

Ledyard, CT

Quarterly Investment Review - Third Quarter 2024

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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.

# **Fiducient Advisors Update**

## **Retirement Plans**

#### **Featured Insights**

- Blog: Celebrating 50 Years of ERISA
- Blog: From Worry to Wellness
- Blog: <u>Strategies to Reduce PBGC</u>
   Premiums
- Blog: Accounting for Float Income in Retirement Plans

# **Endowments & Foundations**

#### **Featured Insights**

- Blog: ESG is Dead, Long Live ESG!
- Blog: <u>Celebrating National Nonprofit Day</u>
- Nonprofit Investment Stewards Podcast: Quarterly Quick Take: How Presidential Elections Impact Your Portfolio

# The Wealth Office®

#### **Featured Insights**

- Blog: <u>Don't Send Your Child Off to</u> <u>College Without These Four Tools</u>
- Blog: <u>Executive Compensation</u> –
   <u>Five Costly Mistakes</u>
- Webcast: <u>Seven Medicare</u> Mistakes to Avoid

# **Research Insights**

- Monthly Market Recaps
- Monthly Market Updates
- Mid-Year Update
- Private Markets Semi-Annual Update

# **New Associates – Welcome!**

**Daisy Guzman**Consulting Analyst

Ashley Lemieux
Client Service Associate

**Denisse Merlos**Consulting Analyst

**Dee Northern**Wealth Planner

As of September 30, 2024.



# 2024 Investor Conference That's a wrap!

# **Featured speakers:**

**Liz Ann Sonders** | Charles Schwab & Co.

**Howard Marks** | Oaktree Capital Management

John Emerson | Capital Group

**Stephen Watson** | The National WWII Museum

# Save the Date!

# 2025 Investor Conference

The Westin Copley Place Boston

September 16 - 17





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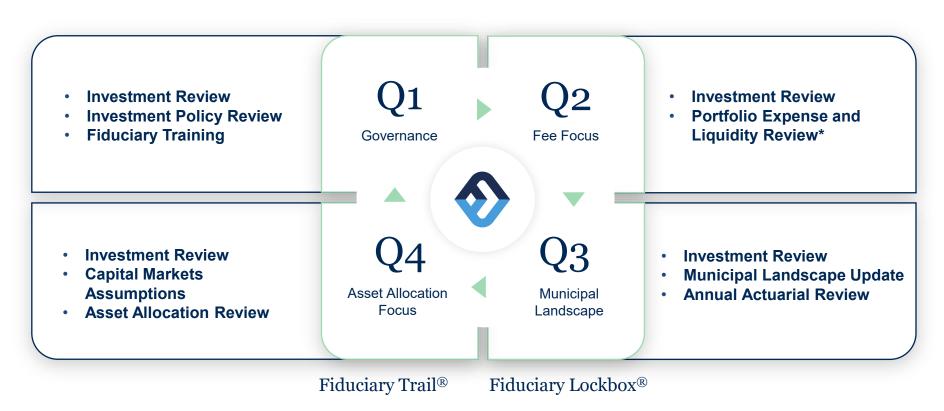
Section 4 International Manager Search



Fiduciary Governance Calendar

# 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.



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

# **Actuarial Review**

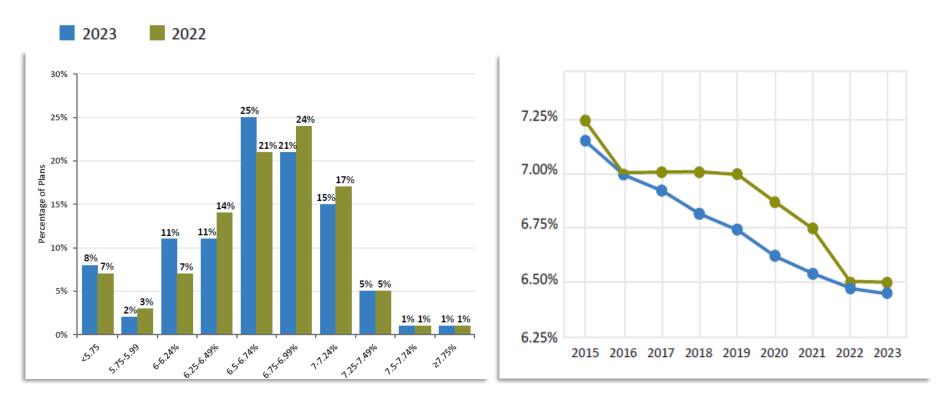
Name of Plan							
	7/1/2023	7/1/2022					
Actuarial Value of Assets	\$30,367,826	\$28,700,912					
Total Accrued Liability	\$34,234,228	\$32,850,603					
Funded Ratio	88.7%	87.4%					
Actuarial Return Assumption	6.25%	6.25%					

Source: USI, 2023 Valuation Report, as of 7/1/2023



# CT Muni Pension Plans: Trends in Investment Return Assumptions

- The average investment return assumption across Connecticut municipal pension plans was 6.43% and the median was 6.50% for FY 2023. Only 8% of plans reduced their investment return assumption since last year's report, with the most common reduction of 0.125%.
- The average long-term rate of return assumption has declined by 71 basis points, from 7.14% to 6.43%, from FY 2015 to FY 2022. We expect to see a pause in setting lower assumed rates of return on a go-forward basis due to the restoration of higher bond yields.



Source: USI Consulting Group 2024 Municipal Pension & OPEB Report: 200 Municipal CT Pension Plans. Data extracted from the CAFRs submitted by local municipalities in CT for fiscal year ending June 30, 2023



# CT Muni Pension – Avg. Investment Return Assumption by Plan Size

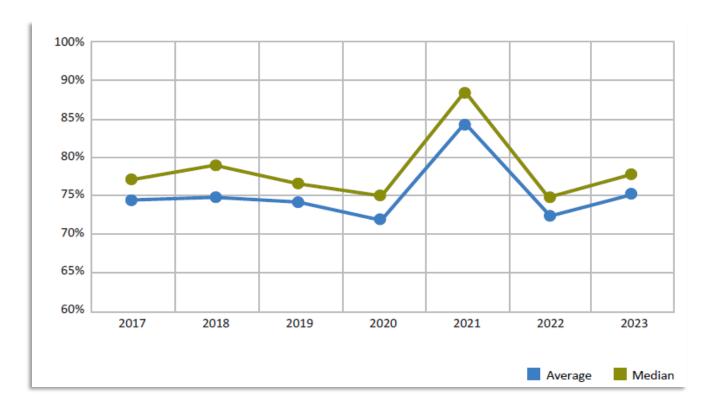
- As plan sizes increases, the average investment return assumption increases as well
- As illustrated, within each range of plan size, the average assumption decreased from FY 2022 to FY 2023. The average decrease for all plans during was roughly 3 basis points from 6.46% to 6.43%.

		Average Investment Return Assumption						
Plan assets (\$ millions)	% of plans	2023	2022	2021	% Change			
< \$10	37%	6.07%	6.15%	6.15%	-0.08%			
\$10 – \$49	37%	6.60%	6.59%	6.64%	0.01%			
\$50+	26%	6.71%	6.74%	6.86%	-0.03%			
All Plans	100%	6.43%	6.46%	6.53%	-0.03%			

Source: USI Consulting Group 2024 Municipal Pension & OPEB Report: 200 Municipal CT Pension Plans. Data extracted from the CAFRs submitted by local municipalities in CT for fiscal year ending June 30, 2023

# CT Muni Pension: Trends in Funded Ratios

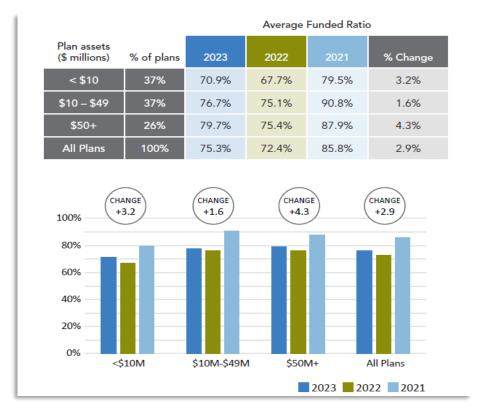
- The illustration below provides a historical trend for CT municipal pension plans since 2017.
- Following outsized investment performance in FY 2023 the average and median funded ratios improved from the previous fiscal year.
- The average funded ratio stood at 77.6% as of FY 2023 versus 72.4% for FY 2022.



Source: USI Consulting Group 2024 Municipal Pension & OPEB Report: 200 Municipal CT Pension Plans. Data extracted from the CAFRs submitted by local municipalities in CT for fiscal year ending June 30, 2023

# CT Muni Pension: Trends in Funded Ratios by Plan Size

- Solid investment returns for FY 2023 served to improve the funded status for CT municipal pension plans.
- For FY 2023, 47% of the pension plans analyzed exceeded the 80% funded level, compared to 36% reported in the previous year.
- Consistent with prior years, the results indicate that as plan size increases the average funded ratio tends to increase as well.



Source: USI Consulting Group 2024 Municipal Pension & OPEB Report: 200 Municipal CT Pension Plans. Data extracted from the CAFRs submitted by local municipalities in CT for fiscal year ending June 30, 2023



Capital Markets Overview

#### **Market Themes**

- The Federal Reserve has embarked on the latest cutting cycle, with an initial cut of 50 basis points at its September meeting. Uncertainty remains on the ultimate timing and quantity of future cuts.
- Financial markets, on average, have performed well following the onset of an interest rate cutting cycle. We believe opportunities within fixed income and small cap equities remain, while concentration remains within the large cap space.
- Market volatility will likely remain elevated as we head into the presidential election. Investing based on a particular political party is rarely effective. Those who have stayed invested regardless have been rewarded.

#### 1-Year Performance Following the First Rate Cut of Cycle

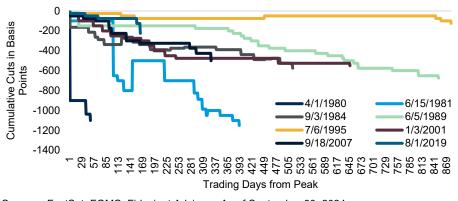
Federal reserve cutting cycles, on average, have resulted in favorable results for areas of the market such as fixed income and small cap equities. This may present attractive investment opportunities outside of U.S. large cap in today's market environment.

First Rate Cut	4/1/80	6/15/81	9/3/84	6/5/89	7/6/95	1/3/01	9/18/07	8/1/19	Avg
S&P 500	40.1	-10.7	18.2	16.8	23.0	-8.8	-20.0	12.0	8.8
Russell 2000	72.1	-20.6	15.7	0.4	20.9	6.9	-11.6	-4.6	9.9
Bbg Agg Bond	13.0	14.9	24.2	9.4	3.3	7.0	6.0	10.1	11.0
U.S. Dollar				-0.1	0.1	0.1	0.0	-5.2	-1.0

Sources: FactSet, FOMC, Morningstar, Fiducient Advisors. As of September 30, 2024. Performance is the following 1-year period from the first rate cut date.

#### **Historical Federal Reserve Cutting Cycles**

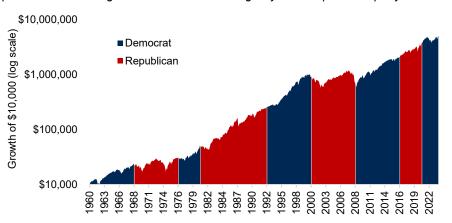
The path of lower Federal Funds Rates have varied widely over time, but since the 1980s, the average cutting cycle has lasted approximately 22 months with roughly 600 basis points of cumulative cuts.



Sources: FactSet, FOMC, Fiducient Advisors. As of September 30, 2024.

#### **Staying Invested Rewards Long-Term Investors**

Investors who stayed invested regardless of political party have been rewarded with portfolio values 10x greater than those investing only under a particular party.

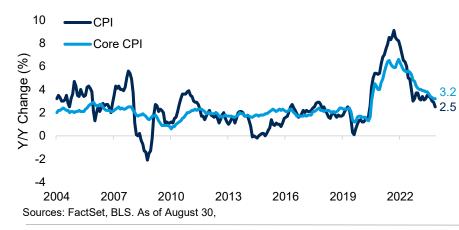


Sources: Schwab Center for Financial Research, Morningstar. Data from January 1, 1961 to December 31, 2023. See disclosures for additional information and definitions.

### **Economic Review**

#### U.S. Inflation

Inflation is trending toward the Federal Reserve's 2% target, with U.S. CPI falling to the lowest level since 2021. The Fed acknowledged the progress made on one half of its dual mandate of price stability and full employment.



#### **U.S. Real GDP Growth**

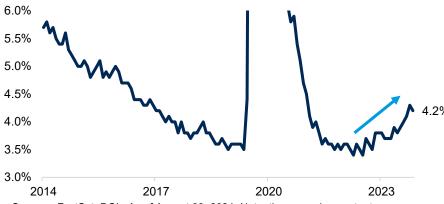
The U.S. economy remains resilient growing 3% in the second quarter. Despite a cooling in the labor market, the consumer remains relatively healthy and corporate fundamentals are positive. However, rising delinquencies, the dock worker strike, potential tariffs, and other uncertainties may weigh on future growth.



Sources: FactSet, BEA. As of September 30, 2024.

#### **U.S.** Unemployment Rate

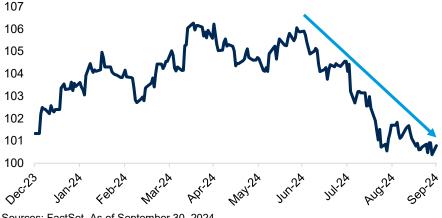
The U.S. labor market is cooling, and U.S. unemployment remains above 4%. Labor market data over coming months will likely play an increasingly important roll in the Federal Reserve's next interest rate decisions.



Sources: FactSet, DOL. As of August 30, 2024. Note, the unemployment rate was over 10% for a period of time in 2020, but is not shown due to scaling of y-axis.

#### U.S. Dollar Index (DXY)

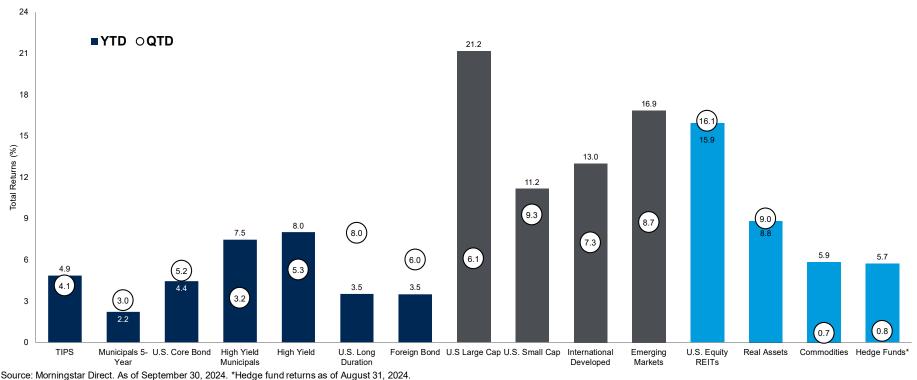
Falling interest rates and easing central bank activity pushed the U.S. dollar approximately 5% lower during the quarter. A falling dollar may help spur U.S. exports, but ultimately makes goods abroad more expensive for the U.S. consumer.



Sources: FactSet. As of September 30, 2024.

#### **Asset Class Returns**





#### Fixed Income (3Q 2024)

- + The Federal Reserve cut its target rate by 50 basis points at its September meeting, as the inflation backdrop has progressed closer to the Fed's target and the labor market has started to show signs of weakness. Longer duration assets, the most sensitive to lower interest rates, performed best in the quarter.
- + The high yield market continues to generate strong returns as investor expectations grow for the prospect of a soft-landing scenario.
- + The U.S. dollar fell during the period, providing an added tailwind for non-USD debt.

#### **Equity (3Q 2024)**

- + Areas of the equity market less exposed to the concentrated names in U.S. large cap outperformed in the third quarter. U.S. small cap had a strong return, benefitting from both lower interest rates and less exposure to concerns about the monetization of Al.
- + Central bank activity in Europe also provided a boost to international developed markets.
- + Emerging markets outperformed developed markets during the period. Investor optimism surrounding the recent stimulus package in China helped fuel strong performance for the region.

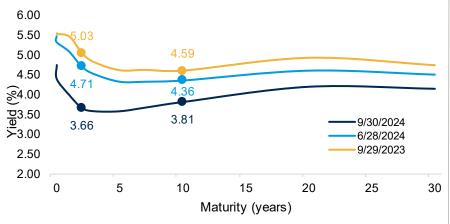
#### Real Asset / Alternatives (3Q 2024)

- + Equity REITs had a strong quarter, producing double digit results and bringing the asset class into positive territory year-to-date. The falling interest rate environment and market expectations for the Fed to continue to cut interest rates fueled the asset class.
- + Commodities eked out a modest gain, driven from the metals sub-sectors. Energy lagged due to declining oil prices – a rare move amidst rising military tensions in the middle east.
- + Real assets performed well during the quarter. Much of the gain came from infrastructure and timber.

## **Fixed Income Market Update**

#### **U.S. Treasury Yield Curve**

The yield curve moved lower as the Fed began to cut interest rates. The curve steepened as a result and the spread between the 2-year and 10-year yield moved into positive territory for the first time since 2022.



Source: FactSet. As of September 30, 2024.

#### **Corporate Market Spreads – Trailing 5 Years**

Valuations remain elevated (tighter spreads) within the corporate credit market. Continued demand, favorable fundamentals and increasing optimism around a soft-landing scenario have provided a tailwind for corporate credit.

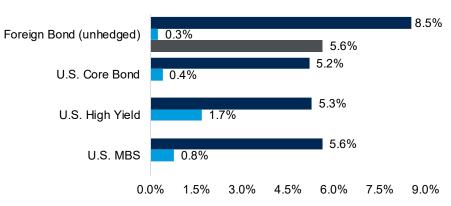


Source: FactSet. As of September 30, 2024.

#### **Index Performance Attribution (3Q 2024)**

Most sectors outperformed comparable Treasuries during the quarter. Foreign bonds benefited from a falling U.S. dollar, while credit sectors had the additional tailwind from spread compression.

■ Total Return ■ Excess Return (Comp. Treasury) ■ Currency Return



Source: FactSet. As of September 30, 2024.

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

The environment has shifted and while yields remain attractive across fixed income sectors, they are lower than they were a year ago. Both spread compression, which has impacted high yield the most, and lower rates have contributed to the decline in yields.

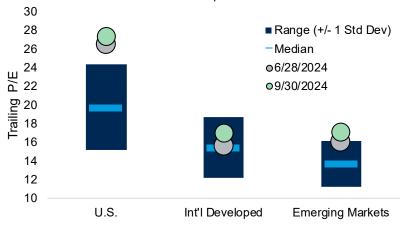


Source: FactSet. As of September 30, 2024. Based on respective Bloomberg Index.

## **Equity Market Update**

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

Equity valuations moved higher in the third quarter on the back of favorable price movement. Large cap domestic equity valuations remain stretched, driven by a select few names concentrated at the top of the benchmark.

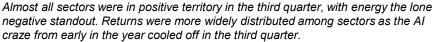


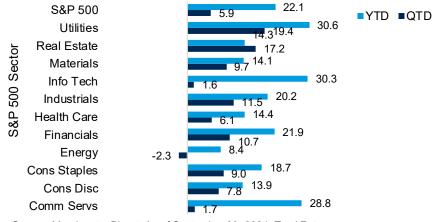
#### Source: FactSet. As of September 30, 2024.

**Select Country Returns (%)** 

craze from early in the year cooled off in the thin

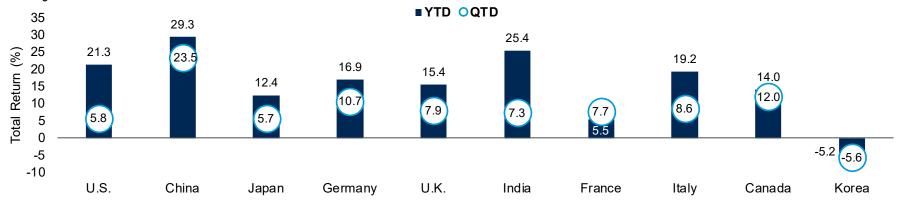
U.S. Equities – Return by Sector (3Q 2024)





Source: Morningstar Direct. As of September 30, 2024. Total Returns.

Many of the largest economies had positive gains during the third quarter. China was among the top preforming countries due to optimism surrounding the economic stimulus package being implemented. Interest rates moved lower in Europe as well, and policy rate cuts from the ECB and the Bank of England provided a tailwind for the regions.

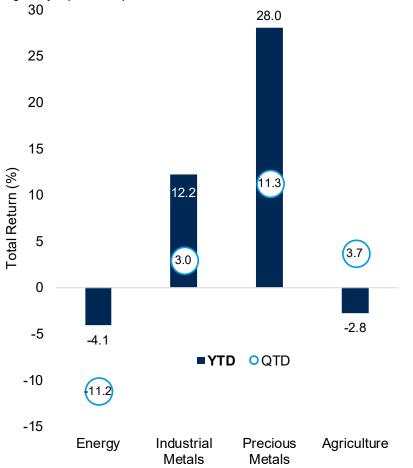


Source: Morningstar Direct. As of September 30, 2024.

## **Real Assets Market Update**

#### **Commodity Performance (3Q 2024)**

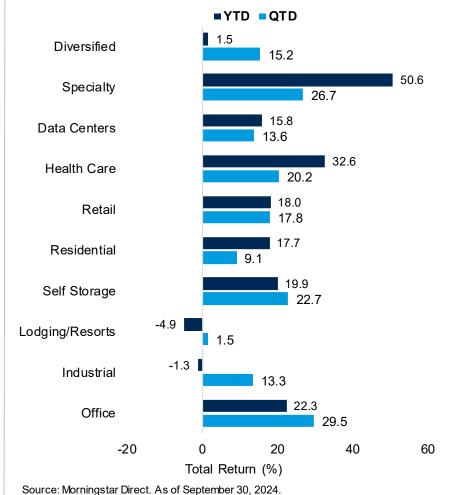
Commodities were modestly positive during the third quarter, with mixed results from underlying sub-sectors. Precious metals was the leader as gold prices moved higher. Concerns about a slowing global economy and OPEC+ adding to supply negatively impacted oil prices



Indices cannot be invested in directly.

#### **REIT Sector Performance (3Q 2024)**

REITs had a strong quarter in the declining interest rate environment. The office sub-sector rebounded and was among the top performing areas. Longer lease assets within the specialty sub-sector, which are more sensitive to interest rate changes, benefitted as well.



Source: Morningstar Direct. As of September 30, 2024.

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.

### **Financial Markets Performance**

# Total Return as of September 30, 2024 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%	4.1%	5.5%	3.6%	2.3%	2.2%	1.6%	1.1%
Bloomberg U.S. TIPS	4.1%	4.9%	9.8%	-0.6%	2.6%	2.9%	2.5%	3.2%
Bloomberg Municipal Bond (5 Year)	3.0%	2.2%	7.6%	0.4%	1.3%	1.7%	1.8%	2.4%
Bloomberg High Yield Municipal Bond	3.2%	7.5%	17.4%	1.0%	3.1%	4.5%	4.5%	5.7%
Bloomberg U.S. Aggregate	5.2%	4.4%	11.6%	-1.4%	0.3%	1.5%	1.8%	2.6%
Bloomberg U.S. Corporate High Yield	5.3%	8.0%	15.7%	3.1%	4.7%	4.7%	5.0%	6.9%
Bloomberg Global Aggregate ex-U.S. Hedged	3.5%	4.2%	9.8%	0.6%	0.6%	2.3%	2.6%	3.2%
Bloomberg Global Aggregate ex-U.S. Unhedged	8.5%	2.8%	12.3%	-4.4%	-1.9%	-0.8%	-0.5%	0.2%
Bloomberg U.S. Long Gov / Credit	8.0%	3.5%	17.2%	-6.2%	-2.0%	1.0%	2.3%	4.2%
Global Equity Markets	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
S&P 500	5.9%	22.1%	36.4%	11.9%	16.0%	14.5%	13.4%	14.1%
Dow Jones Industrial Average	8.7%	13.9%	28.8%	10.0%	11.8%	11.9%	12.0%	13.0%
NASDAQ Composite	2.8%	21.8%	38.6%	8.8%	18.8%	16.9%	16.1%	16.6%
Russell 3000	6.2%	20.6%	35.2%	10.3%	15.3%	13.7%	12.8%	13.8%
Russell 1000	6.1%	21.2%	35.7%	10.8%	15.6%	14.2%	13.1%	14.0%
Russell 1000 Growth	3.2%	24.5%	42.2%	12.0%	19.7%	18.2%	16.5%	16.5%
Russell 1000 Value	9.4%	16.7%	27.8%	9.0%	10.7%	9.5%	9.2%	11.2%
Russell Mid Cap	9.2%	14.6%	29.3%	5.7%	11.3%	10.5%	10.2%	12.5%
Russell Mid Cap Growth	6.5%	12.9%	29.3%	2.3%	11.5%	11.9%	11.3%	13.2%
Russell Mid Cap Value	10.1%	15.1%	29.0%	7.4%	10.3%	8.8%	8.9%	11.6%
Russell 2000	9.3%	11.2%	26.8%	1.8%	9.4%	7.4%	8.8%	10.6%
Russell 2000 Growth	8.4%	13.2%	27.7%	-0.4%	8.8%	7.6%	8.9%	11.1%
Russell 2000 Value	10.2%	9.2%	25.9%	3.8%	9.3%	6.6%	8.2%	9.8%
ASCI ACWI	6.6%	18.7%	31.8%	8.1%	12.2%	10.2%	9.4%	9.6%
MSCI ACWI ex. U.S.	8.1%	14.2%	25.4%	4.1%	7.6%	5.4%	5.2%	5.5%
MSCI EAFE	7.3%	13.0%	24.8%	5.5%	8.2%	6.0%	5.7%	6.0%
ASCI EAFE Growth	5.7%	12.3%	26.5%	1.9%	7.7%	6.7%	6.6%	6.9%
/ISCI EAFE Value	8.9%	13.8%	23.1%	8.9%	8.3%	5.0%	4.6%	4.9%
/ISCI EAFE Small Cap	10.5%	11.1%	23.5%	-0.4%	6.4%	4.2%	6.2%	7.1%
MSCI Emerging Markets	8.7%	16.9%	26.1%	0.4%	5.7%	3.7%	4.0%	4.2%
Alternatives	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Consumer Price Index*	0.3%	1.4%	2.6%	4.8%	4.2%	3.6%	2.8%	2.5%
TSE NAREIT Equity REITs	16.1%	15.9%	34.7%	5.1%	5.5%	7.0%	7.8%	10.4%
S&P Real Assets	9.0%	8.8%	18.6%	3.5%	4.9%	4.9%	4.2%	5.9%
TSE EPRA NAREIT Developed	16.3%	12.6%	30.2%	1.4%	2.4%	4.3%	5.0%	7.1%
TSE EPRA NAREIT Developed ex U.S.	17.0%	8.6%	25.0%	-3.3%	-1.0%	1.4%	2.3%	4.3%
Bloomberg Commodity Total Return	0.7%	5.9%	1.0%	3.7%	7.8%	4.9%	0.0%	-0.4%
HFRI Fund of Funds Composite*	0.8%	5.7%	8.6%	2.2%	5.1%	4.2%	3.5%	3.6%
HFRI Asset Weighted Composite*	-0.3%	5.0%	6.7%	3.6%	4.4%	4.0%	3.6%	4.6%

Sources: Morningstar, FactSet. As of September 30, 2024. \*Consumer Price Index and HFRI indexes as of August 31, 2024.

Portfolio & Manager Review



# **Asset Allocation**

Town of Ledyard Pension Plan

As of September 30, 2024

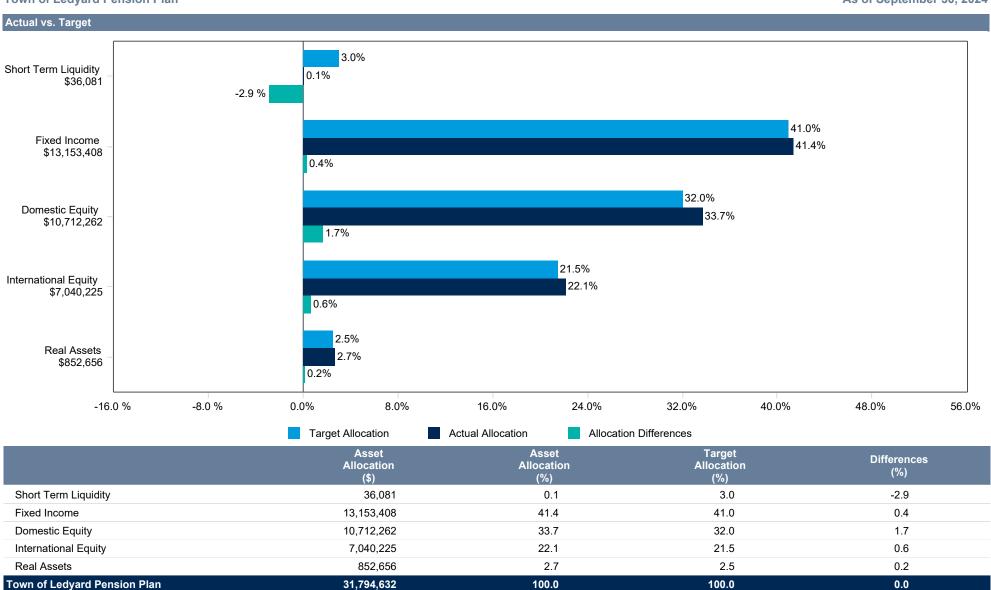
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	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)
own of Ledyard Pension Plan	31,794,632	100.0	100.0	0.0
Short Term Liquidity	36,081	0.1	3.0	-2.9
Dreyfus Treasury Securities Cash Management	36,081	0.1	3.0	-2.9
Fixed Income	13,153,408	41.4	41.0	0.4
Vanguard Total Bond Market Index Adm	3,214,065	10.1	10.0	0.1
Baird Aggregate Bond Instl	2,255,756	7.1	7.0	0.1
Harbor Core Bond Retirement - IR&M	2,251,005	7.1	7.0	0.1
PGIM Total Return Bond R6	4,139,258	13.0	13.0	0.0
BlackRock Strategic Income Opportunities Class K	1,293,324	4.1	4.0	0.1
Domestic Equity	10,712,262	33.7	32.0	1.7
Vanguard Institutional Index Fund Instl	4,646,204	14.6	14.0	0.6
Touchstone Large Cap Focused Fund Instl	2,278,790	7.2	7.0	0.2
Neuberger Berman Genesis R6	1,959,216	6.2	6.0	0.2
William Blair Small Cap Value R6	845,571	2.7	2.5	0.2
Hood River Small Cap Growth R	982,482	3.1	2.5	0.6
International Equity	7,040,225	22.1	21.5	0.6
Vanguard Total International Stock Index Adm	2,659,590	8.4	8.0	0.4
T. Rowe Price Overseas Stock Instl	2,434,622	7.7	7.5	0.2
Invesco Developing Markets R6	1,946,014	6.1	6.0	0.1
Real Assets	852,656	2.7	2.5	0.2
DWS RREEF Real Assets R6	852,656	2.7	2.5	0.2



#### **Asset Allocation**

Town of Ledyard Pension Plan

As of September 30, 2024

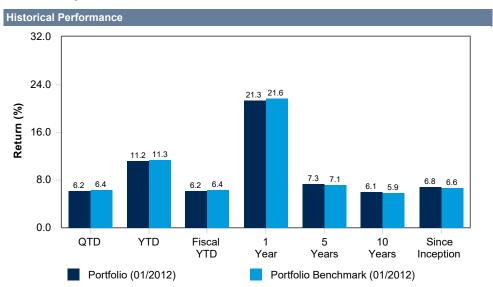




#### **Portfolio Dashboard**

Town of Ledyard Pension Plan

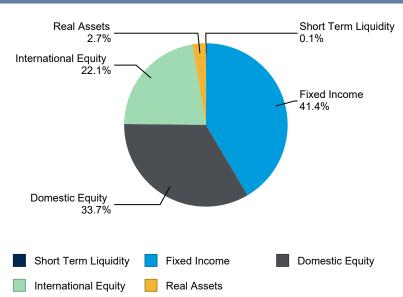
As of September 30, 2024



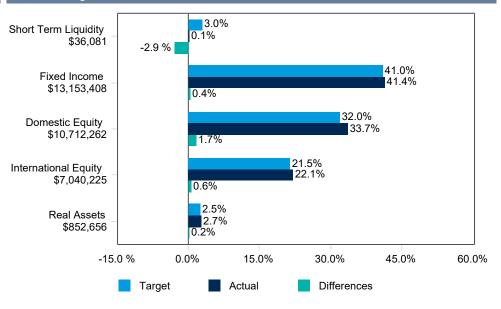
Summary of Cash Flows					
	QTD	YTD	Fiscal YTD	1 Year	Since Inception
Beginning Market Value	30,443,700	29,163,734	30,443,700	27,246,622	11,303,089
Net Contributions	-525,512	-590,486	-525,512	-1,084,945	1,519,331
Gain/Loss	1,876,443	3,221,385	1,876,443	5,632,955	18,972,211
Ending Market Value	31,794,632	31,794,632	31,794,632	31,794,632	31,794,632

<b>Current Benchmar</b>	k Composition	
From Date	To Date	
04/2024	Present	3.00% 90 Day U.S. Treasury Bill, 41.00% Blmbg. U.S. Aggregate, 21.00% S&P 500, 11.00% Russell 2000 Index, 8.00% MSCI AC World ex USA (Net), 7.50% MSCI EAFE (Net), 6.00% MSCI Emerging Markets (Net), 2.50% S&P Real Assets

#### Portfolio Allocation



#### Actual vs. Target Allocations



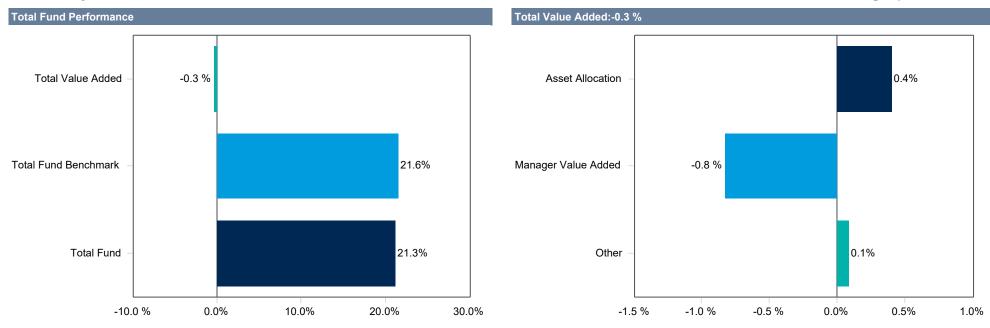
Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees.

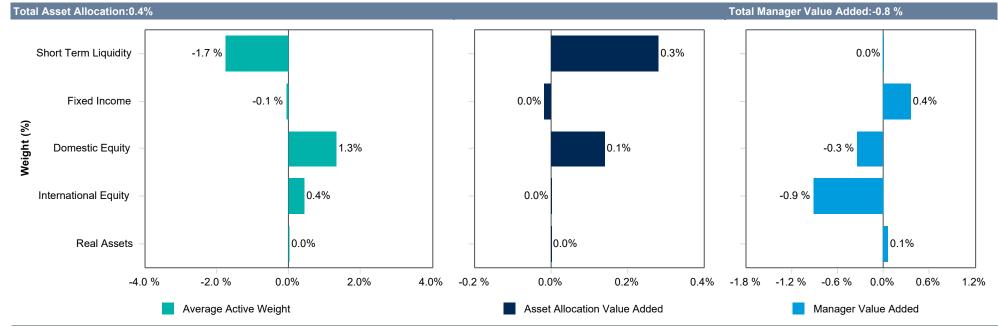


#### **Performance Attribution**



1 Year Ending September 30, 2024







### **Performance Overview**

Town of Ledyard Pension Plan

As of September 30, 2024

Trailing Performance Summary										
	QTD	YTD	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Town of Ledyard Pension Plan	6.2	11.2	6.2	21.3	3.2	7.3	6.5	6.1	6.8	01/2012
Blended Benchmark	6.4	11.3	6.4	21.6	3.5	7.1	6.4	5.9	6.6	01/2012

Calendar Year Performance Summary										
	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Town of Ledyard Pension Plan	13.6	-16.2	10.6	14.9	19.0	-6.3	13.1	10.0	-3.1	2.3
Blended Benchmark	13.4	-15.2	9.8	13.6	18.4	-6.0	12.9	9.1	-3.5	3.6

Plan Reconciliation								
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Town of Ledyard Pension Plan								01/2012
Beginning Market Value	30,443,700	29,163,734	27,246,622	31,396,944	24,969,568	18,424,187	11,303,089	
Net Contributions	-525,512	-590,486	-1,084,945	-2,379,084	-3,096,999	-1,771,903	1,519,331	
Gain/Loss	1,876,443	3,221,385	5,632,955	2,776,772	9,922,063	15,142,348	18,972,211	
Ending Market Value	31,794,632	31,794,632	31,794,632	31,794,632	31,794,632	31,794,632	31,794,632	

Benchmark Composition		
	Weight (%)	
Apr-2024		
90 Day U.S. Treasury Bill	3.0	
Blmbg. U.S. Aggregate	41.0	
S&P 500	21.0	
Russell 2000 Index	11.0	
MSCI AC World ex USA (Net)	8.0	
MSCI EAFE (Net)	7.5	
MSCI Emerging Markets (Net)	6.0	
S&P Real Assets	2.5	



# **Manager Status Commentary**

As of September 30, 2024

Manager	Recommendation	Comments
Vanguard Total Bond Market Index Adm	Maintain	
Baird Aggregate Bond Instl	Maintain	
Harbor Core Bond Retirement - IR&M	Maintain	
PGIM Total Return Bond R6	Maintain	
BlackRock Strategic Income Opportunities Class K	Maintain	
Vanguard Institutional Index Fund Instl	Maintain	
Touchstone Large Cap Focused Fund Instl	Maintain	
Neuberger Berman Genesis R6	Maintain	
William Blair Small Cap Value R6	Maintain	
Hood River Small Cap Growth R	Maintain	
Vanguard Total International Stock Index Adm	Maintain	
T. Rowe Price Overseas Stock Instl	Watch 1Q 2024	The strategy was placed on "Watch" status in March 2024 after T. Rowe Price announced that Lead Portfolio Manager Ray Mills will be retiring at the end of 2024. Mr. Mills has served as the lead portfolio manager since the strategy's inception and was the sole portfolio manager until Elias Chrysostomou joined the team as an associate portfolio manager in October 2023. After the announcement, Mr. Chrysostomou became co-portfolio manager effective April 1, 2024 and he will take over as the lead and sole portfolio manager at the start of 2025. Mr. Chrysostomou's background is covering European and Canadian financials and his only previous portfolio management experience was co-managing an international financials strategy at UBS for approximately two years from 2008 to 2010. We believe the strategy merits additional scruting given Mr. Mills' role in developing the process and leading the strategy for so long as well as the fact that Mr. Chrysostomou is relatively new to the team and has very little previous portfolio management experience.
Invesco Developing Markets R6	Maintain	
DWS RREEF Real Assets R6	Maintain	

Commentary produced upon change of status.



### **Manager Performance**

Town of Ledyard Pension Plan

As of September 30, 2024

	Allocation	on				P	erformance(	(%)				
	Market Value (\$)	<u></u> %	QTD	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	· Managei Status
Town of Ledyard Pension Plan	31,794,632	100.0	6.2	11.2	6.2	21.3	3.2	7.3	6.1	6.8	01/2012	
Blended Benchmark			6.4	11.3	6.4	21.6	3.5	7.1	5.9	6.6		
Short Term Liquidity	36,081	0.1	1.3	3.8	1.3	5.0	3.3	2.1	1.5	1.2	01/2012	
90 Day U.S. Treasury Bill			1.4	4.0	1.4	5.5	3.5	2.3	1.6	1.3		
Dreyfus Treasury Securities Cash Management	36,081	0.1	1.3	3.8	1.3	5.0	3.3	2.1	1.5	1.2	01/2012	
90 Day U.S. Treasury Bill			1.4	4.0	1.4	5.5	3.5	2.3	1.6	1.3		
Fixed Income	13,153,408	41.4	5.1	5.0	5.1	12.4	-1.0	0.7	2.3	2.6	01/2012	
Blmbg. U.S. Aggregate			5.2	4.4	5.2	11.6	-1.4	0.3	1.8	1.9		
Vanguard Total Bond Market Index Adm	3,214,065	10.1	5.1	4.4	5.1	11.4	-1.4	0.3	1.8	1.9	01/2012	Maintain
Vanguard Spliced Bloomberg U.S. Agg Flt Adj			5.1	4.5	5.1	11.5	-1.4	0.4	1.9	2.0		
IM U.S. Broad Market Core Fixed Income (MF) Median			5.2	4.8	5.2	12.0	-1.5	0.5	1.8	2.1		
Vanguard Total Bond Market Index Adm Rank			70	81	70	79	47	67	53	69		
Baird Aggregate Bond Instl	2,255,756	7.1	5.2	5.0	5.2	12.6	-1.1	0.8	2.2	5.5	04/2024	Maintain
Blmbg. U.S. Aggregate			5.2	4.4	5.2	11.6	-1.4	0.3	1.8	5.3		
IM U.S. Broad Market Core Fixed Income (MF) Median			5.2	4.8	5.2	12.0	-1.5	0.5	1.8	5.4		
Baird Aggregate Bond Instl Rank			37	38	37	24	23	32	18	36		
Harbor Core Bond Retirement - IR&M	2,251,005	7.1	5.2	4.8	5.2	11.6	-1.4	0.6	-	5.4	04/2024	Maintain
Blmbg. U.S. Aggregate			5.2	4.4	5.2	11.6	-1.4	0.3	1.8	5.3		
IM U.S. Broad Market Core Fixed Income (MF) Median			5.2	4.8	5.2	12.0	-1.5	0.5	1.8	5.4		
Harbor Core Bond Retirement - IR&M Rank			52	50	52	65	43	42	-	49		
PGIM Total Return Bond R6	4,139,258	13.0	5.2	5.8	5.2	13.4	-0.9	0.8	2.7	2.4	04/2015	Maintain
Blmbg. U.S. Aggregate			5.2	4.4	5.2	11.6	-1.4	0.3	1.8	1.6		
IM U.S. Broad Market Core+ Fixed Income (MF) Median			5.2	5.1	5.2	12.4	-1.3	0.9	2.0	1.8		
PGIM Total Return Bond R6 Rank			49	13	49	12	28	54	12	14		



### **Manager Performance**

Town of Ledyard Pension Plan

As of September 30, 2024

	Allocation	on				P	erformance(	(%)				
	Market Value (\$)	%	QTD	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	· Manage Status
BlackRock Strategic Income Opportunities Class K	1,293,324	4.1	4.3	6.0	4.3	11.8	2.4	3.4	3.1	4.1	04/2022	Maintain
Blmbg. U.S. Aggregate			5.2	4.4	5.2	11.6	-1.4	0.3	1.8	0.8		
IM Alternative Credit Focus (MF) Median			3.7	6.1	3.7	11.4	2.0	3.0	2.1	3.7		
BlackRock Strategic Income Opportunities Class K Rank			32	61	32	42	42	41	20	41		
Domestic Equity	10,712,262	33.7	7.2	18.8	7.2	32.3	9.1	14.4	12.5	13.9	01/2012	
Domestic Equity Benchmark			7.1	18.3	7.1	33.3	8.6	13.9	12.0	13.6		
Vanguard Institutional Index Fund InstI	4,646,204	14.6	5.9	22.0	5.9	36.3	11.9	15.9	13.3	14.8	01/2012	Maintain
S&P 500			5.9	22.1	5.9	36.4	11.9	16.0	13.4	14.8		
IM U.S. Large Cap Core Equity (MF) Median			5.4	20.8	5.4	35.2	10.5	15.0	12.2	13.9		
Vanguard Institutional Index Fund Instl Rank			31	30	31	37	27	26	14	16		
Fouchstone Large Cap Focused Fund Instl	2,278,790	7.2	6.1	18.4	6.1	30.3	9.4	16.0	13.5	17.3	01/2019	Maintain
S&P 500			5.9	22.1	5.9	36.4	11.9	16.0	13.4	17.5		
IM U.S. Large Cap Core Equity (MF) Median			5.4	20.8	5.4	35.2	10.5	15.0	12.2	16.4		
Touchstone Large Cap Focused Fund Instl Rank			23	74	23	81	70	23	11	25		
Neuberger Berman Genesis R6	1,959,216	6.2	9.5	12.8	9.5	23.1	4.7	10.7	10.8	11.1	04/2012	Maintain
Russell 2000 Index			9.3	11.2	9.3	26.8	1.8	9.4	8.8	9.7		
IM U.S. Small Cap Core Equity (MF) Median			8.3	10.0	8.3	24.3	4.7	9.8	8.6	9.6		
Neuberger Berman Genesis R6 Rank			26	21	26	60	51	34	3	6		
William Blair Small Cap Value R6	845,571	2.7	7.1	5.1	7.1	16.8	3.4	8.1	8.9	3.4	12/2021	Maintain
Russell 2000 Value Index			10.2	9.2	10.2	25.9	3.8	9.3	8.2	3.9		
IM U.S. Small Cap Value Equity (MF) Median			8.4	8.4	8.4	23.6	6.1	10.6	8.1	6.1		
William Blair Small Cap Value R6 Rank			78	84	78	93	94	95	27	95		
lood River Small Cap Growth R	982,482	3.1	12.2	31.4	12.2	51.9	6.5	20.3	14.9	6.2	12/2021	Maintain
Russell 2000 Growth Index			8.4	13.2	8.4	27.7	-0.4	8.8	8.9	-0.2		
IM U.S. Small Cap Growth Equity (MF) Median			7.7	13.1	7.7	26.4	-0.3	9.5	9.4	-0.3		
Hood River Small Cap Growth R Rank			1	2	1	1	4	1	1	3		



### **Manager Performance**

Town of Ledyard Pension Plan

As of September 30, 2024

	Allocatio	on		Performance(%)								Manage
	Market Value (\$)	%	QTD	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Status
International Equity	7,040,225	22.1	6.6	11.1	6.6	21.2	1.8	6.4	4.5	5.0	03/2012	
International Equity Benchmark			8.0	14.6	8.0	25.4	3.6	7.4	5.1	5.2		
Vanguard Total International Stock Index Adm	2,659,590	8.4	8.0	13.6	8.0	24.9	4.0	7.7	5.4	6.0	04/2012	Maintain
Vanguard Spliced Total Int'l Stock Index (Net)			8.4	14.1	8.4	25.2	4.1	8.0	5.5	6.1		
IM International Large Cap Core Equity (MF) Median			7.2	12.7	7.2	24.5	4.8	8.1	5.2	6.1		
Vanguard Total International Stock Index Adm Rank			33	28	33	47	70	66	35	57		
T. Rowe Price Overseas Stock Instl	2,434,622	7.7	6.8	11.5	6.8	22.5	4.4	8.2	5.8	5.7	06/2018	Watch
MSCI EAFE (Net)			7.3	13.0	7.3	24.8	5.5	8.2	5.7	6.2		
IM International Large Cap Core Equity (MF) Median			7.2	12.7	7.2	24.5	4.8	8.1	5.2	5.7		
T. Rowe Price Overseas Stock Instl Rank			61	73	61	63	64	49	18	49		
Invesco Developing Markets R6	1,946,014	6.1	4.4	7.3	4.4	14.8	-4.8	1.9	2.4	3.2	04/2012	Maintain
MSCI Emerging Markets (Net)			8.7	16.9	8.7	26.1	0.4	5.7	4.0	3.5		
IM Emerging Markets Equity (MF) Median			6.4	14.2	6.4	23.4	-1.0	5.2	3.5	3.2		
Invesco Developing Markets R6 Rank			75	92	75	91	80	92	78	49		
Real Assets	852,656	2.7	10.4	12.0	10.4	21.3		-	-	-0.2	04/2022	
S&P Real Assets			9.0	8.8	9.0	18.6	3.5	4.9	4.2	1.6		
DWS RREEF Real Assets R6	852,656	2.7	10.4	12.0	10.4	21.3	3.7	6.8	5.3	-0.2	04/2022	Maintair
S&P Real Assets			9.0	8.8	9.0	18.6	3.5	4.9	4.2	1.6		



#### **Calendar Year Performance**

Town of Ledyard Pension Plan

As of September 30, 2024

					Perform	ance(%)				
	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Town of Ledyard Pension Plan	13.6	-16.2	10.6	14.9	19.0	-6.3	13.1	10.0	-3.1	2.3
Blended Benchmark	13.4	-15.2	9.8	13.6	18.4	-6.0	12.9	9.1	-3.5	3.6
Short Term Liquidity	4.7	1.3	0.0	0.4	2.0	1.8	0.6	0.2	0.0	0.0
90 Day U.S. Treasury Bill	5.0	1.5	0.0	0.7	2.3	1.9	0.9	0.3	0.0	0.0
Dreyfus Treasury Securities Cash Management	4.7	1.3	0.0	0.4	2.0	1.8	0.6	0.2	0.0	0.0
90 Day U.S. Treasury Bill	5.0	1.5	0.0	0.7	2.3	1.9	0.9	0.3	0.0	0.0
Fixed Income	6.6	-13.5	-1.3	8.3	9.1	0.0	4.6	4.6	-0.2	5.2
Blmbg. U.S. Aggregate	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0
Vanguard Total Bond Market Index Adm	5.7	-13.2	-1.7	7.7	8.7	0.0	3.6	2.6	0.4	5.9
Vanguard Spliced Bloomberg U.S. Agg Flt Adj	5.6	-13.1	-1.6	7.7	8.9	-0.1	3.6	2.8	0.4	5.9
IM U.S. Broad Market Core Fixed Income (MF) Median	5.8	-13.7	-1.3	8.2	8.8	-0.6	3.6	2.9	0.0	5.5
Vanguard Total Bond Market Index Adm Rank	54	27	66	65	53	20	54	64	30	32
Baird Aggregate Bond Instl	6.4	-13.4	-1.5	8.6	9.5	-0.3	4.2	3.5	0.6	6.9
Blmbg. U.S. Aggregate	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0
IM U.S. Broad Market Core Fixed Income (MF) Median	5.8	-13.7	-1.3	8.2	8.8	-0.6	3.6	2.9	0.0	5.5
Baird Aggregate Bond Instl Rank	23	36	57	37	27	33	22	33	20	8
Harbor Core Bond Retirement - IR&M	5.8	-13.3	-1.6	9.1	8.8	-	-	-	-	-
Blmbg. U.S. Aggregate	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0
IM U.S. Broad Market Core Fixed Income (MF) Median	5.8	-13.7	-1.3	8.2	8.8	-0.6	3.6	2.9	0.0	5.5
Harbor Core Bond Retirement - IR&M Rank	48	33	62	26	50	-	-	-	-	-
PGIM Total Return Bond R6	7.8	-14.9	-1.2	8.1	11.1	-0.6	6.7	4.8	0.1	7.3
Blmbg. U.S. Aggregate	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0
IM U.S. Broad Market Core+ Fixed Income (MF) Median	6.3	-13.7	-0.9	8.6	9.3	-1.0	4.5	4.1	-0.3	5.1
PGIM Total Return Bond R6 Rank	6	76	60	60	11	36	2	30	35	8



#### **Calendar Year Performance**

Town of Ledyard Pension Plan

As of September 30, 2024

Town of Louyard Foliotoff Flam					Doufous	(0/ )			or ooptomic	
	2023	2022	2021	2020	2019	ance(%) 2018	2017	2016	2015	2014
Plank Pook Stratogic Income Opportunities Class K	7.4	-5.6	1.0	7.3	7.8	-0.5	5.0	3.6	-0.6	
BlackRock Strategic Income Opportunities Class K										3.6
Blmbg. U.S. Aggregate	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0
IM Alternative Credit Focus (MF) Median	7.3	-7.6	1.9	3.9	7.3	-1.9	4.5	4.9	-1.6	1.0
BlackRock Strategic Income Opportunities Class K Rank	49	41	58	17	43	29	43	64	25	21
Domestic Equity	22.4	-18.2	25.1	21.7	30.7	-5.1	19.7	13.9	1.1	9.0
Domestic Equity Benchmark	23.1	-18.8	24.4	19.2	29.8	-6.3	19.5	15.1	-0.5	10.8
Vanguard Institutional Index Fund Instl	26.2	-18.1	28.7	18.4	31.5	-4.4	21.8	11.9	1.4	13.7
S&P 500	26.3	-18.1	28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7
IM U.S. Large Cap Core Equity (MF) Median	24.8	-18.7	26.9	18.4	30.7	-5.4	21.5	9.7	0.5	11.5
Vanguard Institutional Index Fund Instl Rank	38	46	26	50	37	32	45	20	35	18
Fouchstone Large Cap Focused Fund Instl	25.4	-17.3	25.6	24.2	30.6	-2.4	23.6	11.6	0.9	10.6
S&P 500	26.3	-18.1	28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7
IM U.S. Large Cap Core Equity (MF) Median	24.8	-18.7	26.9	18.4	30.7	-5.4	21.5	9.7	0.5	11.5
Touchstone Large Cap Focused Fund Instl Rank	46	37	67	10	52	16	25	25	44	65
Neuberger Berman Genesis R6	15.9	-19.0	18.5	25.2	29.8	-6.4	15.9	18.4	0.5	0.0
Russell 2000 Index	16.9	-20.4	14.8	20.0	25.5	-11.0	14.6	21.3	-4.4	4.9
IM U.S. Small Cap Core Equity (MF) Median	16.0	-15.8	25.1	9.9	23.9	-12.7	12.1	21.7	-4.3	4.7
Neuberger Berman Genesis R6 Rank	52	79	83	5	7	5	14	79	3	86
William Blair Small Cap Value R6	11.0	-11.1	29.6	2.8	26.2	-14.0	13.1	31.4	-3.2	2.9
Russell 2000 Value Index	14.6	-14.5	28.3	4.6	22.4	-12.9	7.8	31.7	-7.5	4.2
IM U.S. Small Cap Value Equity (MF) Median	16.6	-11.1	32.0	3.6	21.1	-16.1	8.5	26.7	-7.0	3.4
William Blair Small Cap Value R6 Rank	88	49	66	57	9	32	13	18	11	59
Hood River Small Cap Growth R	21.6	-27.9	23.9	60.8	24.2	-6.8	20.8	13.5	0.8	8.6
Russell 2000 Growth Index	18.7	-26.4	2.8	34.6	28.5	-9.3	22.2	11.3	-1.4	5.6
IM U.S. Small Cap Growth Equity (MF) Median	16.5	-27.5	10.5	36.6	27.6	-5.6	20.7	10.1	-2.4	2.8
Hood River Small Cap Growth R Rank	12	53	9	10	73	57	50	27	17	4



#### **Calendar Year Performance**

Town of Ledyard Pension Plan

As of September 30, 2024

					Perform	ance(%)				
	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
nternational Equity	14.7	-18.0	5.2	12.5	23.0	-13.8	28.6	4.1	-7.3	-5.2
International Equity Benchmark	14.8	-16.6	5.9	12.0	20.6	-14.1	29.8	5.6	-7.2	-3.6
/anguard Total International Stock Index Adm	15.5	-16.0	8.6	11.3	21.5	-14.4	27.6	4.7	-4.3	-4.2
Vanguard Spliced Total Int'l Stock Index (Net)	15.8	-16.1	8.8	11.2	21.8	-14.6	27.4	4.7	-4.3	-3.4
IM International Large Cap Core Equity (MF) Median	17.2	-15.1	10.7	9.1	22.1	-15.0	25.0	0.0	-1.9	-6.0
Vanguard Total International Stock Index Adm Rank	77	62	72	34	61	41	25	12	70	19
T. Rowe Price Overseas Stock Instl	16.6	-15.4	12.4	9.3	23.0	-14.8	27.2	3.0	-2.5	-4.5
MSCI EAFE (Net)	18.2	-14.5	11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9
IM International Large Cap Core Equity (MF) Median	17.2	-15.1	10.7	9.1	22.1	-15.0	25.0	0.0	-1.9	-6.0
T. Rowe Price Overseas Stock Instl Rank	62	56	27	47	37	47	25	14	59	23
nvesco Developing Markets R6	11.5	-24.8	-7.1	17.7	24.5	-11.8	35.3	7.4	-13.7	-4.4
MSCI Emerging Markets (Net)	9.8	-20.1	-2.5	18.3	18.4	-14.6	37.3	11.2	-14.9	-2.2
IM Emerging Markets Equity (MF) Median	10.9	-22.5	-1.6	17.7	20.2	-16.5	35.7	8.3	-13.7	-3.0
Invesco Developing Markets R6 Rank	44	68	81	51	26	12	52	54	50	68
Real Assets	2.6	-	-	-	-	-	-	-	-	-
S&P Real Assets	7.8	-9.9	15.4	1.2	17.2	-5.9	11.2	10.8	-10.1	5.4
DWS RREEF Real Assets R6	2.6	-9.6	23.9	3.9	21.8	-5.1	15.0	4.4	-9.5	3.5
S&P Real Assets	7.8	-9.9	15.4	1.2	17.2	-5.9	11.2	10.8	-10.1	5.4



### **Investment Gain/Loss Summary**

Town of Ledyard Pension Plan 1 Quarter Ending September 30, 2024

				•• • • • • •
	Market Value as of 07/01/2024	Net Contributions	Gain/Loss	Market Value As of 09/30/2024
Town of Ledyard Pension Plan	30,443,700	-525,512	1,876,443	31,794,632
Short Term Liquidity	958,461	-925,512	3,131	36,081
Dreyfus Treasury Securities Cash Management	958,461	-925,512	3,131	36,081
Fixed Income	12,192,046	325,000	636,362	13,153,408
Vanguard Total Bond Market Index Adm	2,958,890	100,000	155,175	3,214,065
Baird Aggregate Bond Instl	2,093,322	50,000	112,434	2,255,756
Harbor Core Bond Retirement - IR&M	2,090,301	50,000	110,704	2,251,005
PGIM Total Return Bond R6	3,859,140	75,000	205,118	4,139,258
BlackRock Strategic Income Opportunities Class K	1,190,392	50,000	52,931	1,293,324
Domestic Equity	9,989,896	-	722,365	10,712,262
/anguard Institutional Index Fund Instl	4,388,329	-	257,875	4,646,204
Fouchstone Large Cap Focused Fund Instl	2,146,921	-	131,868	2,278,790
Neuberger Berman Genesis R6	1,789,257	-	169,958	1,959,216
Villiam Blair Small Cap Value R6	789,542	-	56,029	845,571
Hood River Small Cap Growth R	875,847	-	106,635	982,482
nternational Equity	6,555,853	50,000	434,372	7,040,225
/anguard Total International Stock Index Adm	2,462,006	-	197,583	2,659,590
Γ. Rowe Price Overseas Stock Instl	2,229,191	50,000	155,431	2,434,622
nvesco Developing Markets R6	1,864,655	-	81,358	1,946,014
Real Assets	747,444	25,000	80,212	852,656
DWS RREEF Real Assets R6	747,444	25,000	80,212	852,656

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.



### **Estimated Fee Analysis**

Town of Ledyard Pension Plan

As of September 30, 2024

-			
	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Town of Ledyard Pension Plan	31,794,632	131,789	0.41
Short Term Liquidity	36,081	-	-
Dreyfus Treasury Securities Cash Management	36,081	-	-
Fixed Income	13,153,408	38,777	0.29
Vanguard Total Bond Market Index Adm	3,214,065	1,607	0.05
Baird Aggregate Bond Instl	2,255,756	6,767	0.30
Harbor Core Bond Retirement - IR&M	2,251,005	5,853	0.26
PGIM Total Return Bond R6	4,139,258	16,143	0.39
BlackRock Strategic Income Opportunities Class K	1,293,324	8,407	0.65
Domestic Equity	10,712,262	48,710	0.45
Vanguard Institutional Index Fund Instl	4,646,204	1,626	0.04
Touchstone Large Cap Focused Fund Instl	2,278,790	16,179	0.71
Neuberger Berman Genesis R6	1,959,216	14,498	0.74
William Blair Small Cap Value R6	845,571	6,680	0.79
Hood River Small Cap Growth R	982,482	9,727	0.99
nternational Equity	7,040,225	36,628	0.52
Vanguard Total International Stock Index Adm	2,659,590	3,192	0.12
T. Rowe Price Overseas Stock Instl	2,434,622	16,312	0.67
Invesco Developing Markets R6	1,946,014	17,125	0.88
Real Assets	852,656	7,674	0.90
DWS RREEF Real Assets R6	852,656	7,674	0.90

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.

### **Financial Markets Performance**

Total Return as of October 31, 2024
Periods greater than one year are annualized
All returns are in U.S. dollar terms

Global Fixed Income Markets	MTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Bloomberg 1-3-Month T-Bill	0.4%	4.5%	5.4%	3.7%	2.4%	2.3%	1.7%	1.1%
Bloomberg U.S. TIPS	-1.8%	3.0%	8.6%	-1.5%	2.2%	2.6%	2.3%	3.0%
Bloomberg Municipal Bond (5 Year)	-1.0%	1.2%	6.6%	0.1%	1.0%	1.6%	1.6%	2.4%
Bloomberg High Yield Municipal Bond	-1.5%	5.8%	17.5%	0.7%	2.7%	4.2%	4.4%	5.7%
Bloomberg U.S. Aggregate	-2.5%	1.9%	10.5%	-2.2%	-0.2%	1.1%	1.5%	2.4%
Bloomberg U.S. Corporate High Yield	-0.5%	7.4%	16.5%	3.0%	4.5%	4.6%	4.9%	6.7%
Bloomberg Global Aggregate ex-U.S. Hedged	-0.5%	3.7%	9.3%	0.6%	0.7%	2.1%	2.5%	3.1%
Bloomberg Global Aggregate ex-U.S. Unhedged	-4.1%	-1.4%	8.6%	-5.6%	-2.9%	-1.3%	-0.9%	-0.1%
Bloomberg U.S. Long Gov / Credit	-4.7%	-1.3%	17.0%	-8.2%	-2.9%	0.3%	1.6%	3.9%
Global Equity Markets	MTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
S&P 500	-0.9%	21.0%	38.0%	9.1%	15.3%	14.0%	13.0%	14.2%
Dow Jones Industrial Average	-1.3%	12.5%	28.9%	7.4%	11.4%	11.0%	11.6%	12.9%
NASDAQ Composite	-0.5%	21.2%	41.9%	6.1%	17.8%	16.2%	15.7%	16.8%
Russell 3000	-0.7%	19.7%	37.9%	7.6%	14.6%	13.3%	12.4%	13.9%
Russell 1000	-0.7%	20.3%	38.1%	8.1%	15.0%	13.7%	12.7%	14.1%
Russell 1000 Growth	-0.3%	24.1%	43.8%	8.8%	19.0%	17.5%	16.2%	16.6%
Russell 1000 Value	-1.1%	15.4%	31.0%	6.8%	10.1%	9.2%	8.9%	11.4%
Russell Mid Cap	-0.5%	14.0%	35.4%	3.5%	10.9%	10.1%	9.8%	12.8%
Russell Mid Cap Growth	1.7%	14.9%	38.7%	0.6%	11.5%	11.7%	11.2%	13.6%
Russell Mid Cap Value	-1.3%	13.6%	34.0%	5.1%	9.9%	8.5%	8.4%	11.9%
Russell 2000	-1.4%	9.6%	34.1%	0.0%	8.5%	7.0%	7.9%	11.0%
Russell 2000 Growth	-1.3%	11.7%	36.5%	-2.3%	7.9%	7.2%	8.1%	11.5%
Russell 2000 Value	-1.6%	7.5%	31.8%	1.9%	8.4%	6.3%	7.3%	10.2%
MSCI ACWI	-2.2%	16.0%	32.8%	5.5%	11.1%	9.6%	9.1%	9.6%
MSCI ACWI ex. U.S.	-4.9%	8.6%	24.3%	1.6%	5.8%	4.4%	4.8%	5.2%
MSCI EAFE	-5.4%	6.8%	23.0%	2.7%	6.2%	4.9%	5.3%	5.7%
MSCI EAFE Growth	-6.2%	5.3%	23.3%	-1.3%	5.6%	5.4%	6.0%	6.5%
MSCI EAFE Value	-4.7%	8.4%	22.8%	6.6%	6.5%	4.2%	4.3%	4.7%
MSCI EAFE Small Cap	-6.3%	4.1%	23.0%	-3.0%	4.1%	3.0%	5.7%	6.8%
MSCI Emerging Markets	-4.4%	11.7%	25.3%	-1.4%	3.9%	2.5%	3.4%	3.8%
Alternatives	MTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Consumer Price Index*	0.2%	1.9%	2.4%	4.7%	4.2%	3.6%	2.9%	2.5%
FTSE NAREIT Equity REITs	-2.9%	12.6%	36.8%	1.5%	4.5%	6.7%	6.5%	10.6%
S&P Real Assets	-2.9%	5.6%	17.6%	1.4%	4.1%	4.4%	3.7%	5.6%
TSE EPRA NAREIT Developed	-5.0%	7.0%	29.8%	-2.3%	0.8%	3.6%	3.8%	6.8%
TSE EPRA NAREIT Developed ex U.S.	-8.7%	-0.8%	20.3%	-7.3%	-3.5%	0.0%	1.0%	3.6%
Bloomberg Commodity Total Return	-1.9%	3.9%	-1.2%	2.1%	7.0%	4.3%	-0.1%	-0.8%
HFRI Fund of Funds Composite*	1.0%	6.8%	10.2%	2.5%	5.4%	4.3%	3.7%	3.6%
HFRI Asset Weighted Composite*	1.4%	6.5%	7.0%	4.1%	4.6%	4.2%	3.8%	4.5%
Alerian MLP	-1.3%	17.0%	22.3%	22.9%	14.6%	9.3%	2.2%	8.3%

Sources: Morningstar, FactSet. As of October 31, 2024. \*Consumer Price Index and HFRI indexes as of September 30, 2024.



# **Asset Allocation**

Town of Ledyard Pension Plan

As of October 31, 2024

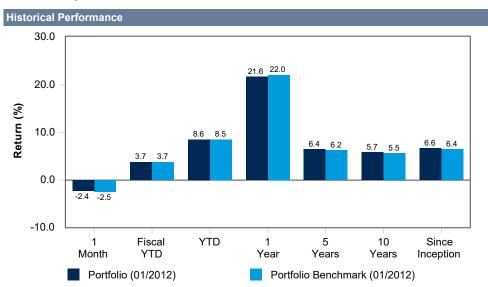
on or long and romorous same				710 01 0010001 0
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)
own of Ledyard Pension Plan	30,876,343	100.0	100.0	0.0
Short Term Liquidity	414,819	1.3	3.0	-1.7
Dreyfus Treasury Securities Cash Management	414,819	1.3	3.0	-1.7
Fixed Income	12,778,448	41.4	41.0	0.4
Vanguard Total Bond Market Index Adm	3,111,631	10.1	10.0	0.1
Baird Aggregate Bond Instl	2,175,970	7.0	7.0	0.0
Harbor Core Bond Retirement - IR&M	2,170,634	7.0	7.0	0.0
PGIM Total Return Bond R6	4,044,498	13.1	13.0	0.1
BlackRock Strategic Income Opportunities Class K	1,275,715	4.1	4.0	0.1
Domestic Equity	10,179,063	33.0	32.0	1.0
Vanguard Institutional Index Fund Instl	4,403,928	14.3	14.0	0.3
Touchstone Large Cap Focused Fund Instl	2,217,632	7.2	7.0	0.2
Neuberger Berman Genesis R6	1,863,012	6.0	6.0	0.0
William Blair Small Cap Value R6	817,421	2.6	2.5	0.1
Hood River Small Cap Growth R	877,070	2.8	2.5	0.3
International Equity	6,669,715	21.6	21.5	0.1
Vanguard Total International Stock Index Adm	2,915,442	9.4	9.5	-0.1
JHancock International Dynamic Growth R6 - Axiom	1,871,747	6.1	6.0	0.1
Invesco Developing Markets R6	1,882,526	6.1	6.0	0.1
Real Assets	834,297	2.7	2.5	0.2
DWS RREEF Real Assets R6	834,297	2.7	2.5	0.2



### **Portfolio Dashboard**

Town of Ledyard Pension Plan

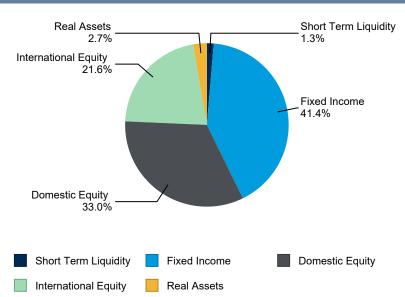
As of October 31, 2024



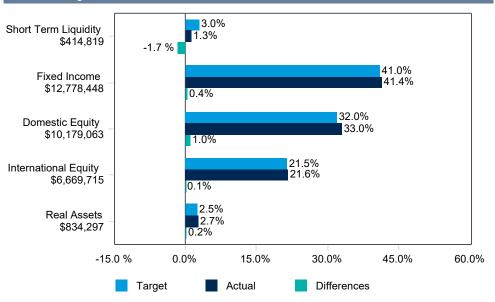
Summary of Cash Flows				
	1 Month	Fiscal YTD	YTD	1 Year
Deginning Market Value	24 704 622	20 442 700	20 462 724	26 246 447
Beginning Market Value	31,794,632	30,443,700	29,163,734	26,346,447
Net Contributions	-215,019	-740,530	-805,505	-1,123,765
Gain/Loss	-703,271	1,173,172	2,518,114	5,653,661
Ending Market Value	30,876,343	30,876,343	30,876,343	30,876,343

Current Benchmar	k Composition	
From Date	To Date	
04/2024	Present	3.00% 90 Day U.S. Treasury Bill, 41.00% Blmbg. U.S. Aggregate, 21.00% S&P 500, 11.00% Russell 2000 Index, 8.00% MSCI AC World ex USA (Net), 7.50% MSCI EAFE (Net), 6.00% MSCI Emerging Markets (Net), 2.50% S&P Real Assets

#### Portfolio Allocation



#### Actual vs. Target Allocations



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



### **Manager Performance**

Town of Ledyard Pension Plan

As of October 31, 2024

	Allocati	on				P	erformance(	%)			
	Market Value (\$)	%	1 Month	Fiscal YTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inceptior Date
Town of Ledyard Pension Plan	30,876,343	100.0	-2.4	3.7	8.6	21.6	1.3	6.4	5.7	6.6	01/2012
Blended Benchmark			-2.5	3.7	8.5	22.0	1.6	6.2	5.5	6.4	
Dreyfus Treasury Securities Cash Management	414,819	1.3	0.4	1.7	4.2	5.0	3.4	2.2	1.5	1.2	01/2012
90 Day U.S. Treasury Bill			0.4	1.8	4.4	5.4	3.6	2.4	1.7	1.3	
Fixed Income	12,778,448	41.4	-2.3	2.7	2.6	11.7	-1.8	0.2	2.0	2.4	12/2011
Blmbg. U.S. Aggregate			-2.5	2.6	1.9	10.5	-2.2	-0.2	1.5	1.8	
Vanguard Total Bond Market Index Adm	3,111,631	10.1	-2.4	2.5	1.9	10.4	-2.2	-0.2	1.5	1.7	01/2012
Vanguard Spliced Bloomberg U.S. Agg Flt Adj			-2.4	2.6	1.9	10.5	-2.2	-0.2	1.5	1.8	
IM U.S. Broad Market Core Fixed Income (MF) Median			-2.5	2.6	2.2	11.0	-2.3	0.0	1.5	1.9	
Vanguard Total Bond Market Index Adm Rank			41	59	74	78	47	63	54	68	
Baird Aggregate Bond Instl	2,175,970	7.0	-2.5	2.7	2.4	11.6	-1.9	0.2	1.9	2.9	04/2024
Blmbg. U.S. Aggregate			-2.5	2.6	1.9	10.5	-2.2	-0.2	1.5	2.7	
IM U.S. Broad Market Core Fixed Income (MF) Median			-2.5	2.6	2.2	11.0	-2.3	0.0	1.5	2.8	
Baird Aggregate Bond Instl Rank			47	32	40	28	22	31	18	37	
Harbor Core Bond Retirement - IR&M	2,170,634	7.0	-2.5	2.5	2.2	10.8	-2.2	0.1	-	2.8	04/2024
Blmbg. U.S. Aggregate			-2.5	2.6	1.9	10.5	-2.2	-0.2	1.5	2.7	
IM U.S. Broad Market Core Fixed Income (MF) Median			-2.5	2.6	2.2	11.0	-2.3	0.0	1.5	2.8	
Harbor Core Bond Retirement - IR&M Rank			56	52	52	59	44	40	-	50	
PGIM Total Return Bond R6	4,044,498	13.1	-2.3	2.8	3.4	12.7	-1.6	0.3	2.4	2.2	04/2015
Blmbg. U.S. Aggregate			-2.5	2.6	1.9	10.5	-2.2	-0.2	1.5	1.3	
IM U.S. Broad Market Core+ Fixed Income (MF) Median			-2.4	2.7	2.5	11.7	-2.1	0.3	1.6	1.5	
PGIM Total Return Bond R6 Rank			35	33	16	11	33	51	14	15	
BlackRock Strategic Income Opportunities Class K	1,275,715	4.1	-1.4	2.8	4.5	10.7	1.9	3.0	3.0	3.4	04/2022
Blmbg. U.S. Aggregate			-2.5	2.6	1.9	10.5	-2.2	-0.2	1.5	-0.2	
IM Alternative Credit Focus (MF) Median			-0.7	3.0	5.3	10.3	1.9	3.0	2.0	3.4	
BlackRock Strategic Income Opportunities Class K Rank			82	54	76	48	50	48	24	49	

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### **Manager Performance**

Town of Ledyard Pension Plan

As of October 31, 2024

	Allocation	on				Р	erformance(	%)			
	Market Value (\$)	%	1 Month	Fiscal YTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Domestic Equity	10,179,063	33.0	-1.3	5.8	17.3	35.5	6.4	13.7	12.0	13.6	12/2011
Domestic Equity Benchmark			-1.1	6.0	17.0	37.0	6.1	13.1	11.5	13.4	
Vanguard Institutional Index Fund Instl	4,403,928	14.3	-0.9	4.9	20.9	38.0	9.0	15.2	13.0	14.6	01/2012
S&P 500			-0.9	4.9	21.0	38.0	9.1	15.3	13.0	14.7	
IM U.S. Large Cap Core Equity (MF) Median			-0.9	4.2	19.7	36.6	7.7	14.3	11.9	13.7	
Vanguard Institutional Index Fund Instl Rank			49	37	33	39	29	27	13	16	
Touchstone Large Cap Focused Fund Instl	2,217,632	7.2	-0.5	5.6	17.8	31.9	7.4	15.4	13.2	16.9	01/2019
S&P 500			-0.9	4.9	21.0	38.0	9.1	15.3	13.0	17.1	
IM U.S. Large Cap Core Equity (MF) Median			-0.9	4.2	19.7	36.6	7.7	14.3	11.9	15.9	
Touchstone Large Cap Focused Fund Instl Rank			23	16	66	76	57	24	9	24	
Neuberger Berman Genesis R6	1,863,012	6.0	-2.4	6.9	10.1	28.7	1.7	9.9	10.0	10.8	04/2012
Russell 2000 Index			-1.4	7.7	9.6	34.1	0.0	8.5	7.9	9.5	
IM U.S. Small Cap Core Equity (MF) Median			-1.9	6.4	7.7	29.3	2.6	9.0	7.8	9.4	
Neuberger Berman Genesis R6 Rank			74	42	28	58	62	34	4	7	
William Blair Small Cap Value R6	817,421	2.6	-3.3	3.5	1.6	19.9	1.5	6.9	7.8	2.1	12/2021
Russell 2000 Value Index			-1.6	8.4	7.5	31.8	1.9	8.4	7.3	3.2	
IM U.S. Small Cap Value Equity (MF) Median			-1.6	6.2	6.9	28.6	4.4	9.9	7.4	5.5	
William Blair Small Cap Value R6 Rank			92	89	89	93	96	96	36	97	
Hood River Small Cap Growth R	877,070	2.8	-0.4	11.7	30.9	62.6	4.0	19.7	14.1	5.8	12/2021
Russell 2000 Growth Index			-1.3	7.0	11.7	36.5	-2.3	7.9	8.1	-0.7	
IM U.S. Small Cap Growth Equity (MF) Median			-1.7	5.7	10.9	33.9	-2.7	8.6	8.6	-1.1	
Hood River Small Cap Growth R Rank			18	3	2	1	4	1	1	2	

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### **Manager Performance**

Town of Ledyard Pension Plan

As of October 31, 2024

	Allocation	on				P	erformance(	%)			
	Market Value (\$)	%	1 Month	Fiscal YTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
International Equity	6,669,715	21.6	-5.0	1.3	5.6	19.0	-0.8	4.5	3.9	4.5	03/2012
International Equity Benchmark			-5.0	2.6	8.9	24.2	1.2	5.5	4.6	4.8	
Vanguard Total International Stock Index Adm	2,915,442	9.4	-4.7	2.9	8.2	23.3	1.4	6.0	4.9	5.5	04/2012
Vanguard Spliced Total Int'l Stock Index (Net)			-4.9	3.1	8.5	24.4	1.6	6.1	5.1	5.6	
IM International Large Cap Core Equity (MF) Median			-5.1	1.4	7.0	21.9	1.7	6.1	4.7	5.6	
Vanguard Total International Stock Index Adm Rank			31	18	29	36	62	58	37	54	
JHancock International Dynamic Growth R6 - Axiom	1,871,747	6.1	-1.8	-0.1	25.2	43.4	0.3	12.2	-	-1.8	10/2024
MSCI AC World ex USA Growth (Net)			-5.1	1.5	8.3	25.2	-1.9	5.2	5.5	-5.1	
IM International Growth Equity (MF) Median			-4.9	1.5	7.0	23.2	-1.6	5.6	5.3	-4.9	
JHancock International Dynamic Growth R6 - Axiom Rank			4	80	2	2	28	1	-	4	
Invesco Developing Markets R6	1,882,526	6.1	-3.3	1.0	3.8	13.3	-6.5	0.3	1.8	2.9	04/2012
MSCI Emerging Markets (Net)			-4.4	3.9	11.7	25.3	-1.4	3.9	3.4	3.1	
IM Emerging Markets Equity (MF) Median			-3.8	2.3	9.7	23.1	-2.7	3.7	3.0	2.8	
Invesco Developing Markets R6 Rank			27	69	90	93	80	93	78	48	
Real Assets	834,297	2.7	-2.2	8.0	9.6	21.0	-	-	-	-1.0	04/2022
S&P Real Assets			-2.9	5.8	5.6	17.6	1.4	4.1	3.7	0.4	
DWS RREEF Real Assets R6	834,297	2.7	-2.2	8.0	9.6	21.0	1.4	6.1	5.0	-1.0	04/2022
S&P Real Assets			-2.9	5.8	5.6	17.6	1.4	4.1	3.7	0.4	

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.

International Manager Search



## Town of Ledyard International Allocation Review

- ✓ This analysis serves as a review of the town's pension portfolio's international equity manager allocation.
- ✓ At its previous meeting, the Pension Board agreed to replace *T. Rowe Price Overseas* and allocate the position to the *J. Hancock International Dynamic Growth*, and the exisiting *Vanguard Total International Stock Index*.
- ✓ Fiducient was tasked with including due diligence on a core/value manager to compare against Dodge & Cox International Stock. We have included Causeway International Value for consideration.
- ✓ Additionally, we have included longer term performance history for *Arga Emerging Markets Value* and have included due diligence on *Driehaus Emerging Markets Growth*.
  - ✓ Arga and Dreihaus would replaced the incumbent *Invesco Developing Markets* fund. The value and growth strategies from Arga and Driehaus would create a "core" style position.

International
Equity
Managers
Due Diligence

# Our Experienced, Deep Research Team

## 35 Professionals

**Across Research Teams** 

Research Forum Global Public Markets

~17 years

Average industry experience

**Investment Committee** 

Global Private Markets

~10 years

Average firm tenure

Capital Markets
Research

**Marketable Alternatives** 

28 Advanced

Degrees

Including CFA® Charterholders, MBAs, Masters, CAIAs, FRM, CPA Operational
Due
Diligence



	# of Managers
Universe of Strategies Tracked	+30,000¹ Utilize extensive data suite to track global opportunity set
AlphaWatch	+7,000 Proprietary quantitative tool offering impartial review and tracking of select managers
Fiducient Custom Research Database	+6,500 <sup>2</sup> Custom system designed to track, memorialize, and share Fiducient proprietary research
Meetings / Documents	+2,600 / +6,100 <sup>2</sup> Cumulative annual activity across team sourcing and monitoring investments
Onsites	~100 <sup>2</sup> Comprehensive due diligence performed to assess potential competitive advantages
Strategies Approved at Research Forum	~15 <sup>2</sup> Approvals annually by Fiducient Research Forum
~ 300² Recommended Strategies	All Major Asset Classes Covered 3 – 5 Open Strategies per Segment

### Sample Managers We Partner With<sup>3</sup>















These managers are a representative sample of recent manager recommendations that have been utilized by our clients across public, private and marketable alternatives. There is no guarantee of future access or approval, and their status is subject to change.

1) Based on available data aggregated from Morningstar Direct representing public asst classes, Prequin representing hedge funds, and Pitchbook for private assets. As of June 30, 2024

<sup>2)</sup> Data from Fiducient's custom database as of June 30, 2024

<sup>3)</sup> Funds have been approved by Fiducient Advisors in the past; no guarantee of future approval or access.

### **Investment Selection Process**

### **Quantitative Review**

Proprietary data-driven approach analyzes key characteristics to provide valuable insights into strategy performance and its consistency in achieving investment objectives.

## **Operational Due Diligence**

Deep dive analysis across the firm to identify and assess potential risks related to a managers operational, legal, and administrative functions.



## **Manager Sourcing**

Utilize our vast network and industry expertise to identify top-tier managers globally.

## **Qualitative Review**

Extensive interviews, office visits, and document reviews to gain an intimate understanding of potential completive advantages, sustainability and key risks.

### **Research Forum**

Diligence materials and potential competitive advantages are presented in an open forum amongst committee members for rigorous debate.

### Status of Investments

## Maintain

The investment continues to meet Fiducient Advisors established quantitative and/or qualitative standards

### Discuss

Recent material events or actions are worthy of discussion and notification, but are unlikely to impact our long-term outlook for the investment

### Watch

The investment exhibits certain characteristics which have caused concern regarding the intermediate and/or long-term outlook. Concerns will be evaluated, and a decision made over the next four quarters if the fund should be moved to Terminate or to Maintain

### Terminate

The investment no longer meets Fiducient Advisors established quantitative and/or qualitative standards and we recommend removing the investment for your portfolio

### International Large Cap Value (EAFE)

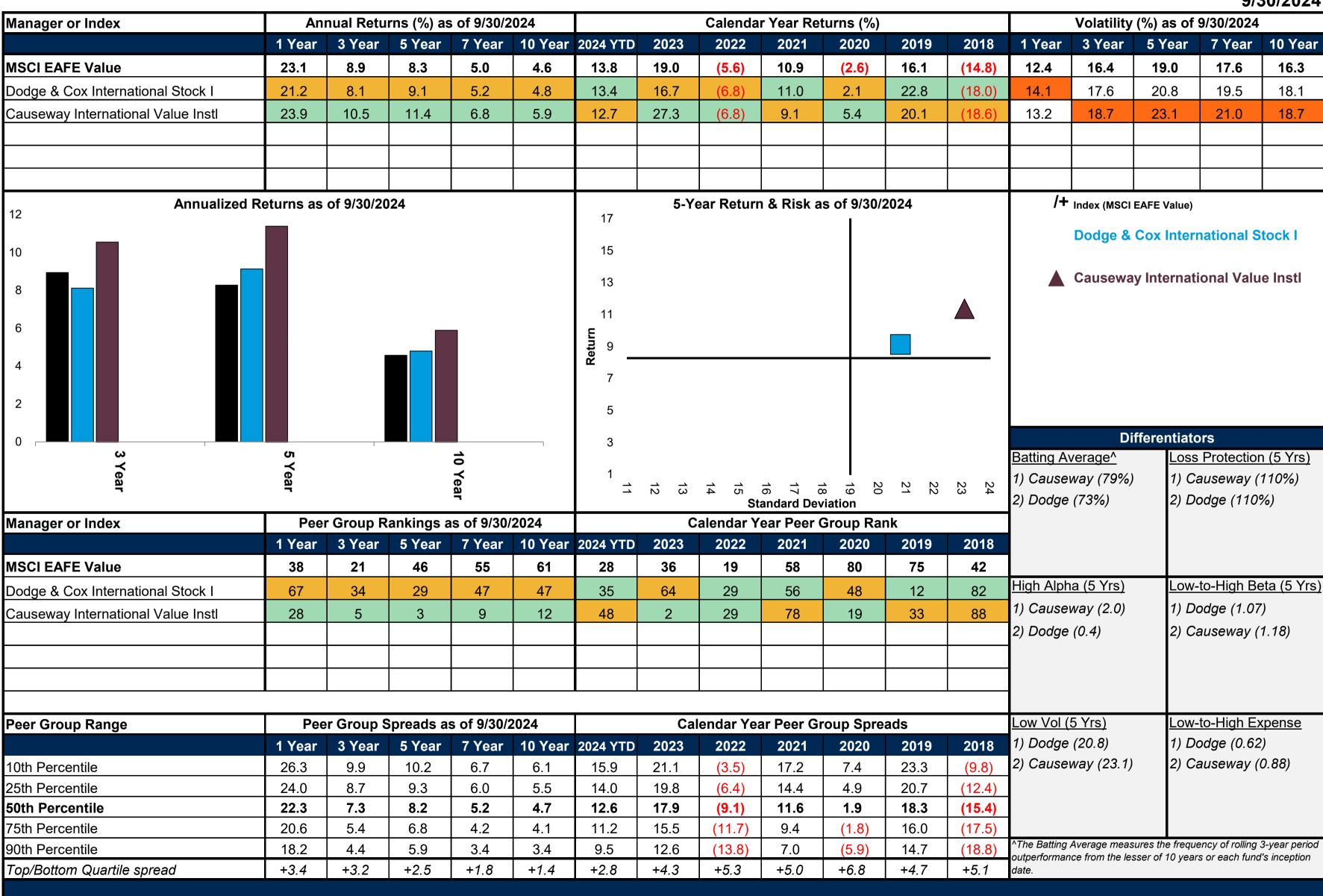
Fund / Manager	Dodge & Cox International Stock I	Causeway International Value Instl
Status  Manager (Tenure in Years)  Net Assets (\$ Millions)	Maintain Team (20.8) \$50,292	Maintain Team (23) \$11,603
Firm	<ul> <li>Founded in 1930, employee-owned Dodge &amp; Cox focuses solely on the management of a small number of value strategies.</li> <li>The team-based approach to investment management is a hallmark of the firm.</li> </ul>	- Los Angeles-based Causeway Capital Management is an employee owned, value- oriented investment management firm that manages international equity strategies; the firm was founded in 2001 by Sarah Ketterer and Harry Hartford.
Team	<ul> <li>The portfolio is managed by the firm's International Equity Investment Committee ("IEIC"); the IEIC typically consists of between six and ten investment professionals.</li> <li>The IEIC leverages the work of the firm's team of global industry analysts; the Director of Research coordinates the work of the analyst team.</li> </ul>	<ul> <li>The strategy is managed by a team of fundamental portfolio managers. The portfolio managers are supported by a deep and highly experienced team of fundamental analysts and a team of quantitative analysts.</li> <li>The fundamental team divides up coverage based on global industry into six fundamental clusters.</li> </ul>
Philosophy/Process	up approach to stock selection Analysts focus on assessing a company's valuation, growth prospects, business strategy	<ul> <li>The strategy is based on the philosophical beliefs that value stocks outperform over the long term and that pricing anomalies exist in the market that cause securities to become mispriced.</li> <li>The team uses screens to narrow the universe on the front-end and then the fundamental portfolio managers and analysts perform comprehensive bottom-up fundamental analysis which culminates in a valuation model and an estimated expected return over the next two years.</li> <li>The quantitative risk model is used to assess the risk of each company and rank all stocks in the universe based on their marginal contribution to utility, which is essentially a risk-adjusted, liquidity-adjusted expected return.</li> </ul>
Portfolio Construction	<ul> <li>The portfolio typically holds between 60 and 100 stocks; turnover has historically been in the range of 10-20 percent annually.</li> <li>Position sizes typically range from a half a percent to five percent of assets; initial positions typically do not exceed one percent of assets.</li> </ul>	<ul> <li>The portfolio typically holds between 50 and 80 stocks; individual position sizes are usually limited to five percent of the portfolio at time of purchase.</li> <li>Industry allocations are capped at 25 percent of the portfolio.</li> <li>The strategy uses a quantitative model to estimate the incremental risk of each stock in conjunction to its upside potential.</li> </ul>
Expense Ratio	0.62	0.88





# International Large Cap Value (EAFE) Return, Standard Deviation and Peer Group Comparisons

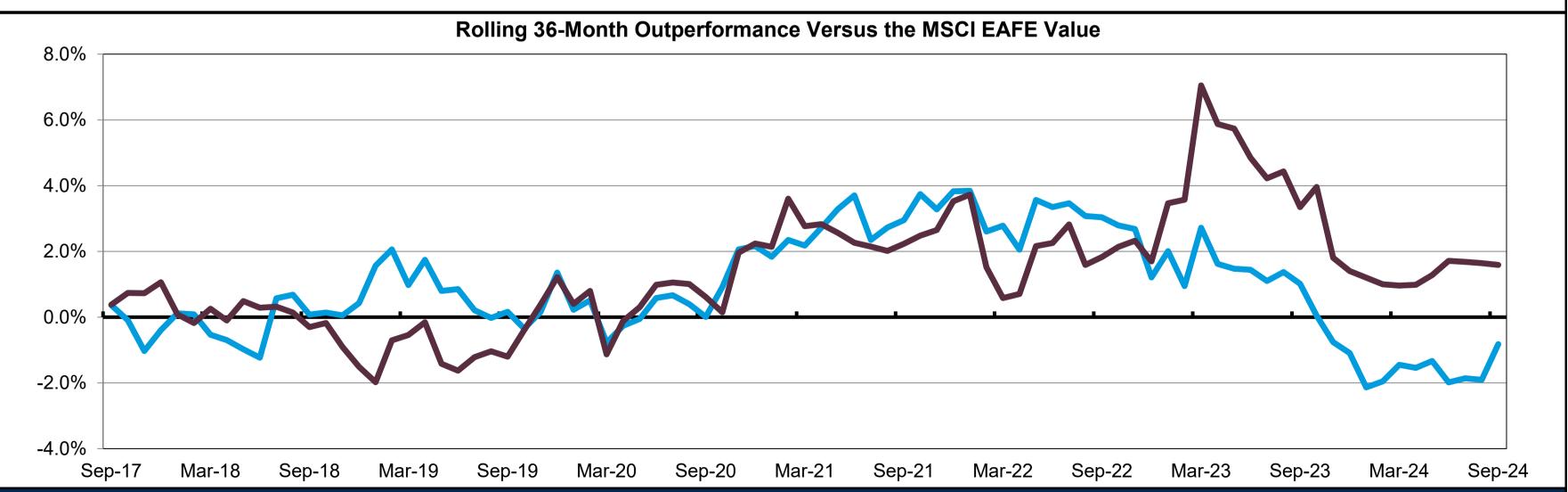
9/30/2024





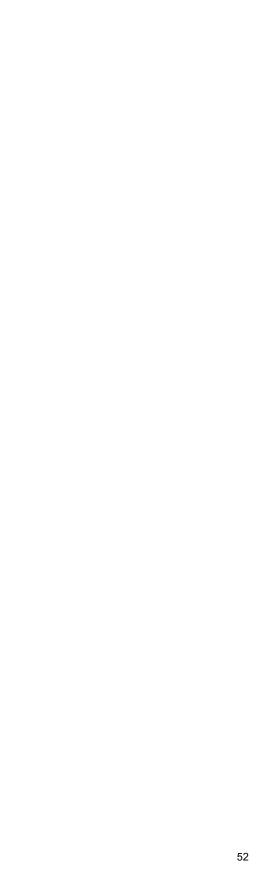
# International Large Cap Value (EAFE) **MPT and Other Quantitative Risk and Return Metrics**

		Pas	t 10-Year	Metrics a	s of 9/30/2	2024			Pa	st 5-Year	Metrics as	of 9/30/2	024		Max Dra	awdowns	(10 yrs)
Managers vs. MSCI EAFE Value	Correl /	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)		DOWN Capture	Correl / R2	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)		DOWN Capture	2/2018 - 3/2020	6/2021 - 9/2022	5/2015 2/2016
MSCI EAFE Value	1/1	1	0	0.18	0/0	100%	100%	1/1	1	0	0.31	0/0	100%	100%	-32.6%	-22.8%	-21.7%
Dodge & Cox International Stock I	0.97 / 0.94	1.08	0.0	0.17	4.5 / 0.05	113%	109%	0.98 / 0.95	1.07	0.4	0.33	4.7 / 0.18	117%	110%	-34.2%	-21.7%	-27.5%
Causeway International Value Instl	0.96 / 0.92	1.10	1.0	0.23	5.4 / 0.24	111%	104%	0.97 / 0.94	1.18	2.0	0.39	6.7 / 0.46	125%	110%	-35.8%	-26.8%	-19.4%
	Monthly	O ma a máile a a	ad 20 maanti	a hattina a		MOOLEAG	T Volum for					Graph	Legend				
Managers vs. MSCI EAFE Value	Monthly, 1				verages vs. nception dat		E Value for					Graph	Legend				
Managers vs. MSCI EAFE Value	1 Month						Return Start					Internat	ional S				
Managers vs. MSCI EAFE Value  Dodge & Cox International Stock I	1 Month	10	Years (or 1	manager ir % + 12-	aception dat	te) % + 36	Return Start					·	ional S				
	1 Month Periods	1( % + Months	12 Month periods	manager in % + 12- Months	36 Month Periods	% + 36 Months	Return Start Date					Internat	ional S				
Dodge & Cox International Stock I	1 Month Periods	10 % + Months 52%	12 Month periods	% + 12- Months	36 Month Periods	% + 36 Months 73%	Return Start Date Sep-14					Internat	ional S				
Dodge & Cox International Stock I	1 Month Periods	10 % + Months 52%	12 Month periods	% + 12- Months	36 Month Periods	% + 36 Months 73%	Return Start Date Sep-14					Internat	ional S				



# **Emerging Markets Value Equity**

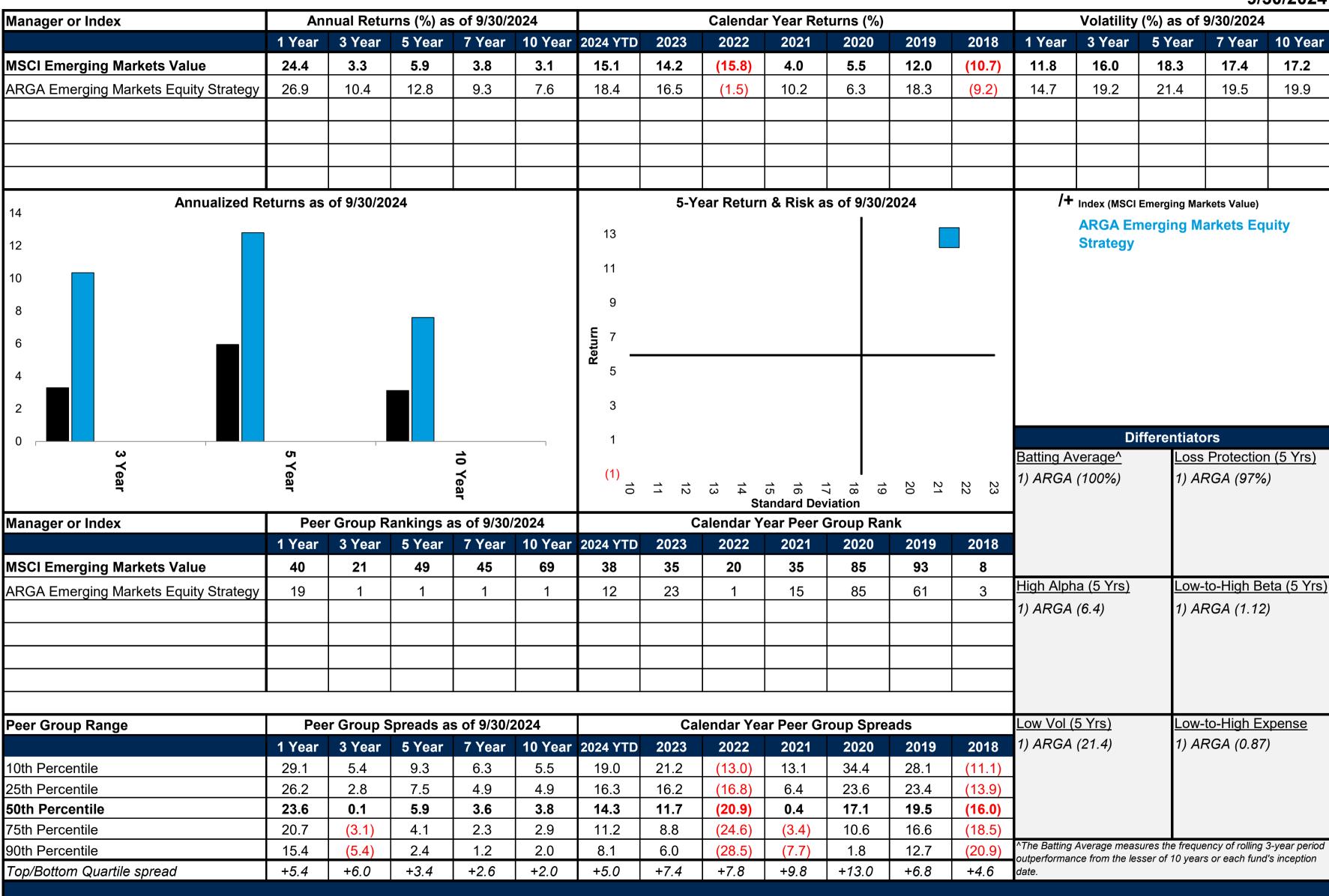
Fund / Manager	ARGA Emerging Markets Equity Strategy
Status	Maintain
Manager (Tenure in Years) Net Assets (\$ Millions)	Team (3.3) \$838
	- ARGA Investment Management, LP – founded in 2010 by A. Rama Krishna – is headquartered in Stamford, Connecticut. ARGA manages value-oriented international, global, and domestic equity portfolios.
	- The strategy is managed by the Portfolio Construction Team ("PCT") consisting of three members: Chief Investment Officer Rama Krishna and Global Business Analysts Takashi Ito and Sujith Kumar The PCT is supported by ARGA's Director of Research and its team of global business analysts and research associates.
	<ul> <li>The strategy takes a long-term perspective and employs a bottom-up, fundamentally driven approach and seeks to invest in businesses trading at a discount to intrinsic value.</li> <li>The front-end screen ranks every stock in the universe on key value metrics including price to earnings, price to book, dividend yield and normalized earnings yield adjusted for return on invested capital.</li> <li>The PCT and Director of Research assign the analysts companies in the cheapest quintile for fundamental research. The analysts conduct one-week research projects and present to the PCT; if the stock warrants further analysis the analyst performs a detailed research project.</li> <li>The analysts determine intrinsic value using ARGA's multi-stage dividend discount model.</li> </ul>
	<ul> <li>Position sizes are determined based on a stock's upside-to-downside profile and ARGA's level of conviction.</li> <li>Initial position sizes typically range from 1% to 3% and tend to increase as ARGA builds conviction in the thesis; positions are limited to 5% of the portfolio at the time of purchase and 8% based on market value.</li> <li>The portfolio typically holds between 35 and 80 stocks.</li> </ul>
Expense Ratio	N.A.





# Emerging Markets Value Equity Return, Standard Deviation and Peer Group Comparisons

9/30/2024





0.0%

Sep-17

Mar-18

Sep-18

Mar-19

Sep-19

Mar-20

Sep-20

Mar-21

Sep-21

# Emerging Markets Value Equity MPT and Other Quantitative Risk and Return Metrics

		Pas	t 10-Year	Metrics a	s of 9/30/2	2024			Pa	st 5-Year	Metrics a	s of 9/30/2	024		Max Dra	awdowns	(10 yrs)
Managers vs. MSCI Emerging Markets Value	Correl /	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)	UP Capture	DOWN Capture	Correl / R2	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)	UP Capture	DOWN Capture	2/2018 - 3/2020	5/2015 - 1/2016	6/2021 10/2022
MSCI Emerging Markets Value	1/1	1	0	0.09	0/0	100%	100%	1/1	1	0	0.20	0/0	100%	100%	-33.8%	-30.7%	-29.2%
ARGA Emerging Markets Equity Strategy	0.96 / 0.92	1.11	4.3	0.30	6.1 / 0.74	122%	100%	0.96 / 0.92	1.12	6.4	0.49	6.4 / 1.07	128%	97%	-30.7%	-35.4%	-22.3%
		-			g averages v							Graph	Legend				
Managers vs. MSCI Emerging Markets Value		Markets Va	llue for 10 \	ears (or m	anager ince	eption date	e)										
	1 Month Periods	% + Months	12 Month periods	% + 12- Months	36 Month Periods	% + 36 Months	Return Star Date	t		ARGA	Emergi	ing Mark	ets Eq	uity Stra	ategy		
ARGA Emerging Markets Equity Strategy	120	58%	109	84%	85	100%	Sep-14	]									
								-									
								_									
		Rollin	g 36-M	onth Ou	ıtperforr	mance	Versus	the MSC	CI Eme	rging N	larkets	Value					
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40.00/																	
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8.0%															<b>\</b>		
6.0%											~						
	W			<b>\</b>								V				V	
4.0%			<b>\</b>														
V V							<b>A</b> /										

Mar-23

Sep-23

Mar-24

Sep-24

Mar-22

Sep-22

# **Emerging Markets Growth Equity**

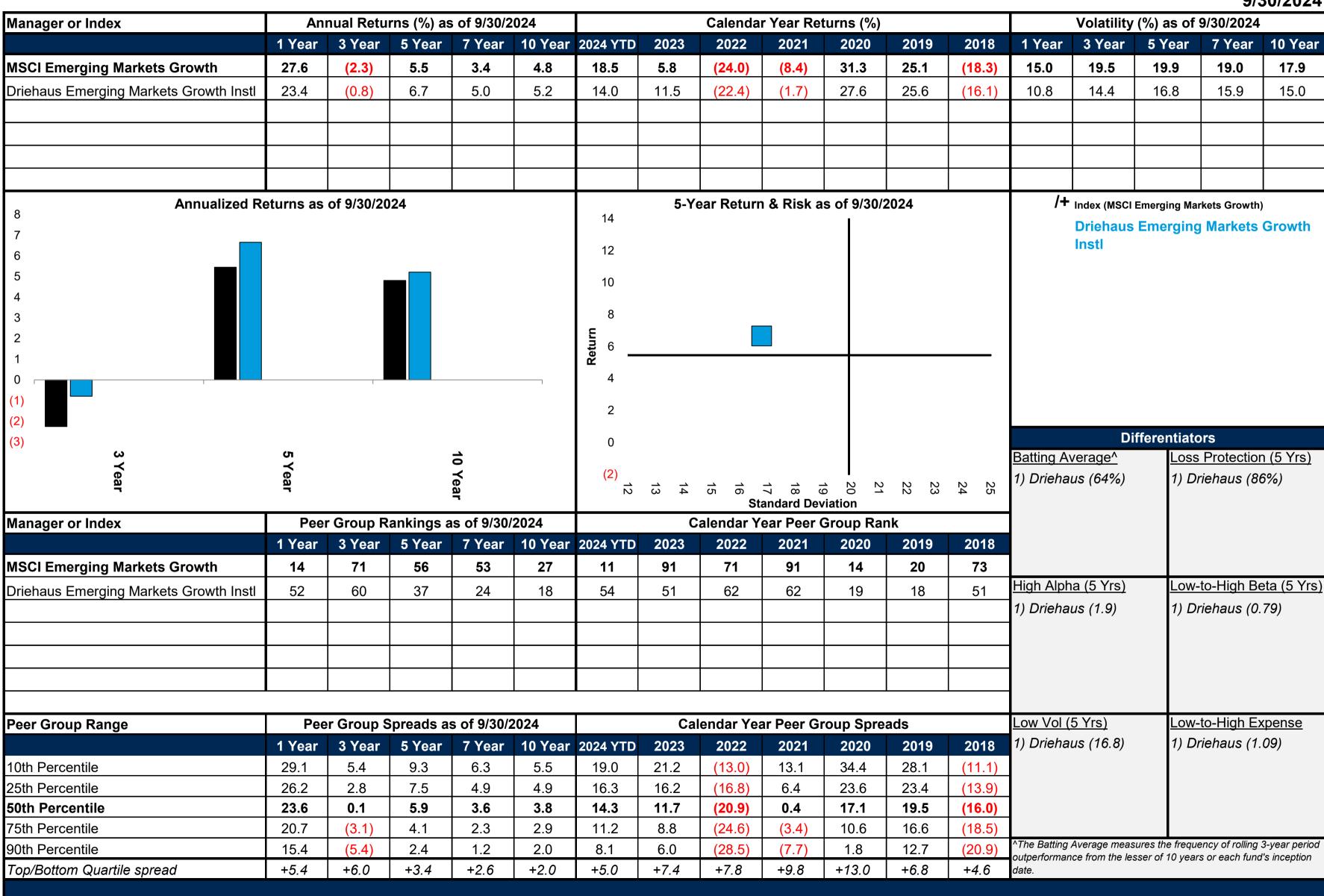
Fund / Manager	Driehaus Emerging Markets Growth Instl
Status	Maintain
Manager (Tenure in Years)	Team (17.2)
Net Assets (\$ Millions)	\$3,269
Firm	<ul> <li>Driehaus Capital Management was founded in 1982 and is based out of Chicago, IL.</li> <li>The firm operates a multi-boutique structure with four distinct investment teams: U.S. Growth, International Growth, Emerging Markets, and Alternative Investments; the firm's roots are in small cap growth equity investing.</li> </ul>
Team	<ul> <li>The team is led by Lead Portfolio Manager Howie Schwab and Portfolio Managers Chad Cleaver and Richard Thies. Howie has been at Driehaus since 2001 and has been a PM on the strategy since 2007. Chad joined the firm in 2004 and has been a PM on the strategy since 2008 while Rich joined in 2011 and became a PM on the strategy in 2008.</li> <li>The PMs are supported by a dedicated team of four senior analysts and one analyst. The senior analysts average over eight years at the firm and over 17 years of investment experience while the analyst has been at Driehaus for over two years and has over four years of industry experience.</li> </ul>
Philosophy/Process	<ul> <li>Underpinned by the philosophical beliefs that earnings growth and earnings estimate revisions are the primary drivers of stock prices over the long-term and that inefficiencies exist around fundamental growth inflection points due to the behavioral biases of investors.</li> <li>The strategy employs a bottom-up fundamental approach to building the Focus List; the team wants companies with superior growth prospects over the next 3-5 years, differentiated business models, sustainable competitive advantages, high returns on capital, strong free cash flow generation, and excellent management teams.</li> <li>The team focuses on identifying the 3-5 variables that drive a company's earnings; stocks are selected for inclusion in portfolio based on a 12-month earnings inflection thesis – the team takes a view on the magnitude, acceleration, and duration of the earnings inflection and looks for inefficiency gaps between market expectations and fundamentals.</li> <li>The strategy employs a bucketing approach with four types of growth: dynamic, cyclical, recovery, and consistent and incorporates macro and behavioral analysis into the investment decision-making process</li> </ul>
Portfolio Construction	- The portfolio is highly risk-managed and typically holds 80-110 stocks - Turnover can be quite high, often in excess of 100% annually - Active country weights tend to be within +/- 10 percentage points relative to the benchmark
Expense Ratio	1.09





# Emerging Markets Growth Equity Return, Standard Deviation and Peer Group Comparisons

9/30/2024





Sep-17

Mar-18

Sep-18

Mar-19

Sep-19

Mar-20

Sep-20

Mar-21

Sep-21

Mar-22

Sep-22

Mar-23

Sep-23

Mar-24

Sep-24

# Emerging Markets Growth Equity MPT and Other Quantitative Risk and Return Metrics

Managers vs. MSCI Emerging Markets  Growth  MSCI Emerging Markets Growth  Oriehaus Emerging Markets Growth Instl	Correl / R <sup>2</sup> 1 / 1 0.95 / 0.91	<b>1</b> 0.80	Alpha (%)  0 1.0	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)		DOWN	Correct /				Track. Error			0/0004	0/0040	
		<b>1</b> 0.80		0.18			Capture	Correl / R2	Beta	Alpha (%)	Sharpe Ratio (%)	/ Info. Ratio		DOWN Capture	2/2021 - 10/2022	2/2018 - 10/2018	5/2015 - 2/2016
Priehaus Emerging Markets Growth Instl	0.95 / 0.91	0.80	4.0		0/0	100%	100%	1/1	1	0	0.16	0/0	100%	100%	-42.3%	-25.9%	-25.5%
						84%	86%	0.94 / 0.88	0.79	1.9	0.26	7 / 0.17	87%	86%	-28.7%	-22.3%	-22.3%
												Graph	Legend				
lanagers vs. MSCI Emerging Markets Growth					g averages v manager inc												
Towar	1 Month Periods	% + Months	12 Month periods	% + 12- Months	36 Month Periods	% + 36 Months	Return Star Date	t	_	Drieha	ius Eme	erging M	arkets	Growth	Instl		
Oriehaus Emerging Markets Growth Instl	120	44%	109	61%	85	64%	Sep-14										
								<u>-</u>									
		Rolling	36-Mo	nth Out	tperform	nance \	ersus 1	the MSC	Emer	ging Ma	arkets G	rowth					
7.0%																	
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# **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 <a href="mailto:compliance@fiducient.com">compliance@fiducient.com</a>.

#### 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 U.S. 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 through January 14, 2013; and 60% CRSP US Total 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 through January 14, 2013; and 60% CRSP US Total 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 through January 14, 2013; and 60% CRSP US Total 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 through January 14, 2013; and 60% CRSP US Total 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 through January 14, 2013; and 60% CRSP US Total 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 through January 14, 2013; and 60% CRSP US Total 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 through January 14, 2013; and 60% CRSP US Total Market Index and 40% Bloomberg U.S. Aggregate Float Adjusted Index through Jan
- 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 interestrate 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 market 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 that 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 <u>manager</u> performed if the market's return was zero. A <u>positive</u> 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 <a href="higher-the-sharpe-ratio">higher-the-sharpe-ratio</a>, 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 aloss.

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 riskof 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 you 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.