6	Mutual Fund	47.0	0.0	47.0	0.0	47.0
CREF Core Bond R3	Annuity Fund	25.0	10.0	15.0	0.0	15.0
CREF Equity Index R3	Annuity Fund	18.5	10.0	8.5	0.0	8.5
CREF Global Equities R3	Annuity Fund	25.0	10.0	15.0	0.0	15.0
CREF Growth R3	Annuity Fund	22.5	10.0	12.5	0.0	12.5
CREF Inflation-Linked Bond R3	Annuity Fund	21.5	10.0	11.5	0.0	11.5
CREF Money Market R3	Annuity Fund	19.0	10.0	9.0	0.0	9.0
CREF Social Choice R3	Annuity Fund	22.0	10.0	12.0	0.0	12.0
CREF Stock R3	Annuity Fund	25.5	10.0	15.5	0.0	15.5
Eaton Vance Large Cap Value I	Mutual Fund	78.0	15.0	63.0	0.0	63.0
GW&K Small/Md Cp Core Equity I	CIT	65.0	0.0	65.0	0.0	65.0
Invesco Stable Value Trust C	CIT	26.0	0.0	26.0	0.0	26.0
John Hancock PI Fix Inc Trust	CIT	23.0	0.0	23.0	0.0	23.0
State Str Russ SmMd Idx NoLe K	CIT	4.0	0.0	4.0	0.0	4.0
State Str S&P 500 ldx NonLen K	CIT	1.3	0.0	1.3	0.0	1.3
TIAA Real Estate	Annuity Fund	101.5	24.0	77.5	0.0	77.5
TIAA Traditional	Annuity Fund *	0.0	0.0	0.0	0.0	0.0
Nuveen Life CIT Ret Inc Found	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2010 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2015 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2020 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2025 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2030 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2035 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2040 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2045 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2050 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2055 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2060 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Nuveen Life CIT 2065 Founders	Mutual Fund	33.0	0.0	33.0	0.0	33.0
Vanguard Federal Money Mkt Inv	Mutual Fund	11.0	0.0	11.0	0.0	11.0

1Q2021 CREF Funds changed from R2 Share Class to R3 Share Class.

3Q2024 Nuveen Lifecycle Target Date Mutual Funds were moved to Nuveen Life CIT Founders Target Date Funds.



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^{*} The TIAA Traditional Annuity is not an investment for purposes of federal securities laws; it is a guaranteed insurance contract. Therefore, unlike a variable annuity or mutual fund, the TIAA Traditional Annuity does not include an identifiable expense ratio. Each premium allocated to the TIAA Traditional Annuity buys a definite amount of lifetime income for participants based on the rate schedule in effect at the time the premium is paid. In addition, the TIAA Traditional Annuity provides a guarantee of principal, a guaranteed minimum rate of interest and the potential for additional amounts of interest when declared by TIAA's Board of Trustees. Additional amounts, when declared, remain in effect for the "declaration year" that begins each March 1 for accumulating annuities and January 1 for lifetime payout annuities. Additional amounts are not guaranteed for future years.

Callan



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Adams Street Partners, LLC
Aegon Asset Management
AllianceBernstein
Allspring Global Investments, LLC
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American Century Investments
Amundi US, Inc.
Antares Capital LP
Apollo Global Management, Inc.
AQR Capital Management
Ares Management LLC
ARGA Investment Management, LP
Ariel Investments, LLC
Aristotle Capital Management, LLC
Atlanta Capital Management Co., LLC
Audax Private Debt

Manager Name
AXA Investment Managers
Baillie Gifford International, LLC
Baird Advisors
Barings LLC
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC
BentallGreenOak
Beutel, Goodman & Company Ltd.
BlackRock
Blackstone Group (The)
Blue Owl Capital, Inc.
BNY Mellon Asset Management
Boston Partners
Brandes Investment Partners, L.P.
Brandywine Global Investment Management, LLC
Brookfield Asset Management Inc.
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Manager Name

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Cercano Management LLC

CIBC Asset Management

CIM Group, LP

ClearBridge Investments, LLC

Cohen & Steers Capital Management, Inc.

Columbia Threadneedle Investments

Comvest Partners

Crescent Capital Group LP

Dana Investment Advisors, Inc.

DePrince, Race & Zollo, Inc.

Dimensional Fund Advisors L.P.

DoubleLine

DWS

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Fayez Sarofim & Company

Federated Hermes, Inc.

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Fiera Capital Corporation

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Fisher Investments

Franklin Templeton

Fred Alger Management, LLC

GAMCO Investors, Inc.

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Goldman Sachs

Golub Capital

GW&K Investment Management

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Heitman LLC

Hotchkis & Wiley Capital Management, LLC

HPS Investment Partners, LLC

IFM Investors

Impax Asset Management LLC

Income Research + Management

Insight Investment

Intercontinental Real Estate Corporation

Manager Name

Invesco

J.P. Morgan

Janus

Jennison Associates LLC

Jobs Peak Advisors

Kayne Anderson Rudnick Investment Management, LLC

King Street Capital Management, L.P.

Kohlberg Kravis Roberts & Co. L.P. (KKR)

Lazard Asset Management

LGIM America

Lincoln National Corporation

Longview Partners

Loomis, Sayles & Company, L.P.

Lord, Abbett & Company

LSV Asset Management

MacKay Shields LLC

Macquarie Asset Management

Manulife Investment Management

Manulife | CQS Investment Management

Marathon Asset Management, L.P.

Mawer Investment Management Ltd.

MetLife Investment Management

MFS Investment Management

Mondrian Investment Partners Limited

Montag & Caldwell, LLC

Morgan Stanley Investment Management

MUFG Bank, Ltd.

Natixis Investment Managers

Neuberger Berman

Newton Investment Management

Northern Trust Asset Management

Nuveen

Oaktree Capital Management, L.P.

Orbis Investment Management Limited

P/E Investments

Pacific Investment Management Company

Parametric Portfolio Associates LLC

Partners Group (USA) Inc.

Pathway Capital Management, LP

Peavine Capital



Manager Name

Peregrine Capital Management, LLC

PGIM DC Solutions

PGIM Fixed Income

PGIM Quantitative Solutions LLC

Pictet Asset Management

PineBridge Investments

Polen Capital Management, LLC

PPM America, Inc.

Pretium Partners, LLC

Principal Asset Management

Raymond James Investment Management

RBC Global Asset Management

Regions Financial Corporation

S&P Dow Jones Indices

Sands Capital Management

Schroder Investment Management North America Inc.

Segall Bryant & Hamill

SLC Management

Star Mountain Capital, LLC

State Street Global Advisors

Strategic Global Advisors, LLC

Manager Name

T. Rowe Price Associates, Inc.

TD Global Investment Solutions - TD Epoch

The D.E. Shaw Group

The TCW Group, Inc.

Thompson, Siegel & Walmsley LLC

TPG Angelo Gordon

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Walter Scott & Partners Limited

WCM Investment Management

Wellington Management Company LLP

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Westfield Capital Management Company, LP

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Mississippi Government Employees' Deferred Compensation Plan & Trust

Recommendation to Exercise Renewal Option with Empower Retirement

Staff Recommendation:

Staff recommends PERS exercise the option to renew the Recordkeeping Agreement with Empower Retirement for continuation of services for a three (3) year period as provided in the current agreement. (Renewal period – January 1, 2025 – December 31, 2027)

Staff also recommends the following changes included with the proposed renewal:

- **Recordkeeping Fee Reduction** Empower has agreed to a reduction in the annual record-keeping administration fee from \$47.50 to \$46.25 per participant.
- Unallocated Plan Account PERS will forgo the annual \$50,000 deposit to the plan's unallocated plan account, but PERS will receive credit for the net banking float in the unallocated plan account.



MDC Fund Watch List

Manager	3-year Criteria	Trend	Comments	Recommendation	Currently on Watch List	Date Added to Watch List
Loomis Saylos	Exceeded Benchmark	Improving	Rolling 5-year relative performance has lagged	Maintain on Watch List	Yes	1/1/2022
Loomis Sayles	Exceeded Peer Median	Improving	the benchmark	Walitaii oli Watcii List	163	1/1/2022
Wellington Small Cap	Exceeded Benchmark	Stable	Turnover of key personnel	Maintain on Watch List	Yes	6/27/2023
weimigton Sman Cap	Exceeded Peer Median	Stable	Turnover of key personner		163	0/2//2023

MDC Fund Watch List Performance

5-year Returns

5-year period ending:		9/30/2024	6/30/2024	3/31/2024	12/31/2023
	Return	18.51%	17.00%	12.54%	17.98%
Loomis Sayles	Benchmark	19.74%	19.34%	12.50%	19.50%
	Percentile Rank	23	38	3	24
	Return	10.41%	8.28%	3.58%	12.43%
Wellington Small Cap	Benchmark	9.39%	6.94%	-0.10%	9.97%
	Percentile Rank	43	47	40	30

3-year Returns

3-year period ending:		9/30/2024	6/30/2024	3/31/2024	12/31/2023
	Return	12.96%	10.36%	40.46%	9.34%
Loomis Sayles	Benchmark	12.02%	11.28%	39.00%	8.86%
	Percentile Rank	3	13	48	8
	Return	5.85%	1.57%	17.31%	4.77%
Wellington Small Cap	Benchmark	1.84%	-2.58%	19.71%	2.22%
	Percentile Rank	29	36	61	43