



# City of Torrington Pension Plans

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## Quarterly Investment Review - Fourth Quarter 2023

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# Fiducient Advisors Update

## Retirement Plans

### Featured Insights

- Blog: Trends in Corporate Retirement Plan Offerings
- Blog: Public Plans Rally in Fiscal Year 2023

### Coming Soon

- Pension Pulse Newsletter
- Plan Sponsor Newsletter
- Annual Target Date Update

## Research Insights

- Monthly Market Recaps
- Monthly Market Updates
- 2024 Outlook – Prepare Not Predict
- Essential Economic Update Webcast
- Fiducient Speaker Series: Private Markets Update

## Endowments & Foundations

### Featured Insights

- Nonprofit Investment Stewards Podcast

### Coming Soon

- Cultural Institutions Study
- Steward Newsletter
- Mission-Aligned Investing Update

## Firm News

- On December 19, 2023, Fiducient Advisor's joint-venture partner, NFP, signed an agreement to be acquired by Aon. Post close, NFP will be a wholly owned subsidiary and an independent but connected platform within Aon.
- We anticipate no changes in services or service team.
- The transaction is subject to customary regulatory approvals.

## The Wealth Office®

### Featured Insights

- 2024 Financial Planning Guide
- Blog: 10 Crucial Steps to Take After Identity Theft
- Blog: Take Control of Your Finances: Essential Year-End Planning Opportunities

### Coming Soon

- Financial Planning Considerations Webcast



**Save the Date!**  
**2024 Investor Conference**

*Chicago Marriott Downtown  
Magnificent Mile  
September 26*



**New Associates – Welcome!**

**Catherine Guanci**  
Consulting Analyst

**Liam McLaughlin**  
Consulting Analyst

**Zhee Sarabia**  
Consultant

**BethAnn Woolcock**  
Senior RFP Specialist

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Section 4	Appendices



# Market Themes

1. The “Recession of 2023” that was widely forecasted failed to materialize. This does not mean we are out of the woods on recession, but trying to time it is a fool’s errand. A focus on constructing a resilient portfolio is one of the most effective ways to prepare.
2. Inflation has moderated, but likely remains in a “messy middle” range of 2% to 5%. Softer inflation and the current environment affords some room for a pause or even easing by the Fed if warranted.
3. The narrow market leadership of U.S. technology stocks during 2023 has created potential opportunities in other segments such as U.S. small cap and non-U.S. equities.

## Preparing Not Predicting - Frequency of Market Events Since 1950

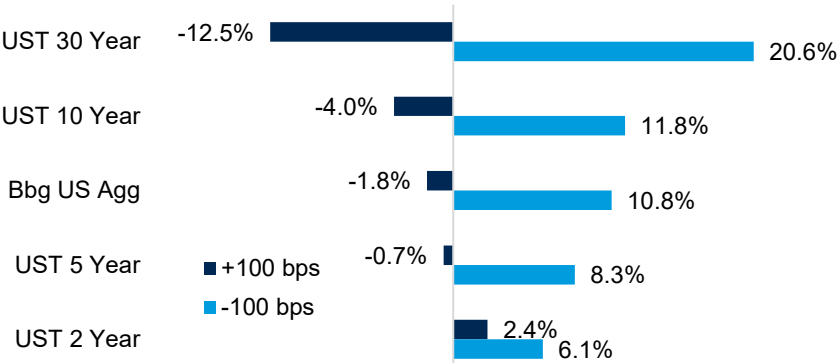
Market volatility and recessions are a normal part of investing. Recessions, on average, since 1980 occur every six and a half years. As long-term investors we should not seek to predict and avoid them, but prepare for their inevitable arrival.

Environment	-5% or more	-10% or more	-15% or more	-20% or more	Recession <sup>1</sup>
Average Frequency	About 3 times per year	About 1 time per year	About every 3 years	About every 6 years	About every 6.5 years
Average Length	43 days	109 days	251 days	370 days	317 days

Source: Capital Group. 1) National Bureau of Economic Research as of May 2022.

## Potential Impact of +/- 1% Move in Interest Rates

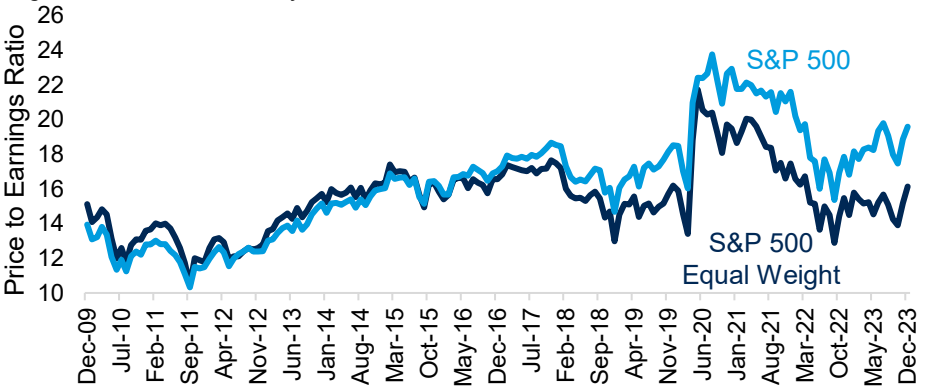
Rangebound inflation increases the probability of rates moving lower. This creates an attractive risk/reward for intermediate duration fixed income.



Source: FactSet as of December 31, 2023. Total potential return based on a parallel move in interest rates up or down by 100 basis points. Data based on respective Bloomberg Bellwether Treasury Indices and Bloomberg US Agg Bond Index.

## S&P 500 vs S&P 500 Equal Weight Valuations

Concentrated leadership of the Magnificent 7, which on average were up over 100% in 2023, was the driver of U.S. large cap returns and pushed valuations higher. The valuation spread between the market cap and equal weight S&P 500 is one of the highest seen in the last 15 years.



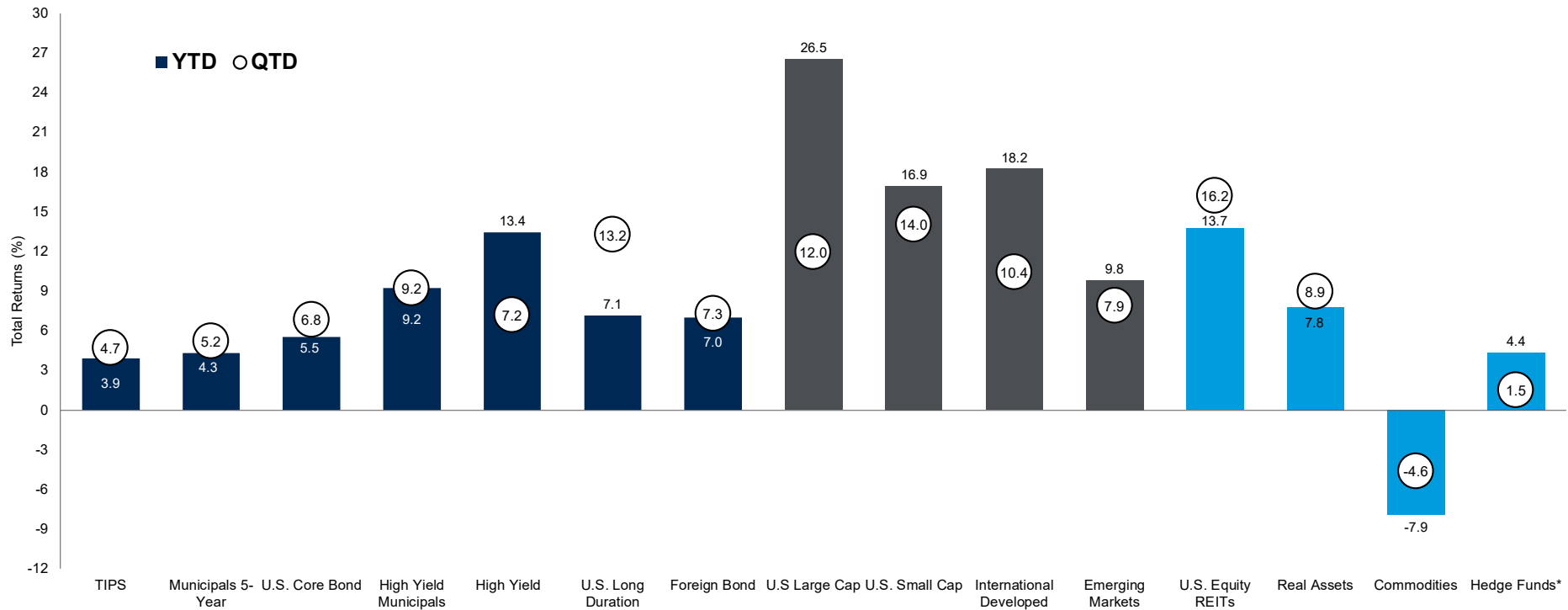
Source: FactSet. As of December 31, 2023.

See disclosures for list of indices representing each asset class. Past performance does not indicate future performance and there is a possibility of a loss.

Indices cannot be invested in directly.



# Asset Class Returns



Source: Morningstar Direct. As of December 31, 2023. \*Hedge fund returns as of November 30, 2023.

## Fixed Income (4Q)

- + It was a strong quarter for fixed income as interest rates continued to move lower and the Federal Reserve's tone became more dovish on moderating inflation. The year-to-date return for the Bloomberg Agg moved into positive territory.
- + The high yield market was a standout for both the quarter and the year. Investor appetite for riskier segments of fixed income persist as corporate fundamentals remain favorable.
- + Long duration, the most interest rate sensitive fixed income sector, posted a double digit gain in the quarter.

## Equity (4Q)

- + Equity markets were widely positive in the fourth quarter. The "risk-on" environment was fueled by the prospect that the "higher for longer" environment may moderate in 2024. U.S. small cap was a particular benefactor and was a standout in the quarter.
- + Developed non-U.S. had a double digit return in the quarter. Europe was particularly strong and a falling U.S. dollar was an added benefit.
- + Emerging markets equity produced a positive return but lagged developed regions. China continues to be a drag on the segment.

## Real Asset / Alternatives (4Q)

- + REITs were one of the top performing areas in the quarter, benefitting from the sharp decline in interest rates.
- Commodities were weak in the fourth quarter and ended the year as one of the few asset classes in negative territory. Falling commodity prices were the primary source of weakness.
- + Hedge funds (reported on a month lag) posted a modest return for the first two months of the quarter. Relative value strategies were a top segment in the period.

See disclosures for list of indices representing each asset class. Past performance does not indicate future performance and there is a possibility of a loss.

Indices cannot be invested in directly.





# Asset Allocation

Torrington Employees

As of December 31, 2023

	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)
<b>Torrington Employees</b>	<b>45,487,757</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>
<b>Short Term Liquidity</b>	<b>86,787</b>	<b>0.2</b>	<b>0.0</b>	<b>0.2</b>
Allspring Government Money Market Fund Instl	86,787	0.2	0.0	0.2
<b>Fixed Income</b>	<b>13,227,708</b>	<b>29.1</b>	<b>30.0</b>	<b>-0.9</b>
Fidelity Inflation-Protected Bond Index	853,729	1.9	2.0	-0.1
Vanguard Total Bond Market Index Adm	1,746,631	3.8	4.0	-0.2
Metropolitan West Total Return Bond PI	5,667,081	12.5	13.0	-0.5
BlackRock Strategic Income Opportunities Fund K	2,684,264	5.9	6.0	-0.1
Artisan High Income Instl	1,395,597	3.1	3.0	0.1
BrandywineGLOBAL Global Opportunities IS	880,330	1.9	2.0	-0.1
<b>Domestic Equity</b>	<b>17,857,055</b>	<b>39.3</b>	<b>38.0</b>	<b>1.3</b>
Vanguard Institutional Index	5,825,979	12.8	11.0	1.8
MFS Value Fund R6	3,689,273	8.1	8.5	-0.4
Mainstay Large Cap Growth Instl- Winslow	3,507,835	7.7	7.5	0.2
Hotchkis & Wiley Small Cap Divers Value I	2,506,660	5.5	5.5	0.0
Conestoga Small Cap Instl	2,327,307	5.1	5.5	-0.4
<b>International Equity</b>	<b>12,116,307</b>	<b>26.6</b>	<b>27.0</b>	<b>-0.4</b>
Dodge & Cox International Stock Fund	4,297,624	9.4	9.5	-0.1
Fidelity Global ex US Index	3,829,348	8.4	8.5	-0.1
Harding Loevner International Eq Instl Z	3,989,336	8.8	9.0	-0.2
<b>Real Assets</b>	<b>2,199,899</b>	<b>4.8</b>	<b>5.0</b>	<b>-0.2</b>
Principal Diversified Real Asset R6	2,199,899	4.8	5.0	-0.2

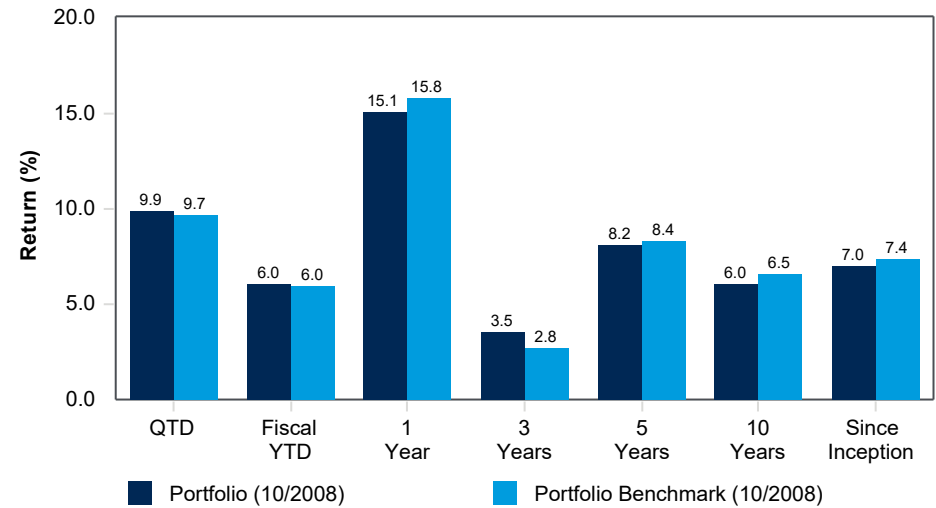


# Portfolio Dashboard

Torrington Employees

As of December 31, 2023

## Historical Performance



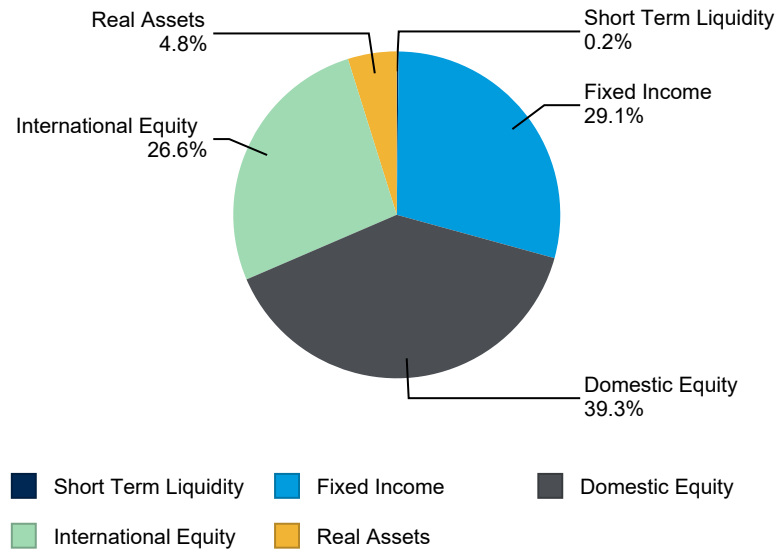
## Summary of Cash Flows

	QTD	Fiscal YTD	1 Year	Since Inception
Beginning Market Value	41,405,914	45,398,377	41,815,261	22,570,251
Net Contributions	-432	-2,501,801	-2,498,819	-13,800,909
Gain/Loss	4,082,275	2,591,181	6,171,315	36,718,415
Ending Market Value	45,487,757	45,487,757	45,487,757	45,487,757

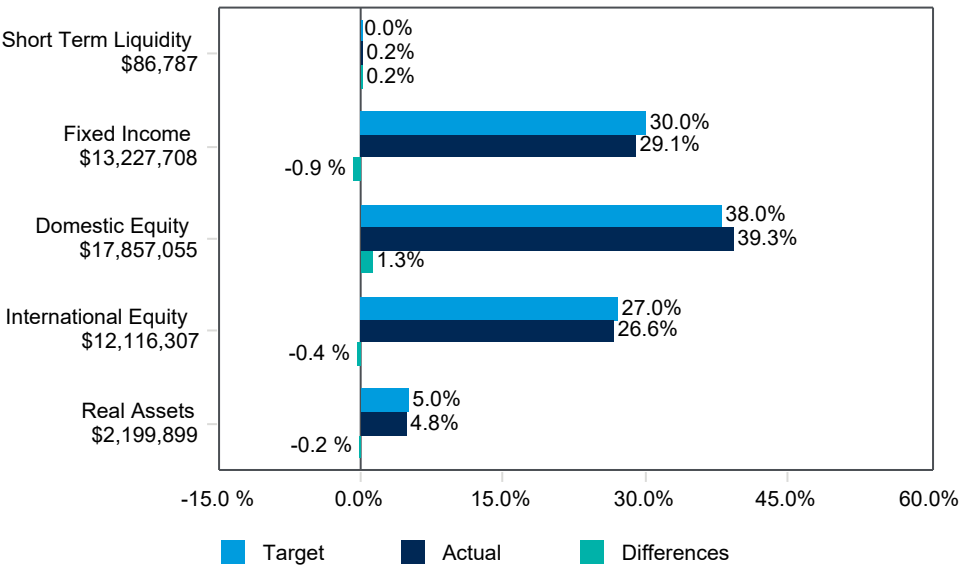
## Current Benchmark Composition

From Date	To Date	
04/2023	Present	30.00% Blmbg. U.S. Aggregate, 38.00% Russell 3000 Index, 27.00% MSCI AC World ex USA (Net), 5.00% Diversified Real Asset Blended Index

## Portfolio Allocation



## Actual vs. Target Allocations



Inception Date: 10/2008. Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees.





# Asset Allocation

Torrington Police & Fire

As of December 31, 2023

	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)
<b>Torrington Police &amp; Fire</b>	<b>76,864,714</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>
<b>Short Term Liquidity</b>	<b>81,144</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>
Allspring Government Money Market Fund Instl	81,144	0.1	0.0	0.1
<b>Fixed Income</b>	<b>22,411,223</b>	<b>29.2</b>	<b>30.0</b>	<b>-0.8</b>
Fidelity Inflation-Protected Bond Index	1,448,291	1.9	2.0	-0.1
Vanguard Total Bond Market Index Instl	2,959,573	3.9	4.0	-0.1
Metropolitan West Total Return Bond PI	9,618,338	12.5	13.0	-0.5
BlackRock Strategic Income Opportunities Fund K	4,532,279	5.9	6.0	-0.1
Artisan High Income Instl	2,351,288	3.1	3.0	0.1
BrandywineGLOBAL Global Opportunities IS	1,501,454	2.0	2.0	0.0
<b>Domestic Equity</b>	<b>30,191,119</b>	<b>39.3</b>	<b>38.0</b>	<b>1.3</b>
Vanguard Institutional Index	9,873,011	12.8	11.0	1.8
MFS Value Fund R6	6,239,471	8.1	8.5	-0.4
Mainstay Large Cap Growth Instl- Winslow	5,916,674	7.7	7.5	0.2
Hotchkis & Wiley Small Cap Divers Value I	4,223,003	5.5	5.5	0.0
Conestoga Small Cap Instl	3,938,961	5.1	5.5	-0.4
<b>International Equity</b>	<b>20,466,515</b>	<b>26.6</b>	<b>27.0</b>	<b>-0.4</b>
Dodge & Cox International Stock Fund	7,258,282	9.4	9.5	-0.1
Fidelity Global ex US Index	6,455,517	8.4	8.5	-0.1
Harding Loevner International Eq Instl Z	6,752,716	8.8	9.0	-0.2
<b>Real Assets</b>	<b>3,714,715</b>	<b>4.8</b>	<b>5.0</b>	<b>-0.2</b>
Principal Diversified Real Asset R6	3,714,715	4.8	5.0	-0.2

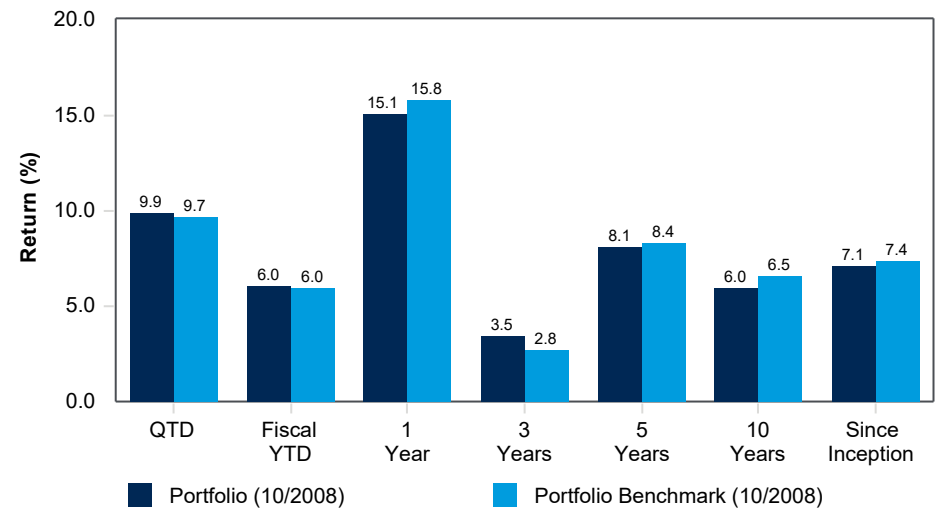


# Portfolio Dashboard

Torrington Police & Fire

As of December 31, 2023

## Historical Performance



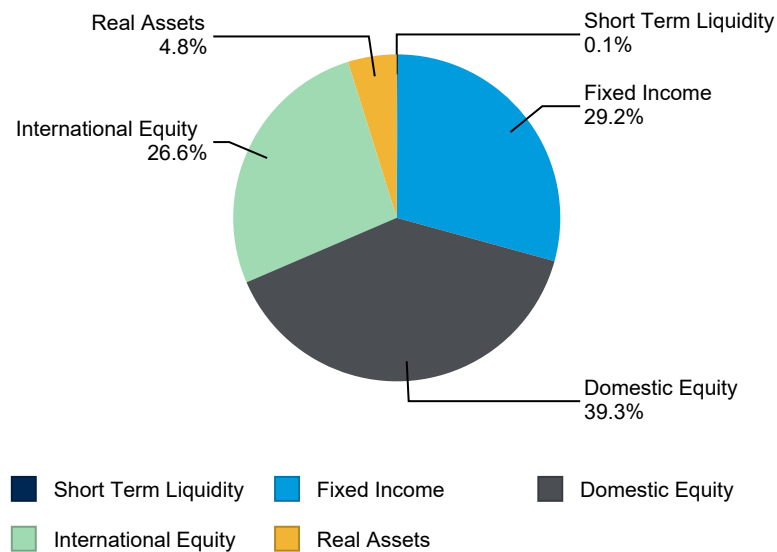
## Summary of Cash Flows

	QTD	Fiscal YTD	1 Year	Since Inception
Beginning Market Value	69,962,925	76,988,782	70,911,597	32,361,482
Net Contributions	-537	-4,502,732	-4,497,388	-11,214,187
Gain/Loss	6,902,326	4,378,664	10,450,505	55,717,420
Ending Market Value	76,864,714	76,864,714	76,864,714	76,864,714

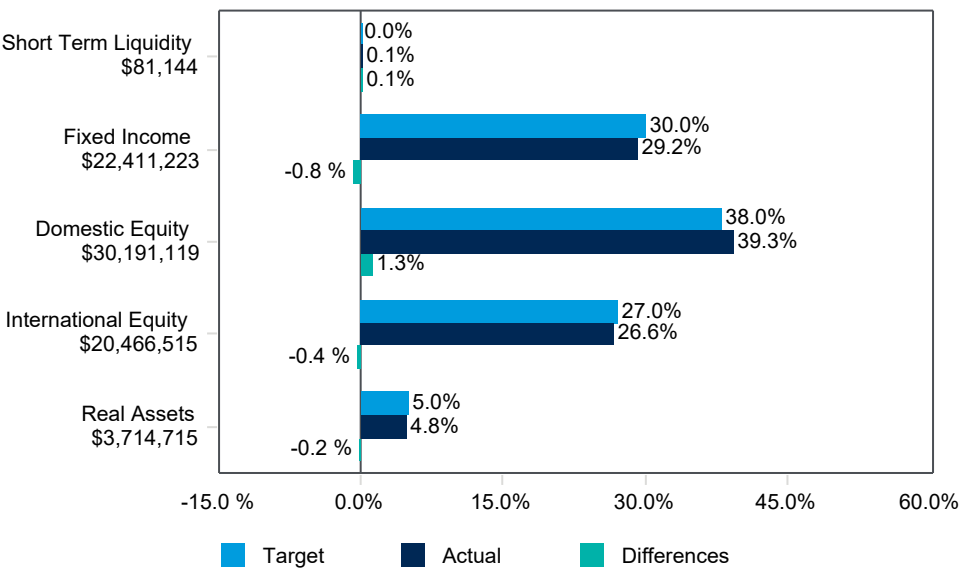
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From Date	To Date	
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## Portfolio Allocation



## Actual vs. Target Allocations



Inception Date: 10/2008 Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees



# Fiduciary Governance Calendar

The fiduciary governance calendar is designed to create a disciplined framework around governance, which helps ensure that over the course of a calendar year key fiduciary obligations and responsibilities are being met.



\*Liquidity analysis is provided only for portfolios with marketable alternatives and/or private equity.



# 2024-2033 Ten-Year Outlook

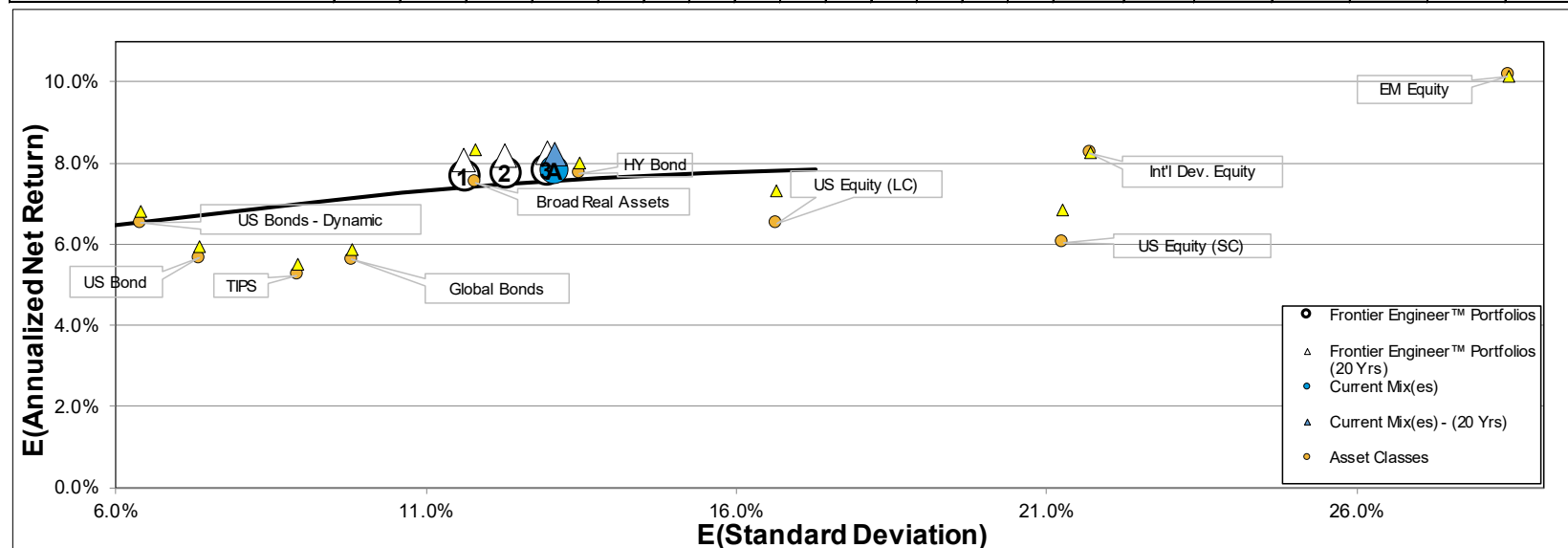
		2024	2023	Y / Y Change	
Fixed Income	The Federal Reserve continued its battle with inflation in 2023 and the market began to believe the rhetoric of "higher for longer". Yields rose across much of fixed income, improving forward long-term return assumptions.	U.S. Bonds	5.7%	5.0%	0.6%
		TIPS	5.2%	4.6%	0.6%
		Dynamic Bonds <sup>1</sup>	6.5%	5.6%	0.9%
	Credit, specifically high yield, was one of the best performing fixed income asset classes in 2023. 2024 projections rose solely based on higher Treasury rates as spreads (the additional yield above Treasuries) fell over the year.	High Yield Bonds	7.7%	7.1%	0.6%
		Global Bonds	5.6%	5.1%	0.5%
	Municipal bond forecasts rose as well based on higher rates, but so did interest rate risk given the structure of the market.	Muni Bond <sup>2</sup>	6.3%	5.8%	0.5%
		Muni High Yield <sup>2</sup>	10.2%	9.9%	0.3%
Global Equity	U.S. equity forecasts are nearly flat year over year driven by higher valuations and very modest earnings growth for 2023. International forecasts fell on a similar accord, but to a larger degree also driven by higher anticipated volatility outside of the U.S. Valuations outside the U.S. remain below their 20-year averages while U.S. valuations remain above 20-year averages.	U.S. All Cap	6.5%	6.7%	-0.2%
		Intl Developed Equity	8.2%	8.9%	-0.7%
		Emerging Markets	10.1%	10.8%	-0.7%
Real Assets & Alternatives	Real assets broadly struggled to keep up with equity markets as inflation fell throughout 2023. On the backs of lower prices and inflation remaining elevated, forecasts across real asset categories rose.	Real Estate	7.0%	6.4%	0.6%
		Broad Real Assets <sup>3</sup>	7.5%	6.8%	0.7%
	Marketable alternatives forecasts benefited from higher base rates of returns earned in Treasuries and higher expected volatility within and across asset classes.	Marketable Alts	8.4%	8.1%	0.3%
	Private equity forecasts are largely flat year over year based on the offsetting factors of improving private equity valuations and more modest earnings growth outlook.	Private Equity	9.5%	9.7%	-0.2%

1) Dynamic bonds are a blend of 33% Cash, 33% Corp HY, and 34% Global Bonds. 2) Tax Equivalent yield based on highest marginal Federal tax rate (37%). 3) Broad Real Assets is 20% REITS, 20% Global Infrastructure, 20% Commodities, 20% US Bonds, 15% Corp High Yield, 5% TIPS Outputs and opinions are as of the date referenced and are subject to change based on market or economic conditions. Information is intended for general information purposes only and does not represent any specific investment recommendation. Please consult with your advisor, attorney and accountant, as appropriate, regarding specific advice. There is no guarantee that any of these expectations will become actual results. For additional information on forecast methodologies, please speak with your advisor. Please see Index Proxy Summary slide at the end of this presentation for summary of indices used to represent each asset class. Past performance does not indicate future performance and there is a possibility of a loss. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information.

# Frontier Engineer® Analysis



12/31/2023	Asset Allocation														Forecasts					Past (1/88-12/23)	
	Fixed Income	Equity	Real Assets	Alternatives	TIPS	US Bond	US Bonds - Dynamic	HY Bond	Global Bonds	US Equity (LC)	US Equity (SC)	Int'l Dev. Equity	EM Equity	Broad Real Assets	Annualized Net Return (20 Years)	Annualized Return (10 Years)	Annualized Volatility	Normal 100 Year Flood*	Non-Normal 100 Year Flood**	Annualized Net Return	Annualized Volatility
Current Mix (A)	30%	65%	5%		2.0%	17.0%	6.0%	3.0%	2.0%	27.0%	11.0%	22.0%	5.0%	5.0%	8.2%	7.8%	13.1%	-22%	-28%	8.5%	10.8%
Mix 1	40%	56%	4%		1%	26%	8%	2%	2%	28%	7%	15%	7%	4%	8.1%	7.7%	11.6%	-19%	-24%	8.4%	9.4%
Mix 2	35%	61%	4%		1%	23%	7%	2%	2%	30%	7%	16%	7%	4%	8.2%	7.7%	12.3%	-20%	-25%	8.6%	10.0%
Mix 3	30%	65%	5%		1%	20%	6%	2%	2%	32%	8%	17%	8%	5%	8.2%	7.8%	12.9%	-21%	-27%	8.7%	10.7%



\*The expected one in a hundred worst case calendar year return based on normally distributed capital market assumptions. Greater losses are possible (1% expected likelihood).

\*\*The expected one in a hundred worst case calendar year return based on non-normally distributed capital market assumptions (factoring in skewness & kurtosis). Greater losses are possible (1% expected likelihood).

Historical Returns and Risk Metrics for each Mix represent back-tested calculations developed with the benefit of hindsight. Return calculations use an asset-weighted methodology based on the target asset allocation of each mix and the total return of index proxies used to represent each asset class and are net of fees. Historical returns are hypothetical and do not represent returns earned by a client. It is not possible to invest in an index. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information, including index proxies used to represent each asset class. Please ask for a copy of Fiducient Advisors' white paper titled 10-Year Capital Market Forecasts. Past performance does not indicate future performance and it is possible to lose money when investing. Please refer to the Capital Markets Assumptions Slide for the hypothetical alpha and hypothetical fee inputs used in the calculation methodology.

Torrington DB Pension Plans		
Current versus Proposed Target Allocation		
Investment	Current Target Allocation	Proposed Target Allocation
<b>Cash</b>	<b>0.00%</b>	<b>0.00%</b>
Cash	0.00%	0.00%
<b>Fixed Income</b>	<b>30.00%</b>	<b>35.00%</b>
Fidelity Inflat-Protected Index Instl Prem	2.00%	1.00%
Vanguard Total Bond Market Index Fund Instl Shares	4.00%	5.50%
Metropolitan West Total Return Bond Fund Plan	13.00%	0.00%
Dodge & Cox Income I	0.00%	17.50%
BlackRock Strategic Income Opportunities K	6.00%	7.00%
Artisan High Income Fund Instl	3.00%	2.00%
BrandywineGLOBAL Global Opportunities Bond IS	2.00%	2.00%
<b>Domestic Equity</b>	<b>38.00%</b>	<b>37.50%</b>
Vanguard Institutional Index Fund I	11.00%	12.00%
MFS Value Fund R6	8.50%	9.00%
Mainstay Winslow Large Cap Growth Fund Class I	7.50%	9.00%
Hotchkis & Wiley Sm Cp Divers Val Z	5.50%	3.75%
Conestoga Small Cap Instl	5.50%	3.75%
<b>International Equity</b>	<b>27.00%</b>	<b>23.00%</b>
Fidelity Global ex U.S. Index Fund Instl	8.50%	7.00%
Dodge & Cox International Stock Fund	9.50%	8.00%
Harding Loevner Intl Equity CI Z	9.00%	8.00%
<b>Real Assets</b>	<b>5.00%</b>	<b>4.50%</b>
Principal Diversified Real Asset Fund R-6	5.00%	4.50%
<b>Investment Portfolio Total</b>	<b>100.0%</b>	<b>100.0%</b>





# Torrington DB Pension Plans

## Investment Analysis

### January 2024

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**U.S. Core Plus Fixed Income**

<b>Fund / Manager</b>	<b>Metropolitan West Total Return Bd Plan</b>	<b>Dodge &amp; Cox Income I</b>
<b>Status</b>	Watch	Maintain
<b>Manager (Tenure in Years)</b>	Team (26.8)	Team (35)
<b>Net Assets (\$ Millions)</b>	\$56,190	\$67,078
<b>Firm</b>	- TCW is Los Angeles, CA based asset manager with most of the firm's assets in fixed income related strategies. The firm is owned by employees (~44%), Carlyle Group (~31%), and Nippon Life (~25%).	- Dodge & Cox, founded in 1930, focuses solely on managing a small number of value-oriented strategies across equity and fixed income. - The employee-owned firm is based in San Francisco, CA and has over 200 professionals.
<b>Team</b>	- A team of generalist portfolio managers, led by co-CIOs Bryan Whalen and Stephen Kane, are responsible for managing the strategy. They are supported by TCW's fixed income research platform and a team of sector specialists. The generalist PMs set the top-down view while the sector specialists are responsible for the bottom-up selection.	- Dodge & Cox Income is team managed, overseen by the firm's U.S. Fixed Income Investment Committee which is comprised of eight senior team members including the Director of Fixed Income, Thomas Dugan, and Dana Emery, CEO. - The team is supported by a large, seasoned team of analysts.
<b>Philosophy/Process</b>	- The team believes in the mean reverting nature of fixed income securities and recognizes that short term technical factors can cause fixed income pricing to temporarily deviate from the mean. They aim to combine top-down strategies with bottom-up issue selection to construct the portfolio. - The process begins with a long-term economic outlook, analyzing economic trends, credit trends, commodity price cycles and the political environment and is the primary driver of duration, sector, and curve positioning. - The large analyst team and sector specialists are then responsible for the bottom-up fundamental credit analysis of individual securities for the portfolio.	- Dodge and Cox believes in constructing high quality diversified fixed income portfolios using fundamental research to take advantage of inefficiencies across market sectors and securities. The strategy typically has a bias toward the corporate credit space and often has a higher yield than the benchmark. - The Investment Committee sets and reviews overall portfolio strategy, oversees the research process, and oversees implementation of strategy. Bottom-up research is the heart of the process and the fundamental analysis focuses on detailed cash flow analysis and projection, and liquidity/balance sheet analysis. In addition, the analysts will evaluate broader fixed income market trends including relative values, and total return simulations across sectors and securities.
<b>Portfolio Construction</b>	- The portfolio is typically +/- 1 year of the benchmark duration and can invest up to 20% in high yield securities. The portfolio management team provides the initial layer of risk management through prudent diversification. TCW's risk management team also provides oversight to monitor, measure, and quantify risk exposures in the portfolio.	- Duration is typically kept within 75% and 125% of the benchmark. - The portfolio is constructed from the bottom up and as a result sector and industry relative weightings reflect the team's perception of relative value in the fixed income markets. The portfolio does have a bias toward spread sectors of the market given their attempt to operate with a yield advantage over the market. - The strategy can invest in below investment grade rated issues. Risk is controlled at the issuer level through in-depth fundamental analysis and at the portfolio level through the team-based decision-making process.
<b>Expense Ratio</b>	0.37	0.41
<b>Redemption Fee</b>	N.A.	N.A.

# U.S. Core Plus Fixed Income

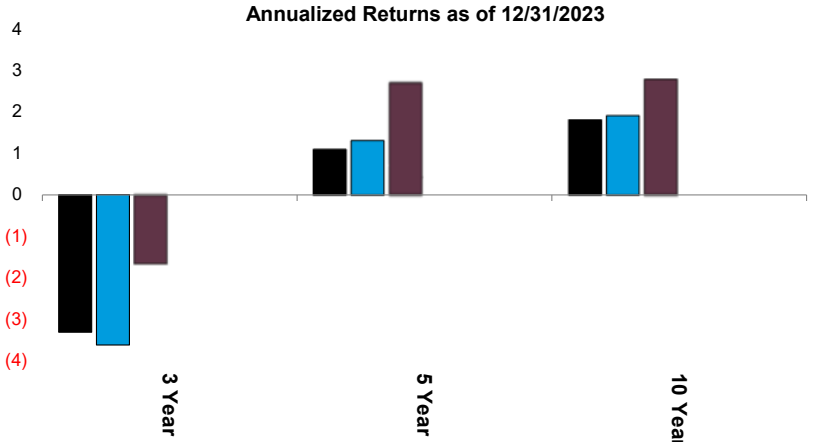
## Return, Standard Deviation and Peer Group Comparisons

12/31/2023

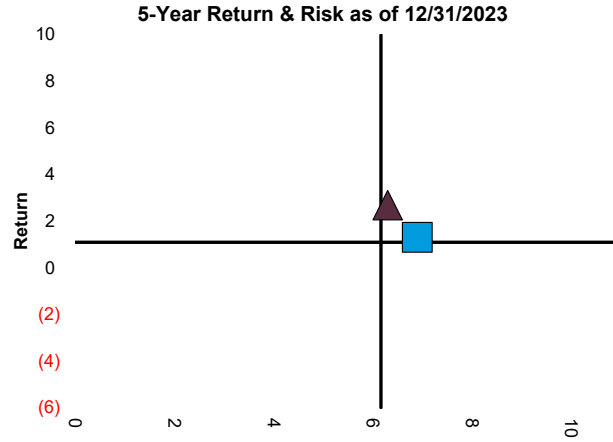
Manager or Index	Annual Returns (%) as of 12/31/2023					Calendar Year Returns (%)							Volatility (%) as of 12/31/2023				
	1 Year	3 Year	5 Year	7 Year	10 Year	2023 YTD	2022	2021	2020	2019	2018	2017	1 Year	3 Year	5 Year	7 Year	10 Year
Bloomberg U.S. Aggregate	5.5	(3.3)	1.1	1.3	1.8	5.5	(13.0)	(1.5)	7.5	8.7	0.0	3.5	8.5	7.2	6.2	5.4	4.8
Metropolitan West Total Return Bd Plan	6.1	(3.6)	1.3	1.5	1.9	6.1	(14.7)	(1.1)	9.2	9.2	0.3	3.5	9.8	8.1	6.9	5.9	5.1
Dodge & Cox Income I	7.7	(1.7)	2.7	2.5	2.8	7.7	(10.9)	(0.9)	9.5	9.7	(0.3)	4.4	8.6	7.2	6.3	5.4	4.7

**Annualized Returns as of 12/31/2023**



**5-Year Return & Risk as of 12/31/2023**



■ /+ Index (Bloomberg U.S. Aggregate)  
■ Metropolitan West Total Return Bd Plan  
▲ Dodge & Cox Income I

Manager or Index	Peer Group Rankings as of 12/31/2023					Calendar Year Peer Group Rank							Differentiators	
	1 Year	3 Year	5 Year	7 Year	10 Year	2023 YTD	2022	2021	2020	2019	2018	2017	Batting Average <sup>^</sup>	Loss Protection (5 Yrs)
Bloomberg U.S. Aggregate	77	61	71	69	63	77	36	85	67	68	26	76	1) Dodge (95%) 2) Metropolitan (65%)	1) Dodge (89%) 2) Metropolitan (108%)
Metropolitan West Total Return Bd Plan	57	74	59	53	55	57	79	67	28	55	20	77	High Alpha (5 Yrs) 1) Dodge (1.6) 2) Metropolitan (0.3)	Low-to-High Beta (5 Yrs) 1) Dodge (0.97) 2) Metropolitan (1.11)
Dodge & Cox Income I	8	9	5	8	6	8	8	57	22	33	33	45		

Peer Group Range	Peer Group Spreads as of 12/31/2023					Calendar Year Peer Group Spreads							Low Vol (5 Yrs)	
	1 Year	3 Year	5 Year	7 Year	10 Year	2023 YTD	2022	2021	2020	2019	2018	2017	1) Dodge (6.3) 2) Metropolitan (6.9)	Low-to-High Expense 1) Metropolitan (0.37) 2) Dodge (0.41)
10th Percentile	7.6	(1.7)	2.4	2.3	2.6	7.6	(11.4)	0.8	10.4	11.0	0.9	5.8		
25th Percentile	6.9	(2.6)	1.9	1.9	2.3	6.9	(12.7)	(0.2)	9.3	10.0	0.1	4.9		
50th Percentile	6.3	(3.1)	1.5	1.5	2.0	6.3	(13.6)	(0.8)	8.2	9.3	(0.7)	4.2		
75th Percentile	5.6	(3.6)	1.0	1.2	1.6	5.6	(14.5)	(1.3)	6.8	8.3	(1.3)	3.6		
90th Percentile	4.7	(4.2)	0.3	0.7	1.3	4.7	(15.3)	(1.8)	5.0	6.8	(1.9)	2.9		
Top/Bottom Quartile spread	+1.3	+1.1	+0.9	+0.8	+0.7	+1.3	+1.8	+1.1	+2.5	+1.7	+1.4	+1.3		

<sup>^</sup>The Batting Average measures the frequency of rolling 3-year period outperformance from the lesser of 10 years or each fund's inception date.

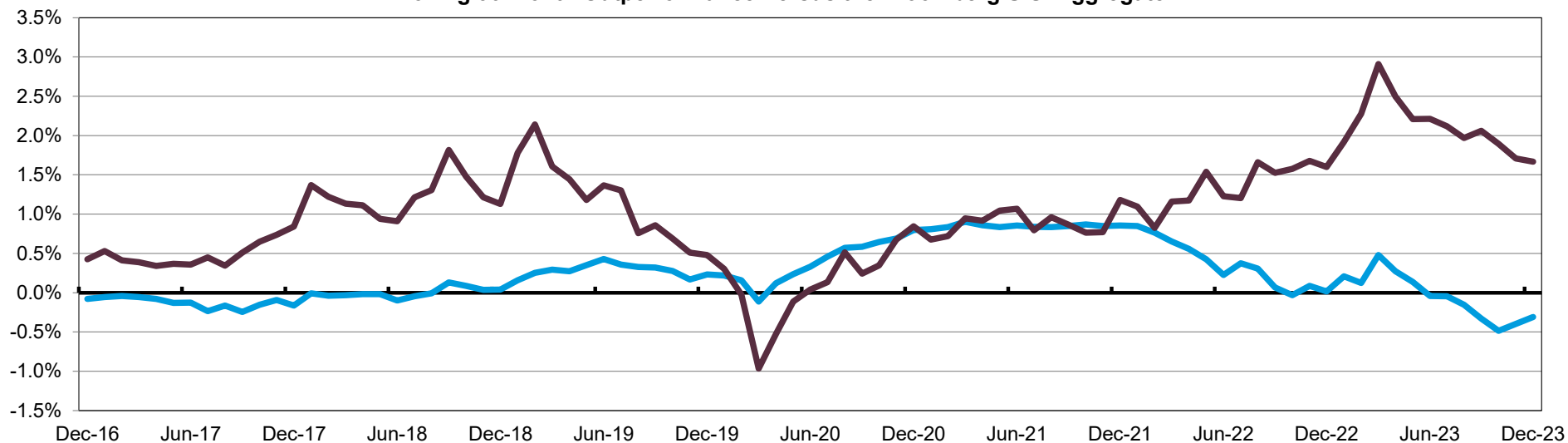
## U.S. Core Plus Fixed Income MPT and Other Quantitative Risk and Return Metrics

12/31/2023

Managers vs. Bloomberg U.S. Aggregate	Past 10-Year Metrics as of 12/31/2023							Past 5-Year Metrics as of 12/31/2023							Max Drawdowns (10 yrs)		
	Correl / R <sup>2</sup>	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)	UP Capture	DOWN Capture	Correl / R <sup>2</sup>	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)	UP Capture	DOWN Capture	8/2020 - 10/2022	8/2016 - 11/2016	9/2017 - 10/2018
<b>Bloomberg U.S. Aggregate</b>	<b>1 / 1</b>	<b>1</b>	<b>0</b>	<b>0.12</b>	<b>0 / 0</b>	<b>100%</b>	<b>100%</b>	<b>1 / 1</b>	<b>1</b>	<b>0</b>	<b>(0.12)</b>	<b>0 / 0</b>	<b>100%</b>	<b>100%</b>	<b>-17.2%</b>	<b>-3.3%</b>	<b>-2.5%</b>
Metropolitan West Total Return Bd Plan	0.99 / 0.98	1.07	0.1	0.14	0.8 / 0.14	103%	102%	0.99 / 0.99	1.11	0.3	(0.08)	1 / 0.21	111%	108%	-17.8%	-2.7%	-2.1%
Dodge & Cox Income I	0.92 / 0.85	0.92	1.0	0.33	1.9 / 0.52	100%	81%	0.95 / 0.9	0.97	1.6	0.13	2 / 0.8	109%	89%	-13.3%	-1.1%	-0.8%

Managers vs. Bloomberg U.S. Aggregate	Monthly, 12-month and 36-month batting averages vs. Bloomberg U.S. Aggregate for 10 Years (or manager inception date)							Graph Legend	
	1 Month Periods	% + Months	12 Month periods	% + 12-Months	36 Month Periods	% + 36 Months	Return Start Date	Metropolitan West Total Return Bd Plan	Dodge & Cox Income I
Metropolitan West Total Return Bd Plan	120	53%	109	57%	85	65%	Dec-13		
Dodge & Cox Income I	120	66%	109	66%	85	95%	Dec-13		

**Rolling 36-Month Outperformance Versus the Bloomberg U.S. Aggregate**



# DEFINITION OF KEY METRICS

- **Alpha**

The Alpha is the nonsystematic return, or the return that can't be attributed to the market. It can be thought of as how the manager performed if the market's return was zero. A positive alpha implies the manager added value to the return of the portfolio over that of the market. A negative alpha implies the manager did not contribute any value over the performance of the market.

- **Batting Average**

Batting average is a measure of a manager's consistency. It is calculated as the ratio between the number of periods that a manager outperforms a benchmark and the total number of periods observed. For example, a batting average of 0.60 implies that a manager outperformed its benchmark 6 out of 10 time periods.

- **Beta**

This is a measure of a fund's market risk. The beta of the market is 1.00. Accordingly, a fund with a 1.10 beta is expected to perform 10% better than the market in up markets and 10% worse than the market in down markets. It is important to note, however, that a low fund beta does not imply that the fund has a low level of volatility; rather, a low beta means only that the fund's market-related risk is low. Because beta analyzes the market risk of a fund by showing how responsive the fund is to the market, its usefulness depends on the degree to which the markets determine the fund's total risk (indicated by R-squared).

- **Information Ratio**

The information ratio is a measure of the excess return per volatility of that excess return. This value is determined by taking the annualized excess return over a benchmark and dividing it by the standard deviation of excess return.

- **R-Squared**

This reflects the percentage of a fund's movements that are explained by movements in its benchmark index. An R-squared of 100 means that all movements of a fund are completely explained by movements in the index. Conversely, a low R-squared indicates that very few of the fund's movements are explained by movements in the benchmark index. R-squared can also be used to ascertain the significance of a particular beta. Generally, a higher R-squared will indicate a more reliable beta figure. If the R-squared is lower, then the beta is less relevant to the fund's performance. A measure of diversification, R-squared indicates the extent to which fluctuations in portfolio returns are explained by the market. An R-squared = 0.70 implies that 70% of the fluctuation in a portfolio's return is explained by the fluctuation in the market. In this instance, overweighting or underweighting of industry groups or individual securities is responsible for 30% of the fund's movement.

- **Return**

Time-weighted average annual returns for the time period indicated.

- **Sharpe Ratio**

The Sharpe ratio is the excess return per unit of total risk as measured by standard deviation. Higher numbers are better, indicating more return for the level of risk experienced. The ratio is a fund's return minus the risk-free rate of return (30-day T-Bill rate) divided by the fund's standard deviation. The higher the Sharpe ratio, the more reward you are receiving per unit of total risk.

- **Volatility (or Standard Deviation)**

Standard deviation is a statistical measure of the range of performance within which the total returns of a fund fall. When a fund has a high standard deviation, the range of performance is very wide, meaning that there is a greater volatility. Approximately 68% of the time, the total return of any given fund will differ from the average total return by no more than plus or minus the standard deviation figure. Ninety-five percent of the time, a fund's total return will be within a range of plus or minus two times the standard deviation from the average total return. If the quarterly or monthly returns are all the same the standard deviation will be zero. The more they vary from one another, the higher the standard deviation. Standard deviation can be misleading as a risk indicator for funds with high total returns because large positive deviations will increase the standard deviation without a corresponding increase in the risk of the fund. While positive volatility is welcome, negative is not.

- **Tracking Error**

Tracking error measures the volatility of the difference in annual returns between the manager and the index. This value is calculated by measuring the standard deviation of the difference between the manager and index returns. For example, a tracking error of +/- 5 would mean there is about a 68% chance (1 standard deviation event) that the manager's returns will fall within +/- 5% of the benchmark's annual return.

Established in 1930, Dodge & Cox is one of the largest independently owned investment firms in the world. We manage money for individuals and institutions using a single value-oriented investment philosophy across a focused set of strategies.



Fund Inception  
January 3, 1989



Diversified Portfolio



Seeks a Durable and  
Competitive Yield<sup>1</sup>



Moderate Interest  
Rate Exposure<sup>2</sup>

## Details

Expense Ratio	0.41%
Total Net Assets (billions)	\$70.2
CUSIP	256210105
Distribution Frequency	Quarterly
30-Day SEC Yield <sup>4</sup>	4.60%
Portfolio Turnover <sup>5</sup> (1/1/2023 to 12/31/2023)	55%

No sales charges or distribution fees

## Risk Metrics (5 Years)

Tracking Error <sup>6</sup>	1.98
Standard Deviation <sup>7</sup>	6.25
Sharpe Ratio <sup>8</sup>	0.15

## Investment Committee

Managed by the U.S. Fixed Income Investment Committee, whose members' average tenure at Dodge & Cox is 24 years.

## Investment Objective

Dodge & Cox Income Fund seeks a high and stable rate of current income, consistent with long-term preservation of capital. A secondary focus is to take advantage of opportunities to realize capital appreciation.

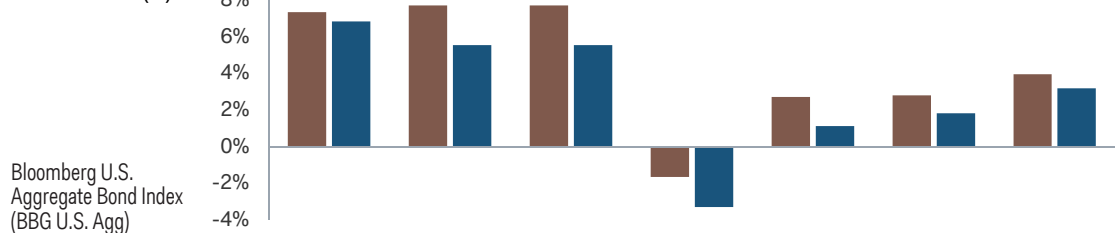
## Investment Approach

The Fund offers investors a highly selective, diversified, and actively managed core fixed income fund comprised of carefully-researched investments with attractive long-term risk/return prospects. Generally, we:

- Build a diversified portfolio of primarily investment-grade debt securities, including government and government-related obligations, mortgage- and asset-backed securities, corporate and municipal bonds, and other debt securities.
- Opportunistically pursue areas the benchmark may not cover, such as below investment-grade debt, debt of non-U.S. issuers, and other structured products.
- Select individual securities based on fundamental research and consider a variety of factors, including yield, credit quality, liquidity, covenants, call risk, duration, structure, and capital appreciation potential, as well as financially material environmental, social, and governance (ESG) issues.

## Performance<sup>3</sup>

Total Returns (%)



Bloomberg U.S.  
Aggregate Bond Index  
(BBG U.S. Agg)

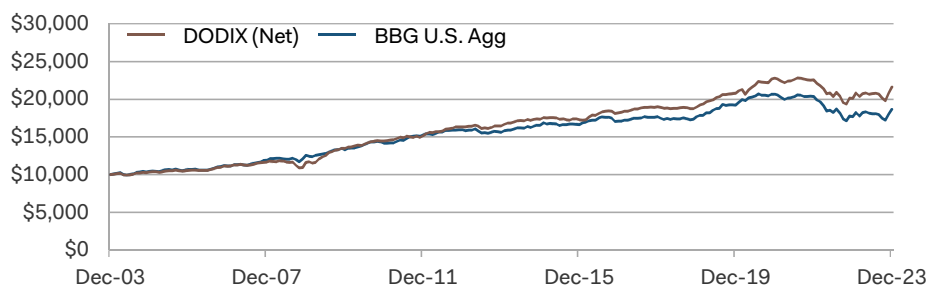
## Average Annual Total Returns

	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	20 Years
■ DODIX (Net)	7.32	7.69	7.69	-1.66	2.70	2.79	3.94
■ BBG U.S. Agg	6.82	5.53	5.53	-3.31	1.10	1.81	3.17

Returns represent past performance and do not guarantee future results. Investment return and share price will fluctuate with market conditions, and investors may have a gain or loss when shares are sold. Mutual fund performance changes over time and may be significantly lower than stated above. Performance is updated and published monthly. Visit the Fund's website at [dodgeandcox.com](http://dodgeandcox.com) or call 800-621-3979 for current month-end performance figures.

## Hypothetical Growth of \$10,000<sup>3</sup>

For an investment made on December 31, 2003



**Dana Emery**  
Chair and CEO (40 yrs  
at Dodge & Cox)



**Tom Dugan**  
Director of Fixed  
Income (29 yrs)



**Jim Dignan**  
Fixed Income Analyst  
(24 yrs)



**Lucy Johns**  
Assoc. Director of Fixed  
Income (21 yrs)



**Adam Rubinson**  
Fixed Income Analyst  
(21 yrs)



**Tony Brekke**  
Fixed Income Analyst  
(20 yrs)



**Nils Reuter**  
Trader, Fixed Income  
Analyst (20 yrs)

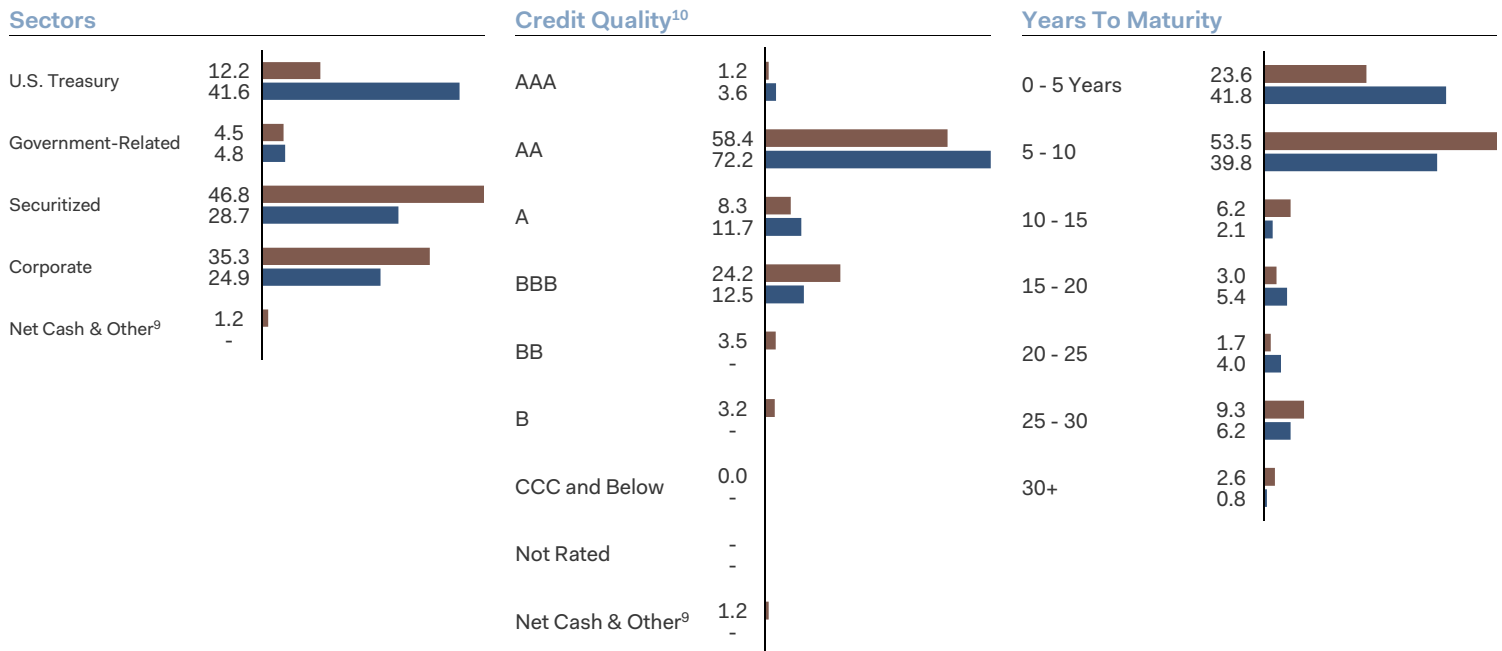


**Mike Kiedel**  
Fixed Income Analyst  
(15 yrs)



## Portfolio Breakdown (% of Fund)

■ Fund ■ BBG U.S. Agg

Ten Largest Credit Issuers (% of Fund)<sup>11</sup>

	Fund	Portfolio Characteristics	Fund	BBG U.S. Agg
Charter Communications, Inc.	2.3	Yield to Worst <sup>12</sup>	5.3%	4.5%
Petroleos Mexicanos	2.1	Effective Duration (years) <sup>13</sup>	6.0	6.2
HSBC Holdings PLC	2.0	Effective Maturity (years)	10.3	8.5
Prosus NV	1.7	Number of Credit Issuers	65	982
JPMorgan Chase & Co.	1.6			
Ford Motor Credit Co. LLC	1.6			
TC Energy Corp.	1.4			
Imperial Brands PLC	1.3			
BNP Paribas SA	1.2			
Citigroup, Inc.	1.2			

## Risks

The Fund invests in individual bonds and other securities whose yields and market values fluctuate, so that your investment may be worth more or less than its original cost. The Fund's performance could be hurt by interest rate risk, credit risk, below investment-grade securities risk, mortgage- and asset-backed securities risk, to-be-announced transaction risk, non-U.S. investment risk, liquidity risk, derivatives risk, call risk, sovereign and government-related debt risk, manager risk, market risk, and hybrid securities risk. Please read the [prospectus](#) for specific details regarding the Fund's risk profile.

- Based on yield to maturity, which is the total rate of return anticipated for a bond if it is held to maturity, assuming all interest payments are made on schedule and the original principal amount is repaid.
- Based on effective duration, which is a measure of a portfolio's price sensitivity to interest rate changes, being within the range of three to seven years.
- All returns are stated in U.S. dollars, unless otherwise noted. The Fund's total returns include the reinvestment of dividend and capital gain distributions, but have not been adjusted for any income taxes payable by shareholders on these distributions or on Fund share redemptions. Index returns include dividend and/or interest income but, unlike Fund returns, do not reflect fees or expenses.
- SEC Yield is an annualization of the Fund's net investment income for the trailing 30-day period. Dividends paid by the Fund may be higher or lower than implied by the SEC Yield.
- Portfolio Turnover is calculated as the lesser of the portfolio purchases or sales divided by the average portfolio value for the period.
- Tracking error is a measure of risk. It is defined as the Standard Deviation of the portfolio's excess return vs. the benchmark expressed in percent.
- Standard Deviation measures the volatility of the Fund's returns. Higher Standard Deviation represents higher volatility.
- Sharpe Ratio is a risk-adjusted measure that calculates excess performance with respect to the risk-free rate per unit of volatility over the time frame.
- Net Cash & Other includes cash, short-term investments, unrealized gain (loss) on derivatives, receivables, and payables.
- The credit quality distributions shown for the Fund and the Index are based on the middle of Moody's, S&P, and Fitch ratings, which is the methodology used by Bloomberg in constructing its indices. A rating of AAA is the highest possible credit rating, while a rating in the C's or D's is the lowest. If a security is rated by only two agencies, the lower of the two ratings is used. Please note the Fund applies the highest of Moody's, S&P, and Fitch ratings to determine compliance with the quality requirements stated in its prospectus. On that basis, the Fund held 4.0% in securities rated below investment grade. For consistency purposes, we use the S&P and Fitch rating categories. The credit quality of the investments in the portfolio does not apply to the stability or safety of the Fund or its shares.
- The Fund's portfolio holdings are subject to change without notice. The mention of specific securities is not a recommendation to buy, sell, or hold any particular security and is not indicative of Dodge & Cox's current or future trading activity.
- Yield to Worst is a measure of the lowest possible yield that can be received on a bond that fully operates within the terms of its contract without defaulting. The distribution of this information must be preceded or accompanied by the prospectus.
- Effective duration is a measure of a portfolio's price sensitivity to interest rate changes.

Figures represented by a dash are zero or have no associated data while figures represented by a zero may be rounded to zero.

Market values for debt securities include accrued interest.

The Bloomberg U.S. Aggregate Bond Index (BBG U.S. Agg) is a widely recognized, unmanaged index of U.S. dollar-denominated investment-grade fixed income securities.

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Before investing in any Dodge & Cox Fund, you should carefully consider the Fund's investment objectives, risks, and charges and expenses. To obtain a Fund's prospectus and summary prospectus, which contain this and other important information, visit [dodgeandcox.com](http://dodgeandcox.com) or call 800-621-3979. Please read the [prospectus](#) and [summary prospectus](#) carefully before investing.

Dodge & Cox Funds are distributed by Foreside Fund Services, LLC, which is not affiliated with Dodge & Cox.



# Actuarial Review

City of Torrington Employee Pension Plan		
	7/1/2022	7/1/2020
Actuarial Value of Assets	\$44,789,301	\$42,408,468
Total Accrued Liability	\$54,943,516	\$52,761,560
Funded Ratio	81.5%	80.4%
Actuarial Return Assumption	6.75%	6.75%

City of Torrington Police and Fire Pension Plan		
	7/1/2022	7/1/2020
Actuarial Value of Assets	\$73,210,724	\$65,854,907
Total Accrued Liability	\$111,942,422	\$105,984,390
Funded Ratio	65.4%	62.1%
Actuarial Return Assumption	6.75%	6.75%

Source: Hooker & Holcombe, Actuarial Valuation Report, as of 7/1/2022



# Manager Performance

City of Torrington - Combined

As of December 31, 2023

	Performance(%)							Inception Date	Manager Status
	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception		
<b>Torrington Employees</b>	<b>9.9</b>	<b>6.0</b>	<b>15.1</b>	<b>3.5</b>	<b>8.2</b>	<b>6.0</b>	<b>7.0</b>	<b>10/2008</b>	
<i>Torrington Employees Benchmark</i>	9.7	6.0	15.8	2.8	8.4	6.5	7.4		
<b>Torrington Police &amp; Fire</b>	<b>9.9</b>	<b>6.0</b>	<b>15.1</b>	<b>3.5</b>	<b>8.1</b>	<b>6.0</b>	<b>7.1</b>	<b>10/2008</b>	
<i>Torrington Police &amp; Fire Blended Benchmark</i>	9.7	6.0	15.8	2.8	8.4	6.5	7.4		
<b>Short Term Liquidity</b>									
<b>Allspring Government Money Market Fund Instl</b>	<b>1.4</b>	<b>2.7</b>	<b>5.0</b>	<b>2.4</b>	<b>1.9</b>	<b>1.2</b>	<b>0.9</b>	<b>10/2008</b>	
<i>90 Day U.S. Treasury Bill</i>	1.4	2.7	5.0	2.2	1.9	1.2	0.9		
<b>Fixed Income</b>									
<b>Fidelity Inflation-Protected Bond Index</b>	<b>4.5</b>	<b>1.7</b>	<b>3.8</b>	<b>-1.1</b>	<b>3.0</b>	<b>2.3</b>	<b>0.3</b>	<b>04/2023</b>	<b>Maintain</b>
<i>Blmbg. U.S. TIPS</i>	4.7	2.0	3.9	-1.0	3.2	2.4	0.5		
IM U.S. TIPS (MF) Median	4.2	2.1	3.7	-1.1	2.9	1.9	0.6		
Fidelity Inflation-Protected Bond Index Rank	36	66	47	50	43	15	53		
<b>Vanguard Total Bond Market Index Adm</b>	<b>6.7</b>	<b>3.4</b>	<b>5.7</b>	<b>-3.4</b>	<b>1.1</b>	<b>1.8</b>	<b>2.9</b>	<b>10/2008</b>	<b>Maintain</b>
<i>Vanguard Spliced Bloomberg US Agg Flt Adj Index</i>	6.7	3.4	5.6	-3.3	1.2	1.8	3.0		
IM U.S. Broad Market Core Fixed Income (MF) Median	6.8	3.5	5.8	-3.4	1.2	1.8	3.2		
Vanguard Total Bond Market Index Adm Rank	61	57	54	42	57	49	68		
<b>Metropolitan West Total Return Bond PI</b>	<b>7.5</b>	<b>3.8</b>	<b>6.1</b>	<b>-3.6</b>	<b>1.3</b>	<b>1.9</b>	<b>1.5</b>	<b>12/2014</b>	<b>Watch</b>
<i>Blmbg. U.S. Aggregate Index</i>	6.8	3.4	5.5	-3.3	1.1	1.8	1.4		
IM U.S. Broad Market Core+ Fixed Income (MF) Median	6.9	3.7	6.3	-3.3	1.6	1.9	1.5		
Metropolitan West Total Return Bond PI Rank	12	47	62	66	66	51	55		
<b>BlackRock Strategic Income Opportunities Fund K</b>	<b>5.5</b>	<b>5.2</b>	<b>7.4</b>	<b>0.8</b>	<b>3.5</b>	<b>2.8</b>	<b>0.7</b>	<b>03/2021</b>	<b>Maintain</b>
<i>Blmbg. U.S. Aggregate Index</i>	6.8	3.4	5.5	-3.3	1.1	1.8	-2.8		
IM Alternative Credit Focus (MF) Median	4.6	4.9	7.3	0.3	2.5	1.8	0.3		
BlackRock Strategic Income Opportunities Fund K Rank	37	38	49	40	31	19	44		

Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees. Manager performance for mutual funds and ETFs is based on NAV and provided by Lipper. Performance for non-mutual fund or ETF investments is based on the returns provided by managers, calculations based on a manager statement, or calculations based on a statement or data from the client's custodian. Funds may include returns of an equivalent share class with a longer return history if period includes dates prior to the fund's inception. Returns are net of fees unless otherwise stated. The fund's inception date represents the first month the client made the investment. Composite performance includes all funds held in the composite since inception. Inception dates for asset class composites reflect the start date at which these returns could be calculated using historical and existing system capabilities and may vary from the inception dates of underlying component strategies.



## Manager Performance

City of Torrington - Combined

As of December 31, 2023

	Performance(%)							Inception Date	Manager Status
	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception		
<b>Artisan High Income Instl</b>	<b>6.9</b>	<b>8.5</b>	<b>16.0</b>	<b>3.7</b>	<b>7.0</b>	<b>-</b>	<b>10.6</b>	<b>04/2023</b>	<b>Maintain</b>
<i>Blmbg. U.S. Corp: High Yield</i>	7.2	7.7	13.4	2.0	5.4	4.6	9.5		
IM U.S. High Yield Bonds (MF) Median	6.6	7.0	12.2	1.6	4.7	3.7	8.4		
Artisan High Income Instl Rank	32	3	3	6	3	-	7		
<b>BrandywineGLOBAL Global Opportunities IS</b>	<b>12.6</b>	<b>3.9</b>	<b>7.4</b>	<b>-5.0</b>	<b>1.1</b>	<b>1.5</b>	<b>-4.5</b>	<b>03/2021</b>	<b>Maintain</b>
<i>Blmbg. Global Aggregate</i>	8.1	4.2	5.7	-5.5	-0.3	0.4	-4.9		
IM Global Fixed Income (MF) Median	7.4	4.7	6.7	-3.6	0.8	1.1	-2.8		
BrandywineGLOBAL Global Opportunities IS Rank	1	83	32	62	38	39	63		
<b>Domestic Equity</b>									
<b>Vanguard Institutional Index</b>	<b>11.7</b>	<b>8.0</b>	<b>26.2</b>	<b>10.0</b>	<b>15.7</b>	<b>12.0</b>	<b>11.9</b>	<b>10/2008</b>	<b>Maintain</b>
<i>S&amp;P 500 Index</i>	11.7	8.0	26.3	10.0	15.7	12.0	11.9		
IM U.S. Large Cap Core Equity (MF) Median	11.7	8.1	24.8	8.8	14.6	10.9	11.1		
Vanguard Institutional Index Rank	52	54	38	26	26	14	21		
<b>MFS Value Fund R6</b>	<b>9.5</b>	<b>6.0</b>	<b>8.3</b>	<b>8.6</b>	<b>11.6</b>	<b>8.8</b>	<b>11.2</b>	<b>07/2012</b>	<b>Maintain</b>
<i>Russell 1000 Value Index</i>	9.5	6.0	11.5	8.9	10.9	8.4	10.7		
IM U.S. Large Cap Value Equity (MF) Median	9.6	7.1	12.5	9.6	11.8	8.7	10.8		
MFS Value Fund R6 Rank	51	70	82	70	53	49	38		
<b>Mainstay Large Cap Growth Instl- Winslow</b>	<b>18.0</b>	<b>14.0</b>	<b>43.0</b>	<b>7.1</b>	<b>17.6</b>	<b>13.5</b>	<b>13.7</b>	<b>03/2011</b>	<b>Maintain</b>
<i>Russell 1000 Growth Index</i>	14.2	10.6	42.7	8.9	19.5	14.9	14.9		
IM U.S. Large Cap Growth Equity (MF) Median	14.1	10.2	40.8	5.7	16.4	12.6	13.0		
Mainstay Large Cap Growth Instl- Winslow Rank	4	4	34	31	22	24	26		
<b>Hotchkis &amp; Wiley Small Cap Divers Value I</b>	<b>13.7</b>	<b>11.5</b>	<b>16.2</b>	<b>13.8</b>	<b>12.6</b>	<b>-</b>	<b>16.0</b>	<b>04/2023</b>	<b>Maintain</b>
<i>Russell 2000 Value Index</i>	15.3	11.8	14.6	7.9	10.0	6.8	15.4		
IM U.S. Small Cap Value Equity (MF) Median	13.3	11.2	16.5	11.2	11.5	6.8	15.1		
Hotchkis & Wiley Small Cap Divers Value I Rank	49	48	55	24	33	-	41		

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# Manager Performance

City of Torrington - Combined

As of December 31, 2023

	Performance(%)							Inception Date	Manager Status
	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception		
<b>Conestoga Small Cap Instl</b>	<b>11.1</b>	<b>3.7</b>	<b>22.4</b>	<b>0.8</b>	<b>10.9</b>	<b>9.5</b>	<b>8.8</b>	<b>04/2023</b>	<b>Maintain</b>
<i>Russell 2000 Growth Index</i>	12.7	4.5	18.7	-3.5	9.2	7.2	11.9		
IM U.S. Small Cap Growth Equity (MF) Median	11.3	4.3	16.5	-2.3	10.5	7.6	9.4		
Conestoga Small Cap Instl Rank	54	57	9	29	42	11	60		
<b>International Equity</b>									
<b>Dodge &amp; Cox International Stock Fund</b>	<b>6.8</b>	<b>5.4</b>	<b>16.7</b>	<b>6.5</b>	<b>8.6</b>	<b>4.0</b>	<b>5.8</b>	<b>10/2008</b>	<b>Maintain</b>
<i>MSCI AC World ex USA Value (Net)</i>	8.4	8.3	17.3	5.8	6.3	2.9	4.2		
IM International Large Cap Value Equity (MF) Median	7.8	5.0	17.0	5.6	7.4	3.4	4.3		
Dodge & Cox International Stock Fund Rank	94	38	57	37	36	25	21		
<b>Fidelity Global ex US Index</b>	<b>10.0</b>	<b>5.3</b>	<b>15.6</b>	<b>1.6</b>	<b>7.1</b>	<b>3.9</b>	<b>1.8</b>	<b>03/2022</b>	<b>Maintain</b>
<i>MSCI AC World ex USA (Net)</i>	9.8	5.6	15.6	1.5	7.1	3.8	1.6		
IM International Large Cap Core Equity (MF) Median	10.4	4.5	17.2	3.0	7.9	3.4	3.7		
Fidelity Global ex US Index Rank	62	33	77	79	69	36	80		
<b>Harding Loevner International Eq Instl Z</b>	<b>12.1</b>	<b>3.7</b>	<b>15.1</b>	<b>0.0</b>	<b>8.5</b>	<b>5.6</b>	<b>16.0</b>	<b>09/2022</b>	<b>Maintain</b>
<i>MSCI EAFE Growth Index (Net)</i>	12.7	3.0	17.6	0.3	8.8	5.1	16.2		
IM International Large Cap Growth Equity (MF) Median	10.8	3.0	15.5	0.3	8.4	4.4	14.6		
Harding Loevner International Eq Instl Z Rank	24	31	59	54	46	26	42		
<b>Real Assets</b>									
<b>Principal Diversified Real Asset R6</b>	<b>7.1</b>	<b>2.7</b>	<b>3.3</b>	<b>4.4</b>	<b>6.4</b>	<b>-</b>	<b>5.0</b>	<b>12/2019</b>	<b>Maintain</b>
<i>Diversified Real Asset Blended Index</i>	7.6	4.4	4.3	4.7	6.1	3.2	4.7		

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## Calendar Year Performance

City of Torrington - Combined

As of December 31, 2023

	Performance(%)									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>Short Term Liquidity</b>										
<b>Allspring Government Money Market Fund Instl</b>	<b>2.4</b>	<b>0.0</b>	<b>0.3</b>	<b>2.0</b>	<b>1.7</b>	<b>0.7</b>	<b>0.3</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>
90 Day U.S. Treasury Bill	1.5	0.0	0.7	2.3	1.9	0.9	0.3	0.0	0.0	0.0
<b>Fixed Income</b>										
<b>Fidelity Inflation-Protected Bond Index</b>	<b>-12.0</b>	<b>5.9</b>	<b>10.9</b>	<b>8.3</b>	<b>-1.4</b>	<b>3.0</b>	<b>4.9</b>	<b>-1.7</b>	<b>3.7</b>	<b>-8.6</b>
Blmbg. U.S. TIPS	-11.8	6.0	11.0	8.4	-1.3	3.0	4.7	-1.4	3.6	-8.6
IM U.S. TIPS (MF) Median	-11.7	5.3	9.7	7.4	-1.6	2.6	4.4	-2.1	2.0	-8.7
Fidelity Inflation-Protected Bond Index Rank	63	23	29	24	43	30	28	34	7	47
<b>Vanguard Total Bond Market Index Adm</b>	<b>-13.2</b>	<b>-1.7</b>	<b>7.7</b>	<b>8.7</b>	<b>0.0</b>	<b>3.6</b>	<b>2.6</b>	<b>0.4</b>	<b>5.9</b>	<b>-2.1</b>
Vanguard Spliced Bloomberg US Agg Flt Adj Index	-13.1	-1.6	7.7	8.9	-0.1	3.6	2.8	0.4	5.9	-2.0
IM U.S. Broad Market Core Fixed Income (MF) Median	-13.7	-1.3	8.2	8.8	-0.6	3.6	2.9	0.0	5.5	-2.0
Vanguard Total Bond Market Index Adm Rank	28	66	65	53	20	54	64	30	32	59
<b>Metropolitan West Total Return Bond PI</b>	<b>-14.7</b>	<b>-1.1</b>	<b>9.2</b>	<b>9.2</b>	<b>0.3</b>	<b>3.5</b>	<b>2.6</b>	<b>0.2</b>	<b>6.2</b>	<b>0.4</b>
Blmbg. U.S. Aggregate Index	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0
IM U.S. Broad Market Core+ Fixed Income (MF) Median	-13.7	-0.9	8.6	9.3	-1.0	4.5	4.1	-0.3	5.1	-1.1
Metropolitan West Total Return Bond PI Rank	73	57	36	55	11	79	86	26	25	16
<b>BlackRock Strategic Income Opportunities Fund K</b>	<b>-5.6</b>	<b>1.0</b>	<b>7.3</b>	<b>7.8</b>	<b>-0.5</b>	<b>5.0</b>	<b>3.6</b>	<b>-0.6</b>	<b>3.6</b>	<b>3.0</b>
Blmbg. U.S. Aggregate Index	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0
IM Alternative Credit Focus (MF) Median	-7.6	1.9	3.9	7.3	-1.9	4.5	4.9	-1.6	1.0	-0.1
BlackRock Strategic Income Opportunities Fund K Rank	41	58	17	43	29	43	64	25	21	31
<b>Artisan High Income Instl</b>	<b>-9.5</b>	<b>6.4</b>	<b>10.2</b>	<b>14.2</b>	<b>-1.4</b>	<b>8.9</b>	<b>14.5</b>	<b>1.2</b>	<b>-</b>	<b>-</b>
Blmbg. U.S. Corp: High Yield	-11.2	5.3	7.1	14.3	-2.1	7.5	17.1	-4.5	2.5	7.4
IM U.S. High Yield Bonds (MF) Median	-11.0	4.9	5.4	13.8	-3.0	6.6	13.8	-4.0	1.5	6.7
Artisan High Income Instl Rank	25	19	4	42	11	5	38	2	-	-
<b>BrandywineGLOBAL Global Opportunities IS</b>	<b>-15.7</b>	<b>-5.3</b>	<b>12.7</b>	<b>9.2</b>	<b>-4.9</b>	<b>12.8</b>	<b>5.0</b>	<b>-8.5</b>	<b>6.3</b>	<b>-3.9</b>
Blmbg. Global Aggregate	-16.2	-4.7	9.2	6.8	-1.2	7.4	2.1	-3.2	0.6	-2.6
IM Global Fixed Income (MF) Median	-14.7	-2.7	8.3	8.1	-1.8	6.8	2.9	-3.8	1.9	-2.5
BrandywineGLOBAL Global Opportunities IS Rank	62	80	5	25	95	3	25	96	14	77

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## Calendar Year Performance

City of Torrington - Combined

As of December 31, 2023

	Performance(%)									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>Domestic Equity</b>										
<b>Vanguard Institutional Index</b>	<b>-18.1</b>	<b>28.7</b>	<b>18.4</b>	<b>31.5</b>	<b>-4.4</b>	<b>21.8</b>	<b>11.9</b>	<b>1.4</b>	<b>13.7</b>	<b>32.3</b>
<i>S&amp;P 500 Index</i>	-18.1	28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7	32.4
IM U.S. Large Cap Core Equity (MF) Median	-18.7	26.9	18.4	30.7	-5.4	21.5	9.7	0.5	11.5	31.8
Vanguard Institutional Index Rank	46	26	50	37	32	45	20	35	18	38
<b>MFS Value Fund R6</b>	<b>-5.8</b>	<b>25.6</b>	<b>4.0</b>	<b>30.2</b>	<b>-9.8</b>	<b>17.9</b>	<b>14.3</b>	<b>-0.4</b>	<b>10.7</b>	<b>36.0</b>
<i>Russell 1000 Value Index</i>	-7.5	25.2	2.8	26.5	-8.3	13.7	17.3	-3.8	13.5	32.5
IM U.S. Large Cap Value Equity (MF) Median	-6.1	26.0	3.8	26.5	-8.6	17.0	13.8	-3.0	10.8	32.1
MFS Value Fund R6 Rank	48	57	48	17	72	36	43	13	54	8
<b>Mainstay Large Cap Growth Instl- Winslow</b>	<b>-31.2</b>	<b>24.8</b>	<b>37.4</b>	<b>33.7</b>	<b>3.7</b>	<b>32.4</b>	<b>-2.3</b>	<b>6.2</b>	<b>10.5</b>	<b>36.9</b>
<i>Russell 1000 Growth Index</i>	-29.1	27.6	38.5	36.4	-1.5	30.2	7.1	5.7	13.1	33.5
IM U.S. Large Cap Growth Equity (MF) Median	-31.3	22.4	35.6	33.3	-1.2	29.3	2.2	5.6	10.5	34.1
Mainstay Large Cap Growth Instl- Winslow Rank	48	30	40	45	6	21	88	45	49	19
<b>Hotchkis &amp; Wiley Small Cap Divers Value I</b>	<b>-6.3</b>	<b>35.3</b>	<b>1.3</b>	<b>21.7</b>	<b>-14.3</b>	<b>13.8</b>	<b>34.0</b>	<b>-9.0</b>	<b>-</b>	<b>-</b>
<i>Russell 2000 Value Index</i>	-14.5	28.3	4.6	22.4	-12.9	7.8	31.7	-7.5	4.2	34.5
IM U.S. Small Cap Value Equity (MF) Median	-11.1	32.0	3.6	21.1	-16.1	8.5	26.7	-7.0	3.4	36.5
Hotchkis & Wiley Small Cap Divers Value I Rank	23	34	66	37	38	12	6	71	-	-
<b>Conestoga Small Cap Instl</b>	<b>-28.1</b>	<b>16.4</b>	<b>30.6</b>	<b>25.4</b>	<b>0.8</b>	<b>28.7</b>	<b>14.3</b>	<b>8.3</b>	<b>-8.0</b>	<b>49.3</b>
<i>Russell 2000 Growth Index</i>	-26.4	2.8	34.6	28.5	-9.3	22.2	11.3	-1.4	5.6	43.3
IM U.S. Small Cap Growth Equity (MF) Median	-27.5	10.5	36.6	27.6	-5.6	20.7	10.1	-2.4	2.8	42.5
Conestoga Small Cap Instl Rank	53	27	64	63	12	14	24	2	98	11

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## Calendar Year Performance

City of Torrington - Combined

As of December 31, 2023

	Performance(%)									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>International Equity</b>										
<b>Dodge &amp; Cox International Stock Fund</b>	<b>-6.8</b>	<b>11.0</b>	<b>2.1</b>	<b>22.8</b>	<b>-18.0</b>	<b>23.9</b>	<b>8.3</b>	<b>-11.4</b>	<b>0.1</b>	<b>26.3</b>
MSCI AC World ex USA Value (Net)	-8.6	10.5	-0.8	15.7	-14.0	22.7	8.9	-10.1	-5.1	15.0
IM International Large Cap Value Equity (MF) Median	-10.6	13.2	4.1	19.0	-16.7	22.9	1.3	-1.8	-7.0	21.8
Dodge & Cox International Stock Fund Rank	10	59	75	6	80	34	1	89	9	7
<b>Fidelity Global ex US Index</b>	<b>-15.7</b>	<b>7.8</b>	<b>10.7</b>	<b>21.3</b>	<b>-13.9</b>	<b>27.4</b>	<b>4.6</b>	<b>-5.6</b>	<b>-4.4</b>	<b>14.3</b>
MSCI AC World ex USA (Net)	-16.0	7.8	10.7	21.5	-14.2	27.2	4.5	-5.7	-3.9	15.3
IM International Large Cap Core Equity (MF) Median	-15.1	10.7	9.1	22.1	-15.0	25.0	0.0	-1.9	-6.0	20.4
Fidelity Global ex US Index Rank	60	73	38	66	30	25	12	78	22	78
<b>Harding Loevner International Eq Instl Z</b>	<b>-20.2</b>	<b>8.6</b>	<b>20.4</b>	<b>25.4</b>	<b>-13.9</b>	<b>30.0</b>	<b>5.3</b>	<b>-1.6</b>	<b>-1.6</b>	<b>14.0</b>
MSCI EAFE Growth Index (Net)	-22.9	11.3	18.3	27.9	-12.8	28.9	-3.0	4.1	-4.4	22.5
IM International Large Cap Growth Equity (MF) Median	-20.2	8.9	20.0	27.5	-14.7	28.6	-1.9	0.2	-4.5	20.0
Harding Loevner International Eq Instl Z Rank	50	54	49	81	40	40	3	70	18	89
<b>Real Assets</b>										
<b>Principal Diversified Real Asset R6</b>	<b>-6.1</b>	<b>17.4</b>	<b>3.9</b>	<b>15.1</b>	<b>-7.8</b>	<b>10.2</b>	<b>5.9</b>	<b>-12.4</b>	<b>-</b>	<b>-</b>
Diversified Real Asset Blended Index	-5.1	15.9	2.1	14.9	-7.3	10.4	12.4	-11.7	0.2	-1.2

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## Manager Performance Overview

City of Torrington

As of December 31, 2023

	QTD	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Torrington Employee Plan</b>	<b>9.9</b>	<b>6.0</b>	<b>15.1</b>	<b>3.5</b>	<b>8.2</b>	<b>7.3</b>	<b>6.0</b>	<b>7.0</b>	<b>10/2008</b>
<i>Torrington Benchmark</i>	9.7	6.0	15.8	2.8	8.4	7.3	6.5	7.4	
<i>Torrington Benchmark (Secondary)</i>	9.8	6.0	14.9	2.7	7.9	6.8	6.0	6.9	
<b>Torrington Police &amp; Fire Plan</b>	<b>9.9</b>	<b>6.0</b>	<b>15.1</b>	<b>3.5</b>	<b>8.1</b>	<b>7.2</b>	<b>6.0</b>	<b>7.1</b>	<b>10/2008</b>
<i>Torrington Police &amp; Fire Blended Benchmark</i>	9.7	6.0	15.8	2.8	8.4	7.3	6.5	7.4	
<i>Torrington Police &amp; Fire Blended Benchmark (Secondary)</i>	9.8	6.0	14.9	2.7	7.9	6.8	6.0	6.9	
<b>Fixed Income - Police &amp; Fire</b>	<b>7.1</b>	<b>4.4</b>	<b>7.0</b>	<b>-2.0</b>	<b>1.4</b>	<b>1.6</b>	<b>1.9</b>	<b>3.4</b>	<b>03/2009</b>
<b>Fixed Income - Employees</b>	<b>7.1</b>	<b>4.4</b>	<b>7.0</b>	<b>-2.0</b>	<b>1.4</b>	<b>1.6</b>	<b>1.9</b>	<b>3.4</b>	<b>03/2009</b>
<i>Blmbg. U.S. Aggregate Index</i>	6.8	3.4	5.5	-3.3	1.1	1.3	1.8	2.8	
<b>Domestic Equity - Police &amp; Fire</b>	<b>12.7</b>	<b>8.7</b>	<b>22.7</b>	<b>8.7</b>	<b>14.7</b>	<b>12.8</b>	<b>11.1</b>	<b>14.9</b>	<b>03/2009</b>
<b>Domestic Equity - Employees</b>	<b>12.7</b>	<b>8.6</b>	<b>22.7</b>	<b>8.7</b>	<b>14.7</b>	<b>12.8</b>	<b>11.1</b>	<b>14.8</b>	<b>03/2009</b>
<i>Russell 3000 Index</i>	12.1	8.4	26.0	8.5	15.2	12.8	11.5	15.5	
<b>International Equity - Police &amp; Fire</b>	<b>9.5</b>	<b>4.8</b>	<b>15.5</b>	<b>2.8</b>	<b>7.8</b>	<b>6.8</b>	<b>3.8</b>	<b>9.6</b>	<b>03/2009</b>
<b>International Equity - Employees</b>	<b>9.5</b>	<b>4.8</b>	<b>15.5</b>	<b>2.6</b>	<b>7.8</b>	<b>6.8</b>	<b>3.8</b>	<b>9.6</b>	<b>03/2009</b>
<i>MSCI AC World ex USA (Net)</i>	9.8	5.6	15.6	1.5	7.1	6.3	3.8	8.2	
<b>Real Assets - Police &amp; Fire</b>	<b>7.1</b>	<b>2.7</b>	<b>3.3</b>	<b>4.4</b>	<b>4.8</b>	<b>1.1</b>	<b>-0.9</b>	<b>-1.2</b>	<b>06/2011</b>
<b>Real Assets - Employees</b>	<b>7.1</b>	<b>2.7</b>	<b>3.3</b>	<b>4.4</b>	<b>4.8</b>	<b>1.2</b>	<b>-0.9</b>	<b>-1.2</b>	<b>06/2011</b>
<i>Diversified Real Asset Blended Index</i>	7.6	4.4	4.3	4.7	6.1	4.7	3.2	2.6	

Returns for periods greater than one year are annualized.

Returns are expressed as percentages.

Client portfolio performance is presented net of underlying investment manager fees but gross of Fiduciant Advisors' fees.



# Manager Status Commentary

City of Torrington - Combined

As of December 31, 2023

Manager	Recommendation	Comments
Fidelity Inflation-Protected Bond Index	Maintain	
Vanguard Total Bond Market Index Adm	Maintain	
Metropolitan West Total Return Bond PI	Watch 3Q 2023	TCW announced long-time Generalist Portfolio Managers, Laird Landmann and Stephen Kane, will be retiring at the end of 2023 and no earlier than 2024, respectively. Bryan Whalen, who currently serves as co-CIO and Generalist Portfolio Manager alongside Mr. Kane, will remain in his role and will become the sole CIO at the end of 2023. Mr. Kane will continue to serve as a Generalist Portfolio Manager until his retirement. Ruben Hovhannisyan and Jerry Cudzil will join the Generalist Portfolio Manager team, effective immediately. Mr. Hovhannisyan has worked directly in support of the Generalist team for 16 years, while Mr. Cudzil has been with the firm for over 10 years and previously served as Co-Head of Credit and Head of Credit Trading.
BlackRock Strategic Income Opportunities Fund K	Maintain	
Artisan High Income Instl	Maintain	
BrandywineGLOBAL Global Opportunities IS	Maintain	
Vanguard Institutional Index	Maintain	
MFS Value Fund R6	Maintain	
Mainstay Large Cap Growth Instl- Winslow	Maintain	
Hotchkis & Wiley Small Cap Divers Value I	Maintain	
Conestoga Small Cap Instl	Maintain	
Dodge & Cox International Stock Fund	Maintain	
Fidelity Global ex US Index	Maintain	
Harding Loevner International Eq Instl Z	Maintain	
Principal Diversified Real Asset R6	Maintain	

Commentary produced upon change of status.

# FLASH Memo

**Subject:** TCW Fixed Income Team – Upcoming Retirements and Promotions

**Previous Status:** Maintain

**Current Status:** Watch

**Effective Date:** August 2023

## Overview

TCW recently announced significant changes to the fixed income team, including the upcoming retirements of two longstanding Generalist Portfolio Managers, Laird Landmann and Stephen Kane. Mr. Landmann will be retiring at the end of 2023, with Mr. Kane retiring no earlier than the end of 2024. Bryan Whalen, who currently serves as co-CIO and Generalist Portfolio Manager alongside Mr. Kane, will remain in his role and will become the sole CIO at the end of 2023. Mr. Kane will continue to serve as a Generalist Portfolio Manager until his retirement.

Ruben Hovhannisyan and Jerry Cudzil will join the Generalist Portfolio Manager team, effective immediately. Mr. Hovhannisyan has worked directly in support of the Generalist team for 16 years, while Mr. Cudzil has been with the firm for over 10 years and previously served as Co-Head of Credit and Head of Credit Trading. TCW's team approach, where the Generalist Portfolio Managers set the top-down macro-orientation and risk budget while the sector specialists conduct the bottom-up security selection within their respective coverage areas, is expected to continue.

The fixed income team also promoted four senior research professionals (Tammy Karp, Drew Sweeney, Ken Toshima and Palak Pathak) to a newly formed role, Senior Portfolio Manager. They will join the Generalist Portfolio Managers and Specialist Portfolio Managers (Liza Crawford, Brian Gelfand, Steven Purdy, Bret Barker, and Jamie Patton) on the newly formalized Fixed Income Investment Committee.

*This report is intended for the exclusive use of clients or prospective clients (the "recipient") of Fiducient Advisors and the information contained herein is confidential and the dissemination or distribution to any other person without the prior approval of Fiducient Advisors is strictly prohibited. Information has been obtained from sources believed to be reliable, though not independently verified. Any forecasts are hypothetical and represent future expectations and not actual return volatilities and correlations will differ from forecasts. This report does not represent a specific investment recommendation. The opinions and analysis expressed herein are based on Fiducient Advisor research and professional experience and are expressed as of the date of this report. Please consult with your advisor, attorney and accountant, as appropriate, regarding specific advice. Past performance does not indicate future performance and there is risk of loss.*

## Recommendation

Messrs. Landmann and Kane, along with former CIO Tad Rivelle (who departed the firm at the end of 2021), co-founded Metropolitan West Asset Management (“MetWest”) in 1996 before it was acquired by TCW in 2010. The three portfolio managers developed and implemented the relative value, contrarian philosophy MetWest is known for, and brought Bryan Whalen into the firm in 2004. The upcoming retirements of Laird Landmann and Stephen Kane are material and mark the next steps in the transition to the second generation of fixed income leadership.

The announcement comes on the heels of previous senior leadership departures, including Tad Rivelle’s retirement in 2021 and former CEO David Lippman’s departure in 2022. Katie Koch, CEO, filled the firm’s leadership position in February 2023. Bryan Whalen has been working alongside the founding investors for the better part of two decades and will continue to carry the torch within the investment team, but the newly named Generalist Portfolio Managers have large shoes to fill. While the team structure in place helps provide continuity in the process, the impact of the newly formalized Fixed Income Investment Committee is yet to be determined.

The changes to the fixed income team also come amidst challenging performance relative to peers and the benchmark for the MetWest Total Return strategy. The Generalist/Specialist structure has historically delivered favorable results through a risk-controlled top-down framework combined with strong underlying security selection from the specialist teams. Our evaluation of the changes will aim to determine if the team’s ability to deliver long-term alpha can continue in a similar fashion.

As a result of the upcoming retirements and team changes, we have placed the MetWest Total Return, TCW Core Fixed Income, MetWest Low Duration, and TCW Total Return strategies on “Watch” as we further monitor and evaluate the newly named portfolio managers, team structure, and portfolios. We do not recommend any action be taken at this time.

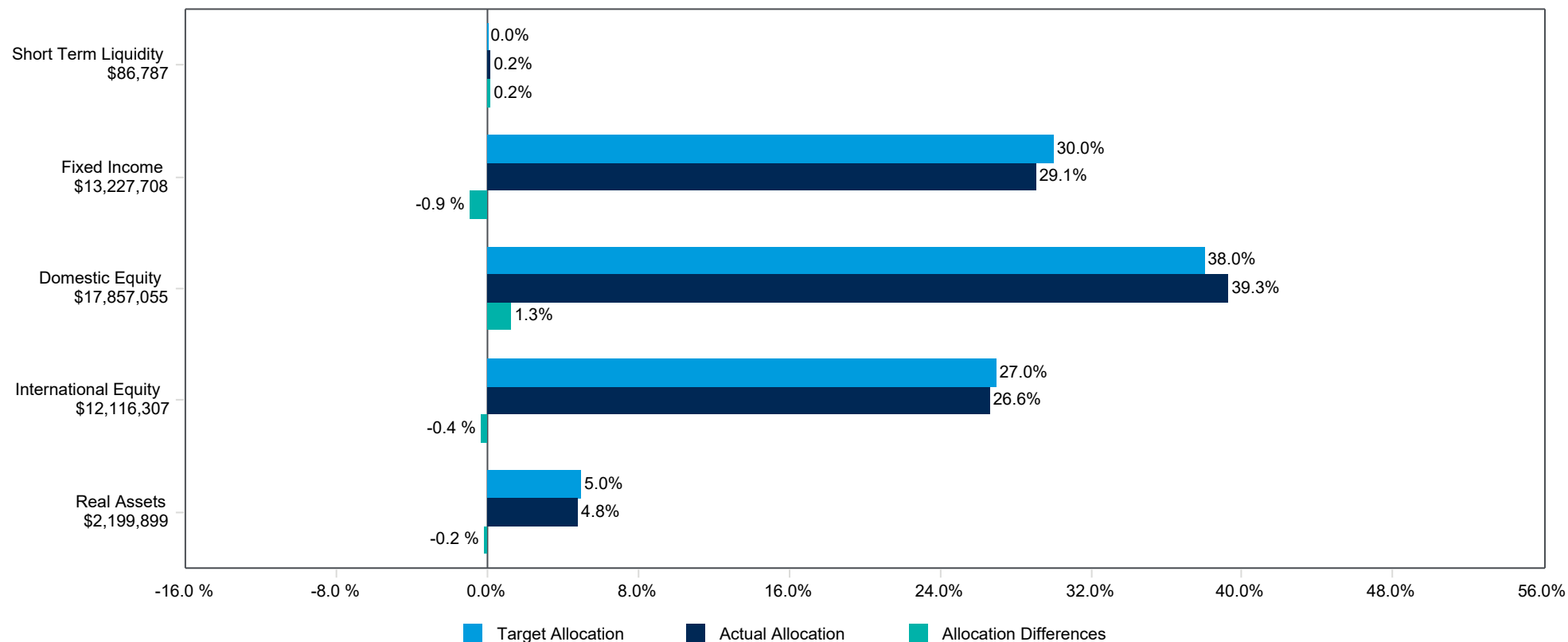


# Asset Allocation

Torrington Employees

As of December 31, 2023

## Actual vs. Target



	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)	Minimum Allocation (%)	Maximum Allocation (%)
Short Term Liquidity	86,787	0.2	0.0	0.2	0.0	5.0
Fixed Income	13,227,708	29.1	30.0	-0.9	22.0	42.0
Domestic Equity	17,857,055	39.3	38.0	1.3	28.5	50.0
International Equity	12,116,307	26.6	27.0	-0.4	18.5	38.5
Real Assets	2,199,899	4.8	5.0	-0.2	0.0	10.0
<b>Torrington Employees</b>	<b>45,487,757</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>	<b>-</b>	<b>-</b>



## Performance Overview

Torrington Employees

As of December 31, 2023

### Trailing Performance Summary

	QTD	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Torrington Employees</b>	<b>9.9</b>	<b>6.0</b>	<b>15.1</b>	<b>3.5</b>	<b>8.2</b>	<b>7.3</b>	<b>6.0</b>	<b>7.0</b>	<b>10/2008</b>
<i>Torrington Benchmark</i>	<i>9.7</i>	<i>6.0</i>	<i>15.8</i>	<i>2.8</i>	<i>8.4</i>	<i>7.3</i>	<i>6.5</i>	<i>7.4</i>	<i>10/2008</i>

### Calendar Year Performance Summary

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>Torrington Employees</b>	<b>-14.3</b>	<b>12.4</b>	<b>11.2</b>	<b>20.1</b>	<b>-4.8</b>	<b>15.9</b>	<b>6.2</b>	<b>-1.4</b>	<b>4.9</b>	<b>16.6</b>
<i>Torrington Benchmark</i>	<i>-15.5</i>	<i>10.8</i>	<i>13.7</i>	<i>21.1</i>	<i>-4.8</i>	<i>15.2</i>	<i>7.5</i>	<i>-0.4</i>	<i>7.4</i>	<i>15.6</i>

### Plan Reconciliation

	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Torrington Employees</b>								<b>10/2008</b>
Beginning Market Value	41,405,914	45,398,377	41,815,261	46,723,982	37,844,287	35,069,750	22,570,251	
Net Contributions	-432	-2,501,801	-2,498,819	-5,790,322	-9,099,594	-13,378,048	-13,800,909	
Gain/Loss	4,082,275	2,591,181	6,171,315	4,554,098	16,743,064	23,796,056	36,718,415	
Ending Market Value	45,487,757	45,487,757	45,487,757	45,487,757	45,487,757	45,487,757	45,487,757	

### Benchmark Composition

	Weight (%)
<b>Apr-2023</b>	
Blmbg. U.S. Aggregate	30.0
Russell 3000 Index	38.0
MSCI AC World ex USA (Net)	27.0
Diversified Real Asset Blended Index	5.0



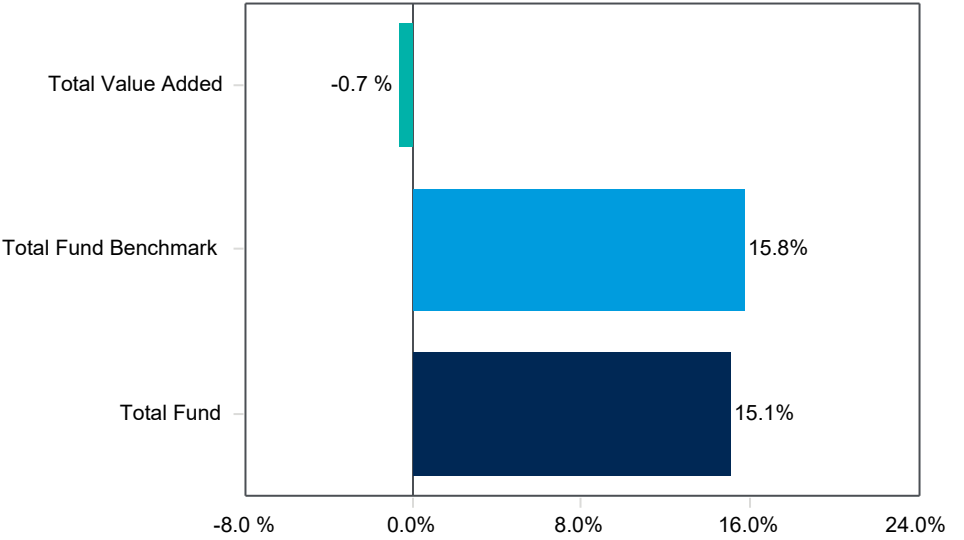


# Performance Attribution

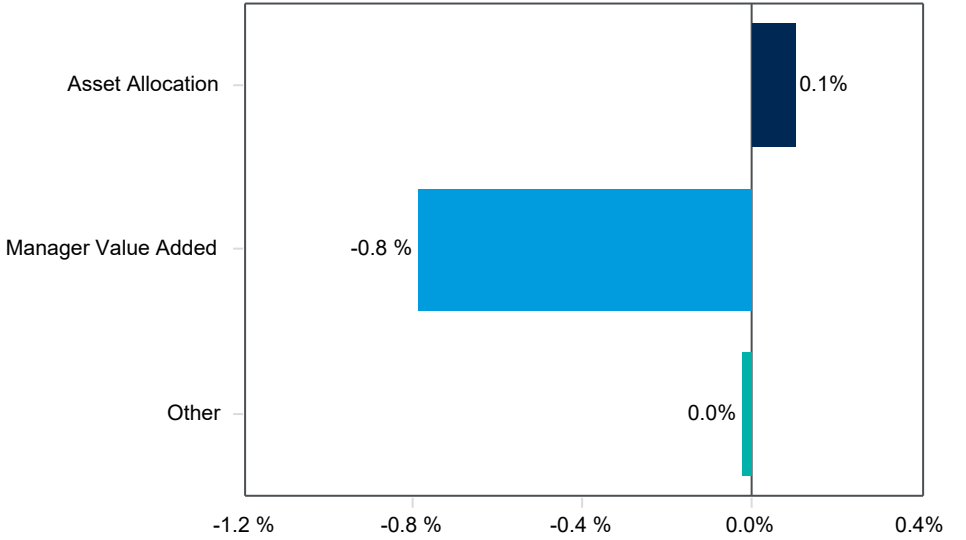
Torrington Employees vs. Employee Attribution

1 Year Ending December 31, 2023

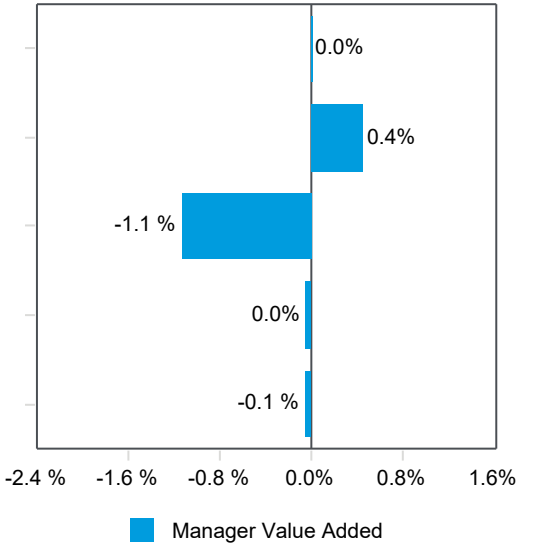
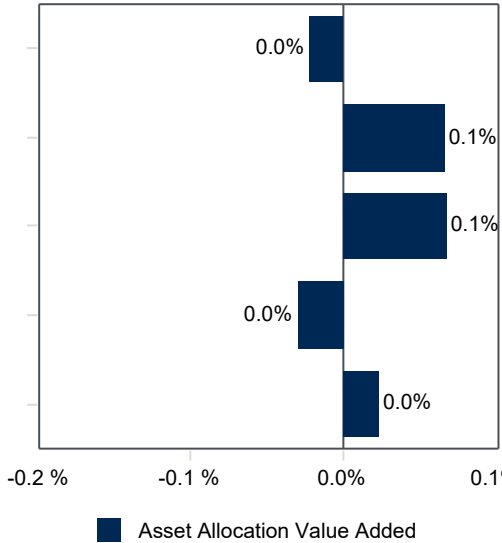
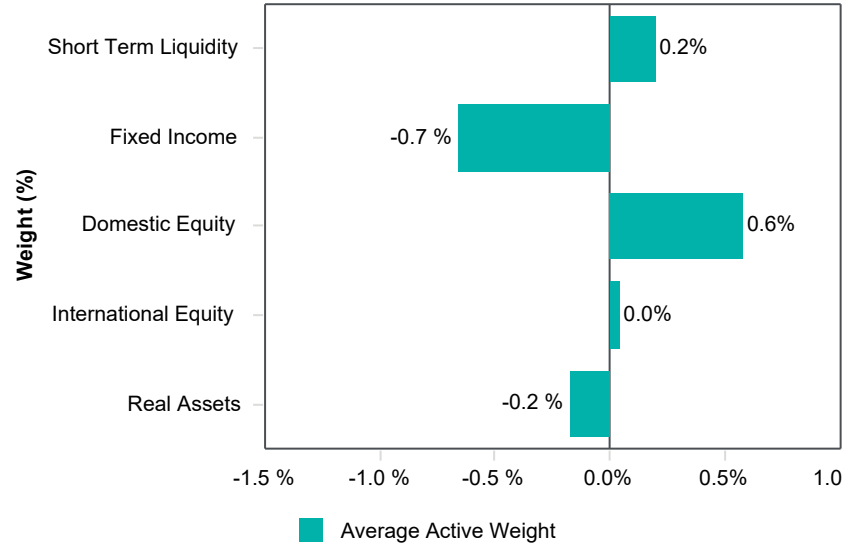
Total Fund Performance



Total Value Added:-0.7 %



Total Asset Allocation:0.1% Total Manager Value Added:-0.8 %



Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees.



## Investment Gain/Loss Summary

Torrington Employees

1 Quarter Ending December 31, 2023

	Market Value as of 10/01/2023	Net Contributions	Gain/Loss	Market Value As of 12/31/2023
<b>Torrington Employees</b>	<b>41,405,914</b>	<b>-432</b>	<b>4,082,275</b>	<b>45,487,757</b>
<b>Short Term Liquidity</b>	<b>86,051</b>	<b>-423</b>	<b>1,159</b>	<b>86,787</b>
Allspring Government Money Market Fund Instl	86,051	-423	1,159	86,787
<b>Fixed Income</b>	<b>12,353,201</b>	<b>-9</b>	<b>874,516</b>	<b>13,227,708</b>
Fidelity Inflation-Protected Bond Index	816,951	-	36,779	853,729
Vanguard Total Bond Market Index Adm	1,637,107	-	109,524	1,746,631
Metropolitan West Total Return Bond Pl	5,269,977	-	397,105	5,667,081
BlackRock Strategic Income Opportunities Fund K	2,541,009	-	143,255	2,684,264
Bank of America Fixed Income	80	-9	4	75
Artisan High Income Instl	1,306,037	-	89,560	1,395,597
BrandywineGLOBAL Global Opportunities IS	782,040	-	98,290	880,330
<b>Domestic Equity</b>	<b>15,849,179</b>	<b>-</b>	<b>2,007,876</b>	<b>17,857,055</b>
Vanguard Institutional Index	5,216,675	-	609,305	5,825,979
MFS Value Fund R6	3,367,871	-	321,403	3,689,273
Mainstay Large Cap Growth Instl- Winslow	2,964,891	-	542,944	3,507,835
Hotchkis & Wiley Small Cap Divers Value I	2,204,746	-	301,914	2,506,660
Conestoga Small Cap Instl	2,094,996	-	232,311	2,327,307
<b>International Equity</b>	<b>11,062,525</b>	<b>-</b>	<b>1,053,783</b>	<b>12,116,307</b>
Dodge & Cox International Stock Fund	4,023,548	-	274,076	4,297,624
Fidelity Global ex US Index	3,481,800	-	347,548	3,829,348
Harding Loevner International Eq Instl Z	3,557,177	-	432,159	3,989,336
<b>Real Assets</b>	<b>2,054,959</b>	<b>-</b>	<b>144,941</b>	<b>2,199,899</b>
Principal Diversified Real Asset R6	2,054,959	-	144,941	2,199,899

Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees. Manager performance for mutual funds and ETFs is based on NAV and provided by Lipper. Performance for non-mutual fund or ETF investments is based on the returns provided by managers, calculations based on a manager statement, or calculations based on a statement or data from the client's custodian.



# Portfolio Statistics

Torrington Employees

As of December 31, 2023

	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Return	9.9	6.0	15.1	3.5	8.2	6.0	7.0	10/2008
Standard Deviation	4.3	4.2	12.7	13.0	13.0	10.5	11.3	
Upside Risk	5.2	3.8	3.5	9.8	10.2	8.2	8.7	
Downside Risk	1.6	2.1	6.1	8.6	8.4	6.9	7.5	
vs. Torrington Employees Benchmark								
Alpha	0.1	0.0	-0.6	0.7	-0.2	-0.6	-0.3	
Beta	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Information Ratio	0.2	0.0	-0.7	0.5	-0.1	-0.4	-0.2	
Tracking Error	0.4	0.3	0.9	1.5	1.3	1.3	1.4	
vs. 90 Day U.S. Treasury Bill								
Sharpe Ratio	0.7	0.1	0.8	0.2	0.5	0.5	0.6	

Calculation based on monthly periodicity. Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees.



## Estimated Fee Analysis

Torrington Employees

As of December 31, 2023

	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
<b>Torrington Employees</b>	<b>45,487,757</b>	<b>212,191</b>	<b>0.47</b>
<b>Short Term Liquidity</b>	<b>86,787</b>	<b>-</b>	<b>-</b>
Allspring Government Money Market Fund Instl	86,787	-	-
<b>Fixed Income</b>	<b>13,227,708</b>	<b>53,749</b>	<b>0.41</b>
Fidelity Inflation-Protected Bond Index	853,729	427	0.05
Vanguard Total Bond Market Index Adm	1,746,631	873	0.05
Metropolitan West Total Return Bond PI	5,667,081	20,968	0.37
BlackRock Strategic Income Opportunities Fund K	2,684,264	16,642	0.62
Bank of America Fixed Income	75	-	-
Artisan High Income Instl	1,395,597	9,909	0.71
BrandywineGLOBAL Global Opportunities IS	880,330	4,930	0.56
<b>Domestic Equity</b>	<b>17,857,055</b>	<b>83,808</b>	<b>0.47</b>
Vanguard Institutional Index	5,825,979	2,039	0.04
MFS Value Fund R6	3,689,273	15,864	0.43
Mainstay Large Cap Growth Instl- Winslow	3,507,835	24,906	0.71
Hotchkis & Wiley Small Cap Divers Value I	2,506,660	20,053	0.80
Conestoga Small Cap Instl	2,327,307	20,946	0.90
<b>International Equity</b>	<b>12,116,307</b>	<b>57,475</b>	<b>0.47</b>
Dodge & Cox International Stock Fund	4,297,624	26,645	0.62
Fidelity Global ex US Index	3,829,348	2,106	0.06
Harding Loevner International Eq Instl Z	3,989,336	28,723	0.72
<b>Real Assets</b>	<b>2,199,899</b>	<b>17,159</b>	<b>0.78</b>
Principal Diversified Real Asset R6	2,199,899	17,159	0.78

The figures on this page have been obtained from sources we deem to be reliable. Fiducient Advisors has not independently verified this information.

Fee calculations for mutual funds represent fees at the net expense level. Fee calculations for commingled funds and/or alternative investments reflect base management fees and exclude underlying fund expenses captured at the NAV level, any applicable performance-based fees, or incentive fees. Fees for fund of funds are shown at the fund of fund level and do not include fees charged by underlying investment managers/funds.

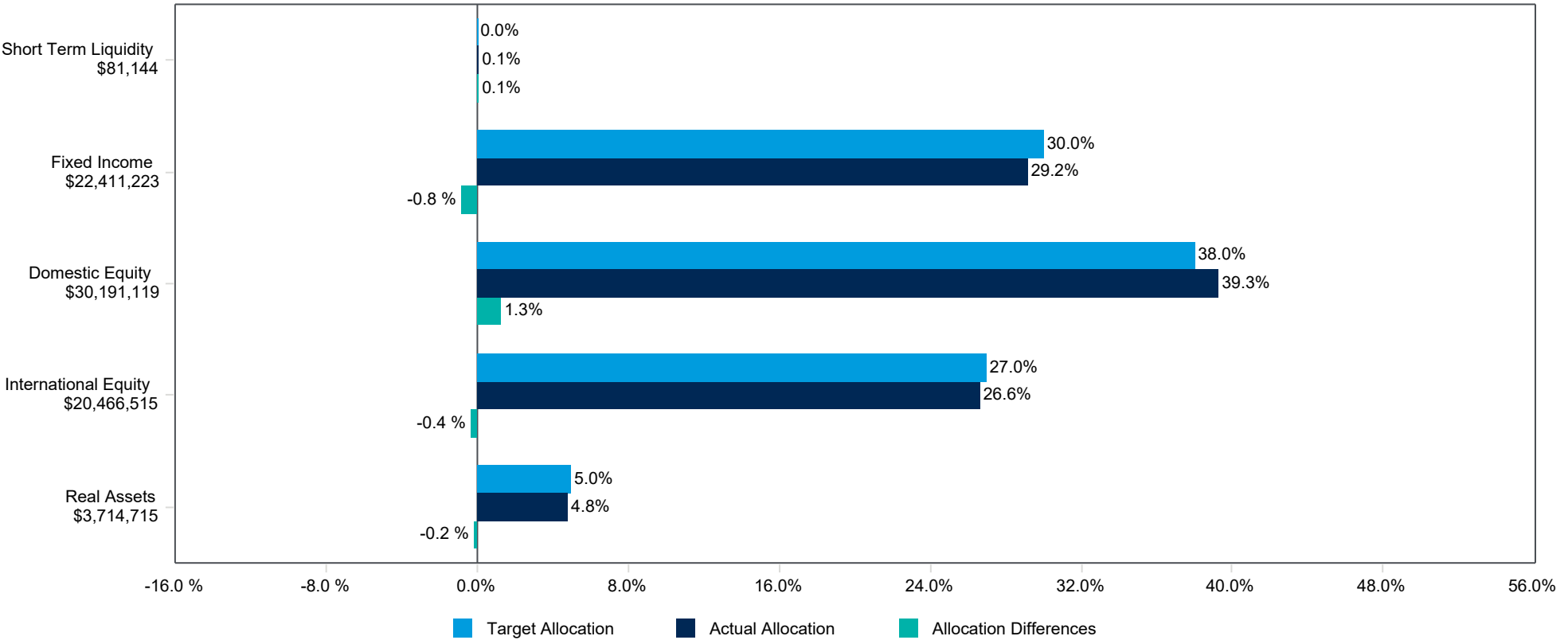


# Asset Allocation

Torrington Police & Fire

As of December 31, 2023

## Actual vs. Target



	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)	Minimum Allocation (%)	Maximum Allocation (%)
Short Term Liquidity	81,144	0.1	0.0	0.1	0.0	5.0
Fixed Income	22,411,223	29.2	30.0	-0.8	22.0	42.0
Domestic Equity	30,191,119	39.3	38.0	1.3	28.5	50.0
International Equity	20,466,515	26.6	27.0	-0.4	18.5	38.5
Real Assets	3,714,715	4.8	5.0	-0.2	0.0	10.0
Torrington Police & Fire	76,864,714	100.0	100.0	0.0	-	-



## Performance Overview

Torrington Police & Fire

As of December 31, 2023

### Trailing Performance Summary

	QTD	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Torrington Police &amp; Fire</b>	<b>9.9</b>	<b>6.0</b>	<b>15.1</b>	<b>3.5</b>	<b>8.1</b>	<b>7.2</b>	<b>6.0</b>	<b>7.1</b>	<b>10/2008</b>
<i>Torrington Police &amp; Fire Blended Benchmark</i>	<i>9.7</i>	<i>6.0</i>	<i>15.8</i>	<i>2.8</i>	<i>8.4</i>	<i>7.3</i>	<i>6.5</i>	<i>7.4</i>	<i>10/2008</i>

### Calendar Year Performance Summary

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>Torrington Police &amp; Fire</b>	<b>-14.2</b>	<b>12.2</b>	<b>11.2</b>	<b>20.0</b>	<b>-4.9</b>	<b>15.7</b>	<b>6.2</b>	<b>-1.4</b>	<b>5.0</b>	<b>17.4</b>
<i>Torrington Police &amp; Fire Blended Benchmark</i>	<i>-15.5</i>	<i>10.8</i>	<i>13.7</i>	<i>21.1</i>	<i>-4.8</i>	<i>15.2</i>	<i>7.5</i>	<i>-0.4</i>	<i>7.4</i>	<i>15.6</i>

### Plan Reconciliation

	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Torrington Police &amp; Fire</b>								<b>10/2008</b>
Beginning Market Value	69,962,925	76,988,782	70,911,597	74,829,152	57,988,267	53,997,071	32,361,482	
Net Contributions	-537	-4,502,732	-4,497,388	-5,465,883	-7,587,294	-13,667,987	-11,214,187	
Gain/Loss	6,902,326	4,378,664	10,450,505	7,501,446	26,463,741	36,535,630	55,717,420	
Ending Market Value	76,864,714	76,864,714	76,864,714	76,864,714	76,864,714	76,864,714	76,864,714	

### Benchmark Composition

	Weight (%)
<b>Apr-2023</b>	
Blmbg. U.S. Aggregate	30.0
Russell 3000 Index	38.0
MSCI AC World ex USA (Net)	27.0
Diversified Real Asset Blended Index	5.0

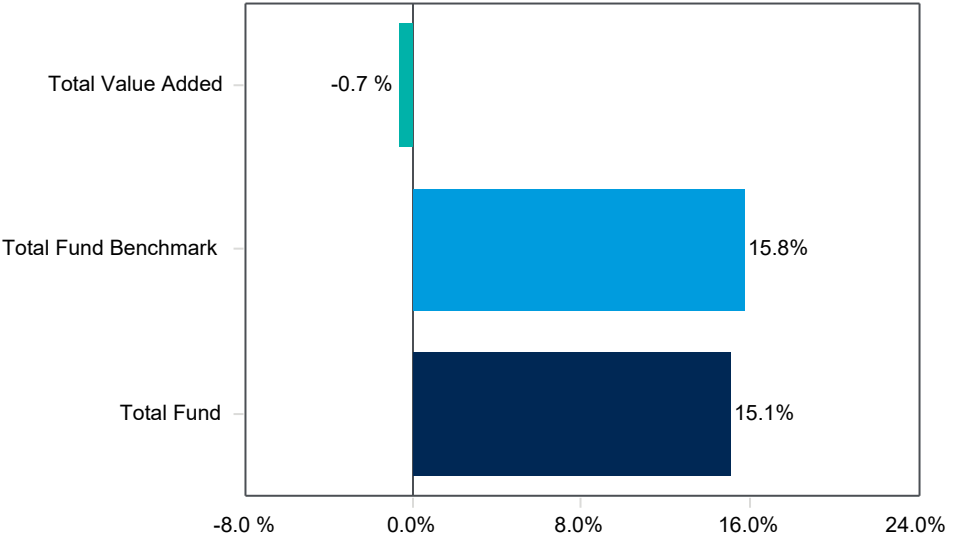


# Performance Attribution

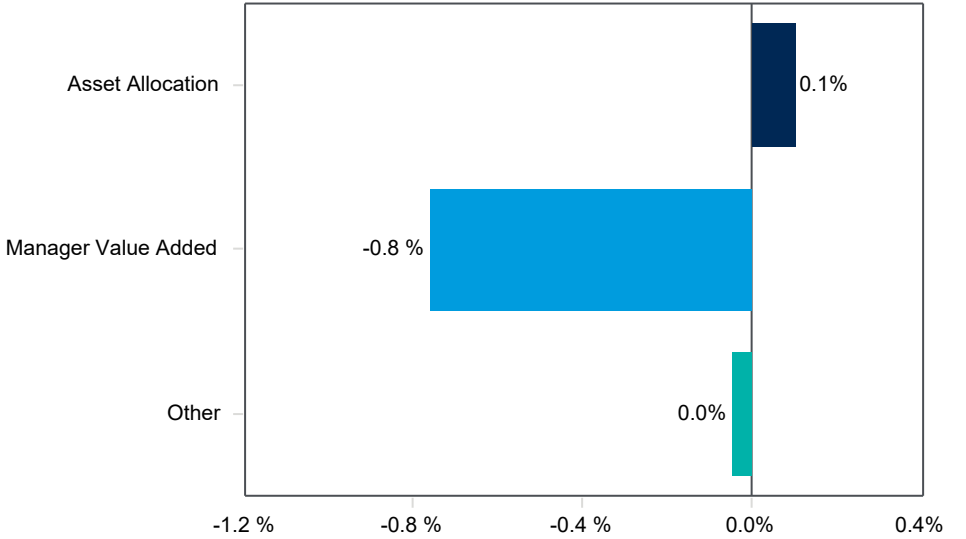
Torrington Police & Fire vs. Police & Fire Attribution

1 Year Ending December 31, 2023

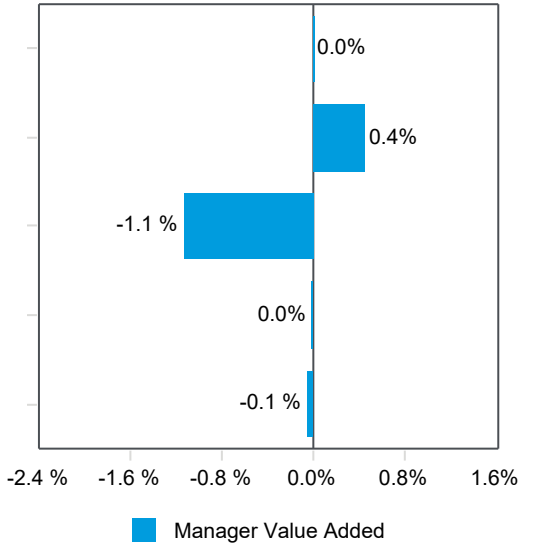
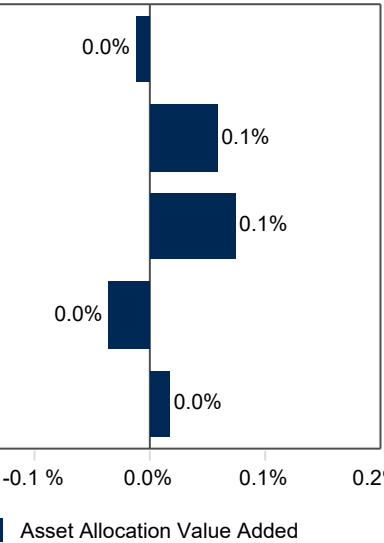
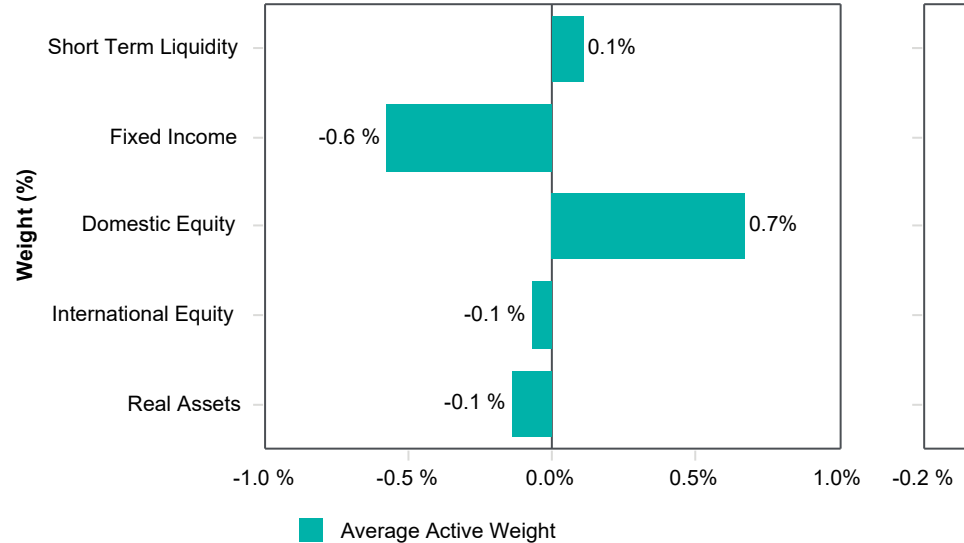
Total Fund Performance



Total Value Added:-0.7 %



Total Asset Allocation:0.1% Total Manager Value Added:-0.8 %



Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees.



## Investment Gain/Loss Summary

Torrington Police & Fire

1 Quarter Ending December 31, 2023

	Market Value as of 10/01/2023	Net Contributions	Gain/Loss	Market Value As of 12/31/2023
<b>Torrington Police &amp; Fire</b>	<b>69,962,925</b>	<b>-537</b>	<b>6,902,326</b>	<b>76,864,714</b>
<b>Short Term Liquidity</b>	<b>80,601</b>	<b>-537</b>	<b>1,080</b>	<b>81,144</b>
Allspring Government Money Market Fund Instl	80,601	-537	1,080	81,144
<b>Fixed Income</b>	<b>20,928,757</b>	<b>-</b>	<b>1,482,466</b>	<b>22,411,223</b>
Fidelity Inflation-Protected Bond Index	1,385,898	-	62,393	1,448,291
Vanguard Total Bond Market Index Instl	2,773,887	-	185,686	2,959,573
Metropolitan West Total Return Bond Pl	8,944,360	-	673,978	9,618,338
BlackRock Strategic Income Opportunities Fund K	4,290,398	-	241,881	4,532,279
Artisan High Income Instl	2,200,399	-	150,890	2,351,288
BrandywineGLOBAL Global Opportunities IS	1,333,815	-	167,639	1,501,454
<b>Domestic Equity</b>	<b>26,797,380</b>	<b>-</b>	<b>3,393,739</b>	<b>30,191,119</b>
Vanguard Institutional Index	8,840,451	-	1,032,560	9,873,011
MFS Value Fund R6	5,695,900	-	543,571	6,239,471
Mainstay Large Cap Growth Instl- Winslow	5,000,889	-	915,785	5,916,674
Hotchkis & Wiley Small Cap Divers Value I	3,714,365	-	508,638	4,223,003
Conestoga Small Cap Instl	3,545,775	-	393,186	3,938,961
<b>International Equity</b>	<b>18,686,218</b>	<b>-</b>	<b>1,780,297</b>	<b>20,466,515</b>
Dodge & Cox International Stock Fund	6,795,393	-	462,889	7,258,282
Fidelity Global ex US Index	5,869,621	-	585,896	6,455,517
Harding Loevner International Eq Instl Z	6,021,204	-	731,512	6,752,716
<b>Real Assets</b>	<b>3,469,970</b>	<b>-</b>	<b>244,745</b>	<b>3,714,715</b>
Principal Diversified Real Asset R6	3,469,970	-	244,745	3,714,715

Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees. Manager performance for mutual funds and ETFs is based on NAV and provided by Lipper. Performance for non-mutual fund or ETF investments is based on the returns provided by managers, calculations based on a manager statement, or calculations based on a statement or data from the client's custodian.





# Portfolio Statistics

Torrington Police & Fire

As of December 31, 2023

	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Return	9.9	6.0	15.1	3.5	8.1	6.0	7.1	10/2008
Standard Deviation	4.3	4.2	12.7	12.9	13.0	10.5	11.4	
Upside Risk	5.2	3.8	3.5	9.8	10.2	8.2	8.7	
Downside Risk	1.6	2.1	6.1	8.6	8.4	6.9	7.6	

vs. Torrington Police & Fire Blended Benchmark								
Alpha	0.1	0.0	-0.6	0.7	-0.2	-0.6	-0.3	
Beta	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Information Ratio	0.2	0.0	-0.7	0.5	-0.2	-0.4	-0.2	
Tracking Error	0.4	0.3	0.9	1.5	1.3	1.3	1.3	

vs. 90 Day U.S. Treasury Bill								
Sharpe Ratio	0.7	0.1	0.8	0.2	0.5	0.5	0.6	

Calculation based on monthly periodicity. Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees.



## Estimated Fee Analysis

Torrington Police & Fire

As of December 31, 2023

	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
<b>Torrington Police &amp; Fire</b>	<b>76,864,714</b>	<b>358,225</b>	<b>0.47</b>
<b>Short Term Liquidity</b>	<b>81,144</b>	<b>-</b>	<b>-</b>
Allspring Government Money Market Fund Instl	81,144	-	-
<b>Fixed Income</b>	<b>22,411,223</b>	<b>90,550</b>	<b>0.40</b>
Fidelity Inflation-Protected Bond Index	1,448,291	724	0.05
Vanguard Total Bond Market Index Instl	2,959,573	1,036	0.04
Metropolitan West Total Return Bond Pl	9,618,338	35,588	0.37
BlackRock Strategic Income Opportunities Fund K	4,532,279	28,100	0.62
Artisan High Income Instl	2,351,288	16,694	0.71
BrandywineGLOBAL Global Opportunities IS	1,501,454	8,408	0.56
<b>Domestic Equity</b>	<b>30,191,119</b>	<b>141,528</b>	<b>0.47</b>
Vanguard Institutional Index	9,873,011	3,456	0.04
MFS Value Fund R6	6,239,471	26,830	0.43
Mainstay Large Cap Growth Instl- Winslow	5,916,674	42,008	0.71
Hotchkis & Wiley Small Cap Divers Value I	4,223,003	33,784	0.80
Conestoga Small Cap Instl	3,938,961	35,451	0.90
<b>International Equity</b>	<b>20,466,515</b>	<b>97,171</b>	<b>0.47</b>
Dodge & Cox International Stock Fund	7,258,282	45,001	0.62
Fidelity Global ex US Index	6,455,517	3,551	0.06
Harding Loevner International Eq Instl Z	6,752,716	48,620	0.72
<b>Real Assets</b>	<b>3,714,715</b>	<b>28,975</b>	<b>0.78</b>
Principal Diversified Real Asset R6	3,714,715	28,975	0.78

The figures on this page have been obtained from sources we deem to be reliable. Fiducient Advisors has not independently verified this information.

Fee calculations for mutual funds represent fees at the net expense level. Fee calculations for commingled funds and/or alternative investments reflect base management fees and exclude underlying fund expenses captured at the NAV level, any applicable performance-based fees, or incentive fees. Fees for fund of funds are shown at the fund of fund level and do not include fees charged by underlying investment managers/funds.



# Economic Review

## Real U.S. Federal Funds Rate

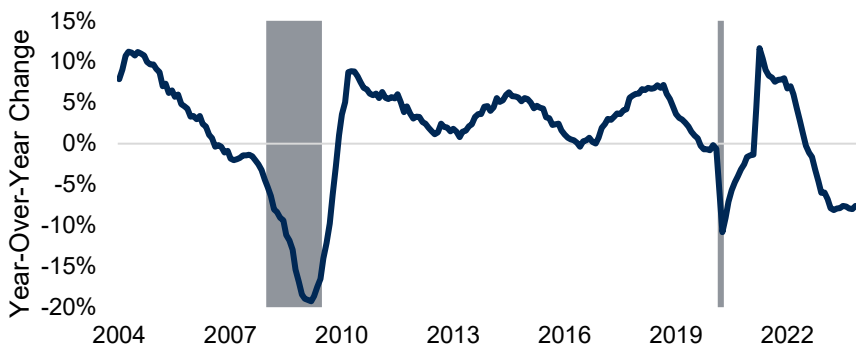
On a real basis, the Fed moved into restrictive policy territory in April 2023. Even with the market implied rate cuts this year, at current inflation levels, the central bank's policy rate would remain restrictive.



Sources: FactSet, Federal Reserve, BEA. As of November 30, 2023. Real federal funds rate is the effective rate minus the 12-month core PCE inflation rate.

## U.S. Leading Economic Indicator Index

While some economic data remains positive the LEI Index has remained in negative territory since July 2022 signaling the potential for an economic slowdown.



Sources: FactSet, Conference Board, ECRI. As of November 30, 2023. Grey bars indicate recession period.

## U.S. Unemployment vs. 12-Month Moving Average

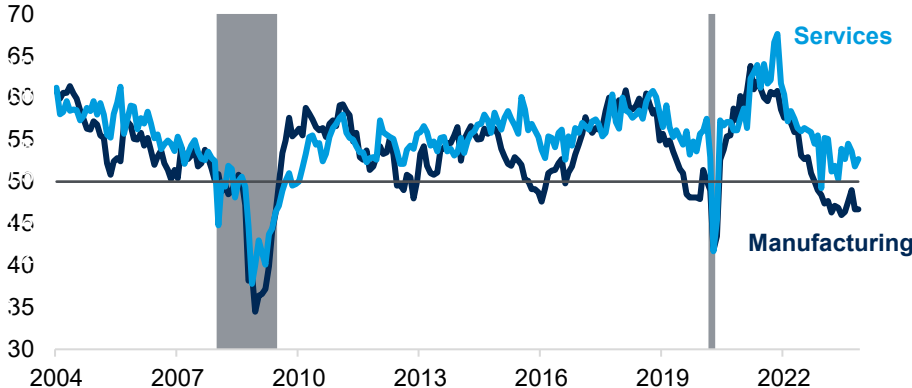
The U.S. labor market remains on solid foundation. However, the current level of unemployment is above the 12-month moving average. This has historically preceded a period of economic weakness; however, the timing of the onset has varied considerably and there are instances of false positives.



Sources: FactSet, BLS. As of December 31, 2023. Data is monthly U.S. unemployment rate less the 12 month moving average of the U.S. unemployment rate. Note, axis scale cuts off the extreme values in April and May of 2020, 10.3 and 7.9 respectively. Grey bars indicate U.S. recession.

## U.S. Manufacturing and Services PMI Levels

While the manufacturing sector has been in contraction territory (below 50), the services sector has remained resilient. Personal consumption expenditures on services represent 45% of GDP, while goods account for just 23%.



Sources: FactSet, ISM, ECRI. As of November 30, 2023. Grey bars indicate recession period. A level over 50 indicates expansion.

See disclosures for list of indices representing each asset class. Past performance does not indicate future performance and there is a possibility of a loss.

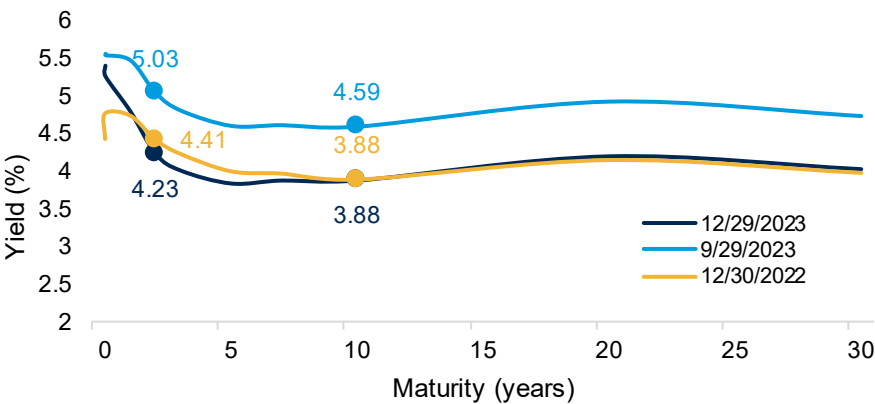
Indices cannot be invested in directly.



# Fixed Income Market Update

## U.S. Treasury Yield Curve

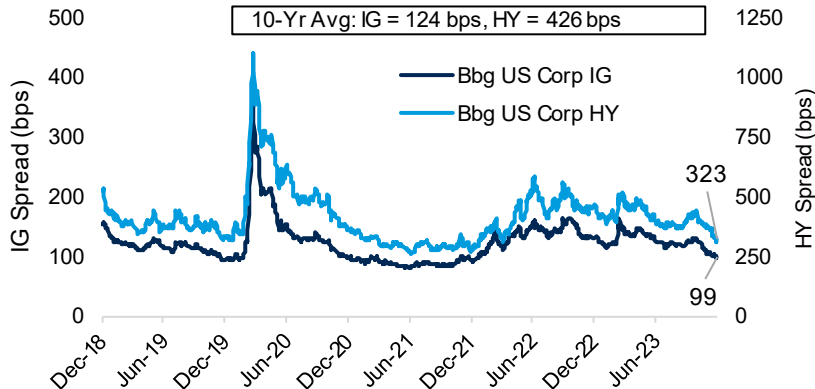
Interest rates fell across the yield curve during the quarter, maintaining an inverted curve, with short maturities ending slightly lower than in 2022. Notably, the 10-year contracted 71 basis points during the quarter. Signs of slowing inflation fueled expectations of 2024 rate cuts which relieved pressure on rates.



Source: FactSet. As of December 29, 2023.

## Corporate Market Spreads – Trailing 5 Years

Credit spreads continued tightening during the quarter and are well below their 10-year averages. This was driven by continued resilience in fundamentals.

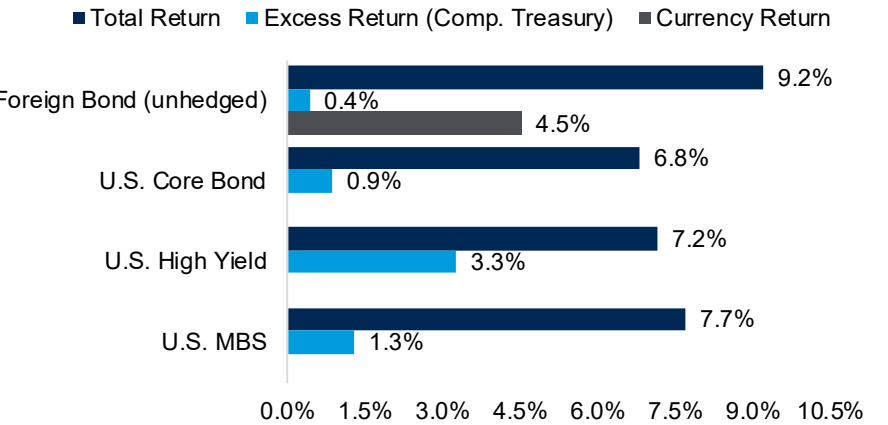


Source: FactSet. As of December 29, 2023.

See disclosures for list of indices representing each asset class. Past performance does not indicate future performance and there is a possibility of a loss. Indices cannot be invested in directly.

## Index Performance Attribution (4Q 2023)

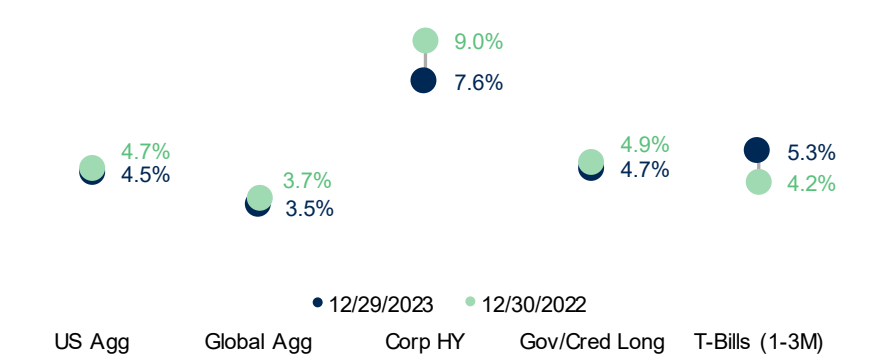
Fixed income markets rose across the board, with narrowing credit spreads and declining rates causing all sectors to surpass U.S. Treasuries on a duration-adjusted basis. Foreign bonds had strong additional tailwinds from a declining U.S. Dollar.



Source: FactSet. As of December 29, 2023.

## Current Yield-to-Worst vs. 1 Year Ago

Short dated yields ended the year higher while other sectors ended the year lower than where they began. High Yield was a notable standout as spreads contracted.



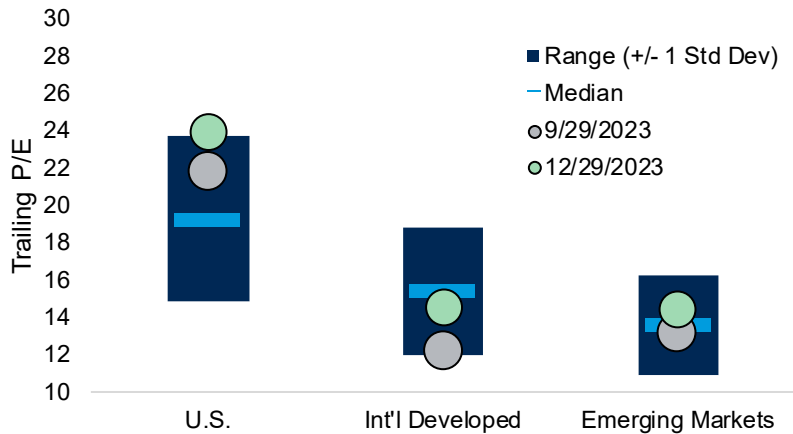
Source: FactSet. As of December 29, 2023. Based on respective Bloomberg Index.



# Equity Market Update

## Equity Valuations (Trailing PE – Last 15 Years)

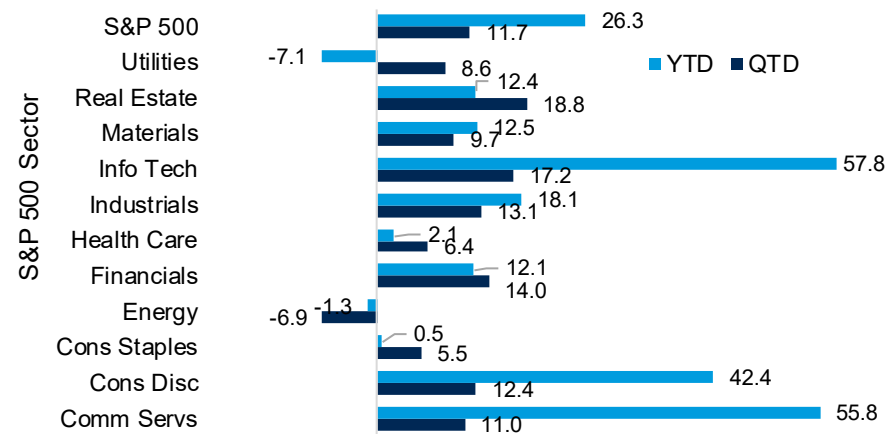
Strong results in the fourth quarter propelled valuations higher across regions. The U.S. trades around one standard deviation above average. Much of the move higher over the course of the year can be attributed to the “Mag 7” stocks.



Source: FactSet. As of December 29, 2023.

## U.S. Equities – Return by Sector

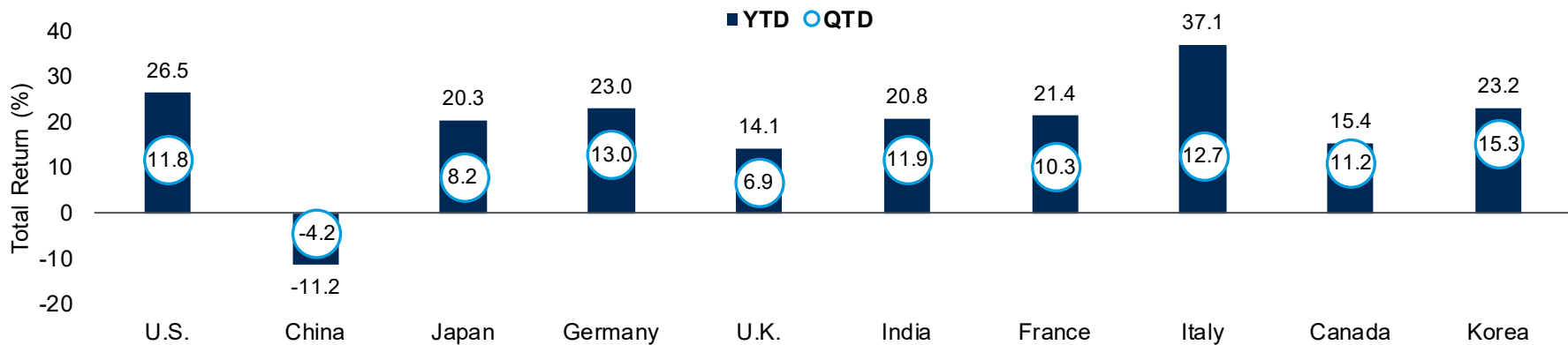
Domestic equity markets had both a strong quarter and calendar year 2023. The notable standouts of technology, consumer discretionary, and communication services was driven by the narrow market leadership of the “Magnificent 7”.



Source: Morningstar Direct. As of December 31, 2023. Total Returns.

## Country Total Returns (%) – Select Largest Economies

Most global equity markets saw positive returns during the fourth quarter, and still remain positive year to date. A moderating interest rate environment prompted much of the gains for developed markets as investors weighed the possibility of falling rates in 2024. However, China continues to struggle amid growing geopolitical tensions between Taiwan.



Source: Morningstar Direct. As of December 31, 2023.

See disclosures for list of indices representing each asset class. Past performance does not indicate future performance and there is a possibility of a loss.

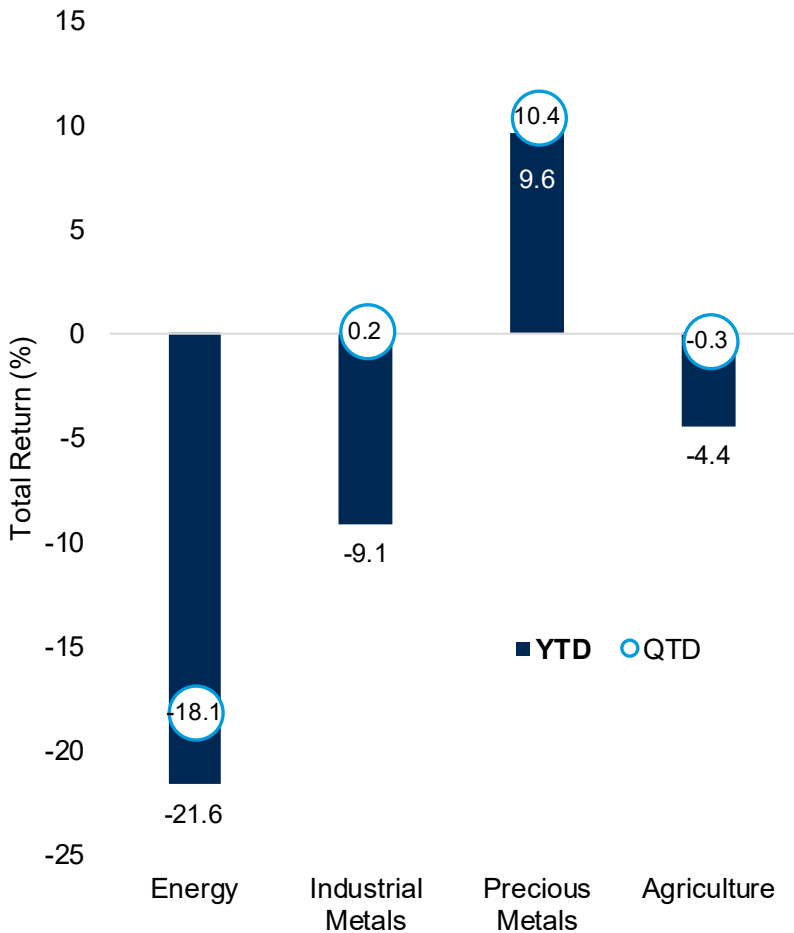
Indices cannot be invested in directly.



# Real Assets Market Update

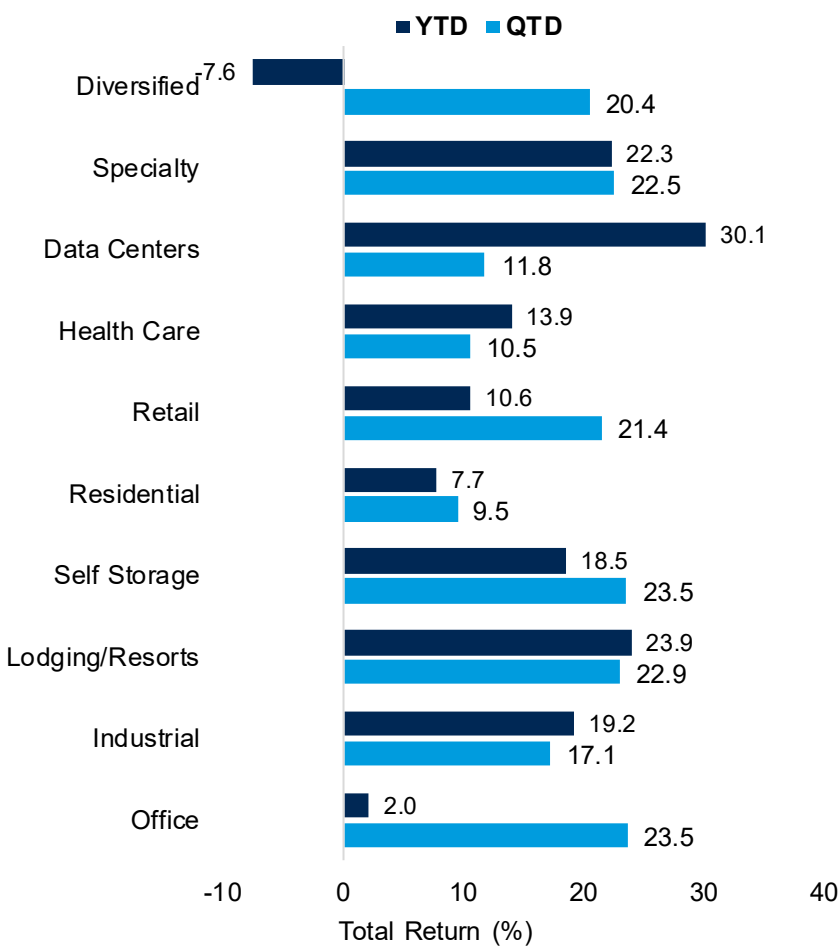
## Commodity Performance

Commodities underperformed during the quarter, primarily driven by a sharply falling energy sector. The persistent decline in oil prices had a negative impact on overall performance, influenced by weakening demand and increased supply.



## REIT Sector Performance

REITs broadly benefitted from declining rates during the quarter. Office space rebounded sharply off of prior lows and ended the year on a modestly positive note. Despite these gains, vacancy rates and payment delinquencies persist at historically high levels.



Source: Morningstar Direct. As of December 31, 2023.

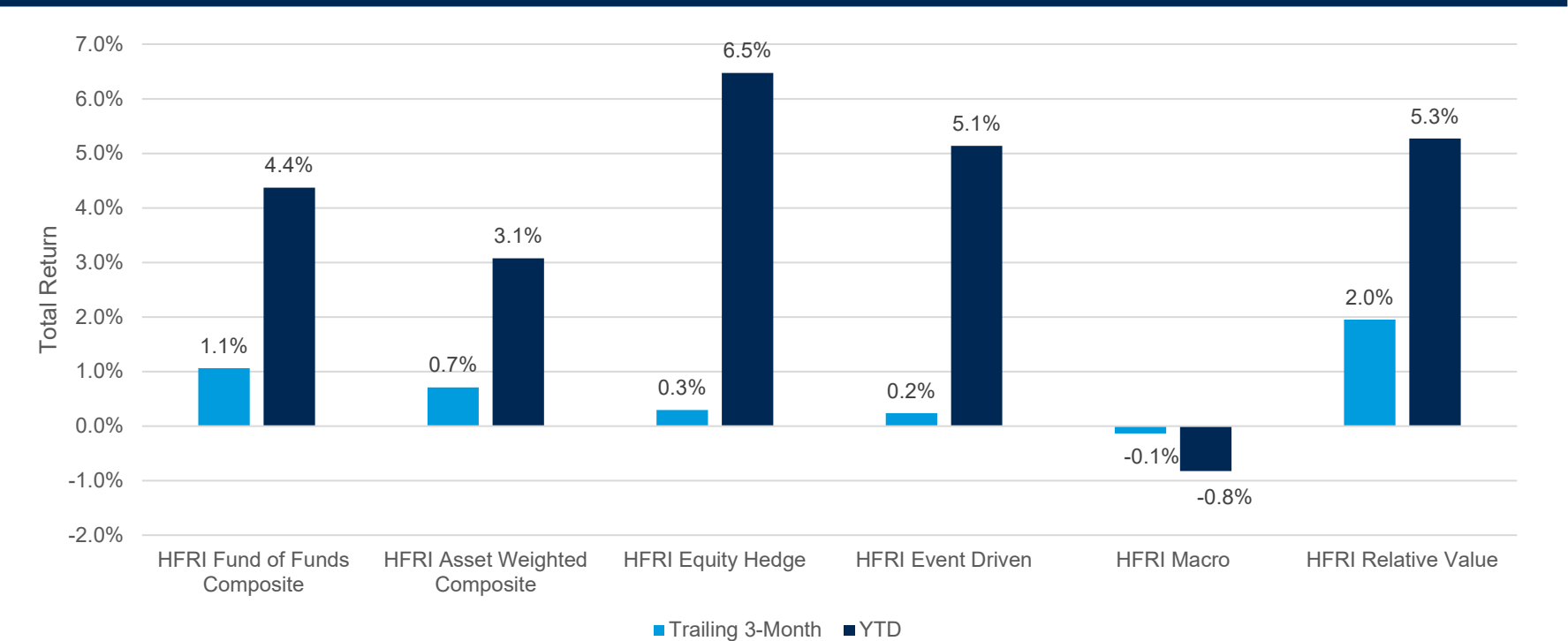
Source: Morningstar Direct. As of December 31, 2023.

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Indices cannot be invested in directly.



# Marketable Alternatives



Source: Morningstar Direct. As of November 30, 2023.

### Fund of Funds / Asset Weighted (4Q)

- + The HFRI Fund of Funds Composite returned 1.1 percent over the trailing 3-month period, bringing its year-to-date return to 4.4 percent.
- + The HFRI Asset Weighted Composite returned 0.7 percent over the trailing 3-month period, bringing its year-to-date return to 3.1 percent.
- +/- Marketable alternatives lagged equity markets but outpaced fixed income markets over the trailing 3-month period.

### Equity Hedge / Event Driven (4Q)

- + Equity Hedge strategies returned 0.3 percent over the period, benefitting from a strong rebound in November. Equity Market Neutral strategies were top performers for the period.
- + Event Driven strategies returned 0.2 percent over the period with Credit Arbitrage strategies notable contributors.
- Activist strategies returned some gains from earlier in the year and were notable detractors over the period.

### Macro / Relative Value (4Q)

- Macro strategies returned -0.1 percent over the period and remain in negative territory year-to-date.
- +/- Within Macro, discretionary managers generally outpaced their systematic peers.
- + Relative Value strategies returned 2.0 percent over the period with Fixed Income Sovereign strategies a notable bright spot.



# Private Equity Market Update

## U.S. Private Equity Deal Activity

U.S. Private Equity deal activity in the first three quarters of the year has moderated from a record 2021 and 2022 years.



Source: Pitchbook. As of September 30, 2023.

## Private Equity Performance (As of June 30, 2023)

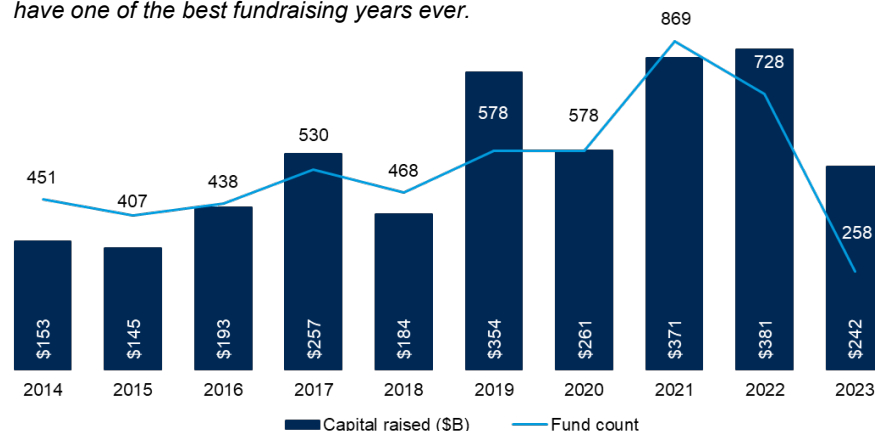
Private equity performance was dispersed during the first half of 2023 with US Venture posting negative returns while US Buyout and US Growth were modestly positive. Significant dispersion on a one-year basis has brought three-year returns in line.

Benchmark	1-YR	3-YR	5-YR	10-Y	15-Y
US Private Equity Index	6.5%	22.6%	17.8%	16.9%	13.3%
US Buyout Index	8.5%	22.8%	17.1%	16.6%	12.9%
US Growth Equity Index	1.1%	22.0%	20.0%	18.1%	14.9%
US Venture Capital Index	-10.3%	22.1%	20.1%	17.9%	12.9%
S&P 500 Index	19.6%	14.6%	12.3%	12.9%	10.9%

Source: Cambridge Associates. As of June 30, 2023. Returns presented as horizon pooled return, net of fees. S&P 500 Index as of June 30, 2023. Indices cannot be invested in directly.

## U.S. Private Equity Fundraising Activity

Following 2021 and 2022, the fundraising market moderated in the first three quarters of 2023. However, the middle market, funds \$100MM - \$5BN, is on track to have one of the best fundraising years ever.



Source: Pitchbook. As of September 30, 2023.





# The Case for Diversification

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	10 Years (Ann)
U.S. Small Cap 38.8	U.S. Equity REITs 30.1	U.S. Equity REITs 3.2	U.S. Small Cap 21.3	Emerging Markets 37.3	High Yield Munis 4.8	U.S. Large Cap 31.5	U.S. Small Cap 20.0	U.S. Equity REITs 43.2	Commodities 16.1	U.S. Large Cap 26.5	U.S. Large Cap 11.8
U.S. Large Cap 32.4	High Yield Munis 13.8	Municipals 5-Year 2.4	High Yield 17.1	International Dev. 25.0	Municipals 5-Year 1.7	U.S. Equity REITs 26.0	U.S. Large Cap 18.4	Commodities 27.1	Municipals 5-Year -5.3	International Developed 18.2	U.S. Equity REITs 7.6
International Dev. 22.8	U.S. Large Cap 13.7	High Yield Munis 1.8	U.S. Large Cap 12.0	U.S. Large Cap 21.8	Foreign Bond 0.5	U.S. Small Cap 25.5	Emerging Markets 18.3	US Large Cap 26.5	Hedge Funds -5.6	U.S. Small Cap 16.9	U.S. Small Cap 7.2
Balanced 12.2	Core Bond 6.0	U.S. Large Cap 1.4	Commodities 11.7	EM Debt (unhedged) 15.2	Core Bond 0.0	International Dev. 22.5	TIPS 11.0	US Small Cap 14.8	High Yield -11.2	U.S. Equity REITs 13.7	High Yield Municipals 5.0
Hedge Funds 9.0	Balanced 5.1	Core Bond 0.6	Emerging Markets 11.2	U.S. Small Cap 14.6	TIPS -1.3	Emerging Markets 18.4	Balanced 8.8	International Dev. 11.3	EM Debt (unhedged) -11.7	High Yield 13.4	Balanced 4.7
High Yield 7.4	U.S. Small Cap 4.9	Hedge Funds -0.3	EM Debt (unhedged) 9.9	Balanced 13.6	High Yield -2.1	Balanced 17.5	International Dev. 7.8	Balanced 9.8	TIPS -11.8	Balanced 12.8	High Yield 4.6
U.S. Equity REITs 2.5	TIPS 3.6	International Dev. -0.8	U.S. Equity REITs 8.5	High Yield Munis 9.7	Hedge Funds -4.0	High Yield 14.3	Core Bond 7.5	High Yield Munis 7.8	U.S. Core Bond -13.0	EM Debt (unhedged) 12.7	International Developed 4.3
Municipals 5-Year 0.8	Hedge Funds 3.4	TIPS -1.4	Balanced 7.6	Hedge Funds 7.8	U.S. Large Cap -4.4	EM Debt (unhedged) 13.5	Hedge Funds 7.1	TIPS 6.0	High Yield Municipals -13.1	Emerging Markets 9.8	Hedge Funds 3.2
Foreign Bond -1.0	Municipals 5-Year 3.2	Foreign Bond -2.3	TIPS 4.7	High Yield 7.5	U.S. Equity REITs -4.6	High Yield Munis 10.7	High Yield 7.1	Hedge Funds 5.7	Foreign Bond -14.2	High Yield Municipals 9.2	Emerging Markets 2.7
Core Bond -2.0	Foreign Bond 2.9	Balanced -3.3	Foreign Bond 3.2	Foreign Bond 6.5	Balanced -5.8	Core Bond 8.7	Foreign Bond 7.0	High Yield 5.3	International Dev. -14.5	Foreign Bond 7.0	TIPS 2.4
Emerging Markets -2.6	High Yield 2.5	U.S. Small Cap -4.4	High Yield Munis 3.0	U.S. Equity REITs 5.2	EM Debt (unhedged) -6.2	TIPS 8.4	High Yield Munis 4.9	Municipals 5-Year 0.3	Balanced -14.9	U.S. Core Bond 5.5	Municipals 5-Year 1.9
High Yield Munis -5.5	Emerging Markets -2.2	High Yield -4.5	Core Bond 2.6	Core Bond 3.5	U.S. Small Cap -11.0	Hedge Funds 7.8	Municipals 5-Year 4.3	Core Bond -1.5	U.S. Large Cap -19.1	Hedge Funds 4.4	U.S. Core Bond 1.8
TIPS -8.6	International Dev. -4.9	Emerging Markets -14.9	International Dev. 1.0	Municipals 5-Year 3.1	Commodities -11.2	Commodities 7.7	EM Debt (unhedged) 2.7	Emerging Markets -2.5	Emerging Markets -20.1	Municipals 5-Year 4.3	Foreign Bond 1.0
EM Debt (unhedged) -9.0	EM Debt (unhedged) -5.7	EM Debt (unhedged) -14.9	Hedge Funds 0.5	TIPS 3.0	International Dev. -13.8	Foreign Bond 6.3	Commodities -3.1	Foreign Bond -4.2	U.S. Small Cap -20.4	TIPS 3.9	EM Debt (unhedged) 0.1
Commodities -9.5	Commodities -17.0	Commodities -24.7	Municipals 5-Year -0.4	Commodities 1.7	Emerging Markets -14.6	Municipals 5-Year 5.4	U.S. Equity REITs -8.0	EM Debt (unhedged) -8.7	U.S. Equity REITs -24.4	Commodities -7.9	Commodities -1.1

Sources: Morningstar, FactSet. As of December 31, 2023. \*Periods greater than one year are annualized. Total returns in U.S. dollars. Hedge Funds as of November 30, 2023.

See disclosures for list of indices representing each asset class. Past performance does not indicate future performance and there is a possibility of a loss.

Indices cannot be invested in directly.



# Financial Markets Performance

Total Return as of December 31, 2023  
Periods greater than one year are annualized  
All returns are in U.S. dollar terms

Global Fixed Income Markets	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Bloomberg 1-3-Month T-Bill	1.4%	5.1%	5.1%	2.2%	1.9%	1.7%	1.2%	0.8%
Bloomberg U.S. TIPS	4.7%	3.9%	3.9%	-1.0%	3.2%	2.5%	2.4%	3.5%
Bloomberg Municipal Bond (5 Year)	5.2%	4.3%	4.3%	-0.3%	1.7%	1.9%	1.9%	2.7%
Bloomberg High Yield Municipal Bond	9.2%	9.2%	9.2%	0.8%	3.5%	4.5%	5.0%	7.2%
Bloomberg U.S. Aggregate	6.8%	5.5%	5.5%	-3.3%	1.1%	1.3%	1.8%	2.7%
Bloomberg U.S. Corporate High Yield	7.2%	13.4%	13.4%	2.0%	5.4%	4.6%	4.6%	9.2%
Bloomberg Global Aggregate ex-U.S. Hedged	5.4%	8.3%	8.3%	-1.2%	1.5%	1.9%	2.8%	3.1%
Bloomberg Global Aggregate ex-U.S. Unhedged	9.2%	5.7%	5.7%	-7.2%	-1.6%	0.0%	-0.8%	0.6%
Bloomberg U.S. Long Gov / Credit	13.2%	7.1%	7.1%	-8.7%	1.1%	1.6%	3.2%	4.3%
Global Equity Markets	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
S&P 500	11.7%	26.3%	26.3%	10.0%	15.7%	13.4%	12.0%	14.0%
Dow Jones Industrial Average	13.1%	16.2%	16.2%	9.4%	12.5%	12.1%	11.1%	12.9%
NASDAQ Composite	13.8%	44.6%	44.6%	6.0%	18.8%	16.9%	14.8%	17.4%
Russell 3000	12.1%	26.0%	26.0%	8.5%	15.2%	12.8%	11.5%	13.8%
Russell 1000	12.0%	26.5%	26.5%	9.0%	15.5%	13.2%	11.8%	14.0%
Russell 1000 Growth	14.2%	42.7%	42.7%	8.9%	19.5%	17.7%	14.9%	16.7%
Russell 1000 Value	9.5%	11.5%	11.5%	8.9%	10.9%	8.3%	8.4%	11.1%
Russell Mid Cap	12.8%	17.2%	17.2%	5.9%	12.7%	10.1%	9.4%	13.6%
Russell Mid Cap Growth	14.5%	25.9%	25.9%	1.3%	13.8%	12.5%	10.6%	14.7%
Russell Mid Cap Value	12.1%	12.7%	12.7%	8.4%	11.2%	7.8%	8.3%	12.4%
Russell 2000	14.0%	16.9%	16.9%	2.2%	10.0%	7.3%	7.2%	11.3%
Russell 2000 Growth	12.7%	18.7%	18.7%	-3.5%	9.2%	8.1%	7.2%	12.1%
Russell 2000 Value	15.3%	14.6%	14.6%	7.9%	10.0%	6.1%	6.8%	10.3%
MSCI ACWI	11.0%	22.2%	22.2%	5.8%	11.7%	10.0%	7.9%	10.2%
MSCI ACWI ex. U.S.	9.8%	15.6%	15.6%	1.5%	7.1%	6.3%	3.8%	6.7%
MSCI EAFE	10.4%	18.2%	18.2%	4.0%	8.2%	6.9%	4.3%	6.9%
MSCI EAFE Growth	12.7%	17.6%	17.6%	0.3%	8.8%	8.0%	5.2%	7.6%
MSCI EAFE Value	8.2%	19.0%	19.0%	7.6%	7.1%	5.5%	3.2%	6.0%
MSCI EAFE Small Cap	11.1%	13.2%	13.2%	-0.7%	6.6%	6.0%	4.8%	9.2%
MSCI Emerging Markets	7.9%	9.8%	9.8%	-5.1%	3.7%	5.0%	2.7%	6.6%
Alternatives	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Consumer Price Index*	0.1%	3.0%	3.1%	5.7%	4.0%	3.5%	2.8%	2.5%
FTSE NAREIT Equity REITs	16.2%	13.7%	13.7%	7.2%	7.4%	5.3%	7.6%	10.5%
S&P Real Assets	8.9%	7.8%	7.8%	3.9%	5.9%	4.8%	3.9%	6.9%
FTSE EPRA NAREIT Developed	15.6%	10.9%	10.9%	2.2%	3.8%	3.6%	4.5%	8.2%
FTSE EPRA NAREIT Developed ex U.S.	15.1%	7.1%	7.1%	-3.9%	0.2%	2.0%	1.6%	6.1%
Bloomberg Commodity Total Return	-4.6%	-7.9%	-7.9%	10.8%	7.2%	3.6%	-1.1%	-0.2%
HFRI Fund of Funds Composite*	1.5%	4.4%	4.7%	2.9%	4.4%	4.0%	3.2%	3.6%
HFRI Asset Weighted Composite*	-0.4%	3.1%	3.3%	4.9%	4.0%	4.0%	3.5%	4.9%

Sources: Morningstar, FactSet. As of December 31, 2023. \*Consumer Price Index and HFRI indexes as of November 30, 2023.

See disclosures for list of indices representing each asset class. Past performance does not indicate future performance and there is a possibility of a loss.

Indices cannot be invested in directly.

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## Appendix: Frontier Engineer® Disclosures



# 2024 Allocation Updates

Y / Y  
Change

Context

## Fixed Income

U.S. Bonds



Increased yields, attractive return potential relative to global equity and a Fed policy path that has increasing potential to moderate or move lower makes intermediate investment-grade bonds more attractive.

TIPS



High real yields and inflation forecasts above the Fed's target of 2% make TIPS compelling, but higher yields and less overall interest rate risk make U.S. Bonds more so, therefore we are reducing TIPS modestly year over year.

Dynamic Bonds



Given broader interest rate volatility and the potential for more credit relative events in the future, flexibility remains an attractive trait but we are not compelled to shift allocations at this time.

High Yield Bonds



While yields are high relative to recent history, spreads (the yield above Treasuries) are modest. Coupled with our view that credit risk will rise in the coming years, we are reducing our allocation to credit risk broadly.

Global Bonds



The outlook for global bonds remains attractive, but on a risk-adjusted basis slightly less than U.S. Therefore, we are modestly reducing the position.

## Global Equity

U.S. Large Cap



We remain underweight U.S. large cap stocks based on the relative opportunity to U.S. small and international equities. However, we have reduced that underweight based on the significant percentage increase in U.S. equities in global indices.

U.S. Mid/Small Cap



We remain overweight U.S. small cap securities. The dispersion between U.S. large and small cap stocks driven by a handful of securities has produced near-all time relative valuation differences. Additionally, small cap securities may benefit from easing rate policies. However, we have reduced that overweight based on the significant percentage increase in U.S. large cap equities in U.S. indices.

Int'l Developed Equity



Non-U.S. equity remains attractive and an overweight within portfolios, but risk management compels us to temper how far to extend that view. Therefore, we are reducing our overweight slightly to non-U.S. equities. Valuations remain compelling both relative to both the U.S. and their own 20-year history. However, geopolitical risks remain elevated and in some way have expanded over the course of 2023.

Emerging Markets



Non-U.S. equity remains attractive and an overweight within portfolios, but risk management compels us to temper how far to extend that view. Therefore, we are reducing our overweight slightly to non-U.S. equities. Valuations remain compelling both relative to both the U.S. and their own 20-year history. However, geopolitical risks remain elevated and in some way have expanded over the course of 2023.

## Real Assets & Alternatives

Real Estate



Our overall level to real assets will remain the same year over year give our view of inflation remaining in the "messy middle". A 2% - 5% range offers compelling opportunities within the overall category. However, our mix is shifting away modestly from real estate and toward assets that can benefit from a wider variety of factors.

Broad Real Assets



Our overall level to real assets will remain the same year over year give our view of inflation remaining in the "messy middle". A 2% - 5% range offers compelling opportunities within the overall category. However, our mix is shifting away modestly from real estate and toward assets that can benefit from a wider variety of factors.



# 2024-2043 Twenty-Year Outlook

		2024	2023	Y/Y Change	
Fixed Income	The Federal Reserve continued its battle with inflation in 2023 and the market began to believe the rhetoric of "higher for longer". Yields rose across much of fixed income, improving forward long-term return assumptions.	U.S. Bonds	5.9%	5.0%	0.9%
		TIPS	5.5%	4.6%	0.9%
		Dynamic Bonds <sup>1</sup>	6.8%	5.6%	1.2%
	Credit, specifically high yield, was one of the best performing fixed income asset classes in 2023. 2024 projections rose solely based on higher Treasury rates as spreads (the additional yield above Treasuries) fell over the year.	High Yield Bonds	8.0%	7.1%	0.9%
		Global Bonds	5.9%	5.1%	0.8%
	Municipal bond forecasts rose as well based on higher rates, but so did interest rate risk given the structure of the market.	Muni Bond <sup>2</sup>	6.7%	5.8%	0.9%
		Muni High Yield <sup>2</sup>	10.7%	9.9%	0.7%
Global Equity	U.S. equity forecasts are nearly flat year over year driven by higher valuations and very modest earnings growth for 2023. International forecasts fell on a similar accord, but to a larger degree also driven by higher anticipated volatility outside of the U.S. Valuations outside the U.S. remain below their 20-year averages while U.S. valuations remain above 20-year averages.	U.S. All Cap	7.3%	6.7%	0.6%
		Intl Developed Equity	8.2%	8.9%	-0.7%
		Emerging Markets	10.1%	10.8%	-0.7%
		Real Assets & Alternatives	Real assets broadly struggled to keep up with equity markets as inflation fell throughout 2023. On the backs of lower prices and inflation remaining elevated, forecasts across real asset categories rose.	Real Estate	7.8%
Broad Real Assets <sup>3</sup>	8.3%			6.8%	1.5%
Marketable alternatives forecasts benefited from higher base rates of returns earned in Treasuries and higher expected volatility within and across asset classes.	Marketable Alts		9.1%	8.1%	1.0%
	Private equity forecasts are largely flat year over year based on the offsetting factors of improving private equity valuations and more modest earnings growth outlook.		Private Equity	10.3%	9.7%

1) Dynamic bonds are a blend of 33% Cash, 33% Corp HY, and 34% Global Bonds. 2) Tax Equivalent yield based on highest marginal Federal tax rate (37%). 3) Broad Real Assets is 20% REITS, 20% Global Infrastructure, 20% Commodities, 20% US Bonds, 15% Corp High Yield, 5% TIPS Outputs and opinions are as of the date referenced and are subject to change based on market or economic conditions. Information is intended for general information purposes only and does not represent any specific investment recommendation. Please consult with your advisor, attorney and accountant, as appropriate, regarding specific advice. There is no guarantee that any of these expectations will become actual results. For additional information on forecast methodologies, please speak with your advisor. Please see Index Proxy Summary slide at the end of this presentation for summary of indices used to represent each asset class. Past performance does not indicate future performance and there is a possibility of a loss. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information.



## Portfolio Implications

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- Our 10-year return forecasts show increased opportunity across fixed income and real assets with a modest reduction in equity return expectations.
  - *This makes for one of the more attractive risk-adjusted returns for fixed income relative to equity we have seen in several years.*
- We believe range-bound inflation opens multiple paths to lower rates, creating opportunities for tailwinds in fixed income and more rate-sensitive assets.
- Narrow market leadership in U.S. equities creates fragility within, and opportunity outside of, U.S. technology stocks.
  - *Exposure to large cap U.S. equity remains appropriate, but we also believe long-term investors will benefit from exposure to U.S. small and mid capitalization and non-U.S. stocks.*
- The most predicted recession in history has not yet come to pass. We believe investor mindsets should shift from **predict** to **prepare**, as risks remain acute and market timing futile.
  - *The best way to prepare for uncertainty is by building a well-diversified portfolio.*



## Asset Allocation Analysis

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- We believe **Asset Allocation** is the primary determinant of long-term investment results.
- Our propriety **Frontier Engineer®** system is the cornerstone of asset allocation decisions.
- Our Capital Markets Group develops **Capital Market Assumptions** (CMAs) for each major asset class at least annually.
  - ✓ The Capital Markets Group considers and analyzes a wide variety of factors that we believe will have the greatest impact on future returns and risks for each asset class studied.
  - ✓ Our CMAs are not intended to predict the future return in any single year, but rather to reflect our median expected outcome over the next ten years.
  - ✓ Our forecasting efforts center on **a ten-year horizon**. Any adjustments made to extend the forecast horizon to **twenty years** or beyond are grounded in our expectation that asset classes ultimately mean revert towards longer term historical averages.
  - ✓ Fiducient Advisors' Capital Markets Team develop our CMAs based on a “building block” approach outlined in our white paper “Capital Market Forecasts”. (Copies are available upon requested.)
- **Correlations** (how asset classes behave in reference to one another) also significantly impact asset allocation analysis.
- **Fat Tails** (non-normal return elements of skewness & kurtosis) also meaningfully impact our asset allocation analysis.



# Historical Annual Total Return

Annualized net returns as of 12/31/2023	Fixed Income	Equity	Real Assets	Alternatives	Past 3 Months (Not Annualized)	1-Year Return	3-Year Return	5-Year Return	7-Year Return	10-Year Return	15-Year Return	20-Year Return	25-Year Return	30-Year Return	36-Year Return
Current Mix (A)	30%	65%	5%	0%	9.9%	16.4%	3.8%	8.9%	7.7%	6.6%	9.0%	7.2%	6.7%	7.6%	8.5%
Mix 1	40%	56%	4%	0%	9.3%	15.0%	2.9%	8.0%	7.1%	6.2%	8.4%	6.9%	6.5%	7.4%	8.4%
Mix 2	35%	61%	4%	0%	9.5%	15.8%	3.3%	8.5%	7.5%	6.5%	8.8%	7.1%	6.7%	7.5%	8.6%
Mix 3	30%	65%	5%	0%	9.8%	16.5%	3.7%	9.0%	7.9%	6.9%	9.1%	7.4%	6.8%	7.7%	8.7%
Cash	100%				1.4%	5.3%	2.2%	1.9%	1.8%	1.3%	0.9%	1.4%	1.8%	2.4%	3.0%
TIPS	100%				4.7%	3.9%	-1.0%	3.2%	2.5%	2.4%	3.5%	3.6%	4.8%	4.8%	5.8%
US Bond	100%				6.8%	5.5%	-3.3%	1.1%	1.3%	1.8%	2.7%	3.2%	3.9%	4.4%	5.4%
US Bonds - Dynamic	100%				4.9%	8.6%	0.8%	3.0%	2.7%	2.8%	4.4%	3.9%	4.1%	4.6%	5.6%
For. Dev. Bond	100%				7.9%	6.9%	-6.1%	-1.0%	0.3%	0.7%	1.4%	2.4%	3.0%	4.0%	4.7%
Global Bonds	100%				8.1%	5.7%	-5.5%	-0.3%	0.6%	0.4%	1.5%	2.4%	3.0%	3.9%	5.0%
HY Bond	100%				7.2%	13.4%	2.0%	5.4%	4.6%	4.6%	9.2%	6.6%	6.3%	6.7%	7.6%
EM Bond	100%				8.1%	12.7%	-3.2%	1.1%	1.9%	0.1%	2.7%	4.7%	6.6%	6.7%	7.7%
Global Equity		100%			11.1%	22.8%	6.2%	12.3%	10.6%	8.5%	10.8%	8.1%	6.4%	7.8%	8.1%
US Equity (AC)		100%			12.1%	26.0%	8.5%	15.2%	12.8%	11.5%	13.8%	9.7%	7.7%	10.0%	10.9%
US Equity (LC)		100%			11.7%	26.3%	10.0%	15.7%	13.4%	12.0%	14.0%	9.7%	7.6%	10.1%	10.9%
US Equity (MC)		100%			12.8%	17.2%	5.9%	12.7%	10.1%	9.4%	13.6%	9.8%	9.3%	10.6%	11.6%
US Equity (SC)		100%			14.0%	16.9%	2.2%	10.0%	7.3%	7.2%	11.3%	8.1%	7.9%	8.6%	9.7%
Non-US Equity (ACWI)		100%			9.8%	16.2%	2.0%	7.6%	6.8%	4.3%	7.2%	6.2%	5.2%	5.7%	5.9%
Int'l Dev. Equity		100%			10.5%	18.9%	4.5%	8.7%	7.4%	4.8%	7.4%	6.1%	4.9%	5.6%	5.8%
EM Equity		100%			7.9%	10.3%	-4.7%	4.1%	5.4%	3.0%	6.9%	7.2%	7.9%	4.8%	9.5%
Real Estate			100%		18.0%	11.4%	5.7%	7.6%	6.0%	8.0%	10.9%	8.3%	9.5%	9.5%	9.9%
Broad Real Assets			100%		8.9%	7.8%	3.9%	5.9%	4.8%	3.9%	6.9%	6.5%	8.4%	7.6%	6.6%
Marketable Alternatives				100%	3.1%	6.0%	2.1%	5.1%	4.1%	3.2%	3.8%	3.3%	4.4%	4.7%	6.9%
Private Equity				100%	0.0%	-0.2%	6.8%	13.3%	13.6%	12.6%	13.4%	13.0%	13.0%	15.1%	14.6%

<sup>1</sup>The expected one in a hundred worst case calendar year return based on normally distributed capital market assumptions. Greater losses are possible (1% expected likelihood).

<sup>2</sup>The expected one in a hundred worst case calendar year return based on non-normally distributed capital market assumptions (factoring in skewness & kurtosis). Greater losses are possible (1% expected likelihood).

Historical Returns and Risk Metrics for each Mix represent back-tested calculations developed with the benefit of hindsight. Return calculations use an asset-weighted methodology based on the target asset allocation of each mix and the total return of index proxies used to represent each asset class and are net of fees. Historical returns are hypothetical and do not represent returns earned by a client. It is not possible to invest in an index. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information, including index proxies used to represent each asset class. Please ask for a copy of Fiducient Advisors' white paper titled 10-Year Capital Market Forecasts. Past performance does not indicate future performance and it is possible to lose money when investing.





# Calendar Year Total Return

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Historical Returns for each Mix based on back-tested return calculations developed with the benefit of hindsight. Return calculations use an asset-weighted methodology based on the target asset allocation of each mix and the total return of index proxies used to represent each asset class and are net of fees. Historical returns used are hypothetical and do not represent returns earned by a client. It is not possible to invest in an index. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information, including index proxies used to represent each asset class. For additional information on forecast methodologies, please ask for a copy of Fiducient Advisors' white paper titled 10-Year Capital Market Forecasts. Past performance does not indicate future performance and it is possible to lose money when investing.



## Capital Market Assumptions

Return & Risk Assumptions (Forecasts)	Arithmetic Return	Geometric Return	Standard Deviation	Skewness	Kurtosis
TIPS	5.6%	5.2%	8.9%	-0.81	4.63
US Bond	5.9%	5.7%	7.3%	-0.50	1.68
US Bonds - Dynamic	6.7%	6.5%	6.4%	-0.96	6.34
HY Bond	8.6%	7.7%	13.5%	-1.10	8.35
Global Bonds	6.1%	5.6%	9.8%	-0.27	1.12
US Equity (LC)	7.9%	6.5%	16.6%	-0.55	0.79
US Equity (SC)	8.3%	6.0%	21.3%	-0.44	1.10
Int'l Dev. Equity	10.6%	8.2%	21.7%	-0.52	1.25
EM Equity	14.2%	10.1%	28.4%	-0.61	1.96
Broad Real Assets	8.2%	7.5%	11.8%	-1.53	8.15

Correlation Assumptions (Forecasts)	TIPS	US Bond	US Bonds - Dynamic	HY Bond	Global Bonds	US Equity (LC)	US Equity (SC)	Int'l Dev. Equity	EM Equity	Broad Real Assets
TIPS	1.00	0.77	0.54	0.35	0.69	0.15	0.10	0.19	0.20	0.57
US Bond	0.77	1.00	0.57	0.33	0.74	0.22	0.13	0.19	0.11	0.38
US Bonds - Dynamic	0.54	0.57	1.00	0.94	0.53	0.61	0.59	0.56	0.57	0.75
HY Bond	0.35	0.33	0.94	1.00	0.34	0.62	0.64	0.56	0.59	0.75
Global Bonds	0.69	0.74	0.53	0.34	1.00	0.29	0.19	0.45	0.32	0.55
US Equity (LC)	0.15	0.22	0.61	0.62	0.29	1.00	0.84	0.70	0.66	0.64
US Equity (SC)	0.10	0.13	0.59	0.64	0.19	0.84	1.00	0.63	0.66	0.64
Int'l Dev. Equity	0.19	0.19	0.56	0.56	0.45	0.70	0.63	1.00	0.71	0.61
EM Equity	0.20	0.11	0.57	0.59	0.32	0.66	0.66	0.71	1.00	0.59
Broad Real Assets	0.57	0.38	0.75	0.75	0.55	0.64	0.64	0.61	0.59	1.00

October 31, 2023 Ten-Year Forecasted CMAs

\*Historical mix return calculations assume a weighted average excess return assumption of 0.5% with a Fiducient Advisors' hypothetical f



## Indices for Past Return & Risk Metrics

Indices used to generate historical risk and return metrics	Most Recent Index	Index Dates			Linked Index 1	Index Dates			Linked Index 2	Index Dates			Linked Index 2	Index Dates		
TIPS	Bloomberg US Treasury US TIPS TR USD	12/23	-	3/97	Bloomberg US Agg Bond TR USD	2/97	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
US Bond	Bloomberg US Agg Bond TR USD	12/23	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
US Bonds - Dynamic	*Custom Blend of Indices	12/23	-	2/90	Bloomberg US Agg Bond TR USD	1/90	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
HY Bond	Bloomberg US Corporate High Yield TR USD	12/23	-	7/83	Bloomberg US Agg Bond TR USD	6/83	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Global Bonds	Bloomberg Global Aggregate TR USD	12/23	-	2/90	Bloomberg US Agg Bond TR USD	1/90	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
US Equity (LC)	S&P 500 TR USD	12/23	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
US Equity (SC)	Russell 2000 TR USD	12/23	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Int'l Dev. Equity	MSCI EAFE GR USD	12/23	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
EM Equity	MSCI EM GR USD	12/23	-	1/88	MSCI EAFE GR USD	12/87	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Broad Real Assets	S&P Real Asset TR USD	12/23	-	5/05	*Custom Real Assets Index	4/05	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.

\*US Bonds - Dynamic Index - 1/3 Bloomberg Gbl Agg Ex USD TR Hdg USD, 1/3 FTSE Treasury Bill 3 Mon USD & 1/3 Bloomberg US Corporate High Yield TR USD

*Note: Private Equity Index is frequently 3-6 months behind the other indices. For historical return calculation purposes, it is given 0% returns during the most recent period where gaps may exist. Past performance, actual or hypothetical, is no guarantee of future results and there is a possibility of a loss. Please see Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information, including index proxies used to represent each asset class.*



# Frontier Engineer® Hypothetical Performance Disclosures

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The historical performance information derived from the Frontier Engineer and used or presented in charts, tables, or graphs represent simulated historical performance, which has been derived by retroactively applying an asset allocation modeling process in its most recently developed form with its most recently derived ten-year (forward-looking) capital market assumptions. Such historical return simulations (or back testing) was performed by simulating the combination of actual index returns for the historical period with a buy and hold strategy effective January 1, 1988 through the most recently available month-end date with simulated rebalancing occurring every month-end (with the reinvestment of dividends and capital gains from each index).

Back tested performance is hypothetical and does not reflect actual trades or actual client performance. As with all models, there are inherent limitations which are derived from the retroactive application developed with the benefit of hindsight, including the risk that certain factors such as material economic and market conditions could have contributed to materially different (either higher or lower) performance results than those depicted, or that certain material factors may have been included or excluded from consideration. As such, actual results during the applicable back tested period would have been different than those depicted.

The asset allocation modeling process currently used was initially developed in 2002, and was not offered as a strategy prior to that time. The output of a forward-looking model (or process) is a representation of allocation percentages among specific asset classes. Clients cannot invest directly in a target allocation, but rather, in underlying securities within designated asset classes. Advisor may change its models from time to time, and regularly updates its model as additional capital market assumption information becomes available or to increase or decrease relative weightings or emphasis on certain factors. Consequently, the Advisor may choose to deviate from a stated model over time as the model itself is revised, which could have a materially positive or negative impact on performance.

During the period represented, numerous modelling changes were made, including the regular changes in (ten-year) forward-looking expected returns, expected volatilities, expected non-normal return distribution assumptions, as well as tracking-error assumptions and risk budgets. Furthermore, such assumptions can be modified client-by-client depending on certain preferences, priorities, constraints or unique considerations applicable to each client.

Other economic and market factors may have impacted decision-making when using the model to manage client funds, including the list of approved asset classes by a client or client type as well as any client-directed or Advisor implemented constraints.

All investments bear the risk of loss, including the loss of principal. Past performance, actual or hypothetical, is no guarantee of future results.

The hypothetical annual Fiducient Advisors' fee is divided by 12 and subtracted from the historical monthly (index) returns. The hypothetical excess return assumption is divided by 12 and added to the historical monthly (index) returns. Furthermore, for forecasted total portfolio (index-based) annual returns based on capital market assumptions, the annual Fiducient Advisors' fee assumption is subtracted from the hypothetical annual manager excess return assumption. Additional information on advisory fees charged by Fiducient Advisors are described in Part 2 of the Form ADV.



# Disclosure

## INDEX DEFINITIONS

**FTSE Treasury Bill 3 Month** measures return equivalents of yield averages and are not marked to market. It is an average of the last three three-month Treasury bill month-end rates.

**Bloomberg Capital US Treasury Inflation Protected Securities Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

**Bloomberg Muni 5 Year Index** is the 5 year (4-6) component of the Municipal Bond index.

**Bloomberg High Yield Municipal Bond Index** covers the universe of fixed rate, non-investment grade debt.

**Bloomberg U.S. Aggregate Index** covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

**FTSE World Government Bond Index (WGBI) (Unhedged)** provides a broad benchmark for the global sovereign fixed income market by measuring the performance of fixed-rate, local currency, investment-grade sovereign debt from over 20 countries,

**FTSE World Government Bond Index (WGBI) (Hedged)** is designed to represent the FTSE WGBI without the impact of local currency exchange rate fluctuations.

**Bloomberg US Corporate High Yield TR USD** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

**JP Morgan Government Bond Index-Emerging Market Index (GBI-EMI)** is a comprehensive, global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure.

**JPMorgan EMBI Global Diversified** is an unmanaged, market-capitalization weighted, total-return index tracking the traded market for U.S.-dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities.

**MSCI ACWI** is designed to represent performance of the full opportunity set of large- and mid-cap stocks across multiple developed and emerging markets, including cross-market tax incentives.

**The S&P 500** is a capitalization-weighted index designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

**Russell 3000** is a market-cap-weighted index which consists of roughly 3,000 of the largest companies in the U.S. as determined by market capitalization. It represents nearly 98% of the investable U.S. equity market.

**Russell Mid Cap** measures the performance of the 800 smallest companies in the Russell 1000 Index.

**Russell 2000** consists of the 2,000 smallest U.S. companies in the Russell 3000 index.

**MSCI EAFE** is an equity index which captures large and mid-cap representation across Developed Markets countries around the world, excluding the US and Canada. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

**MSCI Emerging Markets** captures large and mid-cap representation across Emerging Markets countries. The index covers approximately 85% of the free-float adjusted market capitalization in each country

**The Wilshire US Real Estate Securities Index (Wilshire US RESI)** is comprised of publicly-traded real estate equity securities and designed to offer a market-based index that is more reflective of real estate held by pension funds.

**Alerian MLP Index** is a float adjusted, capitalization-weighted index, whose constituents represent approximately 85% of total float-adjusted market capitalization, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis.

**Bloomberg Commodity Index (BCI)** is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification.

**Treasury Inflation-Protected Securities (TIPS)** are Treasury bonds that are indexed to inflation to protect investors from the negative effects of rising prices. The principal value of TIPS rises as inflation rises.

**HFRI Fund of Funds Composite** is an equal-weighted index consisting of over 800 constituent hedge funds, including both domestic and offshore funds.

**Cambridge Associates U.S. Private Equity Index (67% Buyout vs. 33% Venture)** is based on data compiled from more than 1,200 institutional-quality buyout, growth equity, private equity energy, and mezzanine funds formed between 1986 and 2015.

**HFN Hedge Fund Aggregate Average** is an equal weighted average of all hedge funds and CTA/managed futures products reporting to the HFN Database. Constituents are aggregated from each of the HFN Strategy Specific Indices.

**Goldman Sachs Commodity Index (GSCI)** is a broadly diversified, unleveraged, long-only composite index of commodities that measures the performance of the commodity market.



# Disclosures

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## Material Risk Disclosures

**Fixed Income** securities are subject to interest rate risks, the risk of default and liquidity risk. U.S. investors exposed to non-U.S. fixed income may also be subject to currency risk and fluctuations.

**Cash** may be subject to the loss of principal and over longer period of time may lose purchasing power due to inflation.

Domestic Equity can be volatile. The rise or fall in prices take place for a number of reasons including, but not limited to changes to underlying company conditions, sector or industry factors, or other macro events. These may happen quickly and unpredictably.

**International Equity** can be volatile. The rise or fall in prices take place for a number of reasons including, but not limited to changes to underlying company conditions, sector or industry impacts, or other macro events. These may happen quickly and unpredictably. International equity allocations may also be impact by currency and/or country specific risks which may result in lower liquidity in some markets.

**Real Assets** can be volatile and may include asset segments that may have greater volatility than investment in traditional equity securities. Such volatility could be influenced by a myriad of factors including, but not limited to overall market volatility, changes in interest rates, political and regulatory developments, or other exogenous events like weather or natural disaster.

**Private Equity** involves higher risk and is suitable only for sophisticated investors. Along with traditional equity market risks, private equity investments are also subject to higher fees, lower liquidity and the potential for leverage that may amplify volatility and/or the potential loss of capital.

**Private Credit** involves higher risk and is suitable only for sophisticated investors. These assets are subject to interest rate risks, the risk of default and limited liquidity. U.S. investors exposed to non-U.S. private credit may also be subject to currency risk and fluctuations.

**Private Real Estate** involves higher risk and is suitable only for sophisticated investors. Real estate assets can be volatile and may include unique risks to the asset class like leverage and/or industry, sector or geographical concentration. Declines in real estate value may take place for a number of reasons including, but are not limited to economic conditions, change in condition of the underlying property or defaults by the borrow.

**Marketable Alternatives** involves higher risk and is suitable only for sophisticated investors. Along with traditional market risks, marketable alternatives are also subject to higher fees, lower liquidity and the potential for leverage that may amplify volatility or the potential for loss of capital. Additionally, short selling involved certain risks including, but not limited to additional costs, and the potential for unlimited loss on certain short sale positions.

# Definitions & Disclosures

Please note: Due to rounding methodologies of various data providers, certain returns in this report might differ slightly when compared to other sources

## REGULATORY DISCLOSURES

**Offer of ADV Part 2A:** Rule 204-3 under the Investment Advisers Act of 1940 requires that we make an annual offer to clients to send them, without charge, a written disclosure statement meeting the requirements of such rule. We will be glad to send a copy of our ADV Part 2A to you upon your written request to [compliance@fiducient.com](mailto:compliance@fiducient.com).

## INDEX DEFINITIONS

- **Citigroup 3 Month T-Bill** measures monthly return equivalents of yield averages that are not marked to market. The Three-Month Treasury Bill Indexes consist of the last three three-month Treasury bill issues.
- **Ryan 3 Yr. GIC** is an arithmetic mean of market rates of \$1 million Guaranteed Interest Contracts held for three years.
- **Bloomberg Treasury U.S. T-Bills-1-3 Month Index** includes aged U.S. Treasury bills, notes and bonds with a remaining maturity from 1 up to (but not including) 3 months. It excludes zero coupon strips.
- **Bloomberg Capital US Treasury Inflation Protected Securities Index** consists of Inflation-Protection securities issued by the U.S. Treasury.
- **Bloomberg Muni Index** is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. Bonds must be rated investment-grade by at least two ratings agencies.
- **Bloomberg Muni 1 Year Index** is the 1-year (1-2) component of the Municipal Bond index.
- **Bloomberg Muni 3 Year Index** is the 3-year (2-4) component of the Municipal Bond index.
- **Bloomberg Muni 5 Year Index** is the 5-year (4-6) component of the Municipal Bond index.
- **Bloomberg Muni 7 Year Index** is the 7-year (6-8) component of the Municipal Bond index.
- **Bloomberg Intermediate U.S. Gov't/Credit** is the Intermediate component of the U.S. Government/Credit index, which includes securities in the Government and Credit Indices. The Government Index includes treasuries and agencies, while the credit index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements.
- **Bloomberg U.S. Aggregate Index** covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.
- **Bloomberg Global Aggregate ex. USD Indices** represent a broad-based measure of the global investment-grade fixed income markets. The two major components of this index are the Pan-European Aggregate and the Asian-Pacific Aggregate Indices. The index also includes Eurodollar and Euro-Yen corporate bonds and Canadian government, agency and corporate securities.
- **Bloomberg U.S. Corporate High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.
- **JP Morgan Government Bond Index-Emerging Market (GBI-EM) Index** is a comprehensive, global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure.
- **The S&P 500** is a capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.
- **The Dow Jones Industrial Index** is a price-weighted average of 30 blue-chip stocks that are generally the leaders in their industry.
- **The NASDAQ** is a broad-based capitalization-weighted index of stocks in all three NASDAQ tiers: Global Select, Global Market and Capital Market.
- **Russell 3000** is a market-cap-weighted index which consists of roughly 3,000 of the largest companies in the U.S. as determined by market capitalization. It represents nearly 98% of the investable U.S. equity market.
- **Russell 1000** consists of the largest 1000 companies in the Russell 3000 Index.
- **Russell 1000 Growth** measures the performance of those Russell 1000 companies with higher P/B ratios and higher forecasted growth values.
- **Russell 1000 Value** measures the performance of those Russell 1000 companies with lower P/B ratios and lower forecasted growth values.
- **Russell Mid Cap** measures the performance of the 800 smallest companies in the Russell 1000 Index.
- **Russell Mid Cap Growth** measures the performance of those Russell Mid Cap companies with higher P/B ratios and higher forecasted growth values.
- **Russell Mid Cap Value** measures the performance of those Russell Mid Cap companies with lower P/B ratios and lower forecasted growth values.
- **Russell 2000** consists of the 2,000 smallest U.S. companies in the Russell 3000 index.
- **Russell 2000 Growth** measures the performance of the Russell 2000 companies with higher P/B ratios and higher forecasted growth values.
- **Russell 2000 Value** measures the performance of those Russell 2000 companies with lower P/B ratios and lower forecasted growth values.
- **Russell 2500** consists of the 2,500 smallest U.S. companies in the Russell 3000 index.
- **Russell 2500 Growth** measures the performance of the Russell 2500 companies with higher P/B ratios and higher forecasted growth values.
- **Russell 2500 Value** measures the performance of those Russell 2500 companies with lower P/B ratios and lower forecasted growth values.
- **MSCI World** captures large and mid-cap representation across 23 Developed Markets countries. With 1,645 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
- **MSCI ACWI (All Country World Index) ex. U.S. Index** captures large and mid-cap representation across 22 of 23 Developed Markets countries (excluding the United States) and 23 Emerging Markets countries. With 1,859 constituents, the index covers approximately 85% of the global equity opportunity set outside the US.
- **MSCI ACWI (All Country World Index) ex. U.S. Small Cap Index** captures small cap representation across 22 of 23 Developed Markets countries (excluding the US) and 23 Emerging Markets countries. With 4,368 constituents, the index covers approximately 14% of the global equity opportunity set outside the US.
- **MSCI EAFE** is an equity index which captures large and mid-cap representation across Developed Markets countries around the world, excluding the US and Canada. With 930 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.



- **MSCI EAFE Value** captures large and mid-cap securities exhibiting overall value style characteristics across Developed Markets countries around the world, excluding the US and Canada. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield. With 507 constituents, the index targets 50% coverage of the free float-adjusted market capitalization of the MSCI EAFE Index.
- **MSCI EAFE Growth** captures large and mid-cap securities exhibiting overall growth style characteristics across Developed Markets countries around the world, excluding the US and Canada. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend. With 542 constituents, the index targets 50% coverage of the free float-adjusted market capitalization of the MSCI EAFE Index.
- **MSCI Emerging Markets** captures large and mid-cap representation across 23 Emerging Markets countries. With 836 constituents, the index covers approximately 85% of the free-float adjusted market capitalization in each country.
- **Consumer Price Index** is a measure of prices paid by consumers for a market basket of consumer goods and services. The yearly (or monthly) growth rates represent the inflation rate.
- **FTSE NAREIT Equity REITs Index** contains all Equity REITs not designed as Timber REITs or Infrastructure REITs.
- **S&P Developed World Property** defines and measures the investable universe of publicly traded property companies domiciled in developed markets. The companies in the index are engaged in real estate related activities, such as property ownership, management, development, rental and investment.
- **S&P Developed World Property x U.S.** defines and measures the investable universe of publicly traded property companies domiciled in developed countries outside of the U.S. The companies included are engaged in real estate related activities, such as property ownership, management, development, rental and investment.
- **Fund Specific Broad Real Asset Benchmarks:**
  - **DWS Real Assets:** 30%: Dow Jones Brookfield Infrastructure Index, 30%: FTSE EPRA/NAREIT Developed Index, 15%: Bloomberg Commodity Index, 15%: S&P Global Natural Resources Index, 10%: U.S. Treasury Inflation Notes Total Return Index
  - **PIMCO Inflation Response Multi Asset Fund:** 45% Bloomberg U.S. TIPS, 20% Bloomberg Commodity Index, 15% JP Morgan Emerging Local Markets Plus, 10% Dow Jones Select REIT, 10% Bloomberg Gold Subindex Total Return
  - **Principal Diversified Real Assets:** 35% BBgBarc U.S. Treasury TIPS Index, 20% S&P Global Infrastructure Index NTR, 20% S&P Global Natural Resources Index NTR, 15% Bloomberg Commodity Index, and 10% FTSE EPRA/NAREIT Developed Index NTR
  - **Wellington Diversified Inflation H:** 50% MSCI ACWI Commodity Producers Index, 25% Bloomberg Commodity Index, and 25% Bloomberg Bloomberg US TIPS 1 – 10 Year Index
- **Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification.
- **HFRI Fund Weighted Composite Index** is a global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net of all fees performance in US Dollar and have a minimum of \$50 Million under management or a twelve (12) month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.
- **The Alerian MLP Index** is the leading gauge of energy Master Limited Partnerships (MLPs). The float adjusted, capitalization-weighted index, whose constituents represent approximately 85% of total float-adjusted market capitalization, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis.
- **The Adjusted Alerian MLP Index** is commensurate with 65% of the monthly returns of the Alerian MLP Index to incorporate the effect of deferred tax liabilities incurred by MLP entities.
- **Cambridge Associates U.S. Private Equity Index** is based on data compiled from more than 1,200 institutional-quality buyout, growth equity, private equity energy, and mezzanine funds formed between 1986 and 2015.
- **Cambridge Associates U.S. Venture Capital Index** is based on data compiled from over 1,600 institutional-quality venture capital funds formed between 1986 and 2015.
- **Vanguard Spliced Bloomberg US1-5Yr Gov/Cr Flt Adj Index:** Bloomberg U.S. 1–5 Year Government/Credit Bond Index through December 31, 2009; Bloomberg U.S. 1–5 Year Government/Credit Float Adjusted Index thereafter.
- **Vanguard Spliced Bloomberg US5-10Yr Gov/Cr Flt Adj Index:** Bloomberg U.S. 5–10 Year Government/Credit Bond Index through December 31, 2009; Bloomberg U.S. 5–10 Year Government/Credit Float Adjusted Index thereafter.
- **Vanguard Spliced Bloomberg US Agg Flt Adj Index:** Bloomberg U.S. Aggregate Bond Index through December 31, 2009; Bloomberg U.S. Aggregate Float Adjusted Index thereafter.
- **Vanguard Spliced Bloomberg US Long Gov/Cr Flt Adj Index:** Bloomberg U.S. Long Government/Credit Bond Index through December 31, 2009; Bloomberg U.S. Long Government/Credit Float Adjusted Index thereafter.
- **Vanguard Balanced Composite Index:** Made up of two unmanaged benchmarks, weighted 60% Dow Jones U.S. Total Stock Market Index (formerly the Dow Jones Wilshire 5000 Index) and 40% Bloomberg U.S. Aggregate Bond Index through May 31, 2005; 60% MSCI US Broad Market Index and 40% Bloomberg U.S. Aggregate Bond Index through December 31, 2009; 60% MSCI US Broad Market Index and 40% Bloomberg U.S. Aggregate Float Adjusted Index through January 14, 2013; and 60% CRSP US Total Market Index and 40% Bloomberg U.S. Aggregate Float Adjusted Index thereafter.
- **Vanguard Spliced Intermediate-Term Tax-Exempt Index:** Bloomberg 1–15 Year Municipal Bond Index.
- **Vanguard Spliced Extended Market Index:** Dow Jones Wilshire 4500 Index through June 17, 2005; S&P Transitional Completion Index through September 16, 2005; S&P Completion Index thereafter.
- **Vanguard Spliced Value Index:** S&P 500 Value Index (formerly the S&P 500/Barra Value Index) through May 16, 2003; MSCI US Prime Market Value Index through April 16, 2013; CRSP US Large Cap Value Index thereafter.
- **Vanguard Spliced Large Cap Index:** Consists of MSCI US Prime Market 750 Index through January 30, 2013, and the CRSP US Large Cap Index thereafter.
- **Vanguard Spliced Growth Index:** S&P 500 Growth Index (formerly the S&P 500/Barra Growth Index) through May 16, 2003; MSCI US Prime Market Growth Index through April 16, 2013; CRSP US Large Cap Growth Index thereafter.
- **Vanguard Spliced Mid Cap Value Index:** MSCI US Mid Cap Value Index through April 16, 2013; CRSP US Mid Cap Value Index thereafter.
- **Vanguard Spliced Mid Cap Index:** S&P MidCap 400 Index through May 16, 2003; the MSCI US Mid Cap 450 Index through January 30, 2013; and the CRSP US Mid Cap Index thereafter.
- **Vanguard Spliced Mid Cap Growth Index:** MSCI US Mid Cap Growth Index through April 16, 2013; CRSP US Mid Cap Growth Index thereafter.
- **Vanguard Spliced Total Stock Market Index:** Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005; MSCI US Broad Market Index through June 2, 2013; and CRSP US Total Market Index thereafter.
- **Vanguard Spliced Small Cap Value Index:** SmallCap 600 Value Index (formerly the S&P SmallCap 600/Barra Value Index) through May 16, 2003; MSCI US Small Cap Value Index through April 16, 2013; CRSP US Small Cap Value Index thereafter.



- **Vanguard Spliced Small Cap Index:** Russell 2000 Index through May 16, 2003; the MSCI US Small Cap 1750 Index through January 30, 2013; and the CRSP US Small Cap Index thereafter.
- **Vanguard Spliced Small Cap Growth Index:** S&P SmallCap 600 Growth Index (formerly the S&P SmallCap 600/Barra Value Index) through May 16, 2003; MSCI US Small Cap Growth Index through April 16, 2013; CRSP US Small Cap Growth Index thereafter.
- **Vanguard Spliced Total International Stock Index:** Consists of the Total International Composite Index through August 31, 2006; the MSCI EAFE + Emerging Markets Index through December 15, 2010; the MSCI ACWI ex USA IMI Index through June 2, 2013; and FTSE Global All Cap ex US Index thereafter. Benchmark returns are adjusted for withholding taxes.
- **Vanguard Spliced Developed Markets Index:** MSCI EAFE Index through May 28, 2013; FTSE Developed ex North America Index through December 20, 2015; FTSE Developed All Cap ex US Transition Index through May 31, 2016; FTSE Developed All Cap ex US Index thereafter. Benchmark returns are adjusted for withholding taxes.
- **Vanguard Spliced Emerging Markets Index:** Select Emerging Markets Index through August 23, 2006; MSCI Emerging Markets Index through January 9, 2013; FTSE Emerging Transition Index through June 27, 2013; FTSE Emerging Index through November 1, 2015; and FTSE Emerging Markets All Cap China A Transition Index thereafter. Benchmark returns are adjusted for withholding taxes.
- **Vanguard REIT Spliced Index:** MSCI US REIT Index adjusted to include a 2% cash position (Lipper Money Market Average) through April 30, 2009; MSCI US REIT Index through January 31, 2018; MSCI US Investable Market Real Estate 25/50 Transition Index through July 24, 2018; MSCI US Investable Market Real Estate 25/50 Index thereafter.

#### **Additional:**

- Equity sector returns are calculated by Russell and MSCI for domestic and international markets, respectively. MSCI sector definitions correspond to the MSCI GICS® classification (Global Industry Classification System); Russell uses its own sector and industry classifications.
- MSCI country returns are calculated by MSCI and are free float-adjusted market capitalization indices that are designed to measure equity market performance in each specific country.
- Currency returns are calculated using Bloomberg's historical spot rate indices and are calculated using the U.S. dollar as the base currency.
- The Index of Leading Economic Indicators, calculated by The Conference Board, is used as a barometer of economic activity over a range of three to six months. The index is used to determine the direction and stability of the economy. The composite index of leading indicators, which is derived from 10 leading indicators, helps to signal turning points in the economy and forecast economic cycles. The leading indicators are the following: average weekly hours, average weekly initial claims, manufacturers' new orders, both consumer and non-defense capital goods, vendor performance, building permits, stock prices, money supply (M2), the interest rate spread and the index of consumer expectations.
- S&P Target Date Indexes are constructed using a survey method of current target date investments with \$100 million or more in assets under management. Allocations for each vintage are comprised of exchange-traded funds that represent respective asset classes used in target date portfolios. The indexes are designed to represent a market consensus glide path.

#### **DEFINITION OF KEY STATISTICS AND TERMS**

- **Returns:** A percentage figure used when reporting historical average compounded rate of investment return. All returns are annualized if the period for which they are calculated exceeds one year.
- **Universe Comparison:** The universe compares the fund's returns to a group of other investment portfolios with similar investment strategies. The returns for the fund, the index and the universe percentiles are displayed. A percentile ranking of 1 is the best, while a percentile ranking of 100 is the worst. For example, a ranking of 50 indicates the fund outperformed half of the universe. A ranking of 25 indicates the fund was in the top 25% of the universe, outperforming 75%.
- **Returns In Up/Down Markets:** This measures how the fund performed in both up and down markets. The methodology is to segregate the performance for each time period into the quarters in which the market, as defined by the index, was positive and negative. Quarters with negative index returns are treated as down markets, and quarters with positive index returns are treated as up markets. Thus, in a 3 year or 12 quarter period, there might be 4 down quarters and 8 up quarters. A simple arithmetic average of returns is calculated for the fund and the index based on the up quarters. A simple arithmetic average of returns is calculated for the fund and the index based on the down quarters. The up market capture ratio is the ratio of the fund's return in up markets to the index. The down market capture ratio is the ratio of the fund's return in down markets to the index. Ideally, the fund would have a greater up market capture ratio than down market capture ratio.
- **Standard Deviation:** Standard deviation is a statistical measure of the range of performance within which the total returns of a fund fall. When a fund has a high standard deviation, the range of performance is very wide, meaning there is a greater volatility. Approximately 68% of the time, the total return of any given fund will differ from the average total return by no more than plus or minus the standard deviation figure. Ninety-five percent of the time, a fund's total return will be within a range of plus or minus two times the standard deviation from the average total return. If the quarterly or monthly returns are all the same the standard deviation will be zero. The more they vary from one another, the higher the standard deviation. Standard deviation can be misleading as a risk indicator for funds with high total returns because large positive deviations will increase the standard deviation without a corresponding increase in the risk of the fund. While positive volatility is welcome, negative is not.
- **R-Squared:** This reflects the percentage of a fund's movements that are explained by movements in its benchmark index. An R-squared of 100 means that all movements of a fund are completely explained by movements in the index. Conversely, a low R-squared indicates very few of the fund's movements are explained by movements in the benchmark index. R-squared can also be used to ascertain the significance of a particular beta. Generally, a higher R-squared will indicate a more reliable beta figure. If the R-squared is lower, then the beta is less relevant to the fund's performance. A measure of diversification, R-squared indicates the extent to which fluctuations in portfolio returns are explained by market. An R-squared = 0.70 implies that 70% of the fluctuation in a portfolio's return is explained by the fluctuation in the market. In this instance, overweighting or underweighting of industry groups or individual securities is responsible for 30% of the fund's movement.
- **Beta:** This is a measure of a fund's market risk. The beta of the market is 1.00. Accordingly, a fund with a 1.10 beta is expected to perform 10% better than the market in up markets and 10% worse than the market in down markets. It is important to note, however, a low fund beta does not imply the fund has a low level of volatility; rather, a low beta means only that the fund's market-related risk is low. Because beta analyzes the market risk of a fund by showing how responsive the fund is to the market, its usefulness depends on the degree to which the markets determine the fund's total risk (indicated by R-squared).
- **Alpha:** The Alpha is the nonsystematic return, or the return that can't be attributed to the market. It can be thought of as how the manager performed if the market's return was zero. A positive alpha implies the manager added value to the return of the portfolio over that of the market. A negative alpha implies the manager did not contribute any value over the performance of the market.
- **Sharpe Ratio:** The Sharpe ratio is the excess return per unit of total risk as measured by standard deviation. Higher numbers are better, indicating more return for the level of risk experienced. The ratio is a fund's return minus the risk-free rate of return (30-day T-Bill rate) divided by the fund's standard deviation. The higher the Sharpe ratio, the more reward you are receiving per unit of total risk. This measure can be used to rank the performance of mutual funds or other portfolios.
- **Treynor Ratio:** The Treynor ratio measures returns earned in excess of that which could have been earned on a riskless investment per each unit of market risk. The ratio relates excess return over the risk-free rate to the additional risk taken; however, systematic risk is used instead of total risk. The Treynor ratio is similar to the Sharpe ratio, except in the fact that it uses the beta to evaluate the returns rather than the standard deviation of portfolio returns. High values mean better return for risk taken.

- **Tracking Error:** Tracking error measures the volatility of the difference in annual returns between the manager and the index. This value is calculated by measuring the standard deviation of the difference between the manager and index returns. For example, a tracking error of +/- 5 would mean there is about a 68% chance (1 standard deviation event) that the manager's returns will fall within +/- 5% of the benchmark's annual return.
- **Information Ratio:** The information ratio is a measure of the consistency of excess return. This value is determined by taking the annualized excess return over a benchmark (style benchmark by default) and dividing it by the standard deviation of excess return.
- **Consistency:** Consistency shows the percent of the periods the fund has beaten the index and the percent of the periods the index has beat the fund. A high average for the fund (e.g., over 50) is desirable, indicating the fund has beaten the index frequently.
- **Downside Risk:** Downside risk is a measure similar to standard deviation but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the factor, the riskier the product.
- **M-Squared:** M-squared, or the Modigliani risk-adjusted performance measure is used to characterize how well a portfolio's return rewards an investor for the amount of risk taken, relative to that of some benchmark portfolio and to the risk-free rate.

## DEFINITION OF KEY PRIVATE EQUITY TERMS

- **PIC (Paid in Capital):** The amount of committed capital that has been transferred from the limited partner to the general partner.
- **TVPI (Total Value to Paid in Capital):** Money returned to limited partners plus the fund's unrealized investments, divided by money paid-in to the partnership. The TVPI should equal RVPI plus DPI.
- **DPI (Distribution to Paid In Capital):** Money returned (distributions) to limited partners divided by money paid in to the partnership. Also called cash-on-cash multiple.
- **RVPI (Residual Value to Paid In Capital):** The value of a fund's unrealized investments divided by money paid-in to the partnership.
- **Internal rate of return (IRR):** This is the most appropriate performance benchmark for private equity investments. It is a time-weighted return expressed as a percentage. IRR uses the present sum of cash drawdowns (money invested), the present value of distributions (money returned from investments) and the current value of unrealized investments and applies a discount.
- **Commitment:** Every investor in a private equity fund commits to investing a specified sum of money in the fund partnership over a specified period of time. The fund records this as the limited partnership's capital commitment. The sum of capital commitments is equal to the size of the fund.
- **Capital Distribution:** These are the returns that an investor in a private equity fund receives. It is the income and capital realized from investments less expenses and liabilities. Once a limited partner has had their cost of investment returned, further distributions are actual profit. The partnership agreement determines the timing of distributions to the limited partner. It will also determine how profits are divided among the limited partners and general partner.
- **Carried Interest:** The share of profits that the fund manager is due once it has returned the cost of investment to investors. Carried interest is normally expressed as a percentage of the total profits of the fund.
- **Co-Investment:** Co-Investments are minority investments made alongside a private equity investor in an LBO, a recapitalization, or an expansion capital transaction. It is a passive, non-controlling investment, as the private equity firm involved will typically exercise control and perform monitoring functions.
- **General Partner (GP):** This can refer to the top-ranking partners at a private equity firm as well as the firm managing the private equity fund.
- **GP Commitments:** It is normal practice for the GP managing a private equity fund to also make a financial commitment to the fund on the same basis as the LPs in the fund, and this is seen as an important factor driving the alignment of GP and LP interests. The historic benchmark for GP commitments has been 1% of the total fund size, but this is by no means universal, and many GPs commit significantly larger amounts. Furthermore, there has been a marked trend towards GPs making larger commitments to their funds over recent years.
- **Leveraged Buy-Out (LBO):** The acquisition of a company using debt and equity finance.
- **Limited Partner (LP):** Institutions or high-net-worth individuals/sophisticated investors that contribute capital to a private equity fund.
- **Public Market Equivalent (PME):** Performance measure used to evaluate performance relative to the market. It is calculated as the ratio of the discounted value of the LP's inflows divided by the discounted value of outflows, with the discounting performed using realized market returns.
- **Primaries:** An original investment vehicle that invests directly into a company or asset.

## VALUATION POLICY

Fiducient Advisors does not engage an independent third-party pricing service to value securities. Our reports are generated using the security prices provided by custodians used by our clients. Our custodial pricing hierarchy is available upon request. If a client holds a security not reported by the first custodian within the hierarchy, the valuation is generated from the next custodian within the hierarchy, and so forth. Each custodian uses pricing services from outside vendors, where the vendors may generate nominally different prices. Therefore, this report can reflect minor valuation differences from those contained in a custodian's report. In rare instances where FA overrides a custodial price, prices are taken from Bloomberg.

## REPORTING POLICY

This report is intended for the exclusive use of the client listed within the report. Content is privileged and confidential. Any dissemination or distribution is strictly prohibited. Information has been obtained from a variety of sources believed to be reliable though not independently verified. Any forecast represents median expectations and actual returns, volatilities and correlations will differ from forecasts. Please note each client has customized investment objectives and constraints and the investment strategy for each portfolio is based on a client-specific asset allocation model. Past performance does not indicate future performance and there is a possibility of a loss. Performance calculated net of investment fees. Certain portfolios presented may be gross of Fiducient Advisors' fees and actual performance would be reduced by investment advisory fees. This report does not represent a specific investment recommendation. Please consult with your advisor, attorney, and accountant, as appropriate, regarding specific advice.

Custodian reports are the reports that govern the account. There will be different account values between Fiducient Advisors' reports and the custodian reports based on whether the report utilizes trade date or settlement date to calculate value. Additionally, difference between values contained on reports may be caused by different accrued income values. Any forecasts represent future expectations and actual returns, volatilities and correlations will differ from forecasts. This report does not represent a specific investment recommendation. Please consult with your advisor, attorney, and accountant, as appropriate, regarding specific advice. Past performance does not indicate future performance and there is a possibility of a loss.

Manager performance for mutual funds and ETFs is based on NAV and provided by Lipper. Performance for non-mutual fund or ETF investments is based on the returns provided by managers, calculations based on a manager statement, or calculations based on a statement or data from the client's custodian. Unless specified otherwise, all returns are net of individual manager fees, represent total returns and are annualized for periods greater than one year. The deduction of fees produces a compounding effect that reduces the total rate of return over time. As an example, the effect of investment management fees on the total value of a client's portfolio assuming (a) quarterly fee assessment, (b) \$1,000,000 investment, (c) portfolio return of 8% a year, and (d) 0.50% annual investment advisory fee would be \$5,228 in the first year, and cumulative effects of \$30,342 over five years and \$73,826 over ten years. Additional information on advisory fees charged by Fiducient Advisors are described in Part 2 of the Form ADV.

## **MATERIAL RISKS & LIMITATIONS**

**Fixed Income** securities are subject to interest rate risks, the risk of default and liquidity risk. U.S. investors exposed to non-U.S. fixed income may also be subject to currency risk and fluctuations.  
-Liability Driven Investing (LDI) Assets

**Cash** may be subject to the loss of principal and over longer period of time may lose purchasing power due to inflation.  
-Short Term Liquidity

**Domestic Equity** can be volatile. The rise or fall in prices take place for a number of reasons including, but not limited to changes to underlying company conditions, sector or industry factors, or other macro events. These may happen quickly and unpredictably.

**International Equity** can be volatile. The rise or fall in prices take place for a number of reasons including, but not limited to changes to underlying company conditions, sector or industry impacts, or other macro events. These may happen quickly and unpredictably. International equity allocations may also be impact by currency and/or country specific risks which may result in lower liquidity in some markets.

**Real Assets** can be volatile and may include asset segments that may have greater volatility than investment in traditional equity securities. Such volatility could be influenced by a myriad of factors including, but not limited to overall market volatility, changes in interest rates, political and regulatory developments, or other exogenous events like weather or natural disaster.

**Private Equity** involves higher risk and is suitable only for sophisticated investors. Along with traditional equity market risks, private equity investments are also subject to higher fees, lower liquidity and the potential for leverage that may amplify volatility and/or the potential loss of capital.

**Private Credit** involves higher risk and is suitable only for sophisticated investors. These assets are subject to interest rate risks, the risk of default and limited liquidity. U.S. investors exposed to non-U.S. private credit may also be subject to currency risk and fluctuations.

**Private Real Estate** involves higher risk and is suitable only for sophisticated investors. Real estate assets can be volatile and may include unique risks to the asset class like leverage and/or industry, sector or geographical concentration. Declines in real estate value may take place for a number of reasons including, but are not limited to economic conditions, change in condition of the underlying property or defaults by the borrow.

**Marketable Alternatives** involves higher risk and is suitable only for sophisticated investors. Along with traditional market risks, marketable alternatives are also subject to higher fees, lower liquidity and the potential for leverage that may amplify volatility or the potential for loss of capital. Additionally, short selling involved certain risks including, but not limited to additional costs, and the potential for unlimited loss on certain short sale positions.

## **OTHER**

By regulation, closed-end funds utilizing debt for leverage must report their interest expense, as well as their income tax expense, as part of their total expense ratio. To make for a useful comparison between closed-end funds and both open-end funds and exchange-traded funds, adjusted expense ratios excluding interest and income tax expenses are utilized for closed-end funds within this report. See disclosure on closed-end fund fact sheets for information regarding the total expense ratio of each closed-end fund.

Please advise us of any changes in your objectives or circumstances.

## **CUSTODIAN STATEMENTS**

Please remember to review the periodic statements you receive from your custodian. If you do not receive periodic statements from your custodian or notice issues with the activity reported in those statements, please contact FA or your custodian immediately.