

Investment Performance Review  
Period Ending June 30, 2023

## Washoe County 457 & 401a Plans

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# Table Of Contents

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Market Environment	Page 1
457 Fund Asset Allocation	Page 16
457 Fund Asset Allocation by Asset Class	Page 18
457 Fund Asset Allocation by Manager	Page 19
401(a) Fund Asset Allocation	Page 20
401(a) Fund Asset Allocation by Asset Class	Page 22
401(a) Fund Asset Allocation by Manager	Page 23
401(a) Risk Reward Graph	Page 30
Hartford Mid Cap	Page 41
Historical Activity	Page 45
Definitions & Disclosure Pages	Page 49



## **2nd Quarter 2023 Market Environment**



## The Economy

- Though the Atlanta Fed GDPNow model forecasted weak GDP growth in 2023 as the impact from higher interest rates continued to spread through the broader economy, the first quarter GDP final revision of 2% was markedly higher than the 1.3% first reported.
- The US Federal Reserve Bank (the Fed) continued to increase interest rates during the quarter with an additional 0.25% increase in the Fed Funds rate in May, followed by a pause in June. The Fed continues to prioritize fighting high inflation with the press release from the June meeting detailing the extent that additional policy firming (i.e., rate increases) will consider the cumulative tightening of monetary policy, the lags with which monetary policy affects economic activity and inflation, and economic and financial developments.
- June brought some weakness in the US labor market as nonfarm payrolls increased by 209,000, below the expected 240,000 new jobs. This represented the slowest month for job creation since December 2020. Initial jobless also rose for the week ending July 1st.
- The global banking sector came under duress in the first quarter of 2023, triggered by the second and third-largest regional bank failures in US history. Fears of deterioration in the banking sector have waned, likely helped by aggressive intervention from the FDIC and Federal Reserve.

## Equity (Domestic and International)

- US equities moved broadly higher during the second quarter led by growth-oriented sectors. The S&P 500 Benchmark rose 8.7% for the quarter, its best-performing quarter since Q4-2021. Large-cap growth was the best-performing domestic segment of the equity market during the period while small-cap value, while positive, was the weakest relative performer for the quarter.
- International stocks experienced modest returns during the quarter. Local currency (LCL) performance outpaced US Dollar (USD) performance in most regions though both benchmarks were positive as the USD traded higher during the quarter.
- Global GDP growth continues to face challenges despite falling energy prices. European growth remained under pressure amid hawkish central bank policies. While China has fully reopened after almost three years of COVID-19 restrictions, there have been challenges associated with the region re-integrating with the global economy.

## Fixed Income

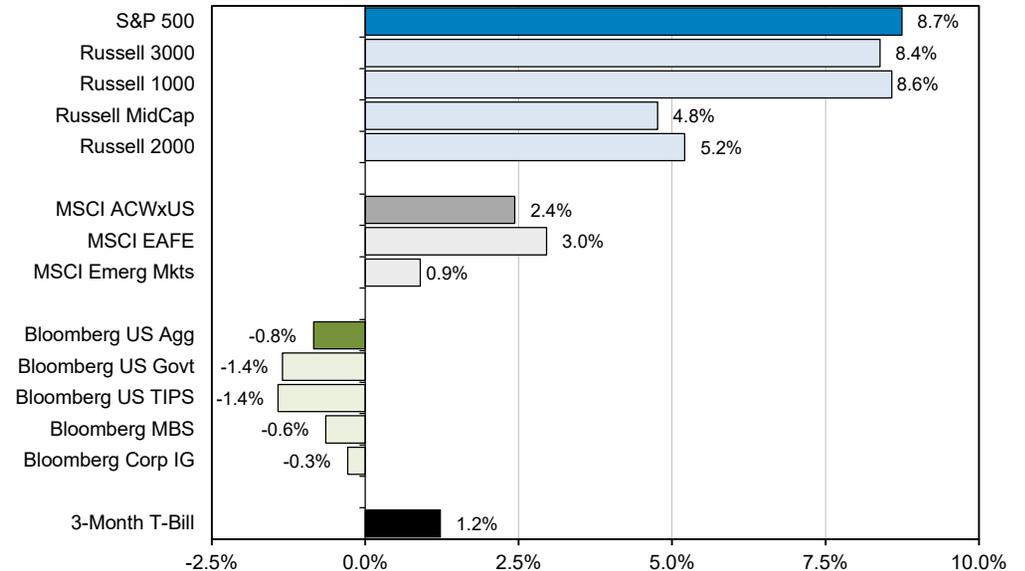
- While inflation continues to decline, the Fed maintained their inflation-fighting policy stance, increasing interest rates by 0.25% in May but opting to pause in June. The additional rate hike in May along with the possibility that additional rate hikes could occur in this tightening cycle, drove intermediate and long-term rates slightly higher during the quarter.
- US Government securities were the worst-performing sector during the quarter. US Treasuries lagged the corporate and securitized sectors as yields at longer maturities rose slightly and credit conditions were considered more favorable than the previous quarter.
- Corporate bonds with lower credit ratings held up better than higher quality issues, aided by narrowing credit spreads as well as their higher coupons. High-yield bonds were the best-performing segment of the domestic bond market, echoing the equity market's positive sentiment during the quarter.
- Global bonds underperformed US issues during the quarter and the trailing one-year period.

## Market Themes

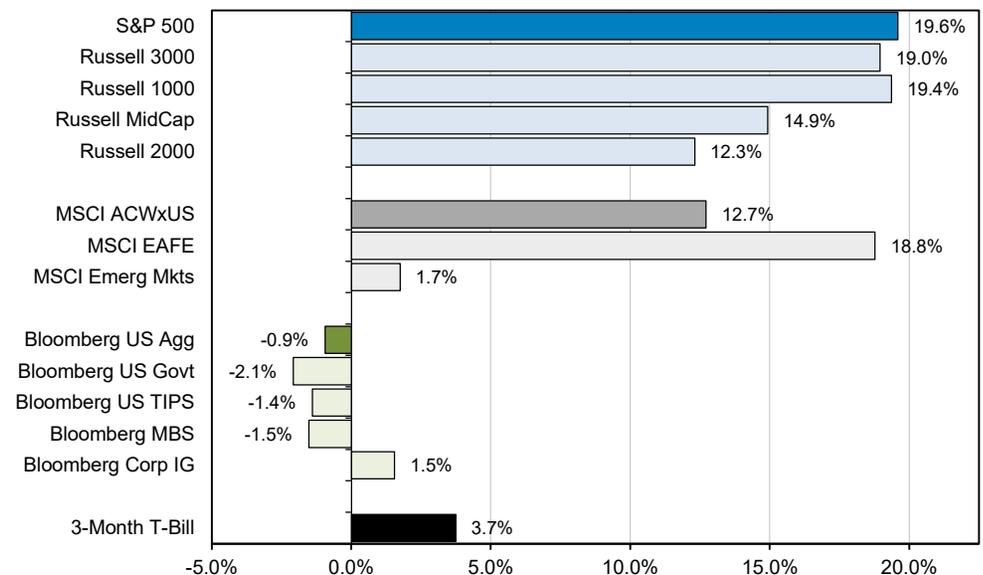
- Central banks remained vigilant in their fight against inflation with the Fed, the Bank of England, and the European Central foreshadowing the potential for further tightening with additional rate hikes in the coming months. GDP contraction in the Eurozone for the previous two quarters has been met with recovering asset prices in the most recent quarter as investors remain hopeful of future growth.
- The conflict in Ukraine continues without expectations of any resolution in the near future. Energy costs have subsided in recent months attributed to a mild winter in the Eurozone region and an increase in fossil fuel production in the US.
- Short-term interest rates rose across most developed markets as central banks continued to tighten policy stances. Despite previous concerns about the potential for slowing economic growth, lower-quality corporate bonds outpaced higher-quality government bonds as credit spreads narrowed.
- Both US and international equity markets continued to recover from the disappointing year that was 2022 on expectations that inflation would continue to moderate and central banks would slow the pace of their monetary tightening cycles. Growth has significantly outpaced value in the previous two quarters.

- Domestic equity markets started 2023 with solid results, led mostly by the large-cap names. The poor performance posted by domestic equities in the first half of 2022 has rolled off and now each index has turned positive on a trailing one-year basis. Factors contributing to the quarter's results include strong economic data in the face of higher benchmark rates and the expectation that the Fed would slow the pace of future interest rate increases. For the period, the S&P 500 large-cap benchmark returned 8.7% versus 4.8% for mid-cap and 5.2% for small-cap benchmarks.
- International developed and emerging market equities also delivered positive results, albeit lagging behind their domestic counterparts. Europe continues to face geopolitical risks related to the conflict in Ukraine and rising interest rates, though inflation has eased somewhat due to higher rates and more manageable energy prices. Performance in the emerging market index was led by the Latin America region whose regional index posted a strong 14.0% return in USD terms. The developed market MSCI EAFE Index returned 3.0% for the quarter and the MSCI Emerging Markets Index rose by 0.9%.
- The domestic bond market ebbed during the quarter due to higher rates from the Federal Reserve's decision to hike policy rates an additional 0.25%. The Bloomberg (BB) US Aggregate Index returned -0.8% for the period while investment-grade corporate bonds were down less with a return of -0.3%.
- During the one-year trailing period, US equity markets were positive as the weak performance from the first half of 2022 rolled off. The S&P 500 Index returned 19.6% for the year. The weakest relative performance for the year was the Russell 2000 Index, which still climbed 12.3% over the last 12-months.
- International markets also rolled off their poor performance in 2022. Over the trailing one-year period, the MSCI EAFE Index returned 18.8% while the MSCI Emerging Markets Index added a much more modest 1.7%. Concerns relating to the conflict in Ukraine continued to emanate throughout the region and globally. Elevated inflation and slowing global economic growth continue to be an additional headwind for global markets.
- Bond markets softened further, posting negative returns over the previous 1-year period for most indices. The primary driver of results during the first half of 2023 continues to be higher interest rates, which directly impact bond prices and index performance. Investment-grade corporate bonds were the only sector to post positive performance over the previous 12-months, adding 1.5%. The US Government sector suffered the most for the period, posting a return of -2.1%.

### Quarter Performance



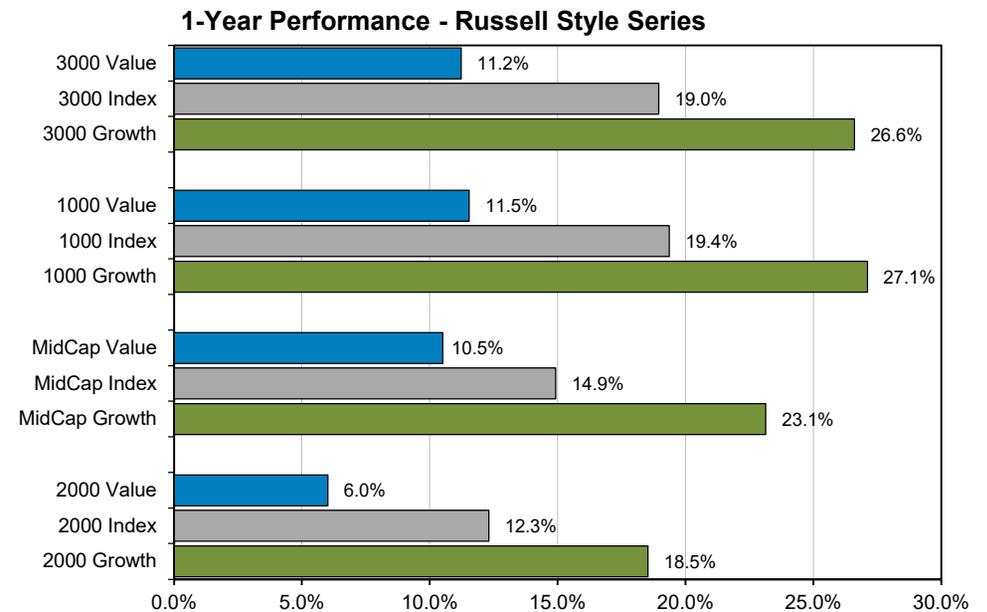
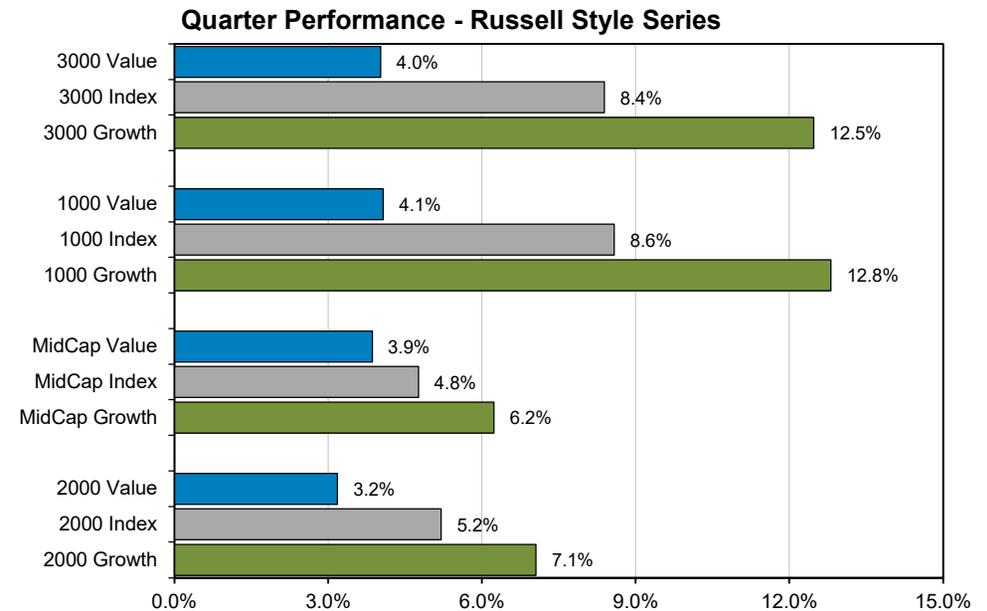
### 1-Year Performance



Source: Investment Metrics



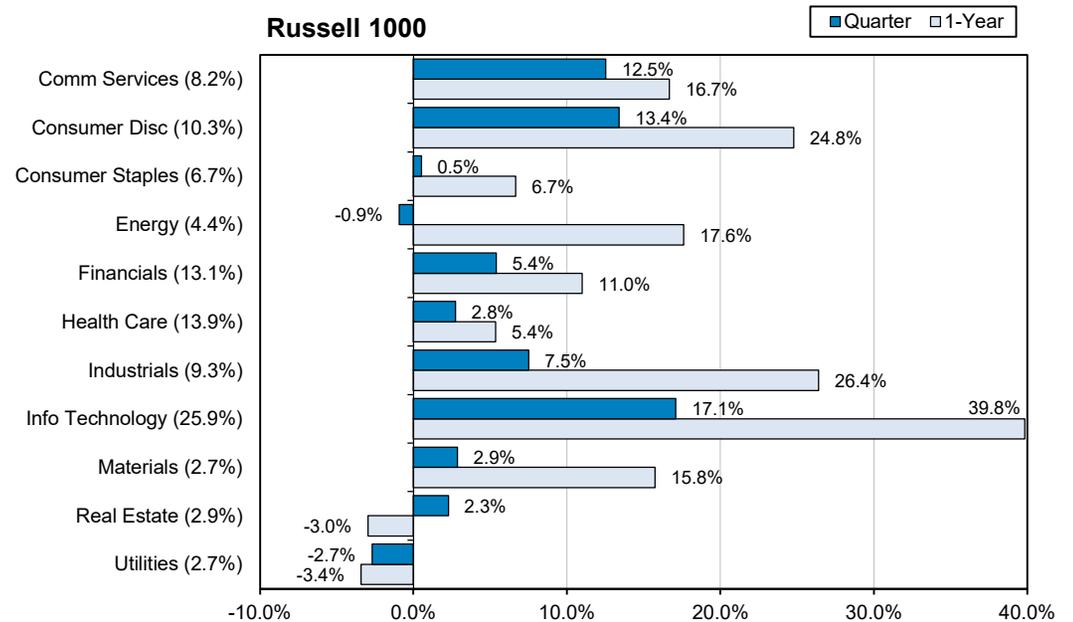
- Core domestic equity benchmarks posted positive results for the second quarter in a row. However, concerns regarding the regional banking sector and the financial sector's large weight in the value benchmarks weighed heavily on the broad value indices' performance in the first half of 2023. Large-cap stocks once again led results for the capitalization-based benchmarks, besting both the mid-cap and small-cap indices for the quarter. Growth benchmarks posted the strongest results as economic data continues to show favorable conditions for growth stocks. The Russell 1000 Growth Index topped the quarter, returning 12.8% followed by the Russell 2000 Growth Index and the Russell Midcap Growth Index, which rose by 7.1% and 6.2%, respectively.
- As previously stated, Growth stocks at all capitalization ranges outperformed their value counterparts by a wide margin for the quarter. This continued the 2023 theme of growth-based benchmark outperformance. Among the value benchmarks Large cap, mid-cap and small-cap value each posted positive performance for the quarter with the Russell 1000 Value Index leading the way at 4.1%.
- The second quarter's continued positive performance in tandem with the poor performance from the first half of 2022 rolling off the various benchmark returns turned the Russell indices positive on a trailing 12-month basis. Within large-cap stocks, the Russell 1000 Growth Index returned a strong 27.1%, leading the way among style and market capitalization classifications. The worst-performing index was the Russell 2000 Value, which posted a modest 6.0% return for the trailing 12-months.
- Growth rebounded from disappointing results in early 2022 and led value-based benchmarks in all market capitalization ranges during the trailing year. The Russell 2000 Growth Index returned 18.5%, outpacing the Russell 2000 Value index return of 6.0% by a span of 12.5%. The Russell 1000 Growth and Russell Midcap Growth benchmarks gained 27.1% and 23.1%, respectively, while their corresponding value index counterparts returned solid, but lagging, performance of 11.5% and 10.5%, respectively.



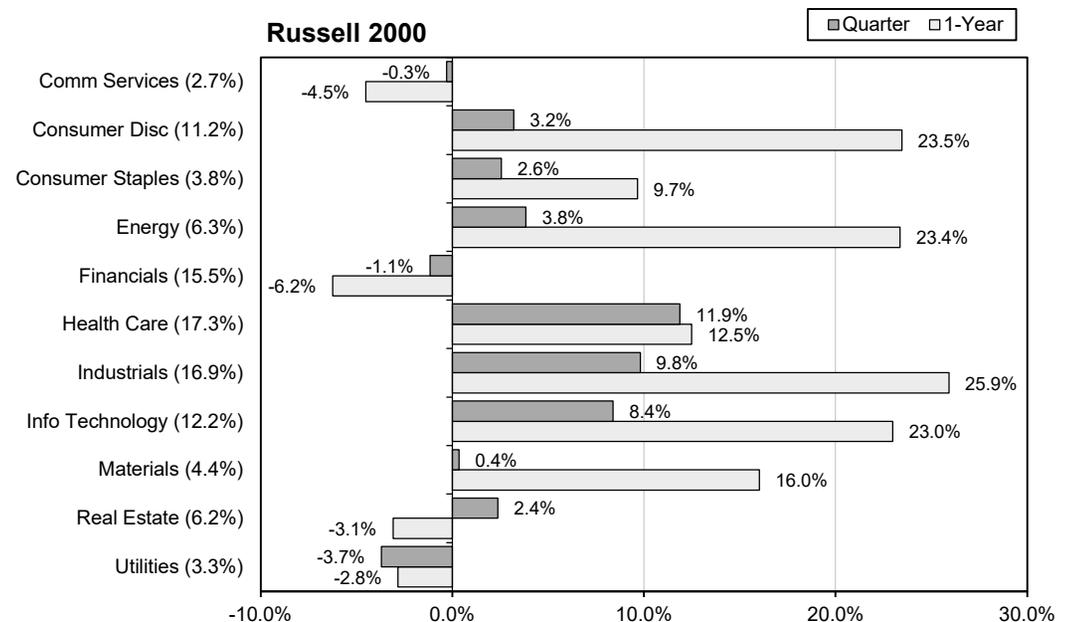
Source: Investment Metrics



- Large Cap sector performance was mostly positive for the second quarter. Nine of 11 economic sectors posted positive absolute performance for the quarter, but just three managed to outpace the return of the Russell 1000 index.
- After a challenging 2022, the information technology sector continued its dominating rebound, amassing an impressive 17.1% return for the quarter. The other two sectors that outpaced the headline index's return for the quarter were communication services (12.5%) and consumer discretionary (13.4%). Energy (-0.9%), and utilities (-2.7%) were the two sectors that lost ground for the quarter.
- For the full year, four economic sectors exceeded the return of the broad large-cap benchmark and seven of the eleven sectors posted positive performance. The weakest economic sector in the Russell 1000 for the year was utilities, which declined by -3.4% and was heavily impacted by rising energy costs and a market rotation away from defensive names.



- Eight small-cap economic sectors posted positive results during the quarter while just three exceeded the 5.2% return of the Russell 2000 Index. The health care (11.9%), industrials (9.8%), and information technology (8.4%) sectors led the way, outpacing the broad benchmark for the quarter while the utilities (-3.7%), financials (-1.1%), and communication services (-0.3%) sectors posted negative returns.
- Like large cap sector performance over the trailing year, seven small cap sectors were positive. Industrials posted the strongest sector results (25.9%) but the consumer discretionary, energy, and information technology sectors each also returned in excess of 20% for the last 12-months. Five of the 11 economic sectors fell short of core small-cap benchmark's return of 12.3% over the trailing year. The worst-performing sector for the year was financials with a return of -6.2%. The communication services (-4.5%), real estate (-3.1%), and utilities (-2.8%) sectors also posted negative results for the year.



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



**The Market Environment**  
**Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000**  
As of June 30, 2023

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	7.0%	17.8%	42.7%	Information Technology
Microsoft Corp	6.2%	18.4%	33.9%	Information Technology
Amazon.com Inc	2.9%	26.2%	22.7%	Consumer Discretionary
NVIDIA Corp	2.4%	52.3%	179.3%	Information Technology
Tesla Inc	1.8%	26.2%	16.6%	Consumer Discretionary
Alphabet Inc Class A	1.7%	15.4%	9.9%	Communication Services
Meta Platforms Inc Class A	1.5%	35.4%	78.0%	Communication Services
Berkshire Hathaway Inc Class B	1.5%	10.4%	24.9%	Financials
Alphabet Inc Class C	1.5%	16.3%	10.6%	Communication Services
UnitedHealth Group Inc	1.1%	2.1%	-5.1%	Health Care

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
XP Inc Class A	0.0%	97.6%	30.6%	Financials
Wayfair Inc Class A	0.0%	89.3%	49.2%	Consumer Discretionary
Carnival Corp	0.0%	85.5%	117.7%	Consumer Discretionary
XPO Inc	0.0%	85.0%	95.0%	Industrials
Palantir Technologies Inc	0.1%	81.4%	69.0%	Information Technology
MongoDB Inc Class A	0.1%	76.3%	58.4%	Information Technology
Vertiv Holdings Co Class A	0.0%	73.1%	201.6%	Industrials
Nu Holdings Ltd Ordinary Shares	0.0%	65.8%	111.0%	Financials
AppLovin Corp Ordinary Shares -	0.0%	63.4%	-25.3%	Information Technology
Norwegian Cruise Line Holdings Ltd	0.0%	61.9%	95.8%	Consumer Discretionary

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Victoria's Secret & Co	0.0%	-49.0%	-37.7%	Consumer Discretionary
Advance Auto Parts Inc	0.0%	-41.5%	-58.1%	Consumer Discretionary
Tandem Diabetes Care Inc	0.0%	-39.6%	-58.5%	Health Care
First Horizon Corp	0.0%	-35.8%	-46.6%	Financials
Ubiquiti Inc	0.0%	-35.1%	-28.5%	Information Technology
Catalent Inc	0.0%	-34.0%	-59.6%	Health Care
Concentrix Corp Ordinary Shares	0.0%	-33.4%	-39.9%	Industrials
MarketAxess Holdings Inc	0.0%	-33.0%	3.1%	Financials
Mercury Systems Inc	0.0%	-32.3%	-46.2%	Industrials
Peloton Interactive Inc	0.0%	-32.2%	-16.2%	Consumer Discretionary

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Super Micro Computer Inc	0.5%	133.9%	517.7%	Information Technology
SPS Commerce Inc	0.3%	26.1%	69.9%	Information Technology
Rambus Inc	0.3%	25.2%	198.6%	Information Technology
Chart Industries Inc	0.3%	27.4%	-4.5%	Industrials
Novanta Inc	0.3%	15.7%	51.8%	Information Technology
Chord Energy Corp Ordinary Shares	0.3%	16.9%	38.0%	Energy
Light & Wonder Inc Ordinary Shares	0.3%	14.5%	46.3%	Consumer Discretionary
ChampionX Corp	0.3%	14.8%	57.8%	Energy
Atkore Inc	0.3%	11.0%	87.9%	Industrials
Commercial Metals Co	0.3%	8.0%	61.2%	Materials

Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
CXApp Inc Ordinary Shares - Class A	0.0%	503.3%	9.2%	Information Technology
Immunogen Inc	0.2%	391.4%	319.3%	Health Care
Applied Digital Corp	0.0%	317.4%	790.5%	Information Technology
Presto Automation Inc	0.0%	230.4%	N/A	Information Technology
EyePoint Pharmaceuticals Inc	0.0%	195.9%	10.5%	Health Care
CARISMA Therapeutics Inc	0.0%	182.9%	N/A	Health Care
P3 Health Partners Inc Class A	0.0%	182.1%	-19.6%	Health Care
Nano X Imaging Ltd Ordinary Shares	0.0%	168.5%	37.1%	Health Care
Carvana Co Class A	0.1%	164.8%	14.8%	Consumer Discretionary
Bit Digital Inc Ordinary Shares	0.0%	163.6%	209.9%	Information Technology

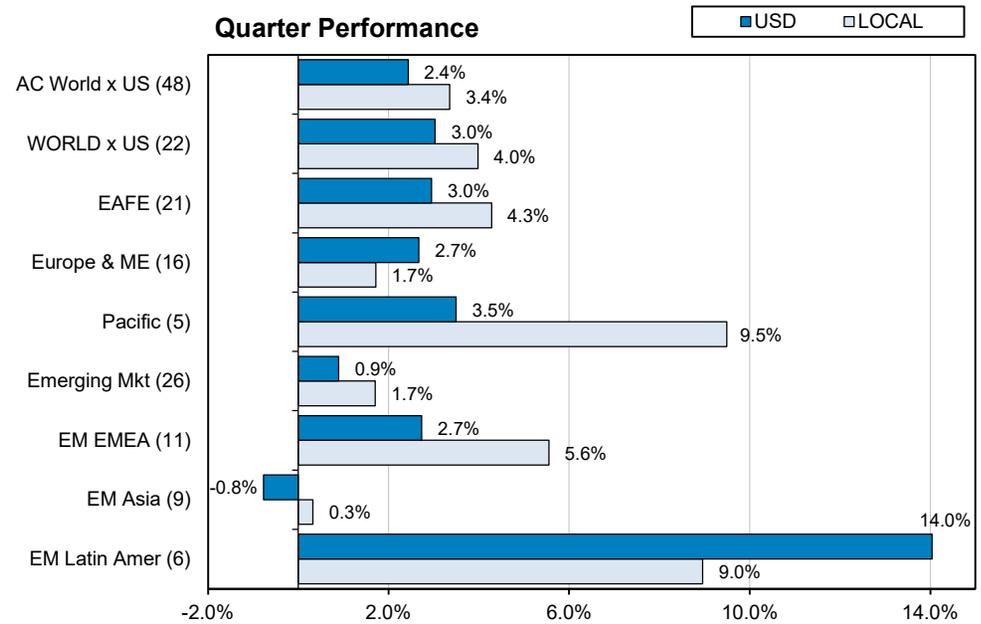
Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Babylon Holdings Ltd Ordinary Shares	0.0%	-98.6%	-99.7%	Health Care
ViewRay Inc	0.0%	-89.8%	-86.7%	Health Care
Rain Oncology Inc	0.0%	-86.3%	-78.4%	Health Care
FibroGen Inc	0.0%	-85.5%	-74.4%	Health Care
HomeStreet Inc	0.0%	-66.6%	-82.0%	Financials
BioXcel Therapeutics Inc	0.0%	-64.3%	-49.5%	Health Care
Orchestra BioMed Holdings Inc	0.0%	-64.2%	N/A	Health Care
PolyMet Mining Corp	0.0%	-63.2%	-68.6%	Materials
Enviva Inc	0.0%	-62.4%	-80.1%	Energy
NanoString Technologies Inc	0.0%	-59.1%	-68.1%	Health Care

Source: Morningstar Direct

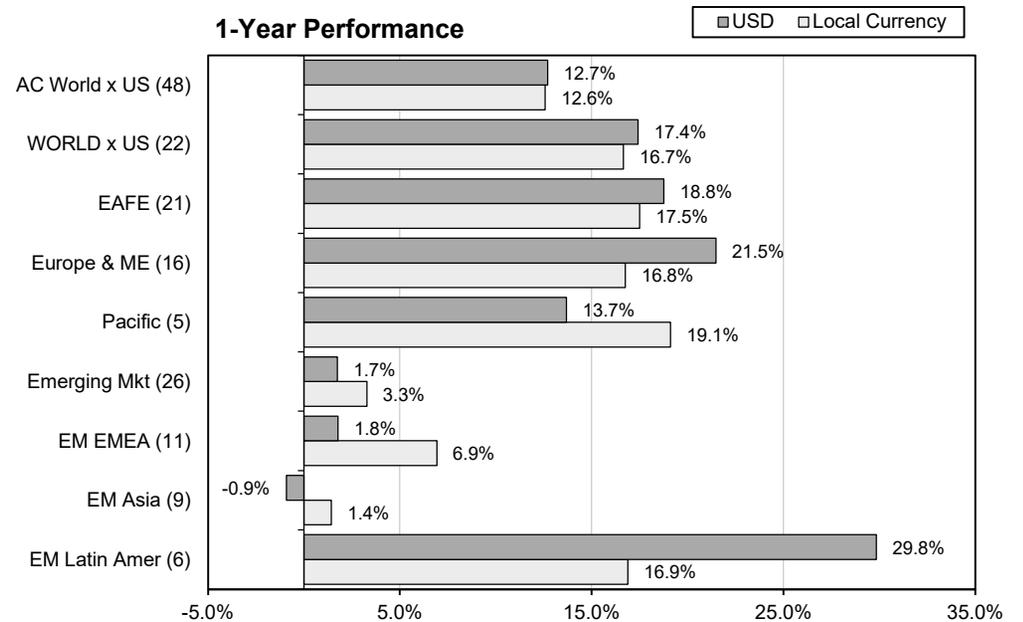


- Many of the international developed and emerging market benchmarks posted positive performance in both USD and LCL terms for the second quarter. While the strengthening of the USD chilled non-US index performance in USD during the quarter, the developed market MSCI EAFE Index still returned a solid 3.0% in USD and 4.3% in LCL terms for the period. The MSCI Emerging Markets Index rose by 0.9% in USD and 1.7% in LCL terms.
- Latin America (LATAM) dramatically outpaced other emerging markets for the quarter with the regional index earning a solid 14.0% in USD and 9.0% in LCL terms. Performance in the region was driven by strong demand for commodity exports from growing worldwide production along with a USD performance boost due to local currency strength in the region.
- The largest weighted country in the emerging market index (China, 8.2%) lagged during the quarters. Investors have struggled to accurately forecast the pace of China's recovery after its grand economic reopening from COVID-19 lockdowns, which led to a flurry of spending that has since cooled.
- Much like domestic markets, trailing one-year results for international developed and emerging markets rolled off their poor performance from early 2022 which resulted in strong results for the trailing year. Much of the strong USD performance in late 2022 has been reversed in 2023 with the MSCI EAFE Index returning 18.8% in USD for the year and 17.5% in LCL terms.
- Annual returns across emerging markets were more bifurcated. Latin American results led the way with returns of 29.8% in USD and 16.9% in LC terms. Performance in the EM Asia regional benchmark detracted from emerging market index with the EM Asia Index posting returns of -0.9% in USD and 1.4% in LCL terms. As a result, the broad MSCI Emerging Markets Index returned a muted 1.7% in USD and 3.3% in LCL terms for the year.

**Quarter Performance**



**1-Year Performance**



Source: MSCI Global Index Monitor (Returns are Net)



**The Market Environment**  
**US Dollar International Index Attribution & Country Detail**  
As of June 30, 2023

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	4.1%	-2.6%	2.2%
Consumer Discretionary	12.6%	5.0%	30.6%
Consumer Staples	10.1%	-0.6%	9.9%
Energy	4.2%	0.1%	14.3%
Financials	18.3%	4.6%	20.2%
Health Care	13.2%	2.0%	9.8%
Industrials	16.2%	6.2%	29.6%
Information Technology	8.2%	5.9%	32.7%
Materials	7.4%	-1.7%	16.4%
Real Estate	2.3%	-2.0%	-7.4%
Utilities	3.5%	4.0%	16.5%
<b>Total</b>	<b>100.0%</b>	<b>3.0%</b>	<b>18.8%</b>

MSCI - ACWixUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.5%	-4.6%	-0.7%
Consumer Discretionary	12.1%	1.5%	12.6%
Consumer Staples	8.6%	-0.4%	9.0%
Energy	5.4%	3.4%	9.4%
Financials	20.6%	4.9%	13.2%
Health Care	9.6%	1.5%	7.4%
Industrials	13.2%	5.4%	24.9%
Information Technology	11.9%	6.1%	24.1%
Materials	7.9%	-2.7%	10.7%
Real Estate	2.0%	-2.5%	-9.5%
Utilities	3.2%	3.7%	7.8%
<b>Total</b>	<b>100.0%</b>	<b>2.4%</b>	<b>12.7%</b>

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	9.8%	-6.8%	-3.6%
Consumer Discretionary	13.2%	-6.3%	-15.3%
Consumer Staples	6.4%	0.3%	4.4%
Energy	5.0%	12.1%	13.5%
Financials	21.9%	5.7%	6.4%
Health Care	3.8%	-2.5%	-9.6%
Industrials	6.3%	1.8%	5.3%
Information Technology	21.2%	5.1%	14.1%
Materials	8.1%	-4.2%	1.8%
Real Estate	1.8%	-4.9%	-17.7%
Utilities	2.6%	4.2%	-6.7%
<b>Total</b>	<b>100.0%</b>	<b>0.9%</b>	<b>1.7%</b>

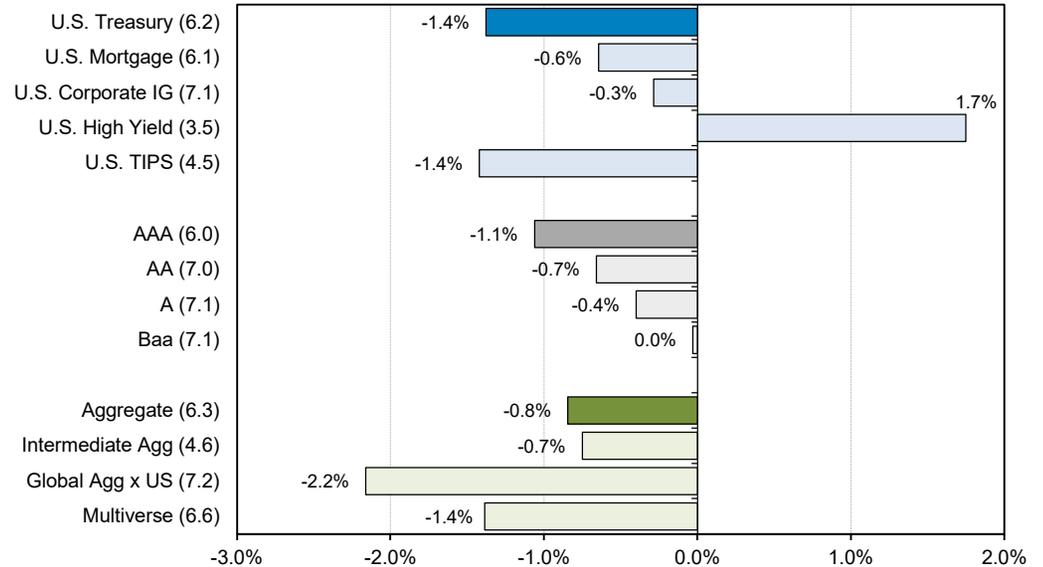
Country	MSCI-EAFE Weight	MSCI-ACWixUS Weight	Quarter Return	1-Year Return
Japan	22.4%	14.5%	6.4%	18.1%
United Kingdom	14.7%	9.5%	2.2%	13.2%
France	12.4%	8.0%	3.2%	31.7%
Switzerland	10.1%	6.5%	4.0%	13.3%
Germany	8.6%	5.6%	2.8%	28.4%
Australia	7.3%	4.7%	0.3%	11.2%
Netherlands	4.6%	3.0%	4.1%	31.2%
Sweden	3.3%	2.1%	-1.2%	16.6%
Denmark	3.1%	2.0%	1.7%	31.9%
Spain	2.6%	1.7%	5.6%	29.0%
Italy	2.5%	1.6%	8.2%	43.4%
Hong Kong	2.5%	1.6%	-5.1%	-9.0%
Singapore	1.4%	0.9%	-5.6%	10.0%
Belgium	0.9%	0.6%	-6.1%	6.1%
Finland	0.9%	0.6%	-8.1%	-1.2%
Ireland	0.8%	0.5%	4.3%	45.3%
Norway	0.6%	0.4%	-1.0%	-9.0%
Israel	0.6%	0.4%	-4.0%	-4.7%
Portugal	0.2%	0.1%	-1.1%	6.7%
New Zealand	0.2%	0.1%	-6.0%	15.5%
Austria	0.2%	0.1%	4.4%	18.9%
<b>Total EAFE Countries</b>	<b>100.0%</b>	<b>64.6%</b>	<b>3.0%</b>	<b>18.8%</b>
Canada		7.6%	3.7%	7.0%
<b>Total Developed Countries</b>		<b>72.2%</b>	<b>3.0%</b>	<b>17.4%</b>
China		8.2%	-9.7%	-16.8%
Taiwan		4.3%	4.5%	12.5%
India		4.1%	12.2%	14.2%
Korea		3.4%	4.4%	13.0%
Brazil		1.5%	20.7%	29.8%
Saudi Arabia		1.2%	6.3%	-1.7%
South Africa		0.9%	-4.9%	-1.9%
Mexico		0.8%	5.6%	35.1%
Indonesia		0.6%	2.8%	13.2%
Thailand		0.5%	-8.2%	1.7%
Malaysia		0.4%	-8.4%	-6.4%
United Arab Emirates		0.4%	5.8%	-6.1%
Qatar		0.3%	-2.4%	-15.4%
Poland		0.2%	24.5%	36.4%
Kuwait		0.2%	-0.9%	-4.7%
Philippines		0.2%	-1.3%	5.8%
Chile		0.2%	2.4%	18.1%
Turkey		0.2%	-10.7%	53.3%
Greece		0.1%	23.9%	71.3%
Peru		0.1%	6.5%	34.0%
Hungary		0.1%	24.8%	48.8%
Czech Republic		0.0%	-5.1%	8.7%
Colombia		0.0%	11.7%	-5.7%
Egypt		0.0%	3.9%	27.0%
<b>Total Emerging Countries</b>		<b>27.8%</b>	<b>0.9%</b>	<b>1.7%</b>
<b>Total ACWixUS Countries</b>		<b>100.0%</b>	<b>2.4%</b>	<b>12.7%</b>

Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)  
As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.

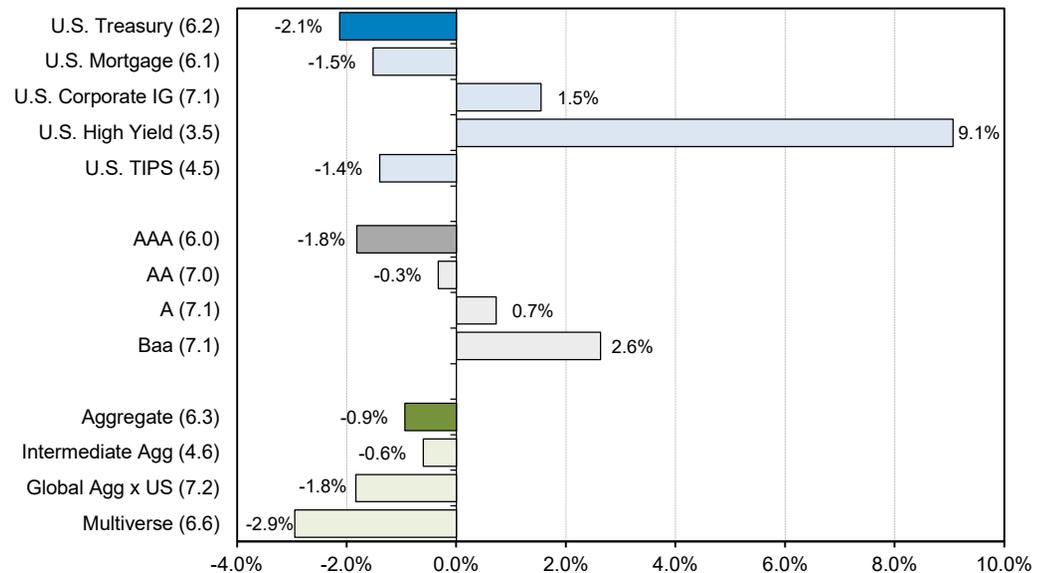


- Fixed income markets started 2023 strong but performance stalled during the second quarter. Yields remain elevated on the back of the Federal Reserve's decision to hike policy rates an additional 0.25% in May. After a challenging 2022 in fixed-income markets brought on by the largest and most rapid increase in interest rates since the early 1980s, higher yields and an expected slower pace of rate increase led investors to expect better outcomes in 2023. That expectation was at least temporarily frustrated during the second quarter, as the quarter's 0.25% rate hike and increased expectations for future rate hikes weighed on the asset class and many of the major domestic fixed-income indices posted negative absolute returns.
- The Bloomberg US Aggregate Bond Index, the bellwether US investment grade benchmark, returned a mild negative result, returning -0.8% for the quarter. Performance across the investment grade index's segments soured during the period with the Bloomberg US Corporate Investment Grade Index returning -0.3% and the US Mortgage Index sliding -0.6%.
- Outside of the aggregate index's sub-components, high-yield bonds continued to rise with a return of 1.7% as credit spreads narrowed during the quarter. US TIPS lost -1.4% for the quarter. The Bloomberg Global Aggregate ex-US Index lagged most domestic fixed-income indexes and the multiverse benchmark, posting a loss of -2.2% for the quarter.
- Over the trailing one-year period, the Bloomberg US Aggregate Bond Index declined by -0.9%. The benchmark's sub-components fell in a narrow band above and below the broad index's return. US TIPS, which are excluded from the aggregate index, dropped by -1.4% for the year. High-yield corporate bonds, which have a much shorter duration, have outpaced their investment grade counterparts with the Bloomberg US High Yield Index returning a strong 9.1% for the last year.
- Performance for non-US bonds was also negative for the year with the Bloomberg Global Aggregate ex-US Index falling by -1.8%. The combination of rising interest rates, elevated inflation, and geopolitical risks were a hindrance for non-US index performance.

**Quarter Performance**



**1-Year Performance**

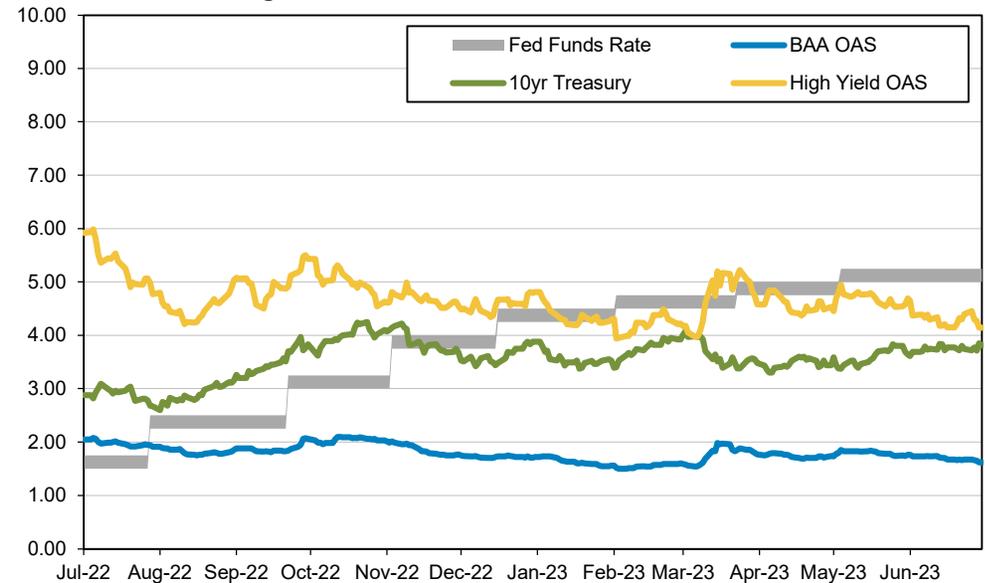


Source: Bloomberg

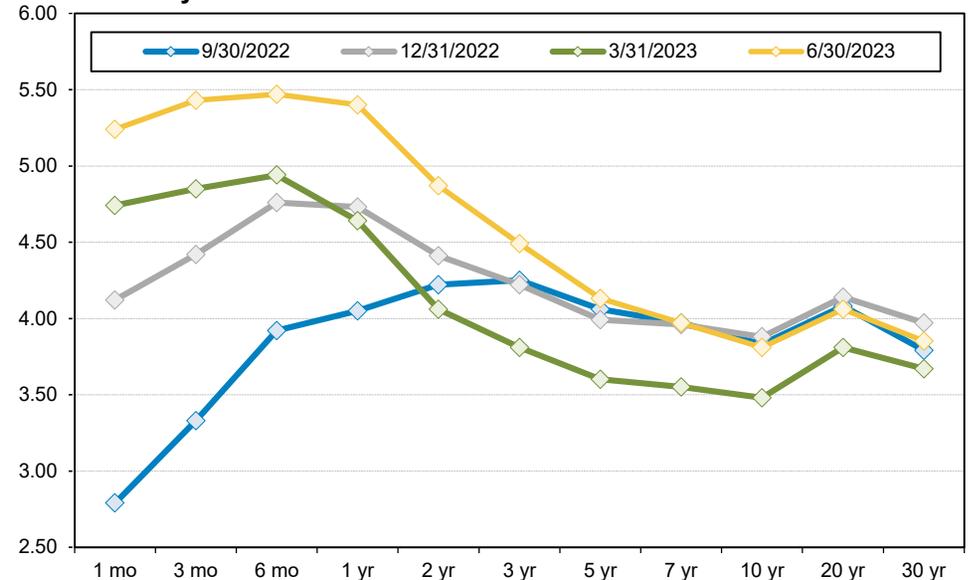


- The gray band across the graph illustrates the range of the current Fed Funds target rate. During the second quarter, the Federal Open Market Committee (FOMC) raised the lower end of its target rate range from 4.75% to 5.00% at their May meeting. While the FOMC pushed pause on a rate increase at their June meeting, several speeches and public comments since that meeting have made it clear that additional rate hikes should not be ruled out. The FOMC is continuing its policy of removing liquidity from the market by allowing bonds held on its balance sheet to mature without reinvesting those proceeds. Despite the potential for further rate increases, market participants appear to believe the Fed may be nearing the end of its rate hiking cycle.
- The yield on the US 10-year Treasury (green line) rose a modest 0.33% partially due to increases in the policy rate and renewed prospects for future growth. The closing yield on the 10-Year Treasury was 3.81% as of June 30, 2023, down just 7 basis points from its 3.88% yield at year-end. The benchmark's rate peaked in October 2022, cresting at just over 4.00% before pulling back to its current level.
- The blue line illustrates changes in the BAA OAS (Option Adjusted Spread) for BAA-rated corporate bonds. This measure quantifies the additional yield premium that investors require to purchase and hold non-US Treasury investment grade issues with the lowest investment grade rating. For the full year, the spread has narrowed from 2.05% to 1.62%, signaling a lower premium for credit risk than was the case a year prior. High Yield OAS spreads have narrowed from 5.92% in July 2022 to 4.14% as of the end of Q2. High-yield spreads reached their highs in July 2022 before trading lower the remainder of the year and have continued to tighten in 2023. A spike in both the BAA OAS and High Yield spreads is visible in March following a short-lived crisis of confidence in the banking sector, which was addressed quickly by the FDIC and supported further by the Fed's aggressive short-term par loan program. Both spread measures traded lower on the news of the Government's intervention, and as fears of possible contagion waned, credit spreads returned to their levels prior to February.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four quarters. Short-term rates continued to rise during the second quarter as the Fed increased interest rates to continue combatting inflation. Despite these short-term rate increases, at the end of the quarter, both intermediate and longer-term yields were slightly lower than they were at the end of 2022. The yield curve has further inverted (short-term rates higher than long-term rates) between two- and 10-year maturities. Historically, a persistent inversion of these two key rates has been a precursor of an economic recession within six- to 24 months.

1-Year Trailing Market Rates



Treasury Yield Curve



Source: US Department of Treasury, FRED (Federal Reserve of St. Louis)



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**Evaluation Process**

This section presents charts and graphs that highlight the investment character of each portfolio analyzed. The performance, portfolio characteristics, risk profile, and style traits of each portfolio are compared against those of its benchmark(s) and other funds with similar objectives. Eight criteria-specific rankings are developed, and then combined, to establish each portfolio's overall status.

The table below describes the evaluation standards used. Significant changes in portfolio characteristics compared to historical positioning, large performance deficits, and risk or style shortcomings are fundamental factors in concluding if remedial action is advisable. However, a violation of one of more of the standards does not automatically require remedial action.

Investment Policy Criteria	Weighting	Summary of Evaluation
<b>Manager Performance</b>		
Investment Returns vs. Peer Group	20%	A fund is evaluated relative to where its 1, 3 and 5-year returns fall within its peer group. The results for each period are combined to determine total ranking (satisfactory, modest breach, significant concern). A similar process is used to evaluate the fund's performance relative to its benchmark(s).
Historical Performance vs. Benchmark	20%	
<b>Portfolio Characteristics</b>		
Adherence to Standards	10%	These criteria compare portfolio characteristics such as market capitalization, number of holdings, cash, and concentration of holdings against objective standards and benchmarks. For example, a fund with a high allocation to cash or with a high/low average market capitalization relative to its benchmark will receive a lower grade. Additionally, funds having less than three years of performance history or having manager tenure of less than three years will receive a lower grade.
Inception & Manager Tenure	10%	
<b>Risk Profile</b>		
Sharpe Ratio & Standard Deviation Relative to Peer Group	10%	A fund is evaluated relative to where its 3- and 5-year Sharpe ratio and standard deviation fall within its peer group. The results for each period are combined to determine total ranking. A similar process is used to evaluate the fund's Sharpe ratio and standard deviation relative to its benchmark(s).
Sharpe Ratio & Standard Deviation Relative to Benchmark	10%	
<b>Style Traits</b>		
Adherence to Investment Objectives	10%	A fund's style is evaluated based upon how closely it adheres to its stated investment objective and how stable its style has been historically. Criteria used to evaluate a fund's style traits include returns-based style analysis, statistics such as r-squared, and portfolio characteristics such as price/earnings ratio. Funds with style traits that are inconsistent with their stated objective or historically unstable receive lower grades.
Historical Style Stability	10%	
<b>Status</b>		
Overall Status		The results for all criteria are combined to determine an overall ranking for the fund. Rankings include Satisfactory, Modest Breach ("Guarded" status) and Significant Concern ("Watch List" status).

Note: Grades are based on AndCo's Proprietary scale



**Portfolio Evaluation Summary**

This report provides opinions, analysis, and supporting statistical information concerning:

- the performance, volatility, and characteristics of each designated Plan fund
- the continuing suitability of each fund as a Plan investment option

**Portfolio Performance and Suitability of Plan Funds**

Our overall evaluation of the Plan's investment funds may be summarized as follows:

Summary Evaluation	Number of Funds
Pass (Satisfactory)	14
Guarded	1
Watch	1

See the Plan Funds Observations and Comments, below, for further explanation.

**Plan Fund Observations and Comments**

The majority of Plan funds have substantially achieved their category-specific standards for performance, controlled volatility, and portfolio characteristics. The charts in the following pages reveal some modest breaches compared to established

evaluation standards; however, we do not find divergences from the funds' stated objectives or styles that are worrisome except as discussed below.

**Fund Commentary**

The Hartford Mid Cap Fund remains on GUARDED status due to near term underperformance that has impacted longer term relative performance. The Fund continues to suffer from some significant underperformance experienced earlier during 2022. The fund did post exceptionally good performance during the first quarter as exposures to consumer discretionary, industrials and technology bounced back. However, second quarter results struggled in heavily weighted sectors like technology, industrials and healthcare. We will continue to monitor the fund, we are not recommending any changes at this time.

The American Century Equity Income Fund was placed on WATCH status due to near term underperformance that has undermined the downside protection the fund provided in 2022.. The Funds relative performance suffered from exposures to financials, utilities, real estate and communication services. The fund has performed in the top 20th percentile in three of the last seven years and been ranked in the bottom 75th percentile in four of the last seven. We are recommending that the committee seek alternatives for this strategy.



**Portfolio Evaluation Summary**

- 1 Trailing 1, 3 and 5-year portfolio returns versus peer group
- 2 Historic performance relative to benchmark
- 3 Portfolio characteristics compared to established standards
- 4 At least 3 years of investment performance/At least 3 years with current fund manager
- 5 Sharpe ratio and standard deviation of fund relative to peer group
- 6 Sharpe ratio and standard deviation of fund relative to benchmark
- 7 Style consistent with fund objective
- 8 Style historically stable
- 9 Summary Evaluation

Pass (Satisfactory)
Guarded
Watch

Investment Funds	1	2	3	4	5	6	7	8	9
American Funds EuroPacific Growth (RERGX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Allspring Small Co Growth R6 (WSCRX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Vanguard Small Cap Index Adm (VSMAX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
AMG Managers Skyline Special Equities (SKSEX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hartford Mid Cap (HIMCX)	Guarded	Guarded	Pass	Pass	Pass	Pass	Pass	Pass	Guarded
Vanguard Mid Cap Index Adm (VIMAX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
American Funds Growth Fund of America (RGAGX)	Pass	Guarded	Pass						
Allspring Disciplined US Core (EVSIX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Vanguard Institutional Index (VINIX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
American Century Equity Income (AEUDX)	Watch	Watch	Pass	Pass	Pass	Pass	Pass	Pass	Watch
American Funds Target Date 2060-2010 R6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
American Funds American Balanced (RLBGX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
PIMCO High Yield (PHIYX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
PIMCO Foreign Bond USD-Hedged (PFORX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hartford Total Return Bond (HIABX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Voya Fixed Account	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass



**Historical Summary Evaluation**

Pass (Satisfactory)

Guarded

Watch

<b>Investment Funds</b>	<b>1Q23</b>	<b>4Q22</b>	<b>3Q22</b>	<b>2Q22</b>	<b>1Q22</b>	<b>4Q21</b>	<b>3Q21</b>	<b>2Q21</b>	<b>1Q21</b>
American Funds EuroPacific Growth (RERGX)	Pass								
Allspring Small Co Growth R6 (WSCRX)	Pass	Guarded	Guarded						
Vanguard Small Cap Index Adm (VSMAX)	Pass								
AMG Managers Skyline Special Equities (SKSEX)	Pass								
Hartford Mid Cap (HIMCX)	Guarded	Guarded	Guarded	Guarded	Guarded	Pass	Pass	Pass	Guarded
Vanguard Mid Cap Index Adm (VIMAX)	Pass								
American Funds Growth Fund of America (RGAGX)	Pass	Pass	Pass	Guarded	Guarded	Guarded	Pass	Pass	Pass
Allspring Disciplined US Core (EVSIX)	Pass	Guarded	Guarded						
Vanguard Institutional Index (VINIX)	Pass								
American Century Equity Income (AEUDX)	Pass	Pass	Pass	Guarded	Guarded	Guarded	Guarded	Guarded	Pass
American Funds Target Date 2060-2010 R6	Pass								
American Funds American Balanced (RLBGX)	Pass								
PIMCO High Yield (PHIYX)	Pass								
PIMCO Foreign Bond USD-Hedged (PFORX)	Pass								
Hartford Total Return Bond (HIABX)	Pass								
Voya Fixed Account	Pass								



**Asset Allocation Attributes**

	Jun-2023		Mar-2023		Dec-2022	
	(\$)	%	(\$)	%	(\$)	%
<b>Total 457 Fund</b>	<b>194,480,417</b>	<b>100.00</b>	<b>190,854,267</b>	<b>100.00</b>	<b>186,584,228</b>	<b>100.00</b>
<b>International Equity</b>						
American Funds EuroPacific Growth (RERGX)	5,950,888	3.06	6,041,812	3.17	5,436,657	2.91
<b>Domestic Equity</b>						
Allspring Small Co Growth (WSCRX)	2,427,393	1.25	2,387,505	1.25	2,234,601	1.20
Vanguard Small Cap Index (VSMAX)	3,979,817	2.05	3,837,554	2.01	3,790,350	2.03
AMG Managers Skyline Special Equities (SKSEX)	1,850,814	0.95	1,914,184	1.00	1,850,307	0.99
Hartford Mid Cap (HIMCX)	8,303,483	4.27	8,384,597	4.39	7,919,433	4.24
Vanguard Mid Cap Index (VIMAX)	7,011,334	3.61	6,853,324	3.59	6,643,689	3.56
AF Growth Fund of America (RGAGX)	17,420,040	8.96	15,934,077	8.35	14,524,709	7.78
Allspring Disciplined US Core (EVSIX)	13,269,289	6.82	12,414,457	6.50	11,825,281	6.34
Vanguard Institutional Index (VINIX)	22,280,668	11.46	20,609,372	10.80	19,455,169	10.43
American Century Equity Income (AEUDX)	6,932,572	3.56	6,989,713	3.66	7,112,800	3.81
<b>Balanced Fund</b>						
American Funds American Balanced (RLBGX)	6,883,343	3.54	6,683,418	3.50	6,787,679	3.64
<b>Fixed Income</b>						
PIMCO High Yield (PHIYX)	2,330,318	1.20	2,203,973	1.15	2,126,652	1.14
PIMCO Foreign Bond USD-Hedged (PFORX)	445,689	0.23	475,407	0.25	484,327	0.26
Hartford Total Return Bond (HIABX)	3,255,307	1.67	3,462,082	1.81	3,431,161	1.84
<b>Cash</b>						
Voya Fixed Account	69,570,955	35.77	72,349,311	37.91	72,503,469	38.86
Loan Account	2,355,599	1.21	1,031,772	0.54	2,128,479	1.14



**Asset Allocation**  
**457 Target Date Funds**  
As of June 30, 2023

Asset Allocation Attributes	Jun-2023		Mar-2023		Dec-2022	
	(\$)	%	(\$)	%	(\$)	%
American Funds 2060 TD Fund R6 (RFUTX)	345,326	1.71	282,447	1.46	243,967	1.33
American Funds 2055 TD Fund R6 (RFKTX)	365,997	1.81	305,826	1.59	252,309	1.38
American Funds 2050 TD Fund R6 (RFITX)	2,613,811	12.93	2,412,678	12.51	2,171,389	11.85
American Funds 2045 TD Fund R6 (RFHTX)	1,861,545	9.21	1,718,914	8.91	1,469,959	8.02
American Funds 2040 TD Fund R6 (RFGTX)	5,068,923	25.08	4,869,492	25.25	4,631,800	25.27
American Funds 2035 TD Fund R6 (RFFTX)	1,739,971	8.61	1,600,398	8.30	1,435,707	7.83
American Funds 2030 TD Fund R6 (RFETX)	4,853,170	24.01	4,706,769	24.41	4,582,783	25.00
American Funds 2025 TD Fund R6 (RFDTX)	1,571,620	7.78	1,716,173	8.90	1,944,528	10.61
American Funds 2020 TD Fund R6 (RRCTX)	1,525,011	7.54	1,515,203	7.86	1,473,661	8.04
American Funds 2015 TD Fund R6 (RFJTX)	40,377	0.20	36,405	0.19	31,180	0.17
American Funds 2010 TD Fund R6 (RFTTX)	227,158	1.12	117,402	0.61	92,183	0.50
<b>Target Date Funds Total</b>	<b>20,212,908</b>	<b>100.00</b>	<b>19,281,707</b>	<b>100.00</b>	<b>18,329,465</b>	<b>100.00</b>

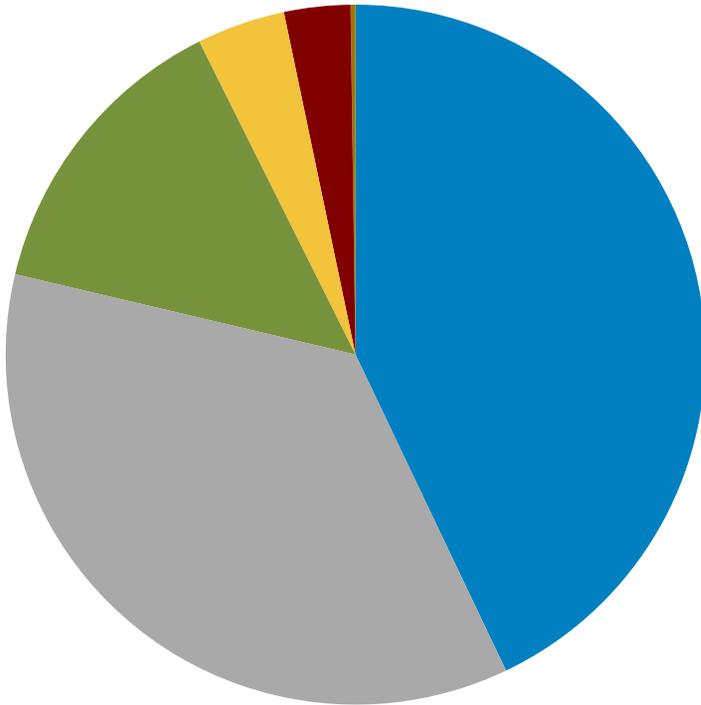


**Asset Allocation by Asset Class**  
**457 Total Plan**  
 As of June 30, 2023

Jun-2023 : \$194,480,417

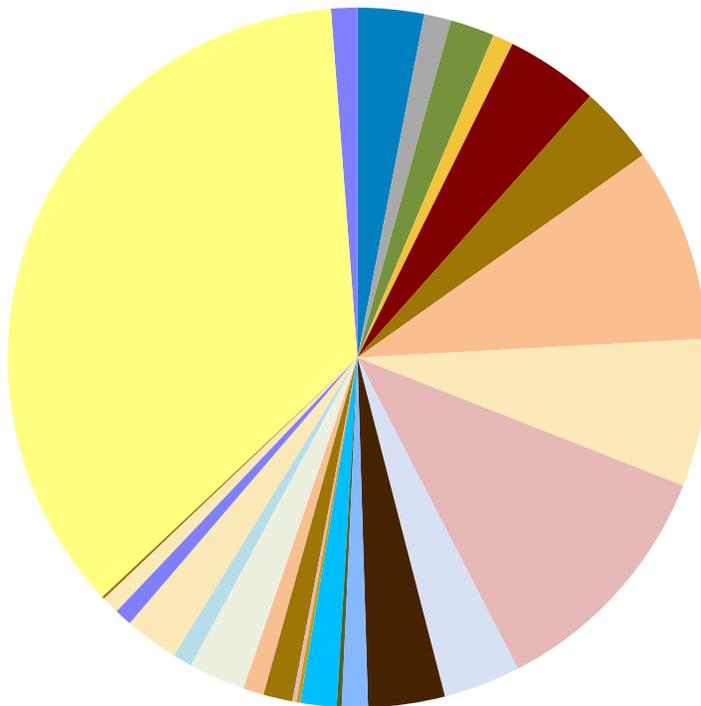
**Allocation**

	Market Value	Allocation
■ US Equity	83,475,411	42.9
■ Cash	69,570,955	35.8
■ US Balanced	27,096,251	13.9
■ US Fixed Income	7,941,223	4.1
■ International Equity	5,950,888	3.1
■ International Fixed Income	445,689	0.2



**Asset Allocation by Asset Class**  
**457 Total Plan**  
 As of June 30, 2023

Jun-2023 : \$194,480,417



**Allocation**

	Market Value	Allocation
American Funds EuroPacific Growth (RERGX)	5,950,888	3.1
Allspring Small Co Growth (WSCRX)	2,427,393	1.2
Vanguard Small Cap Index (VSMAX)	3,979,817	2.0
AMG Managers Skyline Special Equities (SKSEX)	1,850,814	1.0
Hartford Mid Cap (HIMCX)	8,303,483	4.3
Vanguard Mid Cap Index (VIMAX)	7,011,334	3.6
AF Growth Fund of America (RGAGX)	17,420,040	9.0
Allspring Disciplined US Core (EVSIX)	13,269,289	6.8
Vanguard Institutional Index (VINIX)	22,280,668	11.5
American Century Equity Income (AEUDX)	6,932,572	3.6
American Funds American Balanced (RLBGX)	6,883,343	3.5
PIMCO High Yield (PHIYX)	2,330,318	1.2
PIMCO Foreign Bond USD-Hedged (PFORX)	445,689	0.2
Hartford Total Return Bond (HIABX)	3,255,307	1.7
American Funds 2060 TD Fund R6 (RFUTX)	345,326	0.2
American Funds 2055 TD Fund R6 (RFKTX)	365,997	0.2
American Funds 2050 TD Fund R6 (RFITX)	2,613,811	1.3
American Funds 2045 TD Fund R6 (RFHTX)	1,861,545	1.0
American Funds 2040 TD Fund R6 (RFGTX)	5,068,923	2.6
American Funds 2035 TD Fund R6 (RFFTX)	1,739,971	0.9
American Funds 2030 TD Fund R6 (RFETX)	4,853,170	2.5
American Funds 2025 TD Fund R6 (RFDTX)	1,571,620	0.8
American Funds 2020 TD Fund R6 (RRCTX)	1,525,011	0.8
American Funds 2015 TD Fund R6 (RFJTX)	40,377	0.0
American Funds 2010 TD Fund R6 (RFTTX)	227,158	0.1
Voya Fixed Account	69,570,955	35.8
Loan Account	2,355,599	1.2



**Asset Allocation Attributes**

	Jun-2023		Mar-2023		Dec-2022	
	(\$)	%	(\$)	%	(\$)	%
<b>Total 401(a) Fund</b>	<b>13,783,278</b>	<b>100.00</b>	<b>13,192,698</b>	<b>100.00</b>	<b>12,950,276</b>	<b>100.00</b>
<b>International Equity</b>						
American Funds EuroPacific Growth (RERGX)	345,140	2.50	334,299	2.53	300,579	2.32
<b>Domestic Equity</b>						
Allspring Small Co Growth (WSCRX)	132,985	0.96	127,037	0.96	118,018	0.91
Vanguard Small Cap Index (VSMAX)	306,790	2.23	293,483	2.22	303,561	2.34
AMG Managers Skyline Special Equities (SKSEX)	369,271	2.68	365,817	2.77	349,390	2.70
Hartford Mid Cap (HIMCX)	617,539	4.48	603,143	4.57	584,517	4.51
Vanguard Mid Cap Index (VIMAX)	529,754	3.84	486,939	3.69	487,803	3.77
American Funds Growth Fund of America (RGAGX)	1,031,471	7.48	924,808	7.01	845,276	6.53
Allspring Disciplined US Core (EVSIX)	882,010	6.40	810,013	6.14	751,070	5.80
Vanguard Institutional Index (VINIX)	1,762,261	12.79	1,556,640	11.80	1,449,158	11.19
American Century Equity Income (AEUDX)	524,075	3.80	513,044	3.89	510,306	3.94
<b>Balanced Fund</b>						
American Funds American Balanced (RLBGX)	921,292	6.68	879,835	6.67	847,232	6.54
<b>Fixed Income</b>						
PIMCO High Yield (PHIYX)	117,312	0.85	114,715	0.87	115,099	0.89
PIMCO Foreign Bond USD-Hedged (PFORX)	74,931	0.54	73,519	0.56	76,443	0.59
Hartford Total Return Bond (HIABX)	188,079	1.36	187,016	1.42	184,988	1.43
<b>Cash</b>						
Voya Fixed Account	4,624,018	33.55	4,644,118	35.20	4,762,088	36.77
Loan Account	106,837	0.78	83,813	0.64	134,815	1.04



**Asset Allocation**  
**401(a) Target Date Funds**  
As of June 30, 2023

**Asset Allocation Attributes**

	Jun-2023		Mar-2023		Dec-2022	
	(\$)	%	(\$)	%	(\$)	%
American Funds 2060 TD Fund R6 (RFUTX)	21,058	1.69	18,837	1.58	16,542	1.46
American Funds 2055 TD Fund R6 (RFKTX)	-	0.00	-	0.00	-	0.00
American Funds 2050 TD Fund R6 (RFITX)	81,150	6.49	72,626	6.08	88,351	7.82
American Funds 2045 TD Fund R6 (RFHTX)	12,189	0.98	10,146	0.85	8,021	0.71
American Funds 2040 TD Fund R6 (RFGTX)	209,506	16.77	192,002	16.07	173,057	15.32
American Funds 2035 TD Fund R6 (RFFTX)	216,985	17.37	195,193	16.34	170,768	15.11
American Funds 2030 TD Fund R6 (RFETX)	430,191	34.43	413,108	34.59	390,449	34.56
American Funds 2025 TD Fund R6 (RFDTX)	201,374	16.12	196,163	16.42	185,841	16.45
American Funds 2020 TD Fund R6 (RRCTX)	-	0.00	-	0.00	-	0.00
American Funds 2015 TD Fund R6 (RFJTX)	6	0.00	6	0.00	7	0.00
American Funds 2010 TD Fund R6 (RFTTX)	77,054	6.17	96,379	8.07	96,898	8.58
<b>Target Date Funds Total</b>	<b>1,249,514</b>	<b>100.00</b>	<b>1,194,460</b>	<b>100.00</b>	<b>1,129,934</b>	<b>100.00</b>

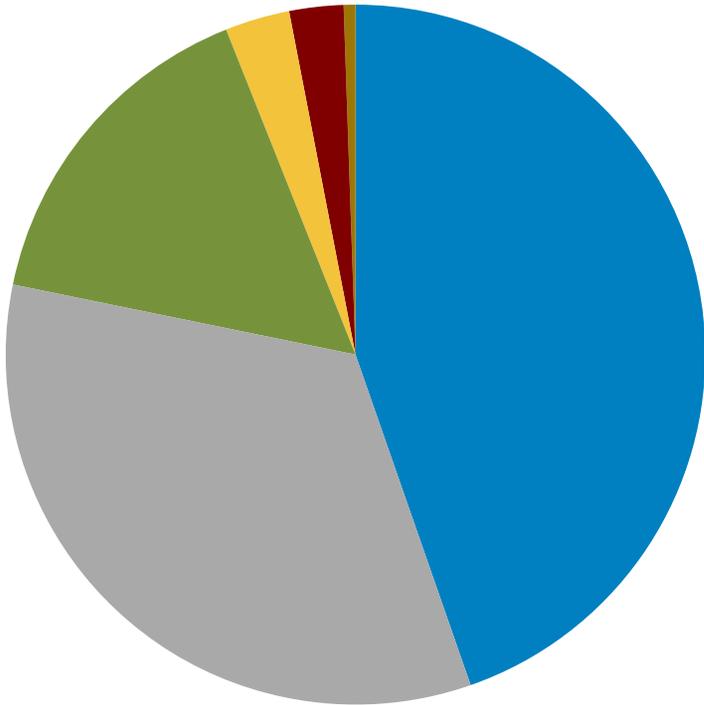


**Asset Allocation by Asset Class**  
**401(a) Total Plan**  
**As of June 30, 2023**

Jun-2023 : \$13,783,278

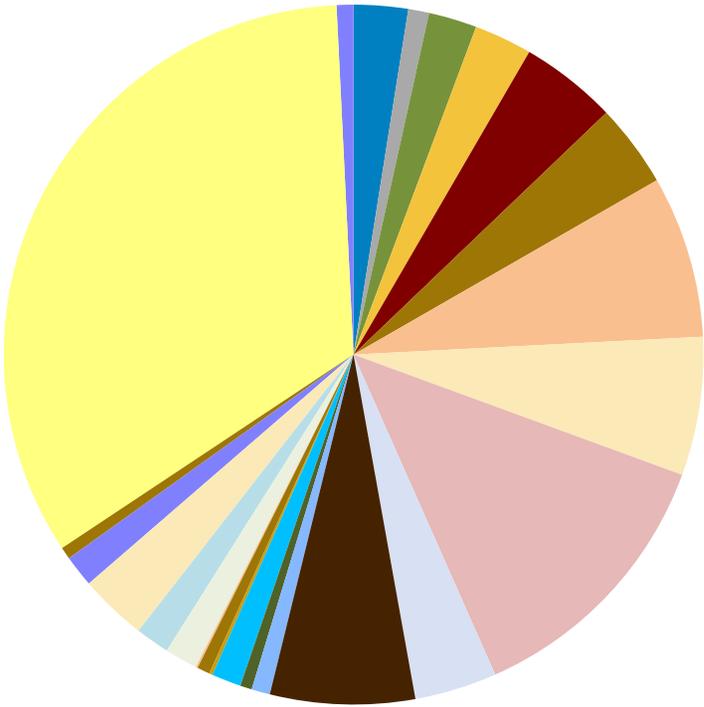
**Allocation**

	<b>Market Value</b>	<b>Allocation</b>
■ US Equity	6,156,156	44.7
■ Cash	4,624,018	33.5
■ US Balanced	2,170,805	15.7
■ US Fixed Income	412,228	3.0
■ International Equity	345,140	2.5
■ International Fixed Income	74,931	0.5



**Asset Allocation by Asset Class**  
**401(a) Total Plan**  
**As of June 30, 2023**

Jun-2023 : \$13,783,278



Allocation	Market Value	Allocation
American Funds EuroPacific Growth (RERGX)	345,140	2.5
Allspring Small Co Growth (WSCRX)	132,985	1.0
Vanguard Small Cap Index (VSMAX)	306,790	2.2
AMG Managers Skyline Special Equities (SKSEX)	369,271	2.7
Hartford Mid Cap (HIMCX)	617,539	4.5
Vanguard Mid Cap Index (VIMAX)	529,754	3.8
American Funds Growth Fund of America (RGAGX)	1,031,471	7.5
Allspring Disciplined US Core (EVSIX)	882,010	6.4
Vanguard Institutional Index (VINIX)	1,762,261	12.8
American Century Equity Income (AEUDX)	524,075	3.8
American Funds American Balanced (RLBGX)	921,292	6.7
PIMCO High Yield (PHIYX)	117,312	0.9
PIMCO Foreign Bond USD-Hedged (PFORX)	74,931	0.5
Hartford Total Return Bond (HIABX)	188,079	1.4
American Funds 2060 TD Fund R6 (RFUTX)	21,058	0.2
American Funds 2055 TD Fund R6 (RFKTX)	-	0.0
American Funds 2050 TD Fund R6 (RFITX)	81,150	0.6
American Funds 2045 TD Fund R6 (RFHTX)	12,189	0.1
American Funds 2040 TD Fund R6 (RFGTX)	209,506	1.5
American Funds 2035 TD Fund R6 (RFFTX)	216,985	1.6
American Funds 2030 TD Fund R6 (RFETX)	430,191	3.1
American Funds 2025 TD Fund R6 (RFDTX)	201,374	1.5
American Funds 2020 TD Fund R6 (RRCTX)	-	0.0
American Funds 2015 TD Fund R6 (RFJTX)	6	0.0
American Funds 2010 TD Fund R6 (RFTTX)	77,054	0.6
Voya Fixed Account	4,624,018	33.5
Loan Account	106,837	0.8



**Comparative Performance**  
**457 & 401(a) Trailing Returns**  
As of June 30, 2023

Comparative Performance	QTR		YTD		1 YR		3 YR		5 YR		7 YR		10 YR	
<b>International Equity</b>														
American Funds EuroPacific Growth (RERGX)	2.16	(88)	12.25	(50)	15.80	(70)	5.47	(92)	4.29	(39)	7.40	(24)	6.30	(2)
MSCI EAFE (Net) Index	2.95	(69)	11.67	(60)	18.77	(34)	8.93	(43)	4.39	(36)	6.88	(33)	5.41	(23)
IM International Large Cap Core Equity (MF) Median	3.20		12.17		17.77		8.52		3.90		6.24		4.76	
<b>Domestic Equity</b>														
Allspring Small Co Growth (WSCRX)	5.20	(46)	12.66	(38)	13.75	(59)	10.89	(22)	6.42	(44)	11.02	(46)	N/A	
Russell 2000 Growth Index	7.05	(17)	13.55	(25)	18.53	(22)	6.10	(60)	4.22	(83)	9.31	(71)	8.83	(65)
IM U.S. Small Cap Growth Equity (MF) Median	5.05		11.51		14.92		7.19		6.15		10.66		9.34	
Vanguard Small Cap Index (VSMAX)	5.32	(23)	9.26	(24)	14.89	(25)	12.53	(74)	6.59	(20)	9.68	(23)	9.45	(16)
Vanguard Spliced Small Cap Index	5.29	(23)	9.19	(25)	14.78	(26)	12.49	(74)	6.55	(20)	9.65	(23)	9.43	(17)
IM U.S. Small Cap Core Equity (MF) Median	3.95		6.98		12.22		14.77		5.01		8.56		8.19	
AMG Managers Skyline Special Equities (SKSEX)	0.97	(96)	5.05	(44)	8.77	(58)	16.71	(75)	4.51	(59)	7.64	(70)	7.52	(51)
Russell 2000 Value Index	3.18	(64)	2.50	(76)	6.01	(83)	15.43	(89)	3.54	(76)	7.70	(69)	7.29	(56)
IM U.S. Small Cap Value Equity (MF) Median	3.67		4.42		9.71		19.10		4.94		8.35		7.54	
Hartford Mid Cap (HIMCX)	2.42	(93)	8.80	(30)	12.12	(57)	6.05	(100)	5.31	(93)	9.48	(35)	10.11	(21)
Russell Midcap Index	4.76	(42)	9.01	(28)	14.92	(25)	12.50	(73)	8.46	(27)	10.12	(20)	10.32	(16)
IM U.S. Mid Cap Core Equity (MF) Median	4.65		7.22		12.82		13.58		7.39		8.98		8.68	
Vanguard Mid Cap Index (VIMAX)	4.76	(42)	8.81	(30)	13.71	(42)	11.95	(83)	8.59	(25)	10.29	(17)	10.43	(13)
Vanguard Spliced Mid Cap Index	4.75	(42)	8.80	(30)	13.71	(42)	11.97	(82)	8.60	(25)	10.31	(17)	10.46	(12)
IM U.S. Mid Cap Core Equity (MF) Median	4.65		7.22		12.82		13.58		7.39		8.98		8.68	
American Funds Growth Fund of America (RGAGX)	10.75	(80)	23.23	(77)	22.74	(69)	9.78	(52)	10.21	(82)	13.55	(76)	12.98	(71)
Russell 1000 Growth Index	12.81	(45)	29.02	(40)	27.11	(30)	13.73	(6)	15.14	(7)	16.91	(9)	15.74	(7)
IM U.S. Large Cap Growth Equity (MF) Median	12.69		27.77		25.04		9.86		12.06		14.54		13.74	
Allspring Disciplined US Core (EVSIX)	9.35	(20)	17.76	(19)	19.58	(34)	15.28	(9)	11.77	(37)	12.65	(43)	12.60	(24)
S&P 500 Index	8.74	(34)	16.89	(30)	19.59	(34)	14.60	(20)	12.31	(21)	13.38	(21)	12.86	(15)
IM U.S. Large Cap Core Equity (MF) Median	8.23		15.42		18.44		13.41		11.37		12.45		11.84	
Vanguard Institutional Index (VINIX)	8.73	(34)	16.87	(31)	19.55	(34)	14.57	(21)	12.28	(22)	13.35	(22)	12.83	(16)
S&P 500 Index	8.74	(34)	16.89	(30)	19.59	(34)	14.60	(20)	12.31	(21)	13.38	(21)	12.86	(15)
IM U.S. Large Cap Core Equity (MF) Median	8.23		15.42		18.44		13.41		11.37		12.45		11.84	
American Century Equity Income (AEUDX)	2.55	(87)	3.10	(68)	8.52	(78)	10.50	(98)	7.60	(78)	8.05	(90)	N/A	
Russell 1000 Value Index	4.07	(56)	5.12	(43)	11.54	(54)	14.30	(51)	8.11	(65)	8.94	(74)	9.22	(57)
IM U.S. Large Cap Value Equity (MF) Median	4.40		4.40		12.15		14.32		8.57		9.77		9.44	

Returns for periods greater than one year are annualized.  
Returns are expressed as percentages.  
\*Returns are MassMutual Guaranteed Account until 1Q2019 then the Voya Fixed account thereafter.



**Comparative Performance**  
**457 & 401(a) Trailing Returns**  
As of June 30, 2023

	QTR		YTD		1 YR		3 YR		5 YR		7 YR		10 YR	
<b>Balanced Fund</b>														
American Funds 2060 TD Fund R6 (RFUTX)	5.99	(16)	12.75	(33)	15.94	(20)	8.88	(78)	7.85	(13)	9.84	(N/A)	N/A	
S&P Target Date 2060 Index	5.12	(71)	11.91	(63)	15.73	(25)	10.66	(19)	7.56	(25)	9.39	(N/A)	8.84	(N/A)
IM Mixed-Asset Target 2065+ (MF) Median	5.34		12.24		14.79		9.82		7.55		N/A		N/A	
American Funds 2055 TD Fund R6 (RFKTX)	5.93	(12)	12.67	(25)	15.89	(11)	8.93	(82)	7.90	(8)	9.88	(4)	9.50	(1)
S&P Target Date 2055 Index	5.06	(69)	11.80	(68)	15.64	(16)	10.69	(8)	7.52	(28)	9.28	(31)	8.78	(22)
IM Mixed-Asset Target 2055 (MF) Median	5.30		12.17		14.67		9.66		7.18		9.01		8.30	
American Funds 2050 TD Fund R6 (RFITX)	5.68	(21)	12.18	(39)	15.38	(14)	9.06	(73)	7.98	(4)	9.94	(1)	9.55	(1)
S&P Target Date 2050 Index	5.06	(67)	11.78	(61)	15.51	(11)	10.54	(8)	7.47	(28)	9.16	(32)	8.67	(24)
IM Mixed-Asset Target 2050 (MF) Median	5.27		11.99		14.47		9.59		7.14		8.89		8.21	
American Funds 2045 TD Fund R6 (RFHTX)	5.50	(12)	11.71	(43)	14.87	(16)	9.12	(60)	7.99	(3)	9.90	(1)	9.52	(1)
S&P Target Date 2045 Index	4.87	(64)	11.50	(53)	15.04	(12)	10.20	(14)	7.33	(31)	8.92	(41)	8.45	(31)
IM Mixed-Asset Target 2045 (MF) Median	5.12		11.55		13.93		9.40		7.06		8.79		8.03	
American Funds 2040 TD Fund R6 (RFGTX)	5.14	(13)	11.12	(40)	14.15	(13)	8.96	(32)	7.89	(1)	9.72	(1)	9.39	(1)
S&P Target Date 2040 Index	4.47	(61)	10.82	(53)	13.92	(17)	9.48	(12)	7.00	(27)	8.54	(39)	8.15	(36)
IM Mixed-Asset Target 2040 (MF) Median	4.60		10.87		12.88		8.59		6.64		8.38		7.82	
American Funds 2035 TD Fund R6 (RFFTX)	4.10	(30)	9.40	(61)	11.80	(22)	7.99	(19)	7.36	(1)	9.14	(1)	8.97	(1)
S&P Target Date 2035 Index	3.88	(49)	9.79	(46)	12.37	(8)	8.35	(8)	6.48	(28)	7.93	(42)	7.67	(32)
IM Mixed-Asset Target 2035 (MF) Median	3.84		9.64		11.06		7.43		6.11		7.73		7.33	
American Funds 2030 TD Fund R6 (RFETX)	3.08	(42)	7.75	(63)	9.30	(36)	6.44	(17)	6.38	(3)	7.88	(3)	8.10	(1)
S&P Target Date 2030 Index	3.19	(34)	8.54	(42)	10.63	(4)	6.87	(5)	5.80	(24)	7.12	(38)	7.02	(27)
IM Mixed-Asset Target 2030 (MF) Median	3.01		8.36		8.96		5.91		5.35		6.81		6.60	
American Funds 2025 TD Fund R6 (RFDTX)	2.14	(54)	5.91	(71)	7.13	(52)	5.20	(20)	5.73	(4)	6.77	(10)	7.23	(2)
S&P Target Date 2025 Index	2.52	(34)	7.36	(41)	8.95	(3)	5.51	(8)	5.17	(26)	6.34	(35)	6.38	(24)
IM Mixed-Asset Target 2025 (MF) Median	2.19		7.12		7.22		4.50		4.68		5.91		5.84	
American Funds 2020 TD Fund R6 (RRCTX)	1.51	(84)	4.66	(91)	5.77	(77)	4.55	(10)	5.10	(7)	5.82	(21)	6.34	(4)
S&P Target Date 2020 Index	2.25	(30)	6.88	(35)	7.86	(4)	4.12	(38)	4.49	(47)	5.49	(50)	5.70	(44)
IM Mixed-Asset Target 2020 (MF) Median	1.98		6.55		6.58		3.93		4.42		5.47		5.58	
American Funds 2015 TD Fund R6 (RFJTX)	1.20	(85)	4.07	(90)	5.03	(79)	4.38	(6)	4.89	(6)	5.30	(28)	5.83	(3)
S&P Target Date 2015 Index	1.92	(30)	6.27	(34)	7.06	(8)	3.70	(27)	4.31	(37)	5.05	(48)	5.25	(51)
IM Mixed-Asset Target 2015 (MF) Median	1.63		5.90		5.80		3.34		4.13		5.01		5.27	
American Funds 2010 TD Fund R6 (RFTTX)	0.81	(71)	3.42	(93)	4.24	(53)	3.95	(6)	4.59	(4)	4.92	(18)	5.38	(3)
S&P Target Date 2010 Index	1.72	(29)	5.91	(25)	6.68	(7)	3.02	(41)	4.02	(51)	4.51	(57)	4.70	(53)
IM Mixed-Asset Target 2010 (MF) Median	1.04		5.13		4.26		2.83		4.02		4.55		4.71	

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Returns are expressed as percentages.  
\*Returns are MassMutual Guaranteed Account until 1Q2019 then the Voya Fixed account thereafter.



**Comparative Performance**  
**457 & 401(a) Trailing Returns**  
As of June 30, 2023

	QTR		YTD		1 YR		3 YR		5 YR		7 YR		10 YR	
American Funds American Balanced (RLBGX)	3.99	(36)	6.98	(57)	8.90	(48)	7.13	(38)	7.06	(17)	7.93	(28)	8.35	(11)
American Balanced Fund Hybrid	3.90	(37)	9.32	(35)	9.18	(46)	5.23	(57)	6.79	(22)	7.04	(40)	7.32	(31)
IM All Balanced (MF) Median	3.08		7.58		8.64		5.90		5.15		6.25		6.08	
<b>Fixed Income</b>														
PIMCO High Yield (PHIYX)	1.05	(77)	5.07	(34)	8.93	(27)	2.27	(68)	3.04	(34)	3.91	(42)	3.99	(24)
ICE BofA U.S. High Yield Index	1.63	(33)	5.42	(17)	8.87	(28)	3.21	(39)	3.18	(28)	4.41	(20)	4.34	(12)
IM U.S. High Yield Bonds (MF) Median	1.36		4.78		8.22		2.81		2.70		3.74		3.57	
PIMCO Foreign Bond USD-Hedged (PFORX)	0.68	(23)	3.55	(22)	1.97	(25)	-1.44	(6)	1.05	(6)	1.65	(2)	3.13	(1)
Bloomberg Global Aggregate	-1.53	(58)	1.43	(50)	-1.32	(74)	-4.96	(66)	-1.09	(40)	-0.90	(37)	0.20	(30)
IM International Fixed Income (MF) Median	-0.95		1.24		0.27		-4.30		-2.28		-1.30		-0.72	
Hartford Total Return Bond (HIABX)	-0.52	(15)	2.70	(19)	0.78	(8)	-3.36	(29)	1.18	(20)	1.21	(7)	2.08	(7)
Blmbg. U.S. Aggregate Index	-0.84	(54)	2.09	(67)	-0.94	(55)	-3.97	(64)	0.77	(46)	0.44	(57)	1.52	(48)
IM U.S. Broad Market Core Fixed Income (MF) Median	-0.82		2.27		-0.88		-3.71		0.72		0.51		1.50	
<b>Cash</b>														
Voya Fixed Account*	0.48	(76)	0.97	(74)	1.85	(67)	1.81	(36)	2.20	(12)	2.61	(1)	3.03	(1)
Morningstar US CIT Stable Value	0.70	(22)	1.35	(23)	2.40	(23)	2.02	(13)	2.18	(13)	2.12	(13)	2.00	(17)
IM U.S. GIC/Stable Value (SA+CF) Median	0.62		1.21		2.10		1.66		1.91		1.84		1.74	

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

\*Returns are MassMutual Guaranteed Account until 1Q2019 then the Voya Fixed account thereafter.



**Comparative Performance**  
**457 & 401(a) Calendar Returns**  
As of June 30, 2023

Comparative Performance	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>International Equity</b>										
American Funds EuroPacific Growth (RERGX)	-22.72 (100)	2.84 (96)	25.27 (1)	27.40 (4)	-14.91 (49)	31.17 (10)	1.01 (37)	-0.48 (22)	-2.29 (11)	20.58 (46)
MSCI EAFE (Net) Index	-14.45 (39)	11.26 (39)	7.82 (67)	22.01 (52)	-13.79 (25)	25.03 (50)	1.00 (37)	-0.81 (29)	-4.90 (27)	22.78 (16)
IM International Large Cap Core Equity (MF) Median	-15.06	10.74	9.07	22.06	-15.00	25.00	-0.04	-1.95	-6.01	20.42
<b>Domestic Equity</b>										
Allspring Small Co Growth (WSCRX)	-24.21 (28)	15.68 (30)	28.87 (67)	26.55 (55)	-3.57 (30)	20.68 (51)	7.76 (72)	-4.33 (71)	N/A	N/A
Russell 2000 Growth Index	-26.36 (44)	2.83 (82)	34.63 (56)	28.48 (47)	-9.31 (73)	22.17 (43)	11.32 (43)	-1.38 (34)	5.60 (22)	43.30 (45)
IM U.S. Small Cap Growth Equity (MF) Median	-27.54	10.51	36.57	27.63	-5.58	20.74	10.08	-2.36	2.77	42.48
Vanguard Small Cap Index (VSMAX)	-17.61 (72)	17.73 (84)	19.11 (17)	27.37 (16)	-9.31 (18)	16.24 (14)	18.30 (80)	-3.64 (40)	7.50 (13)	37.81 (43)
Vanguard Spliced Small Cap Index	-17.64 (72)	17.71 (84)	19.07 (17)	27.35 (17)	-9.33 (18)	16.24 (14)	18.26 (80)	-3.68 (40)	7.54 (13)	37.77 (44)
IM U.S. Small Cap Core Equity (MF) Median	-15.77	25.12	9.89	23.94	-12.71	12.09	21.66	-4.35	4.73	36.85
AMG Managers Skyline Special Equities (SKSEX)	-15.33 (97)	32.93 (43)	3.29 (54)	28.64 (7)	-19.00 (80)	8.39 (51)	21.32 (84)	-6.05 (33)	4.02 (38)	51.59 (3)
Russell 2000 Value Index	-14.48 (96)	28.27 (73)	4.63 (35)	22.39 (28)	-12.86 (23)	7.84 (60)	31.74 (17)	-7.47 (57)	4.22 (35)	34.52 (71)
IM U.S. Small Cap Value Equity (MF) Median	-11.09	31.97	3.57	21.05	-16.08	8.46	26.70	-7.05	3.41	36.46
Hartford Mid Cap (HIMCX)	-24.30 (95)	9.91 (100)	25.10 (7)	32.87 (16)	-7.44 (12)	24.47 (2)	11.98 (72)	1.60 (6)	11.37 (27)	39.82 (14)
Russell Midcap Index	-17.32 (88)	22.58 (68)	17.10 (17)	30.54 (31)	-9.06 (21)	18.52 (25)	13.80 (57)	-2.44 (31)	13.22 (9)	34.76 (49)
IM U.S. Mid Cap Core Equity (MF) Median	-13.21	25.73	8.44	28.59	-11.64	14.94	14.51	-3.74	8.88	34.49
Vanguard Mid Cap Index (VIMAX)	-18.71 (93)	24.51 (60)	18.24 (15)	31.03 (27)	-9.23 (22)	19.25 (19)	11.22 (76)	-1.34 (23)	13.76 (6)	35.15 (47)
Vanguard Spliced Mid Cap Index	-18.68 (93)	24.52 (60)	18.24 (15)	31.09 (27)	-9.22 (22)	19.30 (19)	11.25 (76)	-1.28 (23)	13.83 (6)	35.21 (46)
IM U.S. Mid Cap Core Equity (MF) Median	-13.21	25.73	8.44	28.59	-11.64	14.94	14.51	-3.74	8.88	34.49
American Funds Growth Fund of America (RGAGX)	-30.49 (38)	19.69 (67)	38.28 (36)	28.54 (89)	-2.60 (64)	26.53 (74)	8.82 (2)	5.70 (49)	9.63 (61)	34.29 (48)
Russell 1000 Growth Index	-29.14 (27)	27.60 (17)	38.49 (34)	36.39 (19)	-1.51 (54)	30.21 (39)	7.08 (10)	5.67 (49)	13.05 (24)	33.48 (57)
IM U.S. Large Cap Growth Equity (MF) Median	-31.30	22.37	35.62	33.26	-1.22	29.28	2.21	5.61	10.49	34.12
Allspring Disciplined US Core (EVSIX)	-17.82 (42)	30.94 (8)	16.47 (62)	29.04 (68)	-8.08 (88)	20.88 (59)	12.09 (18)	2.53 (22)	15.69 (4)	33.97 (21)
S&P 500 Index	-18.11 (45)	28.71 (25)	18.40 (50)	31.49 (36)	-4.38 (32)	21.83 (45)	11.96 (20)	1.38 (35)	13.69 (18)	32.39 (37)
IM U.S. Large Cap Core Equity (MF) Median	-18.72	26.95	18.39	30.70	-5.45	21.46	9.70	0.54	11.51	31.77
Vanguard Institutional Index (VINIX)	-18.14 (46)	28.67 (26)	18.39 (50)	31.46 (37)	-4.42 (32)	21.79 (45)	11.93 (20)	1.37 (35)	13.65 (18)	32.35 (38)
S&P 500 Index	-18.11 (45)	28.71 (25)	18.40 (50)	31.49 (36)	-4.38 (32)	21.83 (45)	11.96 (20)	1.38 (35)	13.69 (18)	32.39 (37)
IM U.S. Large Cap Core Equity (MF) Median	-18.72	26.95	18.39	30.70	-5.45	21.46	9.70	0.54	11.51	31.77
American Century Equity Income (AEUDX)	-2.90 (18)	17.27 (98)	1.43 (80)	24.64 (74)	-4.17 (18)	13.83 (82)	19.88 (6)	0.94 (6)	12.84 (14)	N/A
Russell 1000 Value Index	-7.54 (66)	25.16 (63)	2.80 (61)	26.54 (50)	-8.27 (45)	13.66 (82)	17.34 (17)	-3.83 (69)	13.45 (8)	32.53 (44)
IM U.S. Large Cap Value Equity (MF) Median	-6.10	25.96	3.82	26.50	-8.61	16.95	13.85	-3.00	10.82	32.11

Returns for periods greater than one year are annualized.  
Returns are expressed as percentages.  
\*Returns are MassMutual Guaranteed Account until 1Q2019 then the Voya Fixed account thereafter.



**Comparative Performance  
457 & 401(a) Calendar Returns**

As of June 30, 2023

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>Balanced Fund</b>										
American Funds 2060 TD Fund R6 (RFUTX)	-19.66 (91)	17.19 (49)	19.44 (1)	25.01 (61)	-5.64 (1)	22.49 (N/A)	8.41 (N/A)	N/A	N/A	N/A
S&P Target Date 2060 Index	-16.01 (7)	18.05 (34)	13.99 (73)	24.73 (84)	-7.95 (7)	20.75 (N/A)	10.08 (N/A)	-0.66 (N/A)	5.64 (N/A)	24.96 (N/A)
IM Mixed-Asset Target 2065+ (MF) Median	-18.58	17.15	16.23	26.28	-9.37	N/A	N/A	N/A	N/A	N/A
American Funds 2055 TD Fund R6 (RFKTX)	-19.50 (88)	17.28 (46)	19.39 (7)	25.09 (40)	-5.65 (3)	22.63 (5)	8.30 (48)	0.63 (1)	7.01 (22)	26.59 (1)
S&P Target Date 2055 Index	-15.97 (10)	18.19 (25)	13.86 (72)	24.48 (62)	-7.97 (38)	20.48 (65)	9.94 (7)	-0.54 (20)	5.64 (45)	24.96 (26)
IM Mixed-Asset Target 2055 (MF) Median	-18.31	17.19	15.61	24.82	-8.51	21.11	8.25	-1.67	5.43	23.21
American Funds 2050 TD Fund R6 (RFITX)	-18.89 (68)	17.27 (42)	19.42 (6)	25.04 (38)	-5.61 (2)	22.61 (6)	8.33 (45)	0.65 (1)	7.02 (18)	26.65 (2)
S&P Target Date 2050 Index	-15.97 (11)	17.99 (27)	13.86 (65)	24.35 (60)	-7.94 (35)	20.18 (67)	9.74 (14)	-0.47 (16)	5.69 (46)	24.13 (33)
IM Mixed-Asset Target 2050 (MF) Median	-18.30	17.00	15.52	24.67	-8.55	20.76	8.11	-1.64	5.62	23.08
American Funds 2045 TD Fund R6 (RFHTX)	-18.18 (52)	17.18 (37)	19.21 (5)	24.68 (48)	-5.58 (3)	22.44 (6)	8.27 (47)	0.64 (1)	7.09 (14)	26.51 (2)
S&P Target Date 2045 Index	-15.84 (12)	17.52 (26)	13.66 (69)	24.02 (63)	-7.74 (36)	19.56 (72)	9.54 (14)	-0.46 (17)	5.67 (43)	23.14 (46)
IM Mixed-Asset Target 2045 (MF) Median	-18.15	16.69	15.35	24.60	-8.21	20.64	8.15	-1.64	5.56	23.07
American Funds 2040 TD Fund R6 (RFGTX)	-17.55 (42)	16.83 (15)	18.77 (5)	24.40 (29)	-5.52 (3)	21.98 (4)	8.17 (41)	0.58 (1)	6.96 (16)	26.66 (2)
S&P Target Date 2040 Index	-15.56 (12)	16.55 (21)	13.37 (69)	23.37 (57)	-7.41 (34)	18.87 (70)	9.23 (16)	-0.40 (15)	5.69 (42)	22.10 (46)
IM Mixed-Asset Target 2040 (MF) Median	-17.85	15.68	14.73	23.63	-7.96	19.71	7.96	-1.66	5.41	21.67
American Funds 2035 TD Fund R6 (RFFTX)	-16.24 (30)	15.54 (13)	17.55 (6)	23.29 (22)	-5.14 (4)	21.04 (3)	8.00 (44)	0.59 (1)	7.02 (11)	25.97 (1)
S&P Target Date 2035 Index	-14.99 (12)	14.93 (20)	12.79 (74)	22.18 (52)	-6.88 (44)	17.78 (71)	8.85 (15)	-0.35 (15)	5.69 (41)	20.84 (49)
IM Mixed-Asset Target 2035 (MF) Median	-17.04	13.84	14.14	22.27	-7.27	18.72	7.75	-1.52	5.40	20.79
American Funds 2030 TD Fund R6 (RFETX)	-14.50 (23)	13.16 (13)	15.16 (14)	20.06 (52)	-4.16 (5)	18.40 (11)	7.71 (38)	0.47 (1)	7.06 (7)	25.64 (1)
S&P Target Date 2030 Index	-13.96 (16)	12.61 (26)	11.91 (65)	20.38 (48)	-5.99 (42)	16.19 (60)	8.35 (20)	-0.30 (11)	5.64 (36)	19.14 (41)
IM Mixed-Asset Target 2030 (MF) Median	-16.21	11.46	12.85	20.13	-6.34	16.91	7.31	-1.47	5.19	17.89
American Funds 2025 TD Fund R6 (RFDTX)	-12.74 (15)	11.44 (14)	13.67 (23)	17.85 (57)	-3.47 (6)	15.33 (37)	7.36 (31)	0.13 (3)	6.66 (11)	23.76 (1)
S&P Target Date 2025 Index	-13.13 (20)	10.67 (27)	11.22 (63)	18.38 (47)	-5.02 (43)	14.55 (55)	7.82 (17)	-0.25 (11)	5.56 (39)	17.03 (35)
IM Mixed-Asset Target 2025 (MF) Median	-15.31	9.71	12.12	18.21	-5.25	14.95	6.87	-1.37	5.22	15.86
American Funds 2020 TD Fund R6 (RRCTX)	-11.01 (1)	10.64 (6)	10.99 (47)	15.59 (58)	-2.69 (4)	12.87 (46)	7.05 (28)	0.19 (2)	6.74 (3)	18.71 (1)
S&P Target Date 2020 Index	-12.81 (19)	8.76 (48)	10.24 (57)	16.52 (42)	-4.16 (41)	12.80 (47)	7.22 (25)	-0.19 (7)	5.67 (23)	14.76 (28)
IM Mixed-Asset Target 2020 (MF) Median	-14.36	8.71	10.89	16.00	-4.52	12.67	6.37	-1.43	4.72	11.93
American Funds 2015 TD Fund R6 (RFJTX)	-10.25 (1)	10.27 (3)	9.96 (63)	14.94 (59)	-2.72 (5)	11.19 (53)	7.55 (9)	-0.62 (19)	6.64 (4)	15.72 (1)
S&P Target Date 2015 Index	-12.16 (22)	8.01 (50)	10.28 (61)	15.40 (47)	-3.67 (44)	11.39 (49)	6.56 (45)	-0.16 (8)	5.49 (26)	12.16 (37)
IM Mixed-Asset Target 2015 (MF) Median	-13.67	7.98	11.36	15.26	-3.88	11.27	6.39	-1.30	4.50	10.41
American Funds 2010 TD Fund R6 (RFTTX)	-9.15 (1)	9.32 (1)	9.25 (74)	13.88 (57)	-2.49 (9)	10.41 (41)	7.45 (3)	-0.84 (27)	6.79 (1)	12.55 (1)
S&P Target Date 2010 Index	-11.44 (16)	6.54 (50)	9.95 (59)	14.30 (49)	-3.10 (25)	9.95 (66)	5.82 (59)	-0.21 (7)	5.07 (18)	9.42 (46)
IM Mixed-Asset Target 2010 (MF) Median	-12.72	5.80	10.43	14.19	-3.58	10.24	6.06	-1.20	4.11	8.67

Returns for periods greater than one year are annualized.

Returns are expressed as percentages.

\*Returns are MassMutual Guaranteed Account until 1Q2019 then the Voya Fixed account thereafter.



**Comparative Performance  
457 & 401(a) Calendar Returns**

As of June 30, 2023

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
American Funds American Balanced (RLBGX)	-11.83 (19)	16.11 (25)	11.22 (57)	19.55 (45)	-2.42 (7)	15.84 (39)	8.90 (18)	2.03 (3)	9.22 (6)	22.12 (20)
American Balanced Fund Hybrid	-15.26 (48)	12.80 (46)	13.66 (35)	19.89 (42)	-1.90 (5)	12.37 (62)	7.38 (40)	1.21 (4)	9.85 (4)	14.08 (56)
IM All Balanced (MF) Median	-15.51	12.00	12.01	18.64	-6.14	14.08	6.80	-1.58	4.75	15.42
<b>Fixed Income</b>										
PIMCO High Yield (PHIYX)	-10.76 (46)	4.06 (73)	5.31 (53)	14.94 (24)	-2.49 (31)	7.02 (35)	12.68 (70)	-1.88 (21)	3.31 (13)	5.77 (74)
ICE BofA U.S. High Yield Index	-11.22 (59)	5.36 (40)	6.17 (34)	14.41 (36)	-2.27 (27)	7.48 (21)	17.49 (5)	-4.64 (61)	2.50 (23)	7.42 (32)
IM U.S. High Yield Bonds (MF) Median	-10.97	4.93	5.43	13.83	-2.97	6.63	13.80	-3.98	1.50	6.72
PIMCO Foreign Bond USD-Hedged (PFORX)	-9.84 (18)	-1.67 (8)	6.15 (57)	7.35 (34)	2.63 (7)	3.53 (69)	7.03 (7)	0.40 (9)	11.16 (3)	0.90 (17)
Bloomberg Global Aggregate	-16.25 (62)	-4.71 (41)	9.20 (28)	6.84 (42)	-1.19 (46)	7.39 (59)	2.09 (61)	-3.15 (24)	0.59 (52)	-2.60 (37)
IM International Fixed Income (MF) Median	-12.94	-5.39	6.55	6.64	-2.47	9.80	3.34	-5.82	0.63	-3.74
Hartford Total Return Bond (HIABX)	-14.21 (70)	-0.95 (31)	9.03 (27)	10.65 (5)	-0.81 (61)	5.16 (5)	4.49 (11)	-0.59 (73)	5.89 (32)	-1.36 (28)
Blmbg. U.S. Aggregate Index	-13.01 (22)	-1.55 (60)	7.51 (73)	8.72 (53)	0.01 (18)	3.54 (54)	2.65 (62)	0.55 (20)	5.97 (27)	-2.02 (54)
IM U.S. Broad Market Core Fixed Income (MF) Median	-13.66	-1.33	8.16	8.76	-0.62	3.60	2.90	0.04	5.55	-1.96
<b>Cash</b>										
Voya Fixed Account*	1.47 (55)	1.73 (23)	2.19 (20)	2.97 (6)	3.38 (1)	3.67 (2)	3.94 (1)	4.00 (1)	4.00 (2)	4.00 (1)
Morningstar US CIT Stable Value	1.88 (18)	1.74 (22)	2.24 (15)	2.51 (21)	2.23 (16)	1.96 (20)	1.79 (34)	1.77 (33)	1.69 (42)	1.84 (30)
IM U.S. GIC/Stable Value (SA+CF) Median	1.54	1.43	2.01	2.30	2.00	1.68	1.60	1.45	1.38	1.47

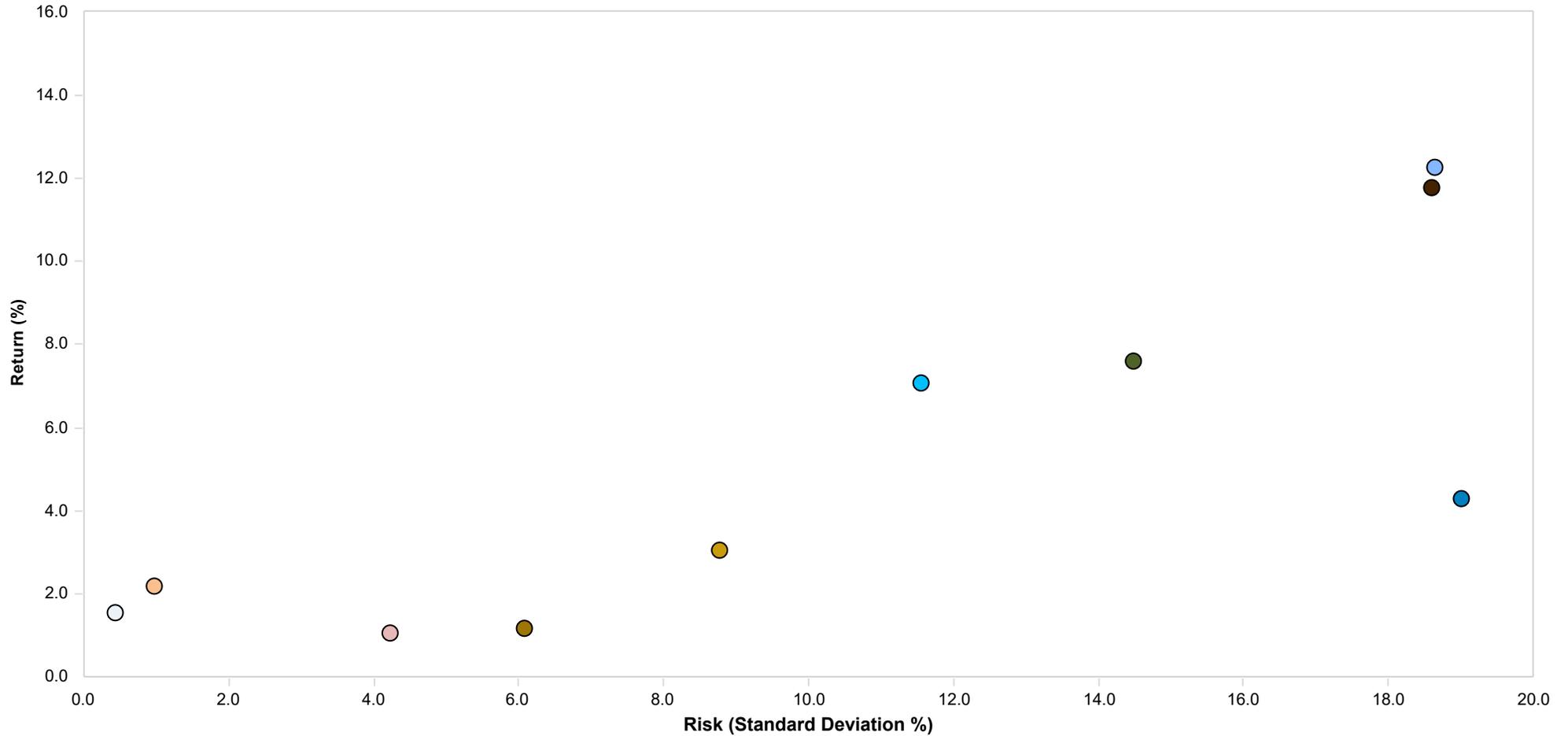
Returns for periods greater than one year are annualized.

Returns are expressed as percentages.

\*Returns are MassMutual Guaranteed Account until 1Q2019 then the Voya Fixed account thereafter.



Risk and Return



- American Funds EuroPacific Growth (RERGX)
- AMG Managers Skyline Special Equities (SKSEX)
- American Funds Growth Fund of America (RGAGX)
- American Century Equity Income (AEUDX)
- PIMCO Foreign Bond USD-Hedged (PFORX)
- 90 Day U.S. Treasury Bill
- Allspring Small Co Growth (WSCRX)
- Hartford Mid Cap (HIMCX)
- Allspring Disciplined US Core (EVSIX)
- American Funds American Balanced (RLBGX)
- Hartford Total Return Bond (HIABX)
- Vanguard Small Cap Index (VSMAX)
- Vanguard Mid Cap Index (VIMAX)
- Vanguard Institutional Index (VINIX)
- PIMCO High Yield (PHIYX)
- Voya Fixed Account

Calculation based on monthly periodicity.



**American Funds Target Retirement R6  
Target Date Fund Universe Ranges**

June 30, 2023

Asset Class	2065+	2060	2055	2050	2045	2040	2035	2030	2025	2020	2015	2010
<b>Equity Range</b>												
Maximum	100%	100%	100%	100%	95%	90%	85%	80%	70%	65%	50%	45%
Minimum	60%	50%	50%	50%	45%	45%	40%	35%	20%	15%	10%	5%
<b>Fixed Income Range</b>												
Maximum	20%	20%	25%	30%	35%	40%	50%	55%	70%	75%	75%	80%
Minimum	0%	0%	0%	0%	0%	5%	10%	15%	20%	25%	30%	40%
<b>Cash Range</b>												
Maximum	20%	20%	20%	30%	30%	30%	30%	30%	30%	35%	35%	35%
Minimum	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Other Range</b>												
Maximum	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Minimum	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Target Date Universe</b>	<b>39</b>	<b>48</b>	<b>48</b>	<b>48</b>	<b>49</b>	<b>50</b>	<b>50</b>	<b>49</b>	<b>49</b>	<b>37</b>	<b>37</b>	<b>37</b>

Morningstar Definitions:

1. Cash - The percentage of the fund's assets in cash. This figure is calculated separately for the short and long positions of the portfolio, and the sum of the asset allocation of each will not necessarily equal 100%.
2. Other - The percentage of the fund's assets in other instruments. This figure is calculated separately for the short and long positions of the portfolio, and the sum of the asset allocation of each will not necessarily equal 100%.
3. Target Date Universe - Based on the number of unique glide paths in the Morningstar Target Date Universe. Only one share class is selected to represent the fund manager.



**American Funds Target Retirement R6  
Target Date Fund Asset Allocation**

June 30, 2023

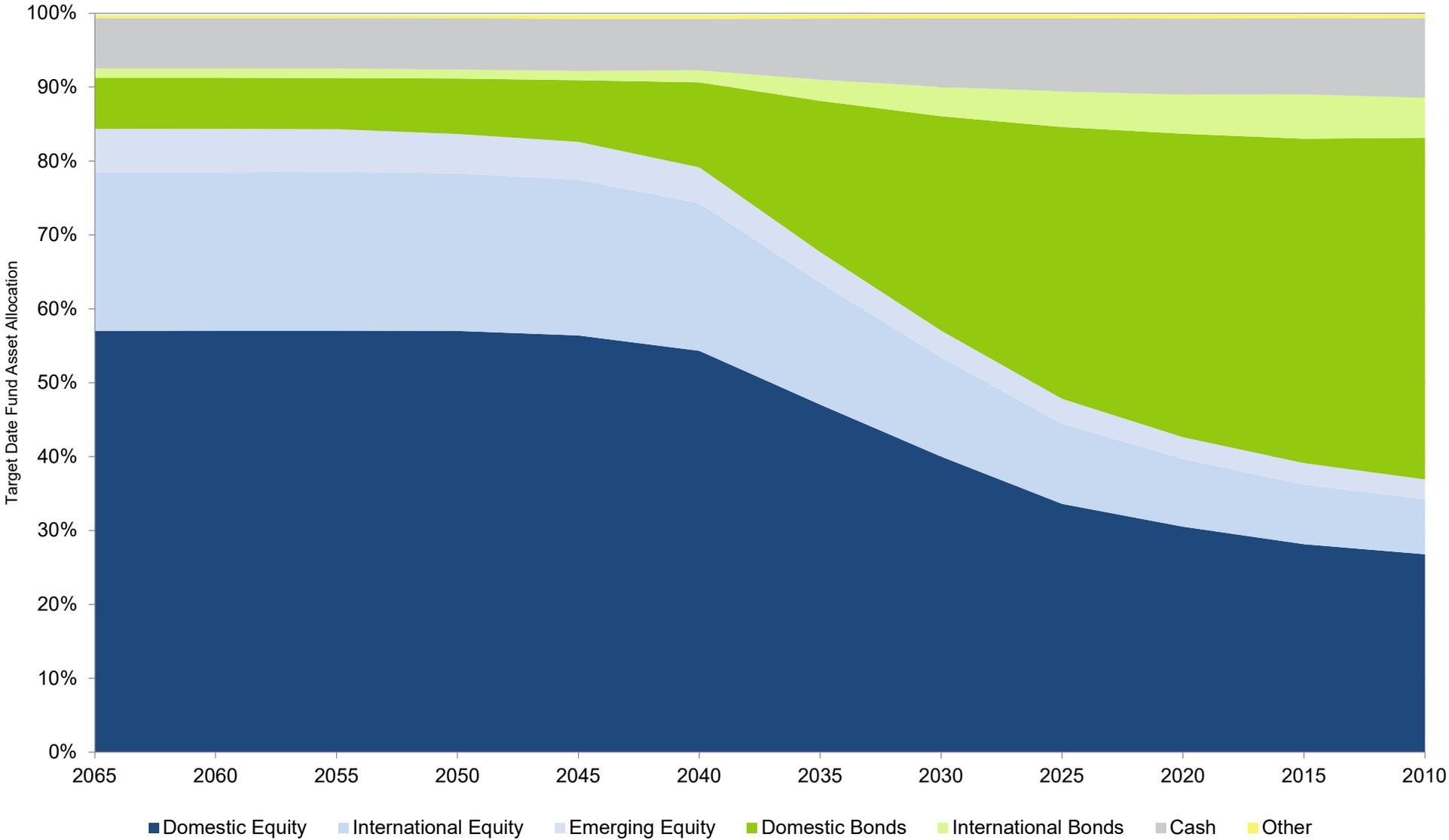
Asset Class	2065	2060	2055	2050	2045	2040	2035	2030	2025	2020	2015	2010
<b>Total Equity</b>	<b>84%</b>	<b>84%</b>	<b>84%</b>	<b>84%</b>	<b>83%</b>	<b>79%</b>	<b>68%</b>	<b>57%</b>	<b>49%</b>	<b>44%</b>	<b>40%</b>	<b>38%</b>
Domestic Equity	57%	57%	57%	57%	56%	54%	47%	40%	34%	31%	28%	27%
International Equity	21%	21%	22%	21%	21%	20%	16%	13%	11%	9%	8%	7%
Emerging Equity	6%	6%	6%	5%	5%	5%	4%	4%	3%	3%	3%	3%
<b>Total Fixed Income</b>	<b>8%</b>	<b>8%</b>	<b>8%</b>	<b>9%</b>	<b>10%</b>	<b>13%</b>	<b>23%</b>	<b>33%</b>	<b>42%</b>	<b>46%</b>	<b>50%</b>	<b>52%</b>
Domestic Bonds	7%	7%	7%	7%	8%	11%	20%	29%	37%	41%	44%	46%
International Bonds	1%	1%	1%	1%	1%	2%	3%	4%	5%	5%	6%	5%
<b>Cash</b>	<b>7%</b>	<b>7%</b>	<b>7%</b>	<b>7%</b>	<b>7%</b>	<b>7%</b>	<b>8%</b>	<b>9%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>11%</b>
<b>Other</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>1%</b>							
<b>Total</b>	<b>100%</b>	<b>101%</b>	<b>101%</b>	<b>101%</b>	<b>101%</b>							

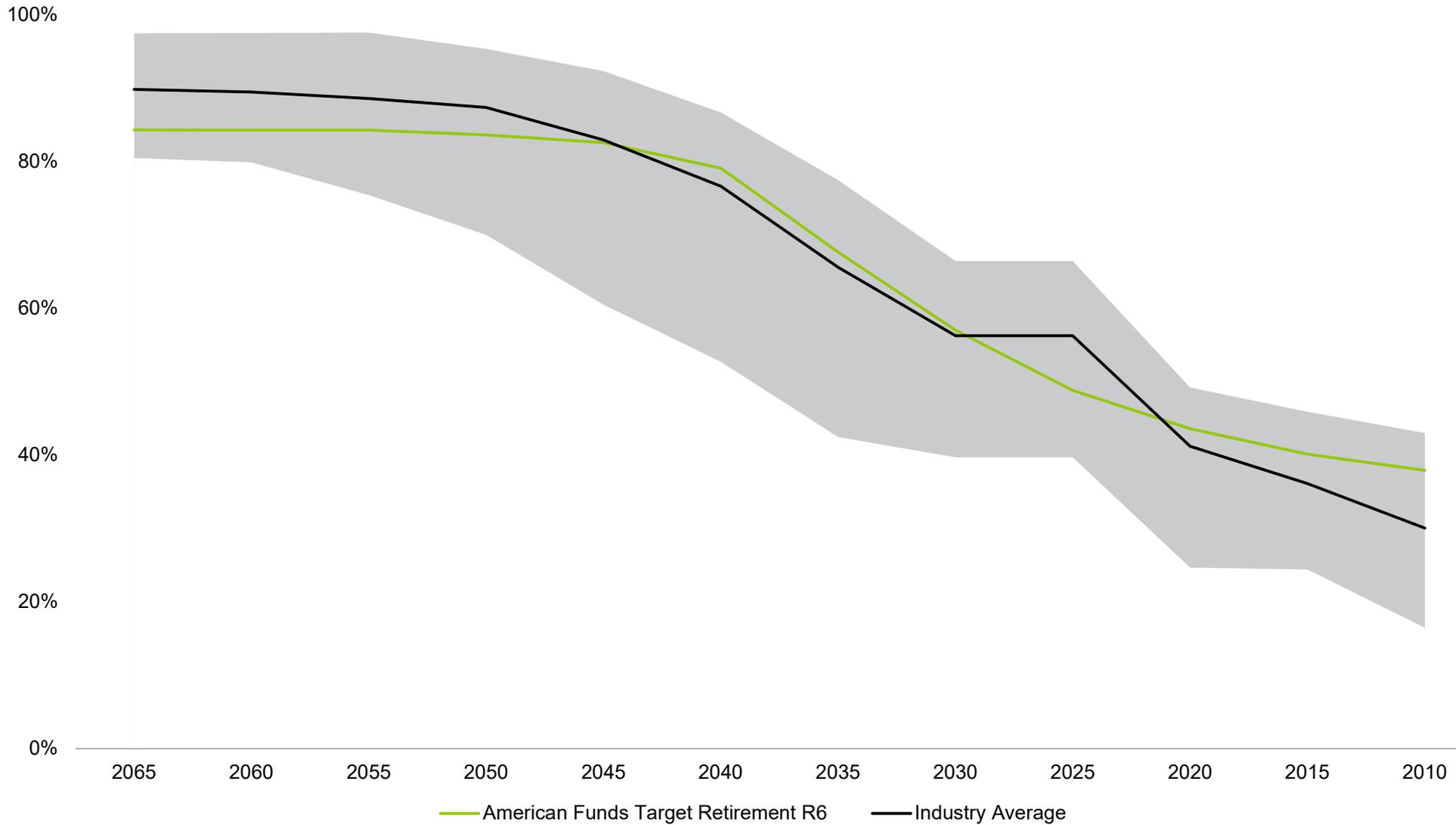
Terminal Equity Date:	30 years after Retirement
Active/Passive/Blend Allocation:	Active

Morningstar Definitions:

1. Cash - The percentage of the fund's assets in cash. This figure is calculated separately for the short and long positions of the portfolio, and the sum of the asset allocation of each will not necessarily equal 100%.
2. Other - The percentage of the fund's assets in other instruments. This figure is calculated separately for the short and long positions of the portfolio, and the sum of the asset allocation of each will not necessarily equal 100%.







1. Industry Range (Gray Bar) - Represents the equity allocation range of the Target Date Funds in the universe.

2. Industry Average - The average equity allocation of the investments included in the universe.



**Fee and Expense Summary**

Voya requires 0.03% in revenue from the plan assets annually.

AndCo Consulting bills quarterly. The fee structure is \$60,000 per annum, paid in quarterly cash payments.

**Plan Demographics**

Total Assets*	\$205,801,260
Number of Participants with a Balance (active and terminated)	3,405

Expense Type Estimates (annual)	Percent of Assets	Dollar Cost	% Cost
Voya Recordkeeping fees	0.03%	<b>\$61,740</b>	0.03%
AndCo Consulting fees		\$60,000	0.03%
<b>Total plan expenses</b>		<b>\$ 121,740</b>	<b>0.06%</b>

Revenue Sharing Estimates (annual)			
Revenue from participant annual fee	0.08%	\$164,641	
<b>Net plan fee surplus (annual)</b>		<b>\$42,901</b>	<b>0.02%</b>
<b>Annual average total plan recordkeeping and administrative cost per participant (gross)**</b>		<b>\$48.35</b>	

\*Does not include outstanding loan values

\*\*All revenue sharing monies are reimbursed to the participant accounts that utilize those funds. This policy was implemented on 1/1/18.



**Weighted Fee and Revenue Sharing Evaluation**

	Market Value	Expense Ratio	Expense Ratio Weighted Fee	Revenue Sharing	*Revenue Sharing \$
American Funds EuroPacific Growth (RERGX)	\$6,296,028	0.46%	\$28,962	0.00%	\$0
Allspring Small Co Growth (WSCRX)	\$2,560,378	0.86%	\$22,019	0.00%	\$0
Vanguard Small Cap Index (VSMAX)	\$4,286,607	0.05%	\$2,143	0.00%	\$0
AMG Managers Skyline Special Equities (SKSEX)	\$2,220,085	1.13%	\$25,087	0.25%	\$5,550
Hartford Mid Cap (HIMCX)	\$8,921,022	0.71%	\$63,339	0.25%	\$22,303
Vanguard Mid Cap Index (VIMAX)	\$7,541,088	0.05%	\$3,771	0.00%	\$0
AF Growth Fund of America (RGAGX)	\$18,451,511	0.29%	\$53,509	0.00%	\$0
Allspring Disciplined US Core (EVSIX)	\$14,151,299	0.48%	\$67,926	0.15%	\$21,227
Vanguard Institutional Index (VINIX)	\$24,042,929	0.04%	\$9,617	0.00%	\$0
American Century Equity Income (AEUDX)	\$7,456,647	0.57%	\$42,503	0.00%	\$0
American Funds Target 2060-2010 R6	\$21,462,422	0.33%	\$71,684	0.00%	\$0
American Funds American Balanced (RLBGX)	\$7,804,635	0.25%	\$19,512	0.00%	\$0
PIMCO High Yield (PHIYX)	\$2,447,630	0.57%	\$13,951	0.00%	\$0
PIMCO Foreign Bond USD-Hedged (PFORX)	\$520,620	0.63%	\$3,280	0.00%	\$0
Hartford Total Return Bond (HIABX)	\$3,443,386	0.50%	\$17,217	0.25%	\$8,608
Voya Fixed Account	\$74,194,973	0.00%	\$0	0.00%	\$0
<b>TOTAL</b>	<b>\$205,801,260</b>	<b>0.22%</b>	<b>\$444,521</b>	<b>0.03%</b>	<b>\$57,688</b>

\*All revenue sharing monies are reimbursed to the participant accounts that utilize those funds. This policy was implemented on 1/1/18.



An **Investment Policy Statement (IPS)** is designed to provide a framework to guide Trustees in fiduciary matters relating to the structure of investment offerings, selection/monitoring of investment managers, and duties of service providers in support of the Plan. Although not explicitly required under ERISA, it is considered an **industry best practice** and highly regarded by the Department of Labor to demonstrate **procedural prudence** and consistency with prescribed fiduciary obligations<sup>1</sup>.



## Benefits & Considerations

- Foundation for documented prudent investment process
- Disciplined investment selection and monitoring process should help avoid excessive manager turnover and disturbance to participant offerings
- Encourages consistency in decisions as Board/Committee members change over time
- Quarterly investment performance report should be designed to create a direct feedback loop to the IPS and reinforce monitoring criteria
- Reduces potential for conflicts of interest
- May contain directives on preferred treatment of plan assets, qualified plan expenses, or other plan design features

<sup>1</sup> Department of Labor, Interpretive Bulletin 2016-01

## Structural Elements

A comprehensive IPS should include the following elements as part of a documented prudent process for discharging fiduciary investment oversight duties:



**Purpose &  
Objective**



**Roles &  
Responsibilities**



**Investment Lineup  
Diversification**



**Manager Selection  
& Monitoring**

Element	Objective
Purpose & Objective	Outlines scope of policy and fiduciary authority. Plan design structured to meet the objective of providing retirement benefits, education, and flexibility to participants.
Roles & Responsibilities	Identify scope of responsibilities and expectations for participants, plan sponsor, administrator, consultants, investment managers and other service providers.
Investment Lineup Diversification	Intent to comply with ERISA Section 404(c) and provide participants the flexibility to construct appropriately diversified portfolios through broad access to the capital markets, including the selection of a Qualified Default Investment Alternative (QDIA).
Manager Selection & Monitoring	Defines qualitative and quantitative metrics used to assess the risk/return characteristics of each investment offering. Outlines “Watchlist” triggers and process for addressing manager deficiencies (retention or replacement).

## Other Notable Considerations

- Trustees should periodically review and understand IPS guidelines and make any necessary modifications to reflect prevailing processes or changes in plan design. Note periodic reviews in the meeting minutes for documentation.
- Once adopted the IPS is considered a governing plan document, failure to comply may be viewed as a breach of fiduciary duty.
- Ensure that all service providers understand their duties and responsibilities within the IPS.
- Investment monitoring language should strike a balance between providing clear guidance on the status of a holding, while providing the Board/Committee with flexibility to incorporate external market factors or idiosyncratic strategy considerations on the timing of any action.

**Effective maintenance, application and documentation of an Investment Policy Statement plays an integral role in building the plan’s “fiduciary armor”.**



<b>Quarterly</b>	<b>1<sup>st</sup> Quarter</b>	<b>2<sup>nd</sup> Quarter</b>	<b>3<sup>rd</sup> Quarter</b>	<b>4<sup>th</sup> Quarter</b>
Follow procedures, including documentation of all meetings and decisions	Yes	Yes		
Review of plan investments and compliance with investment policy statement	Yes	Yes		
Fiduciary education	Yes	Yes		
<b>Periodically</b>				
Investment policy statement review	No	No		
Review QDIA selection	Yes	Yes		
Plan fee analysis	Yes	Yes		
Plan recordkeeping & administration services review	Yes	Yes		
Employee education review	Yes	Yes		
Review of ancillary products, if applicable (self-directed brokerage, managed accounts, etc.)				
<b>Other Projects</b>				
Record-keeping Benchmarking Study		Yes		



**Fund Information**

Portfolio Manager : Ruedi/Whittaker      Ticker :  
PM Tenure : 2004--2004      Inception Date : 07/14/1997  
Fund Assets : -      Portfolio Turnover : 44%

**Fund Investment Policy**

The Fund seeks long-term growth of capital. The Fund invests at least 80% of its assets in common stocks of mid-capitalization companies. The Fund may invest up to 20% of its total assets in securities of foreign issuers and non-dollar securities.

**Comparative Performance - Trailing**

	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR
Hartford Mid Cap (HIMCX)	2.42 (93)	8.80 (30)	12.12 (57)	6.05 (100)	5.31 (93)	9.48 (35)	10.11 (21)
<a href="#">Russell Midcap Index</a>	4.76 (42)	9.01 (28)	14.92 (25)	12.50 (73)	8.46 (27)	10.12 (20)	10.32 (16)
IM U.S. Mid Cap Core Equity (MF) 1st Quartile	5.31	9.44	14.92	15.66	8.54	9.88	9.58
IM U.S. Mid Cap Core Equity (MF) Median	4.65	7.22	12.82	13.58	7.39	8.98	8.68
IM U.S. Mid Cap Core Equity (MF) 3rd Quartile	3.73	4.92	10.37	12.43	6.10	7.82	7.76

**Comparative Performance - Calendar**

	2022	2021	2020	2019	2018	2017	2016
Hartford Mid Cap (HIMCX)	-24.30 (95)	9.91 (100)	25.10 (7)	32.87 (16)	-7.44 (12)	24.47 (2)	11.98 (72)
<a href="#">Russell Midcap Index</a>	-17.32 (88)	22.58 (68)	17.10 (17)	30.54 (31)	-9.06 (21)	18.52 (25)	13.80 (57)
IM U.S. Mid Cap Core Equity (MF) 1st Quartile	-9.55	28.72	14.20	31.35	-9.97	18.51	18.23
IM U.S. Mid Cap Core Equity (MF) Median	-13.21	25.73	8.44	28.59	-11.64	14.94	14.51
IM U.S. Mid Cap Core Equity (MF) 3rd Quartile	-15.51	21.53	3.24	25.60	-14.53	12.36	11.25

**Comparative Performance - Quarterly**

	Mar-2023	Dec-2022	Sep-2022	Jun-2022	Mar-2022	Dec-2021	Sep-2021
Hartford Mid Cap (HIMCX)	6.23 (6)	8.77 (67)	-5.25 (75)	-18.09 (98)	-10.32 (99)	5.15 (92)	-3.52 (97)
<a href="#">Russell Midcap Index</a>	4.06 (28)	9.18 (60)	-3.44 (32)	-16.85 (91)	-5.68 (77)	6.44 (80)	-0.93 (52)
IM U.S. Mid Cap Core Equity (MF) 1st Quartile	4.21	11.73	-3.25	-11.52	-1.65	8.95	-0.19
IM U.S. Mid Cap Core Equity (MF) Median	2.31	9.63	-4.32	-13.63	-4.08	8.20	-0.87
IM U.S. Mid Cap Core Equity (MF) 3rd Quartile	1.23	8.52	-5.35	-15.27	-5.65	6.74	-1.72

**MPT Stats**

	1 YR	3 YR	5 YR
Standard Deviation	22.16	20.19	22.08
Downside Risk	12.87	12.59	14.89
<a href="#">vs. Russell Midcap Index</a>			
Alpha	-2.50	-6.06	-2.96
Beta	1.01	1.04	1.02
Down Market Capture	105.73	112.52	106.29
Information Ratio	-0.68	-1.32	-0.64
Tracking Error	3.51	4.33	4.38
Up Market Capture	97.73	90.58	96.08
<a href="#">vs. 90 Day U.S. Treasury Bill</a>			
Sharpe Ratio	0.47	0.33	0.28

**Ranking vs. IM U.S. Mid Cap Core Equity (MF) 4 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
Hartford Mid Cap (HIMCX)	28	14 (50%)	3 (11%)	3 (11%)	8 (29%)
Russell Midcap Index	28	11 (39%)	8 (29%)	5 (18%)	4 (14%)

**Ranking vs. IM U.S. Mid Cap Core Equity (MF) 12 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
Hartford Mid Cap (HIMCX)	28	22 (79%)	0 (0%)	0 (0%)	6 (21%)
Russell Midcap Index	28	22 (79%)	2 (7%)	4 (14%)	0 (0%)

**Ranking vs. IM U.S. Mid Cap Core Equity (MF) 20 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
Hartford Mid Cap (HIMCX)	28	23 (82%)	0 (0%)	3 (11%)	2 (7%)
Russell Midcap Index	28	25 (89%)	3 (11%)	0 (0%)	0 (0%)



Portfolio Characteristics			Top Ten Equity Holdings				
	Portfolio	Benchmark		Port. Wt	Bench. Wt	Qtr Rtrn	Contr. Rtrn
Wtd. Avg. Mkt. Cap (\$)	12,842,928,976	22,190,915,022	NVR Inc.	2.3	0.2	14.0	0.3
Median Mkt. Cap (\$)	10,564,024,920	10,068,531,890	MongoDB Inc	2.2	0.3	76.3	1.7
Price/Earnings ratio	19.8	17.2	Exact Sciences Corporation	2.0	0.2	38.5	0.8
Price/Book ratio	3.5	3.0	WEX Inc	2.0	0.1	-1.0	0.0
5 Yr. EPS Growth Rate (%)	19.1	13.4	Shift4 Payments Inc	2.0	0.0	-10.4	-0.2
Current Yield (%)	0.7	1.7	Insulet Corporation	1.9	0.2	-9.6	-0.2
Beta (5 Years, Monthly)	1.02	1.00	Lennox International Inc.	1.7	0.1	30.2	0.5
Number of Stocks	108	812	Axon Enterprise Inc	1.7	0.1	-13.2	-0.2
			Markel Group Inc	1.7	0.2	8.3	0.1
			Credit Acceptance Corp	1.7	0.0	16.5	0.3

Buy and Hold Sector Attribution - 1 Qtr								Ten Best Performers			
	Allocation		Performance		Sector	Attribution		Port. Wt	Bench. Wt	Qtr. Rtrn	Contr. Rtrn
	Portfolio	Benchmark	Portfolio	Benchmark		Stock	Total				
Communication Services	2.1	3.7	2.77	3.45	0.02	-0.02	0.00	0.2	0.0	133.9	0.3
Consumer Discretionary	12.3	12.0	1.76	6.93	0.01	-0.65	-0.64	2.2	0.3	76.3	1.7
Consumer Staples	1.3	4.1	-9.69	0.77	0.11	-0.15	-0.04	1.1	0.2	53.2	0.6
Energy	5.6	4.7	4.91	1.81	-0.03	0.17	0.14	2.0	0.2	38.5	0.8
Financials	8.2	12.7	-0.29	2.78	0.17	-0.33	-0.17	0.7	0.1	38.1	0.3
Health Care	20.2	10.9	0.22	0.88	-0.38	-0.16	-0.54	1.6	0.3	35.4	0.6
Industrials	21.3	17.1	8.13	11.76	0.22	-0.72	-0.50	0.4	0.1	33.9	0.1
Information Technology	21.6	15.7	2.73	6.02	0.63	-0.87	-0.24	0.2	0.0	32.5	0.1
Materials	5.6	6.1	-5.69	1.16	0.01	-0.39	-0.38	0.4	0.1	31.6	0.1
Real Estate	1.0	7.3	-4.33	2.88	0.12	-0.07	0.04	1.3	0.1	30.2	0.4
Utilities	0.9	5.7	1.31	-2.14	0.33	0.03	0.36				
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>2.82</b>	<b>4.77</b>	<b>1.21</b>	<b>-3.16</b>	<b>-1.95</b>				

Buy and Hold Style Attribution - 1 Qtr								Ten Worst Performers			
	Allocation		Performance		Style	Attribution		Port. Wt	Bench. Wt	Qtr. Rtrn	Contr. Rtrn
	Portfolio	Benchmark	Portfolio	Benchmark		Stock	Total				
Large Growth	0.0	4.8	0.00	7.93	-0.15	0.00	-0.15	1.2	0.0	-32.1	-0.4
Large Neutral	0.0	3.2	0.00	2.78	0.06	0.00	0.06	0.1	0.0	-28.4	0.0
Large Value	0.0	1.7	0.00	-3.02	0.14	0.00	0.14	0.4	0.0	-27.0	-0.1
Mid Growth	15.5	14.1	7.19	4.97	-0.02	0.34	0.32	0.5	0.0	-26.5	-0.1
Mid Neutral	35.5	29.3	0.77	6.41	0.08	-2.01	-1.92	1.2	0.1	-24.0	-0.3
Mid Value	26.2	36.6	5.26	3.17	0.13	0.51	0.65	0.3	0.0	-23.2	-0.1
Small Growth	4.1	0.3	-3.86	4.28	0.27	-0.45	-0.18	0.3	0.0	-20.8	-0.1
Small Neutral	6.2	0.6	-7.12	1.54	-0.09	-0.57	-0.67	1.6	0.1	-18.4	-0.3
Small Value	4.1	1.8	4.21	6.12	0.03	-0.06	-0.02	0.5	0.1	-17.2	-0.1
Unclassified	8.3	7.5	3.56	5.70	0.01	-0.17	-0.17	0.7	0.1	-16.9	-0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>2.82</b>	<b>4.77</b>	<b>0.47</b>	<b>-2.42</b>	<b>-1.95</b>				



**Fund Information**

Portfolio Manager : Team Managed	Ticker : AEUDX
PM Tenure :	Inception Date : 07/26/2013
Fund Assets : \$661 Million	Portfolio Turnover : 29%

**Fund Investment Policy**

The Fund seeks current income. Capital appreciation is a secondary objective. Under normal market conditions, the fund will invest at least 80% of the funds net assets in equity securities including equity-equivalent securities, such as convertible securities regardless of the movement of stock prices generally.

**Comparative Performance - Trailing**

	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR
American Century Equity Income (AEUDX)	2.55 (87)	3.10 (68)	8.52 (78)	10.50 (98)	7.60 (78)	8.05 (90)	N/A
Russell 1000 Value Index	4.07 (56)	5.12 (43)	11.54 (54)	14.30 (51)	8.11 (65)	8.94 (74)	9.22 (57)
IM U.S. Large Cap Value Equity (MF) 1st Quartile	5.58	7.45	14.82	16.05	10.00	11.18	10.42
IM U.S. Large Cap Value Equity (MF) Median	4.40	4.40	12.15	14.32	8.57	9.77	9.44
IM U.S. Large Cap Value Equity (MF) 3rd Quartile	3.27	2.54	8.84	12.56	7.68	8.88	8.62

**Comparative Performance - Calendar**

	2022	2021	2020	2019	2018	2017	2016
American Century Equity Income (AEUDX)	-2.90 (18)	17.27 (98)	1.43 (80)	24.64 (74)	-4.17 (18)	13.83 (82)	19.88 (6)
Russell 1000 Value Index	-7.54 (66)	25.16 (63)	2.80 (61)	26.54 (50)	-8.27 (45)	13.66 (82)	17.34 (17)
IM U.S. Large Cap Value Equity (MF) 1st Quartile	-4.31	27.80	7.14	29.38	-5.78	18.94	16.15
IM U.S. Large Cap Value Equity (MF) Median	-6.10	25.96	3.82	26.50	-8.61	16.95	13.85
IM U.S. Large Cap Value Equity (MF) 3rd Quartile	-8.63	24.02	1.91	24.44	-10.10	15.04	12.42

**Comparative Performance - Quarterly**

	Mar-2023	Dec-2022	Sep-2022	Jun-2022	Mar-2022	Dec-2021	Sep-2021
American Century Equity Income (AEUDX)	0.53 (44)	10.02 (97)	-4.33 (17)	-8.22 (4)	0.52 (18)	7.00 (82)	-0.54 (55)
Russell 1000 Value Index	1.01 (33)	12.42 (59)	-5.62 (52)	-12.21 (63)	-0.74 (57)	7.77 (63)	-0.78 (68)
IM U.S. Large Cap Value Equity (MF) 1st Quartile	1.58	14.27	-4.65	-10.27	0.17	9.18	-0.06
IM U.S. Large Cap Value Equity (MF) Median	0.15	12.88	-5.57	-11.35	-0.58	8.32	-0.43
IM U.S. Large Cap Value Equity (MF) 3rd Quartile	-0.84	11.81	-6.25	-13.24	-1.93	7.32	-1.07

**MPT Stats**

	1 YR	3 YR	5 YR
Standard Deviation	14.26	12.91	14.49
Downside Risk	8.51	7.28	9.79
vs. Russell 1000 Value Index			
Alpha	-0.03	0.01	1.20
Beta	0.72	0.73	0.75
Down Market Capture	73.48	76.77	74.37
Information Ratio	-0.59	-0.71	-0.22
Tracking Error	6.11	5.69	5.59
Up Market Capture	72.87	74.97	78.33
vs. 90 Day U.S. Treasury Bill			
Sharpe Ratio	0.40	0.74	0.47

**Ranking vs. IM U.S. Large Cap Value Equity (MF) 4 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
American Century Equity Income (AEUDX)	28	11 (39%)	1 (4%)	4 (14%)	12 (43%)
Russell 1000 Value Index	28	2 (7%)	9 (32%)	12 (43%)	5 (18%)

**Ranking vs. IM U.S. Large Cap Value Equity (MF) 12 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
American Century Equity Income (AEUDX)	28	10 (36%)	5 (18%)	3 (11%)	10 (36%)
Russell 1000 Value Index	28	3 (11%)	4 (14%)	20 (71%)	1 (4%)

**Ranking vs. IM U.S. Large Cap Value Equity (MF) 20 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
American Century Equity Income (AEUDX)	20	8 (40%)	2 (10%)	3 (15%)	7 (35%)
Russell 1000 Value Index	28	4 (14%)	8 (29%)	16 (57%)	0 (0%)



Portfolio Characteristics			Top Ten Equity Holdings				
	Portfolio	Benchmark		Port. Wt	Bench. Wt	Qtr Rtrn	Contr. Rtrn
Wtd. Avg. Mkt. Cap (\$)	185,516,149,920	138,040,557,950	Johnson & Johnson	6.0	2.2	7.6	0.5
Median Mkt. Cap (\$)	57,298,312,150	11,638,703,925	Medtronic PLC	5.1	0.6	10.1	0.5
Price/Earnings ratio	18.4	16.2	Exxon Mobil Corp	3.3	2.2	-1.4	0.0
Price/Book ratio	3.0	2.5	iShares Russell 1000 Value ETF	3.2	0.0	4.1	0.1
5 Yr. EPS Growth Rate (%)	11.2	13.0	Raytheon Technologies Corp	3.0	0.7	0.6	0.0
Current Yield (%)	2.9	2.4	Automatic Data Processing Inc	2.7	0.1	-0.7	0.0
Beta (5 Years, Monthly)	0.75	1.00	Mondelez International Inc	2.7	0.5	5.2	0.1
Number of Stocks	71	844	PepsiCo Inc	2.6	0.4	2.3	0.1
			Roche Holding AG	2.6	0.0	7.0	0.2
			Linde Plc	2.5	0.9	7.6	0.2

Buy and Hold Sector Attribution - 1 Qtr								Ten Best Performers				
	Allocation		Performance		Sector	Attribution		Port. Wt	Bench. Wt	Qtr. Rtrn	Contr. Rtrn	
	Portfolio	Benchmark	Portfolio	Benchmark		Stock	Total					
Communication Services	3.0	8.9	-1.87	9.22	-0.30	-0.34	-0.64	Hubbell Inc	1.5	0.0	36.8	0.6
Consumer Discretionary	0.0	5.9	0.00	7.14	-0.20	0.00	-0.20	Microsoft Corp	1.3	0.0	18.4	0.2
Consumer Staples	20.1	7.7	1.97	0.92	-0.37	0.23	-0.14	Republic Services Inc.	1.3	0.2	13.6	0.2
Energy	8.5	7.8	-0.85	-0.96	-0.03	0.02	-0.01	Marsh & McLennan Co	1.9	0.1	13.3	0.3
Financials	14.4	19.4	1.92	5.53	-0.09	-0.52	-0.61	JPMorgan Chase & Co	1.8	2.2	12.5	0.2
Health Care	16.1	16.4	7.44	1.41	-0.01	0.96	0.95	Legrand	0.6	0.0	10.8	0.1
Industrials	12.7	10.8	6.48	8.78	0.10	-0.30	-0.20	Baker Hughes a GE Co	0.4	0.2	10.3	0.0
Information Technology	6.5	8.7	3.57	2.56	-0.07	0.07	-0.01	Medtronic PLC	5.1	0.6	10.1	0.5
Materials	5.2	4.3	2.62	0.94	-0.02	0.09	0.07	Atlas Copco AB	0.3	0.0	9.1	0.0
Real Estate	1.7	4.5	-3.44	2.52	0.04	-0.10	-0.07	AFLAC Inc	0.6	0.2	8.9	0.1
Utilities	8.7	5.6	-3.56	-2.74	-0.21	-0.07	-0.28					
Other	3.1	0.0	4.08	0.00	0.01	0.00	0.01					
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>2.66</b>	<b>3.80</b>	<b>-1.16</b>	<b>0.02</b>	<b>-1.14</b>					

Buy and Hold Style Attribution - 1 Qtr								Ten Worst Performers				
	Allocation		Performance		Style	Attribution		Port. Wt	Bench. Wt	Qtr. Rtrn	Contr. Rtrn	
	Portfolio	Benchmark	Portfolio	Benchmark		Stock	Total					
Large Growth	12.5	2.9	2.54	6.47	0.26	-0.45	-0.19	Commerce Bancshares Inc	0.4	0.0	-16.1	-0.1
Large Neutral	30.3	27.3	5.36	5.93	0.03	-0.16	-0.13	Northern Trust Corp	0.6	0.1	-15.0	-0.1
Large Value	26.6	32.0	2.27	1.51	0.11	0.20	0.31	Amcor Plc	0.5	0.1	-11.2	-0.1
Mid Growth	1.9	0.8	-3.22	4.46	0.01	-0.11	-0.09	AllianceBernstein Holding LP	0.6	0.0	-10.3	-0.1
Mid Neutral	6.1	9.5	8.46	4.06	0.00	0.21	0.21	Truist Financial Corp	0.2	0.2	-9.3	0.0
Mid Value	13.5	20.2	0.56	3.39	0.04	-0.49	-0.45	Spire Inc	2.1	0.0	-8.6	-0.2
Small Growth	0.0	0.0	0.00	-8.68	0.00	0.00	0.00	Eversource Energy	0.7	0.1	-8.6	-0.1
Small Neutral	0.0	0.5	0.00	6.26	0.04	0.00	0.04	U.S. Bancorp	0.4	0.3	-7.0	0.0
Small Value	3.5	0.9	-8.58	5.08	0.03	-0.50	-0.47	Capitol Federal Financial Inc	0.6	0.0	-6.9	0.0
Unclassified	5.7	5.9	0.63	6.78	-0.05	-0.32	-0.37	United Parcel Service Inc	0.6	0.5	-6.7	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>2.66</b>	<b>3.80</b>	<b>0.48</b>	<b>-1.62</b>	<b>-1.14</b>					



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**Historical Activity**

**Sep-2020**

Hotchkis & Wiley Mid Cap Value (HWMIX) fund removed from the fund line-up.

**Jan-2020**

The Custom Target Date funds were replaced with the American R6 Target Date funds.

**Jun-2019**

The MassMutual Guaranteed Interest Account was replaced by the Voya Fixed Account. The returns are MassMutual until 1Q2019, Voya thereafter.  
The Record Keeper was changed in 2Q2019 from Mass Mutual to Voya.

**Jul-2017**

The Hartford Small Company Fund (HIASX) was replaced by Wells Fargo Small Company Growth Fund (WSCRX).

**Nov-2016**

The Hartford Capital Appreciation Fund (HIACX) was replaced by the Wells Fargo Disciplined US Core Fund (EVSIX).

The Deutsche Real Assets Fund (AAAVX) was removed from the Plans. The remaining balances were mapped into the American Funds American Balanced Fund (RLBGX).

The Plan added WCAB Models 2015, 2025, 2035, 2045, 2055, and 2060. The 2010 Model was replaced by the Income Model.

**Dec-2015**

The Plan was converted to the Mass Mutual platform. The following funds were changed:

The SSGA Index Fund were replaced by Vanguard Index Funds.  
The Hartford Balanced was replaced by American Funds Balanced.  
American Century Equity Income shares changed from ACIIX to AEUDX.  
Deutsche Alternative Asset Allocation shares changed from AAAAX to AAAVX.

**Sep-2014**

Lord Abbett Mid Cap Value closes 9/3/14. Assets will map to the Hotchkis & Wiley Mid Cap Value Fund on September 5, 2014.

**Oct-2013**

Pimco Foreign Bond (US Hedged) (PFORZ) was added to the fund lineup.

**Apr-2011**

The LifePath Funds were removed from the fund line-up.

**Mar-2011**

The Barclays LifePath Target Date Funds will be mapped to the Hartford Advisors HLS Fund.

**Oct-2010**



The following funds were moved to new share classes as follows:

American Funds EuroPacific Growth to R6 shares  
SSgA Russell Small Cap to A shares  
Lord Abbett Mid Cap Value to I shares  
SSgA S&P Mid Cap Index to A shares  
American Funds Growth Fund of America to R6 shares  
SSgA S&P 500 Index to A shares  
Pimco High Yield to Institutional shares.

**Dec-2009**

The LifePath 2010 fund was wrapped in with the Life Path Retirement Fund.

**Sep-2009**

Barclays merged with BlackRock. The LifePath funds took the BlackRock name.

**Feb-2009**

The Following new investment choices were added to the Plans:

American Century Capital, DFA Intl. Small Cap Value, DWS Alternative Asset Allocation, Lazard Emerging Markets, Lord Abbett Mid Cap Value.

**Sep-2007**

The Hartford Index HLS was replaced by the SSgA S&P 500 Flagship fund in the third quarter 2007. The TCW Opportunity Fund was renamed to the TCW Relative Value Small Cap Fund.

**Jun-2007**

The American Century Ultra Fund was removed from the fund lineup during the second quarter 2007.

**Mar-2005**



Changes to the fund lineup started on March 1, 2005 and concluded on March 31, 2005. Below is a list of the funds that were retained and a list of funds that were added to the lineup.

Retained Funds:

Hartford Small Company HLS  
Skyline Special Equities Portfolio, Hartford Mid-Cap HLS  
American Century Ultra, Hartford Capital Appreciation  
Hartford Index HLS  
American Century Equity Income  
Hartford Advisors HLS  
Hartford Total Return Bond HLS  
General "Declared Interest"

Introduced Funds:

American Funds EuroPacific  
TCW Opportunity  
Artisan Mid-Cap  
Hotchkis & Wiley Mid-Cap Value  
American Funds Growth Fund  
PIMCO High Yield  
General Account (Declared)  
Barclays Global Investors LifePath.



**Common Index Definitions**

**The S&P 500® Index** is a broad based unmanaged index of 500 stocks, which is widely recognized as representative of the equity market in general.

**The Russell 1000® Index** measures the performance of those 1,000 largest companies in the Russell 3000® Index, which represents approximately 92% of the total market capitalization of the Russell 3000® Index.

**The Russell 1000® Value Index** measures the performance of those Russell 1000® Index companies with lower price-to-book ratios and lower forecasted growth values.

**The Russell 1000® Growth Index** measures the performance of those Russell 1000® Index companies with higher price-to-book ratios and higher forecasted growth values.

**The Russell 2000® Index**, an unmanaged index, measures the performance of the 2,000 smallest companies in the Russell 3000® Index.

**The Russell 2000® Value Index** measures the performance of those Russell 2000® Index companies with lower price-to-book ratios and lower forecasted growth values.

**The Russell 2000® Growth Index** measures the performance of those Russell 2000® Index companies higher price-to-book ratios and higher forecasted growth values.

**The Russell 3000® Index** includes the 3,000 largest U.S.-traded stocks.

**The Russell 3000® Value Index** includes stocks from the Russell 3000® Index with lower price-to-book ratios and lower expected growth rates.

**The Russell 3000® Growth Index** includes companies that display signs of above average growth. The index is used to provide a gauge of the performance of growth stocks in the U.S.

**The Russell Midcap® Index**, an unmanaged index, measures the performance of the 800 smallest companies in the Russell 1000® Index.

**The Russell Midcap® Value Index** measures the performance of those Russell Midcap® Index companies with lower price-to book value ratios and lower forecasted growth values.

**The Russell Midcap® Growth Index** measures the performance of those Russell Midcap® Index companies with higher price-to book ratios and higher forecasted growth values.

**The Russell Developed® Index** measures the performance of the investable securities in developed countries globally across all market capitalization ranges.

**The Bloomberg Barclays Intermediate Treasury Index** includes Treasuries with maturities between 1 and 10 years.

**The Bloomberg Barclays Aggregate Bond Index**, is a market capitalization-weighted intermediate term index, meaning the securities in the index are weighted according to the market size of each bond type. Most U.S. traded investment grade bonds are represented. Municipal bonds, and Treasury Inflation-Protected Securities are excluded, due to tax treatment issues. The index includes Treasury securities, Government agency bonds, Mortgage-backed bonds, Corporate bonds, and a small amount of foreign bonds traded in U.S. The Bloomberg Barclays US Aggregate Bond Index is an index.

**The BofA Merrill Lynch U.S. High Yield Index** tracks the performance of below investment grade, but not in default, US dollardenominated corporate bonds publicly issued in the US domestic market, and includes issues with a credit rating of BBB or below, as rated by Moody's and S&P.



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



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