

Ledyard, CT

Quarterly Investment Review - Second Quarter 2022

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# **Fiducient Advisors Update**





# Retirement Plans



# Endowments & Foundations

# The Wealth Office®

#### **Featured Insights**

- Plan Sponsor Newsletter
- The Public Fiduciary Newsletter
- Webcast: Why Fiduciary Liability Insurance is Needed More Than Ever
- Webcast: Designing and Maximizing a Cash Balance Plan

#### **Featured Insights**

- Guide to Mission-Aligned Investing
- Nonprofit Investment Stewards Podcast
- Blog: An Overview of OCIO Services for Nonprofit and Tax-Exempt Clients

#### **Coming Soon**

Steward Newsletter

#### **Featured Insights**

- Webcast: NextGen Success Planning Today for a Better Tomorrow
- Blog: It's Time for an Annual Wellness Check-up... of Your Finances

#### **Coming Soon**

Advisor Newsletter

**Chicago Investor Conference Save the Date: October 13, 2022** 

Conference details and registration coming this summer!



# **Fiducient Advisors Update**





# Research Insights

- Monthly Market Recaps
- Monthly Market Updates
  - Mayday? May
  - When Hawks Cry April
- Webcast: Mid-Year Capital Markets and Economic Update
- Mid-Year Capital Markets Update
- Webcast: Market Volatility & Outlook
- Changing Dynamics in the Secondaries Market
- 2022 First Quarter Considerations



# Recent Speaking Engagements

- P&I ESG Investing Conference
- Portfolio Summits ESG East Summit
- CT Public Pension Forum
- Markets Group 8<sup>th</sup> Annual Midwest Institutional Forum
- eVestment Institutional Trends Quarterly Webcast
- 2022 ACI Spring Professional Development Conference

## 2022 New Associates - Welcome!

- Zachary Adkins, Operations Support Specialist
- Andrews Beniana, Senior Accountant
- Miranda Brozik, Consulting Analyst, Financial Institutions
- Richard Cenar, Client Service Associate
- Andrew Doten, Consultant, The Wealth Office®
- Alyssa Holly, Consulting Analyst
- Malak Issa, Compliance Officer

- Antonia Kitchen, Talent Acquisition Specialist
- Robert Klinke, Consulting Analyst
- · Samantha Mann, Consulting Analyst
- Matthew Myers, Client Service Associate
- · Kevin O'Connell, Senior Consultant
- Marilyn Rowland, Senior Research Analyst
- · Evan Walsh, Consulting Analyst

As of May 31, 2022



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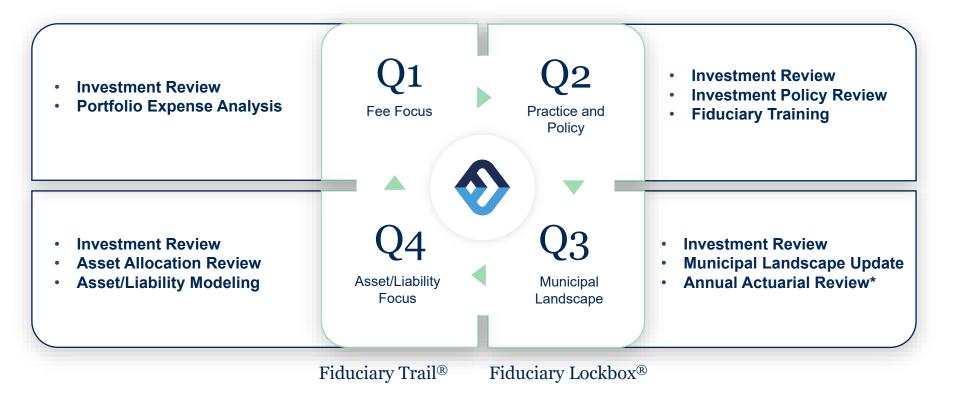
Section 1 Fiduciary Governance Calendar

Section 2 Capital Markets Overview

Section 3 Portfolio and Manager Review

Section 4 July Flash Report





<sup>\*</sup>Timing of actuarial review is dependent on client's individual plan and/or fiscal year and actuarial input.

	Town of Ledyard								
	7/1/2021	7/1/2019							
Actuarial Value of Assets	\$28,700,912	\$25,375,810							
Total Accrued Liability	32,850,603	30,313,077							
Funded Ratio	87.4%	83.7%							
Actuarial Return Assumption	6.25%	6.25%							

# **Investment Policy Statement**

A well-written Investment Policy Statement serves as the blueprint for the management of the investment program. As such, there are certain criteria that are required in an IPS, and other criteria that may or may not be included based on the organization's circumstances:

Important elements of an IPS to consider:	
Investment objective(s)	✓
Assignment of responsibilities	✓
Asset allocation framework	✓
Rebalancing guidelines	✓
Selection and monitoring criteria for investment strategies	✓
Termination guidelines for investment strategies	✓
Liquidity guidelines	N/A
Proxy voting	✓

In the following pages, you will find the most recent IPS on file for the Town of Ledyard Defined Benefit Pension Plan.

- The body of the IPS is as of March 2012, and the asset allocation table in Appendix A is as of August 2019.
- We are recommending updates to the AA Table in Appendix A, as shown in the redlined sections in the following pages.

TOWN OF LEDYARD, CONNECTICUT

**DEFINED BENEFIT PENSION PLAN** 

**INVESTMENT POLICY STATEMENT** 

**MARCH 2012** 

With Update to Appendix A as of August 2019
Amended Appendix A as of February March 2022

#### Introduction & Purpose

The Town of Ledyard Defined Benefit Pension Plan (the "Plan") has been established to provide retirement benefits to those individuals eligible to receive them. This policy statement outlines the goals and investment objectives for the Plan. This document is intended to provide guidelines for managing the Plan, and to outline specific investment policies that will govern how those goals are to be achieved. This statement:

- Describes the investment objectives of the Plan;
- Defines the responsibilities of the Pension Board and other parties responsible for the management of the Plan;
- Establishes investment guidelines regarding the selection of investment managers and diversification of assets;
- Specifies the criteria for evaluating the performance of the investment managers and of the Plan as a whole.

#### **Investment Objective**

The Plan's assets shall be invested in accordance with sound investment practices that emphasize long-term investment fundamentals. In establishing the investment objectives of the Plan, the Pension Board has taken into account the financial needs and circumstances of the Town, the time horizon available for investment, the nature of the Plan's cash flows and liabilities, and other factors that affect their risk tolerance. Consistent with this, the Pension Board has determined that the investment of these assets shall be guided by the following underlying goals:

- To achieve the stated actuarial target of the Plan;
- To maintain sufficient liquidity to meet the obligations of the Plan;
- To diversify the assets of the Plan in order to reduce risk;
- To achieve investment results over the long-term that compare favorably with those of other pension plans, professionally managed portfolios and of appropriate market indexes.

#### Assignment of Responsibilities

**Pension Board** - The Pension Board is charged with the responsibility of overseeing the assets of the Plan. To that end, the Board's responsibilities include: establishing and maintaining the Plan's investment policy, objectives and portfolio guidelines with respect to asset allocation, risk parameters, and return evaluation and for specific interpretation of said investment policy, as well as selecting the investment vehicles,

and periodically monitoring the performance of investments. The Pension Board, however, may establish rules or other resolutions governing its investment policy and may delegate to the committee members or agents the authority to act. The Pension Board will meet periodically. The Pension Board shall discharge its duties with the care, skill, prudence and diligence appropriate to the circumstances then prevailing. The Pension Board recognizes that some risk must be assumed to achieve the Plan's long-term investment objectives.

Investment Consultant - The Pension Board may engage the services of an Investment Consultant. The Investment Consultant's role is that of a non-discretionary advisor to the Pension Board. The Investment Consultant will assist in the development and periodic review of an Investment Policy Statement and the Plan's asset allocation, conduct manager searches when necessary, monitor the performance of the managers/funds, and communicate on other matters of relevance to the oversight of the Plan.

Custodian - The Custodian is responsible for the safekeeping and custody of assets. The Custodian will physically (or through agreement with a sub-custodian) maintain possession of securities owned by the Plan, collect dividends and interest payments, redeem maturing securities, and effect receipt and delivery following purchases and sales. The Custodian may also perform regular accounting of all assets owned, purchased, or sold, as well as movement of assets into and out of the Plan accounts (for example, to accommodate distribution needs).

#### **Asset Allocation**

The asset allocation target ranges set forth in Appendix A represent a long-term view. Short-term market volatility may cause the asset mix to fall outside the targeted range.

#### Rebalancing

The Pension Board, at its discretion, may or may not institute rebalancing as necessary. Such adjustments should be executed with consideration to turnover, transaction costs, and realized losses over the long term. The necessity to rebalance will be reviewed periodically.

#### Selection Criteria for Investment Managers

Investment managers/funds retained by the Plan shall be chosen using various criteria, including but not limited to the following:

- Past results, considered relative to appropriate indexes and other investments having similar investment objectives. Consideration shall be given to both consistency of performance and the level of risk taken to achieve results;
- The investment style and discipline of the investment manager;

- How well the manager's investment style or approach complements other assets in the Plan;
- Level of experience, personnel turnover, financial resources, and staffing levels of the investment management firm or fund.

The Plan will utilize a multi-manager structure of complementary investment styles and asset classes to invest the Plan's assets.

Should additional contributions and/or market value growth permit, the Pension Board may retain additional investment managers to invest the assets of the Plan. Additional managers would be expected to diversify the Plan by investment style, asset class, and management structure and thereby enhance the probability of the Plan achieving its long-term investment objectives.

#### **Securities Guidelines**

The Plan's investments may include separately managed accounts and/or mutual funds/co-mingled funds, including marketable and non-marketable alternatives and exchange traded funds. The Board understands that managers have full responsibility for security selection, diversification, turnover and allocation of holdings among selected securities and industry groups, as particularly detailed in the Investment Policy Statement of each of the Plan's separately managed accounts or in the prospectus/offering memorandum for each mutual fund/co-mingled fund/exchange traded fund in the portfolio. No securities will be purchased, or carried, on margin.

With respect to mutual/co-mingled funds, the Board will consider the following to insure proper diversification and function for each of the funds:

- 1. The mutual fund/co-mingled pool organizations selected should demonstrate: (a) a clearly defined investment philosophy; (b) a consistent investment process; (c) an experienced and stable organization; and (d) cost-effectiveness.
- 2. The mutual fund/co-mingled pool used will generally have at least a full three-year track record, or its equivalent, and the individual fund/pool must have at least \$25 million under management (or, as an organization, \$100 million in the same strategy) at the time of selection.
- 3. Each mutual fund/co-mingled pool will be regularly evaluated for proper diversity and each will provide material information on a timely basis.
- 4. With respect to hedge fund-of-funds, in addition to meeting each of the three above-specified criteria, each fund-of-funds will include an appropriate number of hedge fund managers to be considered well diversified. Investment strategies in hedge fund-of-funds may generally include: long/short U.S. equity, global equity, derivatives, distressed debt and other fixed income strategies, currency exposure,

arbitrage and event driven strategies, and additional strategies with low correlation to traditional asset classes.

#### **Proxy Voting**

Each investment manager is responsible for and empowered to exercise all rights, including voting rights, as are acquired through the purchase of securities, where practical. Each investment manager shall vote proxies in the best interest of the client. A copy of each firm's guidelines, and/or summary of proxy votes shall be provided to the Pension Board upon request.

#### **Investment Monitoring and Reporting**

The Board will periodically review performance of the investments in the Plan. Performance monitoring is the mechanism for revisiting the investment selection process and confirming that the criteria originally satisfied remain intact and that an investment continues to be appropriate for the Plan. While frequent change is neither expected nor desirable, the process of monitoring investment performance relative to specified guidelines is an on-going process.

Monitoring should occur on a periodic basis. The monitoring process will utilize the same criteria that formed the basis of the investment selection decision. In addition, a set of "watch list criteria" may be employed to track important quantitative and qualitative elements, assist in the evaluation process, and focus the Board on potential areas of concern.

Watch list criteria may include the following:

- Performance relative to benchmark performance over various time frames;
- Deterioration of risk-adjusted performance;
- Notable style drift / change in investment objective;
- High manager fees relative to peers;
- Significant organizational or manager change.

#### Termination of an Investment Manager or Fund

A manager/fund may be terminated when the Board has lost confidence in the manager's ability to:

- Achieve performance and risk objectives;
- Comply with investment guidelines;
- Comply with reporting requirements;
- Maintain a stable organization and retain key investment professionals.

There are no hard and fast rules for manager termination. However, if the investment manager has consistently failed to adhere to one or more of the above

Town of Ledyard Pension Plan

conditions, termination may be considered. Failure to remedy the circumstances of unsatisfactory performance by the manager/fund, within a reasonable time, may be grounds for termination.

Any recommendation to terminate a manager/fund will be treated on an individual basis, and will not be made solely based on quantitative data. In addition to those above, other factors may include, but shall not be limited to, professional or client turnover, or material change to investment processes.

The process for selecting a replacement for a terminated manager would follow the criteria outlined in the section of this Investment Policy Statement titled Selection Criteria for Investment Managers.

#### **Approval**

It is understood that this investment policy is to be reviewed periodically by the Pension Board to determine if any revisions are warranted by changing circumstances including, but not limited to, changes in financial status, risk tolerance, or changes involving the investment managers.

Approved by the Town of Ledyard Pension Board August 2019. March 2022

# Appendix A <del>Updated August 2019</del><u>Updated March 2022</u>

# **Target Asset Allocation Table**

Asset Class	Min Weight	Target Weight	Max Weight	Benchmark Index
Cash	0.0%	3.0%	5.0%	90-Day Treasury Bill
Fixed Income	25.0%	36.0%	50.0%	Barclays Capital Aggregate Index
Domestic Equities	20.0%	<del>38.5</del> <u>33.5</u> %	40.0%50.0%	S&P 500 Index Russell 2000 Index
International Equities	10.0%	22.5%	30.0%40.0%	MSCI ACWI ex-US Index MSCI Emerging Markets Index
Real Assets	0.0%	5.0%	<u>15.0%</u>	DWS Real Assets Benchmark





#### While governmental plans are not subject to Title I of ERISA, which deals with fiduciary duties, they are subject to applicable provisions in the Internal Revenue Code ("Code") and state laws.

- Legislative history suggests that the satisfaction of ERISA rules would be sufficient to satisfy the Code requirements.
- The "exclusive benefit rule" under IRC Section 401(a)(2)
  has been interpreted to mean exercise of prudence in the
  investment of plan assets is a requirement.
- Many states have adopted "prudent investor" language, which includes many of the basic ERISA fiduciary principles (including duty of loyalty, duty of prudence, duty to diversify).

# "Five Key Duties"

## **Duty of Loyalty:**

Act exclusively in the interest of plan participants and beneficiaries

#### **Duty of Prudence:**

Act in accordance with the "prudent expert rule"

#### **Duty to Diversify Investments:**

Diversify the portfolio options to balance risk

#### **Duty to Follow Plan Documents:**

Follow the plan provisions and policies governing the plan

#### **Duty to Avoid Prohibited Transactions:**

Ensure legal and appropriate transactions and be free from conflict

#### **Committee/Board Best Practices**

# Structure/Makeup

Governance

Documentation

# Leadership

- ✓ Effective leader with the ability to see the big picture and set the direction to achieve the Plan's objectives
- ✓ Keeps meetings running smoothly and efficiently, guides discussion, encourages participation

#### Committee/Board Makeup

- ✓ Controlled turnover leads to well-informed Committee/Board members with institutional memory
- ✓ Diversity (of age, gender, economic background, profession, etc.) fosters lively discussion and varied points of view
- ✓ Large enough to promote meaningful discussion/debate, but small enough to reach consensus
- ✓ Seek ongoing Committee/Board education to enable members to make informed decisions.

#### Meeting Frequency/Attendance

- ✓ Meetings must be frequent enough for the Committee/Board to fulfill its duties, not so frequent as to discourage attendance
- ✓ Meeting attendance is expected, member participation should be encouraged.

#### Meeting Preparation

- ✓ Use of a formal agenda leads to a structured, efficient meeting
- ✓ Materials should be sent in advance and reviewed by all members prior to the meeting

#### Governance Calendar

- ✓ Ensures that significant fiduciary responsibilities/obligations are reviewed on a regular basis, including fees
- ✓ Allows for a structured long-term approach in the face of potential short-term "fire drills"

# ■ Investme

#### Investment Policy Statement

- ✓ Serves as the Committee's/Board's blueprint
- ✓ Outlines roles and responsibilities of the Committee/Board members and other parties
- ✓ Establishes formal procedures for hiring/terminating managers, evaluating performance, etc.

#### Meeting minutes

- ✓ Should be reviewed and approved by all Committee/Board members on a timely basis
- ✓ Provide historical context for why/how decisions were made and educate newer members on past decisions

#### Clearly outlined goals and objectives

✓ Require well-defined methods for evaluation

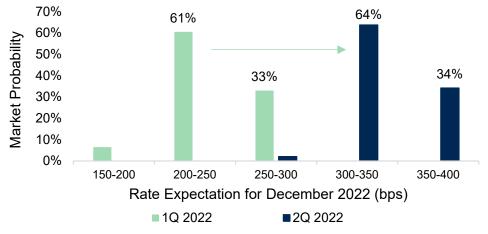
Note: This is not meant to be a complete list of all fiduciary duties and responsibilities. Please consult your legal advisor for advice about your specific situation.

## **Market Themes**

- Capital markets continued to exhibit high volatility as investors contend with the rising odds of a recession. Returns across asset classes were broadly negative for the quarter.
- The Fed's more hawkish stance and intensified commitment to combat high inflation comes at the risk of accelerating the onset of an economic slowdown.
- Recessions and the volatility that typically accompanies them often sets the stage for better forward-looking opportunities in the market with lower entry prices.

#### **Markets Moving Ahead of the Fed**

Markets have moved quickly, reacting to the Fed's increasingly hawkish posture by adjusting their rate expectations for the Fed's final meeting of the year in December 2022. Markets have priced in significantly higher terminal rates for this year than the current level of 1.50 - 1.75%.

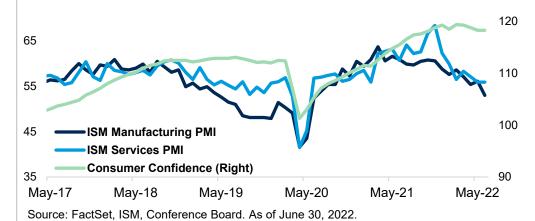


Source: CME FedWatch Tool, Fiducient Advisors. As of June 30, 2022.

#### **Higher Recession Risk**

75

Softening economic data, including data from both producers and consumers, reveals the rising probability of an economic slowdown with the three-pronged challenge of high inflation, supply chain issues and an aggressive Fed.



#### **Staying Invested is Key**

Although the probability of a recession may be rising, trying to predict its start date may prove to be a fool's errand. Equity markets see the most volatility before and during a recession; yet returns following the onset of a recession are typically strong given the forward-looking nature of markets.

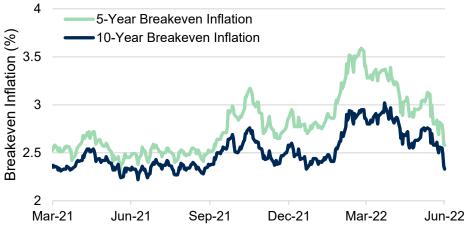
	S&P 500 Returns around a Recession									
	6 months before -									
Year	- Onset	Onset - End	Onset + 3yr	Onset + 5yr						
1973	-1.2%	-33.1%	5.5%	33.1%						
1980	7.7%	8.8%	87.0%	117.4%						
1981	-1.0%	-1.3%	70.6%	221.9%						
1990	3.1%	6.1%	49.6%	110.2%						
2001	-17.7%	-11.8%	-3.3%	18.5%						
2007	-2.3%	-33.9%	4.6%	46.4%						
2020	9.3%	-23.1%	N/A	N/A						
Average	-0.3%	-12.6%	35.7%	91.3%						

Source: Morningstar Direct, NBER, Fiducient Advisors. Returns shown are cumulative.

## **Economic Review**

#### **U.S. Breakeven Inflation Levels**

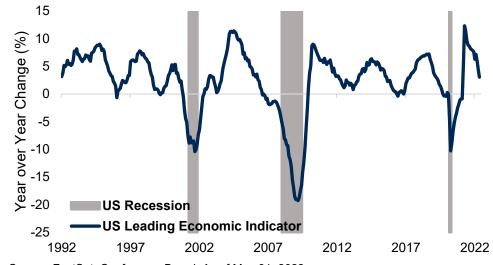
While current inflation levels remain elevated relative to history, expectations for inflation over the medium- and longer-term have come down significantly in recent months.



Source: FactSet. As of June 30, 2022.

#### **Leading Economic Indicators**

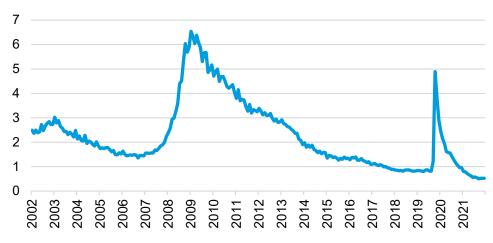
Leading economic indicators have fallen from peak levels but remain in positive territory supporting a positive outlook for economic growth in the near-term.



Source: FactSet, Conference Board. As of May 31, 2022.

#### U.S. Labor Market - Number of Unemployed per Job Opening

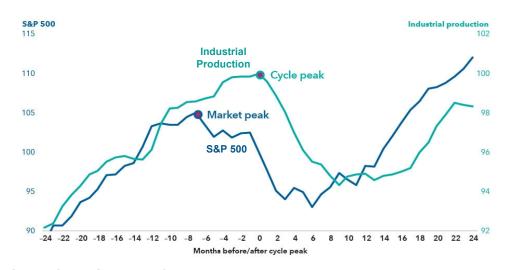
The U.S. labor market remains tight, with less than 1 job seeker for each job opening. This historic tightness in the job market may support wage growth.



Source: FactSet, DOL, BLS. As of June 30, 2022.

#### **Markets and Cycles**

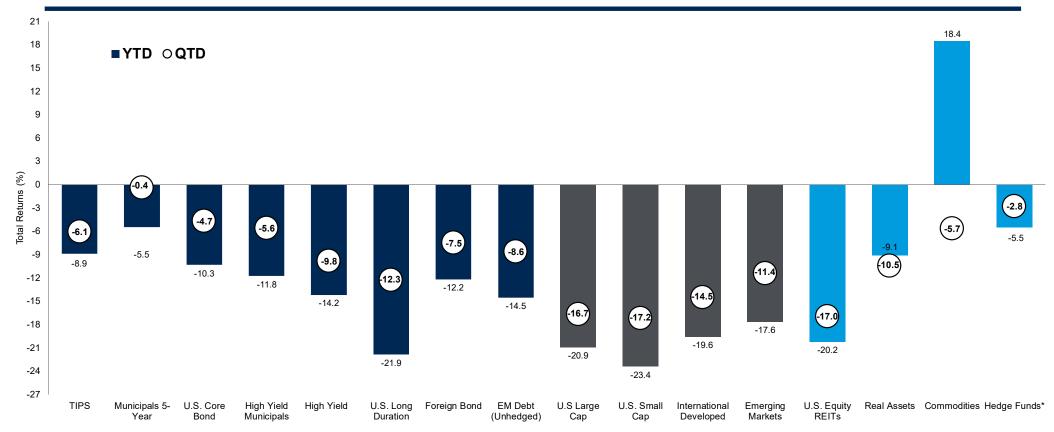
Historically, markets have led the economy as indicated by industrial production, lending credence to their forward-looking nature.



Source: Capital Group. Data from 1950 – 2019.

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## **Asset Class Returns**



Source: Morningstar Direct. As of June 30, 2022. \*Hedge fund returns as of May 31, 2022.

#### Fixed Income (2Q)

- The Federal Reserve raised its target rate by 75 basis points in June. Interest rates moved broadly higher in advance of the announcement and pushed bond returns negative.
- Spread sectors generally underperformed for the quarter, with notable weakness in the U.S. high yield market.
- In addition to suffering from a longer duration profile in the face of rising interest rates, a strengthening U.S. dollar was a drag on non-U.S. fixed income returns.

#### Equity (2Q)

- Equity markets added to their first quarter losses as focus shifted to record-high inflation, the Fed's commitment to fighting it and evidence of a slowing global economy, in addition to the conflict in Ukraine.
- Although the rout was broad-based, discrepancies persisted with growth names losing to value names and major differences between sectors.
- Emerging markets and international developed names beat domestic ones, though were still lower. The former were buoyed by a late-quarter reopening in China.

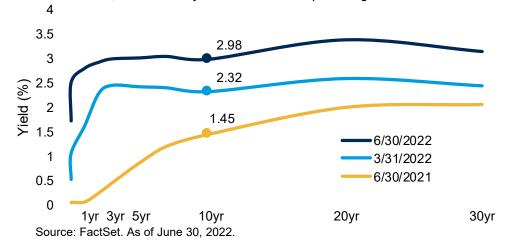
#### Real Asset / Alternatives (2Q)

- + Energy markets continued to exhibit strength, though a late quarter June selloff reflects broader concerns of a slowing economy.
- Other commodities, including both industrial and precious metals, as well as REITs, were led lower over slowing growth concerns, political grandstanding and the potential investors are taking profits given 2022 returns.
- + Hedge funds continued to exhibit lower volatility than the market, albeit with some negative returns.

# **Fixed Income Market Update**

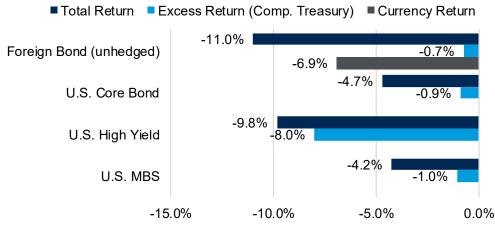
#### **U.S. Treasury Yields Curve**

Interest rates jumped in anticipation of the Fed's decision to raise the Fed Funds rate by 75 basis points in June but retreated late in the quarter on increasing concerns of an economic slowdown. The 1-year yield spiked from 1.1% to 2.5%, while the 10-year ended 66 basis points higher.



#### **Index Performance Attribution (2Q 2022)**

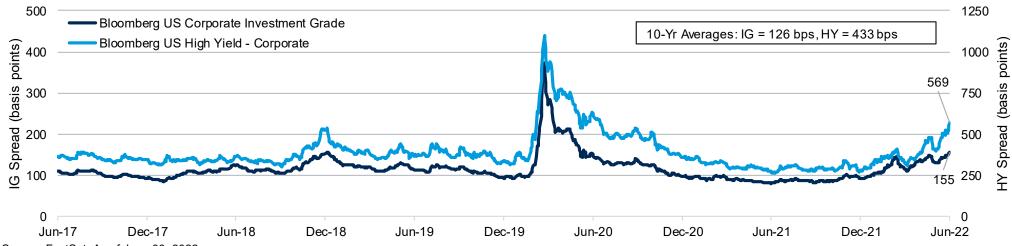
Spread sectors generally lagged Treasuries during the second quarter. Foreign bonds were more susceptible to higher interest rates and a strengthening U.S. dollar, while high yield came under pressure over growing fears of recession.



Source: FactSet. As of June 30, 2022.

#### Corporate Market Spreads – Trailing 5 Years

Despite a relatively favorable earnings season, growing fears of an economic slowdown have investors shunning riskier areas of the fixed income market. As a result, both investment grade and high yield corporate bond spreads widened and moved back above their respective 10-year averages to levels last seen in summer 2020.

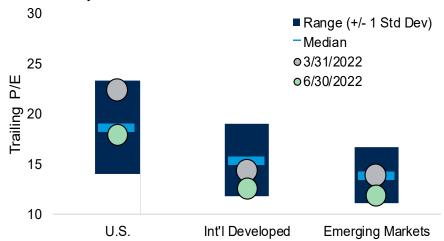


Source: FactSet. As of June 30, 2022.

# **Equity Market Update**

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

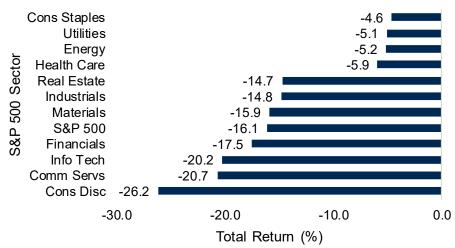
During the quarter, prices fell significantly and pushed multiples below historic averages. Despite growth concerns, analysts' second-half 2022 EPS estimates remained steady.



Source: FactSet. As of June 30, 2022.

#### U.S. Equities – Return by Sector (2Q 2022)

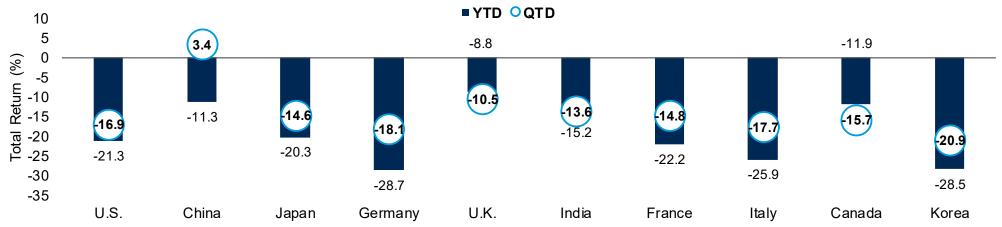
While all sectors were negative for the quarter, defensive names fared better than their cyclical and highly-valued peers as investors adopted a risk-off stance.



Source: Morningstar Direct. As of June 30, 2022.

#### Country Total Returns (%) – Top 10 Largest Economies

Concerns over slowing growth, high inflation, and aggressive central banks were common themes globally. Equity markets, both developed and emerging, were lower. Germany remains under pressure given its reliance on Russian natural gas and recent measures such as a shift back to coal-based power plants to address concerns. China was a positive outlier: investors had been concerned about the economic impact of severe COVID restrictions; the lifting of restriction was viewed in positive light.



Source: Morningstar Direct. As of June 30, 2022.

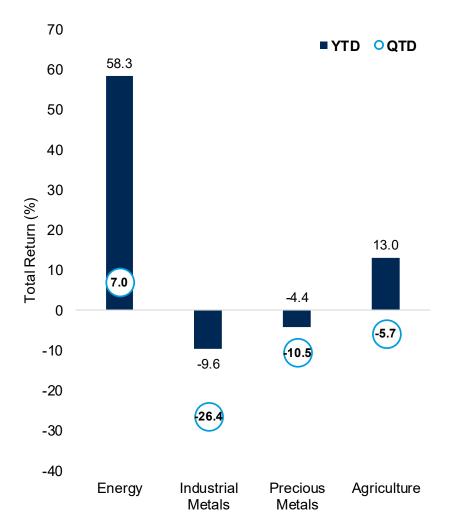
# **Real Assets Market Update**

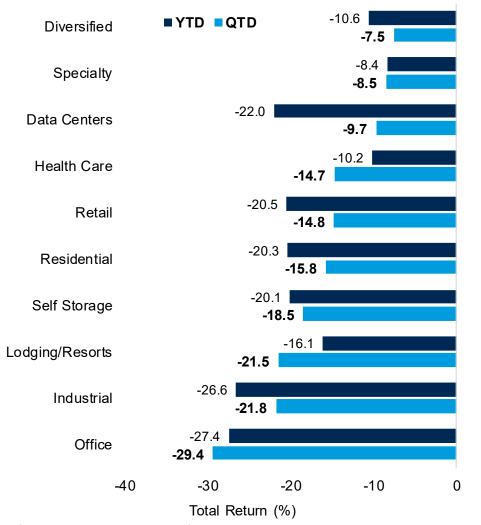
#### **Commodity Performance**

Energy commodities soared early in the quarter with strong demand and further sanctions on Russia; however, prices retreated in the second half of the quarter as recession concerns impacted demand and markets priced in potential export bans and taxes on excess profits. Metals and agricultural commodities similarly saw prices fall as countries sought to find suppliers besides Russia and Ukraine.

#### **REIT Sector Performance**

Long-duration assets in the industrial and office sectors were hit hard by higher interest rates, while highly-priced sectors such as data centers and specialty segments saw prices come down amid a market-wide repricing.





Source: Morningstar Direct. As of June 30, 2022.

Source: Morningstar Direct. As of June 30, 2022.



# **The Case for Diversification**

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD	10 Years (Ann)
Emerging Markets 18.2	U.S. Small Cap 38.8	U.S. Equity REITs 30.1	U.S. Equity REITs 3.2	U.S. Small Cap 21.3	Emerging Markets 37.3	High Yield Munis 4.8	U.S. Large Cap 31.5	U.S. Small Cap 20.0	U.S. Equity REITs 43.2	Commodities 18.4	U.S. Large Cap 12.8
High Yield Munis 18.1	U.S. Large Cap 32.4	High Yield Munis 13.8	Municipals 5-Year 2.4	High Yield 17.1	International Dev. 25.0	Municipals 5-Year 1.7	U.S. Equity REITs 26.0	U.S. Large Cap 18.4	Commodities 27.1	Hedge Funds -5.5	U.S. Small Cap 9.4
U.S. Equity REITs 18.1	International Dev. 22.8	U.S. Large Cap 13.7	High Yield Munis 1.8	U.S. Large Cap 12.0	U.S. Large Cap 21.8	Foreign Bond 0.5	U.S. Small Cap 25.5	Emerging Markets 18.3	US Large Cap 26.5	Municipals 5-Year -5.5	U.S. Equity REITs 7.4
International Dev. 17.3	Balanced 12.2	Core Bond 6.0	U.S. Large Cap 1.4	Commodities 11.7	EM Debt (unhedged) 15.2	Core Bond 0.0	International Dev. 22.5	TIPS 11.0	US Small Cap 14.8	TIPS -8.9	International Developed 5.4
EM Debt (unhedged) 16.9	Hedge Funds 9.0	Balanced 5.1	Core Bond 0.6	Emerging Markets 11.2	U.S. Small Cap 14.6	TIPS -1.3	Emerging Markets 18.4	Balanced 8.8	International Dev. 11.3	U.S. Core Bond -10.3	Balanced 5.0
U.S. Small Cap 16.3	High Yield 7.4	U.S. Small Cap 4.9	Hedge Funds -0.3	EM Debt (unhedged) 9.9	Balanced 13.6	High Yield -2.1	Balanced 17.5	International Dev. 7.8	Balanced 9.8	High Yield Municipals -11.8	High Yield 4.5
U.S. Large Cap 16.0	U.S. Equity REITs 2.5	TIPS 3.6	International Dev. -0.8	U.S. Equity REITs 8.5	High Yield Munis 9.7	Hedge Funds -4.0	High Yield 14.3	Core Bond 7.5	High Yield Munis 7.8	Foreign Bond -12.2	High Yield Municipals 4.4
High Yield 15.8	Municipals 5-Year 0.8	Hedge Funds 3.4	TIPS -1.4	Balanced 7.6	Hedge Funds 7.8	U.S. Large Cap -4.4	EM Debt (unhedged) 13.5	Hedge Funds 7.1	TIPS 6.0	High Yield -14.2	Hedge Funds 3.8
Balanced 11.5	Foreign Bond -1.0	Municipals 5-Year 3.2	Foreign Bond -2.3	TIPS 4.7	High Yield 7.5	U.S. Equity REITs -4.6	High Yield Munis 10.7	High Yield 7.1	Hedge Funds 5.7	EM Debt (unhedged) -14.5	Emerging Markets 3.1
TIPS 7.0	Core Bond -2.0	Foreign Bond 2.9	Balanced -3.3	Foreign Bond 3.2	Foreign Bond 6.5	Balanced -5.8	Core Bond 8.7	Foreign Bond 7.0	High Yield 5.3	Balanced -14.9	TIPS 1.7
Foreign Bond 5.3	Emerging Markets -2.6	High Yield 2.5	U.S. Small Cap -4.4	High Yield Munis 3.0	U.S. Equity REITs 5.2	EM Debt (unhedged) -6.2	TIPS 8.4	High Yield Munis 4.9	Municipals 5-Year 0.3	Emerging Markets -17.6	Municipals 5-Year 1.6
Hedge Funds 4.8	High Yield Munis -5.5	Emerging Markets -2.2	High Yield -4.5	Core Bond 2.6	Core Bond 3.5	U.S. Small Cap -11.0	Hedge Funds 7.8	Municipals 5-Year 4.3	Core Bond -1.5	International Developed -19.6	U.S. Core Bond 1.5
Core Bond 4.2	TIPS -8.6	International Dev. -4.9	Emerging Markets -14.9	International Dev. 1.0	Municipals 5-Year 3.1	Commodities -11.2	Commodities 7.7	EM Debt (unhedged) 2.7	Emerging Markets -2.5	U.S. Equity REITs -20.2	Foreign Bond 0.8
Municipals 5-Year 3.0	EM Debt (unhedged) -9.0	EM Debt (unhedged) -5.7	EM Debt (unhedged) -14.9	Hedge Funds 0.5	TIPS 3.0	International Dev. -13.8	Foreign Bond 6.3	Commodities -3.1	Foreign Bond -4.2	U.S. Large Cap -20.9	Commodities -0.8
Commodities -1.1	Commodities -9.5	Commodities -17.0	Commodities -24.7	Municipals 5-Year -0.4	Commodities 1.7	Emerging Markets -14.6	Municipals 5-Year 5.4	U.S. Equity REITs -8.0	EM Debt (unhedged) -8.7	U.S. Small Cap -23.4	EM Debt (unhedged) -1.5

Source: FactSet, Morningstar Direct, as of June 30, 2022. Periods greater than one year are annualized. All returns are in U.S. dollar terms. One month lag for Hedge Funds.



# **Financial Markets Performance**

# Total Return as of June 30, 2022 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	0.1%	0.2%	0.2%	0.6%	1.1%	0.8%	0.6%	0.7%
Bloomberg U.S. TIPS	-6.1%	-8.9%	-5.1%	3.0%	3.2%	2.8%	1.7%	3.9%
Bloomberg Municipal Bond (5 Year)	-0.4%	-5.5%	-5.3%	0.2%	1.2%	1.5%	1.6%	3.0%
Bloomberg High Yield Municipal Bond	-5.6%	-11.8%	-10.4%	1.1%	3.6%	4.4%	4.4%	4.2%
Bloomberg U.S. Aggregate	-4.7%	-10.3%	-10.3%	-0.9%	0.9%	1.4%	1.5%	3.3%
Bloomberg U.S. Corporate High Yield	-9.8%	-14.2%	-12.8%	0.2%	2.1%	3.5%	4.5%	5.8%
Bloomberg Global Aggregate ex-U.S. Hedged	-4.0%	-7.9%	-7.7%	-1.4%	1.3%	2.0%	2.7%	3.4%
Bloomberg Global Aggregate ex-U.S. Unhedged	-11.0%	-16.5%	-18.8%	-5.1%	-1.8%	-0.3%	-1.1%	1.4%
Bloomberg U.S. Long Gov / Credit	-12.3%	-21.9%	-20.1%	-2.3%	1.0%	2.7%	2.6%	5.3%
JPMorgan GBI-EM Global Diversified	-8.6%	-14.5%	-19.3%	-5.8%	-2.3%	-0.5%	-1.5%	1.8%
Global Equity Markets	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
S&P 500	-16.1%	-20.0%	-10.6%	10.6%	11.3%	11.1%	13.0%	8.5%
Dow Jones Industrial Average	-10.8%	-14.4%	-9.1%	7.2%	10.0%	10.8%	11.7%	8.4%
NASDAQ Composite	-22.3%	-29.2%	-23.4%	12.2%	13.5%	13.1%	15.4%	11.2%
Russell 3000	-16.7%	-21.1%	-13.9%	9.8%	10.6%	10.4%	12.6%	8.4%
Russell 1000	-16.7%	-20.9%	-13.0%	10.2%	11.0%	10.8%	12.8%	8.5%
Russell 1000 Growth	-20.9%	-28.1%	-18.8%	12.6%	14.3%	13.5%	14.8%	10.7%
Russell 1000 Value	-12.2%	-12.9%	-6.8%	6.9%	7.2%	7.7%	10.5%	6.1%
Russell Mid Cap	-16.8%	-21.6%	-17.3%	6.6%	8.0%	8.0%	11.3%	7.8%
Russell Mid Cap Growth	-21.1%	-31.0%	-29.6%	4.3%	8.9%	8.3%	11.5%	8.2%
Russell Mid Cap Value	-14.7%	-16.2%	-10.0%	6.7%	6.3%	7.2%	10.6%	6.9%
Russell 2000	-17.2%	-23.4%	-25.2%	4.2%	5.2%	5.9%	9.4%	6.3%
Russell 2000 Growth	-19.3%	-29.5%	-33.4%	1.4%	4.8%	5.0%	9.3%	6.8%
Russell 2000 Value	-15.3%	-17.3%	-16.3%	6.2%	4.9%	6.4%	9.1%	5.6%
MSCI ACWI	-15.7%	-20.2%	-15.8%	6.2%	7.0%	7.0%	8.8%	4.8%
MSCI ACWI ex. U.S.	-13.7%	-18.4%	-19.4%	1.4%	2.5%	2.9%	4.8%	1.6%
MSCI EAFE	-14.5%	-19.6%	-17.8%	1.1%	2.2%	2.7%	5.4%	1.4%
MSCI EAFE Growth	-16.9%	-26.8%	-23.8%	1.3%	3.5%	3.9%	6.3%	2.5%
MSCI EAFE Value	-12.4%	-12.1%	-11.9%	0.2%	0.5%	1.2%	4.2%	0.1%
MSCI EAFE Small Cap	-17.7%	-24.7%	-24.0%	1.1%	1.7%	3.7%	7.2%	2.8%
MSCI Emerging Markets	-11.4%	-17.6%	-25.3%	0.6%	2.2%	2.8%	3.1%	2.0%
Alternatives	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Consumer Price Index*	1.3%	4.6%	8.5%	4.5%	3.6%	3.0%	2.5%	2.3%
TSE NAREIT Equity REITs	-17.0%	-20.2%	-6.3%	4.0%	5.3%	6.7%	7.4%	5.8%
S&P Real Assets	-10.5%	-9.1%	-4.9%	3.5%	4.5%	4.2%	4.4%	4.4%
TSE EPRA NAREIT Developed	-17.2%	-20.4%	-12.7%	-0.2%	2.9%	4.0%	5.6%	2.8%
TSE EPRA NAREIT Developed ex U.S.	-17.5%	-20.1%	-20.6%	-4.4%	0.4%	1.4%	3.9%	0.6%
Bloomberg Commodity Total Return	-5.7%	18.4%	24.3%	14.3%	8.4%	2.8%	-0.8%	-1.8%
HFRI Fund of Funds Composite*	-2.8%	-5.5%	-3.8%	4.9%	3.9%	2.7%	3.8%	1.9%
HFRI Fund Weighted Composite*	-1.9%	-2.9%	-2.3%	8.0%	5.8%	4.6%	5.3%	3.9%
Alerian MLP	-7.4%	10.0%	4.3%	0.1%	-0.3%	-2.1%	0.7%	3.7%

Source: Morningstar, FactSet. As of June 30, 2022. \*Consumer Price Index and HFRI indexes as of May 31, 2022.

# Mid-Year Update: Revisiting our Themes of 2022

From Pandemic to Endemic

Despite movement toward less virulent variants of Covid-19, we expect its impact on supply chain bottlenecks to continue.

**Portfolio Impact:** Expect bottlenecks to continue to weigh on production, economic growth and inflation forces.

Policy Maker Tightrope Central bankers are implementing an array of policy responses to respond to their unique economic circumstances, which is causing inflationary and interest rate conditions to remain unsettled.

**Portfolio Impact:** We believe active management of fixed income and duration positioning within the portfolio remains prudent.

Inflation: Coming or Going?

Inflation continues to run at 40-year highs, which is untenable to the Fed. With the 75 basis point hike in June, the Fed is on a more accelerated path to higher interest rates.

**Portfolio Impact**: An allocation to real assets continues to be an important diversifier in the portfolio.

Volatility Ahead

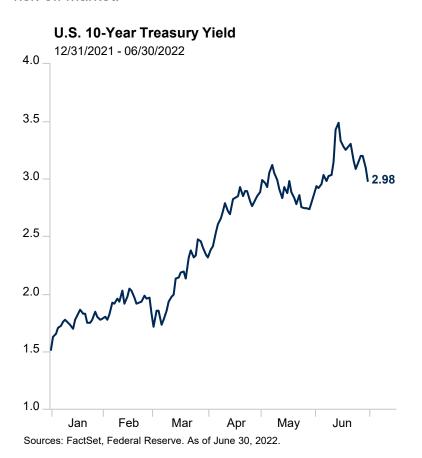
With tightening monetary policy and higher bond yields, equity markets are repricing until a new equilibrium is achieved. Interest rate volatility and inflation data is impacting bond pricing as well.

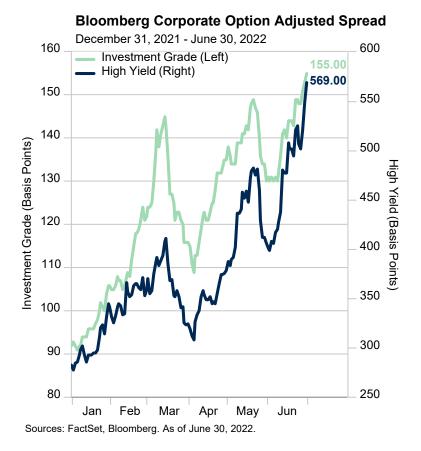
**Portfolio Impact**: We continue to advocate for a **globally diversified equity portfolio**, active management in fixed **income** and **real asset exposure** to help weather volatility.

**Revised return assumptions:** Our capital markets research team revises our forward-looking assumptions as economic and market dynamics change. We completed this exercise in early June, and as expected, our forward-looking return assumptions for many asset classes increased due to the widescale repricing of equity and fixed income markets. However, due to the fact that the year-to-date market selloff has afflicted nearly all asset classes, our forecast revisions have not prompted allocation/portfolio changes.

# **Fixed Income – Current Landscape**

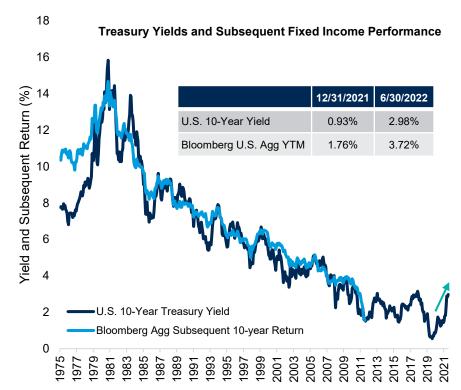
- Core fixed income, as measured by the total return of Bloomberg US Aggregate Index, has experienced its worst start on record year-to-date through June 30<sup>th</sup>.
- Aside from cash, there have been few places for fixed income investors to hide in this environment, as Treasury yields
  have risen sharply amidst inflationary pressures and central bank actions and credit spreads have widened rapidly in the
  risk-off market.



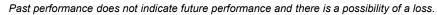


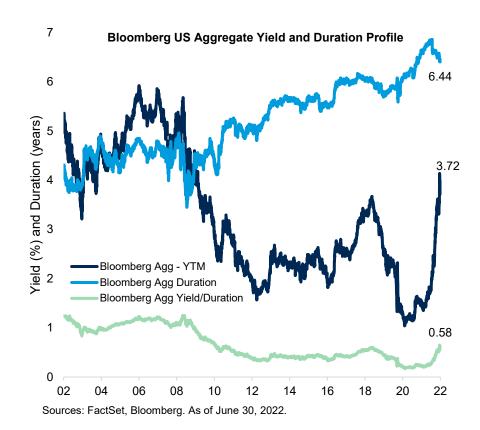
#### Fixed Income - More Favorable Outlook

- Despite the very challenged trailing returns, there is a silver lining to the rising rate environment.
- Starting yield is a strong indicator of future returns for fixed income. The sharp rise in Treasury yields has created a
  more favorable outlook for the asset class than we have seen in quite some time. In fact, based on the current 10-year
  breakeven inflation rate, real yields are now positive.
- Similarly, the yield per unit of duration profile for the Bloomberg US Aggregate Index has improved significantly this
  year, touching levels last seen in 2018.



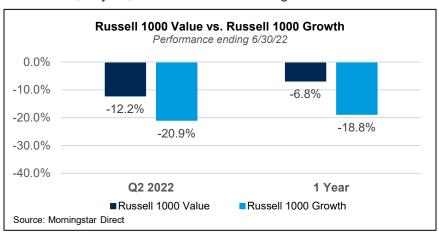
Sources: FactSet, Morningstar Direct, Fiducient Advisors. For the period January 1, 1976 to June 30, 2022.

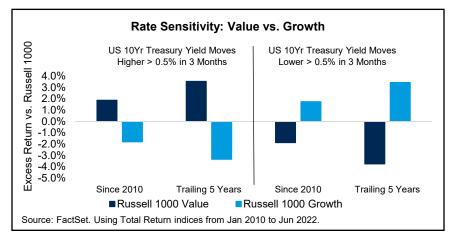




# **Equities – Dispersion in Returns**

- Alongside the heightened volatility experienced over the past year, markets have also experienced a notable dispersion in returns across investment styles, underlying sectors, and individual company returns. Value has outperformed growth notably during the timeframe, reversing a period of growth leadership that lasted nearly more than a decade.
- The rising rate environment has caused investors to pause and re-evaluate their willingness to pay for growth exposure. A higher discount rate now required to value the future earning potential of a business has caused the value of many growth companies to fall significantly.
- Due to the market pullback the annual reconstitution of the Russell indices has resulted in some notable changes, namely Meta, Zoom, PayPal, and Netflix all now being considered value stocks.





#### Total Returns of Russell 1000 Index

More Expensiv	P/E Quintile	May Return	QTD Return	YTD Return
†	Quintile 1 (Highest)	-7.3%	-22.1%	-31.0%
	Quintile 2	-3.5%	-11.5%	-17.5%
	Quintile 3	-0.3%	-6.9%	-10.9%
	Quintile 4	-0.9%	-6.5%	-5.7%
Less	Quintile 5 (Lowest)	2.0%	-2.4%	2.7%
Expensiv	Ve Source FactSet As of May	13 2022		

Source: FactSet. As of May 13, 2022.

TAKEAWAY: We continue to advocate for a balanced approach to equity investing.

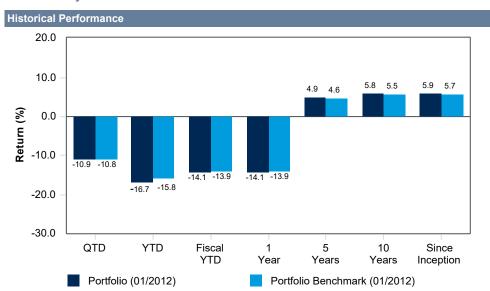
Despite the recent outperformance of value stocks, market conditions can change rapidly.

Having a pronounced style bias may result in adverse outcomes.



#### **Portfolio Dashboard**

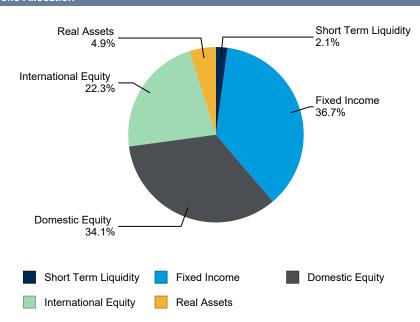
**Town of Ledyard Pension Plan** As of June 30, 2022



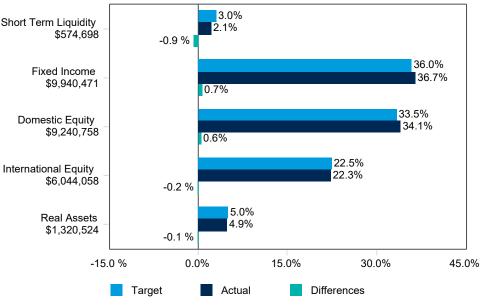
Summary of Cash Flows					
	QTD	YTD	Fiscal YTD	1 Year	Since Inception
Beginning Market Value	29,645,329	32,212,279	32,013,838	32,013,838	11,303,089
Net Contributions	705,207	240,530	-547,031	-547,031	3,748,569
Gain/Loss	-3,230,027	-5,332,300	-4,346,298	-4,346,298	12,068,851
Ending Market Value	27,120,509	27,120,509	27,120,509	27,120,509	27,120,509

Current Benchma	rk Composition	
From Date	To Date	
04/2022	Present	3.00% 90 Day U.S. Treasury Bill, 36.00% Blmbg. U.S. Aggregate, 21.50% S&P 500, 12.00% Russell 2000 Index, 8.50% MSCI AC World ex USA (Net), 7.50% MSCI EAFE (Net), 6.50% MSCI Emerging Markets (Net), 5.00% S&P Real Assets

#### **Portfolio Allocation**

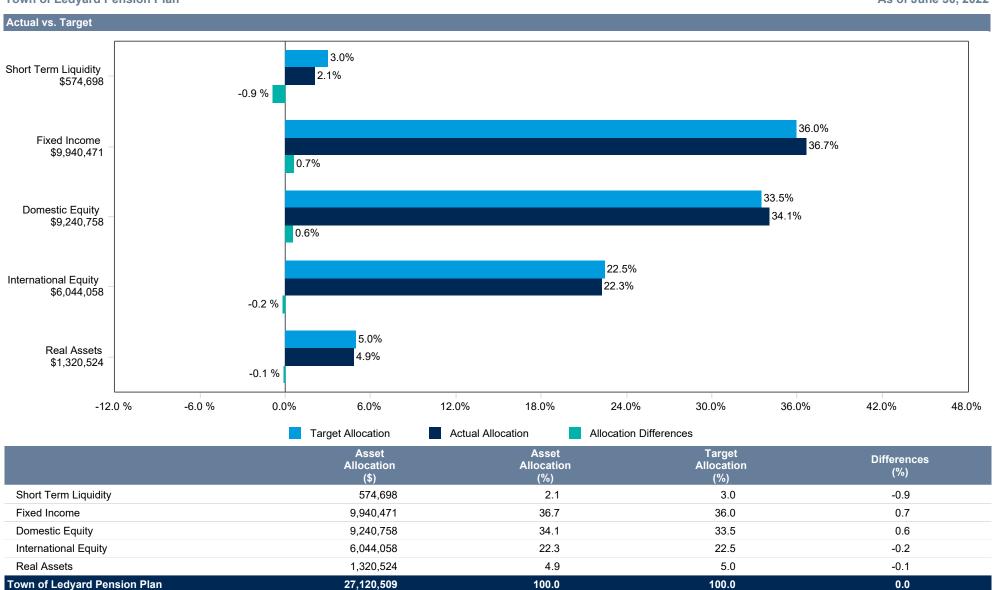


# Actual vs. Target Allocations **Short Term Liquidity**





#### **Asset Allocation**





# **Asset Allocation**

	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)
Town of Ledyard Pension Plan	27,120,509	100.0	100.0	0.0
Short Term Liquidity	574,698	2.1	3.0	-0.9
Dreyfus Treasury Securities Cash Management	574,698	2.1	3.0	-0.9
Fixed Income	9,940,471	36.7	36.0	0.7
Vanguard Total Bond Market Index Adm	2,364,862	8.7	8.5	0.2
Metropolitan West Total Return Bond Pl	3,085,221	11.4	11.3	0.1
PGIM Total Return Bond R6	3,076,313	11.3	11.3	0.1
BlackRock Strategic Income Opportunities Class K	1,414,075	5.2	5.0	0.2
Domestic Equity	9,240,758	34.1	33.5	0.6
Vanguard Institutional Index Fund Instl	3,982,786	14.7	14.5	0.2
Touchstone Large Cap Focused Fund Instl	1,976,886	7.3	7.0	0.3
Neuberger Berman Genesis R6	1,626,430	6.0	6.0	0.0
William Blair Small Cap Value R6	861,443	3.2	3.0	0.2
Hood River Small Cap Growth R	793,213	2.9	3.0	-0.1
International Equity	6,044,058	22.3	22.5	-0.2
Vanguard Total International Stock Index Adm	2,283,455	8.4	8.5	-0.1
T. Rowe Price Overseas Stock Instl	2,006,195	7.4	7.5	-0.1
Invesco Developing Markets R6	1,754,408	6.5	6.5	0.0
Real Assets	1,320,524	4.9	5.0	-0.1
DWS RREEF Real Assets R6	1,320,524	4.9	5.0	-0.1



# **Performance Overview**

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	-10.9	-16.7	-14.1	-14.1	3.9	4.9	4.9	5.8	5.9	01/2012
Blended Benchmark	-10.8	-15.8	-13.9	-13.9	3.7	4.6	4.6	5.5	5.7	01/2012

Calendar Year Performance Summary										
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Town of Ledyard Pension Plan	10.6	14.9	19.0	-6.3	13.1	10.0	-3.1	2.3	13.2	10.9
Blended Benchmark	9.8	13.6	18.4	-6.0	12.9	9.1	-3.5	3.6	12.3	10.5

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	29,645,329	32,212,279	32,013,838	25,167,634	21,825,949	13,820,639	11,303,089			
Net Contributions	705,207	240,530	-547,031	-1,165,996	-638,544	1,681,008	3,748,569			
Gain/Loss	-3,230,027	-5,332,300	-4,346,298	3,118,870	5,933,104	11,618,862	12,068,851			
Ending Market Value	27,120,509	27,120,509	27,120,509	27,120,509	27,120,509	27,120,509	27,120,509			

Benchmark Composition	
	Weight (%)
Apr-2022	
90 Day U.S. Treasury Bill	3.0
Blmbg. U.S. Aggregate	36.0
S&P 500	21.5
Russell 2000 Index	12.0
MSCI AC World ex USA (Net)	8.5
MSCI EAFE (Net)	7.5
MSCI Emerging Markets (Net)	6.5
S&P Real Assets	5.0



#### **Performance Attribution**

-4.0 %

-2.0 %

Average Active Weight

0.0%

2.0%

4.0%

-0.4 %

-0.2 %

Asset Allocation Value Added

0.0%

0.2%

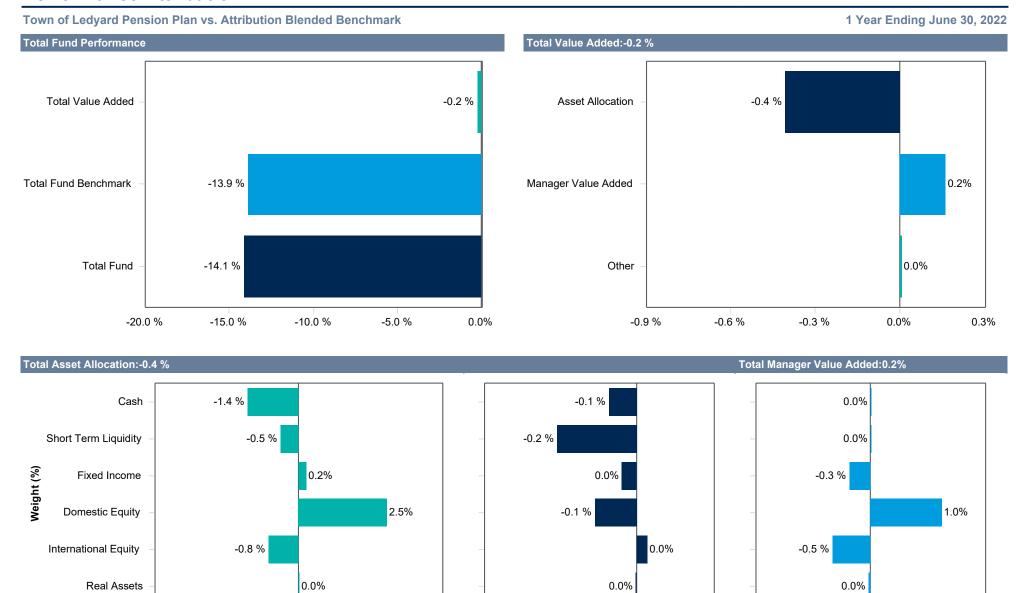
-1.6 %

-0.8 %

0.0%

Manager Value Added

0.8%



1.6%



# **Manager Performance**

	Allocation	on	Performance(%)									
	Market Value (\$)	%	QTD	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	- Manager Status
Town of Ledyard Pension Plan	27,120,509	100.0	-10.9	-16.7	-14.1	-14.1	3.9	4.9	5.8	5.9	01/2012	
Blended Benchmark			-10.8	-15.8	-13.9	-13.9	3.7	4.6	5.5	5.7		
Short Term Liquidity	574,698	2.1	0.1	0.1	0.1	0.1	0.5	0.9	0.5	0.5	01/2012	
90 Day U.S. Treasury Bill			0.1	0.1	0.2	0.2	0.6	1.1	0.6	0.6		
<b>Dreyfus Treasury Securities Cash Management</b>	574,698	2.1	0.1	0.1	0.1	0.1	0.5	0.9	0.5	0.5	01/2012	
90 Day U.S. Treasury Bill			0.1	0.1	0.2	0.2	0.6	1.1	0.6	0.6		
Fixed Income	9,940,471	36.7	-5.4	-11.2	-11.1	-11.1	-1.0	1.0	2.2	2.3	01/2012	
Blmbg. U.S. Aggregate			-4.7	-10.3	-10.3	-10.3	-0.9	0.9	1.5	1.7		
Vanguard Total Bond Market Index Adm	2,364,862	8.7	-4.7	-10.4	-10.4	-10.4	-0.9	0.8	1.5	1.6	01/2012	Maintain
Blmbg. U.S. Aggregate			-4.7	-10.3	-10.3	-10.3	-0.9	0.9	1.5	1.7		
IM U.S. Broad Market Core Fixed Income (MF) Median			-5.4	-11.0	-11.2	-11.2	-0.9	8.0	1.6	1.8		
Vanguard Total Bond Market Index Adm Rank			18	28	24	24	51	45	59	64		
Metropolitan West Total Return Bond PI	3,085,221	11.4	-5.7	-11.6	-11.6	-11.6	-0.7	1.1	2.3	2.5	04/2012	Maintain
Blmbg. U.S. Aggregate			-4.7	-10.3	-10.3	-10.3	-0.9	0.9	1.5	1.7		
IM U.S. Broad Market Core+ Fixed Income (MF) Median			-5.9	-11.5	-11.3	-11.3	-0.7	0.9	1.8	2.0		
Metropolitan West Total Return Bond Pl Rank			38	56	58	58	48	35	23	24		
PGIM Total Return Bond R6	3,076,313	11.3	-6.7	-12.8	-12.5	-12.5	-1.3	1.1	2.6	1.7	04/2015	Maintain
Blmbg. U.S. Aggregate			-4.7	-10.3	-10.3	-10.3	-0.9	0.9	1.5	1.1		
IM U.S. Broad Market Core+ Fixed Income (MF) Median			-5.9	-11.5	-11.3	-11.3	-0.7	0.9	1.8	1.2		
PGIM Total Return Bond R6 Rank			80	84	80	80	80	40	13	19		
BlackRock Strategic Income Opportunities Class K	1,414,075	5.2	-2.6	-5.4	-5.6	-5.6	1.7	2.4	2.9	-2.6	04/2022	Maintain
Blmbg. U.S. Aggregate			-4.7	-10.3	-10.3	-10.3	-0.9	0.9	1.5	-4.7		
IM Alternative Credit Focus (MF) Median			-4.4	-7.2	-7.8	-7.8	0.4	8.0	1.7	-4.4		
BlackRock Strategic Income Opportunities Class K Rank			19	31	25	25	21	21	12	19		

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# **Manager Performance**

	Allocation		Performance(%)									
	Market Value (\$)	<u></u> %	QTD	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Manager Status
Domestic Equity	9,240,758	34.1	-15.6	-20.6	-12.8	-12.8	9.7	10.7	12.3	12.7	01/2012	
Domestic Equity Benchmark			-16.5	-21.1	-15.4	-15.4	8.7	9.5	11.9	12.3		
Vanguard Institutional Index Fund InstI	3,982,786	14.7	-16.1	-20.0	-10.6	-10.6	10.6	11.3	12.9	13.2	01/2012	Maintain
S&P 500			-16.1	-20.0	-10.6	-10.6	10.6	11.3	13.0	13.3		
IM U.S. Large Cap Core Equity (MF) Median			-15.8	-20.4	-12.5	-12.5	9.6	10.5	12.1	12.4		
Vanguard Institutional Index Fund Instl Rank			58	43	34	34	26	26	18	19		
Touchstone Large Cap Focused Fund Instl	1,976,886	7.3	-16.2	-19.5	-13.8	-13.8	11.7	12.4	13.2	15.2	01/2019	Maintain
S&P 500			-16.1	-20.0	-10.6	-10.6	10.6	11.3	13.0	14.4		
IM U.S. Large Cap Core Equity (MF) Median			-15.8	-20.4	-12.5	-12.5	9.6	10.5	12.1	13.6		
Touchstone Large Cap Focused Fund Instl Rank			60	37	73	73	9	7	8	12		
Neuberger Berman Genesis R6	1,626,430	6.0	-12.7	-22.3	-15.1	-15.1	6.9	9.0	10.9	10.3	04/2012	Maintain
Russell 2000 Index			-17.2	-23.4	-25.2	-25.2	4.2	5.2	9.4	8.7		
IM U.S. Small Cap Core Equity (MF) Median			-14.6	-19.2	-15.8	-15.8	5.8	5.5	9.3	8.6		
Neuberger Berman Genesis R6 Rank			24	79	46	46	31	3	10	8		
William Blair Small Cap Value R6	861,443	3.2	-11.6	-15.2	-12.1	-12.1	0.4	2.3	8.3	-10.0	12/2021	Maintain
Russell 2000 Value Index			-15.3	-17.3	-16.3	-16.3	6.2	4.9	9.1	-13.9		
IM U.S. Small Cap Value Equity (MF) Median			-13.9	-15.3	-11.8	-11.8	7.6	5.0	9.0	-10.8		
William Blair Small Cap Value R6 Rank			14	49	55	55	100	97	70	34		
Hood River Small Cap Growth R	793,213	2.9	-21.7	-30.6	-28.6	-28.6	11.6	11.1	14.5	-28.6	12/2021	Maintain
Russell 2000 Growth Index			-19.3	-29.5	-33.4	-33.4	1.4	4.8	9.3	-29.1		
IM U.S. Small Cap Growth Equity (MF) Median			-19.1	-29.5	-29.3	-29.3	3.7	7.5	10.0	-28.6		
Hood River Small Cap Growth R Rank			75	58	47	47	2	9	1	50		

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Town of Ledyard Pension Plan

As of June 30, 2022

	Allocatio	n				P	erformance(	(%)				
	Market Value (\$)	Value %		YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Manager Status
Literation of Facility	0.044.050	00.0	40.0	00.0	00.0	00.0	0.7	0.0	4.0	0.4	00/0040	
International Equity	6,044,058	22.3	-12.6	-20.2	-22.8	-22.8	0.7	2.0	4.3	3.4	03/2012	
International Equity Benchmark			-13.3	-18.6	-20.6	-20.6	1.1	2.4	4.5	3.4		
Vanguard Total International Stock Index Adm	2,283,455	8.4	-12.9	-18.2	-18.9	-18.9	2.0	2.7	5.2	4.2	04/2012	Maintain
FTSE Global All Cap ex US Spliced Index			-14.1	-18.6	-19.3	-19.3	1.9	2.7	5.2	4.3		
IM International Large Cap Core Equity (MF) Median			-13.3	-19.3	-17.8	-17.8	1.6	1.9	4.9	4.0		
Vanguard Total International Stock Index Adm Rank			44	35	63	63	39	23	39	38		
T. Rowe Price Overseas Stock Instl	2,006,195	7.4	-13.8	-19.3	-17.6	-17.6	2.9	2.7	5.8	1.0	06/2018	Maintain
MSCI EAFE (Net)			-14.5	-19.6	-17.8	-17.8	1.1	2.2	5.4	0.7		
IM International Large Cap Core Equity (MF) Median			-13.3	-19.3	-17.8	-17.8	1.6	1.9	4.9	0.6		
T. Rowe Price Overseas Stock Instl Rank			71	49	43	43	21	23	13	38		
Invesco Developing Markets R6	1,754,408	6.5	-11.4	-25.3	-34.9	-34.9	-4.2	0.4	2.8	2.1	04/2012	Maintain
MSCI Emerging Markets (Net)			-11.4	-17.6	-25.3	-25.3	0.6	2.2	3.1	2.1		
IM Emerging Markets Equity (MF) Median			-11.9	-20.5	-28.0	-28.0	0.1	1.6	2.7	1.8		
Invesco Developing Markets R6 Rank			38	80	86	86	91	72	50	44		
Real Assets	1,320,524	4.9	-10.9	-	-	-	-	-	-	-10.9	04/2022	
S&P Real Assets			-10.5	-9.1	-4.9	-4.9	3.5	4.5	4.4	-10.5		
DWS RREEF Real Assets R6	1,320,524	4.9	-10.9	-7.1	0.0	0.0	8.1	8.2	5.2	-10.9	04/2022	Maintain
S&P Real Assets			-10.5	-9.1	-4.9	-4.9	3.5	4.5	4.4	-10.5		

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# **Calendar Year Performance**

Town of Ledvard Pension Plan

As of June 30, 2022

Town of Ledyard Pension Plan									As of Ju	ne 30, 202
						ance(%)				
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Town of Ledyard Pension Plan	10.6	14.9	19.0	-6.3	13.1	10.0	-3.1	2.3	13.2	10.9
Blended Benchmark	9.8	13.6	18.4	-6.0	12.9	9.1	-3.5	3.6	12.3	10.5
Short Term Liquidity	0.0	0.4	2.0	1.8	0.6	0.2	0.0	0.0	0.0	0.0
90 Day U.S. Treasury Bill	0.0	0.7	2.3	1.9	0.9	0.3	0.0	0.0	0.0	0.1
Dreyfus Treasury Securities Cash Management	0.0	0.4	2.0	1.8	0.6	0.2	0.0	0.0	0.0	0.0
90 Day U.S. Treasury Bill	0.0	0.7	2.3	1.9	0.9	0.3	0.0	0.0	0.0	0.1
Fixed Income	-1.3	8.3	9.1	0.0	4.6	4.6	-0.2	5.2	-0.2	7.4
Blmbg. U.S. Aggregate	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
Vanguard Total Bond Market Index Adm	-1.7	7.7	8.7	0.0	3.6	2.6	0.4	5.9	-2.1	4.2
Blmbg. U.S. Aggregate	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
IM U.S. Broad Market Core Fixed Income (MF) Median	-1.3	8.2	8.8	-0.6	3.6	2.9	0.0	5.5	-2.0	6.0
Vanguard Total Bond Market Index Adm Rank	66	65	53	20	54	64	30	32	59	82
Metropolitan West Total Return Bond PI	-1.1	9.2	9.2	0.3	3.5	2.6	0.2	6.2	0.4	11.6
Blmbg. U.S. Aggregate	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
IM U.S. Broad Market Core+ Fixed Income (MF) Median	-0.9	8.6	9.3	-1.0	4.5	4.1	-0.3	5.1	-1.1	8.2
Metropolitan West Total Return Bond Pl Rank	58	36	55	11	79	86	26	25	16	7
PGIM Total Return Bond R6	-1.2	8.1	11.1	-0.6	6.7	4.8	0.1	7.3	-0.9	10.0
Blmbg. U.S. Aggregate	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
IM U.S. Broad Market Core+ Fixed Income (MF) Median	-0.9	8.6	9.3	-1.0	4.5	4.1	-0.3	5.1	-1.1	8.2
PGIM Total Return Bond R6 Rank	60	60	11	36	2	30	35	8	44	18
BlackRock Strategic Income Opportunities Class K	1.0	7.3	7.8	-0.5	5.0	3.6	-0.6	3.6	3.0	9.6
Blmbg. U.S. Aggregate	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
IM Alternative Credit Focus (MF) Median	1.9	3.9	7.3	-1.9	4.5	4.9	-1.6	1.0	-0.1	9.2
BlackRock Strategic Income Opportunities Class K Rank	58	17	43	29	43	64	25	21	31	44
Domestic Equity	25.1	21.7	30.7	-5.1	19.7	13.9	1.1	9.0	34.0	16.9
Domestic Equity Benchmark	24.4	19.2	29.8	-6.3	19.5	15.1	-0.5	10.8	34.5	16.5
Vanguard Institutional Index Fund Instl	28.7	18.4	31.5	-4.4	21.8	11.9	1.4	13.7	32.3	16.0
S&P 500	28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7	32.4	16.0
IM U.S. Large Cap Core Equity (MF) Median	26.9	18.4	30.6	-5.4	21.4	9.7	0.5	11.5	31.8	15.4
Vanguard Institutional Index Fund Instl Rank	26	50	37	32	45	20	35	18	38	41



# **Calendar Year Performance**

**Town of Ledyard Pension Plan** As of June 30, 2022 Performance(%) 2021 2020 2019 2018 2017 2016 2015 2014 2013 2012 **Touchstone Large Cap Focused Fund Insti** 25.6 24.2 30.6 -2.4 23.6 11.6 0.9 10.6 31.0 14.9 S&P 500 28.7 18.4 31.5 -4.4 21.8 12.0 1.4 13.7 32.4 16.0 IM U.S. Large Cap Core Equity (MF) Median 30.6 21.4 9.7 0.5 11.5 31.8 15.4 26.9 18.4 -5.4 Touchstone Large Cap Focused Fund Instl Rank 67 10 51 16 25 25 44 65 61 58 Neuberger Berman Genesis R6 18.5 25.2 29.8 -6.4 15.9 18.4 0.5 0.0 37.2 9.9

14.8 25.1 83 22.2 28.3 32.0 94 23.9 2.8	20.0 9.9 5 -5.5 4.6 3.6 94	25.5 23.9 7 20.6 22.4 21.1 56	-11.0 -12.7 5 -14.0 -12.9 -16.1 32	14.6 12.1 15 13.1 7.8 8.5 14	21.3 21.7 79 <b>31.4</b> 31.7 26.7	-4.4 -4.3 3 -3.2 -7.5 -7.0	4.9 4.7 86 <b>2.9</b> 4.2 3.4	38.8 36.9 47 <b>36.2</b> 34.5 36.5	16.3 14.8 90 <b>16.9</b> 18.1
83 22.2 28.3 32.0 94 23.9	5 -5.5 4.6 3.6 94	7 20.6 22.4 21.1 56	5 -14.0 -12.9 -16.1	15 13.1 7.8 8.5	79 <b>31.4</b> 31.7 26.7	- <b>3.2</b> -7.5	86 <b>2.9</b> 4.2	47 <b>36.2</b> 34.5	90 <b>16.9</b> <i>18.1</i>
22.2 28.3 32.0 94 23.9	<b>-5.5</b> 4.6 3.6 94	<b>20.6</b> 22.4 21.1 56	<b>-14.0</b> -12.9 -16.1	<b>13.1</b> 7.8 8.5	<b>31.4</b> 31.7 26.7	<b>-3.2</b> -7.5	<b>2.9</b> 4.2	<b>36.2</b> 34.5	<b>16.9</b> 18.1
28.3 32.0 94 23.9	4.6 3.6 94	22.4 21.1 56	<i>-12.9</i> -16.1	7.8 8.5	31.7 26.7	-7.5	4.2	34.5	18.1
32.0 94 <b>23.9</b>	3.6 94	21.1 56	-16.1	8.5	26.7				
94 <b>23.9</b>	94	56				-7.0	3.4	36.5	40.0
23.9			32	14	10			30.5	16.2
	60.8	24.2			10	12	59	55	45
2.8		24.2	-6.8	20.8	13.5	0.8	8.6	43.9	23.1
	34.6	28.5	-9.3	22.2	11.3	-1.4	5.6	43.3	14.6
10.5	36.5	27.7	-5.6	20.7	10.1	-2.4	2.8	42.5	13.6
9	10	73	57	50	27	17	4	40	1
5.2	12.5	23.0	-13.8	28.6	4.1	-7.3	-5.2	13.5	-
5.9	12.0	20.6	-14.1	29.8	5.6	-7.2	-3.6	11.4	17.5
8.6	11.3	21.5	-14.4	27.6	4.7	-4.3	-4.2	15.1	18.2
8.8	11.2	21.8	-14.6	27.4	4.7	-4.3	-3.4	15.8	17.0
10.7	9.1	22.1	-15.0	25.0	0.0	-1.9	-6.0	20.4	18.0
72	34	61	41	25	12	70	19	75	49
12.4	9.3	23.0	-14.8	27.2	3.0	-2.5	-4.5	21.8	18.6
11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3
10.7	9.1	22.1	-15.0	25.0	0.0	-1.9	-6.0	20.4	18.0
28	47	37	47	25	14	59	23	29	47
-7.1	17.7	24.5	-11.8	35.3	7.4	-13.7	-4.4	8.9	21.4
-2.5	18.3	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2
-1.6	17.7	20.2	-16.5	35.7	8.3	-13.7	-3.0	-1.5	18.8
81	51	26	12	52	54	50	68	15	21
	9 5.2 5.9 8.6 8.8 10.7 72 12.4 11.3 10.7 28 -7.1 -2.5 -1.6	9 10  5.2 12.5  5.9 12.0  8.6 11.3  8.8 11.2 10.7 9.1 72 34  12.4 9.3 11.3 7.8 10.7 9.1 28 47  -7.1 17.7 -2.5 18.3 -1.6 17.7	9     10     73       5.2     12.5     23.0       5.9     12.0     20.6       8.6     11.3     21.5       8.8     11.2     21.8       10.7     9.1     22.1       72     34     61       12.4     9.3     23.0       11.3     7.8     22.0       10.7     9.1     22.1       28     47     37       -7.1     17.7     24.5       -2.5     18.3     18.4       -1.6     17.7     20.2	9       10       73       57         5.2       12.5       23.0       -13.8         5.9       12.0       20.6       -14.1         8.6       11.3       21.5       -14.4         8.8       11.2       21.8       -14.6         10.7       9.1       22.1       -15.0         72       34       61       41         12.4       9.3       23.0       -14.8         11.3       7.8       22.0       -13.8         10.7       9.1       22.1       -15.0         28       47       37       47         -7.1       17.7       24.5       -11.8         -2.5       18.3       18.4       -14.6         -1.6       17.7       20.2       -16.5	9     10     73     57     50       5.2     12.5     23.0     -13.8     28.6       5.9     12.0     20.6     -14.1     29.8       8.6     11.3     21.5     -14.4     27.6       8.8     11.2     21.8     -14.6     27.4       10.7     9.1     22.1     -15.0     25.0       72     34     61     41     25       12.4     9.3     23.0     -14.8     27.2       11.3     7.8     22.0     -13.8     25.0       10.7     9.1     22.1     -15.0     25.0       28     47     37     47     25       -7.1     17.7     24.5     -11.8     35.3       -2.5     18.3     18.4     -14.6     37.3       -1.6     17.7     20.2     -16.5     35.7	9       10       73       57       50       27         5.2       12.5       23.0       -13.8       28.6       4.1         5.9       12.0       20.6       -14.1       29.8       5.6         8.6       11.3       21.5       -14.4       27.6       4.7         8.8       11.2       21.8       -14.6       27.4       4.7         10.7       9.1       22.1       -15.0       25.0       0.0         72       34       61       41       25       12         12.4       9.3       23.0       -14.8       27.2       3.0         11.3       7.8       22.0       -13.8       25.0       1.0         10.7       9.1       22.1       -15.0       25.0       0.0         28       47       37       47       25       14         -7.1       17.7       24.5       -11.8       35.3       7.4         -2.5       18.3       18.4       -14.6       37.3       11.2         -1.6       17.7       20.2       -16.5       35.7       8.3	9       10       73       57       50       27       17         5.2       12.5       23.0       -13.8       28.6       4.1       -7.3         5.9       12.0       20.6       -14.1       29.8       5.6       -7.2         8.6       11.3       21.5       -14.4       27.6       4.7       -4.3         8.8       11.2       21.8       -14.6       27.4       4.7       -4.3         10.7       9.1       22.1       -15.0       25.0       0.0       -1.9         72       34       61       41       25       12       70         12.4       9.3       23.0       -14.8       27.2       3.0       -2.5         11.3       7.8       22.0       -13.8       25.0       1.0       -0.8         10.7       9.1       22.1       -15.0       25.0       0.0       -1.9         28       47       37       47       25       14       59         -7.1       17.7       24.5       -11.8       35.3       7.4       -13.7         -2.5       18.3       18.4       -14.6       37.3       11.2       -14.9	9       10       73       57       50       27       17       4         5.2       12.5       23.0       -13.8       28.6       4.1       -7.3       -5.2         5.9       12.0       20.6       -14.1       29.8       5.6       -7.2       -3.6         8.6       11.3       21.5       -14.4       27.6       4.7       -4.3       -4.2         8.8       11.2       21.8       -14.6       27.4       4.7       -4.3       -3.4         10.7       9.1       22.1       -15.0       25.0       0.0       -1.9       -6.0         72       34       61       41       25       12       70       19         12.4       9.3       23.0       -14.8       27.2       3.0       -2.5       -4.5         11.3       7.8       22.0       -13.8       25.0       1.0       -0.8       -4.9         10.7       9.1       22.1       -15.0       25.0       0.0       -1.9       -6.0         28       47       37       47       25       14       59       23         -7.1       17.7       24.5       -11.8       35.3       7.4	9       10       73       57       50       27       17       4       40         5.2       12.5       23.0       -13.8       28.6       4.1       -7.3       -5.2       13.5         5.9       12.0       20.6       -14.1       29.8       5.6       -7.2       -3.6       11.4         8.6       11.3       21.5       -14.4       27.6       4.7       -4.3       -4.2       15.1         8.8       11.2       21.8       -14.6       27.4       4.7       -4.3       -3.4       15.8         10.7       9.1       22.1       -15.0       25.0       0.0       -1.9       -6.0       20.4         72       34       61       41       25       12       70       19       75         12.4       9.3       23.0       -14.8       27.2       3.0       -2.5       -4.5       21.8         11.3       7.8       22.0       -13.8       25.0       1.0       -0.8       -4.9       22.8         10.7       9.1       22.1       -15.0       25.0       0.0       -1.9       -6.0       20.4         28       47       37       47 <th< td=""></th<>



# **Calendar Year Performance**

Town of Ledyard Pension Plan							As of Ju	ine 30, 2022		
					Perforr	nance(%)				
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Real Assets										-
S&P Real Assets	15.4	1.2	17.2	-5.9	11.2	10.8	-10.1	5.4	4.2	13.6
DWS RREEF Real Assets R6	23.9	3.9	21.8	-5.1	15.0	4.4	-9.5	3.5	1.2	9.7
S&P Real Assets	15.4	1.2	17.2	-5.9	11.2	10.8	-10.1	5.4	4.2	13.6



# **Manager Status Commentary**

As of June 30, 2022

Manager	Recommendation
Vanguard Total Bond Market Index Adm	Maintain
Metropolitan West Total Return Bond PI	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	Maintain
Invesco Developing Markets R6	Maintain
DWS RREEF Real Assets R6	Maintain

Commentary produced upon change of status.



# **Investment Gain/Loss Summary**

Town of Ledyard Pension Plan 1 Quarter Ending June 30, 2022

·				
	Market Value as of 04/01/2022	Net Contributions	Gain/Loss	Market Value As of 06/30/2022
Town of Ledyard Pension Plan	29,645,329	705,207	-3,230,027	27,120,509
Short Term Liquidity	329,256	245,207	234	574,698
Dreyfus Treasury Securities Cash Management	329,256	245,207	234	574,698
Fixed Income	10,504,008	-	-563,538	9,940,471
Vanguard Total Bond Market Index Adm	2,481,862	-	-117,000	2,364,862
Metropolitan West Total Return Bond Pl	3,271,908	-	-186,687	3,085,221
PGIM Total Return Bond R6	3,297,677	-	-221,364	3,076,313
BlackRock Strategic Income Opportunities Class K	1,452,562	-	-38,487	1,414,075
Domestic Equity	11,004,501	-65,000	-1,698,743	9,240,758
Vanguard Institutional Index Fund Instl	4,855,851	-100,000	-773,065	3,982,786
Touchstone Large Cap Focused Fund Instl	2,402,316	-40,000	-385,430	1,976,886
Neuberger Berman Genesis R6	1,917,717	-50,000	-241,287	1,626,430
William Blair Small Cap Value R6	974,871	-	-113,427	861,443
Hood River Small Cap Growth R	853,747	125,000	-185,534	793,213
International Equity	6,324,732	525,000	-805,675	6,044,058
Vanguard Total International Stock Index Adm	2,504,591	100,000	-321,136	2,283,455
T. Rowe Price Overseas Stock Instl	2,299,152	25,000	-317,957	2,006,195
nvesco Developing Markets R6	1,520,989	400,000	-166,582	1,754,408
Real Assets	1,482,830	-	-162,306	1,320,524
DWS RREEF Real Assets R6	1,482,830	-	-162,306	1,320,524



# **Portfolio Statistics**

Town of Ledyard Pension Plan

As of June 30, 2022

	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Return	-10.9	-16.7	-14.1	3.9	4.9	5.8	5.9	01/2012
Standard Deviation	3.1	2.5	10.1	11.9	10.7	8.7	8.7	
Upside Risk	0.4	0.3	1.2	8.5	7.8	6.7	6.7	
Downside Risk	4.8	3.9	10.1	8.4	7.5	5.9	5.9	
s. Blended Benchmark								
Alpha	0.2	-0.2	0.4	0.2	0.2	0.2	0.2	
Beta	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Information Ratio	-0.1	-0.6	-0.2	0.2	0.2	0.3	0.3	
Tracking Error	0.1	0.3	1.2	1.2	1.0	0.9	0.9	
vs. 90 Day U.S. Treasury Bill								
Sharpe Ratio	-1.2	-1.2	-1.5	0.3	0.4	0.6	0.6	

Calculation based on monthly periodicity.



### **Estimated Fee Analysis**

Town of Ledyard Pension Plan

As of June 30, 2022

	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Town of Ledyard Pension Plan	27,120,509	116,974	0.43
Short Term Liquidity	574,698	-	-
Dreyfus Treasury Securities Cash Management	574,698	-	-
Fixed Income	9,940,471	32,938	0.33
Vanguard Total Bond Market Index Adm	2,364,862	1,182	0.1
Metropolitan West Total Return Bond Pl	3,085,221	11,415	0.37
PGIM Total Return Bond R6	3,076,313	11,998	0.39
BlackRock Strategic Income Opportunities Class K	1,414,075	8,343	0.59
Domestic Equity	9,240,758	42,012	0.45
Vanguard Institutional Index Fund Instl	3,982,786	1,394	0.0
Touchstone Large Cap Focused Fund Instl	1,976,886	13,838	0.70
Neuberger Berman Genesis R6	1,626,430	12,036	0.74
William Blair Small Cap Value R6	861,443	6,892	0.80
Hood River Small Cap Growth R	793,213	7,853	0.99
nternational Equity	6,044,058	30,139	0.50
Vanguard Total International Stock Index Adm	2,283,455	2,512	0.1
T. Rowe Price Overseas Stock Instl	2,006,195	13,241	0.66
Invesco Developing Markets R6	1,754,408	14,386	0.82
Real Assets	1,320,524	11,885	0.90
DWS RREEF Real Assets R6	1,320,524	11,885	0.90

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.

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



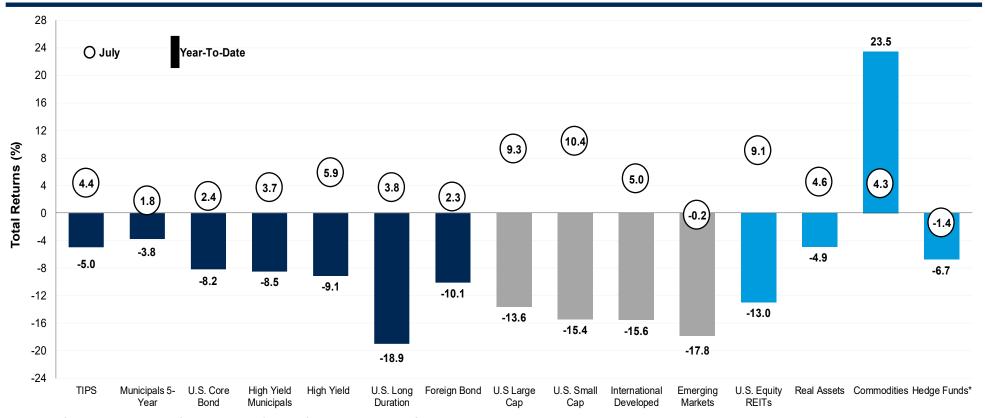
Ledyard, CT

Monthly Performance Update - July 2022

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### **Asset Class Performance**



Sources: FactSet, Morningstar. As of July 31, 2022. \*Hedge fund returns are as of June 30, 2022.

### Fixed Income (July)

- + Falling long-term rates were a reprieve for fixed income investors, marking only the second positive month for the Bloomberg U.S. Aggregate Bond Index this year.
- + U.S. high yield experienced the best monthly return in the last 10 years, driven in part by a strong technical backdrop and risk-on sentiment.
- The U.S. dollar strengthened, reaching parity with the Euro, a headwind for non-USD assets which trailed domestic markets.

#### **Equity (July)**

- + U.S. equities rebounded sharply in July, fueled in part by better-than-expected earnings reports and a shift in market sentiment that the Fed's actions may be taking hold to combat inflation as we move into the next year.
- + Developed international markets gained ground but lagged their domestic counterparts.
- Emerging markets fell modestly in the month, driven by weak results in China as the country's manufacturing sector contracted during the month.

### Real Asset / Alternatives (July)

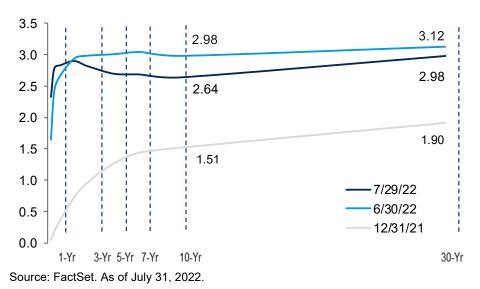
- + REITs moved higher, in line with the broader equity market. Lower interest rates and a strong summer travel season buoyed the sector.
- + Real assets gained ground during July. Inflation remains stubbornly high, and the underlying equity market rally contributed.
- + Commodity markets generally saw price declines in the month yet eked out a modest gain due to a large jump in natural gas prices.

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# **Fixed Income Market Update**

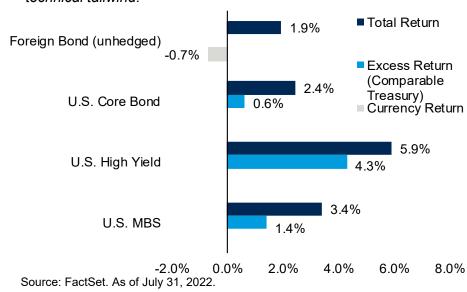
#### **U.S. Treasury Yield Curve**

The U.S. yield curve became more inverted during the month, fueled by growing concerns of a recession putting downward pressure on long-term rates while tightening by the Fed pushed short-term rates higher.



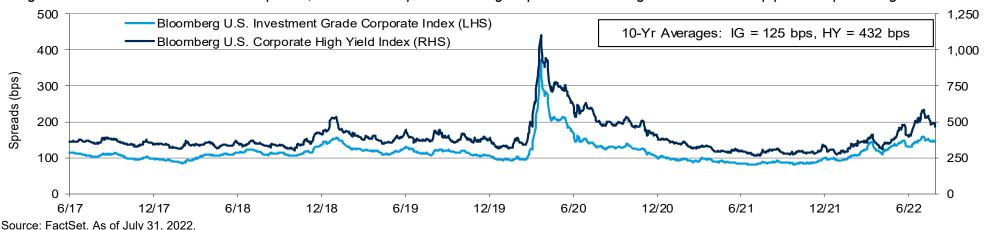
### **Index Performance Attribution (July 2022)**

Spread sectors rebounded in July. Higher yields (better valuations) attracted investors and low issuance in the high yield sector provided a technical tailwind.



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

Corporate bond spreads remain elevated compared to the start of the year but tightened in July, moving off recent year-to-date peaks. Despite the recent negative GDP estimate for the second quarter, better-than-expected earnings reports and a strong technical backdrop pushed spreads tighter.

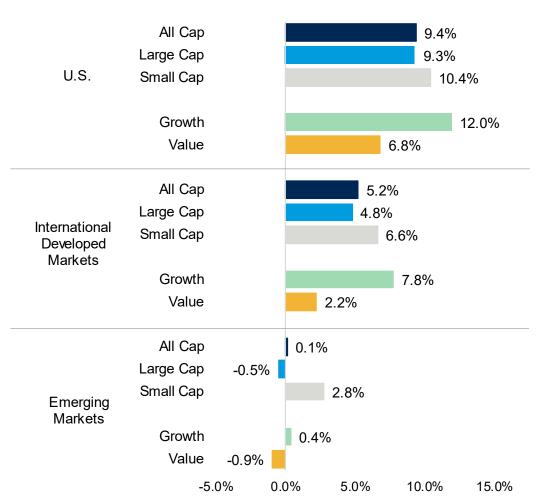


www.FiducientAdvisors.com See disclosures for list of indices representing each asset class. Past performance does not indicate future performance and there is a possibility of a loss.

# **Equity Market Update**

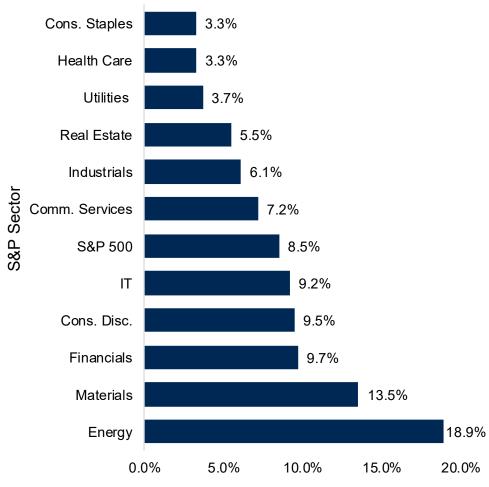
#### Market Capitalization & Style Performance (July 2022)

Equity markets bounced in July. Growth stocks outpaced value, a reversal from earlier in the year. Favorable earnings reports, especially among Tech companies, have provided a tailwind and falling long-term rates more favorably impacted the higher valuation companies.



#### U.S. Equities – Returns by Sector (July 2022)

All sectors in the S&P 500 were positive in July. Energy was the notable standout for the month as Exxon Mobile, Chevron, Phillips 66 and Valero beat earnings expectations for the second quarter. Information technology was also a large contributor given its significant weight in the S&P 500.

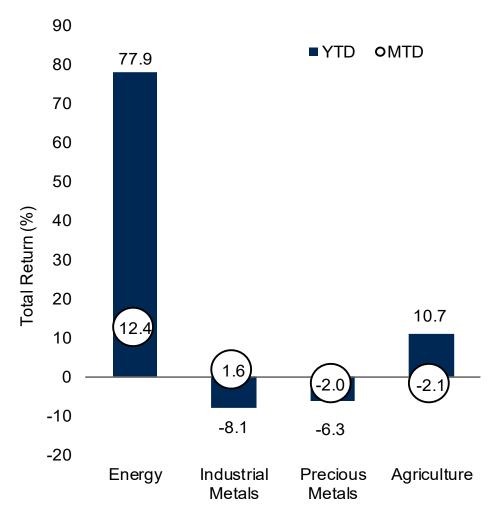


Source: FactSet. As of July 31, 2022. Source: FactSet. As of July 31, 2022.

# **Real Asset Market Update**

#### **Real Assets Performance**

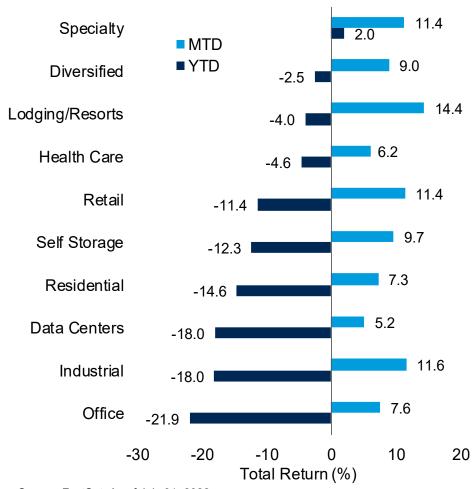
Natural gas was the star of the show in the energy market, as prices soared amid uncertainty of Russian gas supply to Western Europe, while oil prices continue to fall of peaks from earlier in the year. Other commodity markets were weaker amid prospects of a slowing global economy.



Source: FactSet. As of July 31, 2022.

#### **REIT Sector Performance**

REITs moved higher in the month as rates came down, alongside the broader equity market. Returns were widely positive, with all underlying sectors seeing a move higher. Retail, industrial, and lodging/resorts were all among the top performers as consumers continue to satisfy pent up demand for travel and services.



Source: FactSet. As of July 31, 2022.



# **Financial Markets Performance**

# Total Return as of July 31, 2022

Periods greater than one year are annualized All returns are in U.S. dollar terms

		All returns are	ın o.s. donar tern	113				
Global Fixed Income Markets	MTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Bloomberg 1-3-Month T-Bill	0.1%	0.2%	0.3%	0.5%	1.1%	0.8%	0.6%	0.7%
Bloomberg U.S. TIPS	4.4%	-5.0%	-3.6%	4.4%	4.0%	3.4%	2.0%	4.1%
Bloomberg Municipal Bond (5 Year)	1.8%	-3.8%	-4.2%	0.5%	1.4%	1.7%	1.7%	3.1%
Bloomberg High Yield Municipal Bond	3.7%	-8.5%	-8.2%	2.2%	4.3%	5.1%	4.6%	4.4%
Bloomberg U.S. Aggregate	2.4%	-8.2%	-9.1%	-0.2%	1.3%	1.7%	1.6%	3.4%
Bloomberg U.S. Corporate High Yield	5.9%	-9.1%	-8.0%	1.9%	3.1%	4.4%	4.9%	6.4%
Bloomberg Global Aggregate ex-U.S. Hedged	2.7%	-5.4%	-6.5%	-0.9%	1.8%	2.2%	2.8%	3.5%
Bloomberg Global Aggregate ex-U.S. Unhedged	1.9%	-14.9%	-18.5%	-4.2%	-1.9%	0.0%	-1.0%	1.4%
Bloomberg U.S. Long Gov / Credit	3.8%	-18.9%	-19.4%	-1.4%	1.7%	2.9%	2.6%	5.5%
JPMorgan GBI-EM Ğlobal Diversified	0.3%	-14.3%	-18.7%	-6.0%	-2.6%	-0.1%	-1.7%	1.8%
Global Equity Markets	MTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
S&P 500	9.2%	-12.6%	-4.6%	13.4%	12.8%	12.2%	13.8%	9.4%
Dow Jones Industrial Average	6.8%	-8.6%	-4.1%	9.2%	10.9%	11.8%	12.3%	8.9%
NASDAQ Composite	12.4%	-20.5%	-15.0%	15.8%	15.4%	14.6%	16.7%	12.3%
Russell 3000	9.4%	-13.7%	-7.4%	12.6%	12.2%	11.6%	13.5%	9.3%
Russell 1000	9.3%	-13.6%	-6.9%	12.9%	12.6%	11.9%	13.7%	9.4%
Russell 1000 Growth	12.0%	-19.4%	-11.9%	16.1%	16.3%	14.8%	16.0%	11.6%
Russell 1000 Value	6.6%	-7.1%	-1.4%	8.9%	8.3%	8.6%	11.1%	6.9%
Russell Mid Cap	9.9%	-13.8%	-9.8%	9.5%	9.7%	9.4%	12.3%	8.7%
Russell Mid Cap Growth	12.2%	-22.6%	-21.8%	7.5%	11.1%	9.9%	12.8%	9.2%
Russell Mid Cap Value	8.6%	-9.0%	-2.9%	9.4%	7.8%	8.4%	11.5%	7.9%
Russell 2000	10.4%	-15.4%	-14.3%	7.5%	7.1%	7.6%	10.6%	7.5%
Russell 2000 Growth	11.2%	-21.6%	-23.2%	4.7%	6.9%	6.5%	10.7%	7.9%
Russell 2000 Value	9.7%	-9.3%	-4.8%	9.4%	6.7%	8.2%	10.2%	6.9%
MSCI ACWI	7.0%	-14.6%	-10.5%	8.5%	7.9%	7.9%	9.3%	5.4%
MSCI ACWI ex. U.S.	3.4%	-15.6%	-15.3%	2.9%	2.4%	3.5%	5.0%	1.8%
MSCI EAFE	5.0%	-15.6%	-14.3%	3.2%	2.6%	3.1%	5.8%	1.8%
MSCI EAFE Growth	7.9%	-21.0%	-19.1%	4.0%	4.6%	4.7%	6.9%	3.1%
MSCI EAFE Value	2.1%	-10.3%	-9.9%	1.6%	0.3%	1.2%	4.4%	0.4%
MSCI EAFE Small Cap	6.6%	-19.7%	-20.3%	3.5%	2.3%	4.6%	7.8%	3.3%
MSCI Emerging Markets	-0.2%	-17.8%	-20.1%	0.9%	1.0%	3.8%	2.8%	1.6%
Alternatives	MTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Consumer Price Index*	1.3%	5.4%	9.0%	5.0%	3.9%	3.2%	2.6%	2.4%
FTSE NAREIT Equity REITs	9.1%	-13.0%	-2.5%	6.6%	6.9%	7.2%	8.1%	7.0%
S&P Real Assets	4.6%	-4.9%	-2.3%	5.1%	4.9%	5.0%	4.6%	4.8%
FTSE EPRA NAREIT Developed	10.7%	-4.1%	5.5%	5.3%	7.2%	5.8%	8.1%	5.7%
FTSE EPRA NAREIT Developed ex U.S.	6.3%	-15.1%	-17.6%	-2.2%	1.1%	2.1%	4.0%	1.2%
Bloomberg Commodity Total Return	4.3%	23.5%	27.2%	16.2%	8.8%	5.1%	-1.0%	-1.6%
HFRI Fund of Funds Composite*	-1.4%	-6.7%	-5.7%	3.9%	3.6%	2.7%	3.7%	1.8%
HFRI Fund Weighted Composite*	-2.9%	-5.6%	-5.6%	6.2%	5.1%	4.4%	5.0%	3.7%
Alerian MLP	12.5%	23.8%	25.3%	4.1%	1.8%	0.0%	1.4%	4.6%

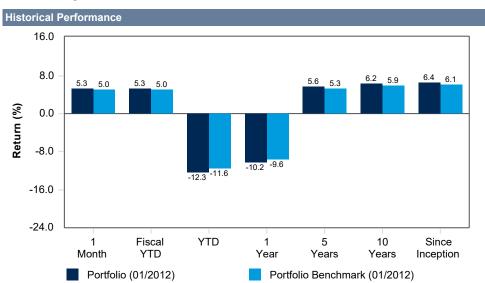
Sources: FactSet, Morningstar. As of July 31, 2022. Periods greater than 1 year are annualized. All returns are in U.S. dollar terms. \*HFRI returns as of June 30, 2022.



#### **Portfolio Dashboard**

Town of Ledyard Pension Plan

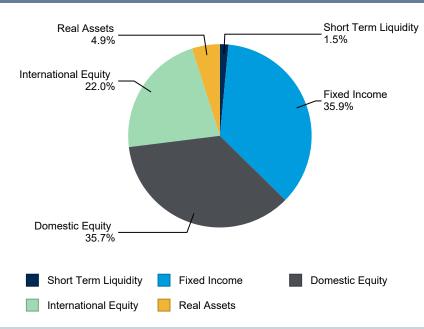
As of July 31, 2022



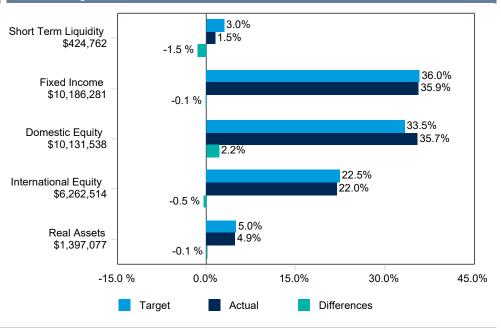
Summary of Cash Flows				
	1 Month	Fiscal YTD	YTD	1 Year
Beginning Market Value	27,120,509	27,120,509	32,212,279	32,122,403
Net Contributions	-150,275	-150,275	90,255	-567,157
Gain/Loss	1,431,938	1,431,938	-3,900,362	-3,153,074
Ending Market Value	28,402,172	28,402,172	28,402,172	28,402,172

<b>Current Benchmark</b>	Composition	
From Date	To Date	
04/2022	Present	3.00% 90 Day U.S. Treasury Bill, 36.00% Blmbg. U.S. Aggregate, 21.50% S&P 500, 12.00% Russell 2000 Index, 8.50% MSCI AC World ex USA (Net), 7.50% MSCI EAFE (Net), 6.50% MSCI Emerging Markets (Net), 5.00% S&P Real Assets

#### Portfolio Allocation



#### Actual vs. Target Allocations





# **Asset Allocation**

Town of Ledyard Pension Plan

As of July 31, 2022

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	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)
Town of Ledyard Pension Plan	28,402,172	100.0	100.0	0.0
Short Term Liquidity	424,762	1.5	3.0	-1.5
Dreyfus Treasury Securities Cash Management	424,762	1.5	3.0	-1.5
Fixed Income	10,186,281	35.9	36.0	-0.1
Vanguard Total Bond Market Index Adm	2,419,787	8.5	8.5	0.0
Metropolitan West Total Return Bond PI	3,172,209	11.2	11.3	-0.1
PGIM Total Return Bond R6	3,158,134	11.1	11.3	-0.1
BlackRock Strategic Income Opportunities Class K	1,436,151	5.1	5.0	0.1
Domestic Equity	10,131,538	35.7	33.5	2.2
Vanguard Institutional Index Fund Instl	4,349,871	15.3	14.5	0.8
Touchstone Large Cap Focused Fund Instl	2,138,871	7.5	7.0	0.5
Neuberger Berman Genesis R6	1,793,803	6.3	6.0	0.3
William Blair Small Cap Value R6	954,000	3.4	3.0	0.4
Hood River Small Cap Growth R	894,993	3.2	3.0	0.2
International Equity	6,262,514	22.0	22.5	-0.5
Vanguard Total International Stock Index Adm	2,366,925	8.3	8.5	-0.2
T. Rowe Price Overseas Stock Instl	2,101,728	7.4	7.5	-0.1
Invesco Developing Markets R6	1,793,860	6.3	6.5	-0.2
Real Assets	1,397,077	4.9	5.0	-0.1
DWS RREEF Real Assets R6	1,397,077	4.9	5.0	-0.1



Town of Ledyard Pension Plan

As of July 31, 2022

	Allocati	on			Performance(%)						
	Market Value (\$)	%	1 Month	Fiscal YTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Town of Ledyard Pension Plan	28,402,172	100.0	5.3	5.3	-12.3	-10.2	5.7	5.6	6.2	6.4	01/2012
Blended Benchmark			5.0	5.0	-11.6	-9.6	5.3	5.3	5.9	6.1	
Dreyfus Treasury Securities Cash Management	424,762	1.5	0.1	0.1	0.2	0.2	0.4	0.9	0.5	0.5	01/2012
90 Day U.S. Treasury Bill			0.1	0.1	0.2	0.2	0.6	1.1	0.6	0.6	
Fixed Income	10,186,281	35.9	2.5	2.5	-9.0	-10.0	-0.2	1.4	2.3	2.5	12/2011
Blmbg. U.S. Aggregate			2.4	2.4	-8.2	-9.1	-0.2	1.3	1.6	2.0	
Vanguard Total Bond Market Index Adm	2,419,787	8.5	2.3	2.3	-8.3	-9.4	-0.3	1.2	1.6	1.9	01/2012
Blmbg. U.S. Aggregate			2.4	2.4	-8.2	-9.1	-0.2	1.3	1.6	1.9	
IM U.S. Broad Market Core Fixed Income (MF) Median			2.5	2.5	-8.8	-9.8	-0.2	1.2	1.7	2.0	
Vanguard Total Bond Market Index Adm Rank			74	74	32	31	54	46	60	64	
Metropolitan West Total Return Bond PI	3,172,209	11.2	2.8	2.8	-9.1	-10.0	0.2	1.6	2.4	2.8	04/2012
Blmbg. U.S. Aggregate			2.4	2.4	-8.2	-9.1	-0.2	1.3	1.6	1.9	
IM U.S. Broad Market Core+ Fixed Income (MF) Median			2.6	2.6	-9.2	-10.0	0.0	1.3	1.9	2.2	
Metropolitan West Total Return Bond Pl Rank			33	33	49	53	40	31	24	25	
PGIM Total Return Bond R6	3,158,134	11.1	2.7	2.7	-10.5	-11.4	-0.6	1.5	2.6	2.0	04/2015
Blmbg. U.S. Aggregate			2.4	2.4	-8.2	-9.1	-0.2	1.3	1.6	1.5	
IM U.S. Broad Market Core+ Fixed Income (MF) Median			2.6	2.6	-9.2	-10.0	0.0	1.3	1.9	1.6	
PGIM Total Return Bond R6 Rank			49	49	86	84	79	39	15	19	
BlackRock Strategic Income Opportunities Class K	1,436,151	5.1	1.6	1.6	-3.9	-4.1	2.1	2.6	3.0	-1.1	04/2022
Blmbg. U.S. Aggregate			2.4	2.4	-8.2	-9.1	-0.2	1.3	1.6	-2.4	
IM Alternative Credit Focus (MF) Median			1.6	1.6	-6.3	-6.3	1.0	1.3	1.7	-2.4	
BlackRock Strategic Income Opportunities Class K Rank			51	51	28	23	21	19	14	9	

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.



Town of Ledyard Pension Plan

As of July 31, 2022

	Allocation				F						
	Market Value (\$)	%	1 Month	Fiscal YTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Domestic Equity	10,131,538	35.7	9.6	9.6	-12.9	-6.7	12.5	12.4	13.3	13.5	12/2011
Domestic Equity Benchmark			9.7	9.7	-13.4	-7.7	11.7	11.2	12.9	13.2	
Vanguard Institutional Index Fund InstI	4,349,871	15.3	9.2	9.2	-12.6	-4.7	13.3	12.8	13.8	14.1	01/2012
S&P 500			9.2	9.2	-12.6	-4.6	13.4	12.8	13.8	14.1	
IM U.S. Large Cap Core Equity (MF) Median			8.5	8.5	-13.7	-7.3	12.1	11.9	12.9	13.2	
Vanguard Institutional Index Fund Instl Rank			32	32	34	23	21	24	17	17	
Touchstone Large Cap Focused Fund Instl	2,138,871	7.5	8.2	8.2	-12.9	-8.3	13.9	13.6	13.9	17.3	01/2019
S&P 500			9.2	9.2	-12.6	-4.6	13.4	12.8	13.8	16.9	
IM U.S. Large Cap Core Equity (MF) Median			8.5	8.5	-13.7	-7.3	12.1	11.9	12.9	15.9	
Touchstone Large Cap Focused Fund Instl Rank			60	60	38	71	11	9	11	16	
Neuberger Berman Genesis R6	1,793,803	6.3	10.3	10.3	-14.2	-9.3	9.6	11.1	12.1	11.2	04/2012
Russell 2000 Index			10.4	10.4	-15.4	-14.3	7.5	7.1	10.6	9.7	
IM U.S. Small Cap Core Equity (MF) Median			9.5	9.5	-11.3	-6.4	8.7	7.2	10.4	9.4	
Neuberger Berman Genesis R6 Rank			25	25	78	70	35	3	8	8	
William Blair Small Cap Value R6	954,000	3.4	10.7	10.7	-6.1	-0.2	3.7	4.4	9.6	-0.4	12/2021
Russell 2000 Value Index			9.7	9.7	-9.3	-4.8	9.4	6.7	10.2	-5.6	
IM U.S. Small Cap Value Equity (MF) Median			9.4	9.4	-7.7	-1.6	10.5	6.7	10.1	-2.7	
William Blair Small Cap Value R6 Rank			12	12	29	35	100	96	65	22	
Hood River Small Cap Growth R	894,993	3.2	12.8	12.8	-21.6	-16.5	16.2	13.7	15.7	-19.4	12/2021
Russell 2000 Growth Index			11.2	11.2	-21.6	-23.2	4.7	6.9	10.7	-21.2	
IM U.S. Small Cap Growth Equity (MF) Median			10.6	10.6	-22.2	-21.2	6.5	9.5	11.2	-21.3	
Hood River Small Cap Growth R Rank			8	8	41	31	2	4	1	39	

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Town of Ledyard Pension Plan

As of July 31, 2022

	Allocatio	on			Performance(%)						
	Market Value (\$)	%	1 Month	Fiscal YTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
International Equity	6,262,514	22.0	3.6	3.6	-17.3	-17.5	2.5	2.0	4.6	3.7	03/2012
International Equity Benchmark	, ,		2.9	2.9	-16.2	-16.3	2.5	2.1	4.7	3.6	
Vanguard Total International Stock Index Adm	2,366,925	8.3	3.7	3.7	-15.2	-14.9	3.9	2.8	5.5	4.6	04/2012
FTSE Global All Cap ex US Spliced Index			3.6	3.6	-15.7	-15.2	3.5	2.8	5.5	4.6	
IM International Large Cap Core Equity (MF) Median			4.5	4.5	-15.8	-14.5	3.5	2.2	5.2	4.4	
Vanguard Total International Stock Index Adm Rank			75	75	42	56	43	29	41	40	
T. Rowe Price Overseas Stock Instl	2,101,728	7.4	4.8	4.8	-15.4	-13.0	5.1	2.9	6.2	2.2	06/2018
MSCI EAFE (Net)			5.0	5.0	-15.6	-14.3	3.2	2.6	5.8	1.9	
IM International Large Cap Core Equity (MF) Median			4.5	4.5	-15.8	-14.5	3.5	2.2	5.2	1.6	
T. Rowe Price Overseas Stock Instl Rank			40	40	47	27	22	22	14	33	
Invesco Developing Markets R6	1,793,860	6.3	2.2	2.2	-23.6	-27.5	-3.0	-0.2	3.0	2.3	04/2012
MSCI Emerging Markets (Net)			-0.2	-0.2	-17.8	-20.1	0.9	1.0	2.8	2.0	
IM Emerging Markets Equity (MF) Median			0.2	0.2	-20.5	-23.7	0.7	0.4	2.7	1.9	
Invesco Developing Markets R6 Rank			17	17	67	73	89	64	42	38	
Real Assets	1,397,077	4.9	5.8	5.8	-	-	-	-	-	-5.8	04/2022
S&P Real Assets			4.6	4.6	-4.9	-2.3	5.1	4.9	4.6	-6.4	
DWS RREEF Real Assets R6	1,397,077	4.9	5.8	5.8	-1.7	4.0	10.3	8.9	5.5	-5.8	04/2022
S&P Real Assets			4.6	4.6	-4.9	-2.3	5.1	4.9	4.6	-6.4	

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# **Benchmark History**

Town of Ledyard Pension Plan

As of July 31, 2022

Account Name	From Date	To Date	Benchmark Composition
Town of Ledyard Pension Plan	04/2022	Present	3.0% 90 Day U.S. Treasury Bill, 36.0% Blmbg. U.S. Aggregate, 21.5% S&P 500, 12.0% Russell 2000 Index, 8.5% MSCI AC World ex USA (Net), 7.5% MSCI EAFE (Net), 6.5% MSCI Emerging Markets (Net), 5.0% S&P Real Assets
	10/2019	04/2022	3.0% 90 Day U.S. Treasury Bill, 36.0% Blmbg. U.S. Aggregate, 26.5% S&P 500, 12.0% Russell 2000 Index, 8.5% MSCI AC World ex USA (Net), 7.5% MSCI EAFE (Net), 6.5% MSCI Emerging Markets (Net)
	01/2018	10/2019	3.0% 90 Day U.S. Treasury Bill, 36.0% Blmbg. U.S. Aggregate, 23.5% S&P 500, 10.0% Russell 2000 Index, 6.5% MSCI AC World ex USA (Net), 5.5% MSCI EAFE (Net), 5.5% MSCI Emerging Markets (Net), 5.0% S&P North American Natural Res Sector Index (TR), 5.0% Bloomberg Commodity Index Total Return
	04/2012	01/2018	3.0% 90 Day U.S. Treasury Bill, 32.0% Blmbg. U.S. Aggregate, 20.0% S&P 500, 10.0% Russell 2000 Index, 5.0% MSCI AC World ex USA (Net), 5.0% MSCI EAFE (Net), 5.0% S&P North American Natural Res Sector Index (TR), 5.0% MSCI Emerging Markets (Net), 5.0% Bloomberg Commodity Index Total Return, 10.0% Blackrock Hybrid Benchmark
	12/2011	04/2012	3.0% 90 Day U.S. Treasury Bill, 43.0% Blmbg. U.S. Aggregate, 46.0% S&P 500, 8.0% S&P Completion Index

# **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 Barclays 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 Barclays Capital US Treasury Inflation Protected Securities Index consists of Inflation-Protection securities issued by the U.S. Treasury.
- Bloomberg Barclays 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 Barclays Muni 1 Year Index is the 1-year (1-2) component of the Municipal Bond index.
- Bloomberg Barclays Muni 3 Year Index is the 3-year (2-4) component of the Municipal Bond index.
- Bloomberg Barclays Muni 5 Year Index is the 5-year (4-6) component of the Municipal Bond index.
- Bloomberg Barclays Muni 7 Year Index is the 7-year (6-8) component of the Municipal Bond index.
- Bloomberg Barclays 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 Barclays 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 Barclays 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 Barclays 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%: Barclays U.S. Treasury Inflation Notes Total Return Index
  - PIMCO Inflation Response Multi Asset Fund: 45% Barclays 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 Barclays 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 Barclays US1-5Yr Gov/Cr Flt Adj Index: Bloomberg Barclays U.S. 1–5 Year Government/Credit Bond Index through December 31, 2009; Bloomberg Barclays U.S. 1–5 Year Government/Credit Float Adjusted Index thereafter.
- Vanguard Spliced Bloomberg Barclays US5-10Yr Gov/Cr Flt Adj Index: Bloomberg Barclays U.S. 5–10 Year Government/Credit Bond Index through December 31, 2009; Bloomberg Barclays U.S. 5–10 Year Government/Credit Float Adjusted Index thereafter.
- Vanguard Spliced Bloomberg Barclays US Agg Flt Adj Index: Bloomberg Barclays U.S. Aggregate Bond Index through December 31, 2009; Bloomberg Barclays U.S. Aggregate Float Adjusted Index thereafter.
- Vanguard Spliced Bloomberg Barclays US Long Gov/Cr Fit Adj Index: Bloomberg Barclays U.S. Long Government/Credit Bond Index through December 31, 2009; Bloomberg Barclays 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 Barclays U.S. Aggregate Bond Index through May 31, 2005; 60% MSCI US Broad Market Index and 40% Bloomberg Barclays U.S. Aggregate Bond Index through December 31, 2009; 60% MSCI US Broad Market Index and 40% Bloomberg Barclays U.S. Aggregate Float Adjusted Index through January 14, 2013; and 60% CRSP US Total Market Index and 40% Bloomberg Barclays U.S. Aggregate Float Adjusted Index thereafter.
- Vanguard Spliced Intermediate-TermTax-Exempt Index: Bloomberg Barclays 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 markets to the index. Ideally, the fund would have a greater up market capture ratio than down market capture ratio.
- Standard Deviation: Standard deviation is a statistical measure of the range of performance within which the total returns of a fund fall. When a fund has a high standard deviation, the range of performance is very wide, meaning there is a greater volatility. Approximately 68% of the time, the total return of any given fund will differ from the average total return by no more than plus or minus the standard deviation figure. Ninety-five percent of the time, a fund's total return will be within a range of plus or minus two times the standard deviation from the average total return. If the quarterly or monthly returns are all the same the standard deviation will be zero. The more they vary from one another, the higher the standard deviation. Standard deviation can be misleading as a risk indicator for funds with high total returns because large positive deviations will increase the standard deviation without a corresponding increase in the risk of the fund. While positive volatility is welcome, negative is not.
- R-Squared: This reflects the percentage of a fund's movements that are explained by movements in its benchmark index. An R-squared of 100 means that all movements of a fund are completely explained by movements in the index. Conversely, a low R-squared indicates very few of the fund's movements are explained by movements in the benchmark index. R-squared can also be used to ascertain the significance of a particular beta. Generally, a higher R-squared will indicate a more reliable beta figure. If the R-squared is lower, then the beta is less relevant to the fund's performance. A measure of diversification, R-squared indicates the extent to which fluctuations in portfolio returns are explained by market. An R-squared = 0.70 implies that 70% of the fluctuation in a portfolio's return is explained by the fluctuation in the market. In this instance, overweighting or underweighting of industry groups or individual securities is responsible for 30% of the fund's movement.
- **Beta**: This is a measure of a fund's market risk. The beta of the market is 1.00. Accordingly, a fund with a 1.10 beta is expected to perform 10% better than the market in up markets and 10% worse 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.

#### 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.