

# Watertown Contributory Retirement System

Quarterly Investment Review - Second Quarter 2020



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# inTURNship

## EDUCATIONAL ENRICHMENT PROGRAM - SUMMER 2020

Many students entering senior year of college lost the opportunity to learn and grow through traditional internships, and many recent graduates are struggling to find any job, let alone jobs in their field of choice. Additionally, there is an opportunity divide for exposure and entry into the finance and investment industry.

DiMeo Schneider strives to catalyze change by educating, developing and creating opportunity for a diverse future talent pool. We intend to make a positive impact by expanding access to a highly sought after educational enrichment experience in the communities where we live and serve.

### what

An educational 12 module program intended to build financial and general business knowledge through training sessions, assignments and networking

### when

A four week  
**inTURNship** program running  
July 13, 2020 to August 7, 2020  
including one-on-one mentors

### where

Virtual, embracing our new normal and enabling us to reach a broader range of **inTURNS**

**120**  
participating  
inTURNS

**49**  
participating  
schools



**72%**  
of participants  
are from diverse  
backgrounds

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*Fiduciary Governance Calendar*

## Section 2

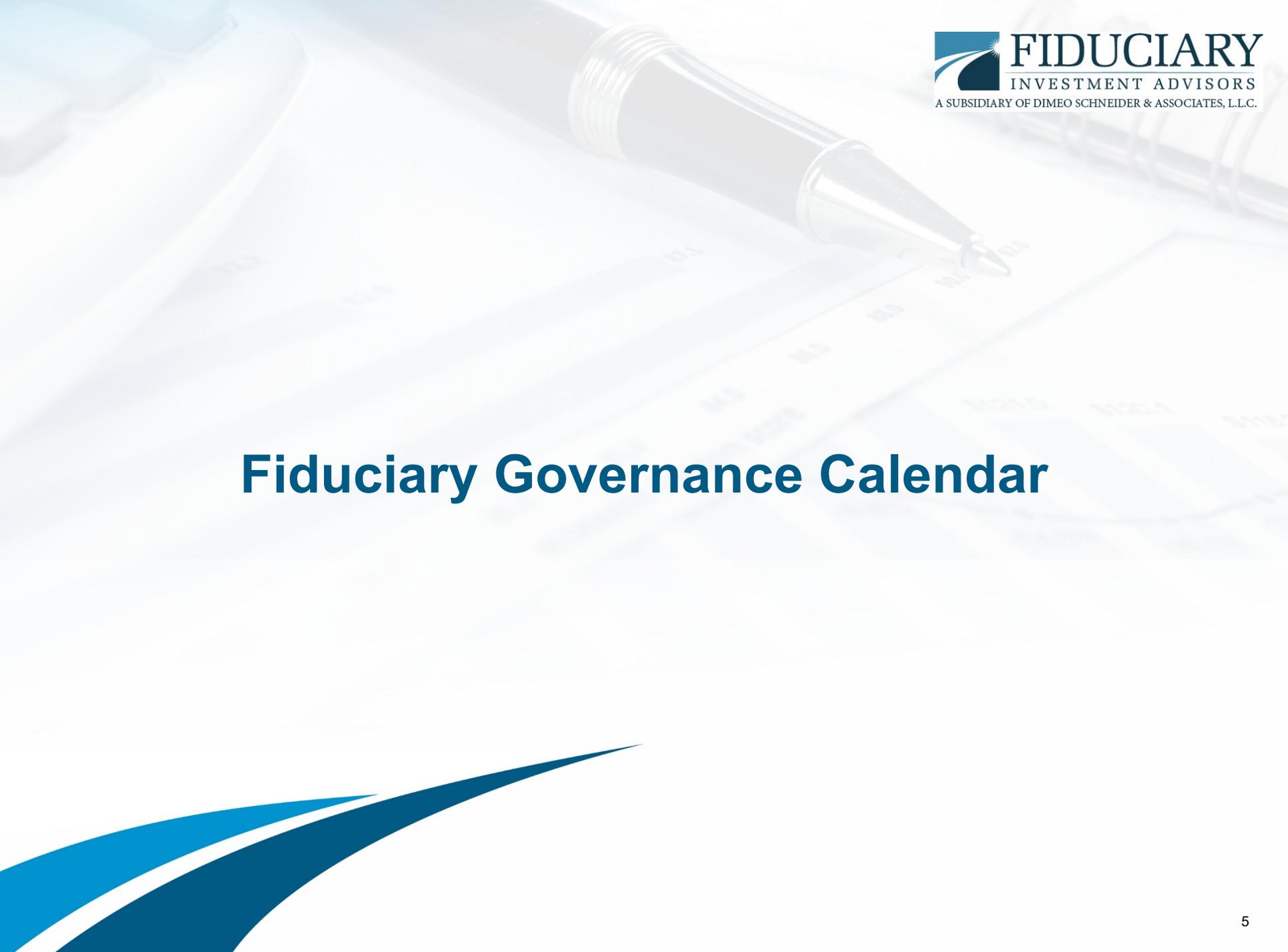
*Capital Markets Overview*

## Section 3

*Portfolio and Manager Review*

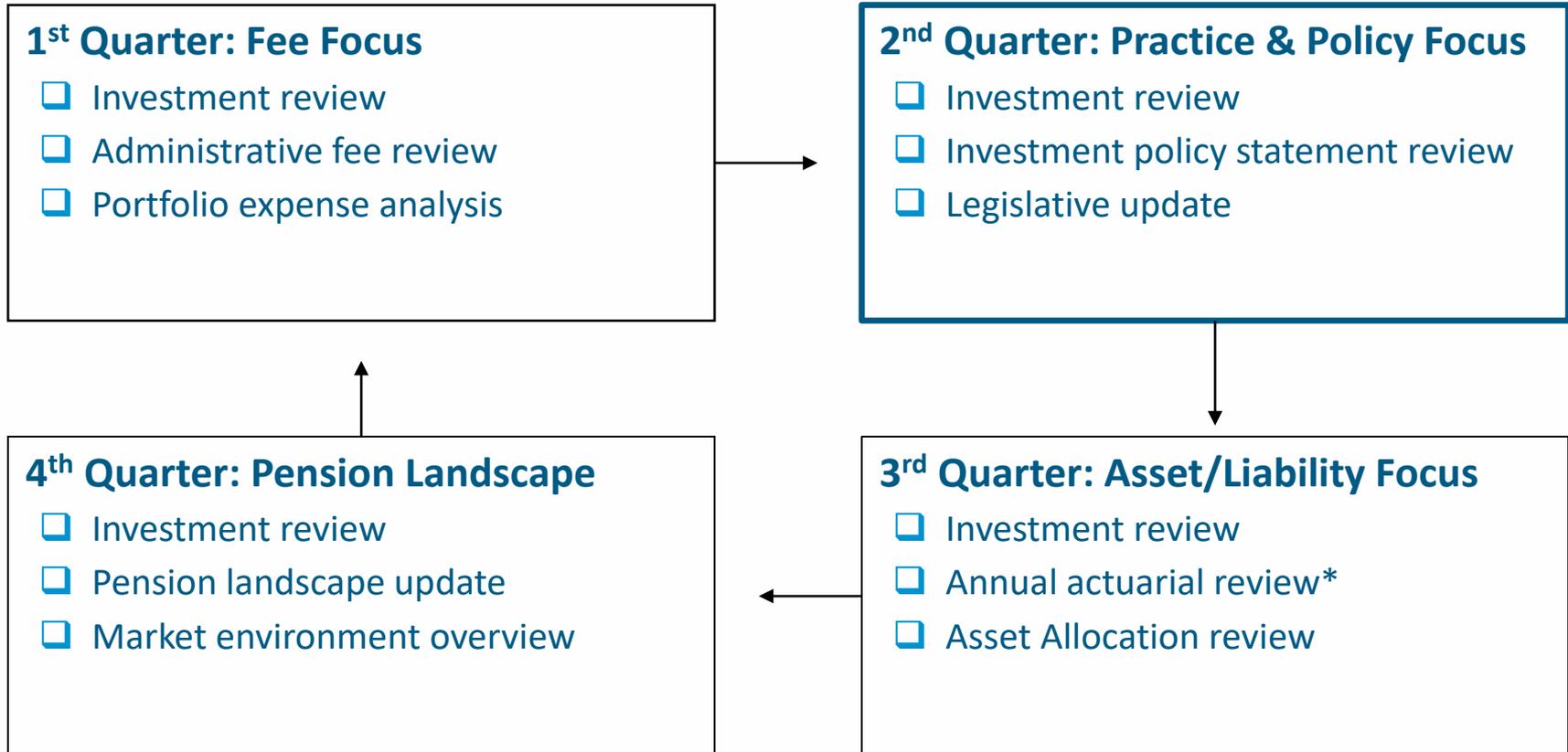
## Appendix

*Recommended IPS Updates*



# Fiduciary Governance Calendar

# Defined Benefit Fiduciary Governance Calendar



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

# Investment Policy Statement Considerations

An Investment Policy Statement provides the first step in establishing the FIDUCIARY TRAIL™.

- A well-written IPS is broad enough to allow flexibility but detailed enough to provide appropriate oversight.
- The essential components of an effective IPS are outlined below:

Component	Included in Watertown Retirement System's Investment Policy Statement?
Contains the detail to define, implement and manage a specific investment strategy.	Yes
Defines the duties and responsibilities of <u>all</u> parties involved.	Yes
Defines diversification and rebalancing guidelines consistent with the client's risk profile and time horizon.	Yes
Defines due diligence criteria for selecting investment options.	Yes
Defines monitoring criteria for investment options.	Yes

In the following pages, you will find the most recent IPS on file for the Watertown Retirement System. The current IPS is as of August 2017. The IPS was last reaffirmed by the Watertown Retirement Board in August 2018. Given recent changes to the target allocations of the portfolio FIA is recommending updates to the asset allocation table of the IPS in Appendix A, as outlined in the Appendix of this report.

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**INTRODUCTION AND PURPOSE**

The Watertown Contributory Retirement System (the "Plan") has been established to provide retirement income for the town's eligible employees and their beneficiaries. The Retirement System is a governmental qualified defined benefit plan governed by Massachusetts General Laws, Chapter 32, and subject to the fiduciary standards set forth in M.G.L. c. 32 s. 23 (3). The Plan is also subject to investment restrictions imposed by Massachusetts General Laws and the Investment Regulations (840 CMR) of the Public Employee Retirement Administration Commission (PERAC).

This policy statement outlines the goals and investment objectives for the Plan. This document is also 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 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 Board has taken into account the financial needs and circumstances of the Plan, 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 effort, the 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 to appropriate market indexes.

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**ASSIGNMENT OF RESPONSIBILITIES**

**Retirement Board** - The Watertown Retirement Board (the "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 the investments. The Board, however, may establish rules or other resolutions governing its investment policy and may delegate to the Board members or agents, the authority to act. The Board will meet periodically. As set forth in M.G.L. c.32 s.23 (3) and 840 CMR 1.00, the Board shall discharge its duties "with the care, skill, prudence and diligence appropriate to the circumstances then prevailing, that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims and by diversifying the investments of the system so as to minimize the risk of large losses unless under the circumstances it is clearly prudent not to do so". The Board recognizes that some risk must be assumed to achieve the Plan's long-term investment objectives.

**Investment Consultant** - The Board may engage the services of an Investment Consultant. The Investment Consultant's role is that of a non-discretionary advisor to the 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(s)** - 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 (for example, to accommodate distribution needs).

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**ASSET ALLOCATION**

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

**REBALANCING**

The Board, at its discretion, may or may not institute rebalancing as necessary. Such adjustments should be made 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/FUNDS**

The Board intends to delegate the investment management of the System's assets to qualified investment managers as set forth in Massachusetts General Laws, Chapter 32, Sections 23(2)(b) and 23B. The Board shall utilize a competitive process for the evaluation and selection qualified investment managers in compliance with the procurement provisions of M.G.L. Ch.32, section 23B. Investment managers 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 with consideration granted to 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 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/commingled funds and exchange traded funds. The Board understands that managers have full responsibility for security selection, diversification, turnover and allocation of

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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/commingled fund/exchange traded funds in the portfolio.

The investment manager(s) are expected to carry out fiduciary obligations with respect to the Plan's assets in accordance with Massachusetts General Laws Chapter 32, Section 23(3) and the investment regulations promulgated by the Public Employees Retirement Administration Commission (PERAC 840 CMR). Managers are expected to be cognizant and comply with all Massachusetts General Laws and the Investment Regulations (840 CMR) promulgated by the Public Employee Retirement Administration Commission (PERAC).

Massachusetts General Laws, Chapter 32, Section 23(2)(h) prohibits investment directly in mortgages or in collateral loans, and places limitations on investment in certain companies doing business in South Africa or Northern Ireland.

Chapter 119 of the Acts of 1997 prohibits Massachusetts retirement systems from making any new investments in stocks, securities, or other obligations of any company which derives more than 15% of its revenue from the sale of tobacco products. PERAC issues a "Tobacco Company List", and updated the list periodically. The list is available by contacting the Retirement Board, or by download at PERAC's website ([www.mass.gov/perac](http://www.mass.gov/perac)). In applying the statute to pooled funds, PERAC will assess the 15% rule against the entire pool. Thus a pooled fund, if in violation of this standard, will be included on this list. It is the responsibility of each investment manager to obtain and review of copy of the list, as updates are issued.

With respect to mutual/commingled funds, the Board may consider the following to insure proper diversification and function for each of the funds:

1. The mutual fund/commingled 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/commingled 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/commingled pool will be regularly evaluated for proper diversity and each will provide material information on a timely basis.

**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 Plan. A

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copy of each firm's guidelines, and/or summary of proxy votes shall be provided to the 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;
- Relative investment management fees;
- Significant organizational or manager change.

In addition, the Board shall meet with its qualified investment manager(s) at least annually and require investment managers to report to the Board, on a quarterly basis, with a comprehensive written review of investment performance, a review of the System's investments, and a report on the investment manager's current investment outlook and future strategy. The annual investment review process will utilize the same criteria that formed the basis of the investment selection decision.

**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 conditions,

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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.

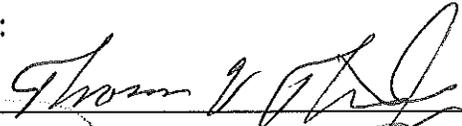
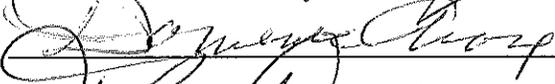
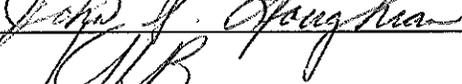
**APPROVAL**

It is understood that this investment policy is to be reviewed periodically by the Board to determine if any revisions are warranted by changing circumstances including, but not limited to, changes in financial status, actuarial assumptions, risk tolerance, or changes involving the investment managers. The Board shall notify PERAC, as required by 840 CMR 18.03, of any changes to its investment objectives within ten days of the effective date, if applicable, and by the end of each calendar year whether or not any changes were made in the investment objectives.

This Investment Policy Statement has been adopted by:

The Watertown Retirement Board

By:

  
\_\_\_\_\_  
  
\_\_\_\_\_  
  
\_\_\_\_\_  
  
\_\_\_\_\_  
  
\_\_\_\_\_

Date:

09/19/17

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**Appendix A**

**Target Asset Allocation Table**

<b>Asset Class</b>	<b>Min Weight</b>	<b>Target Weight</b>	<b>Max Weight</b>	<b>Benchmark Index</b>
Short Term Money Market	0.0%	0.0%	5.0%	90 Day T-Bill Index
<b>Fixed Income</b>				
Core Fixed Income	10.0%	17.0%	25.0%	Barclays Aggregate Index
High Yield Fixed Income	0.0%	2.5%	5.0%	Barclays U.S Corp High Yield Index
Global Fixed Income	0.0%	4.0%	5.0%	Citigroup World Government Bond Index
<b>Global Asset Allocation</b>				
Global Multi-Asset	0.0	6.0%	12.0%	Custom Benchmark
<b>Domestic Equity</b>				
Domestic Large Cap	15.0%	19.7%	40.0%	S&P 500 Index
Domestic Mid Cap	0.0%	5.5%	15.0%	Russell Mid Cap Index
Domestic Small Cap	0.0%	3.0%	12.5%	Russell 2000 Index
<b>International Equity</b>				
International Large Cap	10.0%	17.2%	35.0%	MSCI ACWI ex-US Index
International Small Cap	0.0%	2.6%	5.0%	MSCI EAFE Small Cap Index
Real Estate	5.0%	10.0%	12.5%	Custom Benchmark
Hedge Funds	5.0%	7.5%	10.0%	HFRI Fund of Funds Composite Index
Private Equity	3.0%	5.0%	10.0%	Russell 3000 Index

Custom benchmarks, where noted, represent a weighted average blend of the strategy specific benchmarks that may change from time to time depending on the allocations and appropriateness of the benchmarks of the underlying strategies.

On April 9, 2020, the Federal Reserve announced the establishment of the **Municipal Liquidity Facility (MLF)**, to help state and local governments better manage the cash flow pressures they are facing as a result of the increase in state and local government expenditures related to the COVID-19 pandemic and the delay and decrease of certain tax and other revenues.

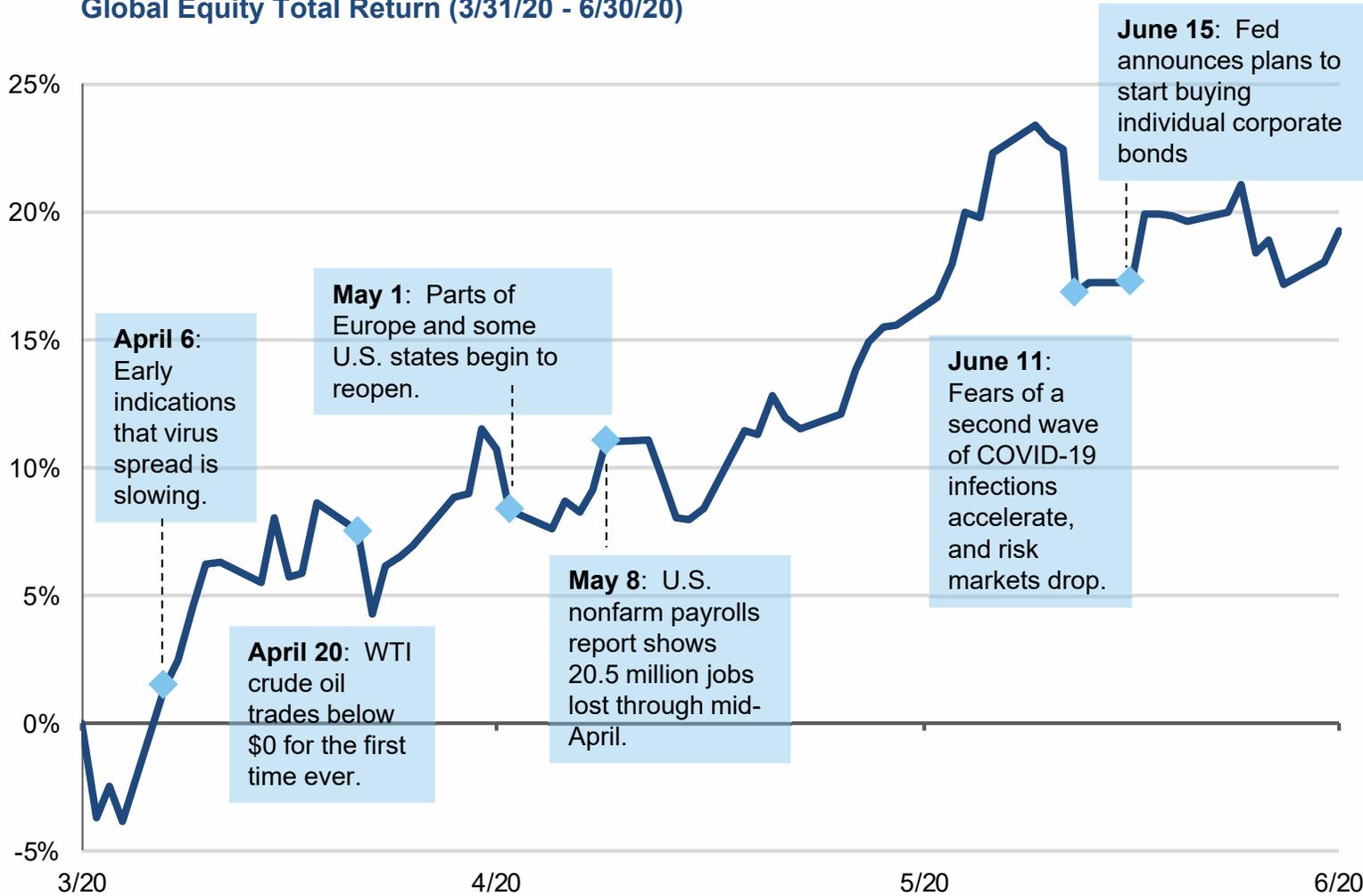
- Under the program, the Fed will buy up to \$500 billion short term municipal notes directly from states, the District of Columbia, and eligible local governments. Program would allow all 50 states to designate two cities or counties to sell debts directly to the central bank's program, creating an option for states with less populous municipalities to participate.
- The municipal debt instruments eligible for purchase by the facility include tax anticipation notes (TANs), revenue anticipation notes (RANs), and bond anticipation notes (BANs) as well as other similar notes. Eligible debt securities must have terms to maturity of no more than 36 months from their dates of issuance.
- To date, few have shown interest in borrowing through the Fed which has positioned itself as a **high-interest** lender of last resort. In addition, many state and local governments whose ability to borrow for operating costs is limited by local law or state constitution.



# Capital Markets Overview

# 2Q 2020 Market Events

Global Equity Total Return (3/31/20 - 6/30/20)



## Key 3Q 2020 Dates

### July

**28-29:** FOMC Meeting

**30:** U.S. Q2 GDP report (first estimate)

**31:** Tentative end to extra \$600/week of unemployment benefits

### August

**17-20:** Democratic national convention

**24-27:** Republican national convention

### September

**29:** First presidential debate

Source: Bloomberg as of 6/30/20. Global Equity represented by MSCI ACWI Net Total Return USD Index.

# Financial Market Performance

Global Fixed Income Markets	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Bloomberg Barclays 1-3-Month T-Bill	0.0%	0.5%	1.5%	1.7%	1.1%	0.8%	0.6%	1.3%
Bloomberg Barclays U.S. TIPS	4.2%	6.0%	8.3%	5.0%	3.7%	3.0%	3.5%	4.0%
Bloomberg Barclays Municipal Bond (5 Year)	3.3%	2.2%	3.8%	3.1%	2.8%	2.8%	2.9%	3.6%
Bloomberg Barclays High Yield Municipal Bond	4.6%	-2.6%	1.0%	5.3%	5.8%	5.2%	6.1%	5.0%
Bloomberg Barclays U.S. Aggregate	2.9%	6.1%	8.7%	5.3%	4.3%	4.0%	3.8%	4.4%
Bloomberg Barclays U.S. Corporate High Yield	10.2%	-3.8%	0.0%	3.3%	4.8%	5.0%	6.7%	6.8%
Bloomberg Barclays Global Aggregate ex-U.S. Hedged	1.8%	2.3%	4.0%	4.9%	4.5%	4.5%	4.2%	4.3%
Bloomberg Barclays Global Aggregate ex-U.S. Unhedged	3.4%	0.6%	0.7%	2.5%	2.9%	1.3%	2.0%	2.8%
Bloomberg Barclays U.S. Long Gov / Credit	6.2%	12.8%	18.9%	10.3%	9.0%	8.2%	7.8%	7.1%
JPMorgan GBI-EM Global Diversified	9.8%	-6.9%	-2.8%	1.1%	2.3%	-0.2%	1.6%	4.7%
Global Equity Markets	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
S&P 500	20.5%	-3.1%	7.5%	10.7%	10.7%	12.1%	14.0%	8.8%
Dow Jones Industrial Average	18.5%	-8.4%	-0.5%	9.1%	10.6%	10.8%	13.0%	9.1%
NASDAQ Composite	30.9%	12.7%	27.0%	19.2%	16.4%	18.2%	18.4%	12.4%
Russell 3000	22.0%	-3.5%	6.5%	10.0%	10.0%	11.7%	13.7%	8.8%
Russell 1000	21.8%	-2.8%	7.5%	10.6%	10.5%	12.0%	14.0%	8.9%
Russell 1000 Growth	27.8%	9.8%	23.3%	19.0%	15.9%	16.6%	17.2%	11.3%
Russell 1000 Value	14.3%	-16.3%	-8.9%	1.8%	4.6%	7.1%	10.4%	6.2%
Russell Mid Cap	24.6%	-9.1%	-2.3%	5.8%	6.7%	9.4%	12.3%	8.5%
Russell Mid Cap Growth	30.3%	4.2%	11.9%	14.8%	11.6%	13.2%	15.1%	10.3%
Russell Mid Cap Value	19.9%	-18.1%	-11.8%	-0.6%	3.3%	6.5%	10.3%	7.0%
Russell 2000	25.4%	-13.0%	-6.7%	2.0%	4.3%	7.2%	10.5%	7.0%
Russell 2000 Growth	30.6%	-3.1%	3.5%	7.8%	6.8%	10.0%	12.9%	8.8%
Russell 2000 Value	18.9%	-23.5%	-17.5%	-4.4%	1.2%	4.0%	7.8%	4.9%
MSCI ACWI	19.2%	-6.3%	2.1%	6.1%	6.5%	7.8%	9.2%	6.4%
MSCI ACWI ex. U.S.	16.1%	-11.0%	-4.8%	1.1%	2.3%	3.7%	5.0%	4.4%
MSCI EAFE	14.9%	-11.3%	-5.1%	0.8%	2.1%	3.9%	5.7%	4.1%
MSCI EAFE Growth	16.9%	-3.5%	4.2%	5.9%	5.5%	6.5%	7.8%	5.7%
MSCI EAFE Value	12.4%	-19.3%	-14.5%	-4.4%	-1.6%	1.2%	3.5%	2.3%
MSCI EAFE Small Cap	19.9%	-13.1%	-3.5%	0.5%	3.8%	6.4%	8.0%	5.7%
MSCI Emerging Markets	18.1%	-9.8%	-3.4%	1.9%	2.9%	3.2%	3.3%	6.3%
Alternatives	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Consumer Price Index*	-0.8%	-1.0%	0.1%	1.6%	1.5%	1.4%	1.6%	1.9%
FTSE NAREIT Equity REITs	11.8%	-18.7%	-13.0%	0.0%	4.1%	5.4%	9.1%	6.0%
S&P Developed World Property x U.S.	9.2%	-20.5%	-14.4%	-0.8%	1.5%	3.1%	6.7%	4.6%
S&P Developed World Property	10.5%	-19.5%	-13.8%	-0.4%	2.6%	4.1%	7.7%	5.1%
Bloomberg Commodity Total Return	5.1%	-19.4%	-17.4%	-6.1%	-7.7%	-8.1%	-5.8%	-4.3%
HFRI Fund of Funds Composite*	5.8%	-3.5%	-1.5%	1.6%	1.1%	2.4%	2.6%	2.5%
HFRI Fund Weighted Composite*	7.1%	-5.2%	-2.3%	1.5%	2.0%	3.0%	3.5%	4.1%
Alerian MLP	50.2%	-35.7%	-41.4%	-16.8%	-12.9%	-9.7%	-1.4%	2.6%

Source: Bloomberg as of 6/30/20. Total returns as of 6/30/20. Periods greater than one year are annualized. All returns are in U.S. dollar terms. \*One-month lag.

## U.S. Equity

	MTD	YTD	1 Year	3 Years	5 Years	10 Years
S&P 500	5.6	2.4	12.0	12.0	11.5	13.8
Russell 1000 Growth	7.7	18.3	29.8	20.9	16.8	17.3
Russell 1000 Value	4.0	-12.9	-6.0	2.7	5.4	10.1
Russell Mid Cap	5.9	-3.8	2.0	7.3	7.8	12.2
Russell Mid Cap Growth	8.0	12.5	18.1	17.1	13.0	15.2
Russell Mid Cap Value	4.7	-14.2	-8.4	0.6	4.3	10.0
Russell 2000	2.8	-10.6	-4.6	2.7	5.1	10.1
Russell 2000 Growth	3.4	0.3	6.0	8.8	7.5	12.6
Russell 2000 Value	2.1	-21.9	-15.9	-3.9	2.2	7.3

The S&P 500 Index continued higher in July, gaining 5.6% during the month. The index has crossed into positive territory on a year-to-date basis and is within 4% of its February highs. U.S. indices rose despite the pickup in new Covid-19 cases, with Arizona, California, Florida, and Texas now accounting for about 44% of new cases within the U.S. Fiscal and monetary stimulus has helped buoy markets throughout the pandemic, and accommodative policies continued during the month. The Federal Reserve extended its lending program to businesses, governments, and individuals through the end of the year, and Congress is currently debating a second major stimulus package. During the month, large capitalization stocks outperformed mid- and small-cap, and growth outpaced value. At the sector level, the consumer discretionary and utilities sectors led the way, while energy was the laggard and the only sector with a negative absolute return during the month.

## Fixed Income

	MTD	YTD	1 Year	3 Years	5 Years	10 Years
BBgBarc US Agg	1.5	7.7	10.1	5.7	4.5	3.9
BBgBarc US Corp IG	3.3	8.4	12.4	7.2	6.4	5.6
BBgBarc US Corp HY	4.7	0.7	4.1	4.5	5.9	6.8
BBgBarc US Gov/Cr 1-3 Yr	0.2	3.1	4.5	2.8	2.1	1.6
BBgBarc US Gov/Cr Long	5.3	18.8	24.3	12.1	9.6	8.3
BBgBarc Municipal	1.7	3.8	5.4	4.5	4.1	4.3
FTSE WGBI USD	3.6	7.9	8.9	4.6	4.3	2.4
ICE BofAML US 3M T-Bill	0.0	0.6	1.5	1.7	1.2	0.6

U.S. bond markets were generally positive in July, with the Bloomberg Barclays Aggregate Bond Index returning 1.5%. Rates moved lower across the curve, particularly within longer dated maturities. The U.S. 10-year Treasury yield ended the month at 0.55%, down 11 basis points from its June close. In this environment, investment grade and high yield bond spreads contracted 138 and 17 basis points, respectively, and outperformed Treasury securities. International bond markets produced strong positive returns as well, with the FTSE WGBI returning 3.6% in July.

## International Equity

	MTD	YTD	1 Year	3 Years	5 Years	10 Years
MSCI ACWI Ex USA	4.5	-7.0	0.7	1.4	3.2	4.5
MSCI EAFE	2.3	-9.3	-1.7	0.6	2.1	5.0
MSCI EAFE Growth	4.5	0.8	9.2	6.6	5.9	7.4
MSCI EAFE Value	0.2	-19.1	-12.3	-5.4	-1.9	2.5
MSCI EAFE Small Cap	3.4	-10.2	0.4	0.4	4.3	7.5
MSCI EM	8.9	-1.7	6.5	2.8	6.1	3.3
MSCI EM Small	9.2	-4.7	1.1	-1.2	2.0	2.0

International equities produced strong returns in July, despite trailing domestic equities, with the MSCI ACWI ex U.S. Index returning 4.5%. During the month, the European Union agreed to a historic \$860 billion recovery fund geared towards fighting the economic fallout created by the Covid-19 pandemic in the 27-nation bloc. The recovery fund will consist of a combination of non-repayable grants and low interest rate loans. From a style perspective, small-caps outperformed large-caps, and growth bested value. Emerging market equities outperformed their developed market counterparts, benefitting from the risk-on environment and a weaker dollar.

## Commodities & Real Estate

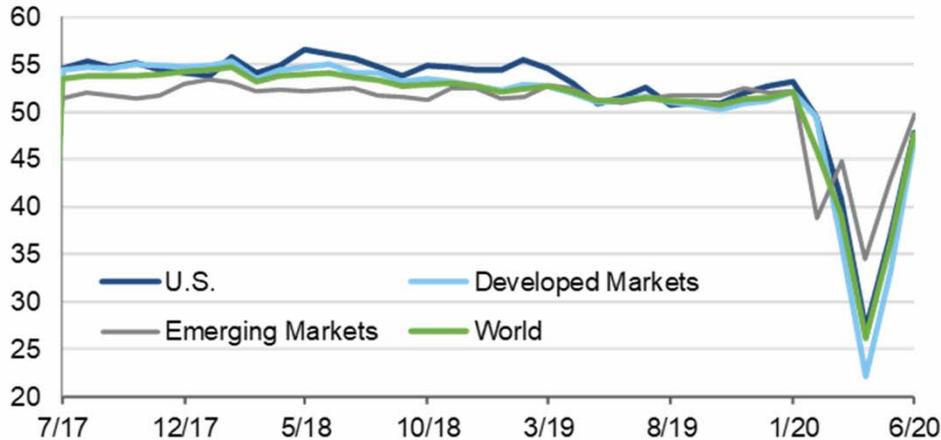
	MTD	YTD	1 Year	3 Years	5 Years	10 Years
Bloomberg Commodity	5.7	-14.8	-12.1	-5.1	-4.5	-5.9
S&P N.A. Natural Resources	1.2	-25.5	-21.7	-8.7	-4.5	-1.2
FTSE Nareit Equity REITs	4.0	-15.4	-10.7	1.0	3.7	8.5
FTSE EPRA Nareit Developed	2.8	-18.7	-13.4	-0.4	2.1	6.5

Commodities, natural resource equities, and REITs were all positive during the month of July. Oil markets continued higher during the month, with the WTI crude September futures contract ending the month at \$40.43 per barrel, up from \$39.66 at the end of June. Precious metals continued their strong performance as well, with gold setting a new all-time high in the period.

# Economic Review

## PMI Composites

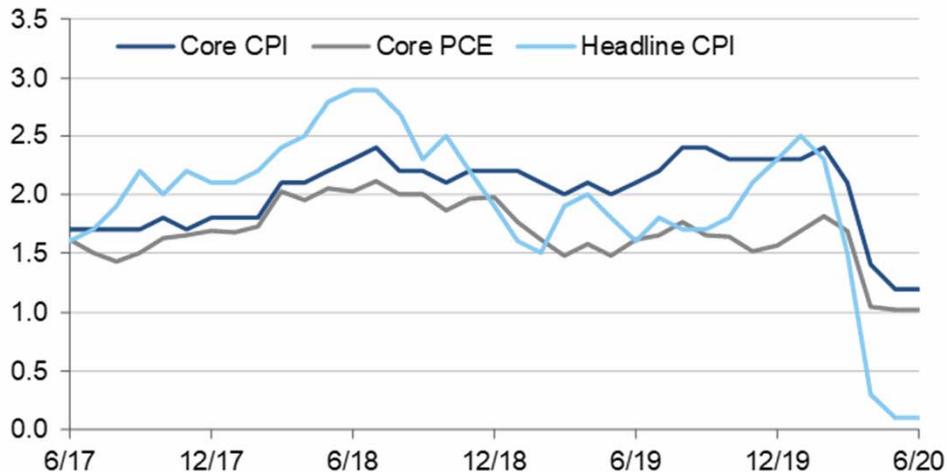
PMI data revealed progress toward more normal economic activity; however, all indices remain below 50, indicating economic contraction.



Sources: Markit, JPMorgan. Subject to one-month lag.

## U.S Inflation

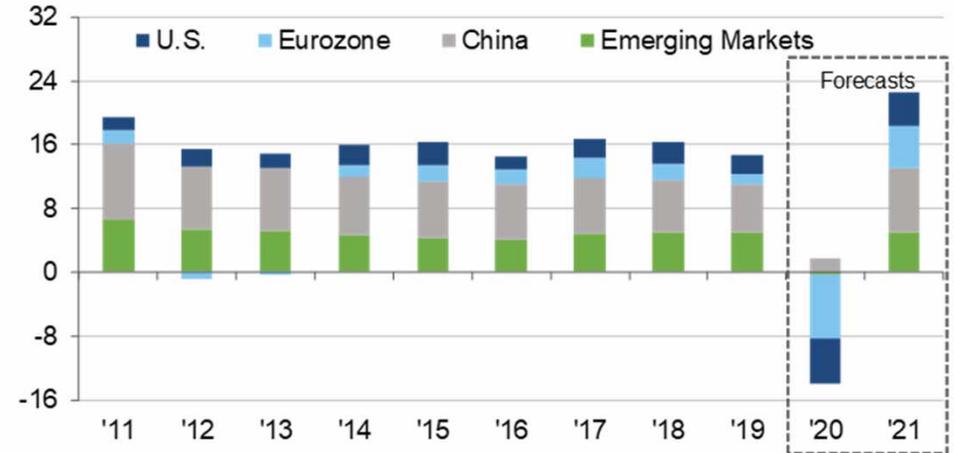
Core inflation dropped off amid the decline in demand, given the shutdown. Headline CPI fell even further with the drop in oil prices.



Sources: Bureau of Labor Statistics (BLS), Bureau of Economic Analysis (BEA)

## Real GDP Growth (YoY)

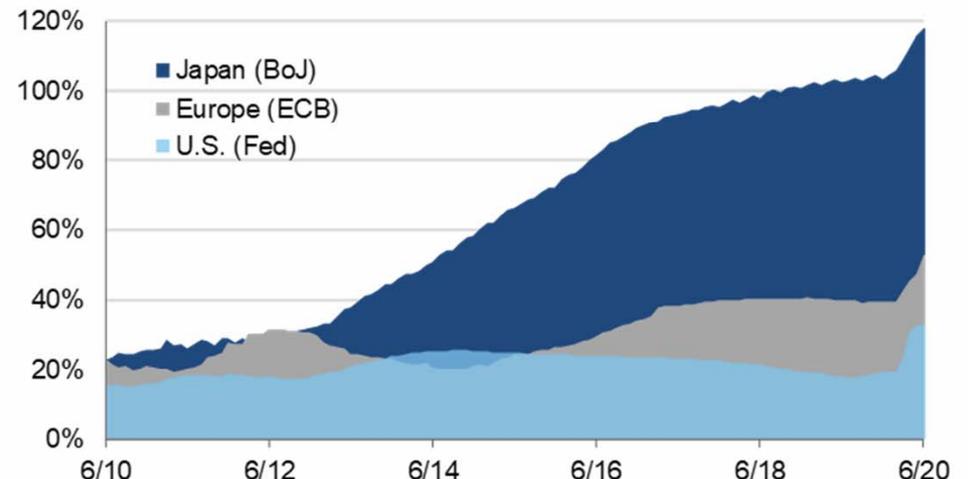
GDP growth forecasts for 2020 are negative for most of the world except China; however, 2021 estimates are more optimistic.



Source: Bloomberg. Forecasts based on Bloomberg survey.

## Central Bank Balance Sheets as a Percent of GDP

Despite unprecedented levels of monetary easing, the Fed has a lot more policy room to support economic activity.

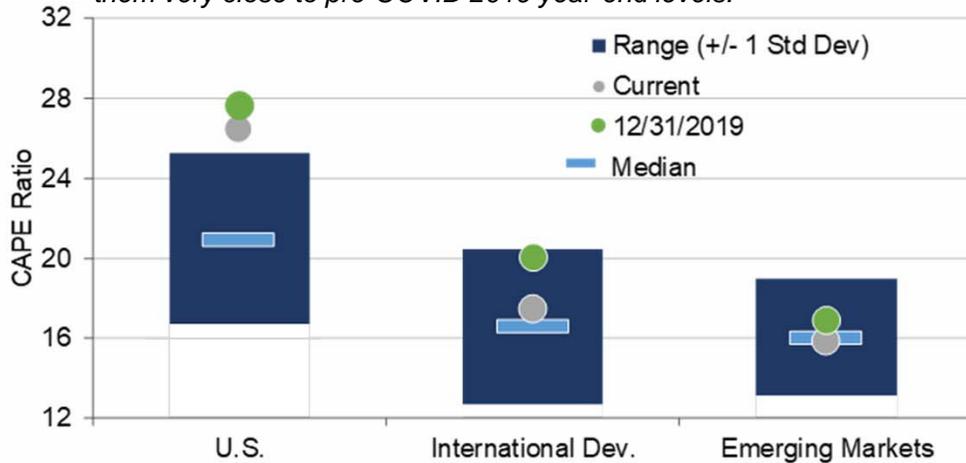


Source: Bloomberg

# Equity Market Update

## Equity Valuations (Trailing 15 Years)

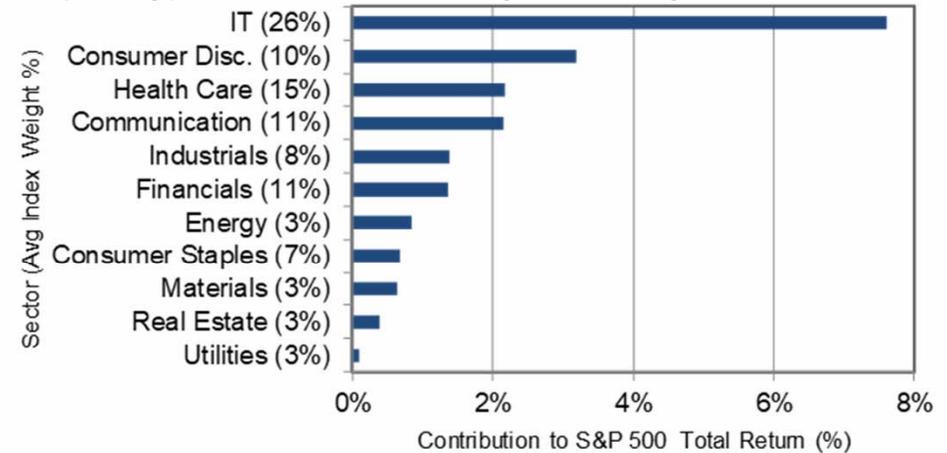
The second quarter equity rally pushed up valuations globally, bringing them very close to pre-COVID 2019 year-end levels.



Source: MSCI as of 6/30/20.

## U.S. Equities – Contribution to Return by Sector (2Q20)

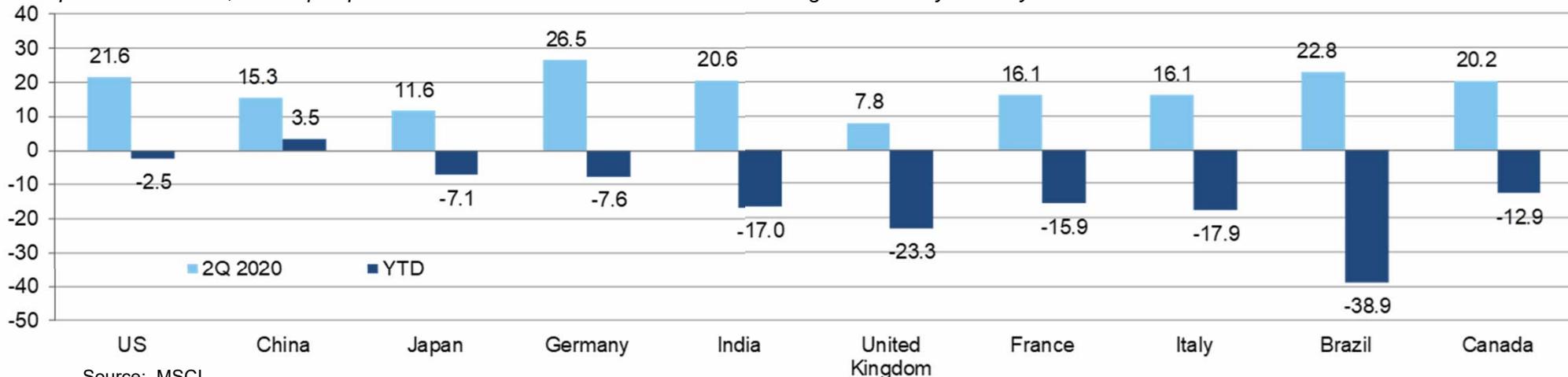
Technology contributed nearly half of the quarterly total return, driven by very strong performance and a meaningful index weight of 26%.



Source: S&P.

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

Optimism about containment of the virus and reopening was expressed in equity returns across the world, which were all positive in the second quarter. That said, the drop experienced in March has left most countries in negative territory for the year.



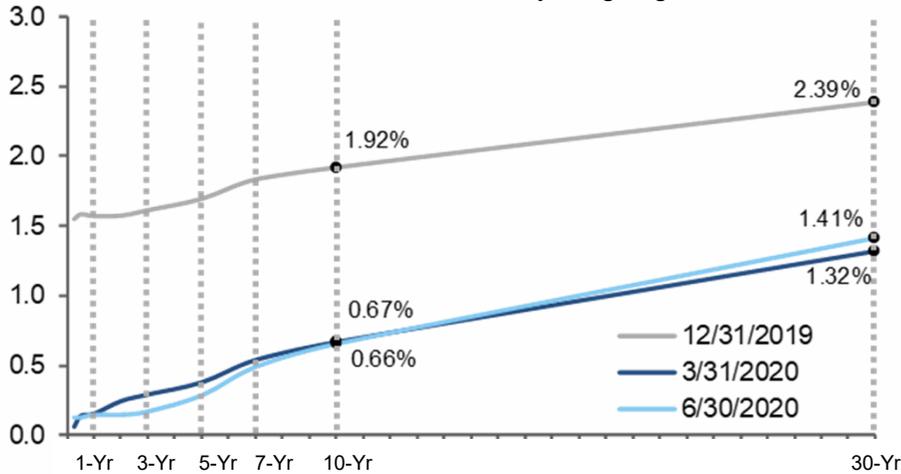
Source: MSCI.

See disclosures for list of indices representing each asset class, region or country. CAPE = cyclically adjusted price/earnings ratio.

# Fixed Income Market Update

## U.S. Treasury Curve

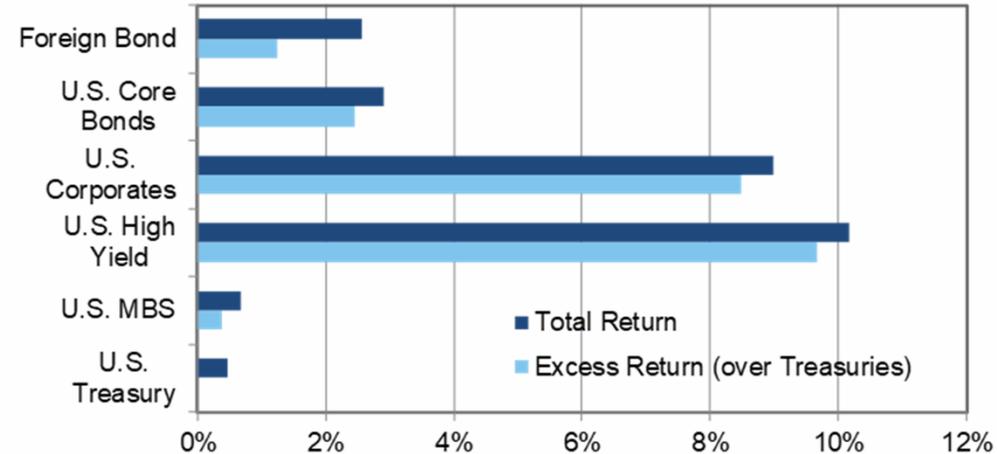
U.S. Treasury yields traded relatively flat, with the Fed keeping the front-end anchored, and economic uncertainty weighing on the back-end.



Source: Bloomberg.

## Index Performance Attribution (2Q20)

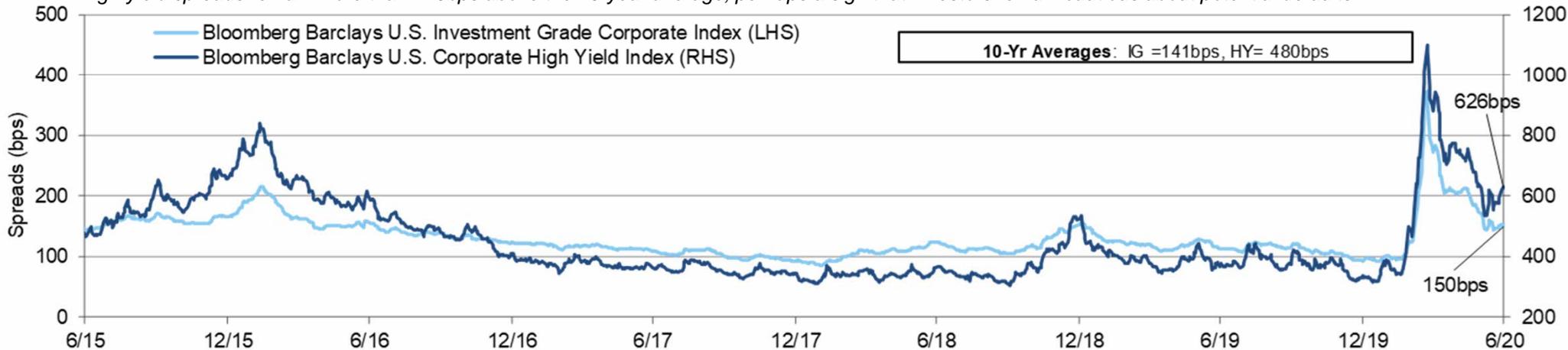
Positive performance was driven by spread compression – notably different from the first quarter when risk-free rates fell and spreads widened.



Source: Bloomberg.

## Credit Market Spreads – Trailing Five Years

The late-March spread rally carried over into the second quarter, with investment grade and high yield spreads tightening 122bps and 254bps, respectively. High-yield spreads remain more than 140bps above the 10-year average, perhaps a sign that investors remain cautious about potential defaults.



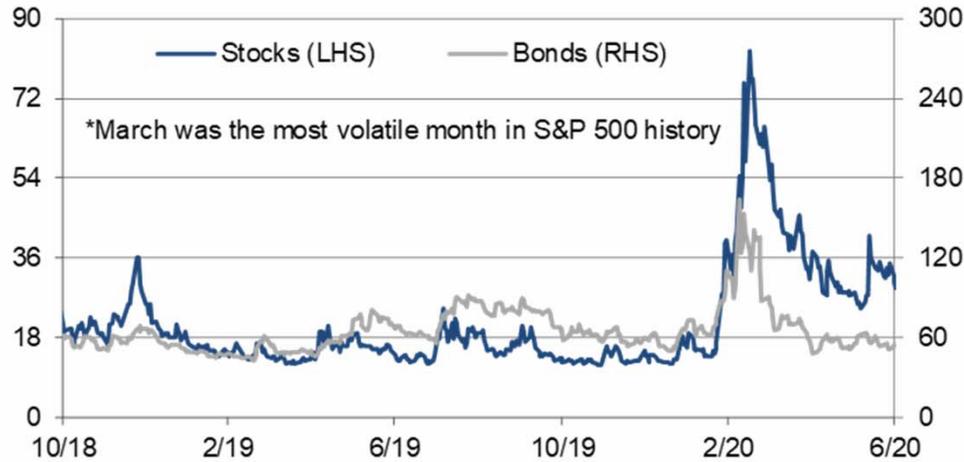
Source: Bloomberg.

See disclosures for list of indices representing each asset class.

# Market Themes

## Volatility – Stocks (VIX) and Bonds (MOVE)

Volatility levels fell from March peaks but remain elevated for equities amid continued COVID-19 uncertainty.



Source: Bloomberg.

## WTI Crude Oil Prices

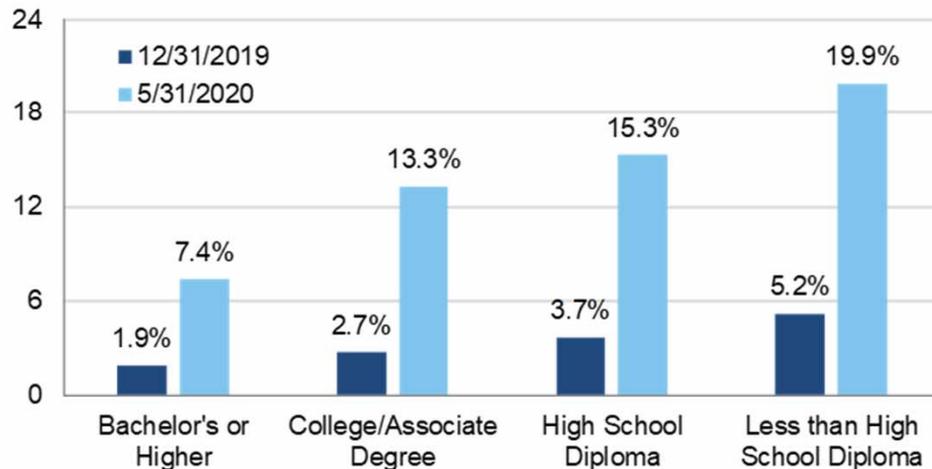
Oil futures contracts fell to an all-time low of -\$38 on April 20<sup>th</sup> but rallied back to a positive but still depressed level of around \$40 per barrel.



Source: Bloomberg

## U.S. Unemployment Rate by Education Level (%)

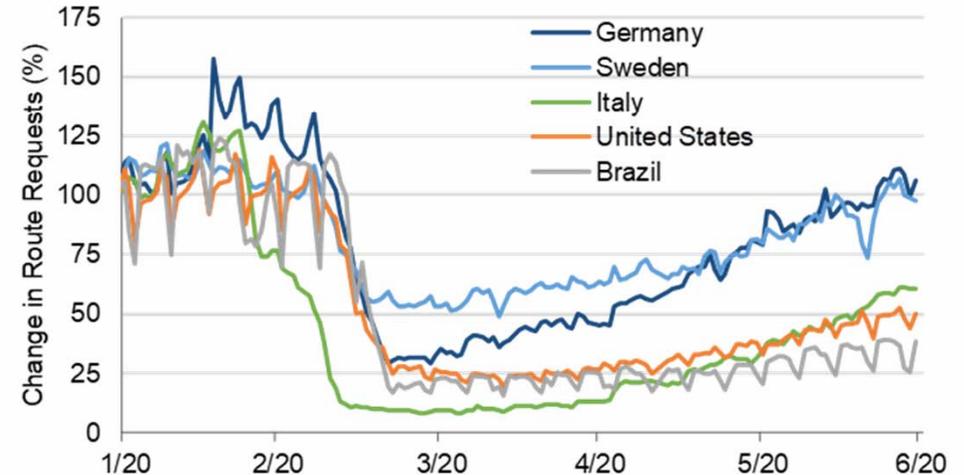
Job losses spiked in the second quarter, notably for those less-educated who comprise a majority of the service-related industry workforce.



Source: U.S. Bureau of Labor Statistics (BLS)

## Change in Apple Maps Route Requests (Public Transit)

Reopening measures and the implications on economic activity remain a key focus, with several European countries leading the way.



Source: Apple Mobility Trends Report

# Market Themes (Cont.)

## Equity – Growth vs. Value

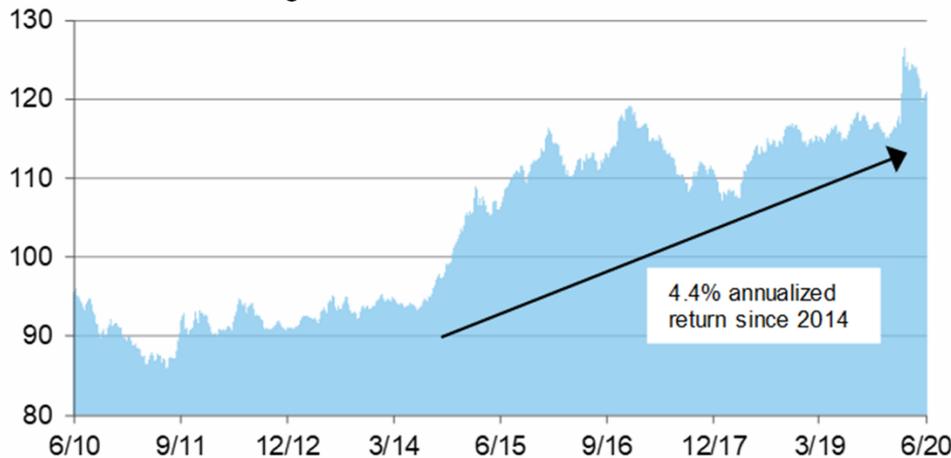
The rally in growth stocks continued for much of the second quarter, with the exception of a couple weeks in early June.



Source S&P.

## Trade Weighted U.S. Dollar

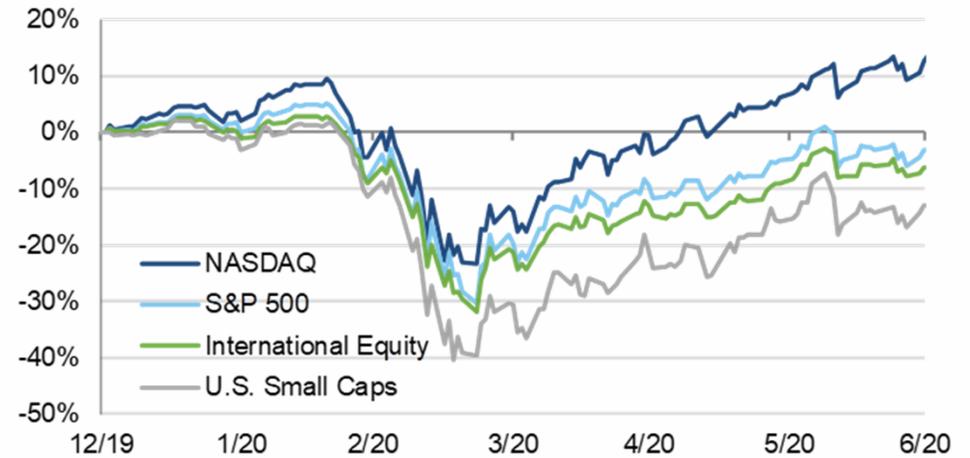
U.S. dollar weakness emerged amid increased monetary accommodation and the Fed's willingness to do whatever it takes.



Source: Federal Reserve based on H.10 exchange rate data.

## Equity Performance – Sector, Region, Market Cap

Technology-heavy NASDAQ was the clear outperformer, whereas U.S. small caps have struggled to recover from a 40% drop in late March.



Sources: NASDAQ, S&P, MSCI, Russell.

## Monetary Policy Rates

Central bank policy rates remain low and have been cut even further toward the zero bound in the U.S. and U.K.

Country / Region	Policy Rate	Latest Rate Change
China	3.85%	▼ 20bps cut on 4/20/20
U.S.	0.25%	▼ 100bps cut on 3/15/20
United Kingdom	0.10%	▼ 15bps cut on 3/19/20
Europe	-0.50%	▼ 10bps cut on 9/12/19
Japan	-0.10%	▼ 10bps cut on 1/28/16

Sources: Chinese Central Bank, Federal Reserve, UK Central Bank, European Central Bank, Japanese Central Bank.

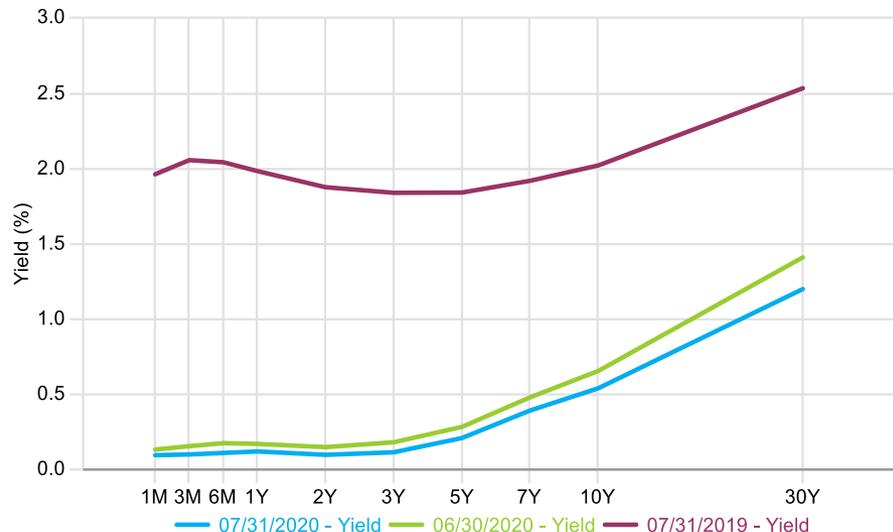
## S&P 500 Price History - Trailing 1 Year

07/31/2019 - 07/31/2020



FactSet, S&P

## United States Treasury Yield Curve



FactSet

## Barclays Corporate Option Adjusted Spread - Trailing 1 Year

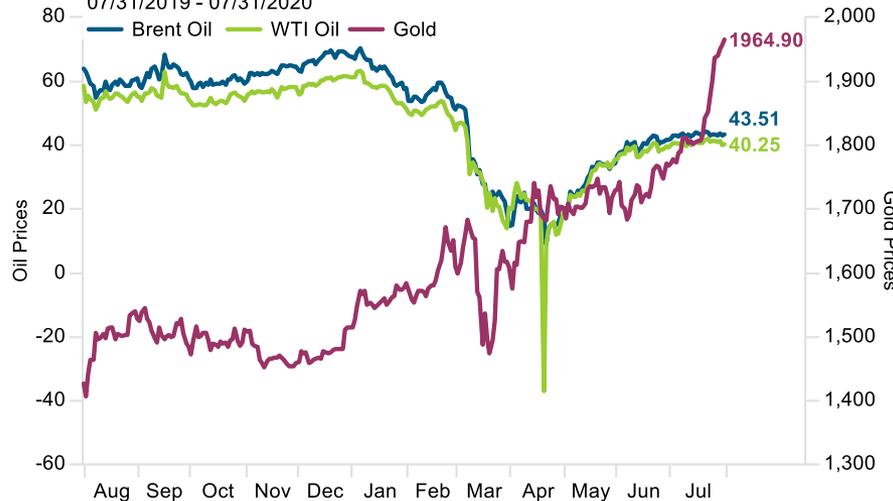
07/31/2019 - 07/31/2020



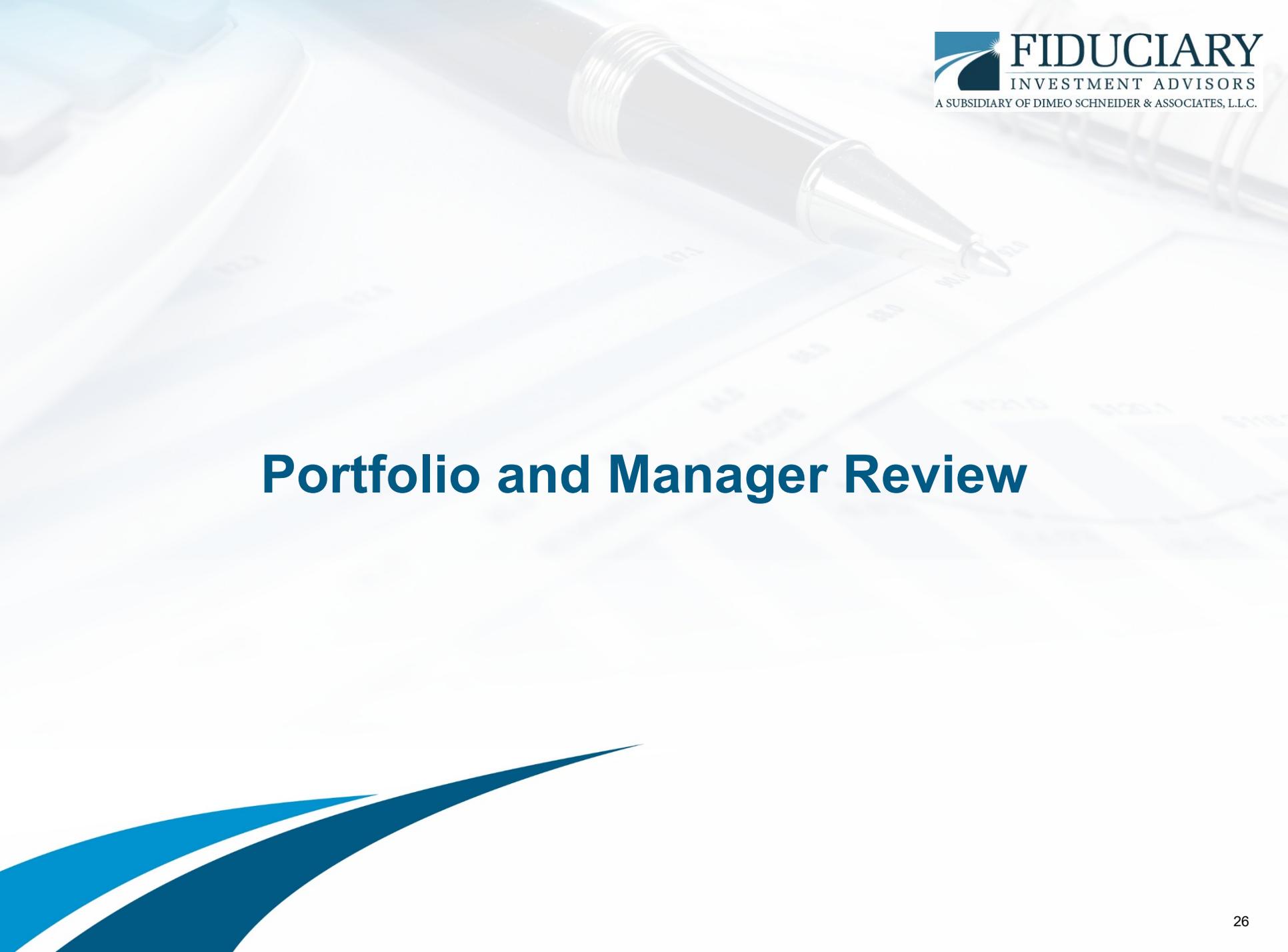
FactSet, Bloomberg Barclays

## Commodity Prices - Trailing 1 Year

07/31/2019 - 07/31/2020



FactSet



# Portfolio and Manager Review

## Asset Allocation - Watertown Retirement System

As of June 30, 2020

Name	Market Value (\$) <sup>1</sup>	Asset Allocation (%)	Target Allocation (%)	Difference (%)
Collective US Gov't STIF	2,129,891	1.0	0.0	1.0
<b>Fixed Income</b>				
IRM Core Bond Fund	33,564,989	16.5	17.0	-0.5
Eaton Vance Trust CIT High Yield Fund	4,931,769	2.4	2.5	-0.1
Brandywine Global Opportunistic Fixed Income	8,241,845	4.1	4.0	0.1
<b>Total Fixed Income</b>	<b>46,738,604</b>	<b>23.0</b>	<b>23.5</b>	<b>-0.5</b>
<b>Asset Allocation</b>				
Wellington Opportunistic Investment Allocation	6,349,106	3.1	3.0	0.1
PineBridge Global Dynamic Asset Allocation	6,002,944	3.0	3.0	-0.0
<b>Total Asset Allocation</b>	<b>12,352,050</b>	<b>6.1</b>	<b>6.0</b>	<b>0.1</b>
<b>Domestic Equity</b>				
PRIT Domestic Equity	15,940,654	7.8	7.7	0.1
Columbia U.S. Contrarian Core Equity Private Fund	25,374,386	12.5	12.0	0.5
Lee Munder Mid Cap Core Collective Fund	10,816,802	5.3	5.5	-0.2
Wellington Small Cap 2000 Portfolio	6,090,064	3.0	3.0	-0.0
<b>Total Domestic Equity</b>	<b>58,221,906</b>	<b>28.6</b>	<b>28.2</b>	<b>0.4</b>
<b>International Equity</b>				
EARNEST Partners International Equity	15,863,748	7.8	8.6	-0.8
MFS Institutional International Equity	17,498,759	8.6	8.6	0.0
Acadian International Small Cap Equity	4,709,905	2.3	2.6	-0.3
<b>Total International Equity</b>	<b>38,072,412</b>	<b>18.7</b>	<b>19.8</b>	<b>-1.1</b>
<b>Real Estate</b>				
PRIT Core Real Estate	13,356,053	6.6	7.0	-0.4
TA Realty Core Property Fund, LP	4,160,374	2.0	1.5	0.5
American Strategic Value Realty Fund	2,078,085	1.0	1.0	0.0
TerraCap Partners IV	1,081,690	0.5	0.5	0.0
Arsenal Real Estate Fund I-A	43,050	0.0	0.0	0.0
<b>Total Real Estate</b>	<b>20,719,251</b>	<b>10.2</b>	<b>10.0</b>	<b>0.2</b>
<b>Hedge Funds</b>				
PRIT Hedge Funds	14,851,415	7.3	7.5	-0.2
<b>Total Hedge Funds</b>	<b>14,851,415</b>	<b>7.3</b>	<b>7.5</b>	<b>-0.2</b>
<b>Private Equity</b>				
Auda Venture LP	19,543	0.0		
RCP IV, LP	296,661	0.1	5.0	0.1
PRIT Vintage Year Program <sup>2</sup>	9,978,523	4.9		
<b>Total Private Equity</b>	<b>10,294,727</b>	<b>5.1</b>	<b>5.0</b>	<b>0.1</b>
<b>Total Fund</b>	<b>203,380,257</b>	<b>100.0</b>	<b>100.0</b>	

<sup>1</sup>Valuations for TerraCap Partners, Arsenal, Auda and RCP are reported with a quarter lag as of 3/31/20, and are adjusted for any cash flow activity in the reporting period.

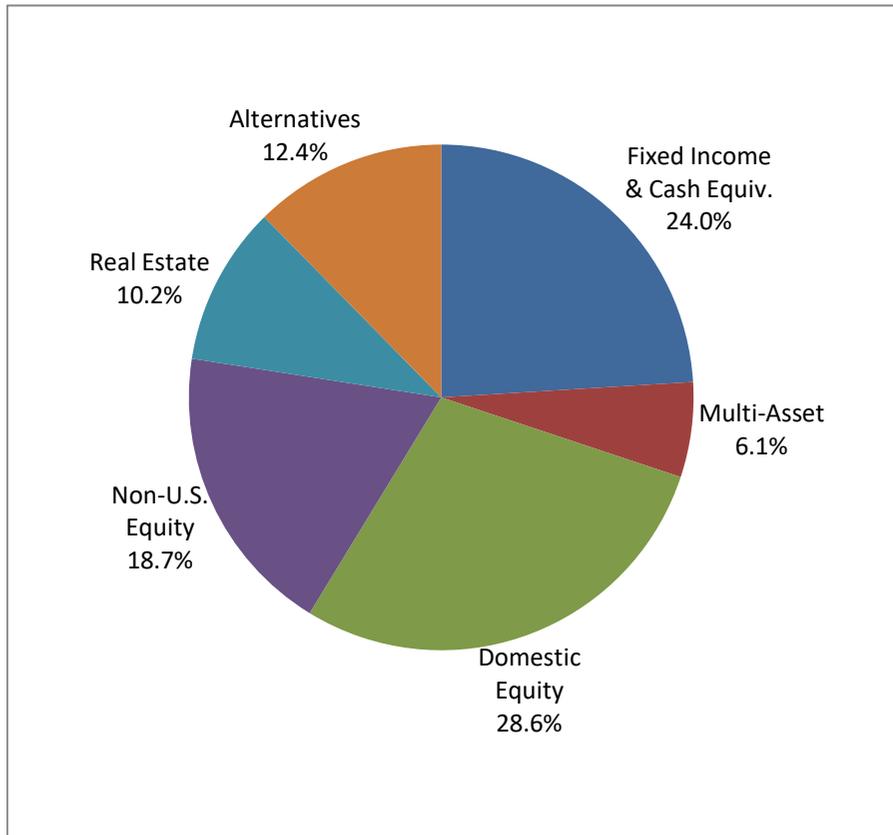
<sup>2</sup>Breakdown by Vintage Year is provided on Summary of Illiquid Investments page.

# Watertown Retirement System

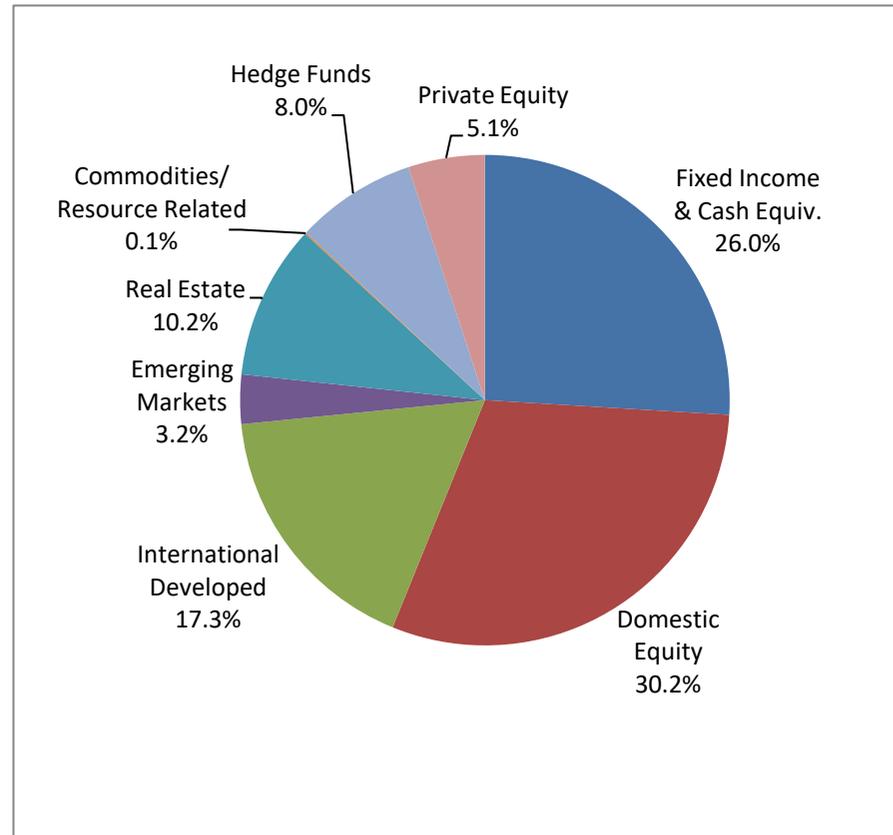
## Asset Allocation

As of June 30, 2020

Asset Allocation by Mandate Type



Asset Allocation by Asset Class



### Asset Class Look Through

**Wellington Opportunistic Investment Fund** allocation as of **6/30/2020** consisted of approximately: 38% fixed income & cash equivalents, 21% domestic equity, 26% developed international equity, and 16% emerging markets. Please note, percentages may not sum to 100 due to rounding.

**PineBridge Global Dynamic Asset Allocation Fund** allocation as of **6/30/2020** consisted of approximately: 32% fixed income & cash equivalents, 23% domestic equity, 6% developed international equity, 13% emerging markets, 3% commodities, and 23% hedge funds. Please note, percentages may not sum to 100 due to rounding.

#### International Breakdown:

- Earnest Partners - 73% developed, 27% emerging
- MFS International - 96% developed, 4% emerging
- Acadian Small Cap - 100% developed

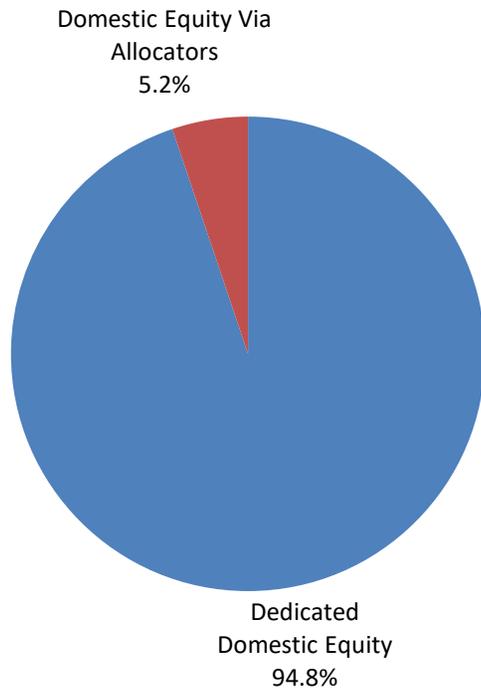
*DISCLAIMER: The "look through" information provided above has been gathered from sources deemed to be reliable, including Morningstar and the managers. The asset class look through on the right is designed to give a general representation of how portfolio assets are allocated among various asset classes. However, the information may include discrepancies, based on how managers classify certain holdings.*

# Watertown Retirement System

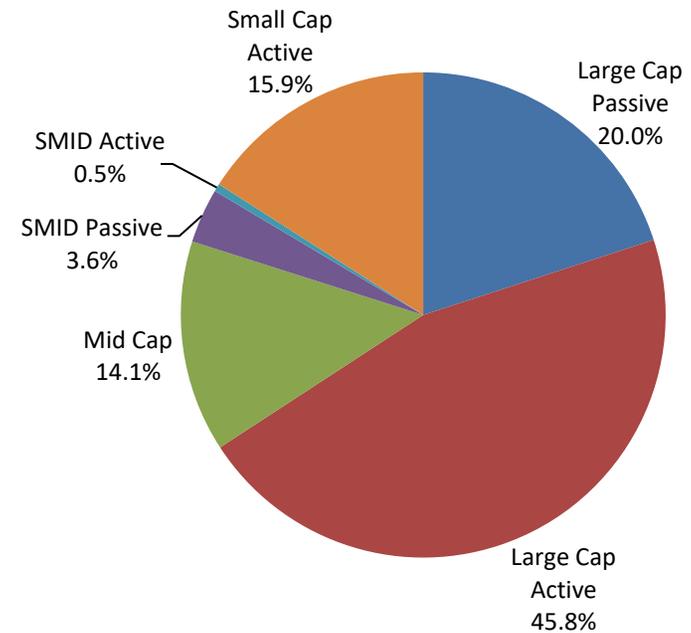
## Domestic Equity Look Through

As of June 30, 2020

Asset Allocation by Mandate Type



Asset Allocation by Asset Class



**PRIT Domestic Equity** allocation: 77% Passive Large Cap, 14% Passive SMID Cap (Russell 2500 Index), 2% Active SMID, 7% Active Small-Mid, primarily Small Cap. Domestic Equity allocation in the Asset Allocation strategies assume the allocation in US Equity is primarily in large cap equity.

*DISCLAIMER: The "look through" information provided above has been gathered from sources deemed to be reliable, including Morningstar and the managers. The asset class look through on the right is designed to give a general representation of how portfolio assets are allocated among various asset classes. However, the information may include discrepancies, based on how managers classify certain holdings.*

# Total Plan Performance Summary

As of June 30, 2020

## Account Reconciliation

	QTR	YTD	Since Inception	Inception Date
<b>Total Fund Composite</b>				<b>10/01/1999</b>
Beginning Market Value	186,743,975	218,912,469	89,230,180	
Net Contributions	-3,034,756	-5,877,793	26,901,185	
Total Gain/Loss	19,671,038	-9,654,419	87,248,892	
Ending Market Value	203,380,257	203,380,257	203,380,257	
** Data displayed in the Since Inception column is as of 1/1/2007. Historical market values and flow information prior to 1/1/2007 was not available from the prior consultant. The stated inception date of 10/1/1999 is the plan's performance inception date.				

## Policy Index Composition

Allocation Mandate	Weight (%)
<b>Apr-2018</b>	
Blmbg. Barc. U.S. Aggregate Index	20.00
ICE BofAML US High Yield Master II Constrained	2.50
FTSE World Government Bond Index	2.50
Russell 3000 Index	35.00
MSCI AC World ex USA (Net)	20.00
MSCI EAFE Small Cap (net) Index	2.50
PRIM Custom Total RE Benchmark	10.00
HFRI Fund of Funds Composite Index	7.50

## Trailing Performance Summary

	QTR	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Total Fund Composite</b>	<b>10.6</b>	<b>-4.4</b>	<b>1.7</b>	<b>4.8</b>	<b>5.3</b>	<b>6.7</b>	<b>7.8</b>	<b>5.9</b>	<b>10/01/1999</b>
<i>Policy Index</i>	<i>13.0</i>	<i>-2.6</i>	<i>3.7</i>	<i>6.0</i>	<i>6.2</i>	<i>7.2</i>	<i>8.4</i>	<i>6.0</i>	
Difference	-2.4	-1.8	-2.0	-1.2	-0.9	-0.5	-0.6	-0.1	

## Calendar Year Performance Summary

	2019	2018	2017	2016	2015	2014	2013	2012
<b>Total Fund Composite</b>	<b>18.7</b>	<b>-4.9</b>	<b>15.6</b>	<b>6.6</b>	<b>1.0</b>	<b>6.6</b>	<b>15.6</b>	<b>12.3</b>
<i>Policy Index</i>	<i>19.5</i>	<i>-4.9</i>	<i>15.8</i>	<i>7.4</i>	<i>0.4</i>	<i>6.1</i>	<i>16.7</i>	<i>12.6</i>
Difference	-0.8	0.0	-0.2	-0.8	0.6	0.5	-1.1	-0.3

Investment performance history data prior to 3/31/2010 was sourced from prior consultant.

## Manager Performance Overview

As of June 30, 2020

	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Total Fund Composite</b>	<b>10.6</b>	<b>-4.4</b>	<b>1.7</b>	<b>4.8</b>	<b>5.3</b>	<b>7.8</b>	<b>5.9</b>	<b>10/01/1999</b>
<i>Policy Index</i>	13.0	-2.6	3.7	6.0	6.2	8.4	6.0	
<b>PRIT General Allocation Fund **</b>	<b>7.2</b>	<b>-3.6</b>	<b>2.1</b>	<b>5.7</b>	<b>6.3</b>	<b>8.4</b>	<b>8.9</b>	<b>02/01/1985</b>
<i>PRIT Benchmark</i>	7.6	-2.5	3.0	6.3	6.4	8.3	9.6	
<b>Short Term Liquidity</b>								
<b>Collective US Govt STIF Fund</b>	<b>0.0</b>	<b>0.4</b>	<b>1.3</b>	<b>1.3</b>	<b>0.8</b>	<b>0.4</b>	<b>1.2</b>	<b>03/01/2004</b>
<i>90 Day U.S. Treasury Bill</i>	0.0	0.6	1.6	1.8	1.2	0.6	1.3	
<b>Fixed Income</b>	<b>5.8</b>	<b>3.9</b>	<b>6.7</b>	<b>4.6</b>	<b>4.2</b>	<b>4.3</b>	<b>4.5</b>	<b>04/01/2007</b>
<i>Fixed Income Benchmark</i>	3.5	4.9	7.4	5.0	4.3	3.9	4.6	
<b>IRM Core Bond Fund LLC</b>	<b>4.5 (60)</b>	<b>6.7 (15)</b>	<b>9.4 (15)</b>	<b>5.6 (14)</b>	<b>4.5 (16)</b>	<b>4.3 (20)</b>	<b>5.5 (12)</b>	<b>07/01/2000</b>
<i>Blmbg. Barc. U.S. Aggregate Index</i>	2.9	6.1	8.7	5.3	4.3	3.8	5.1	
IM U.S. Broad Market Core Fixed Income (MF) Median	5.0	5.6	8.1	4.9	4.1	3.8	5.0	
<b>Eaton Vance Trust CIT High Yield Fund</b>	<b>8.5 (68)</b>	<b>-4.3 (37)</b>	<b>-0.4 (30)</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3.3 (22)</b>	<b>04/01/2018</b>
<i>ICE BofAML US High Yield Master II Constrained</i>	9.5	-4.8	-1.2	N/A	N/A	N/A	3.2	
IM U.S. High Yield Bonds (MF) Median	9.2	-4.9	-1.4	N/A	N/A	N/A	2.4	
<b>Brandywine Global Opportunistic Fixed Income</b>	<b>10.0 (6)</b>	<b>-2.3 (98)</b>	<b>0.1 (89)</b>	<b>1.3 (93)</b>	<b>2.7 (71)</b>	<b>N/A</b>	<b>3.1 (26)</b>	<b>06/01/2011</b>
<i>FTSE World Government Bond Index</i>	2.0	4.1	4.6	4.0	3.7	N/A	1.5	
IM Global Fixed Income (MF) Median	5.6	1.9	3.2	3.4	3.3	N/A	2.3	
<b>Asset Allocation</b>	<b>17.4</b>	<b>-5.4</b>	<b>1.0</b>	<b>1.2</b>	<b>2.5</b>	<b>N/A</b>	<b>4.7</b>	<b>08/01/2010</b>
<i>65% MSCI AC World ND/ 35% Blmbg Brclys US Agg</i>	13.3	-1.6	4.9	6.2	6.0	N/A	7.0	
<b>WTC-CIF Opportunistic Invst Allocation</b>	<b>20.7</b>	<b>-3.6</b>	<b>4.2</b>	<b>2.8</b>	<b>4.0</b>	<b>N/A</b>	<b>3.9</b>	<b>11/01/2010</b>
<i>Wellington Opportunistic Index</i>	13.3	-1.6	4.9	6.2	6.0	N/A	6.6	
<b>PineBridge Global Dynamic Asset Allocation Fund LLC</b>	<b>14.0</b>	<b>-7.2</b>	<b>-2.2</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>0.5</b>	<b>02/01/2019</b>
<i>60% MSCI AC World 40% BC AGG</i>	12.5	-1.0	5.3	N/A	N/A	N/A	8.6	

Returns for periods less than one year are not annualized. Returns are net of fees unless otherwise noted.

## Manager Performance Overview

As of June 30, 2020

	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Domestic Equity</b>	<b>22.4</b>	<b>-4.6</b>	<b>5.1</b>	<b>8.0</b>	<b>8.5</b>	<b>12.9</b>	<b>8.5</b>	<b>04/01/2007</b>
<i>Domestic Equity Benchmark</i>	22.0	-3.5	6.5	10.0	10.0	13.7	7.9	
<b>PRIT Domestic Equity</b>	<b>23.1 (9)</b>	<b>-3.9 (49)</b>	<b>5.5 (52)</b>	<b>9.8 (39)</b>	<b>9.8 (32)</b>	<b>13.5 (27)</b>	<b>13.5 (27)</b>	<b>07/01/2010</b>
<i>PRIT Equity Benchmark</i>	21.7	-4.6	5.1	9.4	9.7	13.5	13.5	
IM U.S. Large Cap Core Equity (MF) Median	19.4	-4.0	5.7	9.0	9.0	12.5	12.5	
<b>Columbia US Contrarian Core Equity Fund</b>	<b>20.4 (39)</b>	<b>-1.5 (21)</b>	<b>9.9 (15)</b>	<b>9.8 (39)</b>	<b>9.9 (30)</b>	<b>N/A</b>	<b>9.6 (22)</b>	<b>01/01/2015</b>
<i>Russell 1000 Index</i>	21.8	-2.8	7.5	10.6	10.5	N/A	9.8	
IM U.S. Large Cap Core Equity (MF) Median	19.4	-4.0	5.7	9.0	9.0	N/A	8.4	
<b>LMCG Mid Cap Collective Fund</b>	<b>22.6 (36)</b>	<b>-8.8 (18)</b>	<b>-1.4 (21)</b>	<b>3.0 (39)</b>	<b>4.4 (34)</b>	<b>N/A</b>	<b>8.3 (19)</b>	<b>06/01/2011</b>
<i>Russell Midcap Index</i>	24.6	-9.1	-2.2	5.8	6.8	N/A	9.4	
IM U.S. Mid Cap Core Equity (MF) Median	20.8	-12.4	-6.2	2.3	3.6	N/A	6.8	
<b>Wellington Small Cap 2000</b>	<b>29.2 (9)</b>	<b>-11.7 (15)</b>	<b>-4.1 (12)</b>	<b>4.9 (4)</b>	<b>7.0 (2)</b>	<b>13.2 (1)</b>	<b>11.6 (1)</b>	<b>04/01/1991</b>
<i>Russell 2000 Index</i>	25.4	-13.0	-6.6	2.0	4.3	10.5	9.1	
IM U.S. Small Cap Core Equity (MF) Median	22.4	-17.7	-11.8	-0.9	2.3	9.0	9.5	
<b>International Equity</b>	<b>15.6</b>	<b>-12.5</b>	<b>-5.9</b>	<b>1.2</b>	<b>3.1</b>	<b>6.2</b>	<b>3.4</b>	<b>04/01/2007</b>
<i>International Equity Benchmark</i>	16.5	-11.2	-4.6	1.1	2.4	5.3	2.0	
<b>Earnest Partners Intl Equity</b>	<b>15.3 (73)</b>	<b>-17.3 (89)</b>	<b>-11.9 (92)</b>	<b>-2.0 (74)</b>	<b>0.8 (41)</b>	<b>4.1 (67)</b>	<b>2.6 (26)</b>	<b>08/01/2008</b>
<i>MSCI AC World ex USA (Net)</i>	16.1	-11.0	-4.8	1.1	2.3	5.0	2.1	
IM International Large Cap Core Equity (MF) Median	16.7	-11.2	-5.8	-0.3	0.6	4.7	1.9	
<b>MFS Intl International Equity Fund</b>	<b>14.7 (90)</b>	<b>-8.1 (16)</b>	<b>-0.8 (19)</b>	<b>4.6 (8)</b>	<b>4.8 (1)</b>	<b>N/A</b>	<b>6.6 (1)</b>	<b>12/01/2010</b>
<i>MSCI EAFE (Net) Index</i>	14.9	-11.3	-5.1	0.8	2.1	N/A	4.5	
IM International Large Cap Core Equity (MF) Median	16.7	-11.2	-5.8	-0.3	0.6	N/A	3.3	
<b>Acadian Intl Small Cap Fund</b>	<b>20.5 (65)</b>	<b>-10.8 (49)</b>	<b>-2.5 (54)</b>	<b>1.0 (54)</b>	<b>5.1 (39)</b>	<b>N/A</b>	<b>6.7 (49)</b>	<b>02/01/2011</b>
<i>MSCI EAFE Small Cap (net) Index</i>	19.9	-13.1	-3.5	0.5	3.8	N/A	5.3	
IM International Small Cap Equity (SA+CF+MF) Median	21.9	-11.4	-2.0	1.5	4.1	N/A	6.5	

Returns for periods less than one year are not annualized. Returns are net of fees unless otherwise noted.

## Manager Performance Overview

As of June 30, 2020

	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Real Estate</b>	<b>0.0</b>	<b>-2.9</b>	<b>2.2</b>	<b>5.5</b>	<b>6.1</b>	<b>8.0</b>	<b>1.8</b>	<b>04/01/2007</b>
<i>Real Estate Benchmark</i>	2.6	-2.2	1.4	5.2	6.7	9.6	6.3	
<b>PRIT Real Estate Fund</b>	<b>0.1</b>	<b>-4.4</b>	<b>0.6</b>	<b>4.9</b>	<b>6.5</b>	<b>N/A</b>	<b>8.7</b>	<b>06/01/2011</b>
<i>PRIM Custom Total RE Benchmark</i>	2.6	-2.2	1.4	5.2	6.7	N/A	8.9	
<b>TA Realty Core Property Fund, LP</b>	<b>-0.5</b>	<b>1.1</b>	<b>5.4</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>10.1</b>	<b>04/01/2018</b>
<i>NCREIF Property Index</i>	-1.0	-0.3	2.7	N/A	N/A	N/A	4.9	
<b>American Strategic Value Realty Fund</b>	<b>-0.3</b>	<b>0.9</b>	<b>5.0</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>5.9</b>	<b>07/01/2018</b>
<i>NCREIF Property Index</i>	-1.0	-0.3	2.7	N/A	N/A	N/A	4.6	
<b>TerraCap Partners IV</b>	<b>0.0</b>	<b>-1.5</b>	<b>9.7</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.3</b>	<b>07/01/2018</b>
<i>NCREIF Property Index</i>	-1.0	-0.3	2.7	N/A	N/A	N/A	4.6	
<b>Arsenal Real Estate Fund I-A</b>	<b>0.0</b>	<b>-1.0</b>	<b>-4.2</b>	<b>-34.2</b>	<b>-32.7</b>	<b>-17.2</b>	<b>-17.8</b>	<b>04/01/2006</b>
<i>NCREIF Property Index</i>	-1.0	-0.3	2.7	5.4	6.8	9.7	7.1	
<b>Hedge Funds</b>	<b>2.0</b>	<b>-7.0</b>	<b>-5.5</b>	<b>1.0</b>	<b>1.3</b>	<b>3.8</b>	<b>3.8</b>	<b>07/01/2010</b>
<i>HFRI Fund of Funds Composite Index</i>	7.9	-1.5	0.5	2.3	1.5	2.8	2.8	
<b>PRIT Hedge Funds</b>	<b>2.0</b>	<b>-7.0</b>	<b>-5.5</b>	<b>1.0</b>	<b>1.3</b>	<b>3.8</b>	<b>3.8</b>	<b>07/01/2010</b>
<i>HFRI Fund of Funds Composite Index</i>	7.9	-1.5	0.5	2.3	1.5	2.8	2.8	
<b>Private Equity</b>	<b>-8.1</b>	<b>-3.2</b>	<b>3.7</b>	<b>13.2</b>	<b>15.5</b>	<b>16.9</b>	<b>11.6</b>	<b>04/01/2007</b>
<b>Auda Venture LP</b>	<b>0.0</b>	<b>-56.6</b>	<b>-77.3</b>	<b>-35.8</b>	<b>-19.3</b>	<b>-2.2</b>	<b>-4.6</b>	<b>12/01/2000</b>
<i>S&amp;P 500 + 5%</i>	22.0	-0.7	12.9	16.3	16.3	19.7	11.9	
<b>RCP Fund IV</b>	<b>0.0</b>	<b>-2.9</b>	<b>-6.8</b>	<b>11.7</b>	<b>17.6</b>	<b>19.9</b>	<b>17.1</b>	<b>01/01/2007</b>
<i>S&amp;P 500 + 5%</i>	22.0	-0.7	12.9	16.3	16.3	19.7	13.6	
<b>PRIT VY Investments</b>	<b>-8.3</b>	<b>-2.9</b>	<b>5.1</b>	<b>13.7</b>	<b>14.6</b>	<b>N/A</b>	<b>0.8</b>	<b>04/01/2011</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	10.0	10.0	N/A	11.5	
<b>PRIT Vintage 2011</b>	<b>-7.9</b>	<b>-2.8</b>	<b>-1.6</b>	<b>12.0</b>	<b>16.4</b>	<b>N/A</b>	<b>2.9</b>	<b>04/01/2011</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	10.0	10.0	N/A	11.5	

Returns for periods less than one year are not annualized. Returns are net of fees unless otherwise noted.

## Manager Performance Overview

As of June 30, 2020

	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>PRIT Vintage 2012</b>	<b>-7.9</b>	<b>2.5</b>	<b>6.8</b>	<b>12.7</b>	<b>13.5</b>	<b>N/A</b>	<b>-15.5</b>	<b>06/01/2012</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	10.0	10.0	N/A	13.3	
<b>PRIT Vintage 2013</b>	<b>-6.9</b>	<b>-1.6</b>	<b>15.5</b>	<b>15.0</b>	<b>14.1</b>	<b>N/A</b>	<b>7.6</b>	<b>07/01/2013</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	10.0	10.0	N/A	11.7	
<b>PRIT Vintage 2014</b>	<b>-10.7</b>	<b>-3.8</b>	<b>5.3</b>	<b>17.9</b>	<b>15.2</b>	<b>N/A</b>	<b>5.2</b>	<b>06/01/2014</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	10.0	10.0	N/A	9.9	
<b>PRIT Vintage 2015</b>	<b>-7.1</b>	<b>-1.6</b>	<b>13.2</b>	<b>21.9</b>	<b>13.6</b>	<b>N/A</b>	<b>11.6</b>	<b>04/01/2015</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	10.0	10.0	N/A	9.6	
<b>PRIT Vintage 2016</b>	<b>-5.1</b>	<b>2.9</b>	<b>7.9</b>	<b>6.6</b>	<b>N/A</b>	<b>N/A</b>	<b>-7.7</b>	<b>04/01/2016</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	10.0	N/A	N/A	12.0	
<b>PRIT Vintage 2017</b>	<b>-12.2</b>	<b>-8.8</b>	<b>-1.8</b>	<b>3.5</b>	<b>N/A</b>	<b>N/A</b>	<b>3.4</b>	<b>05/01/2017</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	10.0	N/A	N/A	10.2	
<b>PRIT Vintage 2018</b>	<b>-7.9</b>	<b>-5.4</b>	<b>-6.6</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-11.2</b>	<b>06/01/2018</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	N/A	N/A	N/A	7.8	
<b>PRIT Vintage 2019</b>	<b>-6.3</b>	<b>-6.8</b>	<b>-7.7</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-6.8</b>	<b>04/01/2019</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	N/A	N/A	N/A	8.6	
<b>PRIT Vintage 2020</b>	<b>-7.5</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-6.3</b>	<b>03/01/2020</b>
<i>Russell 3000 Index</i>	22.0	N/A	N/A	N/A	N/A	N/A	5.2	

The inception date expressed on the Manager Performance Overview page(s) represents the first day of the first full month following the purchase of the investment. Performance figures shown at the fund level begin on this inception date. Your performance may differ slightly if the fund was purchased during the previous month. Actual performance is captured at the total plan level.

Investment returns are derived from custodian valuations and may deviate slightly from fund level returns displayed in other pages in your report which can result in minor differences in universe rankings. Mutual fund performance may differ from the current share class's historical performance due to share class exchanges.

\*\* PRIT General Allocation Fund performance is provided net of fees for comparative purposes only.

Returns for periods less than one year are not annualized. Returns are net of fees unless otherwise noted.

## Private Real Estate IRR Comparative

As of June 30, 2020

	QTR	YTD	1 Year	2 Years	3 Years	Since Inception	Inception Date
TA Realty Core Property Fund, LP	-0.5	1.1	5.4	6.9	N/A	9.0	04/02/2018
American Strategic Value Realty Fund	-0.3	0.5	3.7	4.7	N/A	4.7	06/27/2018
TerraCap Partners IV	0.0	-1.5	10.2	9.8	N/A	9.8	07/17/2018

In accordance with Global Investment Performance Standards, Private Equity manager returns are presented using Internal Rate of Return (IRR) calculations. The IRRs contained in this report are calculated by FIA based on information provided by the general partner (e.g. cash flows and valuations). These IRR calculations have not been confirmed by the general partners. The result of FIA's IRR calculation may differ from that generated by the general partner or other limited partners, primarily due to lack of industry valuation standards, differences in the investment pace and strategy of various funds, date of close, sale of distributed stock, and other factors.

# Manager Commentary

As of June 30, 2020

Manager	Manager Status	Comments
<b>Fixed Income</b>		
IRM Core Bond Fund LLC	Maintain	2Q 2020 – The IR+M Core Bond strategy produced a positive return during the second quarter and outperformed the Bloomberg Barclays U.S. Aggregate Bond Index. Fixed income markets continued to march higher during the second quarter. Most of the gains were driven by strong performance in spread sectors as interest rates remained range bound throughout most of the period and ended the quarter essentially where they started. Sector allocation within the IR+M portfolio was positive across the board due to an underweight to Treasuries and overweight allocations to corporate bonds, ABS and CMBS. An underweight to MBS proved to be beneficial as well. Issue selection was mixed. Within the corporate space, industrials exposures, including energy and transportation related issues, underperformed. However, selection within the ABS sector had a positive impact. The team at IR+M has a cautious outlook as uncertainties surrounding the path of the economy and coronavirus remain. The team continues to focus on fundamentals and favors areas of the market that can weather the economic downturn. In-line with its philosophy, the portfolio remains neutral to the benchmark in duration and is focused on bottom-up issue selection and sector rotation.
Eaton Vance Trust CIT High Yield Fund	Maintain	2Q 2020 - The Eaton Vance High Yield portfolio produced a positive return during the second quarter, but underperformed its benchmark. High yield markets rebounded drastically from their March market lows. An underweight allocation to healthcare securities drove negative relative performance. Similar underweights in energy dragged on relative performance as the price of oil rebounded drastically. Security selection in the services and telecommunications sectors added to performance.
Brandywine Global Opportunistic Fixed Income	Maintain	2Q 2020 – The Brandywine Global Opportunities Fixed Income strategy produced a positive return during the second quarter, significantly outperforming its benchmark. Many of the factors that worked against the strategy in the first quarter rebounded in the second quarter and were key contributors to results. Exposure to emerging market local debt proved to be beneficial, especially within Mexico, Indonesia, Columbia and South Africa. Select currency exposures also contributed as many gained ground against the U.S. dollar, including the Norwegian Krone, Australian Dollar, and Indonesian Rupiah. Additional returns were generated from the portfolio's investments in investment grade corporate bonds. The team took advantage of attractive valuations in March and early April to build the position in corporate credit. The team also added to Spanish and Italian sovereigns early in the quarter after the Italian 10-year yield rose by over 100 bps.
<b>Asset Allocation</b>		
WTC-CIF Opportunistic Invst Allocation	Maintain	2Q 2020 – The Wellington Opportunistic Investment strategy produced a positive absolute return during the second quarter and outperformed its blended benchmark (65% MSCI AC World Index/35% Barclays U.S. Aggregate Bond Index). Global capital markets saw a significant rebound in the second quarter as the global economy began to reopen and governments around the world provided fiscal and monetary support. The team added risk to the portfolio within their tactical bucket which contributed to relative results in the risk-on environment. The portfolio's activist government theme, market neutral sleeve, and information inefficiencies theme were also top contributors. Within activist governments, gold mining equities were a top contributor. During the quarter the team added a new theme – Dislocated Credit Opportunities. The theme is focused on fixed income markets that are impacted by recessions, rating constraints, redemptions, and restructurings. At the end of the quarter it was approximately 6% of the portfolio.
PineBridge Global Dynamic Asset Allocation Fund LLC	No Status	2Q 2020 – The PineBridge Global Dynamic Asset Allocation strategy produced a positive absolute return during the second quarter and outperformed its benchmark. Global capital markets rebounded during the period on the back of accommodative central bank activity, fiscal policy action, and the renewed optimism of economies re-opening. Among the top contributors to performance for the period were the portfolio's U.S. Cyclical allocation, the productivity basket, and gold. U.S. Cyclical rebounded as manufacturing moved higher in the quarter and the economic shutdowns began to lift. The portfolio's Productivity Basket – which consists of a variety of stocks related to cloud computing, cyber security, automation, and software as a service – performed well as growth-oriented segments of the market outperformed. The team had shifted into a more defensive posture during the first quarter and increased risk slightly through the second quarter. The portfolio's equity weight still remains below that of the benchmark while, instead, the team has found opportunities in the credit market to add to the portfolio.
<b>Domestic Equity</b>		
PRIT Domestic Equity	Maintain	2Q 2020 - Commentary not available at time of report production.
Columbia US Contrarian Core Equity Fund	Maintain	2Q 2020 - Commentary not available at time of report production.
LMCG Mid Cap Collective Fund	Watch 3Q 2019	2Q 2020 - Commentary not available at time of report production.

# Manager Commentary

As of June 30, 2020

Manager	Manager Status	Comments
Wellington Small Cap 2000	Maintain	2Q 2020 - Commentary not available at time of report production.
<b>International Equity</b>		
Earnest Partners Intl Equity	Maintain	2Q 2020 – The EARNEST Partners International strategy produced strong positive returns but underperformed its benchmark, the MSCI ACWI ex-US, during the second quarter. Global equities bounced back sharply as central banks around the world injected financial systems with liquidity and economies began phased reopenings. In this market environment, the strategy benefited from sector allocation through an overweight to the strong performing technology sector, combined with an underweight to the weak performing consumer staples sector. This, however, was more than offset by weak security selection during the quarter. Stock picks were weakest within technology, industrials, and healthcare and were only partially offset by positive contributions through exposures within consumer discretionary.
MFS Instl International Equity Fund	Maintain	2Q 2020 - The MFS Instl International Equity Fund gained during the quarter and underperformed the MSCI EAFE Growth Index. US, developed foreign and emerging market stocks posted strong returns for the quarter. International equity markets surged in the second quarter as investors were optimistic that the global economy would rebound quickly from the COVID-19 induced shut downs that were enacted across the world. Despite a short-lived, mid-quarter rally for value stocks, growth stocks led by technology companies continued to significantly outperform in the period. Unfavorable stock selection in information technology had the most significant negative impact (-1.3%) within the second quarter. An underweight in Australia also detracted -0.6% during the most recent quarterly period. Stock selection in consumer discretionary had an adverse performance impact (-0.5%) for the quarterly period as well. Year-to-date through June 30, ineffective stock selection in information technology (-1.8%) and in financials (-1.4%) were the biggest performance obstacles. During the 3-year period, weak stock selection in The Netherlands (-1%) and in financials (-0.8%) had the most significant negative impacts. Over 5 years, detrimental stock selection in The Netherlands was the largest performance detractor (-0.8%).  As of 5/31/2020, the three main sector and or country overweights (versus the MSCI EAFE Growth Index) were in France (+7%), financials (+5%), and Germany (+4%). The three largest underweights were in Japan (-10%), Australia (-6%), and consumer discretionary (-5%). The cash weight was 1.4%.
Acadian Intl Small Cap Fund	Maintain	2Q 2020 – The Acadian International Small Cap Equity strategy produced strong positive returns during the second quarter and outperformed its benchmark, the MSCI EAFE Small Cap Index. Global equities bounced back sharply as central banks around the world injected financial systems with liquidity and economies began phased reopenings. In this environment small cap equities generally performed better than their large cap counterparts. At the portfolio level, the most meaningful contributors to performance came from a combination of stock selection and an underweight to the UK, as well as stock selection and an overweight position in Australia. From a sector standpoint, an overweight to technology and selection within materials helped most. Offsetting some of the strong performance elsewhere was an overweight to Israel and stock selection and an underweight to Sweden.
<b>Real Estate</b>		
PRIT Real Estate Fund	Maintain	The PRIT Real Estate Account provides diversified exposure to the commercial real estate market through exposure to physical assets and public securities. Approximately 80% of the portfolio is invested in separate account core portfolios with Invesco, LaSalle, AEW, and JP Morgan. The Core portfolio includes portfolio debt of approximately \$1 billion. The portfolio also includes dedicated allocations to Global REIT portfolios managed by CenterSquare, Invesco, Presima, and Brookfield. Non-Core portfolio investments of approximately \$500 million include allocations with Carlyle Group and DivcoWest. There is also a modest allocation to economically targeted investments. The PRIT board expects to identify additional real estate opportunities in the upcoming year and will formally evaluate their advisory relationship. Townsend currently serves as Real Estate Consultant.
TA Realty Core Property Fund, LP	Maintain	2Q 2020 – The TA Realty Core Property Fund generated a total gross return of -0.28% (-0.43% net) during the second quarter, comprised of 0.94% income and -1.22% appreciation, and outperformed the returns of the NFI-ODCE Index. The Fund's portfolio occupancy remains strong at 96% with the leverage ratio standing at 23.6%. The Fund's industrial portfolio generated a strong return during the period and benefited on a relative basis from a meaningful overweight position. The multifamily portfolio was the next strongest performer with a gross unlevered return of 0.18%. The office and retail portfolio's were this period's weakest performing groups. The portfolio remains underweight to these property segments given a weaker fundamental backdrop relative to industrial and multifamily in their view. There were no acquisitions or dispositions made during the second quarter.
American Strategic Value Realty Fund	Maintain	2Q 2020 - Commentary not available at time of report production.

## Manager Commentary

As of June 30, 2020

Manager	Manager Status	Comments
TerraCap Partners IV	Maintain	2Q 2020 - Commentary not available at time of report production.
Arsenal Real Estate Fund I-A	Illiquid Inherited	2Q 2020 - Commentary not available at time of report production.
<b>Hedge Funds</b>		
PRIT Hedge Funds	Maintain	The PRIT Hedge Fund segmented portfolio consists primarily of direct hedge funds which comprise approximately 85% of the capital invested across 28 direct fund investments. The portfolio's active Fund of Funds allocation, which accounts for 15% of the program, focuses on emerging managers and is managed by PAAMCO. Residual capital in the fund of funds closed portfolios is being overseen and actively wound down by Arden, advisor to the PRIM Board. Earlier in 2017, the PRIM Board merged the 4% target allocation to portfolio completion strategies, which currently includes three risk premia strategies, a residential real estate holding, an agricultural investment and an equity hedge, with the 9% hedge fund allocation for a combined PCS allocation of 13%. Participating investors will continue to access the Hedge Funds sleeve on a stand-alone basis.
<b>Private Equity</b>		
Auda Venture LP	Illiquid Inherited	Commentary is reported as of calendar year end 2016. This Fund is reported on a one quarter lag. As of December 31, 2016, the Fund has produced a net IRR of 1.9% and a net multiple of contributed capital of 1.2x. During the quarter, the Fund did not call capital from investors and made no distributions. To date, 104% of total contributed capital has been distributed to investors. There are 53 remaining portfolio companies across the portfolio's 11 underlying funds. Approximately \$21 million of the portfolio's \$163 million in total value remains active in the portfolio.
RCP Fund IV	Illiquid Inherited	This Fund is reported on a one quarter lag. As of December 31, 2016 the Fund reported a new IRR of 14.3% and has returned a total of 134.4% of paid in capital to investors. The portfolio made its 37th distribution during the fourth quarter following multiple liquidity events in the underlying portfolio. The portfolio's net return on invested capital ended the quarter at 1.9x. Both the IRR and multiples moved slightly higher during the quarter. The portfolio has also made additional distributions early in 2017 although a portion was held back as a capital call.
PRIT VY Investments	Maintain	The PRIT Private Equity Vintage year program is raised annually seeking to make approximately 30 investment decisions per year. The strategy has two key components: special equity and venture capital. Special equity is comprised of opportunities across large buyouts, small and mid-cap buyouts, and growth equity. The portfolio is built through commitments to a number of private partnerships and can also include co-investments. The private equity program is overseen by Senior Investment Officer, Michael Bailey.

## Manager Investment Gain/Loss Summary

Quarter Ending June 30, 2020

	Market Value As of 04/01/2020	Net Flows	Return On Investment	Market Value As of 06/30/2020
<u>Short Term Liquidity</u>				
Collective US Govt STIF Fund	573,985	1,554,994	913	2,129,891
<b>Total Short Term Liquidity</b>	<b>573,985</b>	<b>1,554,994</b>	<b>913</b>	<b>2,129,891</b>
<u>Fixed Income</u>				
IRM Core Bond Fund LLC	34,970,314	-2,900,000	1,494,675	33,564,989
Eaton Vance Trust CIT High Yield Fund	4,691,281	-150,000	390,488	4,931,769
Brandywine Global Opportunistic Fixed Income	7,538,603	-50,000	753,242	8,241,845
<b>Total Fixed Income</b>	<b>47,200,199</b>	<b>-3,100,000</b>	<b>2,638,405</b>	<b>46,738,604</b>
<u>Asset Allocation</u>				
WTC-CIF Opportunistic Invst Allocation	5,259,422	-	1,089,684	6,349,106
PineBridge Global Dynamic Asset Allocation Fund LLC	5,264,633	-	738,311	6,002,944
<b>Total Asset Allocation</b>	<b>10,524,054</b>	<b>-</b>	<b>1,827,995</b>	<b>12,352,050</b>
<u>Domestic Equity</u>				
PRIT Domestic Equity	12,952,871	-	2,987,783	15,940,654
Columbia US Contrarian Core Equity Fund	22,168,929	-1,100,000	4,305,457	25,374,386
LMCG Mid Cap Collective Fund	8,821,520	-	1,995,282	10,816,802
Wellington Small Cap 2000	4,714,774	-	1,375,290	6,090,064
<b>Total Domestic Equity</b>	<b>48,658,094</b>	<b>-1,100,000</b>	<b>10,663,812</b>	<b>58,221,906</b>
<u>International Equity</u>				
Earnest Partners Intl Equity	13,759,482	-	2,104,266	15,863,748
MFS Instl International Equity Fund	15,256,730	-	2,242,028	17,498,759
Acadian Intl Small Cap Fund	3,909,640	-	800,265	4,709,905
<b>Total International Equity</b>	<b>32,925,853</b>	<b>-</b>	<b>5,146,559</b>	<b>38,072,412</b>

## Manager Investment Gain/Loss Summary

Quarter Ending June 30, 2020

	Market Value As of 04/01/2020	Net Flows	Return On Investment	Market Value As of 06/30/2020
<u>Real Estate</u>				
PRIT Real Estate Fund	14,328,191	-1,000,000	27,862	13,356,053
TA Realty Core Property Fund, LP	4,179,234	-	-18,861	4,160,374
American Strategic Value Realty Fund	2,085,269	-	-7,184	2,078,085
TerraCap Partners IV	1,081,690	-	-	1,081,690
Arsenal Real Estate Fund I-A	43,050	-	-	43,050
<b>Total Real Estate</b>	<b>21,717,435</b>	<b>-1,000,000</b>	<b>1,817</b>	<b>20,719,251</b>
<u>Hedge Funds</u>				
PRIT Hedge Funds	14,557,491	-	293,925	14,851,415
<b>Total Hedge Funds</b>	<b>14,557,491</b>	<b>-</b>	<b>293,925</b>	<b>14,851,415</b>
<u>Private Equity</u>				
Auda Venture LP	19,543	-	-	19,543
RCP Fund IV	296,661	-	-	296,661
PRIT Vintage 2011	1,057,717	-33,185	-81,350	943,182
PRIT Vintage 2012	1,024,738	-35,386	-78,307	911,045
PRIT Vintage 2013	1,121,250	-32,720	-75,247	1,013,283
PRIT Vintage 2014	1,431,899	-23,531	-150,290	1,258,078
PRIT Vintage 2015	1,967,929	-12,601	-138,519	1,816,809
PRIT Vintage 2016	814,090	33,386	-43,447	804,028
PRIT Vintage 2017	1,511,578	146,334	-201,659	1,456,252
PRIT Vintage 2018	765,154	269,145	-78,361	955,937
PRIT Vintage 2019	547,937	229,862	-48,361	729,439
PRIT Vintage 2020	28,369	68,948	-6,847	90,470
<b>Total Private Equity</b>	<b>10,586,866</b>	<b>610,250</b>	<b>-902,388</b>	<b>10,294,727</b>
<b>Total Fund Composite</b>	<b>186,743,975</b>	<b>-3,034,756</b>	<b>19,671,038</b>	<b>203,380,257</b>

## Market Value & Flow Summary

January 1, 2007 To June 30, 2020

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
Dec-2006	-	-	-	89,230,180	N/A
Mar-2007	89,230,180	-1,452,000	2,119,807	89,897,987	2.3
Jun-2007	89,897,987	-1,819,719	4,083,544	92,161,812	4.6
Sep-2007	92,161,812	4,632,269	846,853	97,640,934	0.9
Dec-2007	97,640,934	-1,249,275	-1,131,003	95,260,656	-1.2
Mar-2008	95,260,656	-1,792,164	-5,030,268	88,438,224	-5.3
Jun-2008	88,438,224	-1,815,961	78,271	86,700,534	0.1
Sep-2008	86,700,534	4,911,404	-8,574,440	83,037,498	-9.2
Dec-2008	83,037,498	-1,492,765	-13,101,380	68,443,353	-15.8
Mar-2009	68,443,353	-1,235,448	-5,286,840	61,921,064	-7.7
Jun-2009	61,921,064	545,007	6,676,722	69,142,792	10.8
Sep-2009	69,142,792	2,411,486	7,754,039	79,308,316	10.9
Dec-2009	79,308,316	-1,279,156	2,632,754	80,661,914	3.4
Mar-2010	80,661,914	-1,922,947	3,126,385	81,865,352	4.1
Jun-2010	81,865,352	-1,925,000	-4,203,687	75,736,665	-5.2
Sep-2010	75,736,665	5,886,079	6,954,108	88,576,852	8.4
Dec-2010	88,576,852	-1,724,125	5,510,048	92,362,776	6.3
Mar-2011	92,362,776	-1,700,936	4,147,117	94,808,957	4.5
Jun-2011	94,808,957	-1,865,526	211,020	93,154,452	0.2
Sep-2011	93,154,452	6,658,409	-10,467,449	89,345,412	-10.4
Dec-2011	89,345,412	-2,092,157	4,734,765	91,988,020	5.3
Mar-2012	91,988,020	-2,409,805	7,144,754	96,722,969	7.8
Jun-2012	96,722,969	-1,772,726	-2,681,394	92,268,849	-2.8
Sep-2012	92,268,849	7,452,391	4,711,288	104,432,529	4.7
Dec-2012	104,432,529	-2,350,397	2,444,417	104,526,549	2.4
Mar-2013	104,526,549	-1,858,369	5,250,456	107,918,636	5.0
Jun-2013	107,918,636	-1,987,842	233,385	106,164,179	0.2
Sep-2013	106,164,179	8,048,762	4,867,503	119,080,444	4.2
Dec-2013	119,080,444	-2,186,900	6,362,761	123,256,305	5.4
Mar-2014	123,256,305	-2,278,454	2,325,881	123,303,733	1.9
Jun-2014	123,303,733	-2,288,304	4,577,761	125,593,191	3.8

## Market Value & Flow Summary

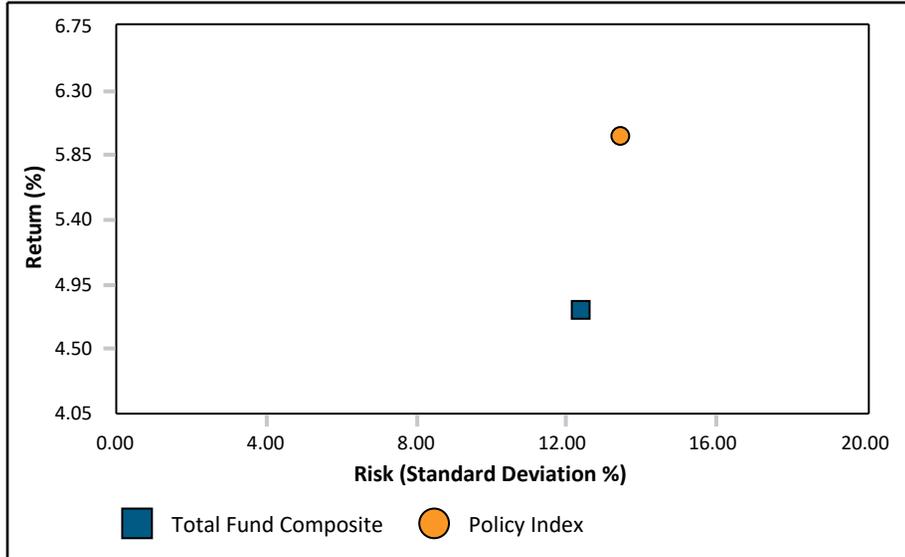
January 1, 2007 To June 30, 2020

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
Sep-2014	125,593,191	10,268,246	-1,388,534	134,472,902	-1.0
Dec-2014	134,472,902	-2,378,442	2,458,142	134,552,603	1.8
Mar-2015	134,552,603	-2,246,378	3,961,230	136,267,455	3.0
Jun-2015	136,267,455	-2,431,339	626,466	134,462,581	0.4
Sep-2015	134,462,581	11,403,254	-7,359,560	138,506,275	-5.0
Dec-2015	138,506,275	-2,460,269	3,853,192	139,899,197	2.8
Mar-2016	139,899,197	-2,498,851	819,948	138,220,294	0.6
Jun-2016	138,220,294	-2,785,444	2,126,432	137,561,282	1.5
Sep-2016	137,561,282	12,738,176	6,043,012	156,342,470	4.0
Dec-2016	156,342,470	-2,537,607	469,452	154,274,315	0.3
Mar-2017	154,274,315	-2,722,539	7,091,039	158,642,816	4.6
Jun-2017	158,642,816	-2,413,060	5,793,050	162,022,805	3.7
Sep-2017	162,022,805	14,079,967	5,793,985	181,896,757	3.3
Dec-2017	181,896,757	-2,754,427	5,718,358	184,860,688	3.2
Mar-2018	184,860,688	-3,098,102	-754,895	181,007,690	-0.4
Jun-2018	181,007,690	-2,224,279	1,822,461	180,605,873	1.0
Sep-2018	180,605,873	16,257,221	4,362,452	201,225,545	2.2
Dec-2018	201,225,545	-2,992,611	-15,029,022	183,203,912	-7.5
Mar-2019	183,203,912	-3,071,501	14,347,043	194,479,454	7.9
Jun-2019	194,479,454	-2,776,405	6,644,655	198,347,704	3.4
Sep-2019	198,347,704	10,498,159	1,439,819	210,285,682	0.7
Dec-2019	210,285,682	-3,120,621	11,747,408	218,912,469	5.6
Mar-2020	218,912,469	-2,843,037	-29,325,457	186,743,975	-13.5
Jun-2020	186,743,975	-3,034,756	19,671,038	203,380,257	10.6

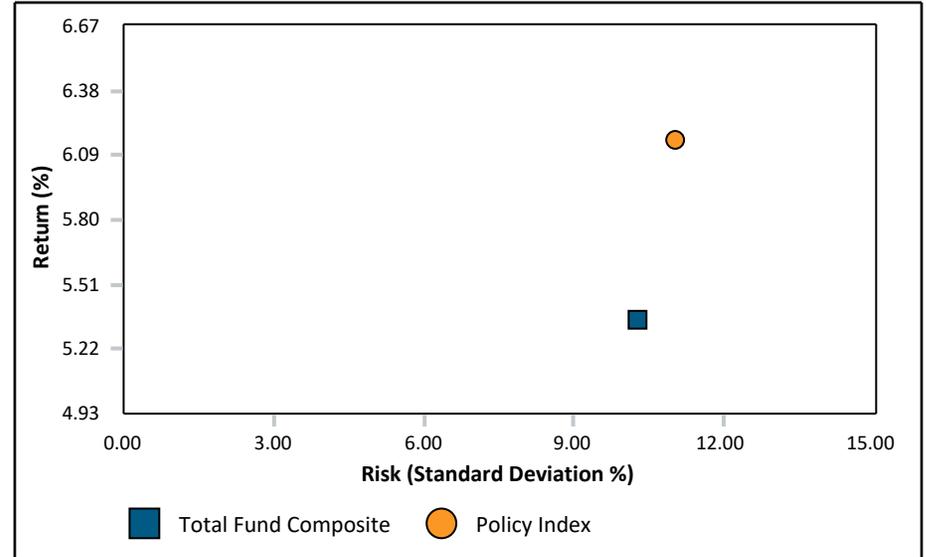
# Risk vs. Return Analysis

As of June 30, 2020

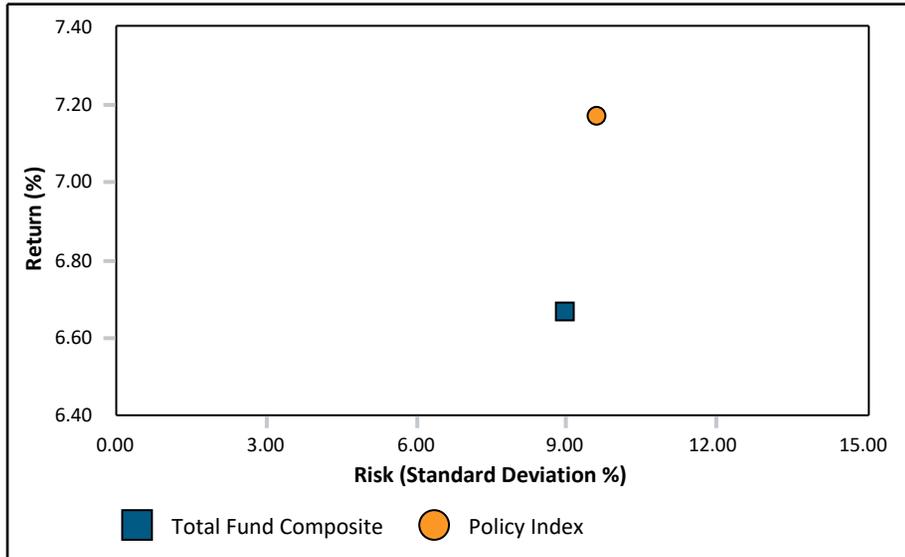
### 3 Year Risk and Return



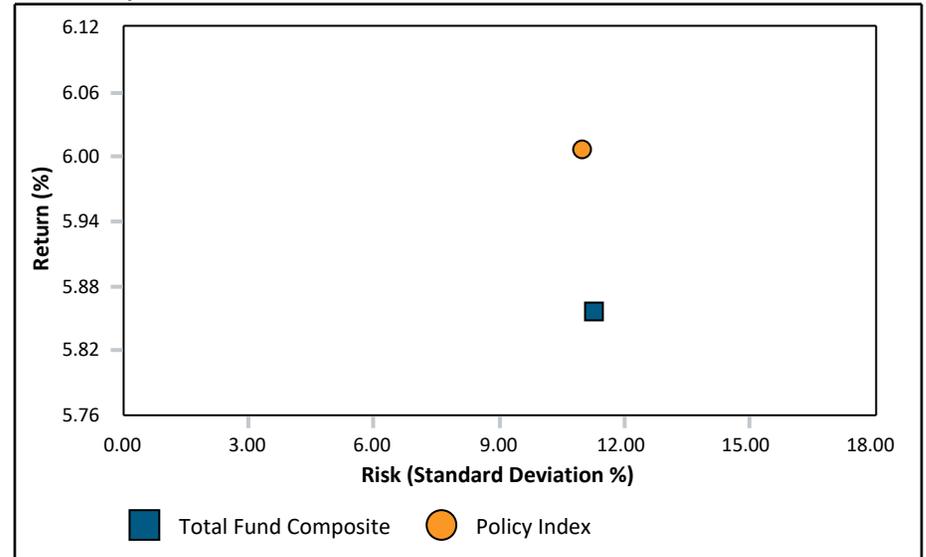
### 5 Year Risk and Return



### 7 Year Risk and Return



### Since Inception Risk and Return



# MPT Statistics

As of June 30, 2020

## 3 Year Historical MPT Statistics

	Return	Standard Deviation	Downside Risk	Sharpe Ratio	Information Ratio	Tracking Error	R-Squared	Beta	Alpha
Total Fund Composite	4.76	12.40	8.93	0.30	-0.89	1.48	0.99	0.92	-0.75
Policy Index	5.98	13.47	9.19	0.37	N/A	0.00	1.00	1.00	0.00
90 Day U.S. Treasury Bill	1.77	0.34	0.00	N/A	-0.37	13.65	0.26	-0.01	1.86

## 5 Year Historical MPT Statistics

	Return	Standard Deviation	Downside Risk	Sharpe Ratio	Information Ratio	Tracking Error	R-Squared	Beta	Alpha
Total Fund Composite	5.35	10.28	7.27	0.44	-0.67	1.28	0.99	0.93	-0.37
Policy Index	6.16	11.02	7.47	0.49	N/A	0.00	1.00	1.00	0.00
90 Day U.S. Treasury Bill	1.17	0.45	0.00	N/A	-0.49	11.15	0.06	-0.01	1.24

## 7 Year Historical MPT Statistics

	Return	Standard Deviation	Downside Risk	Sharpe Ratio	Information Ratio	Tracking Error	R-Squared	Beta	Alpha
Total Fund Composite	6.67	8.98	6.16	0.67	-0.45	1.19	0.99	0.93	0.00
Policy Index	7.17	9.61	6.33	0.68	N/A	0.00	1.00	1.00	0.00
90 Day U.S. Treasury Bill	0.85	0.46	0.00	N/A	-0.68	9.74	0.06	-0.01	0.93

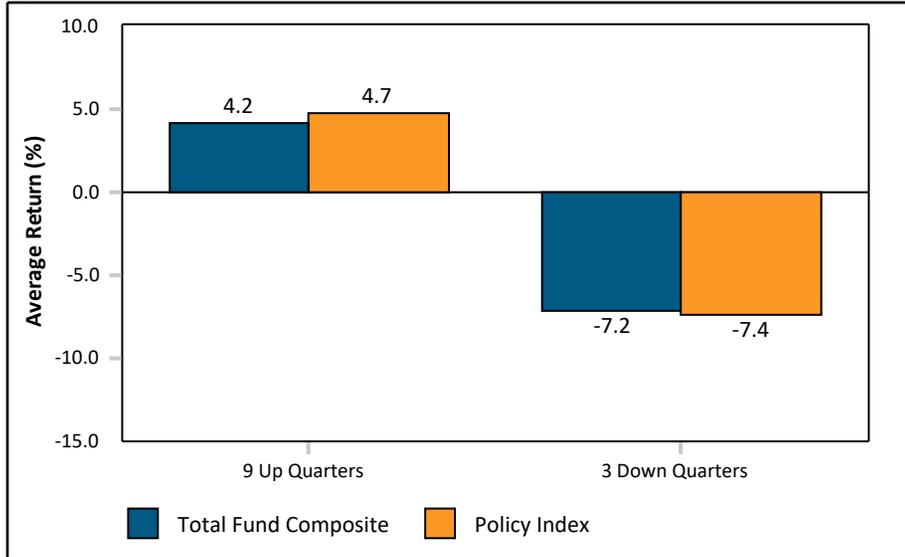
## Since Inception Historical MPT Statistics

	Return	Standard Deviation	Downside Risk	Sharpe Ratio	Information Ratio	Tracking Error	R-Squared	Beta	Alpha	Inception Date
Total Fund Composite	5.86	11.31	7.25	0.40	-0.05	2.23	0.96	1.01	-0.15	10/01/1999
Policy Index	6.01	11.03	7.05	0.42	N/A	0.00	1.00	1.00	0.00	10/01/1999
90 Day U.S. Treasury Bill	1.76	0.95	0.00	N/A	-0.42	11.19	0.02	-0.01	1.84	10/01/1999

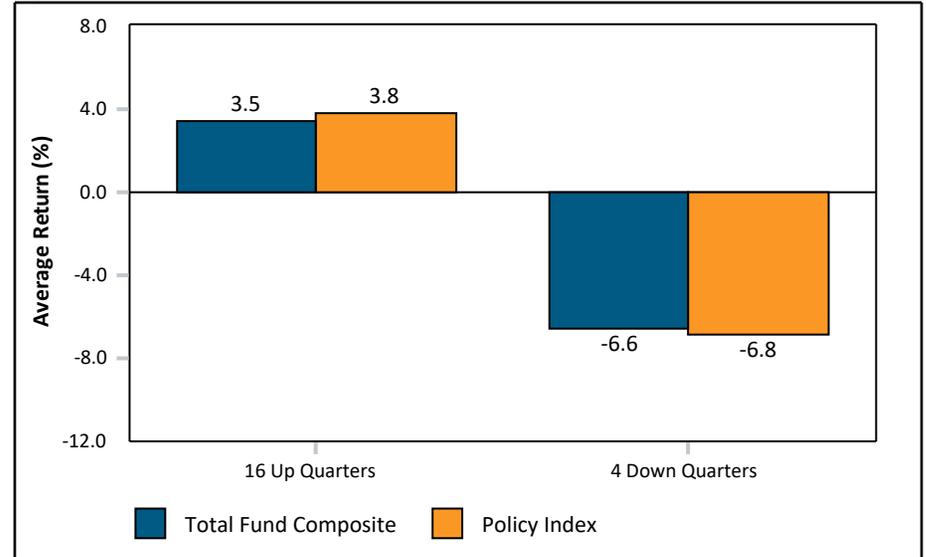
# Market Capture Report

As of June 30, 2020

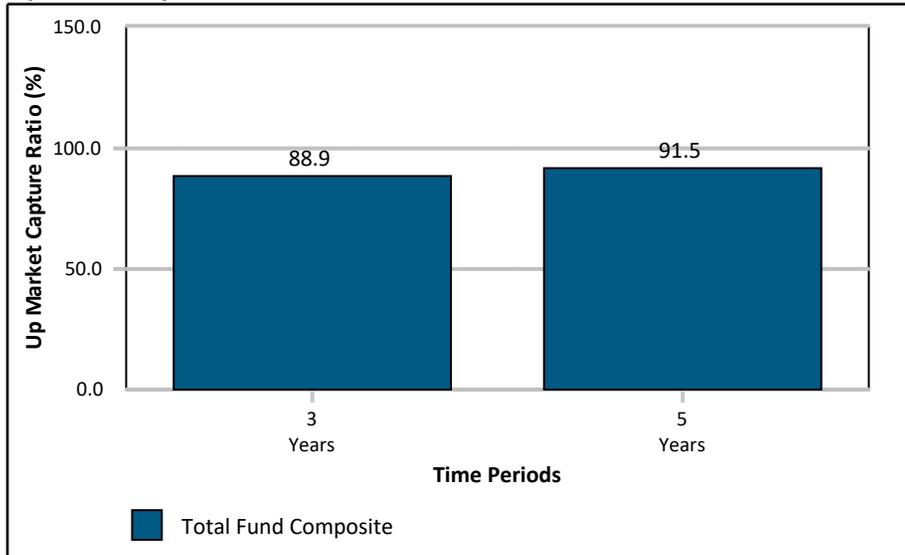
### Up/Down Markets - 3 Years



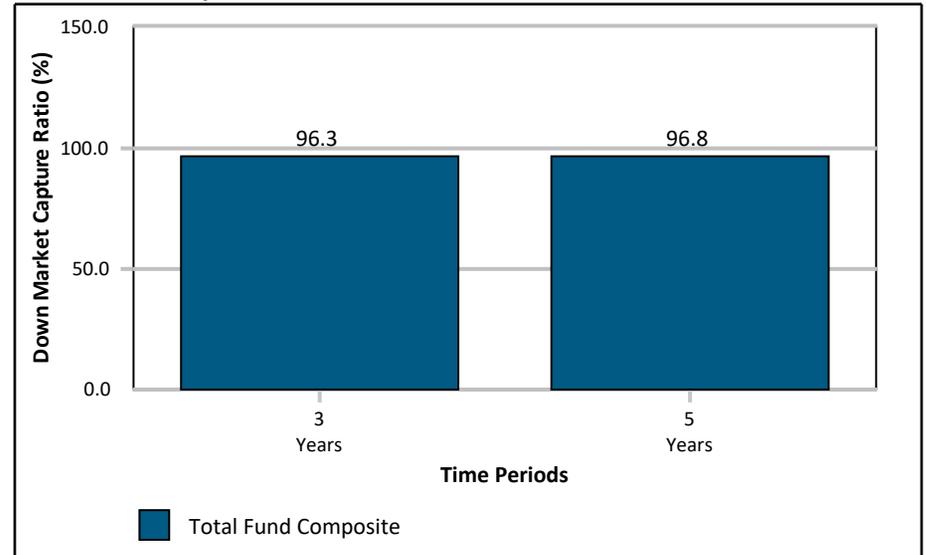
### Up/Down Markets - 5 Years



### Up Market Capture Ratio



### Down Market Capture Ratio



## Liquidity Analysis

As of June 30, 2020

Investment	Initial Lock-up Period	Terms	Investment Date
IRM Core Bond Fund	None	Daily liquidity: requires 5 business days notice	Jul-00
Eaton Vance Trust CIT High Yield Fund	None	Daily Liquidity	Mar-18
Brandywine Global Opportunistic Fund	None	Daily liquidity: contributions require 24 hours notice; redemptions require 10 days notice	Jun-11
Wellington Opportunistic Investment Allocation Fund	None	Monthly contributions and/or redemptions with 30 days notice	Nov-10
PRIT Domestic Equity Account	None	Monthly liquidity for contributions and withdrawals on first business day; redemptions require 5 days notice	Jul-10
Columbia U.S. Contrarian Core Equity Fund	None	Monthly liquidity for contributions; withdrawals on first business day with wire T+10 business days; 30 days notice required	Jan-15
Lee Munder Mid Cap Collective Fund	None	Daily liquidity for contributions and withdrawals, subject to T+1	Jan-15
Wellington Small Cap 2000 Portfolio	None	Monthly liquidity for contributions and withdrawals on first business day; notice by 22nd prior to month the flow occurs	Oct-99
Earnest Partners International Equity Fund	None	Monthly liquidity for contributions and withdrawals; 5 business days notice required	Aug-08
MFS Institutional International Equity Fund	None	Daily liquidity for contributions and withdrawals, subject to T+1	Dec-10
Acadian International Small Cap Fund	None	Daily liquidity for contributions and withdrawals, 7 business days requested	Feb-11
PRIT Real Estate Fund	None	Monthly liquidity for contributions and withdrawals on first business day; 5 days notice required	Jun-11
TA Realty Core Property Fund, LP	Reducing percentage over 3 year period	Quarterly liquidity for withdrawals on first business day; 45 days notice required.	Apr-18
American Strategic Value Realty Fund	One-year	Quarterly liquidity for withdrawals on first business day subject to liquidity restraints due to fund activity; 30 days notice required	Jul-18
TerraCap Partners IV	8 year term plus two one-year extension options	Not applicable	Aug-18
Arsenal Real Estate Fund I-A	In Extension	Not applicable	Apr-06
PRIT Hedge Funds	None	Quarterly liquidity for contributions and withdrawals on first business day; 30 days notice required	Jul-10
Auda Venture LP	In Extension	Not applicable	Dec-00
RCP Fund IV	Term expires 12/31/18 and is subject to three one-year extensions	Not applicable	Jan-07
PRIT Vintage Year Funds	Illiquid Generally 10-15 Years	Commitments must be made annually in December. Drawdowns occur monthly on first business day.	Apr-11

## Summary of Private Equity Investments

As of June 30, 2020

### Direct/Non-Core Real Estate<sup>1</sup>

Investment	Commitment	Adjusted Commitment	Drawdowns to Date	% Drawn	Remaining Commitment	Distributions to Date	Ending Capital Balance	Notes on Fund Terms/Extensions
TerraCap Partners IV	\$1,000,000	N/A	\$1,000,000	100.0%	\$0	\$176,678	\$1,081,690	The fund was fully called on July 17, 2018 including \$58,438 in notional interest also due
Arsenal Real Estate Fund I-A	\$1,000,000	N/A	\$1,000,000	100.0%	\$0	\$296,196	\$43,050	The fund is winding down and the manager intends to sell the three remaining land investments in the near future.
<b>Total Private Real Estate</b>	<b>\$2,000,000</b>		<b>\$2,000,000</b>	<b>100.0%</b>	<b>\$0</b>	<b>\$472,874</b>	<b>\$1,124,740</b>	

### Private Equity<sup>2</sup>

Investment	Commitment	Adjusted Commitment	Drawdowns to Date	% Drawn	Remaining Commitment	Distributions to Date	Ending Capital Balance	Notes on Fund Terms/Extensions
Auda Venture LP	\$3,000,000	\$3,000,000	\$2,205,000	73.5%	\$95,686	\$2,635,473	\$19,543	Fund in harvesting phase; term was recently extended to December 15, 2018.
RCP Fund IV	\$3,000,000	\$3,000,000	\$3,314,717	110.5%	\$0	\$6,241,054	\$296,661	Term expires December 31, 2018 and is subject to three one-year extensions.
<b>PRIT VY Program<sup>3</sup></b>								
PRIT Vintage 2011	\$1,500,000	\$1,372,500	\$1,242,932	82.9%	\$257,068	\$1,562,965	\$943,182	Illiquid: 10-15 time horizon
PRIT Vintage 2012	\$1,500,000	\$936,000	\$824,448	55.0%	\$675,552	\$728,604	\$911,045	Illiquid: 10-15 time horizon
PRIT Vintage 2013	\$1,500,000	\$1,141,688	\$1,027,827	68.5%	\$472,173	\$644,018	\$1,013,283	Illiquid: 10-15 time horizon
PRIT Vintage 2014	\$1,500,000	\$1,362,271	\$1,138,816	75.9%	\$361,184	\$584,722	\$1,258,078	Illiquid: 10-15 time horizon
PRIT Vintage 2015	\$2,000,000	\$1,644,330	\$1,394,423	69.7%	\$605,577	\$426,580	\$1,816,809	Illiquid: 10-15 time horizon
PRIT Vintage 2016	\$2,000,000	\$1,108,608	\$808,817	40.4%	\$1,191,183	\$96,542	\$804,028	Illiquid: 10-15 time horizon
PRIT Vintage 2017	\$3,000,000	\$3,114,984	\$1,461,612	48.7%	\$1,538,388	\$39,173	\$1,456,252	Illiquid: 10-15 time horizon
PRIT Vintage 2018	\$3,000,000	\$2,871,599	\$1,081,895	36.1%	\$1,918,105	\$54,512	\$955,937	Illiquid: 10-15 time horizon
PRIT Vintage 2019	\$3,500,000	\$3,312,486	\$786,422	22.5%	\$2,713,578	\$1,227	\$729,439	Illiquid: 10-15 time horizon
PRIT Vintage 2020	\$3,500,000	\$2,240,656	\$94,816	2.7%	\$3,405,184	\$17	\$90,470	Illiquid: 10-15 time horizon
<b>Total PRIT VY Program</b>	<b>\$23,000,000</b>	<b>\$19,105,120</b>	<b>\$9,862,007</b>	<b>42.9%</b>	<b>\$13,137,993</b>	<b>\$4,138,361</b>	<b>\$9,978,523</b>	
<b>Total Private Equity</b>	<b>\$29,000,000</b>	<b>\$25,105,120</b>	<b>\$15,381,724</b>	<b>53.0%</b>	<b>\$13,233,679</b>	<b>\$13,014,888</b>	<b>\$10,294,725</b>	

<sup>1</sup>Ending capital balances for Arsenal and TerraCap Partners IV are as of 3/31/20 and are adjusted for any capital activity during the current quarter.

<sup>2</sup>Ending capital balances for Auda and RCP IV are reported on a quarter lag as of 3/31/20 and are adjusted for any capital activity in the current quarter. Undrawn capital for Auda Ventures will not be called; both funds are actively in the harvesting phase.

<sup>3</sup>Ending capital balances for PRIT VY Program assets are reported as of 6/30/2020.

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

## Estimated Fee Analysis

As of June 30, 2020

MANAGER	TARGET ALLOCATION	MARKET VALUE	FEE SCHEDULE <sup>2</sup>	ESTIMATED ANNUALIZED TOTALS <sup>1</sup>
IRM Core Bond Fund	17.0%	33,564,989	0.28%	\$93,982
Eaton Vance Trust CIT High Yield Fund	2.5%	4,931,769	0.50% for accounts under \$75M	\$24,659
Brandywine Global Opportunistic Fixed Income	4.0%	8,241,845	0.45%	\$37,088
Wellington Opportunistic Investment Allocation <sup>3</sup>	3.0%	6,349,106	0.65%	\$41,269
PineBridge Global Dynamic Asset Allocation	3.0%	6,002,944	0.75%	\$45,022
PRIT Domestic Equity	7.7%	15,940,654	0.11%	\$17,535
Columbia U.S. Contrarian Core Equity Private Fund	12.0%	25,374,386	0.50%	\$126,872
Lee Munder Mid Cap Core Collective Fund	5.5%	10,816,802	0.75% on first \$25 Mil; 0.70% on next \$25 Mil; 0.65% over \$50 Mil	\$81,126
Wellington Small Cap 2000 Portfolio <sup>3</sup>	3.0%	6,090,064	0.90% on first \$25 Mil; 0.80% on next \$25 Mil; 0.70% on next \$50 Mil; negotiable thereafter	\$54,811
EARNEST Partners International Equity	8.6%	15,863,748	1.00%	\$158,637
MFS Institutional International Equity	8.6%	17,498,759	0.71%	\$124,241
Acadian International Small Cap Equity	2.6%	4,709,905	0.75%	\$35,324
PRIT Core Real Estate <sup>4</sup>	7.0%	13,356,053	0.49%	\$65,445
TA Realty Core Property Fund, LP	1.5%	4,160,374	0.70%	\$29,123
American Strategic Value Realty Fund <sup>5</sup>	1.0%	2,078,085	1.25% on first \$10 Mil; 1.20% on next \$15 Mil; 1.10% on next \$25 Mil; 1.00% thereafter	\$25,976
TerraCap Partners IV <sup>6</sup>	0.5%	1,081,690	1.50%	\$16,225
Arsenal Real Estate Fund I-A <sup>7</sup>	0.0%	43,050	1.00% on invested equity Estimate reflects approx. annualized fees based on 4Q19 fees paid	\$1,360
PRIT Hedge Funds <sup>4</sup>	7.5%	14,851,415	1.11%	\$164,851
Auda Venture LP <sup>8</sup>	5.0%	19,543	1.00% on invested capital	\$195
RCP Fund IV <sup>9</sup>		296,661	0.75% of contributions Estimate reflects approx. annualized fees based on 4Q19 fees paid	\$2,261
PRIT Vintage Year Portfolios <sup>4</sup>		9,978,523	1.00%	\$99,785
<b>Average Weighted Investment Management Fee</b>			<b>0.62%</b>	<b>Approximately \$1,150,000</b>

TerraCap, Arsenal, Auda and RCP valued as of 3/31/20, adjusted for capital calls and distributions in the quarter.

Footnotes: <sup>1</sup>Estimated Annualized Totals does not include applicable incentive fees. <sup>2</sup>Management fees for commingled funds may not include additional underlying fund expenses such as custody, audit, legal and administrative expenses that are typically deducted from the net asset value of the fund. <sup>3</sup>Wellington: Opportunistic Investment Allocation Fund fee structure changed to performance based with a lower base fee of 0.65% effective 1/1/2015; the maximum annual fee provided that the manager meets performance based objectives is the original fee of 1.10%; Wellington has waived minimum annual fee for the Small Cap 2000 portfolio. <sup>4</sup>PRIT Investments reflect expense ratios as of most recent fiscal year end (FY 2018 CAFR) and will vary year-to-year depending on performance incentive fees paid out to managers. Fees for Vintage Year portfolios vary widely; the estimated fee of 1.00% is expected as the management fee over the life of the investments. <sup>5</sup>American Strategic Value Realty Fund fee reflects base fee not including carried interest of 20% after 10% preferred return. <sup>6</sup>TerraCap Partners IV fee reflects base fee not including carried interest of 20% after 8% preferred return and 30% after 15% secondary preferred return. <sup>7</sup>Arsenal Real Estate Fund I-A reflects annualized management fee paid in 1Q 2020 and excludes carried interest. <sup>8</sup>Auda Ventures LP fee reflects base fee not including carried interest of 5% after 10% preferred return. <sup>9</sup>RCP Fund IV fee reflects estimated annual base fee, expenses and underlying fund fees based on fees paid during 1Q 2020 and excludes carried interest of 5% after 10% preferred return. Fund of fund fees are shown at the fund of fund level and may not include fees charged by underlying investment managers/funds.

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

**The Watertown Retirement System  
Investment Mandates - Procurement Review**

Updated as of June 2020

Color legend: Near term expirations - Extend or Issue RFP in next 6 months  
Issue RFP in next 12 months

Asset Class	Style	Manager/Mandate	RFP Last Issued (Mo/Yr)	Most Recent IMA/Contract/Side Letter Date (Mo/Yr)	Current Length of Term (Yrs)	Current Term/Contract Expiration (Mo/Yr)	Status of Extensions	New Term/Contract Expiration (Mo/Yr)	Anticipated RFP/Search Date
Fixed Income	Core/Core Plus	IRM Core Bond Fund (CF)	Apr-14	Aug-14	5	July-19	2 Years	Jul-21	Jan-21
	High Yield	Eaton Vance Trust High Yield Fund (CF)	Jun-17	Feb-18	7	Feb-25	N/A	Feb-25	Aug-24
	Global Bonds	Brandywine Global Opportunistic Bond Fund (CF)	May-17	Jul-17	7	Jul-24	N/A	Jul-24	Jan-24
Domestic Equity	Core Equity	PRIT Domestic Equity Account	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Core Equity	Columbia Contrarian Core Equity Private Fund (CF)	Apr-14	Nov-14	5	Nov-19	2 Years	Nov-21	May-21
	Mid Cap	Lee Munder Mid Cap Core Collective Fund (CF)	Jan-18	Mar-18	7	Mar-25	N/A	Mar-25	Sep-24
	Small Cap	Wellington Small Cap 2000 Portfolio (CF)	Feb-17	Jul-17	7	Jul-24	N/A	Jul-24	Jan-24
International Equity	International Equity	Earnest Partners International Pooled Group Trust (CF)	Apr-14	Oct-14	5	Oct-19	2 Years	Oct-21	Apr-21
	International Equity	MFS Instl International Equity (MF)	Apr-14	Aug-14	5	Aug-19	2 Years	Aug-21	Feb-21
	International Small Cap	Acadian Int'l Small Cap (CF)	Feb-17	Jun-17	7	Jun-24	N/A	June-24	Dec-23
Asset Allocation	Asset Allocation	Wellington Opportunistic Investment Allocation (CF)	Jun-18	Nov-18	7	Nov-25	N/A	Nov-25	May-25
	Asset Allocation	PineBridge Global Dynamic Asset Allocation (CF)	Jun-18	Nov-18	7	Nov-25	N/A	Nov-25	May-25
Real Estate	Real Estate	PRIT Real Estate Account	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Real Estate	American Realty Advisors Strategic Value Realty	Dec-17	Jun-18	7	Jun-25	N/A	Jun-25	Dec-24
	Real Estate	TA Realty Core Property Fund	Sep-17	Mar-18	7	Mar-25	N/A	Mar-25	Sep-24
	Real Estate (Illiquid)	TerraCap Management TerraCap Partners IV	Dec-17	N/A	Closed End	N/A	N/A	N/A	N/A
	Real Estate (Winding Down)	Arsenal Real Estate	Illiquid Inherited	N/A	Closed End	N/A	N/A	N/A	N/A

**The Watertown Retirement System  
Investment Mandates - Procurement Review**

Updated as of June 2020

Color legend:

Near term expirations - Extend or Issue RFP in next 6 months
Issue RFP in next 12 months

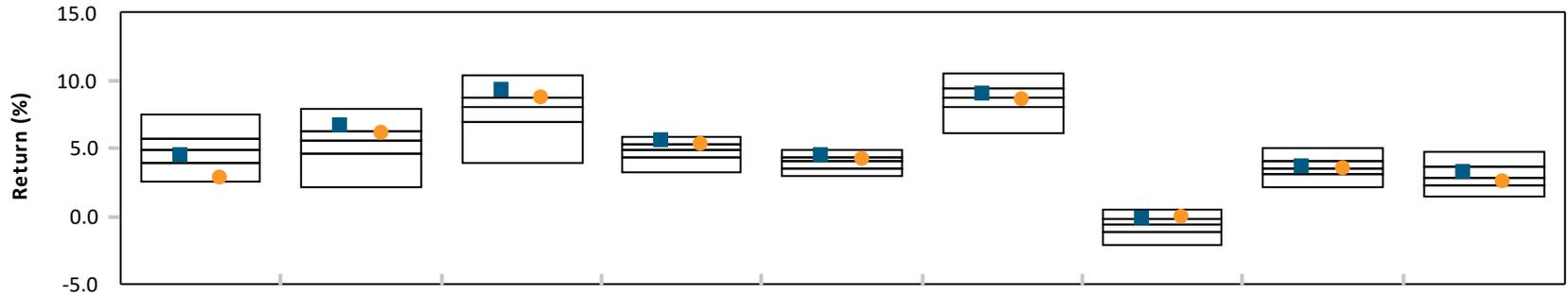
Asset Class	Style	Manager/Mandate	RFP Last Issued (Mo/Yr)	Most Recent IMA/Contract/Side Letter Date (Mo/Yr)	Current Length of Term (Yrs)	Current Term/Contract Expiration (Mo/Yr)	Status of Extensions	New Term/Contract Expiration (Mo/Yr)	Anticipated RFP/Search Date
Hedge Funds	Hedge Funds	PRIT Hedge Funds Account	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Private Equity	Private Equity (Illiquid)	Auda Ventures LP	Illiquid Inherited	N/A	Closed End	N/A	N/A	N/A	N/A
	Private Equity (Illiquid)	RCP IV	Illiquid Inherited	N/A	Closed End	N/A	N/A	N/A	N/A
	Private Equity (Illiquid)	PRIT Vintage Year	N/A	N/A	Closed End	N/A	N/A	N/A	N/A
Other Investment Related Vendors	Custodian	People's United Bank	Apr-18	Nov-18	7	Nov-25	N/A	Nov-25	May-25
	Investment Consultant	Fiduciary Investment Advisors	Jan-15	Mar-15	5	Mar-20	2 Years	March-22	Sep-21
	Actuarial Services	Sherman Actuarial Services		Dec-12	5	Dec-17	2 Years	Dec-19	Dec-19
	Legal Services	Attorney Thomas Gibson	Sep-18	Nov-18	7	Nov-25	N/A	Nov-25	May-25

# Manager Evaluation

## IRM Core Bond Fund LLC

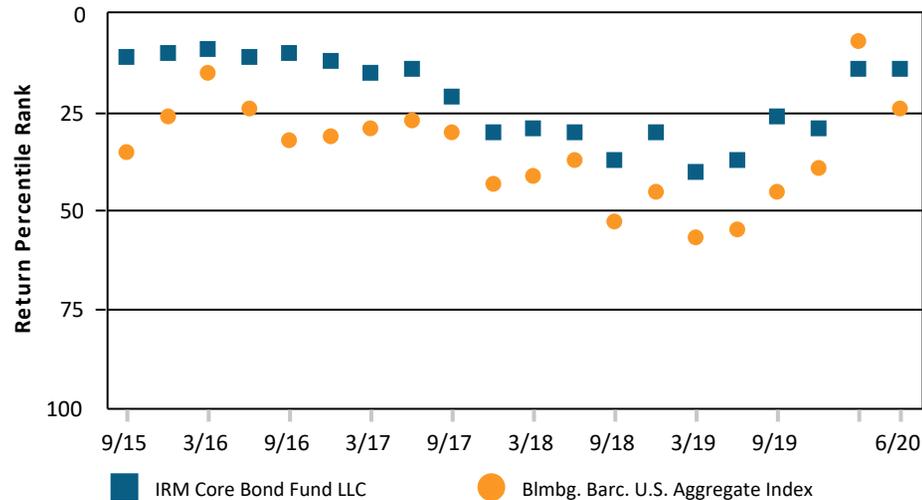
As of June 30, 2020

### Peer Group Analysis vs. IM U.S. Broad Market Core Fixed Income (MF)

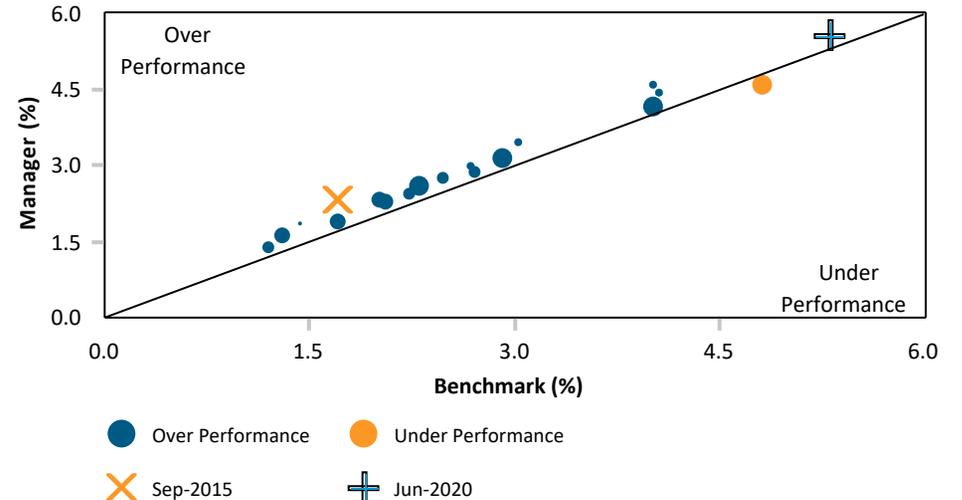


	QTR	YTD	1 Year	3 Years	5 Years	2019	2018	2017	2016
IRM Core Bond Fund LLC	4.5 (60)	6.7 (15)	9.4 (15)	5.6 (14)	4.5 (16)	9.1 (39)	-0.2 (26)	3.7 (46)	3.3 (36)
Blmbg. Barc. U.S. Aggregate Index	2.9 (90)	6.1 (32)	8.7 (28)	5.3 (24)	4.3 (30)	8.7 (53)	0.0 (18)	3.5 (54)	2.6 (61)
5th Percentile	7.6	7.9	10.4	5.9	4.9	10.6	0.6	5.0	4.8
1st Quartile	5.7	6.3	8.8	5.3	4.3	9.5	-0.2	4.1	3.7
Median	5.0	5.6	8.1	4.9	4.1	8.8	-0.6	3.6	2.9
3rd Quartile	3.9	4.7	7.0	4.4	3.6	8.1	-1.1	3.1	2.4
95th Percentile	2.6	2.2	4.0	3.3	3.0	6.2	-2.1	2.1	1.5

### 3 Year Rolling Percentile Ranking vs. IM U.S. Broad Market Core Fixed Income (MF)



### 3 Year Rolling Under/Over Performance vs. Blmbg. Barc. U.S. Aggregate Index

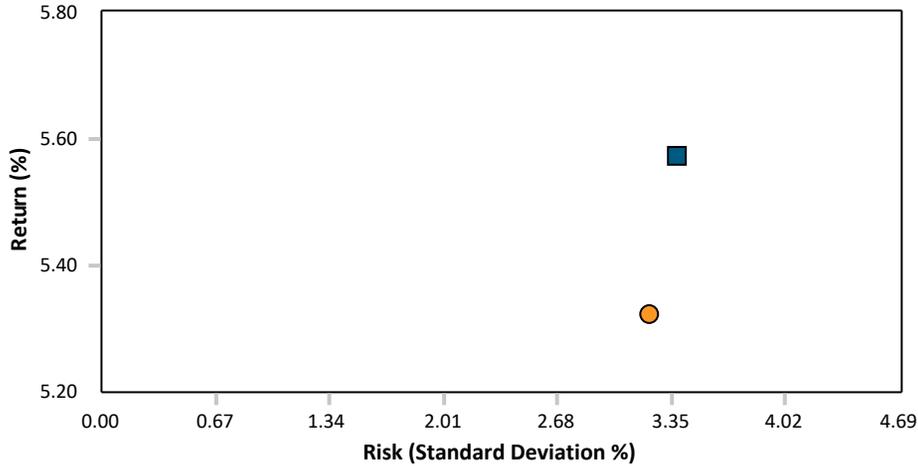


# Manager Evaluation

## IRM Core Bond Fund LLC

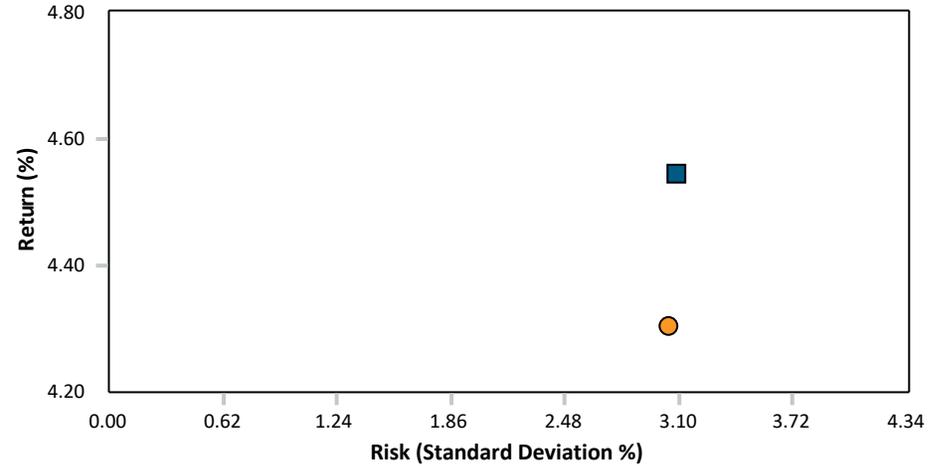
As of June 30, 2020

### 3 Year Risk and Return



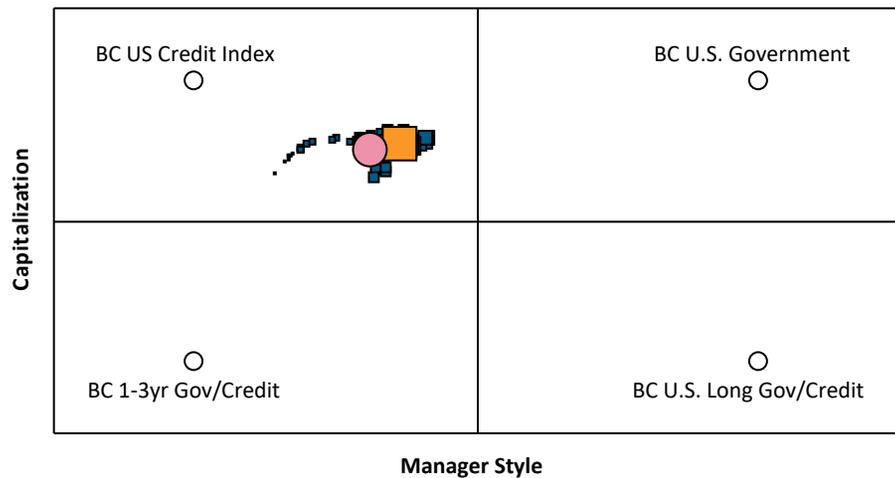
- IRM Core Bond Fund LLC
- Blmbg. Barc. U.S. Aggregate Index

### 5 Year Risk and Return



- IRM Core Bond Fund LLC
- Blmbg. Barc. U.S. Aggregate Index

### Style Map - 3 Years



- Style History
- Jun-2020
- Average Style Exposure

### MPT Statistics vs. Blmbg. Barc. U.S. Aggregate Index

	3 Years	5 Years
Return	5.6	4.5
Standard Deviation	3.4	3.1
vs. Blmbg. Barc. U.S. Aggregate Index		
Alpha	0.2	0.3
Beta	1.0	1.0
R-Squared	0.9	0.9
Consistency	58.3	56.7
Up Market Capture	105.8	104.2
Down Market Capture	108.7	101.5
vs. 90 Day U.S. Treasury Bill		
Sharpe Ratio	1.1	1.1

Mutual fund data sourced from Lipper Analytical Services.

## Manager Evaluation

IRM Core Bond Commingled Fund

As of 06/30/2020

### Portfolio Information

<b>Firm Name</b>	Income Research & Management	<b>Portfolio Manager</b>	Team Managed
<b>Product Name</b>	Core Bond Fund	<b>Fund Style</b>	Fixed Income - Core
<b>Portfolio Assets</b>	\$33.6 million	<b>Style Benchmark</b>	BB Aggregate Bond Index
<b>Inception Date</b>	3/31/2002		

### Portfolio Investment Policy

This fund invests in fixed income instruments, including government and agency issues, corporate issues, and asset-backed securities.

#### Sector Weightings

	<u>% of Portfolio</u>
Treasury	14.3%
Agency	0.0%
Financials	12.2%
Industrials	28.1%
Utilities	4.5%
Non-Corporates	0.0%
Mortgage Backed	22.9%
Asset Backed	7.8%
CMBS	6.9%
Muni	1.9%
Cash	0.2%

#### Fixed Income Characteristics

<b>Maturity</b>	
less than 1 year	5.2%
1 to 3 years	19.8%
3 to 5 years	31.0%
5 to 10 years	24.2%
10 to 20 years	10.3%
Over 20 years	9.5%

	<u># of yrs</u>
<b>Portfolio Average</b>	<b>8.46</b>
<b>Duration at Quarter End</b>	<b>5.92</b>

#### Credit Quality Allocations

<u>Quality</u>	<u>% of Port.</u>
AAA	51.4%
AA	4.0%
A	17.3%
BBB	25.9%

<u>Quality</u>	<u>% of Port.</u>
BB	1.1%
B	0.1%
Below B	0.0%
N/R	0.0%

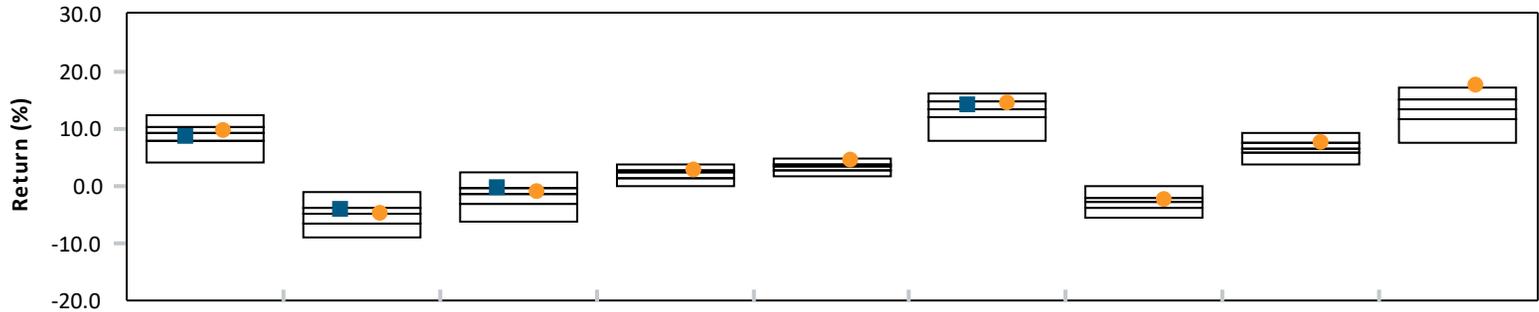
**Average Quality** = Aa3/AA-

# Manager Evaluation

## Eaton Vance Trust CIT High Yield Fund

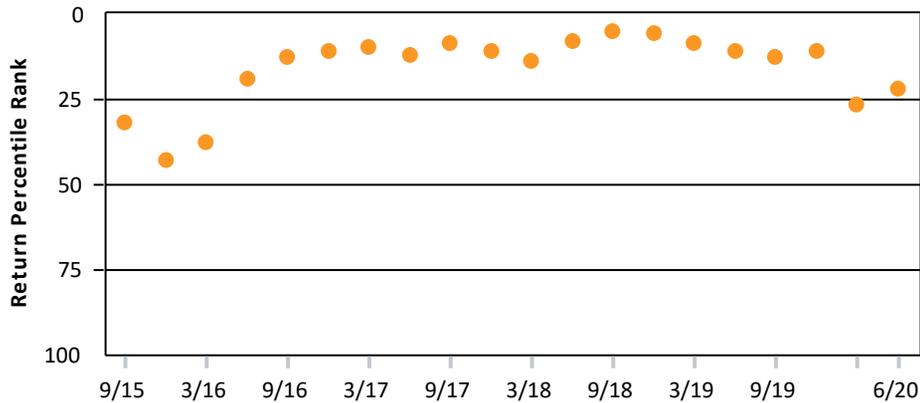
As of June 30, 2020

### Peer Group Analysis vs. IM U.S. High Yield Bonds (MF)



	QTR	YTD	1 Year	3 Years	5 Years	2019	2018	2017	2016
Eaton Vance Trust CIT High Yield Fund	8.5 (68)	-4.3 (37)	-0.4 (30)	N/A	N/A	14.1 (41)	N/A	N/A	N/A
ICE BofAML US High Yield Master II Constrained	9.5 (41)	-4.8 (50)	-1.2 (46)	2.9 (22)	4.6 (8)	14.4 (33)	-2.3 (32)	7.5 (25)	17.5 (5)
5th Percentile	12.6	-0.9	2.4	3.7	4.8	16.3	0.0	9.4	17.3
1st Quartile	10.5	-3.9	-0.2	2.8	3.9	14.7	-2.0	7.5	15.3
Median	9.2	-4.9	-1.4	2.2	3.4	13.5	-2.9	6.7	13.5
3rd Quartile	8.0	-6.5	-3.2	1.5	2.8	11.9	-3.8	5.8	11.8
95th Percentile	4.2	-9.1	-6.1	0.2	1.8	7.8	-5.4	3.7	7.6

### 3 Year Rolling Percentile Ranking vs. IM U.S. High Yield Bonds (MF)



■ Eaton Vance Trust CIT High Yield Fund  
● ICE BofAML US High Yield Master II Constrained

### 3 Year Rolling Under/Over Performance vs. ICE BofAML US High Yield Master II

Not Enough Data.

## Manager Evaluation

Eaton Vance Trust High Yield Bond CIT

As of 06/30/2020

### Portfolio Information

<b>Firm Name</b>	Eaton Vance	<b>Portfolio Manager</b>	
<b>Product Name</b>	Eaton Vance High Yield Bond	<b>Fund Style</b>	
<b>Portfolio Assets</b>	\$4.9 million	<b>Style Benchmark</b>	BofA Merrill Lynch U.S. High Yield Master II Constrained Index
<b>Inception Date</b>	4/1/2018		

### Portfolio Investment Policy

Eaton Vance seeks to identify opportunities as value changes in the market using a combination of bottom up research and a Market Factor analysis. Security selection is expected to drive the majority of excess returns over time. Analysts seek to identify credits with attractive return prospects per unit of risk. The research process centers on qualitative assessment, quantitative analysis, and a relative value analysis. The Market Factor component begins with an overall macroeconomic assessment. Top down analysis seeks to identify optimal market biases and risk/return positioning to compliment bottom up research.

### Sector Weightings

	<u>% of Portfolio</u>
Treasury	0.00%
Agency	0.26%
Financials	9.21%
Industrials	85.14%
Utilities	4.51%
Non-Corporates	0.00%
Mortgage Backed	0.00%
Asset Backed	0.00%
CMBS	0.00%
Muni	0.00%
Cash	0.88%

### Fixed Income Characteristics

<b>Maturity</b>		
less than 1 year		1.13%
1 to 3 years		8.71%
3 to 5 years		23.19%
5 to 10 years		61.43%
10 to 20 years		3.35%
Over 20 years		2.19%

	<u># of yrs</u>
<b>Portfolio Average</b>	6.41
<b>Duration at Quarter End</b>	4.00

### Credit Quality Allocations

<u>Quality</u>	<u>% of Port.</u>	<u>Quality</u>	<u>% of Port.</u>
AAA	0.88%	BB	48.62%
AA	0.00%	B	33.87%
A	0.00%	Below B	12.00%
BBB	3.60%	N/R	1.03%

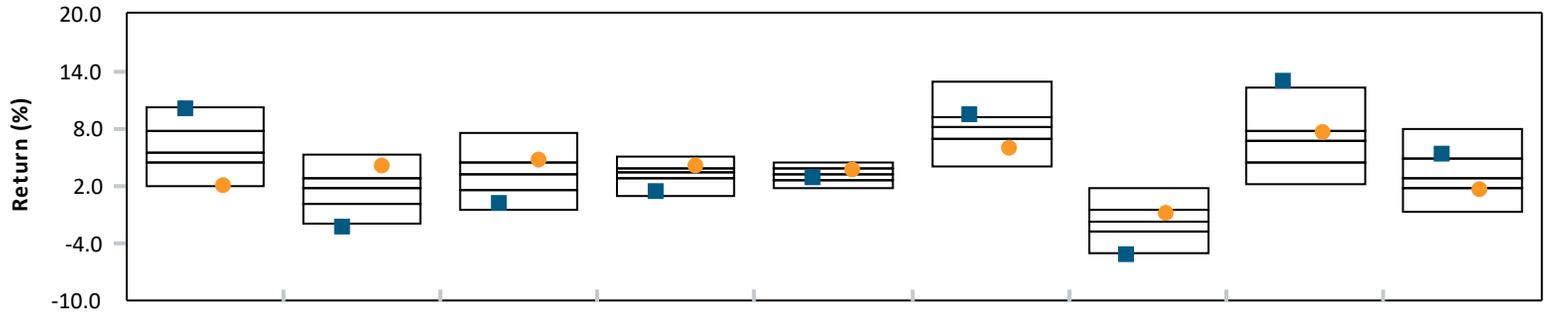
Average Quality = BB-/B1

# Manager Evaluation

## Brandywine Global Opportunistic Fixed Income

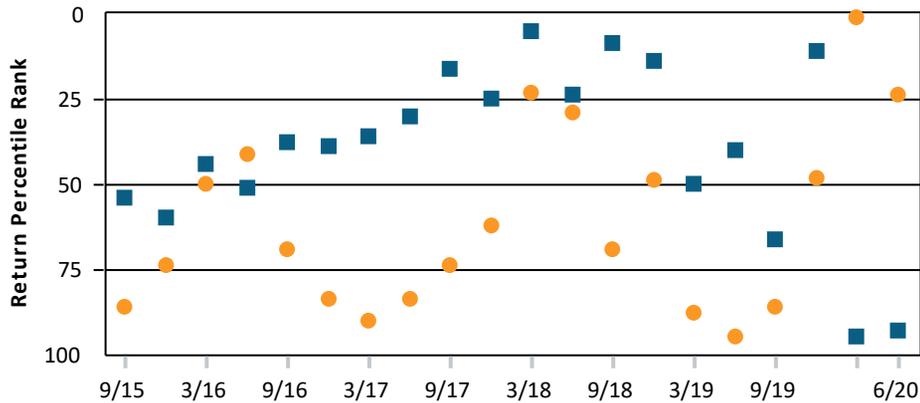
As of June 30, 2020

### Peer Group Analysis vs. IM Global Fixed Income (MF)



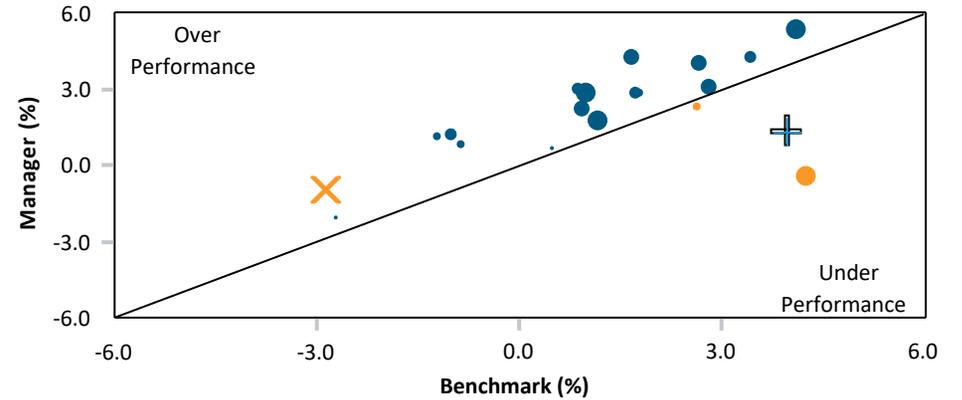
	QTR	YTD	1 Year	3 Years	5 Years	2019	2018	2017	2016
Brandywine Global Opportunistic Fixed Income	10.0 (6)	-2.3 (98)	0.1 (89)	1.3 (93)	2.7 (71)	9.4 (24)	-5.2 (96)	12.9 (3)	5.2 (20)
FTSE World Government Bond Index	2.0 (96)	4.1 (11)	4.6 (25)	4.0 (24)	3.7 (32)	5.9 (88)	-0.8 (35)	7.5 (35)	1.6 (80)
5th Percentile	10.3	5.4	7.6	5.1	4.5	13.0	1.8	12.3	8.0
1st Quartile	7.8	2.8	4.6	3.9	3.8	9.3	-0.4	7.9	4.9
Median	5.6	1.9	3.2	3.4	3.3	8.1	-1.8	6.8	2.9
3rd Quartile	4.4	0.1	1.7	2.7	2.7	6.9	-2.8	4.4	1.7
95th Percentile	2.1	-2.0	-0.4	1.0	1.8	4.0	-5.0	2.2	-0.6

### 3 Year Rolling Percentile Ranking vs. IM Global Fixed Income (MF)



■ Brandywine Global Opportunistic Fixed Income  
● FTSE World Government Bond Index

### 3 Year Rolling Under/Over Performance vs. FTSE World Government Bond Index



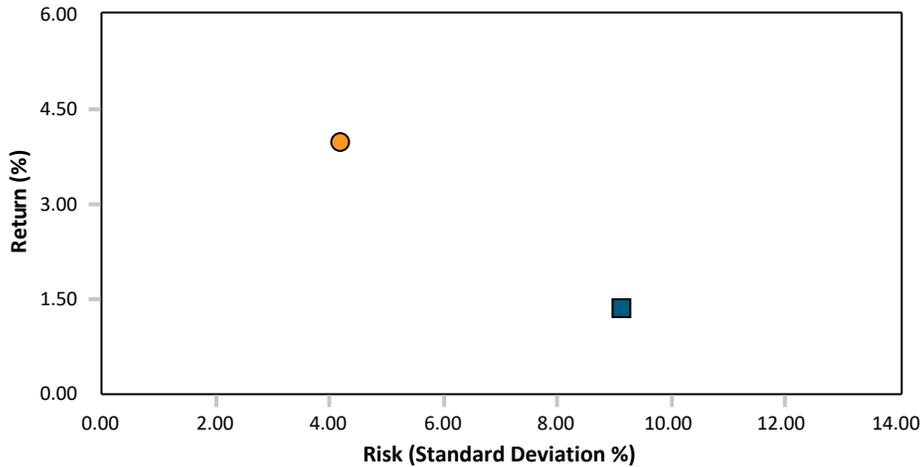
● Over Performance    ● Under Performance  
X Sep-2015    + Jun-2020

# Manager Evaluation

## Brandywine Global Opportunistic Fixed Income

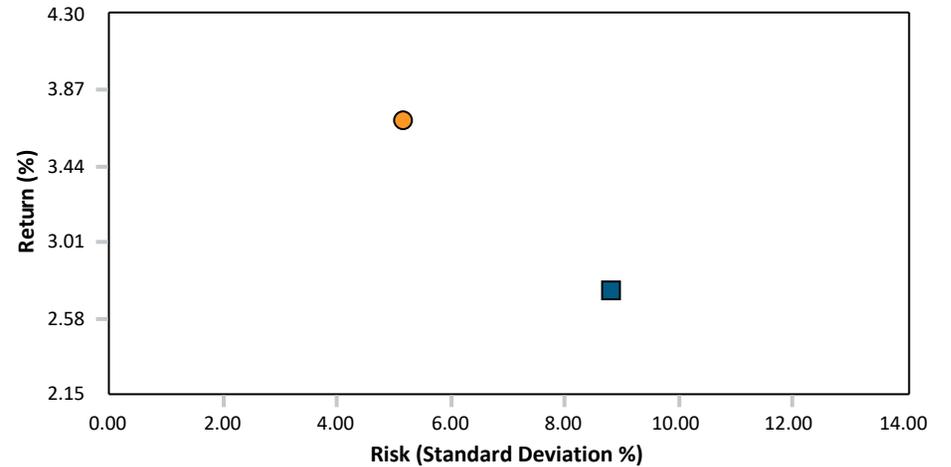
As of June 30, 2020

### 3 Year Risk and Return



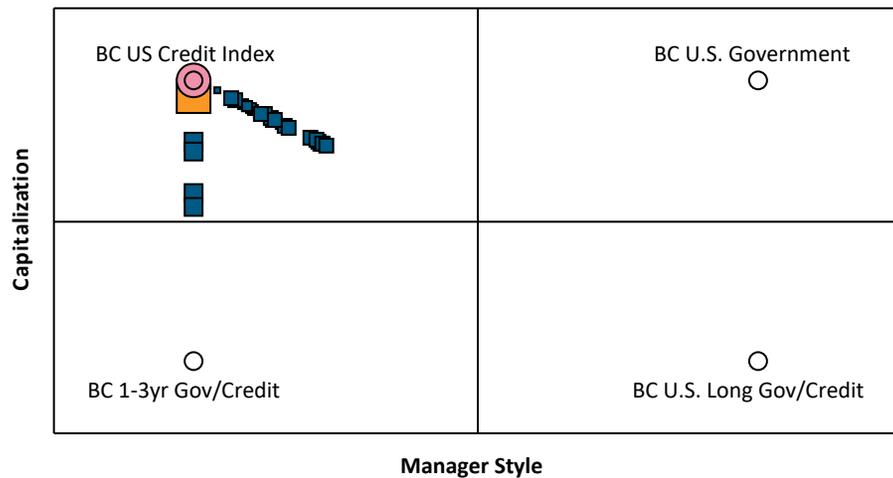
- Brandywine Global Opportunistic Fixed Income
- FTSE World Government Bond Index

### 5 Year Risk and Return



- Brandywine Global Opportunistic Fixed Income
- FTSE World Government Bond Index

### Style Map - 3 Years



- Style History
- Jun-2020
- Average Style Exposure

### MPT Statistics vs. FTSE World Government Bond Index

	3 Years	5 Years
Return	1.3	2.7
Standard Deviation	9.1	8.8
vs. FTSE World Government Bond Index		
Alpha	-3.0	-1.0
Beta	1.2	1.1
R-Squared	0.3	0.4
Consistency	41.7	48.3
Up Market Capture	135.7	117.0
Down Market Capture	217.3	141.5
vs. 90 Day U.S. Treasury Bill		
Sharpe Ratio	0.0	0.2

Mutual fund data sourced from Lipper Analytical Services.

## Manager Evaluation

Brandywine Global Asset Management

As of 06/30/2020

### Portfolio Information

<b>Firm Name</b>	Brandywine Global Asset Management	<b>Portfolio Manager</b>	Team Managed
<b>Product Name</b>	Brandywine Global Opportunistic Fund	<b>Fund Style</b>	Fixed Income - Global Bonds
<b>Portfolio Assets</b>	\$8.2 million	<b>Style Benchmark</b>	Citigroup World Government Bond Index
<b>Inception Date</b>	6/1/2011		

### Portfolio Investment Policy

The Fund invests primarily in debt and fixed income securities of domestic and foreign issuers located in developed countries. The Fund considers any country that has a sovereign debt rating of A- or better from at least one nationally recognized statistical rating organization at the time of purchase to be a developed country. The Fund may opportunistically invest in high yield and emerging markets debt.

#### Sector Weightings

	<u>% of Portfolio</u>
Treasury	57.8%
Agency	7.2%
Financials	13.1%
Industrials	16.3%
Utilities	0.6%
Non-Corporates	0.0%
Mortgage Backed	2.2%
Asset Backed	0.0%
CMBS	0.0%
Muni	0.0%
Cash	2.8%

#### Fixed Income Characteristics

<b>Maturity</b>	<u>% of Portfolio</u>
less than 1 year	6.2%
1 to 3 years	31.7%
3 to 5 years	1.6%
5 to 10 years	15.2%
10 to 20 years	8.9%
Over 20 years	36.3%

	<u># of yrs</u>
<b>Portfolio Average</b>	13.73
<b>Duration at Quarter End</b>	8.12

#### Credit Quality Allocations

<u>Quality</u>	<u>% of Port.</u>	<u>Quality</u>	<u>% of Port.</u>
AAA	25.6%	BB	11.2%
AA	5.9%	B	0.5%
A	24.0%	Below B	0.0%
BBB	32.6%	N/R	0.2%

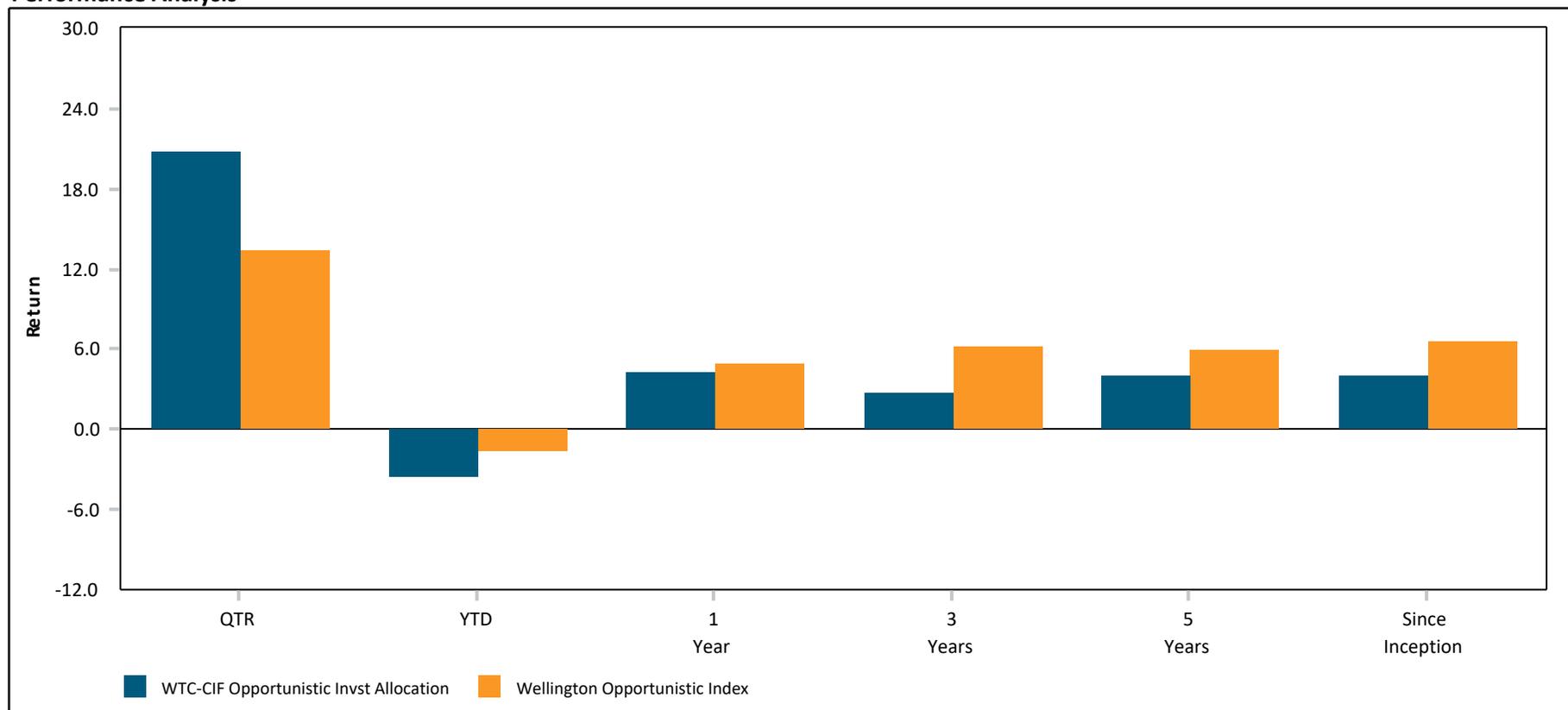
Average Quality = A

# Manager Evaluation

## WTC-CIF Opportunistic Invst Allocation

As of June 30, 2020

### Performance Analysis



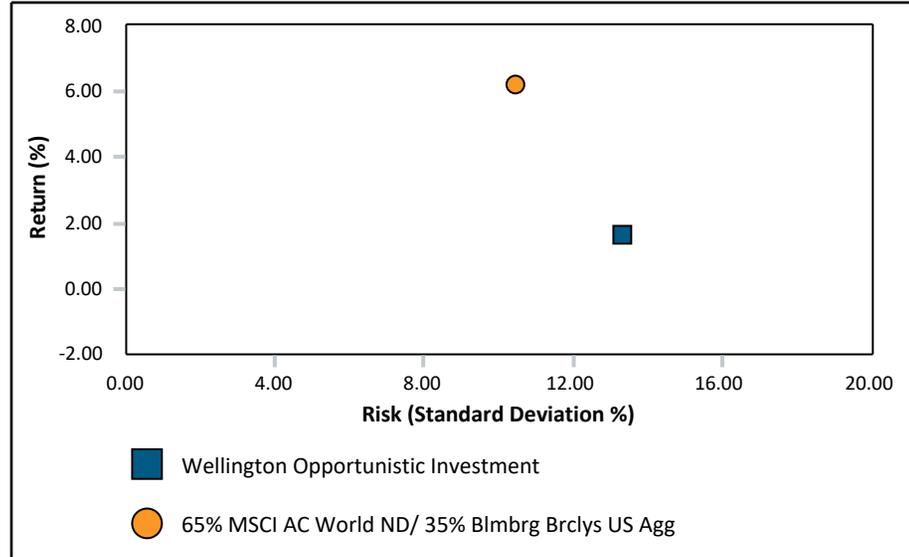
	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>WTC-CIF Opportunistic Invst Allocation</b>	<b>20.7</b>	<b>-3.6</b>	<b>4.2</b>	<b>2.8</b>	<b>4.0</b>	<b>3.9</b>	<b>11/01/2010</b>
<i>Wellington Opportunistic Index</i>	<i>13.3</i>	<i>-1.6</i>	<i>4.9</i>	<i>6.2</i>	<i>6.0</i>	<i>6.6</i>	
Difference	7.4	-2.0	-0.7	-3.4	-2.0	-2.7	

# Manager Evaluation

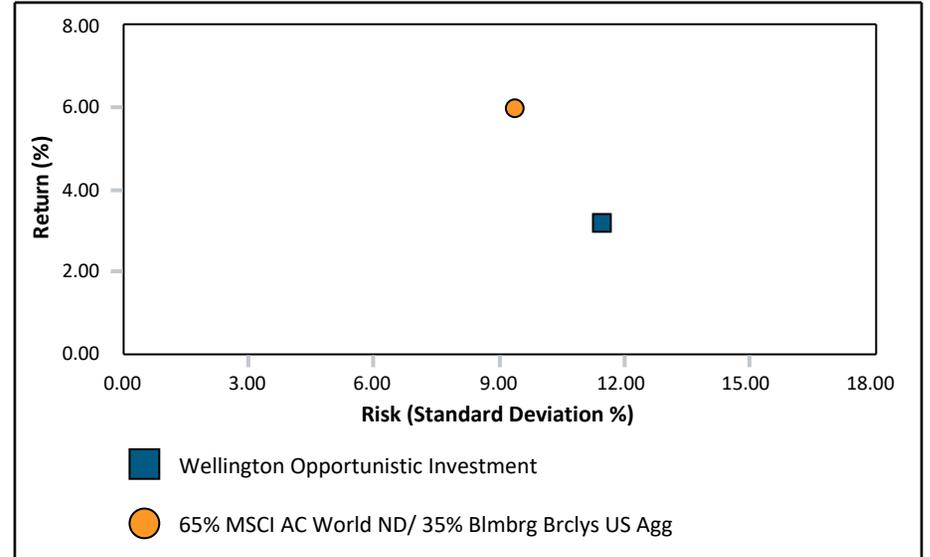
## Wellington Opportunistic Investment - Risk vs Return

As of June 30, 2020

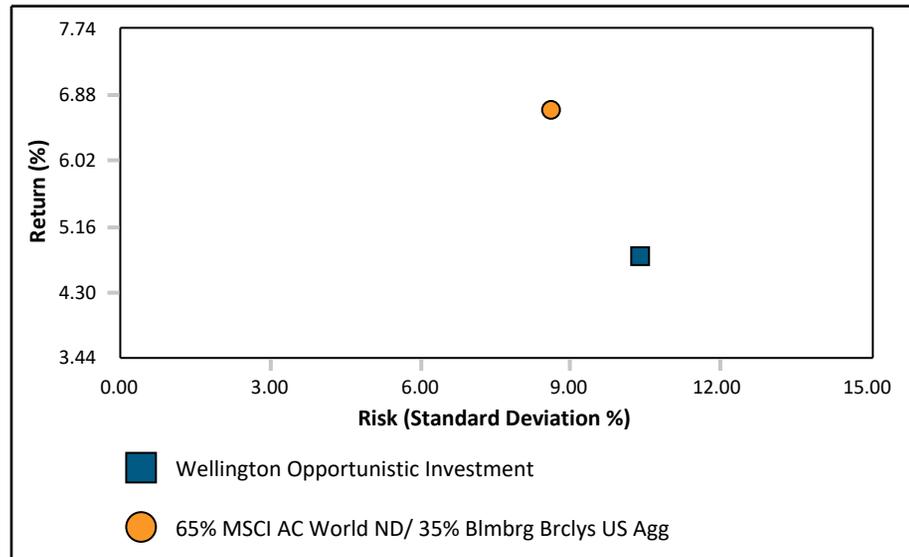
### 3 Year Risk and Return



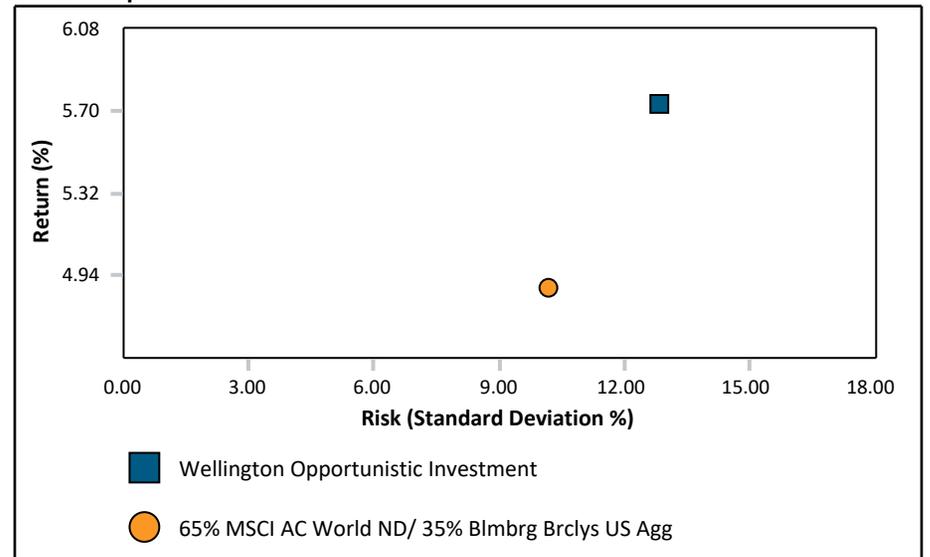
### 5 Year Risk and Return



### 7 Year Risk and Return



### Since Inception Risk and Return



Returns for this exhibit are based on the investment composite gross returns from the manager, and then adjusted to reflect the stated management fee.

# Manager Evaluation

## Wellington Opportunistic Investment - MPT Statistics

As of June 30, 2020

### 3 Year Historical MPT Statistics

	Return	Standard Deviation	Downside Risk	Sharpe Ratio	Information Ratio	Tracking Error	R-Squared	Beta	Alpha
Wellington Opportunistic Investment	1.62	13.36	10.19	0.06	-0.80	5.04	0.88	1.20	-5.22
65% MSCI AC World ND/ 35% Blmbrg Brclys US Agg	6.19	10.46	7.43	0.46	N/A	0.00	1.00	1.00	0.00
90 Day U.S. Treasury Bill	1.77	0.22	0.00	N/A	-0.46	10.56	0.19	-0.01	1.83

### 5 Year Historical MPT Statistics

	Return	Standard Deviation	Downside Risk	Sharpe Ratio	Information Ratio	Tracking Error	R-Squared	Beta	Alpha
Wellington Opportunistic Investment	3.18	11.51	8.50	0.23	-0.57	4.29	0.87	1.14	-3.29
65% MSCI AC World ND/ 35% Blmbrg Brclys US Agg	5.97	9.41	6.43	0.54	N/A	0.00	1.00	1.00	0.00
90 Day U.S. Treasury Bill	1.17	0.27	0.01	N/A	-0.54	9.46	0.04	-0.01	1.21

### 7 Year Historical MPT Statistics

	Return	Standard Deviation	Downside Risk	Sharpe Ratio	Information Ratio	Tracking Error	R-Squared	Beta	Alpha
Wellington Opportunistic Investment	4.76	10.42	7.44	0.42	-0.42	3.84	0.88	1.13	-2.51
65% MSCI AC World ND/ 35% Blmbrg Brclys US Agg	6.67	8.62	5.67	0.69	N/A	0.00	1.00	1.00	0.00
90 Day U.S. Treasury Bill	0.85	0.27	0.01	N/A	-0.69	8.67	0.03	-0.01	0.88

### Since Inception Historical MPT Statistics

	Return	Standard Deviation	Downside Risk	Sharpe Ratio	Information Ratio	Tracking Error	R-Squared	Beta	Alpha	Inception Date
Wellington Opportunistic Investment	5.74	12.88	9.07	0.37	0.22	5.08	0.86	1.17	0.23	03/01/2000
65% MSCI AC World ND/ 35% Blmbrg Brclys US Agg	4.88	10.21	7.12	0.35	N/A	0.00	1.00	1.00	0.00	03/01/2000
90 Day U.S. Treasury Bill	1.69	0.55	0.01	N/A	-0.35	10.30	0.02	-0.01	1.73	03/01/2000

Returns for this exhibit are based on the investment composite gross return from the manager, and adjusted for the management fee.

# Manager Evaluation

6/30/2020 data was not available at time of report completion so 3/31/2020 data is shown.

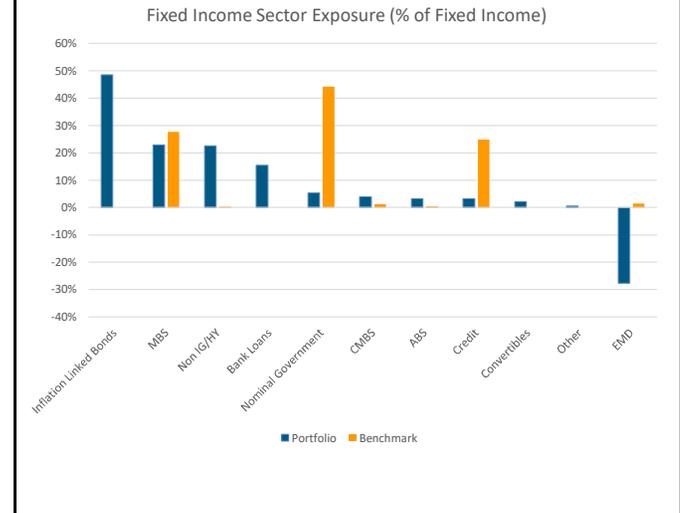
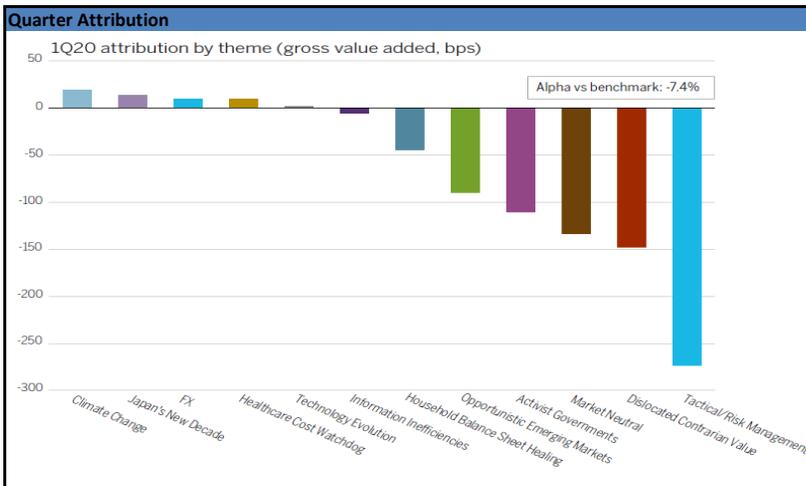
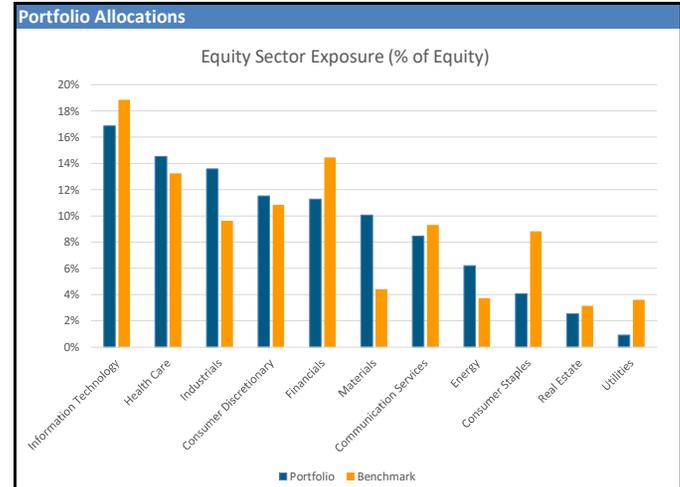
## Wellington Opportunistic Investment Allocation

As of March 31, 2020

Portfolio Information	
Fund Style: Multi Asset Manager	Inception Date: April 2000
Firm AUM: \$1.0 TT	Strategy AUM: \$984 MM

**Fund Investment Policy**  
Wellington Opportunistic Investment seeks to provide concentrated exposure to Wellington's best asset allocation ideas in the equity and fixed income markets. Their themes can extend to a multi-year horizon which leads to long holding periods.

Thematic Exposures			
	Mar-20	Dec-19	Difference
<b>Themes</b>			
<b>Technology Evolution</b> <i>Asia technology, automotive technology and cellular infrastructure build out</i>	8%	12%	-4%
<b>Activist Governments</b> <i>Inflation sensitive assets in response to currency devaluation and monetary policy</i>	19%	16%	3%
<b>Household Balance Sheet Healing</b> <i>The consumer balance sheet is robust and mortgage fundamentals are improving</i>	5%	4%	1%
<b>Market Neutral</b> <i>Variety of market neutral and long/short fixed income and equity exposures.</i>	29%	30%	-1%
<b>Opportunistic Emerging Markets</b> <i>Structural improvement relative to developed world drives spread tightening</i>	7%	8%	-1%
<b>Japan's New Decade</b> <i>Japan special situations to take advantage of corporate reform</i>	7%	6%	1%
<b>Healthcare Watchdog</b> <i>Companies that will provide solutions for reduced healthcare costs, primarily HMOs</i>	3%	3%	0%
<b>Climate Change</b> <i>Global equity exposure related to climate change</i>	6%	2%	4%
<b>Dislocated Contrarian Value</b> <i>Non-U.S. value equities to capture the value-growth performance disparity</i>	10%	10%	0%
<b>Information Inefficiencies</b> <i>Dislocations due to the rise of passive investing and increased regulation</i>	12%	10%	2%
<b>Non-Thematic</b> <i>Short-term opportunistic positions, specialist managers, risk management</i>	23%	38%	-15%



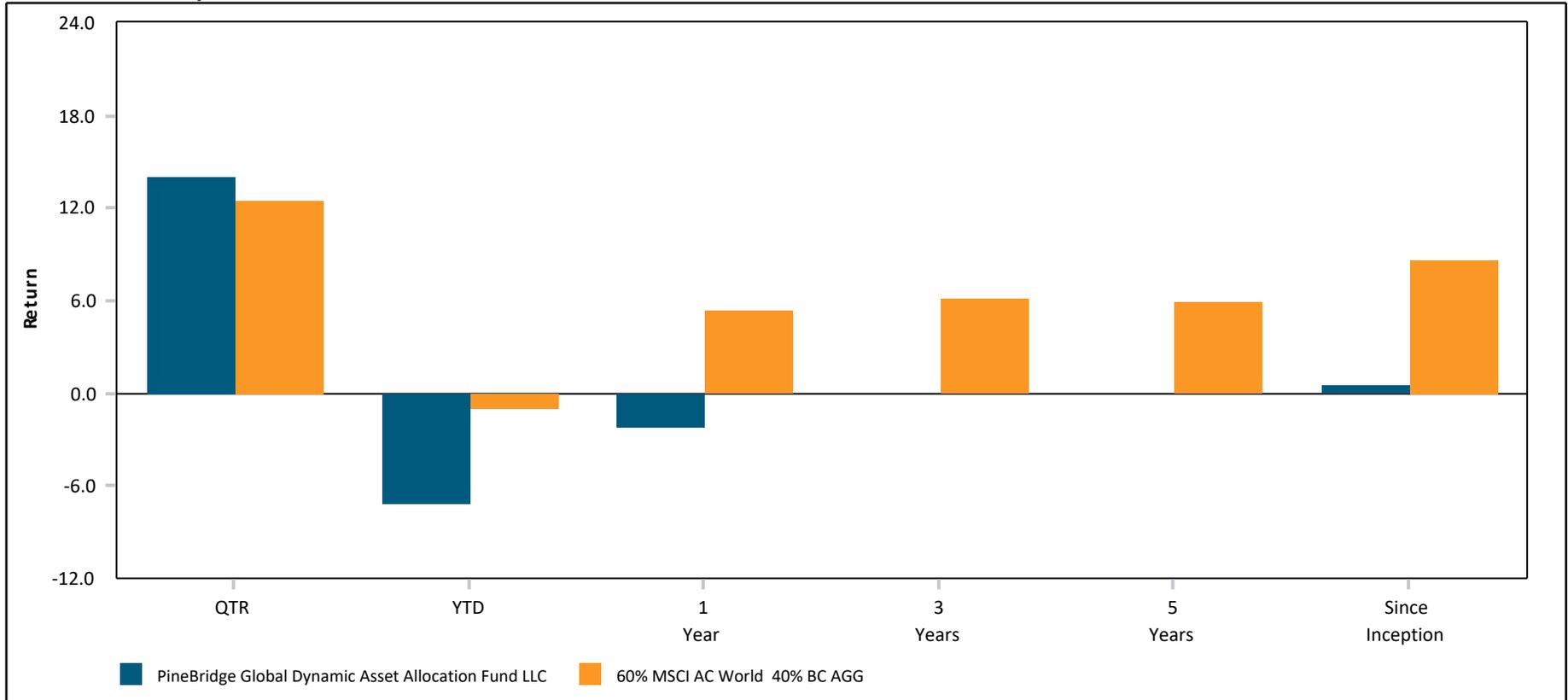
Source: Wellington

# Manager Evaluation

PineBridge Global Dynamic Asset Allocation Fund LLC

As of June 30, 2020

## Performance Analysis



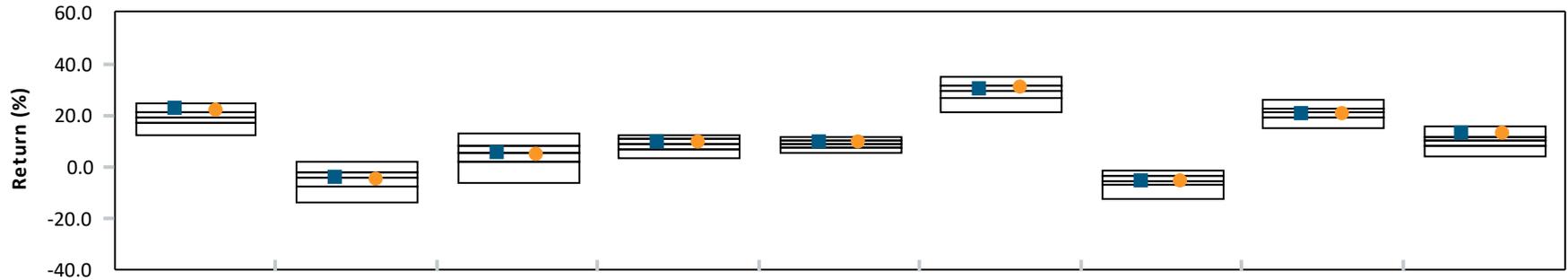
	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>PineBridge Global Dynamic Asset Allocation Fund LLC</b>	<b>14.0</b>	<b>-7.2</b>	<b>-2.2</b>	<b>N/A</b>	<b>N/A</b>	<b>0.5</b>	<b>02/01/2019</b>
<i>60% MSCI AC World 40% BC AGG</i>	<i>12.5</i>	<i>-1.0</i>	<i>5.3</i>	<i>6.2</i>	<i>5.9</i>	<i>8.6</i>	
Difference	1.5	-6.2	-7.5	N/A	N/A	-8.1	

# Manager Evaluation

## PRIT Domestic Equity

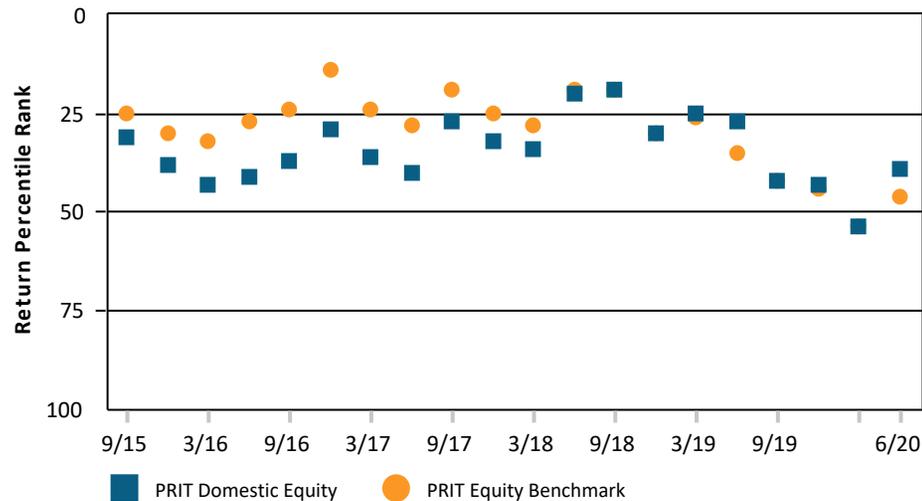
As of June 30, 2020

### Peer Group Analysis vs. IM U.S. Large Cap Core Equity (MF)

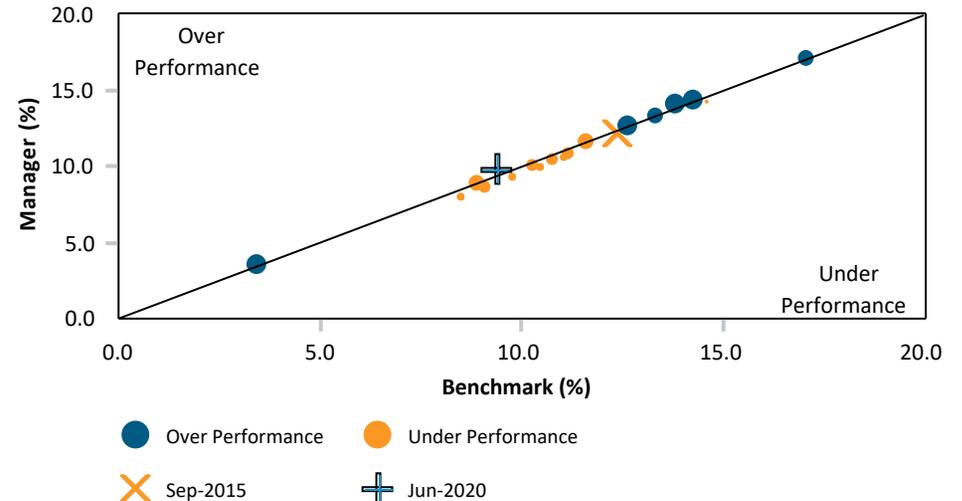


	QTR	YTD	1 Year	3 Years	5 Years	2019	2018	2017	2016
■ PRIT Domestic Equity	23.1 (9)	-3.9 (49)	5.5 (52)	9.8 (39)	9.8 (32)	30.6 (42)	-5.2 (42)	20.7 (58)	12.8 (20)
● PRIT Equity Benchmark	21.7 (23)	-4.6 (57)	5.1 (55)	9.4 (46)	9.7 (34)	30.8 (41)	-5.5 (48)	20.8 (56)	13.1 (17)
5th Percentile	24.9	2.4	13.1	12.7	11.7	35.2	-1.4	26.2	15.6
1st Quartile	21.6	-1.8	8.2	10.8	10.1	31.8	-3.7	22.8	12.0
Median	19.4	-4.0	5.7	9.0	9.0	29.7	-5.6	21.2	10.1
3rd Quartile	17.5	-7.3	2.0	7.2	7.8	27.1	-7.2	19.3	8.3
95th Percentile	12.5	-13.6	-5.9	3.6	5.4	21.5	-12.6	15.5	3.8

### 3 Year Rolling Percentile Ranking vs. IM U.S. Large Cap Core Equity (MF)



### 3 Year Rolling Under/Over Performance vs. PRIT Equity Benchmark

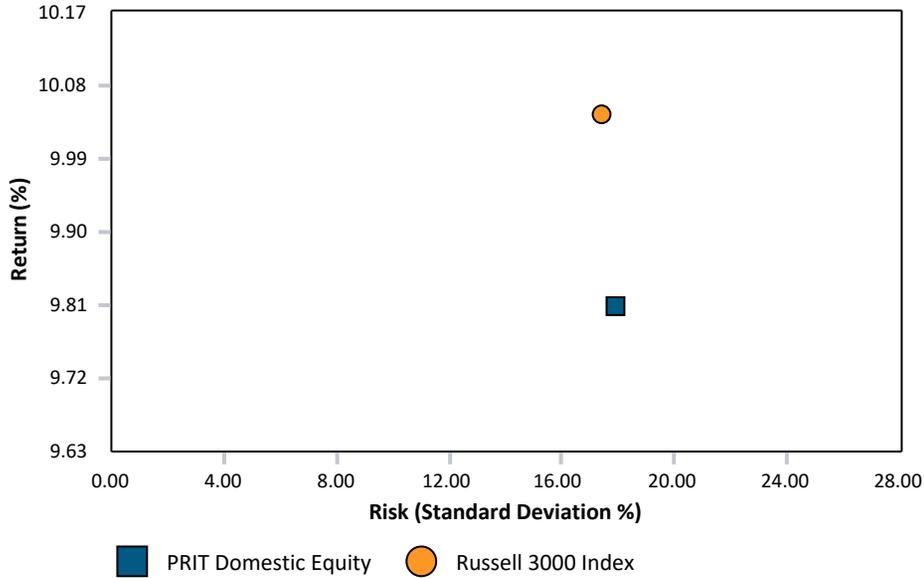


# Manager Evaluation

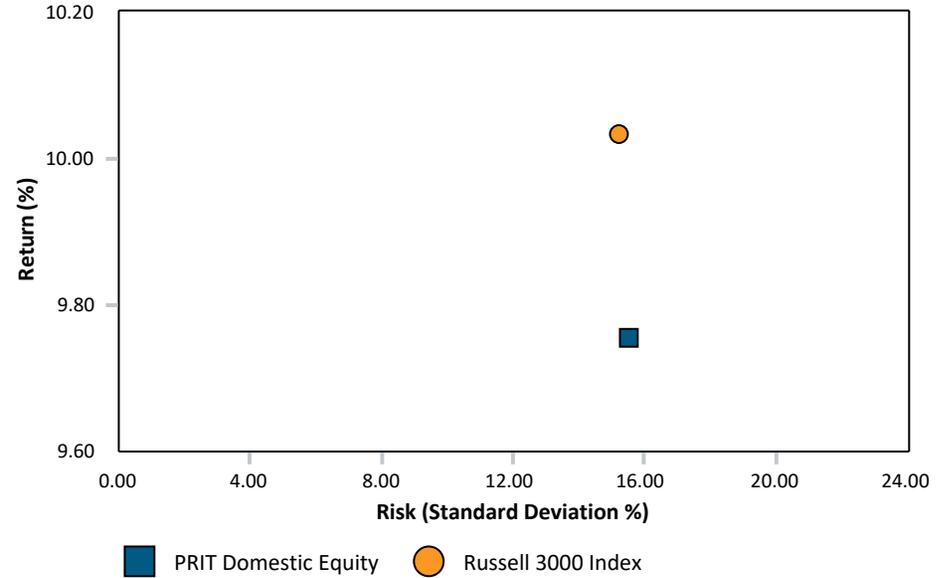
## PRIT Domestic Equity

As of June 30, 2020

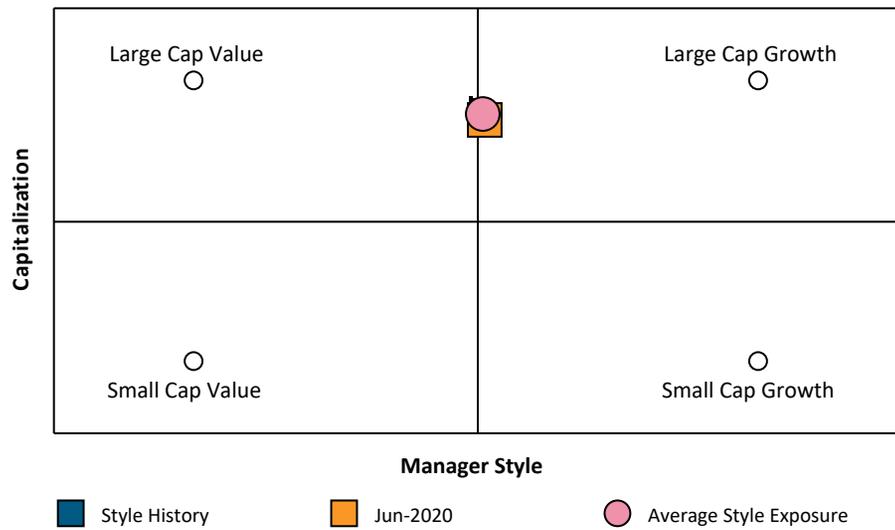
### 3 Year Risk and Return



### 5 Year Risk and Return



### Style Map - 3 Years



### MPT Statistics vs. Russell 3000 Index

	3 Years	5 Years
Return	9.8	9.8
Standard Deviation	17.9	15.6
vs. Russell 3000 Index		
Alpha	-0.4	-0.4
Beta	1.0	1.0
R-Squared	1.0	1.0
Consistency	55.6	53.3
Up Market Capture	100.9	100.4
Down Market Capture	102.1	102.1
vs. 90 Day U.S. Treasury Bill		
Sharpe Ratio	0.5	0.6

Mutual fund data sourced from Lipper Analytical Services.

# Manager Evaluation

## PRIT Domestic Equity Account As of June 30, 2020

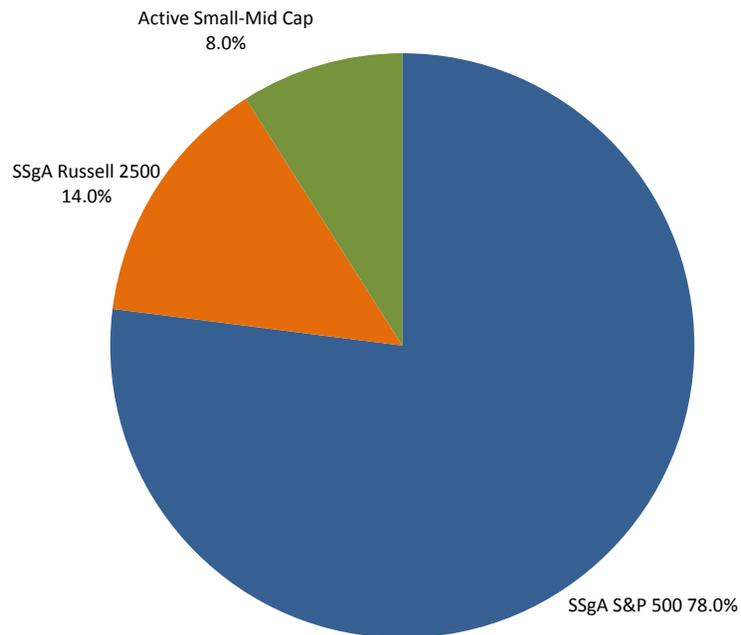
### Portfolio Information

Fund Style: U.S. Core Equity  
AUM: \$14.2 Bn  
Inception Date: February 1985  
Percent of PRIT Fund: 19.0%

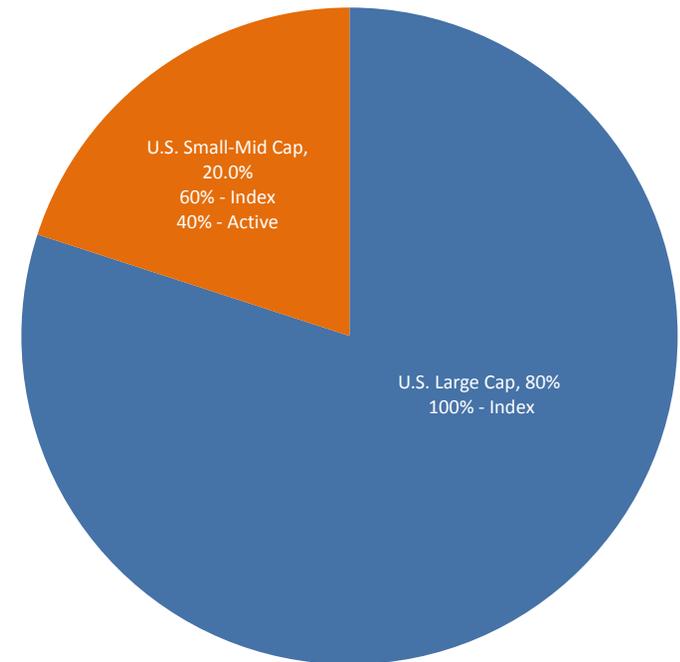
### Fund Investment Policy

PRIM is seeking to generate returns that are slightly better than the blended benchmark through an allocation to active management for a portion of the Small to Mid Cap allocation.

### Strategy Allocations by Manager



### Strategy Allocation Targets

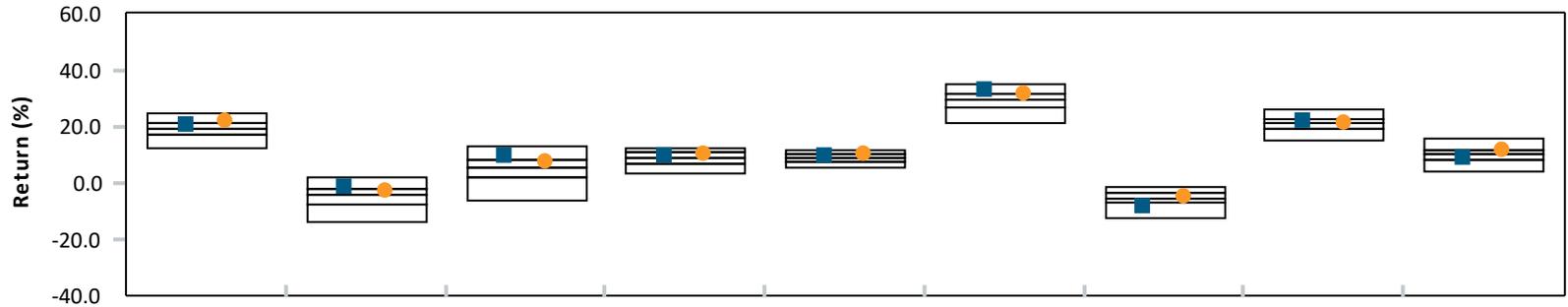


# Manager Evaluation

## Columbia US Contrarian Core Equity Fund

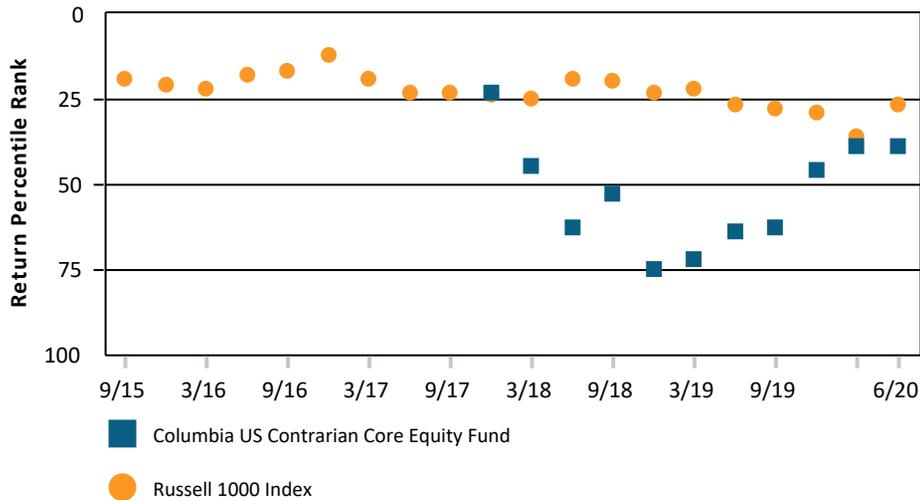
As of June 30, 2020

### Peer Group Analysis vs. IM U.S. Large Cap Core Equity (MF)

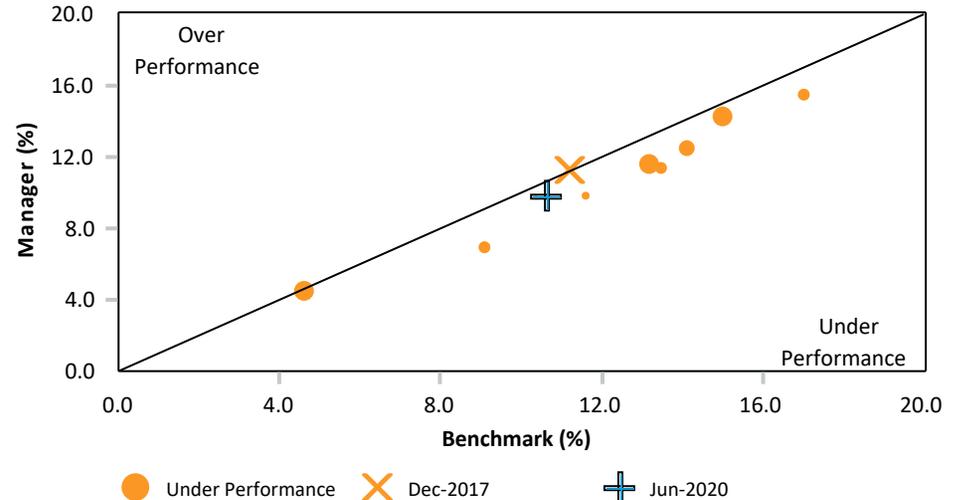


	QTR	YTD	1 Year	3 Years	5 Years	2019	2018	2017	2016
■ Columbia US Contrarian Core Equity Fund	20.4 (39)	-1.5 (21)	9.9 (15)	9.8 (39)	9.9 (30)	33.4 (12)	-8.3 (86)	21.7 (40)	9.3 (62)
● Russell 1000 Index	21.8 (21)	-2.8 (37)	7.5 (30)	10.6 (27)	10.5 (18)	31.4 (31)	-4.8 (36)	21.7 (41)	12.1 (25)
5th Percentile	24.9	2.4	13.1	12.7	11.7	35.2	-1.4	26.2	15.6
1st Quartile	21.6	-1.8	8.2	10.8	10.1	31.8	-3.7	22.8	12.0
Median	19.4	-4.0	5.7	9.0	9.0	29.7	-5.6	21.2	10.1
3rd Quartile	17.5	-7.3	2.0	7.2	7.8	27.1	-7.2	19.3	8.3
95th Percentile	12.5	-13.6	-5.9	3.6	5.4	21.5	-12.6	15.5	3.8

### 3 Year Rolling Percentile Ranking vs. IM U.S. Large Cap Core Equity (MF)



### 3 Year Rolling Under/Over Performance vs. Russell 1000 Index

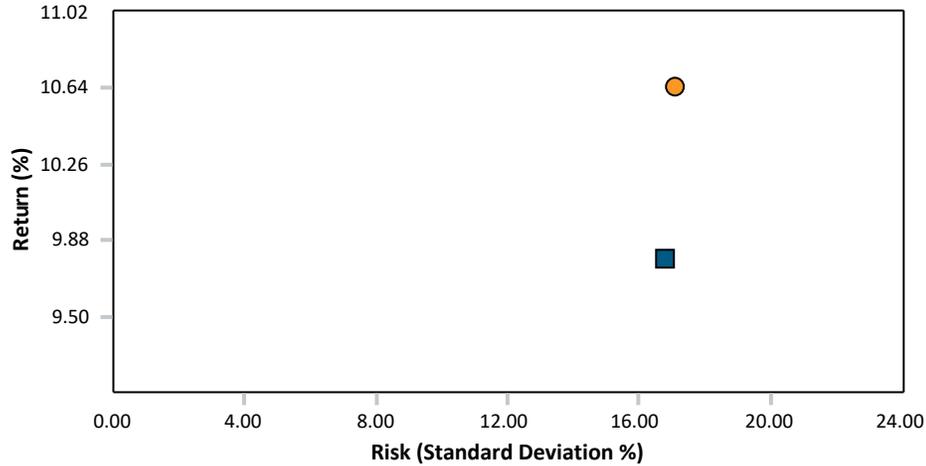


# Manager Evaluation

## Columbia US Contrarian Core Equity Fund

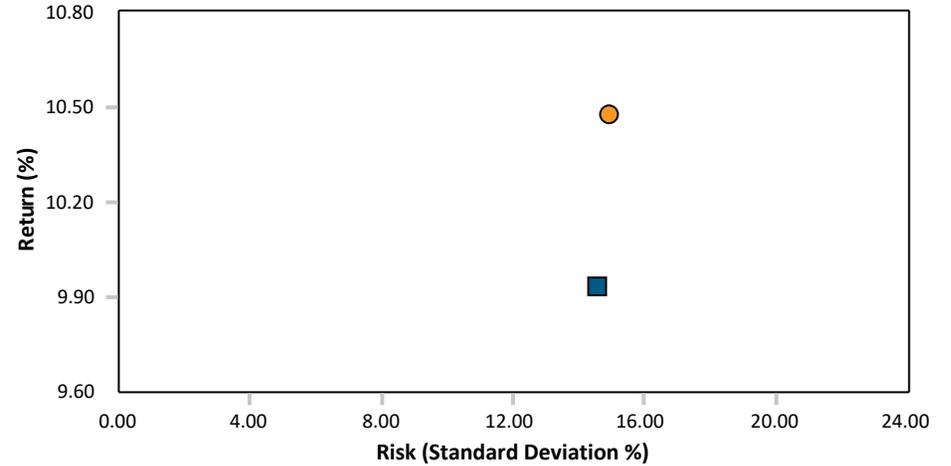
As of June 30, 2020

### 3 Year Risk and Return



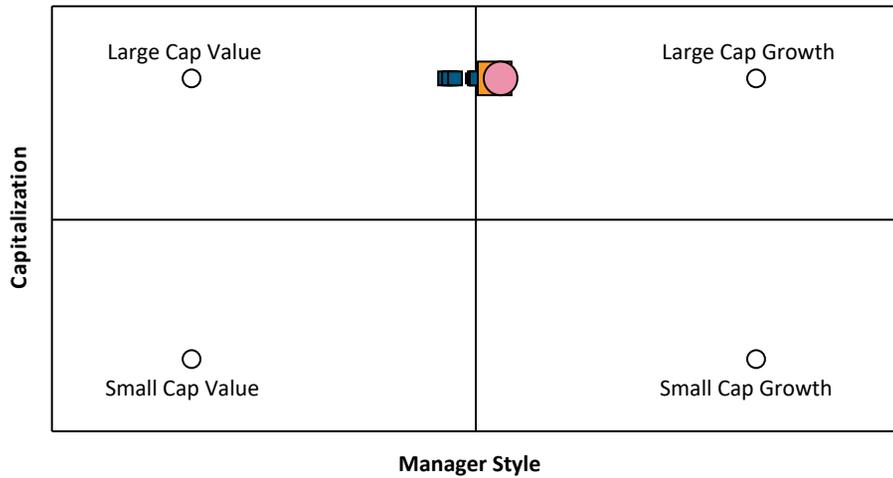
- Columbia US Contrarian Core Equity Fund
- Russell 1000 Index

### 5 Year Risk and Return



- Columbia US Contrarian Core Equity Fund
- Russell 1000 Index

### Style Map - 3 Years



- Style History
- Jun-2020
- Average Style Exposure

### MPT Statistics vs. Russell 1000 Index

	3 Years	5 Years
Return	9.8	9.9
Standard Deviation	16.8	14.6
vs. Russell 1000 Index		
Alpha	-0.5	-0.2
Beta	1.0	1.0
R-Squared	1.0	1.0
Consistency	47.2	53.3
Up Market Capture	96.8	96.8
Down Market Capture	99.6	98.3
vs. 90 Day U.S. Treasury Bill		
Sharpe Ratio	0.5	0.6

Mutual fund data sourced from Lipper Analytical Services.

## Manager Evaluation

### Columbia Management Contrarian U.S. Core Equity Fund

As of 06/30/2020

#### Portfolio Information

<b>Firm Name</b>	Columbia Management	<b>Portfolio Manager</b>	Team Managed
<b>Product Name</b>	Columbia U.S. Contrarian Core Equity Fund	<b>PM Tenure</b>	-
<b>Portfolio Assets</b>	25.4 million	<b>Fund Style</b>	Large Cap Core
<b>Inception Date</b>	1/1/2015	<b>Style Benchmark</b>	S&P 500 Index

#### Portfolio Investment Policy

The Columbia U.S. Contrarian Core Equity Fund seeks to achieve a total return consisting of long-term capital appreciation and current income. The Fund invests primarily in large cap stocks of U.S. companies that have the potential for long-term growth and current income. The minimum market capitalization guideline is \$2 billion. The manager employs fundamental research combined with quantitative analysis and risk management to construct portfolios.

#### Largest Equity Holdings

<u>Stock</u>	<u>% of Portfolio</u>
1. Microsoft	6.8
2. Apple	6.5
3. Amazon.com	5.9
4. Berkshire Hathaway-Cl B	2.6
5. Comcast	2.5
6. Facebook -Class A	2.5
7. JP Morgan Chase	2.3
8. Johnson & Johnson	2.2
9. Mastercard - A	2.1
10. Lowe's Companies	2.1

#### Largest Contributors & Detractors

<u>Contributors</u>	<u>% of Portfolio</u>	<u>Bps Contribution</u>
Apple	6.5	2.20
Amazon.com	5.9	2.02
Microsoft	6.8	1.74
Lowe's Companies	2.1	0.90
eBay	1.4	0.67
<u>Detractors</u>	<u>% of Portfolio</u>	<u>Bps Contribution</u>
Bank of America	0.7	-0.10
United Technologies	1.0	-0.08
Nutrien	0.4	-0.05
Corning	0.0	-0.04
Philip Morris International	1.6	-0.03

#### Sector Weightings

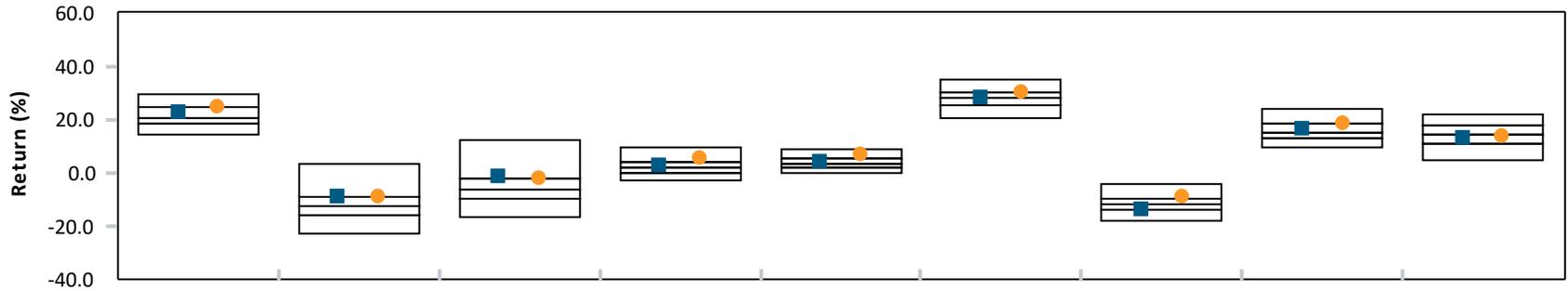
<u>Sector</u>	<u>Port. Wt.</u>	<u>Bmk Wt.</u>	<u>Sector</u>	<u>Port. Wt.</u>	<u>Bmk Wt.</u>
Communication Services	12.5%	10.3%	Industrials	7.0%	8.4%
Consumer Discretionary	11.8%	11.3%	Materials	30.4%	27.3%
Consumer Staples	4.7%	6.4%	Real Estate	3.0%	2.6%
Energy	3.2%	2.6%	Technology	1.2%	3.4%
Financials	11.1%	10.2%	Utilities	1.5%	2.9%
Health Care	12.7%	14.6%	Cash	1.0%	0.0%

# Manager Evaluation

## LMCG Mid Cap Collective Fund

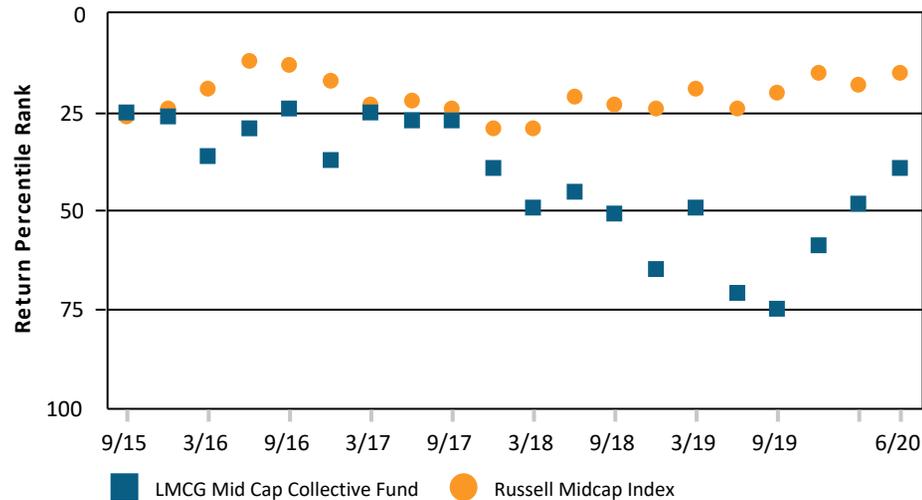
As of June 30, 2020

### Peer Group Analysis vs. IM U.S. Mid Cap Core Equity (MF)

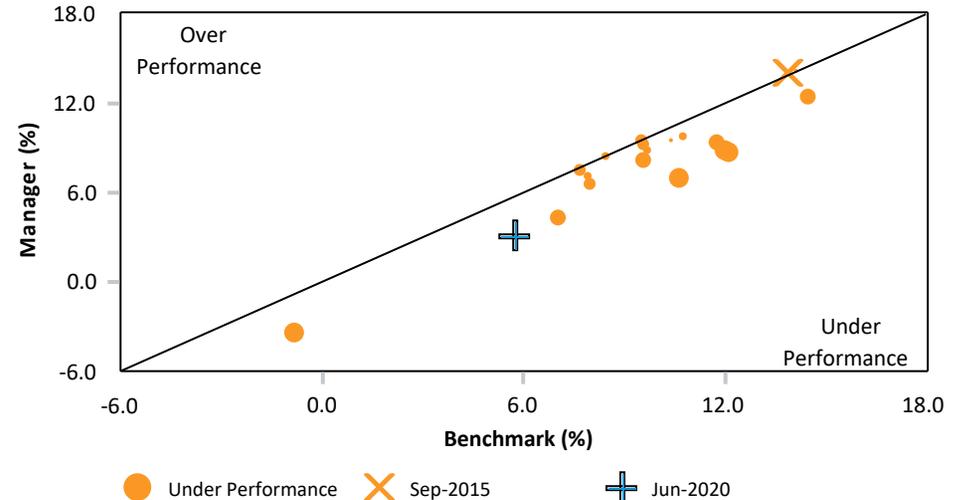


	QTR	YTD	1 Year	3 Years	5 Years	2019	2018	2017	2016
LMCG Mid Cap Collective Fund	22.6 (36)	-8.8 (18)	-1.4 (21)	3.0 (39)	4.4 (34)	28.4 (47)	-14.0 (77)	16.5 (41)	12.9 (61)
Russell Midcap Index	24.6 (25)	-9.1 (22)	-2.2 (25)	5.8 (15)	6.8 (16)	30.5 (25)	-9.1 (20)	18.5 (27)	13.8 (55)
5th Percentile	29.5	3.4	12.3	10.0	9.0	35.4	-4.1	24.0	22.4
1st Quartile	24.6	-9.3	-2.3	4.0	5.3	30.5	-9.6	18.7	17.9
Median	20.8	-12.4	-6.2	2.3	3.6	28.1	-11.5	15.4	14.2
3rd Quartile	18.4	-16.2	-9.6	-0.2	1.9	25.7	-13.6	13.0	11.1
95th Percentile	14.7	-22.7	-16.3	-3.0	0.0	20.5	-17.9	9.9	4.8

### 3 Year Rolling Percentile Ranking vs. IM U.S. Mid Cap Core Equity (MF)



### 3 Year Rolling Under/Over Performance vs. Russell Midcap Index

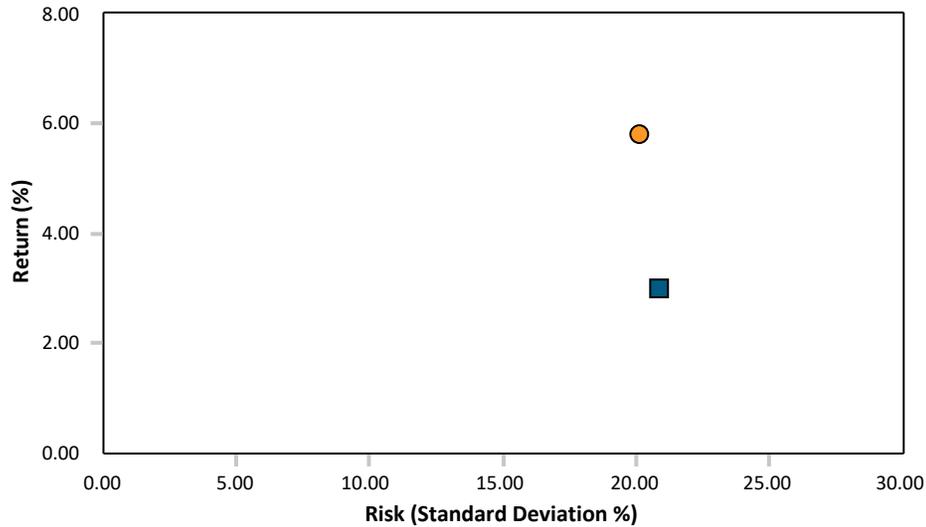


# Manager Evaluation

## LMCG Mid Cap Collective Fund

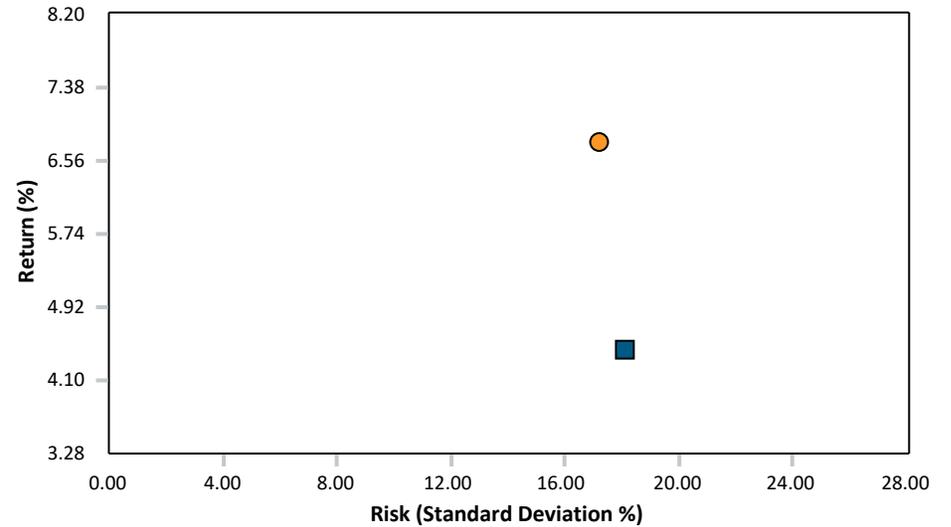
As of June 30, 2020

### 3 Year Risk and Return



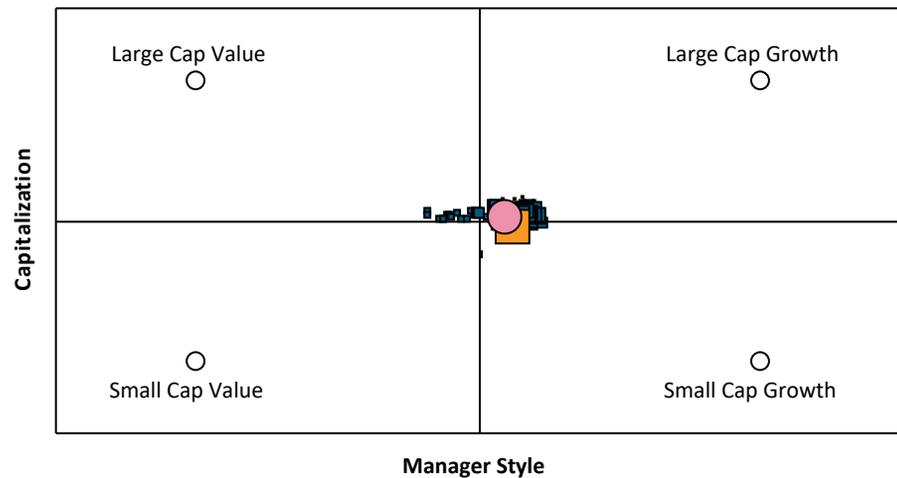
■ LMC Mid Cap Collective Fund    ● Russell Midcap Index

### 5 Year Risk and Return



■ LMC Mid Cap Collective Fund    ● Russell Midcap Index

### Style Map - 3 Years



■ Style History    ■ Jun-2020    ● Average Style Exposure

### MPT Statistics vs. Russell Midcap Index

	3 Years	5 Years
Return	3.0	4.4
Standard Deviation	20.9	18.1
vs. Russell Midcap Index		
Alpha	-2.7	-2.3
Beta	1.0	1.0
R-Squared	1.0	1.0
Consistency	41.7	45.0
Up Market Capture	97.5	98.4
Down Market Capture	108.8	109.9
vs. 90 Day U.S. Treasury Bill		
Sharpe Ratio	0.2	0.3

Mutual fund data sourced from Lipper Analytical Services.

## Manager Evaluation

Lee Munder Capital Group - Mid Cap Core Collective Fund

As of 06/30/2020

### Portfolio Information

<b>Firm Name</b>	Lee Munder Capital Group	<b>Portfolio Manager</b>	Team based
<b>Product Name</b>	Mid Cap Core Collective Fund	<b>Fund Style</b>	Mid Cap Core Equity
<b>Portfolio Assets</b>	\$10.8 million	<b>Style Benchmark</b>	Russell MidCap Index
<b>Inception Date</b>	6/1/2011		

### Portfolio Investment Policy

Lee Munder's Mid Cap Core investment process emphasizes mid cap companies with higher return on capital, free cash flow and strong balance sheets. Many of the portfolio's companies have dominant positions in a niche area within their industries.

#### Largest Equity Holdings

<u>Stock</u>	<u>% of Portfolio</u>
1. Synopsys, Inc.	3.1
2. MACOM Technology Solutions Holdings, Inc.	2.5
3. Charles River Laboratories International, Inc.	2.4
4. Encompass Health Corporation	2.4
5. Darling Ingredients Inc.	2.3
6. Dollar General Corporation	2.3
7. Qorvo, Inc.	2.0
8. Centene Corporation	1.8
9. Ameriprise Financial, Inc.	1.8
10. LKQ Corporation	1.8

#### Largest Contributors & Detractors

<u>Contributors</u>	<u>% of Portfolio</u>	<u>Bps Contribution</u>
MACOM Technology Solutions Hold	2.3	159.00
Synopsys, Inc.	2.7	121.00
AtriCure, Inc.	1.8	87.00
Charles River Laboratories Internat	2.3	83.00
Dollar General Corporation	2.3	64.00
<u>Detractors</u>	<u>% of Portfolio</u>	<u>Bps Contribution</u>
NiSource Inc	1.6	-14.00
Iovance Biotherapeutics Inc	0.4	-12.00
Marriott Vacations Worldwide Cor	0.0	-12.00
Brixmor Property Group, Inc.	0.0	-12.00
Patterson Companies, Inc.	0.0	-11.00

#### Sector Weightings

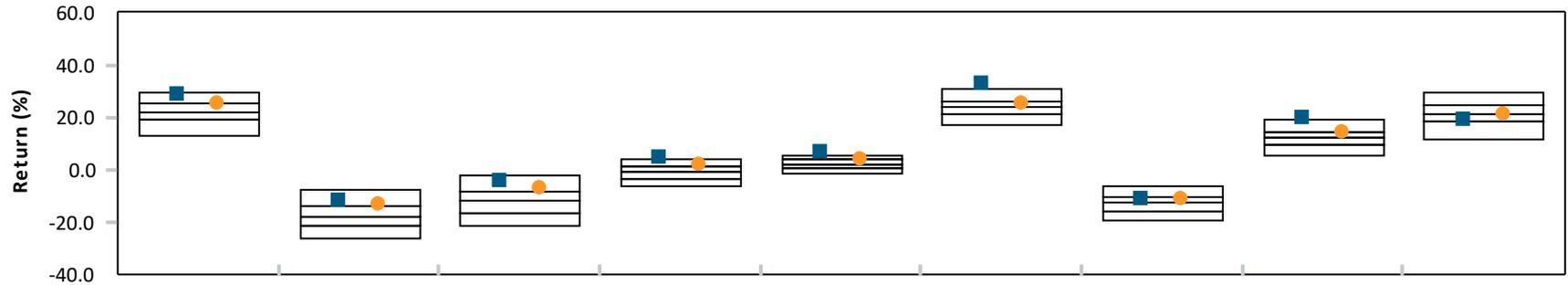
<u>Sector</u>	<u>Port. Wt.</u>	<u>Bmk Wt.</u>	<u>Sector</u>	<u>Port. Wt.</u>	<u>Bmk Wt.</u>
Communication Services	2.2%	1.9%	Industrials	9.8%	16.0%
Consumer Discretionary	9.9%	14.4%	Materials	5.1%	6.0%
Consumer Staples	8.6%	3.8%	Real Estate	5.5%	9.9%
Energy	1.1%	1.4%	Technology	17.9%	16.2%
Financials	10.7%	15.1%	Utilities	9.2%	4.2%
Health Care	18.3%	11.2%	Cash	1.8%	0.0%

# Manager Evaluation

## Wellington Small Cap 2000

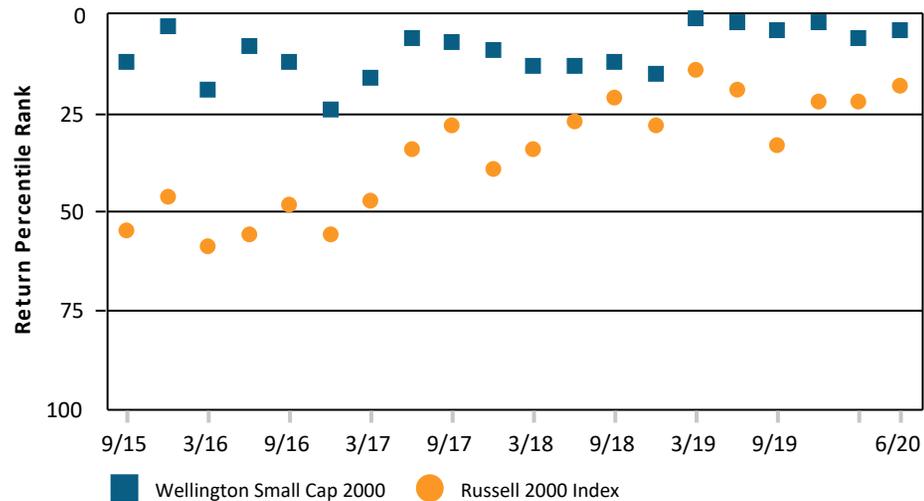
As of June 30, 2020

### Peer Group Analysis vs. IM U.S. Small Cap Core Equity (MF)

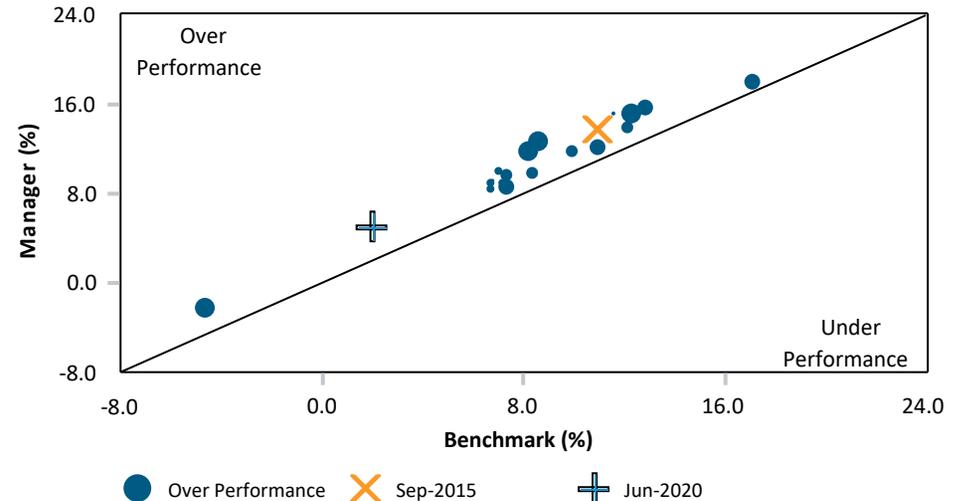


	QTR	YTD	1 Year	3 Years	5 Years	2019	2018	2017	2016
Wellington Small Cap 2000	29.2 (9)	-11.7 (15)	-4.1 (12)	4.9 (4)	7.0 (2)	33.1 (2)	-10.7 (28)	20.1 (4)	19.5 (70)
Russell 2000 Index	25.4 (27)	-13.0 (21)	-6.6 (20)	2.0 (18)	4.3 (20)	25.5 (32)	-11.0 (32)	14.6 (22)	21.3 (51)
5th Percentile	29.6	-7.6	-2.3	4.3	5.8	31.2	-6.4	19.5	29.9
1st Quartile	25.6	-13.5	-7.9	1.3	4.1	26.1	-10.5	14.3	25.0
Median	22.4	-17.7	-11.8	-0.9	2.3	23.9	-12.7	12.4	21.3
3rd Quartile	19.0	-21.6	-16.3	-3.8	0.4	21.7	-15.8	9.7	18.8
95th Percentile	13.3	-26.1	-21.1	-6.1	-1.3	17.3	-19.3	5.4	11.5

### 3 Year Rolling Percentile Ranking vs. IM U.S. Small Cap Core Equity (MF)



### 3 Year Rolling Under/Over Performance vs. Russell 2000 Index

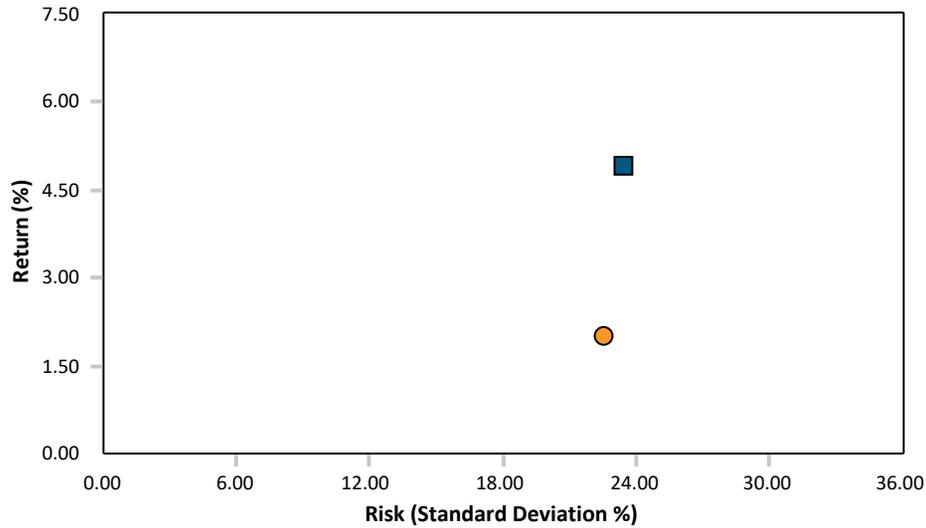


# Manager Evaluation

## Wellington Small Cap 2000

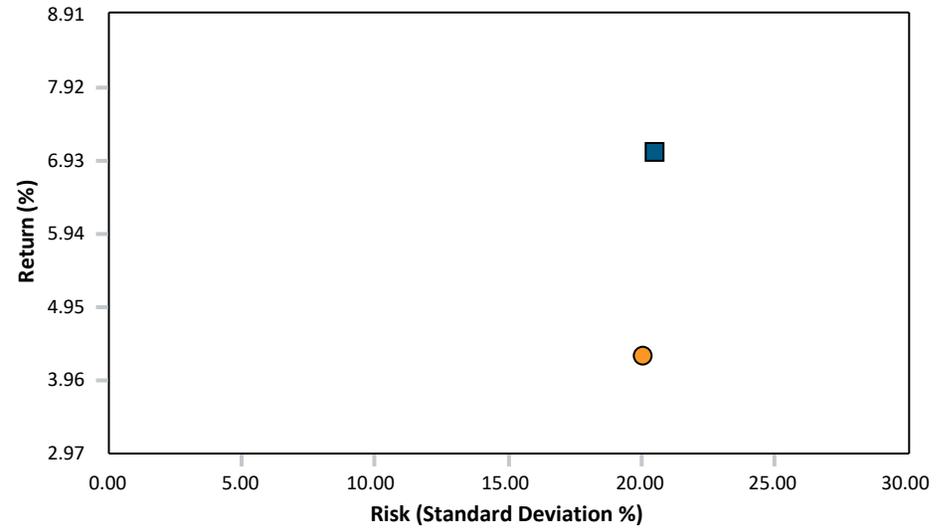
As of June 30, 2020

### 3 Year Risk and Return



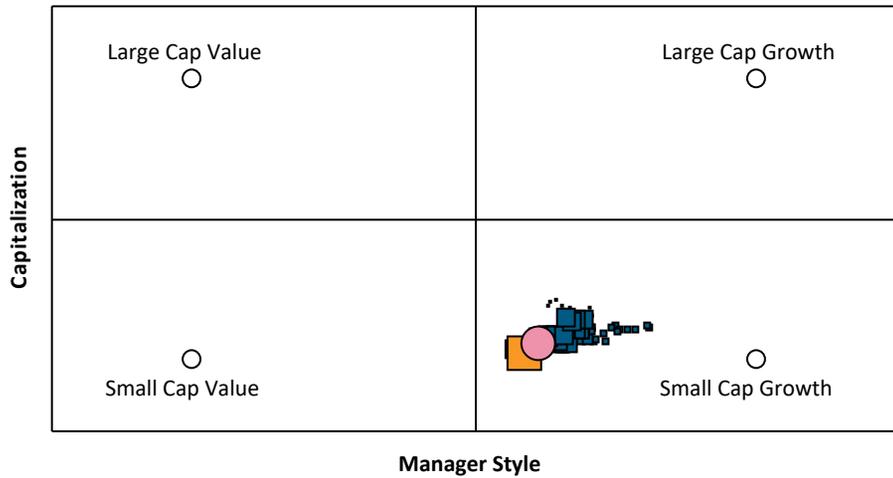
Wellington Small Cap 2000    Russell 2000 Index

### 5 Year Risk and Return



Wellington Small Cap 2000    Russell 2000 Index

### Style Map - 3 Years



Style History    Jun-2020    Average Style Exposure

### MPT Statistics vs. Russell 2000 Index

	3 Years	5 Years
Return	4.9	7.0
Standard Deviation	23.5	20.6
vs. Russell 2000 Index		
Alpha	2.9	2.7
Beta	1.0	1.0
R-Squared	1.0	1.0
Consistency	66.7	60.0
Up Market Capture	104.5	103.3
Down Market Capture	93.7	92.0
vs. 90 Day U.S. Treasury Bill		
Sharpe Ratio	0.3	0.4

Mutual fund data sourced from Lipper Analytical Services.

## Manager Evaluation

Wellington Management - Small Cap 2000 Portfolio

As of 06/30/2020

### Portfolio Information

<b>Firm Name</b>	Wellington Management	<b>Portfolio Manager</b>	Mark Mandell, Cheryl Duckworth, Camilla Martin
<b>Product Name</b>	Small Cap 2000 Portfolio	<b>PM Tenure</b>	Average: 17 Years
<b>Portfolio Assets</b>	\$6.1 million	<b>Fund Style</b>	Small Cap Core Equity
<b>Inception Date</b>	10/1/1999	<b>Style Benchmark</b>	Russell 2000 Index

### Portfolio Investment Policy

The investment objective of the Small Cap 2000 Portfolio is to achieve long-term total return in excess of the Russell 2000 Index by focusing on adding value through superior security selection. The Portfolio invests in equity securities of US companies, emphasizing those that have above-average potential for capital appreciation.

#### Largest Equity Holdings

<u>Stock</u>	<u>% of Portfolio</u>
1. Trupanion Inc	1.61
2. Lattice Semicondctr	1.41
3. TriNet Group Inc	1.37
4. Dycom Industries Inc	1.30
5. Formfactor Inc	1.28
6. Clean Harbors Inc	1.27
7. Rexford Indus Realty	1.15
8. Installed Building P	1.10
9. ExlService Holdings	1.09
10. PS Business Pks Inc	1.05

#### Largest Contributors & Detractors

<u>Contributors</u>	<u>% of Portfolio</u>	<u>Bps Contribution</u>
Thor Industries Inc	0.80	0.65
Trupanion Inc	1.61	0.85
Cardlytics Inc	0.96	0.61
Patrick Inds	0.67	0.52
Dycom Industries Inc	1.30	0.72
<u>Detractors</u>	<u>% of Portfolio</u>	<u>Bps Contribution</u>
PS Business Pks Inc	1.05	-0.08
National Storage Aff	0.92	-0.04
Rexford Indus Realty	1.15	-0.02
Immunomedics Inc	0.00	0.00
ALLETE Inc	0.60	-0.11

#### Sector Weightings

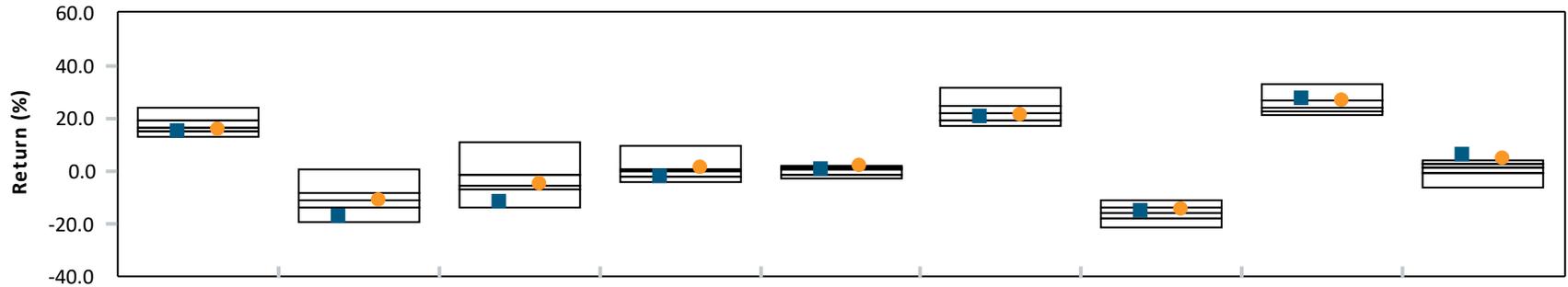
<u>Sector</u>	<u>Port. Wt.</u>	<u>Bmk Wt.</u>	<u>Sector</u>	<u>Port. Wt.</u>	<u>Bmk Wt.</u>
Communication Services	2.86%	2.53%	Industrials	13.12%	14.51%
Consumer Discretionary	10.61%	11.80%	Materials	4.60%	4.04%
Consumer Staples	3.67%	3.34%	Real Estate	8.73%	7.06%
Energy	1.77%	2.26%	Information Technology	15.36%	13.86%
Financials	15.95%	16.35%	Utilities	2.44%	3.63%
Health Care	20.90%	20.63%	Cash	0.00%	0.00%

# Manager Evaluation

## Earnest Partners Intl Equity

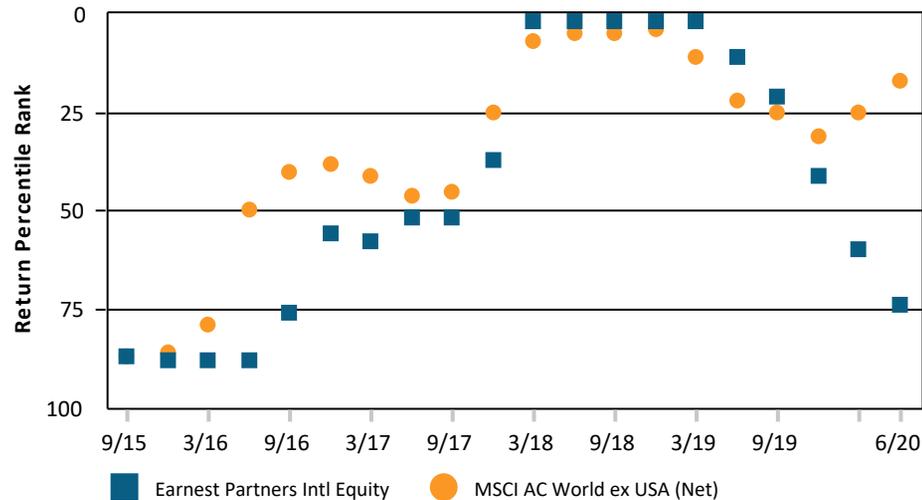
As of June 30, 2020

### Peer Group Analysis vs. IM International Large Cap Core Equity (MF)

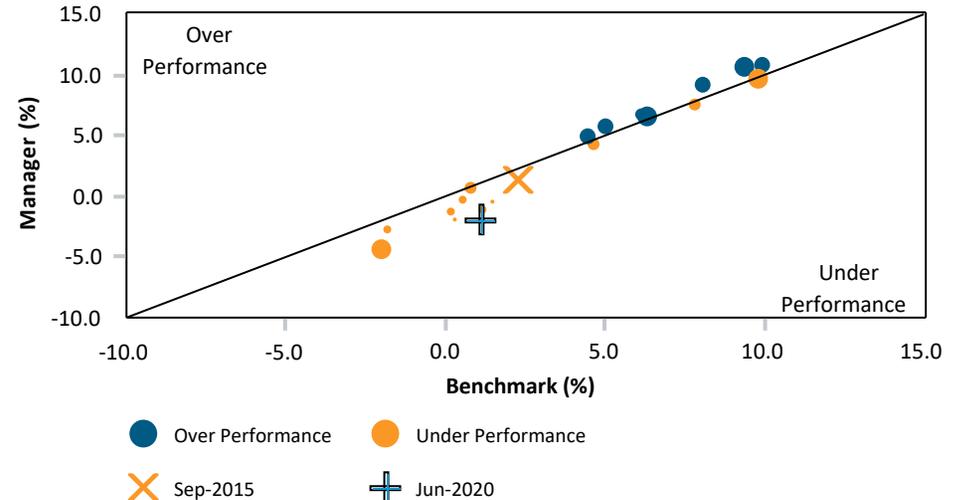


	QTR	YTD	1 Year	3 Years	5 Years	2019	2018	2017	2016
■ Earnest Partners Intl Equity	15.3 (73)	-17.3 (89)	-11.9 (92)	-2.0 (74)	0.8 (41)	21.0 (63)	-14.9 (44)	27.8 (14)	6.0 (4)
● MSCI AC World ex USA (Net)	16.1 (55)	-11.0 (48)	-4.8 (42)	1.1 (17)	2.3 (2)	21.5 (59)	-14.2 (33)	27.2 (17)	4.5 (5)
5th Percentile	24.0	0.8	11.2	9.8	2.1	31.9	-11.1	32.9	4.0
1st Quartile	19.2	-8.5	-1.5	0.7	1.4	25.0	-13.9	26.7	2.5
Median	16.7	-11.2	-5.8	-0.3	0.6	22.1	-15.7	24.4	1.3
3rd Quartile	15.2	-13.9	-6.9	-2.2	-1.2	19.0	-17.8	23.0	-0.9
95th Percentile	13.4	-19.1	-13.8	-4.1	-2.7	17.5	-21.7	21.4	-6.5

### 3 Year Rolling Percentile Ranking vs. IM International Large Cap Core Equity (MF)



### 3 Year Rolling Under/Over Performance vs. MSCI AC World ex USA (Net)

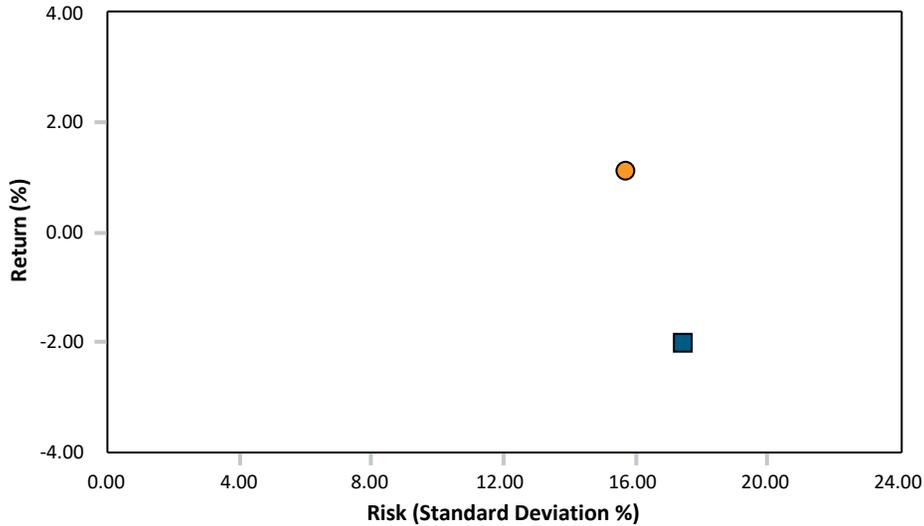


# Manager Evaluation

## Earnest Partners Intl Equity

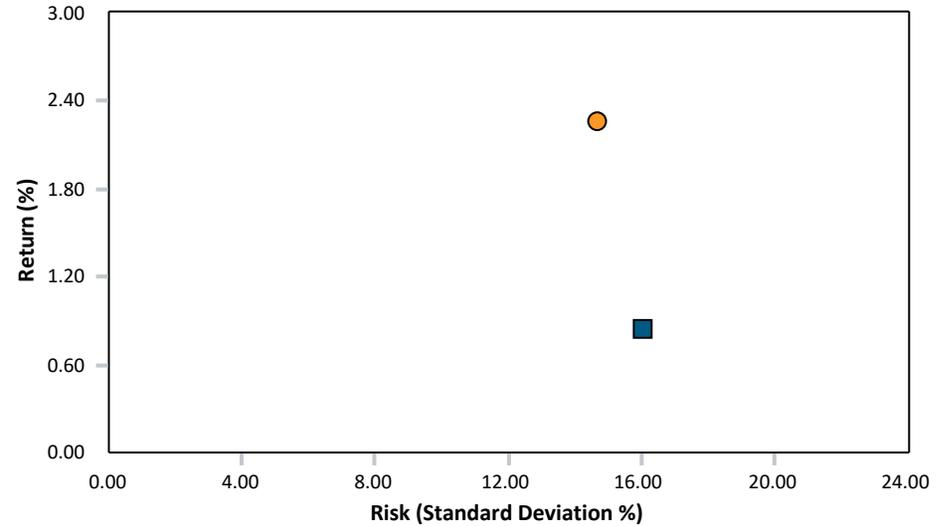
As of June 30, 2020

### 3 Year Risk and Return



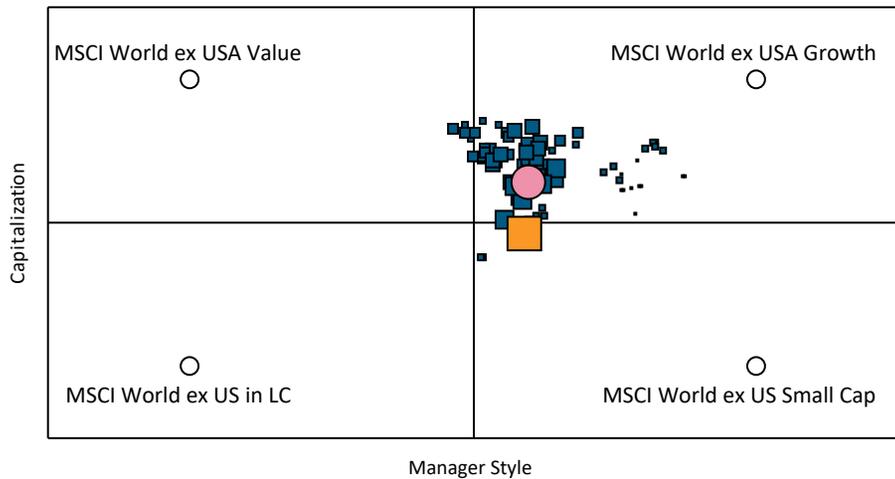
■ Earnest Partners Intl Equity    ● MSCI AC World ex USA (Net)

### 5 Year Risk and Return



■ Earnest Partners Intl Equity    ● MSCI AC World ex USA (Net)

### Style Map - 3 Years



■ Style History    ■ Jun-2020    ● Average Style Exposure

### MPT Statistics vs. MSCI AC World ex USA (Net)

	3 Years	5 Years
Return	-2.0	0.8
Standard Deviation	17.4	16.1
vs. MSCI AC World ex USA (Net)		
Alpha	-3.0	-1.4
Beta	1.1	1.1
R-Squared	1.0	1.0
Consistency	41.7	51.7
Up Market Capture	94.9	98.3
Down Market Capture	108.5	104.4
vs. 90 Day U.S. Treasury Bill		
Sharpe Ratio	-0.1	0.1

Mutual fund data sourced from Lipper Analytical Services.

## Manager Evaluation

### EARNEST Partners - International Pooled Group Trust

As of June 30, 2020

#### Portfolio Information

<b>Firm Name</b>	Earnest Partners	<b>Portfolio Manager</b>	Team based
<b>Product Name</b>	International Pooled Group Trust	<b>PM Tenure</b>	Average 20 Years
<b>Strategy Assets</b>	\$15.9 million	<b>Fund Style</b>	International ex-U.S. Equity
<b>Inception Date</b>	8/1/2008	<b>Style Benchmark</b>	MSCI ACWI ex-U.S. Index

#### Portfolio Investment Policy

Earnest Partners seeks to outperform the benchmark while controlling volatility and risk. Security selection is driven by the firm's proprietary screening tool - Return Pattern Recognition, fundamental analysis and risk management. The Fund typically holds up to 30% in Emerging Markets. The manager uses a statistical approach referred to as downside deviation to measure and constrain the likelihood of underperforming the assigned benchmark.

#### Largest Equity Holdings

<u>Stock</u>	<u>Portfolio Wt.</u>
1 Amadeus IT Group SA Class A	2.4%
2 Equinor ASA Sponsored ADR	2.4%
3 Royal Dutch Shell Plc Class A	2.4%
4 Ambev SA	2.4%
5 Roche Holding AG	2.3%
6 China Oilfield Services Limited Class H	2.2%
7 Taiwan Semiconductor Manufacturing Co., Ltd.	2.2%
8 Novartis AG Sponsored ADR	2.1%
9 ICON Plc	2.1%
10 Rio Tinto Plc Sponsored ADM	2.1%
	<b>22.4%</b>

#### Largest Contributors & Detractors / Country Weightings

<u>Top Contributors</u>	<u>Portfolio Wt.</u>	<u>Bottom Contributors</u>
		Data not available from manager.
<u>Country</u>	<u>Portfolio Wt.</u>	<u>Benchmark Wt.</u>
Americas (ex US)	7.3%	6.5%
Asia (ex Japan)	1.9%	7.6%
Europe (ex UK)	37.4%	31.7%
Japan	6.7%	16.5%
Middle East/Africa	3.3%	0.4%
United Kingdom	10.4%	8.8%
Emerging Markets	32.9%	28.5%

#### Sector Weightings

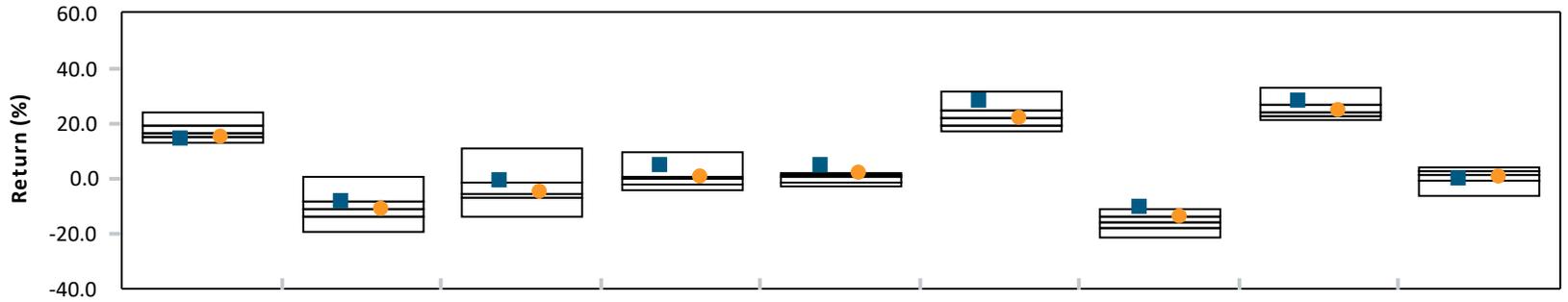
<u>Sector</u>	<u>Port. Wt.</u>	<u>Bmk Wt.</u>	<u>Sector</u>	<u>Port. Wt.</u>	<u>Bmk Wt.</u>
Communication Services	1.2%	7.6%	Industrials	5.2%	11.4%
Consumer Discretionary	15.1%	12.6%	Information Technology	17.2%	11.0%
Consumer Staples	8.9%	10.0%	Materials	8.0%	7.6%
Energy	10.2%	4.8%	Real Estate	1.6%	2.8%
Financials	19.7%	18.1%	Utilities	0.0%	3.5%
Health Care	13.0%	10.7%			

# Manager Evaluation

## MFS Instl International Equity Fund

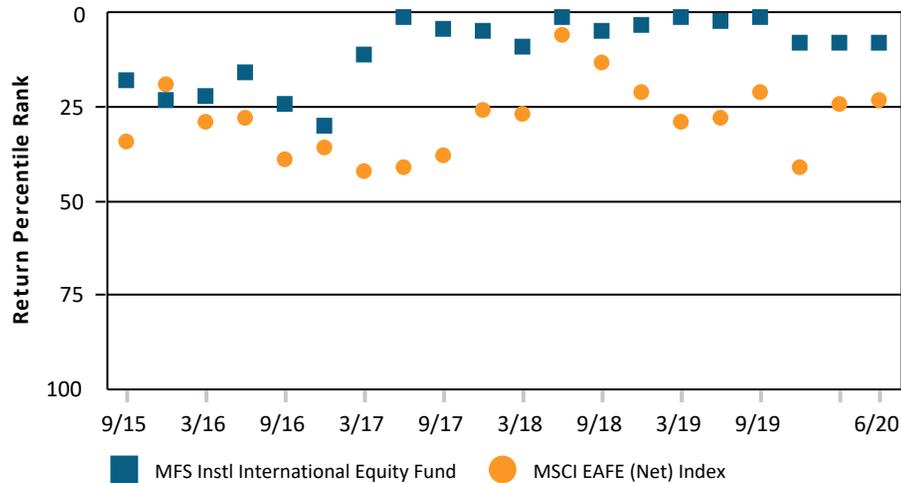
As of June 30, 2020

### Peer Group Analysis vs. IM International Large Cap Core Equity (MF)

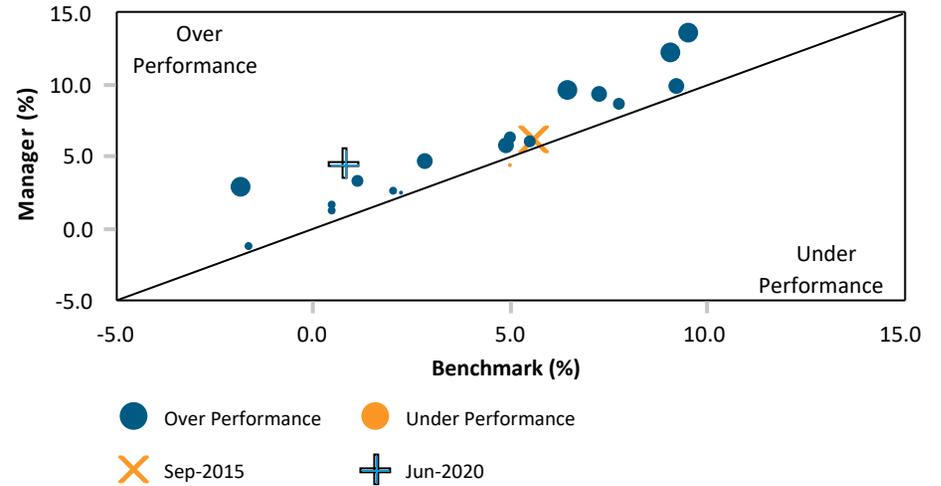


	QTR	YTD	1 Year	3 Years	5 Years	2019	2018	2017	2016
■ MFS Instl International Equity Fund	14.7 (90)	-8.1 (16)	-0.7 (18)	4.6 (8)	4.8 (1)	28.4 (10)	-10.7 (5)	28.0 (12)	0.3 (61)
● MSCI EAFE (Net) Index	14.9 (89)	-11.3 (52)	-5.1 (46)	0.8 (23)	2.1 (7)	22.0 (52)	-13.8 (25)	25.0 (38)	1.0 (53)
5th Percentile	24.0	0.8	11.2	9.8	2.1	31.9	-11.1	32.9	4.0
1st Quartile	19.2	-8.5	-1.5	0.7	1.4	25.0	-13.9	26.7	2.5
Median	16.7	-11.2	-5.8	-0.3	0.6	22.1	-15.7	24.4	1.3
3rd Quartile	15.2	-13.9	-6.9	-2.2	-1.2	19.0	-17.8	23.0	-0.9
95th Percentile	13.4	-19.1	-13.8	-4.1	-2.7	17.5	-21.7	21.4	-6.5

### 3 Year Rolling Percentile Ranking vs. IM International Large Cap Core Equity (MF)



### 3 Year Rolling Under/Over Performance vs. MSCI EAFE (Net) Index



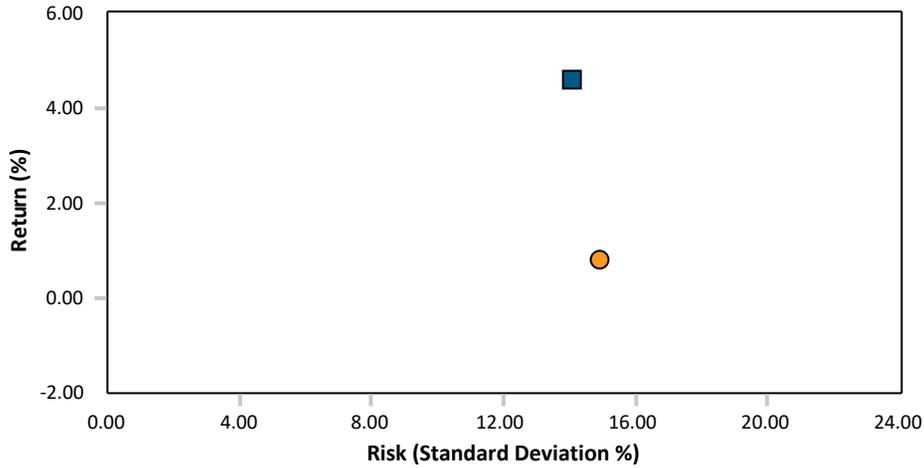
Mutual fund data sourced from Lipper Analytical Services.

# Manager Evaluation

## MFS Instl International Equity Fund

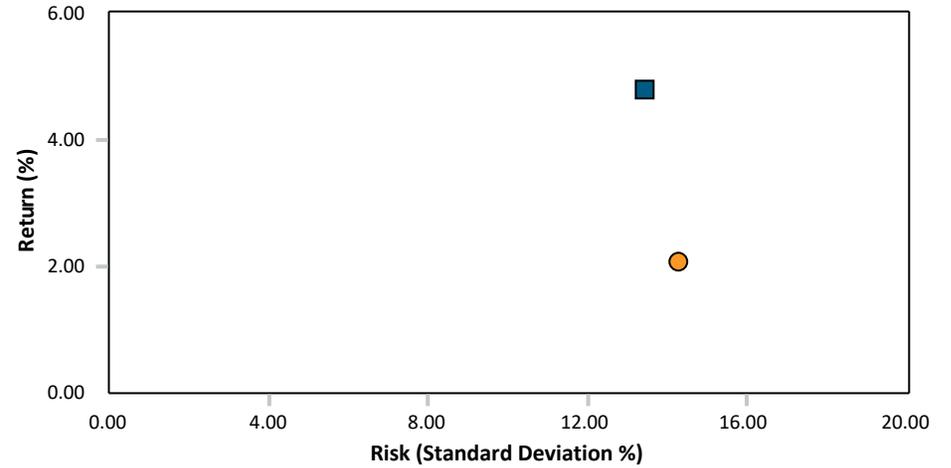
As of June 30, 2020

### 3 Year Risk and Return



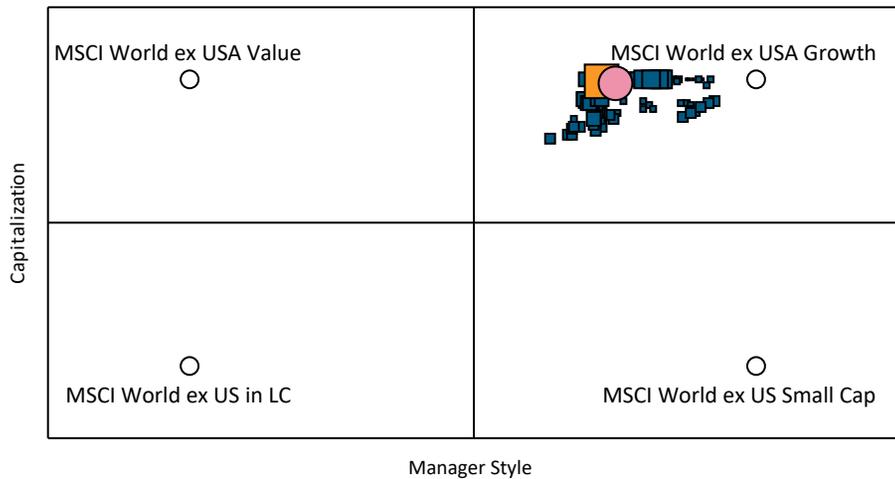
- MFS Instl International Equity Fund
- MSCI EAFE (Net) Index

### 5 Year Risk and Return



- MFS Instl International Equity Fund
- MSCI EAFE (Net) Index

### Style Map - 3 Years



- Style History
- Jun-2020
- Average Style Exposure

### MPT Statistics vs. MSCI EAFE (Net) Index

	3 Years	5 Years
Return	4.6	4.8
Standard Deviation	14.1	13.5
vs. MSCI EAFE (Net) Index		
Alpha	3.8	2.8
Beta	0.9	0.9
R-Squared	1.0	1.0
Consistency	55.6	53.3
Up Market Capture	101.8	100.3
Down Market Capture	83.6	86.5
vs. 90 Day U.S. Treasury Bill		
Sharpe Ratio	0.3	0.3

Mutual fund data sourced from Lipper Analytical Services.

# Manager Evaluation

## MFS Instl International Equity Fund

Report Date June 30, 2020

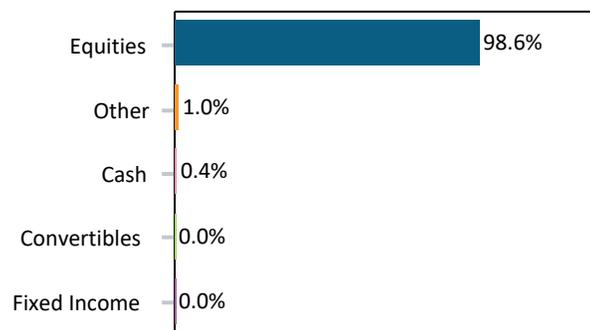
### Mutual Fund Information

Fund Name :	MFS Institutional Trust: MFS Institutional International Equity Fund	Portfolio Assets :	\$10,191 Million
Fund Family :	MFS Investment Management	Fund Assets :	\$10,191 Million
Ticker :	MIEIX	Portfolio Manager :	Ling/Benzinho
Inception Date :	01/31/1996	PM Tenure :	2009--2016
Portfolio Turnover :	12%		

### Fund Investment Policy

The Fund seeks capital appreciation. The Fund normally invests at least 80% of its net assets in non-U.S. equity securities. The Fund uses a bottom-up investment approach. Stocks are selected primarily based on fundamental analysis of issuers and their potential.

### Asset Allocation as of 05/31/20



### Top 10 Securities as of 05/31/20

Nestle SA ORD	4.3 %
Roche Holding AG Par	3.9 %
Schneider Electric SE ORD	3.2 %
L'Air Liquide Societe Anonyme pour	2.9 %
Hoya Corp ORD	2.8 %
SAP SE ORD	2.7 %
AIA Group Ltd ORD	2.5 %
Terumo Corp ORD	2.4 %
Olympus Corp ORD	2.3 %
Experian PLC ORD	2.3 %

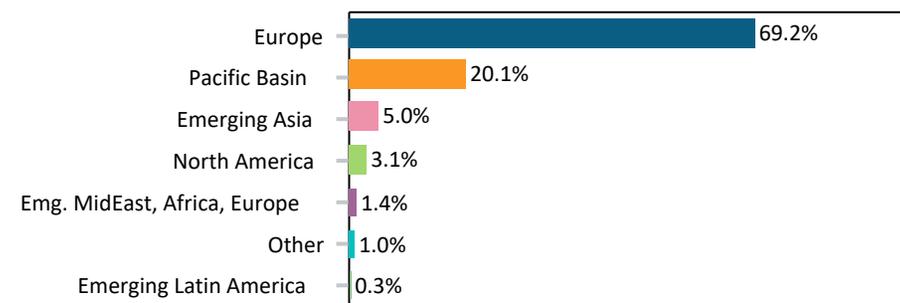
### Top 5 Countries as of 05/31/20

France	17.7 %
Japan	16.7 %
Switzerland	15.3 %
United Kingdom	10.9 %
Germany	9.4 %

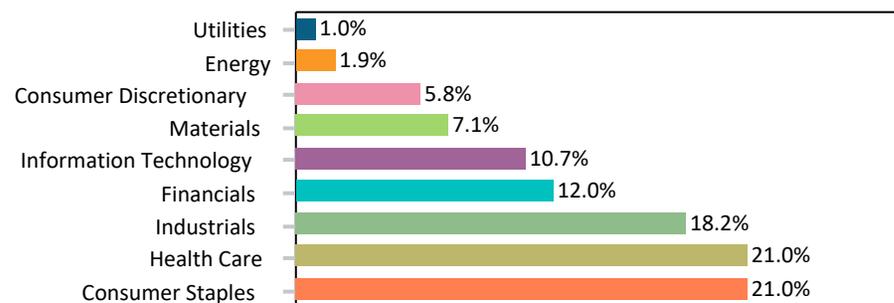
### Equity Characteristics as of 05/31/20

Total Securities	81
Avg. Market Cap	\$82,043 Million
P/E	25.6
P/B	4.5
Div. Yield	2.5%
Annual EPS	6.0

### Region Allocation as of 05/31/20



### Sector Allocation as of 05/31/20



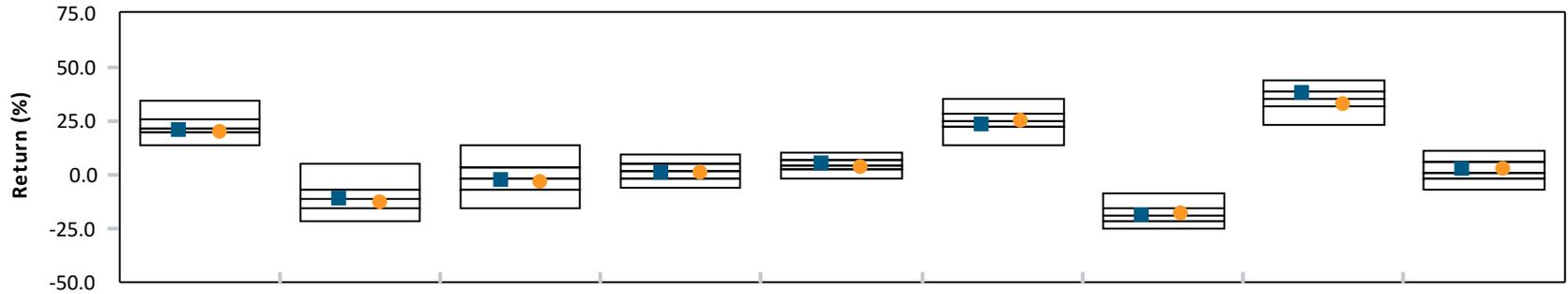
Mutual fund data sourced from Lipper Analytical Services.

# Manager Evaluation

## Acadian Intl Small Cap Fund

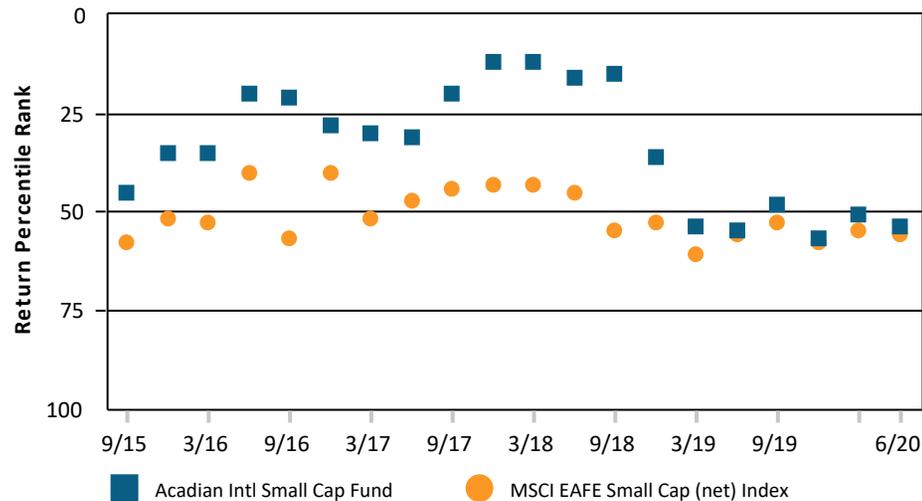
As of June 30, 2020

### Peer Group Analysis vs. IM International Small Cap Equity (SA+CF+MF)

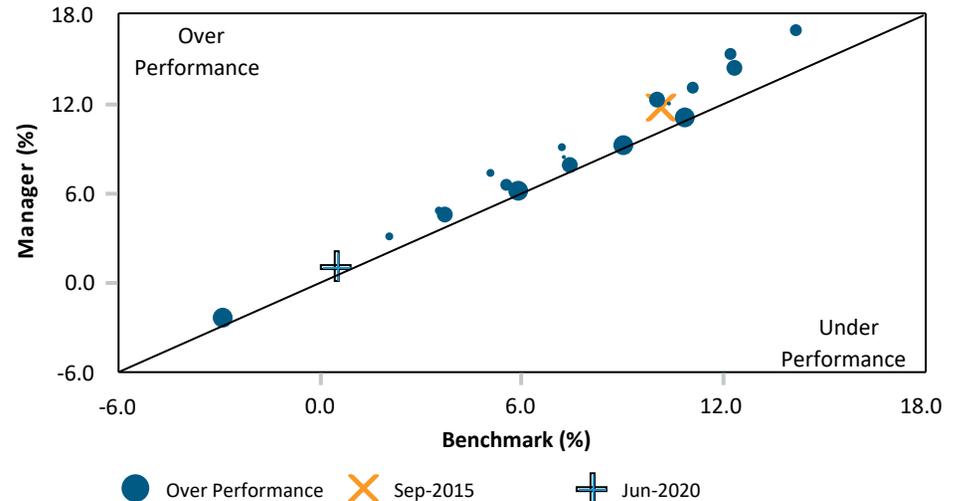


	QTR	YTD	1 Year	3 Years	5 Years	2019	2018	2017	2016
■ Acadian Intl Small Cap Fund	20.5 (65)	-10.8 (49)	-2.5 (54)	1.0 (54)	5.1 (39)	22.9 (67)	-19.2 (58)	37.9 (30)	2.7 (38)
● MSCI EAFE Small Cap (net) Index	19.9 (68)	-13.1 (63)	-3.5 (55)	0.5 (56)	3.8 (58)	25.0 (51)	-17.9 (44)	33.0 (73)	2.2 (41)
5th Percentile	34.4	5.2	13.6	9.5	10.5	35.1	-8.2	43.7	11.2
1st Quartile	25.6	-6.6	3.6	4.9	6.5	28.4	-15.2	38.4	6.3
Median	21.9	-11.4	-2.0	1.5	4.1	25.0	-18.6	35.1	0.9
3rd Quartile	19.5	-15.3	-7.2	-1.3	2.3	22.2	-21.7	32.2	-1.8
95th Percentile	14.0	-21.3	-15.3	-5.8	-1.6	14.0	-24.8	23.1	-6.6

### 3 Year Rolling Percentile Ranking vs. IM International Small Cap Equity (SA+CF+MF)



### 3 Year Rolling Under/Over Performance vs. MSCI EAFE Small Cap (net) Index

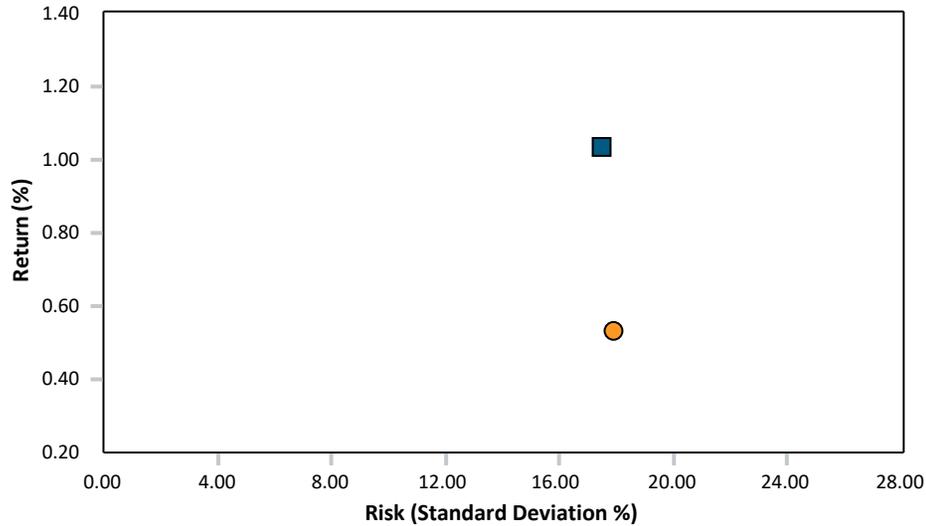


# Manager Evaluation

## Acadian Intl Small Cap Fund

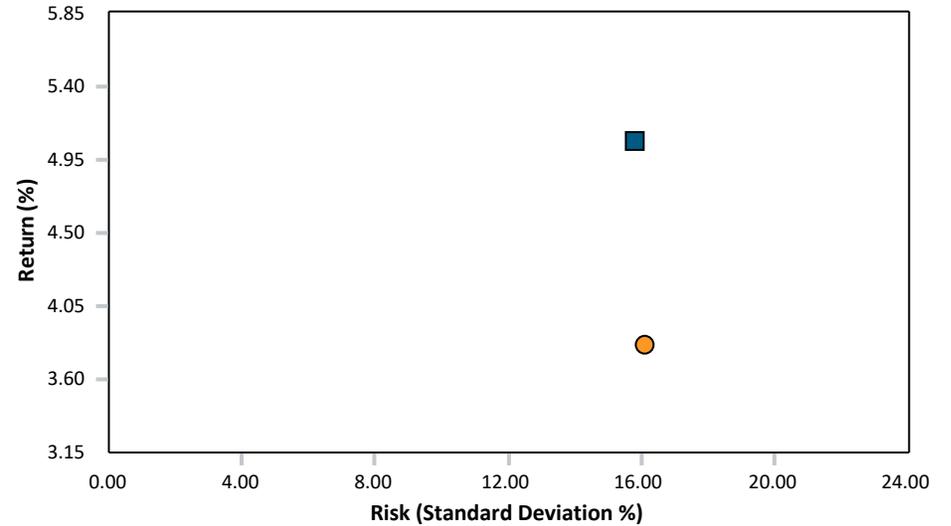
As of June 30, 2020

### 3 Year Risk and Return



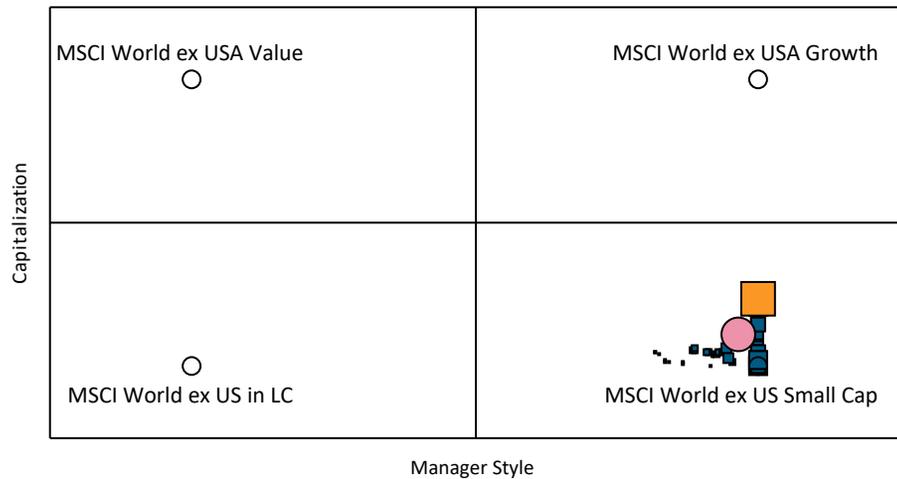
■ Acadian Intl Small Cap Fund      ● MSCI EAFE Small Cap (net) Index

### 5 Year Risk and Return



■ Acadian Intl Small Cap Fund      ● MSCI EAFE Small Cap (net) Index

### Style Map - 3 Years



■ Style History      ■ Jun-2020      ● Average Style Exposure

### MPT Statistics vs. MSCI EAFE Small Cap (net) Index

	3 Years	5 Years
Return	1.0	5.1
Standard Deviation	17.5	15.8
vs. MSCI EAFE Small Cap (net) Index		
Alpha	0.5	1.3
Beta	1.0	1.0
R-Squared	1.0	1.0
Consistency	50.0	56.7
Up Market Capture	97.0	101.1
Down Market Capture	94.8	95.2
vs. 90 Day U.S. Treasury Bill		
Sharpe Ratio	0.0	0.3

Mutual fund data sourced from Lipper Analytical Services.

## Manager Evaluation

Acadian Asset Management - Acadian International Small Cap Fund  
As of 06/30/2020

### Portfolio Information

<b>Firm Name</b>	Acadian Asset Management	<b>Portfolio Manager</b>	Team based
<b>Product Name</b>	Acadian International Small Cap Fund	<b>PM Tenure</b>	Average 14 Years
<b>Strategy Assets</b>	\$4.7 million	<b>Fund Style</b>	International Small Cap Equity
<b>Inception Date</b>	2/1/2011	<b>Style Benchmark</b>	MSCI EAFE Small Cap Index

### Portfolio Investment Policy

Acadian uses a quantitative investment process, aimed at isolating companies that are poised to benefit from value, growth, quality and technical factors. The firm uses the model to predict the expected relative performance of each investment in its universe. Portfolio optimization is used to construct a balanced, risk-controlled portfolio within 4-7% tracking error, and +/- 5% industry/country constraints. The fund may hold up to 20% of assets in securities located in Emerging Markets.

Largest Equity Holdings		Largest Contributors & Detractors / Country Weightings			
<u>Stock</u>	<u>Active Weight</u>	<u>Top Contributors</u>	<u>Portfolio Wt.</u>	<u>Bottom Contributors</u>	<u>Portfolio Wt.</u>
1. ASM INTERNATIONAL NV	1.7%	ASM INTERNATIONAL NV	1.6%	ISRAEL DISCOUNT BANK LTD	1.4%
2. OZ MINERALS LTD	1.3%	OZ MINERALS LTD	1.2%	AFTERPAY LTD	0.0%
3. NET ONE SYSTEMS CO LTD	1.3%	NET ONE SYSTEMS CO LTD	1.4%	ARGENX SE	0.0%
4. ICON PLC	1.4%	GAMES WORKSHOP GROUP PL	0.7%	MIZRAHI TEFAHOT BANK LTD	0.6%
5. TIS INC	1.2%	NEC NETWORKS & SYSTEM INT	1.0%	TOKEN CORP	0.4%
6. ISRAEL DISCOUNT BANK LTD	1.2%				
7. NEC NETWORKS & SYSTEM INTEGRA	1.1%		<u>Portfolio Wt.</u>	<u>Benchmark Wt.</u>	
8. GN STORE NORD AS	1.0%	Europe ex UK	36.9%	38.7%	
9. TECAN GROUP AG	0.8%	UK	10.4%	16.5%	
10. INFOCOM CORP	0.9%	Asia ex Japan	12.8%	13.6%	
	11.9%	Japan	34.2%	31.2%	
		North America	3.7%	0.0%	
		Emerging Markets	0.3%	0.0%	

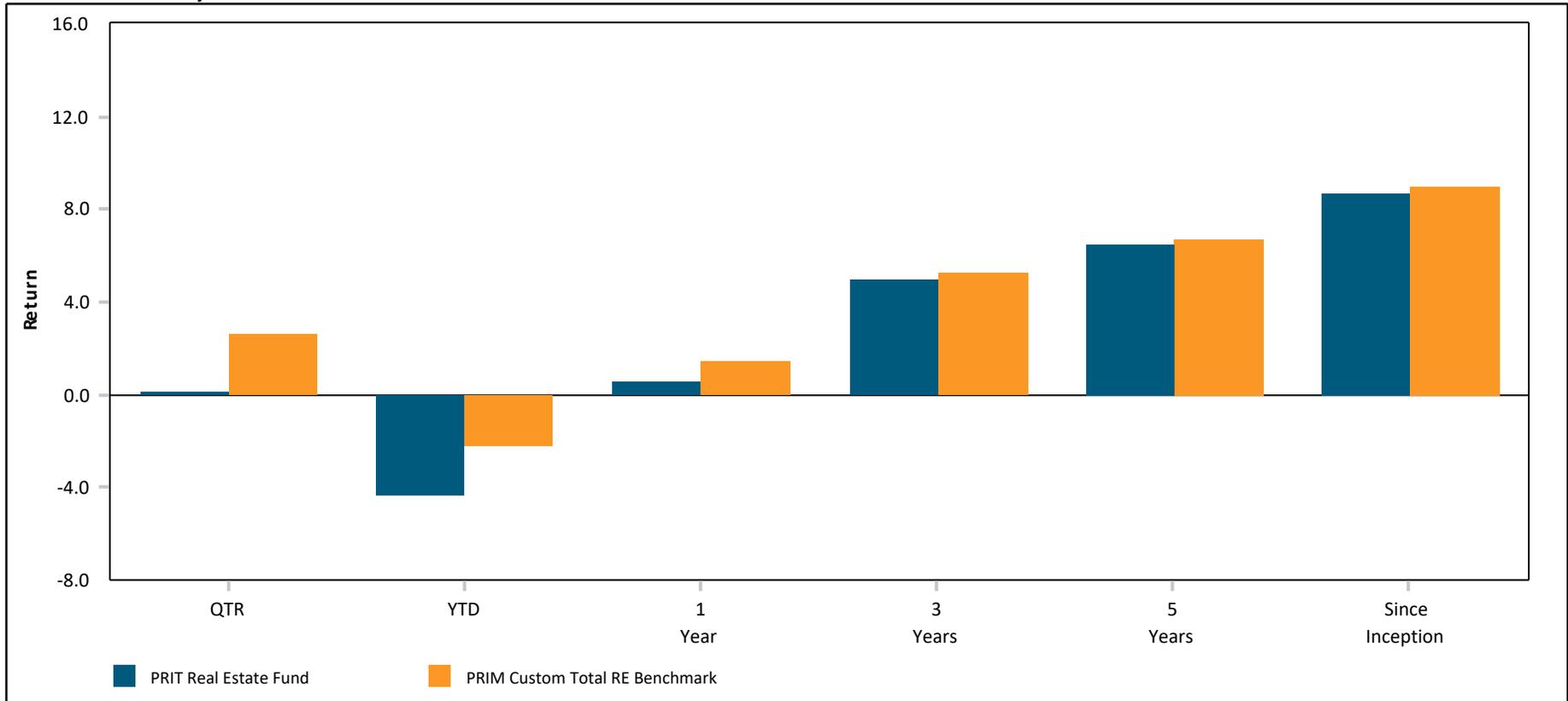
Sector Weightings					
<u>Sector</u>	<u>Port. Wt.</u>	<u>Bmk Wt.</u>	<u>Sector</u>	<u>Port. Wt.</u>	<u>Bmk Wt.</u>
Consumer Discretionary	13.3%	12.5%	Industrials	14.2%	21.6%
Consumer Staples	1.4%	6.8%	Information Technology	19.2%	11.1%
Energy	0.5%	1.7%	Materials	9.2%	8.2%
Financials	11.7%	10.5%	Communication Services	4.2%	4.5%
Real Estate	7.3%	12.4%	Utilities	1.9%	2.8%
Health Care	15.6%	8.0%			

# Manager Evaluation

PRIT Real Estate Fund

As of June 30, 2020

## Performance Analysis



	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>PRIT Real Estate Fund</b>	<b>0.1</b>	<b>-4.4</b>	<b>0.6</b>	<b>4.9</b>	<b>6.5</b>	<b>8.7</b>	<b>06/01/2011</b>
<i>PRIM Custom Total RE Benchmark</i>	2.6	-2.2	1.4	5.2	6.7	8.9	
Difference	-2.5	-2.2	-0.8	-0.3	-0.2	-0.2	

# Manager Evaluation

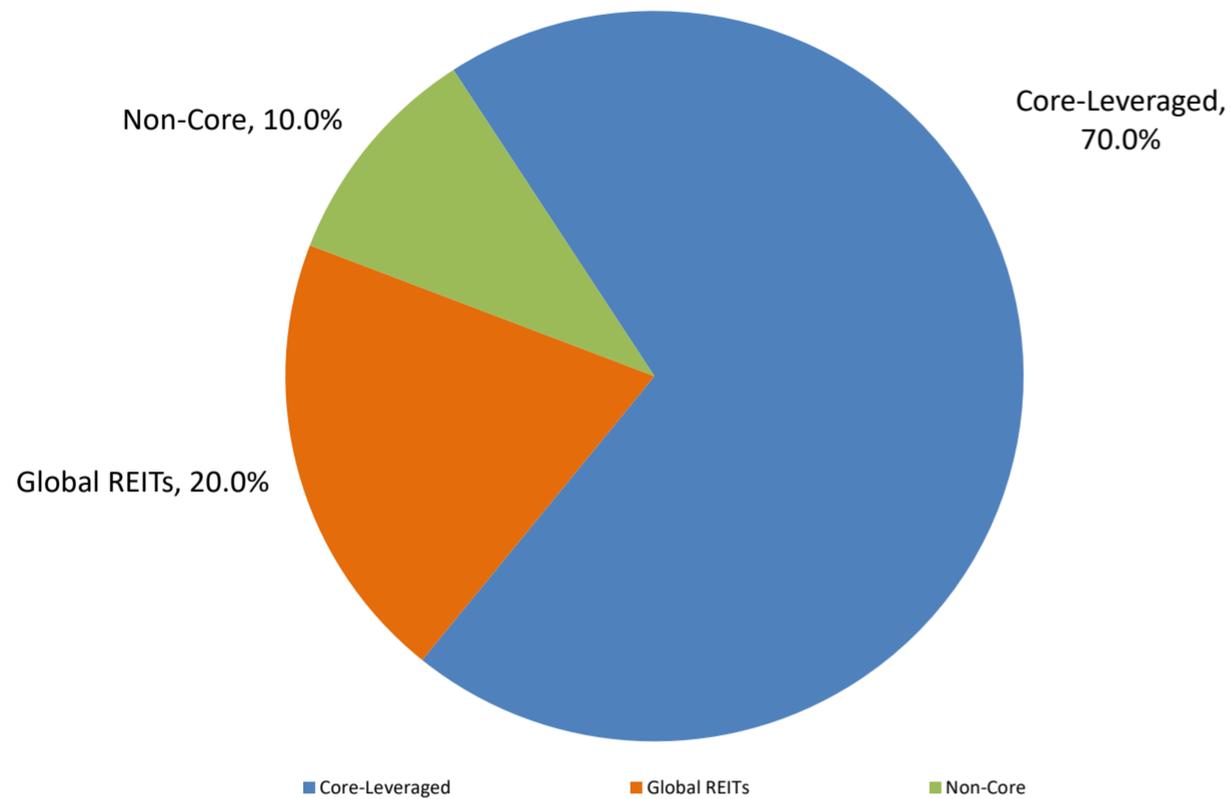
## PRIT Real Estate Account

### Portfolio Information

Fund Style: Real Estate - combined

PRIT Real Estate as percentage of PRIT Fund: 9.2%

### Target Allocations



### Fund Investment Policy

The PRIT Real Estate Account provides diversified exposure to the commercial real estate market through exposure to physical assets and public securities. Approximately 70% of the portfolio is invested in separate account core portfolios with Invesco, LaSalle, and AEW and PRIM has been building a portfolio of direct real estate investments. The Core portfolio includes portfolio debt of approximately \$1 billion. The portfolio also includes dedicated allocations to Global REIT portfolios managed by CenterSquare, Presima, and Brookfield. Non-Core portfolio investments of approximately \$300 million include allocations with Carlyle Group and DivcoWest. Townsend serves as Real Estate Consultant to the PRIM Board.

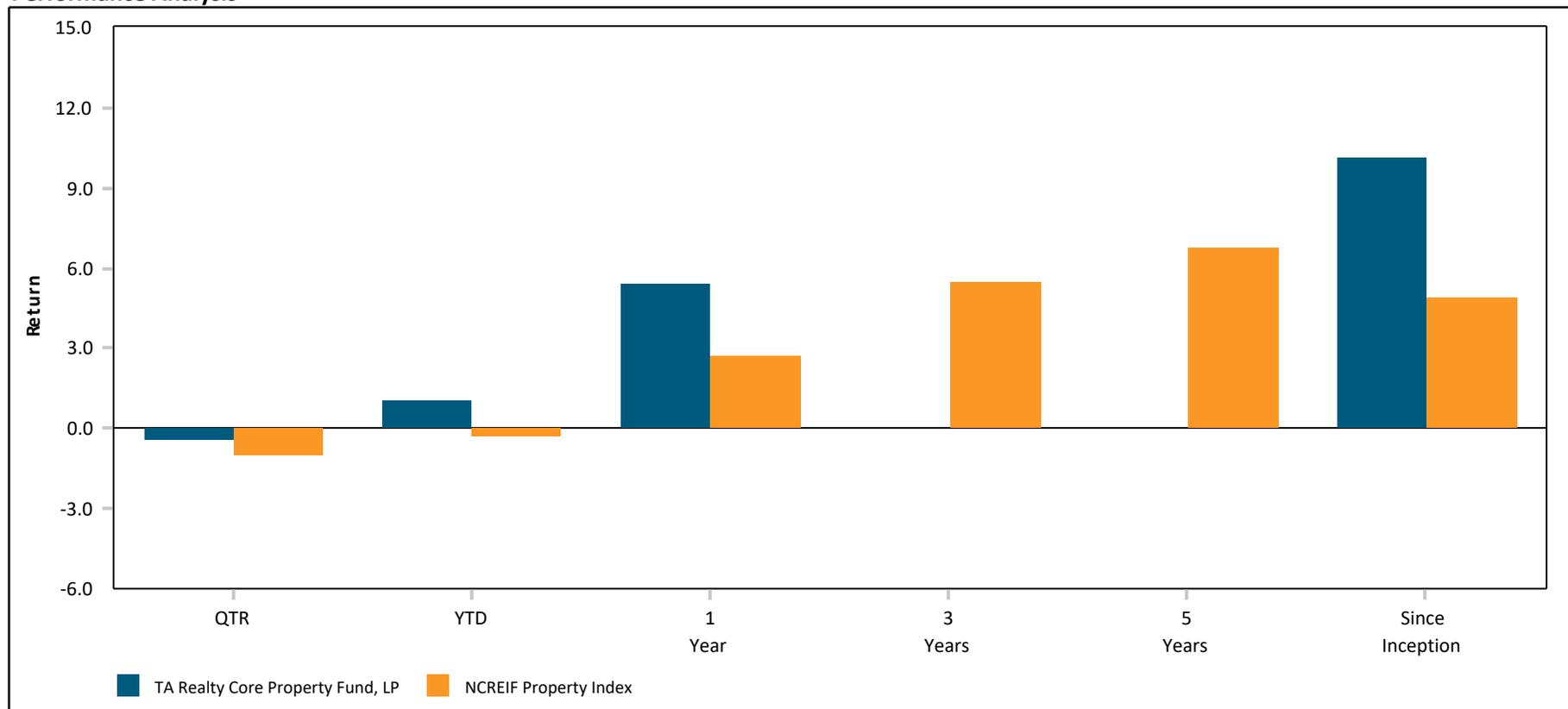
<u>Active Core</u>	<u>Global REITs</u>	<u>Non-Core</u>
Invesco, LaSalle	CenterSquare	Carlyle Group
AEW	Presima	DivcoWest
Direct(PRIM)	Brookfield	

# Manager Evaluation

TA Realty Core Property Fund, LP

As of June 30, 2020

## Performance Analysis



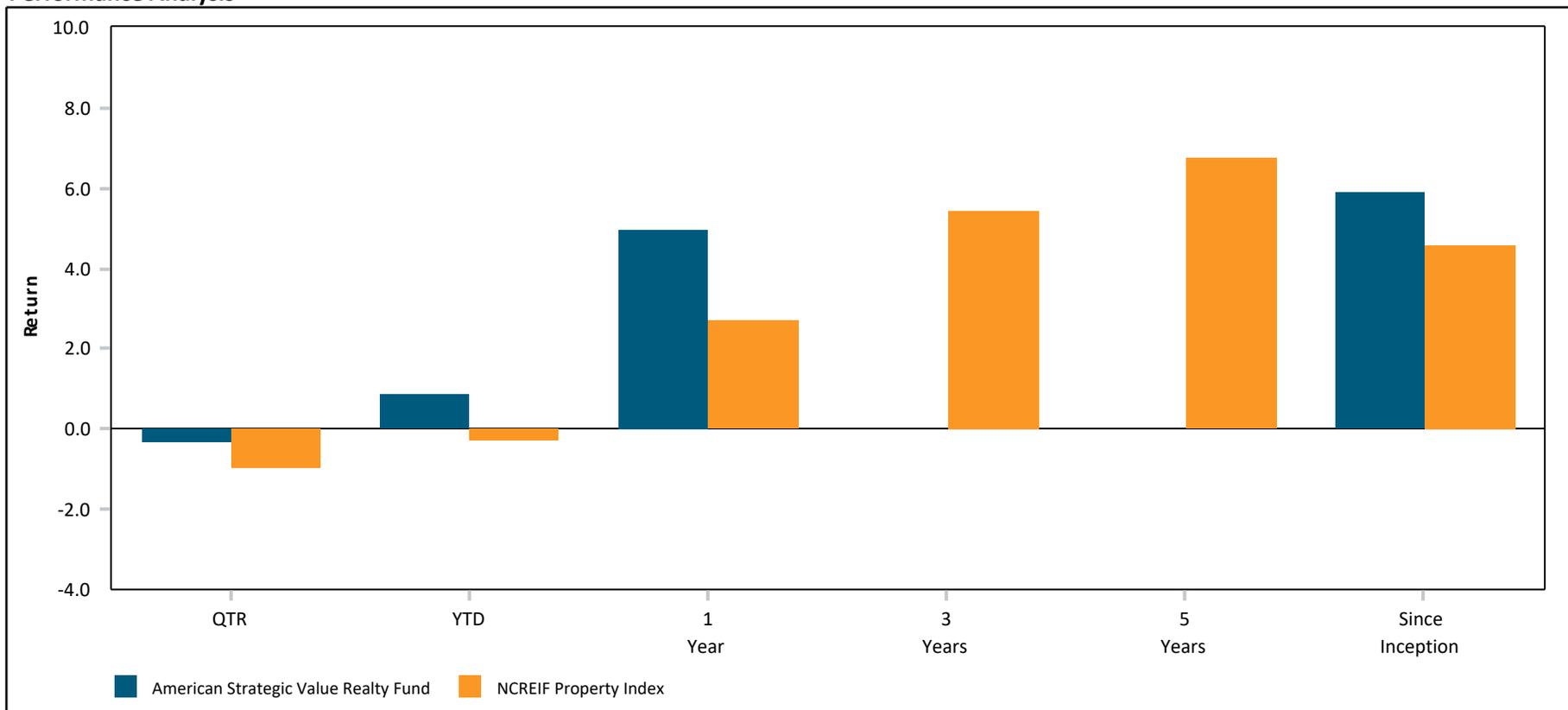
	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
TA Realty Core Property Fund, LP	-0.5	1.1	5.4	N/A	N/A	10.1	04/01/2018
NCREIF Property Index	-1.0	-0.3	2.7	5.4	6.8	4.9	
Difference	0.5	1.4	2.7	N/A	N/A	5.2	

# Manager Evaluation

American Strategic Value Realty Fund

As of June 30, 2020

## Performance Analysis



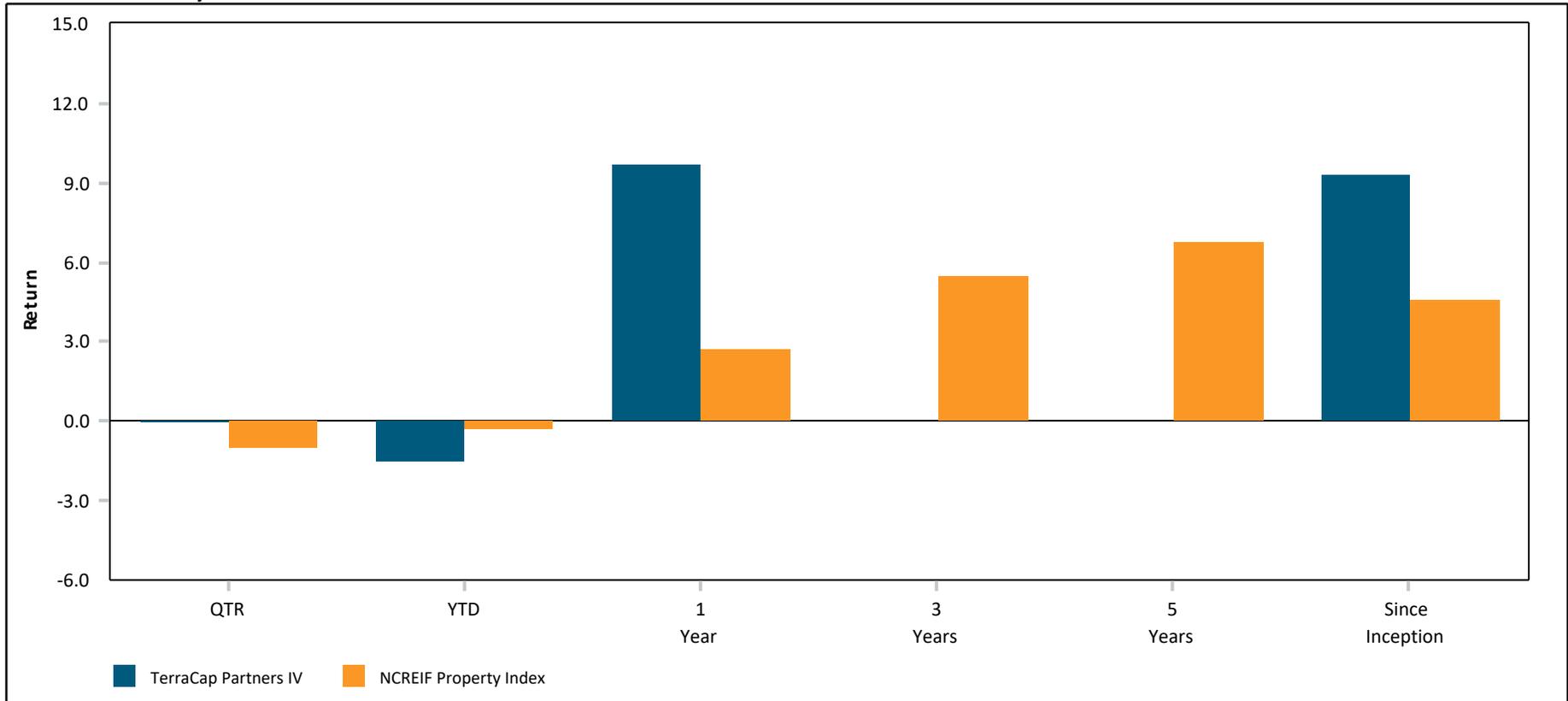
	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>American Strategic Value Realty Fund</b>	<b>-0.3</b>	<b>0.9</b>	<b>5.0</b>	<b>N/A</b>	<b>N/A</b>	<b>5.9</b>	<b>07/01/2018</b>
<i>NCREIF Property Index</i>	<i>-1.0</i>	<i>-0.3</i>	<i>2.7</i>	<i>5.4</i>	<i>6.8</i>	<i>4.6</i>	
Difference	0.7	1.2	2.3	N/A	N/A	1.3	

# Manager Evaluation

TerraCap Partners IV

As of June 30, 2020

## Performance Analysis



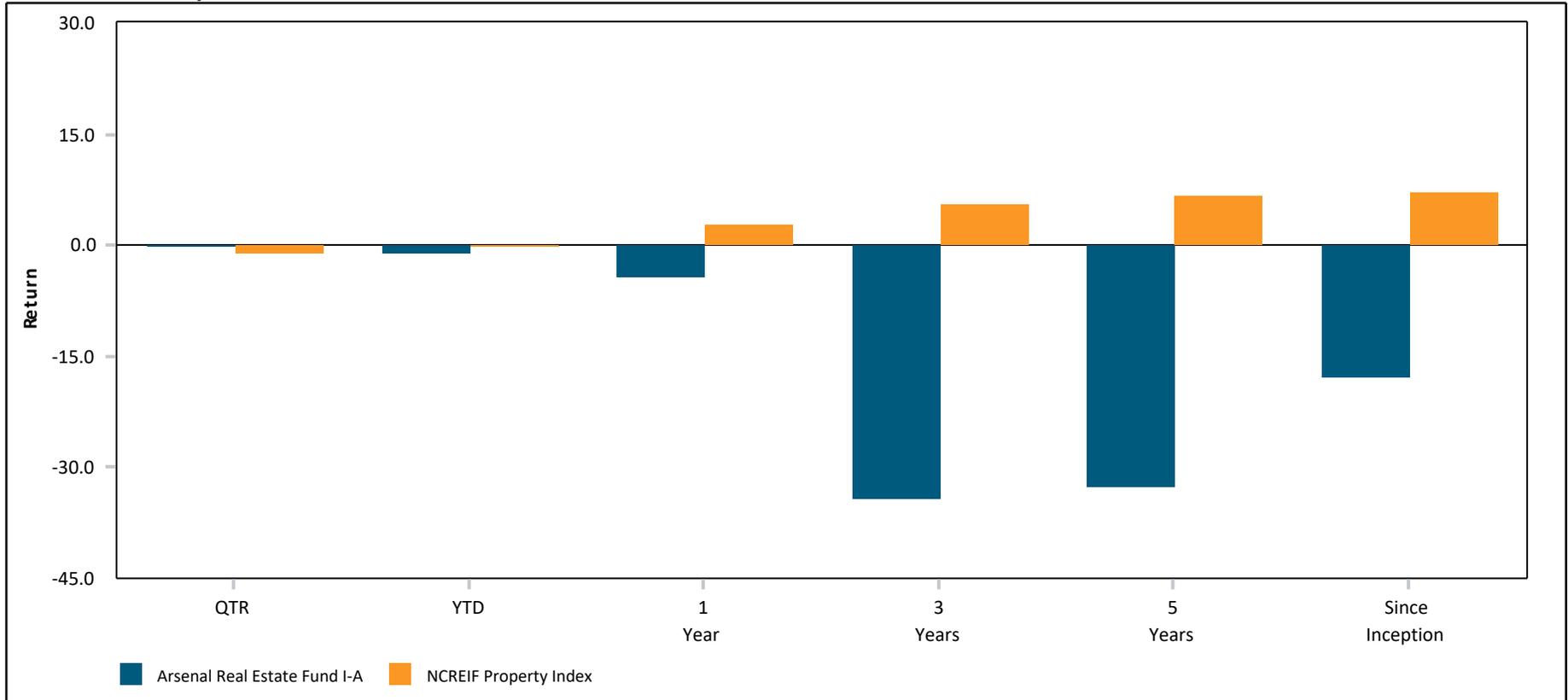
	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>TerraCap Partners IV</b>	<b>0.0</b>	<b>-1.5</b>	<b>9.7</b>	<b>N/A</b>	<b>N/A</b>	<b>9.3</b>	<b>07/01/2018</b>
<i>NCREIF Property Index</i>	<i>-1.0</i>	<i>-0.3</i>	<i>2.7</i>	<i>5.4</i>	<i>6.8</i>	<i>4.6</i>	
Difference	1.0	-1.2	7.0	N/A	N/A	4.7	

# Manager Evaluation

Arsenal Real Estate Fund I-A

As of June 30, 2020

## Performance Analysis



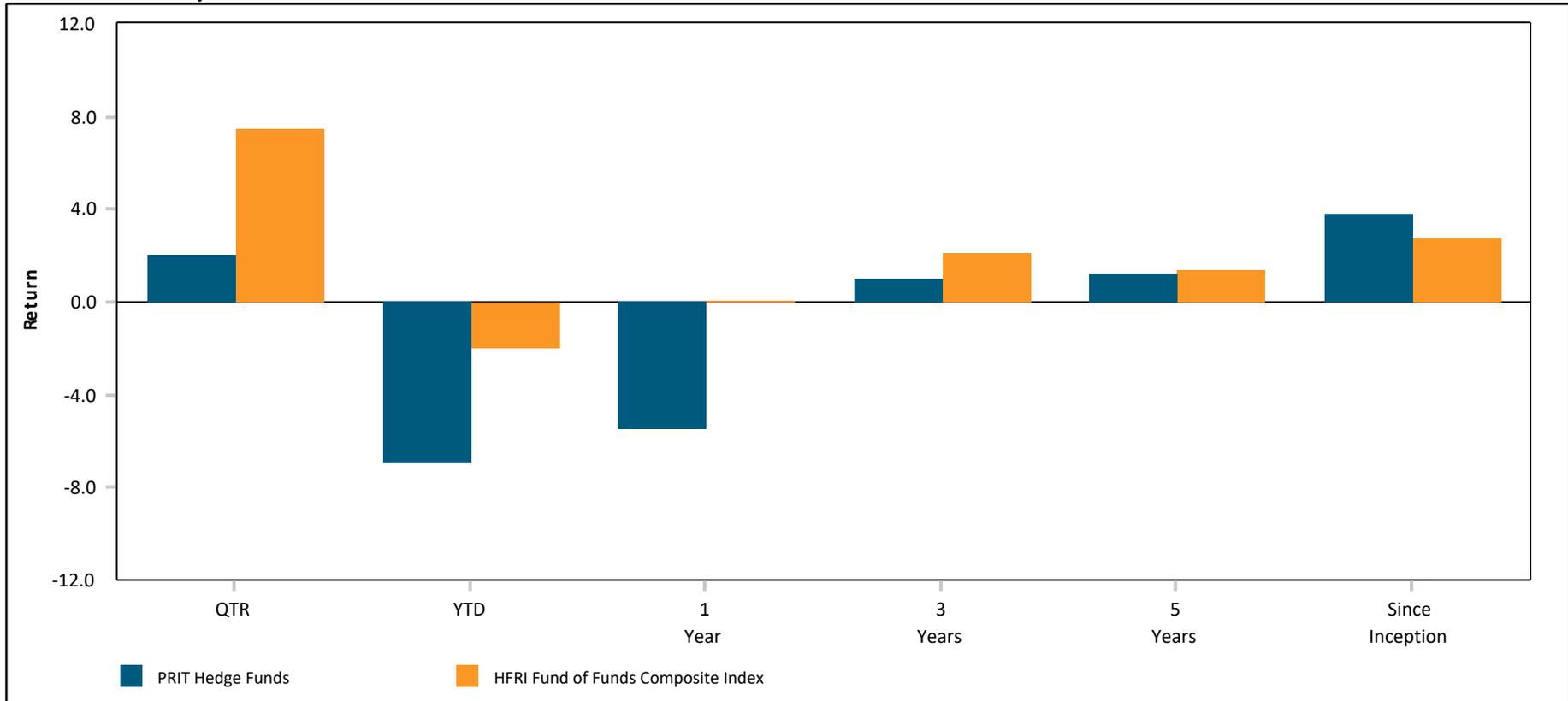
	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Arsenal Real Estate Fund I-A</b>	<b>0.0</b>	<b>-1.0</b>	<b>-4.2</b>	<b>-34.2</b>	<b>-32.7</b>	<b>-17.8</b>	<b>04/01/2006</b>
<i>NCREIF Property Index</i>	<i>-1.0</i>	<i>-0.3</i>	<i>2.7</i>	<i>5.4</i>	<i>6.8</i>	<i>7.1</i>	
Difference	1.0	-0.7	-6.9	-39.6	-39.5	-24.9	

# Manager Evaluation

PRIT Hedge Funds

As of June 30, 2020

## Performance Analysis



	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>PRIT Hedge Funds</b>	<b>2.0</b>	<b>-7.0</b>	<b>-5.5</b>	<b>1.0</b>	<b>1.3</b>	<b>3.8</b>	<b>07/01/2010</b>
<i>HFRI Fund of Funds Composite Index</i>	7.5	-2.0	0.1	2.1	1.4	2.8	
Difference	-5.5	-5.0	-5.6	-1.1	-0.1	1.0	

# Manager Evaluation

## PRIT Hedge Funds

### Portfolio Information

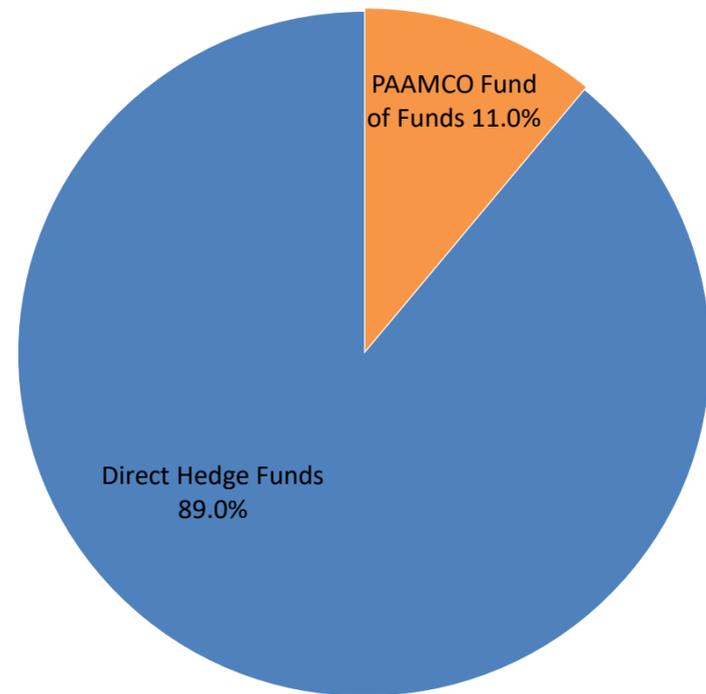
Fund Style: Direct and Fund of Funds

Inception Date: July 2004

PRIT Fund AUM: \$74.9 Bn as of 6/30/20

Hedge Funds as % of PRIT Fund: 9.7%

### Fund Allocations by Fund Type (Hedge Funds Sleeve)

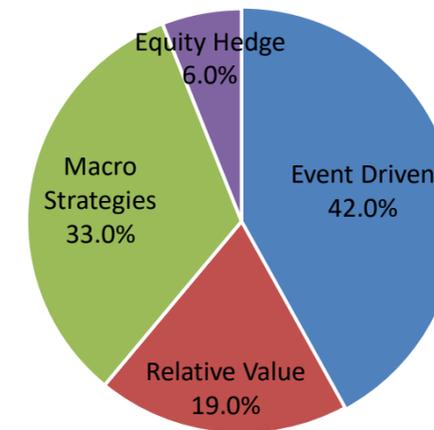


### Fund Investment Policy

The PRIT Hedge Funds allocation seeks to generate attractive long term absolute performance. This is accomplished via direct hedge funds and a fund of funds tasked with generating returns independent of the direction of the broader markets. The PRIM Board has transitioned the portfolio from a fund of funds structure to one that is predominantly direct hedge funds with a long-term target of 85% of assets in direct investments. The active fund of funds mandate with PAAMCO is focused on emerging managers. PRIM is currently working to ramp up committed assets to emerging manager direct hedge funds. Other initiatives include an alternative beta analysis framework, a hedge fund replication strategy and position based portfolio risk monitoring.

Effective February 2017, the PRIM Board approved plans to merge the Portfolio Completion Strategy allocation with the Hedge Funds allocation for a combined target a risk reducing "PCS" allocation of 13.0%. Other mandates in the allocation include risk premia strategies, real assets and an equity hedge overlay. Hedge Funds, as a sleeve which includes the fund of fund and direct allocations, will continue to be available for local systems to invest through segmentation.

### Strategic Allocations

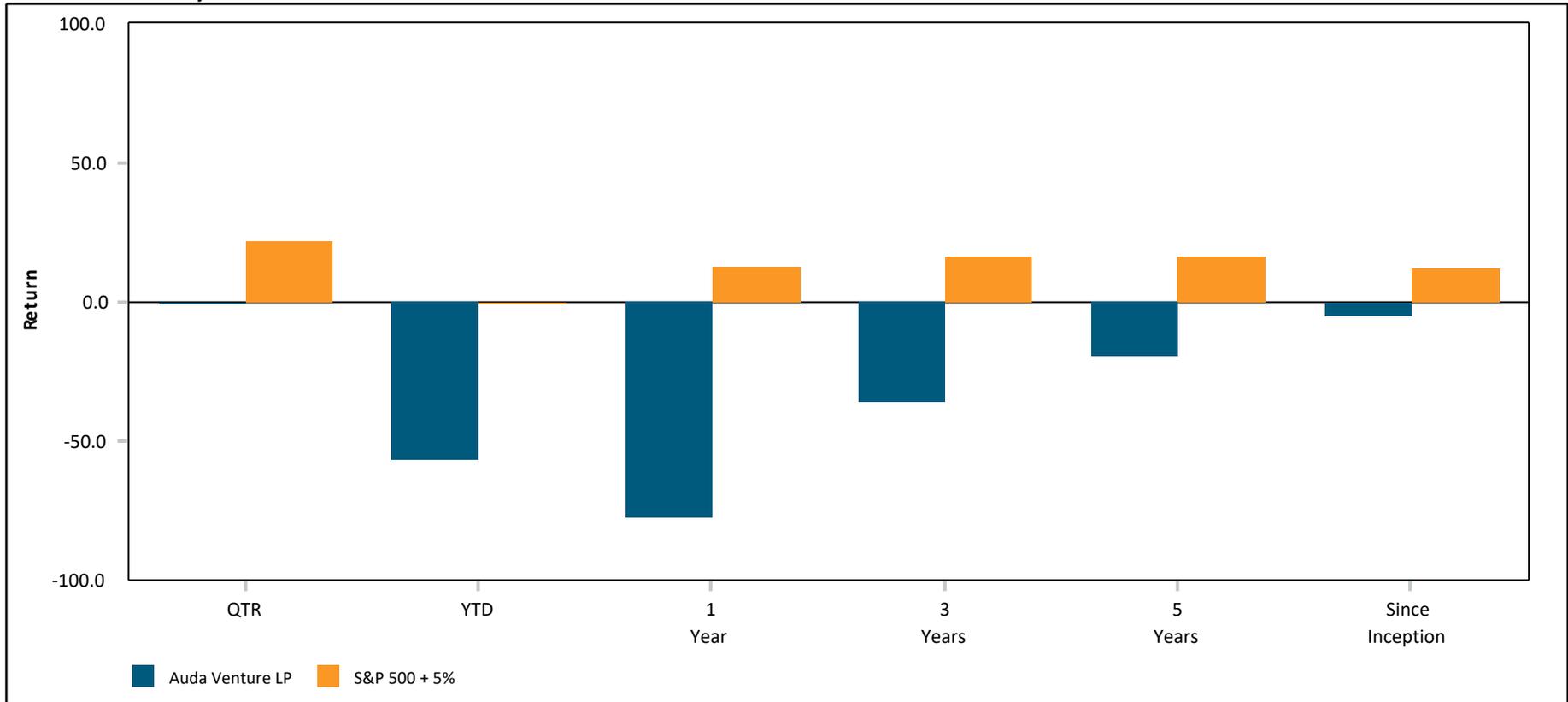


# Manager Evaluation

Auda Venture LP

As of June 30, 2020

## Performance Analysis



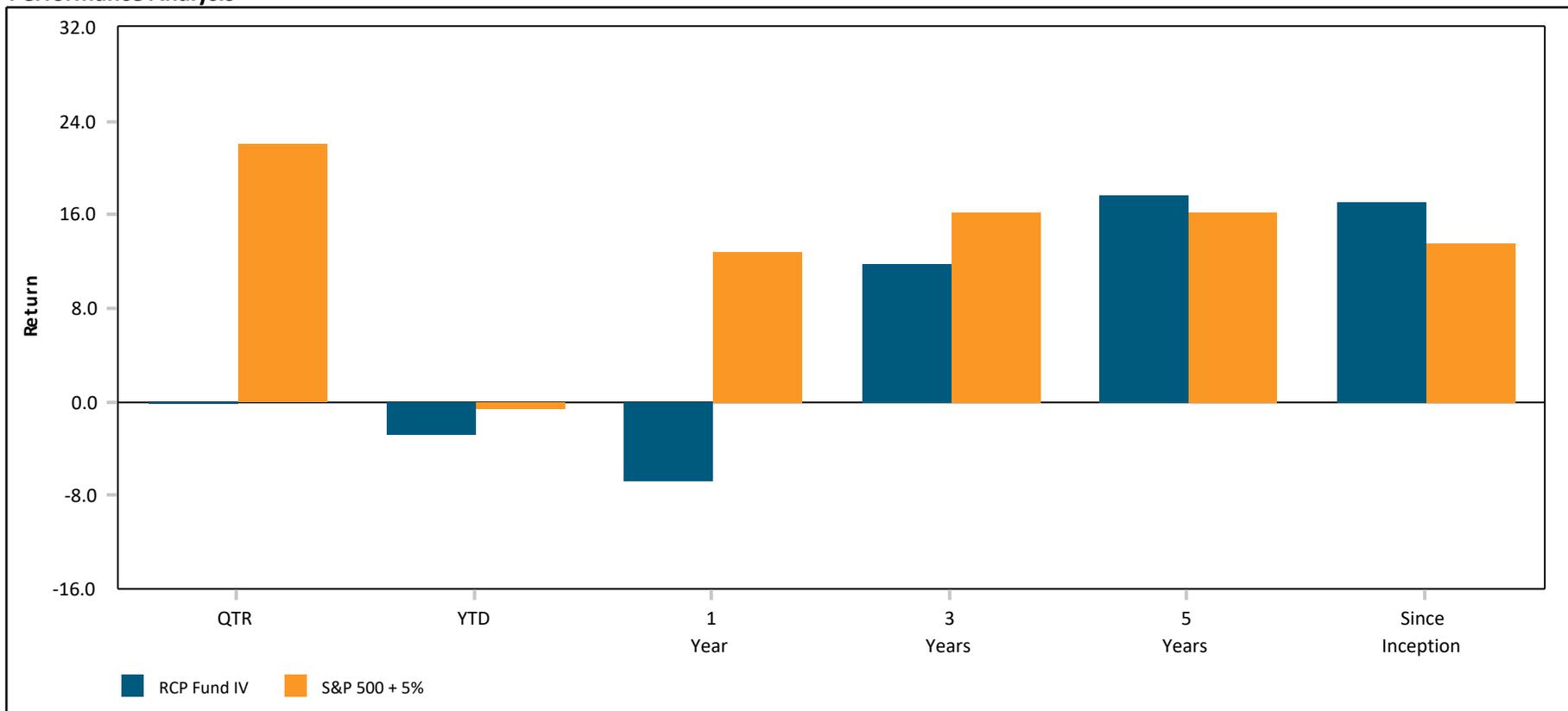
	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Auda Venture LP</b>	<b>0.0</b>	<b>-56.6</b>	<b>-77.3</b>	<b>-35.8</b>	<b>-19.3</b>	<b>-4.6</b>	<b>12/01/2000</b>
<i>S&amp;P 500 + 5%</i>	<i>22.0</i>	<i>-0.7</i>	<i>12.9</i>	<i>16.3</i>	<i>16.3</i>	<i>11.9</i>	
Difference	-22.0	-55.9	-90.2	-52.1	-35.6	-16.5	

# Manager Evaluation

RCP Fund IV

As of June 30, 2020

## Performance Analysis



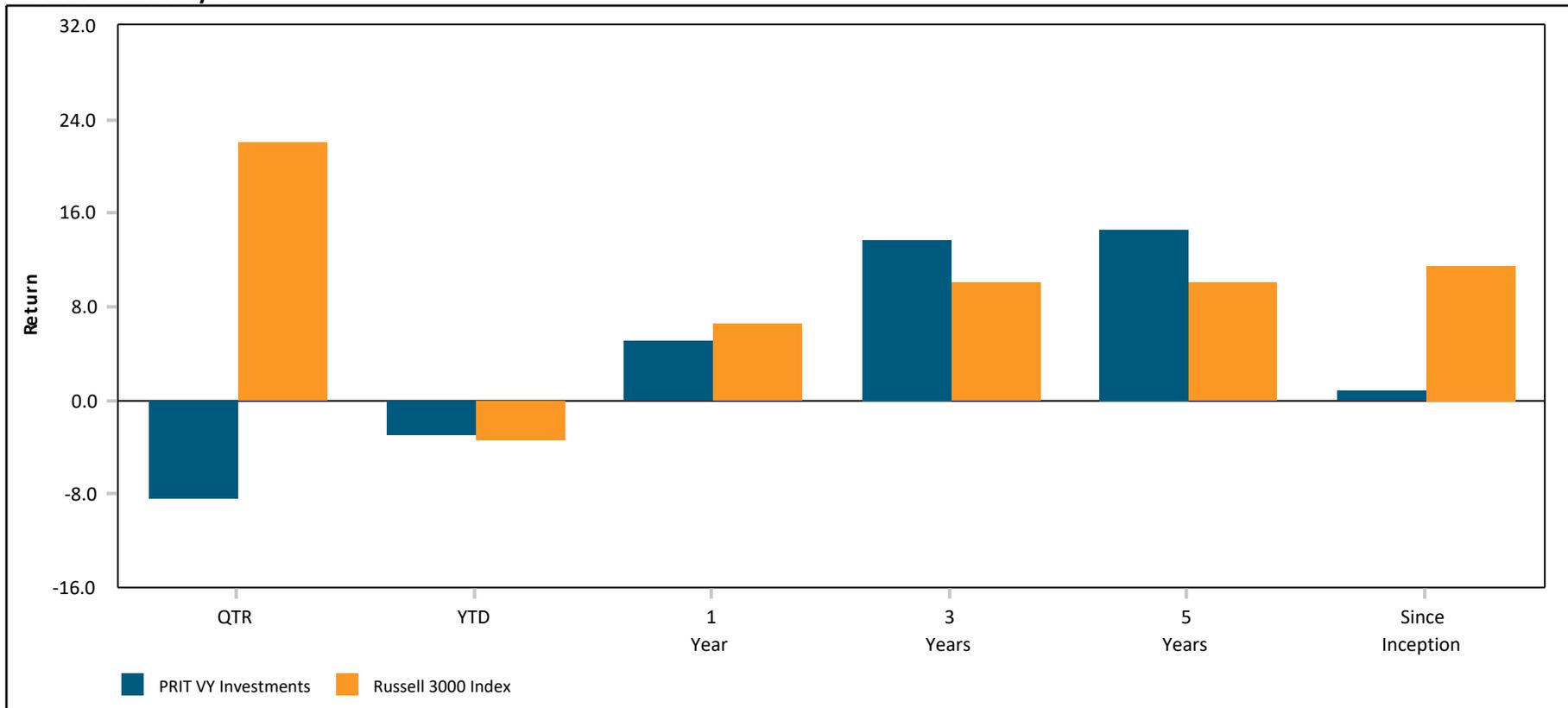
	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>RCP Fund IV</b>	<b>0.0</b>	<b>-2.9</b>	<b>-6.8</b>	<b>11.7</b>	<b>17.6</b>	<b>17.1</b>	<b>01/01/2007</b>
<i>S&amp;P 500 + 5%</i>	22.0	-0.7	12.9	16.3	16.3	13.6	
Difference	-22.0	-2.2	-19.7	-4.6	1.3	3.5	

# Manager Evaluation

PRIT VY Investments

As of June 30, 2020

## Performance Analysis



	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>PRIT VY Investments</b>	<b>-8.3</b>	<b>-2.9</b>	<b>5.1</b>	<b>13.7</b>	<b>14.6</b>	<b>0.8</b>	<b>04/01/2011</b>
<i>Russell 3000 Index</i>	22.0	-3.5	6.5	10.0	10.0	11.5	
Difference	-30.3	0.6	-1.4	3.7	4.6	-10.7	

## Manager Performance Overview - PRIT VY Investments

As of June 30, 2020

	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>PRIT VY Investments</b>	<b>-8.3</b>	<b>-2.9</b>	<b>5.1</b>	<b>13.7</b>	<b>14.6</b>	<b>N/A</b>	<b>0.8</b>	<b>04/01/2011</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>10.0</i>	<i>10.0</i>	<i>N/A</i>	<i>11.5</i>	
<b>PRIT Vintage 2011</b>	<b>-7.9</b>	<b>-2.8</b>	<b>-1.6</b>	<b>12.0</b>	<b>16.4</b>	<b>N/A</b>	<b>2.9</b>	<b>04/01/2011</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>10.0</i>	<i>10.0</i>	<i>N/A</i>	<i>11.5</i>	
<b>PRIT Vintage 2012</b>	<b>-7.9</b>	<b>2.5</b>	<b>6.8</b>	<b>12.7</b>	<b>13.5</b>	<b>N/A</b>	<b>-15.5</b>	<b>06/01/2012</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>10.0</i>	<i>10.0</i>	<i>N/A</i>	<i>13.3</i>	
<b>PRIT Vintage 2013</b>	<b>-6.9</b>	<b>-1.6</b>	<b>15.5</b>	<b>15.0</b>	<b>14.1</b>	<b>N/A</b>	<b>7.6</b>	<b>07/01/2013</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>10.0</i>	<i>10.0</i>	<i>N/A</i>	<i>11.7</i>	
<b>PRIT Vintage 2014</b>	<b>-10.7</b>	<b>-3.8</b>	<b>5.3</b>	<b>17.9</b>	<b>15.2</b>	<b>N/A</b>	<b>5.2</b>	<b>06/01/2014</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>10.0</i>	<i>10.0</i>	<i>N/A</i>	<i>9.9</i>	
<b>PRIT Vintage 2015</b>	<b>-7.1</b>	<b>-1.6</b>	<b>13.2</b>	<b>21.9</b>	<b>13.6</b>	<b>N/A</b>	<b>11.6</b>	<b>04/01/2015</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>10.0</i>	<i>10.0</i>	<i>N/A</i>	<i>9.6</i>	
<b>PRIT Vintage 2016</b>	<b>-5.1</b>	<b>2.9</b>	<b>7.9</b>	<b>6.6</b>	<b>N/A</b>	<b>N/A</b>	<b>-7.7</b>	<b>04/01/2016</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>10.0</i>	<i>N/A</i>	<i>N/A</i>	<i>12.0</i>	
<b>PRIT Vintage 2017</b>	<b>-12.2</b>	<b>-8.8</b>	<b>-1.8</b>	<b>3.5</b>	<b>N/A</b>	<b>N/A</b>	<b>3.4</b>	<b>05/01/2017</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>10.0</i>	<i>N/A</i>	<i>N/A</i>	<i>10.2</i>	
<b>PRIT Vintage 2018</b>	<b>-7.9</b>	<b>-5.4</b>	<b>-6.6</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-11.2</b>	<b>06/01/2018</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>7.8</i>	
<b>PRIT Vintage 2019</b>	<b>-6.3</b>	<b>-6.8</b>	<b>-7.7</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-6.8</b>	<b>04/01/2019</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>8.6</i>	
<b>PRIT Vintage 2020</b>	<b>-7.5</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-6.3</b>	<b>03/01/2020</b>
<i>Russell 3000 Index</i>	<i>22.0</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>5.2</i>	

The inception date expressed on the Manager Performance Overview page(s) represents the first day of the first full month following the purchase of the investment. Performance figures shown at the fund level begin on this inception date. Your performance may differ slightly if the fund was purchased during the previous month. Actual performance is captured at the total plan level.

Investment returns are derived from custodian valuations and may deviate slightly from fund level returns displayed in other pages in your report which can result in minor differences in universe rankings. Mutual fund performance may differ from the current share class's historical performance due to share class exchanges.

Returns for periods less than one year are not annualized. Returns are net of fees unless otherwise noted.

# Manager Evaluation

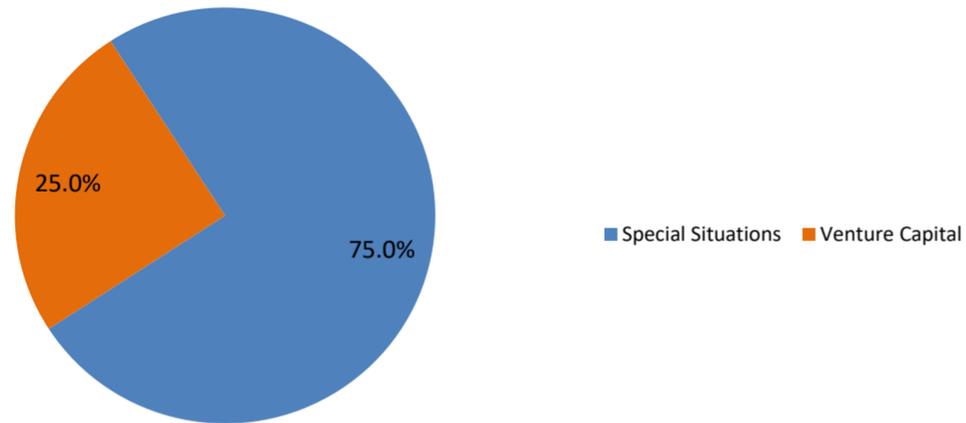
## PRIT Private Equity Program

### Portfolio Information

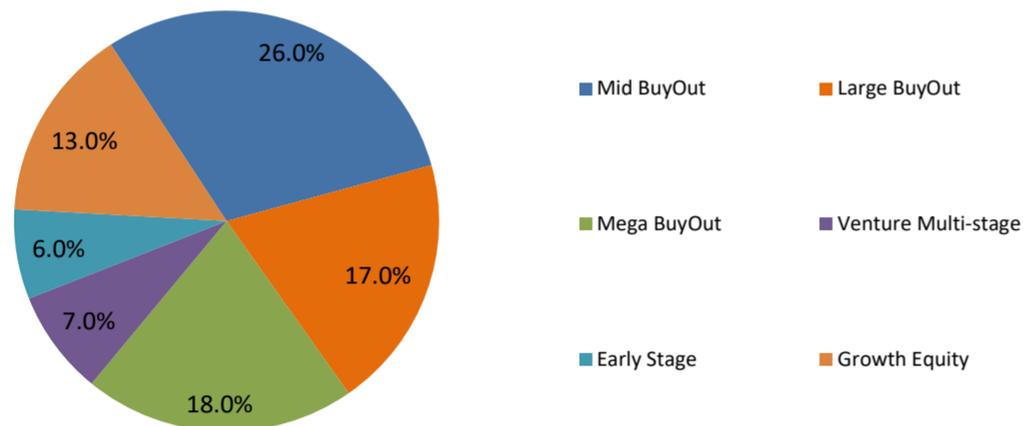
Fund Style: Private Equity

PRIT Private Equity Target Allocation Range: 10-16% of PRIT Fund

### Allocation by Investment Type



### Allocation by Strategy (As of 3/31/19)



### Fund Investment Policy

PRIM's private equity program seeks to earn a return that provides a premium over investment in public market equities over a long-term market cycle. The program is a significant component of the General Allocation Fund and is available to local Retirement Systems on a segmented basis, via vintage year commitments. The PRIM Board generally targets commitments on a Vintage Year basis which typically range from \$1.4-2.0 Billion annually. The portfolio consists of allocations to special situations private equity (primarily buyout) and venture capital, and is diversified by strategy and manager. Systems wishing to make a commitment to the program provide notice at each calendar year end for the prospective vintage year. The commitment is long term and illiquid. Hamilton Lane serves as PRIM's investment adviser for the allocation.

## Benchmark Composition

### Policy Index

As of June 30, 2020

Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Apr-2018		Jul-2011	
Blmbg. Barc. U.S. Aggregate Index	20.0	Blmbg. Barc. U.S. Aggregate Index	20.0
ICE BofAML US High Yield Master II Constrained	2.5	Guggenheim High-Yield Index	2.5
FTSE World Government Bond Index	2.5	FTSE World Government Bond Index	2.5
Russell 3000 Index	35.0	Russell 3000 Index	37.5
MSCI AC World ex USA (Net)	20.0	MSCI AC World ex USA (Net)	17.5
MSCI EAFE Small Cap (net) Index	2.5	MSCI EAFE Small Cap (net) Index	2.5
PRIM Custom Total RE Benchmark	10.0	NCREIF Property Index	5.0
HFRI Fund of Funds Composite Index	7.5	PRIM Custom Total RE Benchmark	5.0
		HFRI Fund of Funds Composite Index	7.5
Jan-2017		Jan-2009	
Blmbg. Barc. U.S. Aggregate Index	20.0	Blmbg. Barc. U.S. Aggregate Index	25.0
Guggenheim High-Yield Index	2.5	Blmbg. Barc. U.S. Corp High Yield	3.0
FTSE World Government Bond Index	2.5	Russell 3000 Index	30.0
Russell 3000 Index	35.0	MSCI AC World ex USA (Net)	17.0
MSCI AC World ex USA (Net)	20.0	NCREIF Property Index	15.0
MSCI EAFE Small Cap (net) Index	2.5	S&P 500 + 5%	7.0
PRIM Custom Total RE Benchmark	10.0	90 Day T-Bill + 5%	3.0
HFRI Fund of Funds Composite Index	7.5		
Jan-2014		Jan-2008	
Blmbg. Barc. U.S. Aggregate Index	20.0	Blmbg. Barc. U.S. Aggregate Index	17.0
Guggenheim High-Yield Index	2.5	Blmbg. Barc. U.S. Corp High Yield	4.0
FTSE World Government Bond Index	2.5	FTSE Non-U.S. World Government Bond	4.0
Russell 3000 Index	35.0	S&P 500 Index	28.0
MSCI AC World ex USA (Net)	20.0	Russell 2000 Index	7.0
MSCI EAFE Small Cap (net) Index	2.5	Russell Midcap Index	7.0
NCREIF Property Index	2.0	MSCI EAFE (Net) Index	15.0
PRIM Custom Total RE Benchmark	8.0	MSCI Emerging Markets Index	3.0
HFRI Fund of Funds Composite Index	7.5	NCREIF Property Index	10.0
		90 Day T-Bill + 5%	5.0

## Benchmark Composition

### Policy Index

As of June 30, 2020

Allocation Mandate	Weight (%)
Jul-2006	
Blmbg. Barc. U.S. Aggregate Index	17.0
Blmbg. Barc. U.S. Corp High Yield	4.5
FTSE Non-U.S. World Government Bond	4.0
S&P 500 Index	16.5
Russell 2000 Index	14.0
Russell Midcap Growth Index	6.5
Russell Midcap Value Index	8.5
MSCI EAFE Index	14.0
MSCI Emerging Markets Index	3.0
NCREIF Property Index	7.0
S&P 500 + 4%	5.0
Oct-2000	
Blmbg. Barc. U.S. Aggregate Index	20.0
Blmbg. Barc. U.S. Corp High Yield	4.5
FTSE Non-U.S. World Government Bond	4.0
S&P 500 Index	31.5
Russell 2000 Index	14.0
MSCI EAFE Index	14.0
NCREIF Property Index	7.0
S&P 500 + 4%	5.0
Jan-1979	
S&P 500 Index	45.0
Russell 2000 Index	10.0
NCREIF Property Index	6.0
MSCI EAFE Index	11.0
Blmbg. Barc. U.S. Aggregate Index	28.0

## Benchmark Composition

Fixed Income Benchmark

As of June 30, 2020

Allocation Mandate	Weight (%)
Apr-2018	
Blmbg. Barc. U.S. Aggregate Index	80.0
ICE BofAML US High Yield Master II Constrained	10.0
FTSE World Government Bond Index	10.0
Jul-2011	
Blmbg. Barc. U.S. Aggregate Index	80.0
Guggenheim High-Yield Index	10.0
FTSE World Government Bond Index	10.0
Jan-2009	
Blmbg. Barc. U.S. Aggregate Index	89.3
Blmbg. Barc. U.S. Corp High Yield	10.7
Jan-2008	
Blmbg. Barc. U.S. Aggregate Index	68.0
Blmbg. Barc. U.S. Corp High Yield	16.0
FTSE Non-U.S. World Government Bond	16.0
Apr-2007	
Blmbg. Barc. U.S. Aggregate Index	66.7
Blmbg. Barc. U.S. Corp High Yield	17.6
FTSE Non-U.S. World Government Bond	15.7

## Benchmark Composition

Domestic Equity Benchmark

As of June 30, 2020

Allocation Mandate	Weight (%)
Jan-2009	
Russell 3000 Index	100.0
Jan-2008	
S&P 500 Index	66.7
Russell 2000 Index	16.7
Russell Midcap Index	16.7
Apr-2007	
S&P 500 Index	36.3
Russell 2000 Index	30.8
Russell Midcap Growth Index	14.3
Russell Midcap Value Index	18.7

## Benchmark Composition

International Equity Benchmark

As of June 30, 2020

Allocation Mandate	Weight (%)
Jan-2014	
MSCI AC World ex USA (Net)	88.9
MSCI EAFE Small Cap (net) Index	11.1
Jul-2011	
MSCI AC World ex USA (Net)	87.5
MSCI EAFE Small Cap (net) Index	12.5
Jan-2009	
MSCI AC World ex USA (Net)	100.0
Jan-2008	
MSCI EAFE Index	83.3
MSCI Emerging Markets Index	16.7
Apr-2007	
MSCI EAFE Index	82.4
MSCI Emerging Markets Index	17.6

## Prospectus Links - For Mutual Fund Investments

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As of June 30, 2020

<b>FUND FAMILY</b>		<b>WEB SITE</b>	
MFS Institutional		<a href="http://www.mfs.com">www.mfs.com</a>	



# **Appendix: Recommended IPS Updates**

**Watertown Contributory Retirement System**  
**Investment Policy Statement**  
~~August 2017~~August 2020

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## INTRODUCTION AND PURPOSE

The Watertown Contributory Retirement System (the “Plan”) has been established to provide retirement income for the town’s eligible employees and their beneficiaries. The Retirement System is a governmental qualified defined benefit plan governed by Massachusetts General Laws, Chapter 32, and subject to the fiduciary standards set forth in M.G.L. c. 32 s. 23 (3). The Plan is also subject to investment restrictions imposed by Massachusetts General Laws and the Investment Regulations (840 CMR) of the Public Employee Retirement Administration Commission (PERAC).

This policy statement outlines the goals and investment objectives for the Plan. This document is also 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 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 Board has taken into account the financial needs and circumstances of the Plan, 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 effort, the 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 to appropriate market indexes.

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**ASSIGNMENT OF RESPONSIBILITIES**

**Retirement Board** - The Watertown Retirement Board (the “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 the investments. The Board, however, may establish rules or other resolutions governing its investment policy and may delegate to the Board members or agents, the authority to act. The Board will meet periodically. As set forth in M.G.L. c.32 s.23 (3) and 840 CMR 1.00, the Board shall discharge its duties “with the care, skill, prudence and diligence appropriate to the circumstances then prevailing, that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims and by diversifying the investments of the system so as to minimize the risk of large losses unless under the circumstances it is clearly prudent not to do so”. The Board recognizes that some risk must be assumed to achieve the Plan’s long-term investment objectives.

**Investment Consultant** - The Board may engage the services of an Investment Consultant. The Investment Consultant’s role is that of a non-discretionary advisor to the 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(s)** - 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 (for example, to accommodate distribution needs).

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**ASSET ALLOCATION**

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

**REBALANCING**

The Board, at its discretion, may or may not institute rebalancing as necessary. Such adjustments should be made 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/FUNDS**

The Board intends to delegate the investment management of the System's assets to qualified investment managers as set forth in Massachusetts General Laws, Chapter 32, Sections 23(2)(b) and 23B. The Board shall utilize a competitive process for the evaluation and selection of qualified investment managers in compliance with the procurement provisions of M.G.L. Ch.32, section 23B. Investment managers 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 with consideration granted to 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 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/commingled funds and exchange traded funds. The Board understands that managers have full responsibility for security selection, diversification, turnover and allocation of

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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/commingled fund/exchange traded funds in the portfolio.

The investment manager(s) are expected to carry out fiduciary obligations with respect to the Plan's assets in accordance with Massachusetts General Laws Chapter 32, Section 23(3) and the investment regulations promulgated by the Public Employees Retirement Administration Commission (PERAC 840 CMR). Managers are expected to be cognizant and comply with all Massachusetts General Laws and the Investment Regulations (840 CMR) promulgated by the Public Employee Retirement Administration Commission (PERAC).

Massachusetts General Laws, Chapter 32, Section 23(2)(h) prohibits investment directly in mortgages or in collateral loans, and places limitations on investment in certain companies doing business in South Africa or Northern Ireland.

Chapter 119 of the Acts of 1997 prohibits Massachusetts retirement systems from making any new investments in stocks, securities, or other obligations of any company which derives more than 15% of its revenue from the sale of tobacco products. PERAC issues a "Tobacco Company List", and updated the list periodically. The list is available by contacting the Retirement Board, or by download at PERAC's website ([www.mass.gov/perac](http://www.mass.gov/perac)). In applying the statute to pooled funds, PERAC will assess the 15% rule against the entire pool. Thus a pooled fund, if in violation of this standard, will be included on this list. It is the responsibility of each investment manager to obtain and review of copy of the list, as updates are issued.

With respect to mutual/commingled funds, the Board may consider the following to insure proper diversification and function for each of the funds:

1. The mutual fund/commingled 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/commingled 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/commingled pool will be regularly evaluated for proper diversity and each will provide material information on a timely basis.

### 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 Plan. A copy of each

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firm's guidelines, and/or summary of proxy votes shall be provided to the 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;
- Relative investment management fees;
- Significant organizational or manager change.

In addition, the Board shall meet with its qualified investment manager(s) at least annually and require investment managers to report to the Board, on a quarterly basis, with a comprehensive written review of investment performance, a review of the System's investments, and a report on the investment manager's current investment outlook and future strategy. The annual investment review process will utilize the same criteria that formed the basis of the investment selection decision.

### **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 conditions,

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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.

**APPROVAL**

It is understood that this investment policy is to be reviewed periodically by the Board to determine if any revisions are warranted by changing circumstances including, but not limited to, changes in financial status, actuarial assumptions, risk tolerance, or changes involving the investment managers. The Board shall notify PERAC, as required by 840 CMR 18.03, of any changes to its investment objectives within ten days of the effective date, if applicable, and by the end of each calendar year whether or not any changes were made in the investment objectives.

This Investment Policy Statement has been adopted by:

The Watertown Retirement Board

By:

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Date:

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**Appendix A**

**Target Asset Allocation Table**

Asset Class	Min Weight	Target Weight	Max Weight	Benchmark Index
Short Term Money Market	0.0%	0.0%	5.0%	90-Day T-Bill
<b>Fixed Income</b>				
Core Fixed Income	10.0%	<del>17.0%</del> <u>15.0%</u>	25.0%	Bloomberg Barclays Aggregate Index
High Yield Fixed Income	0.0%	<del>2.5%</del> <u>0.0%</u>	5.0%	BofA Merrill Lynch U.S. HY Master II Constrained Index
Global Fixed Income	0.0%	<del>4.0%</del> <u>2.0%</u>	5.0%	Citigroup World Government Bond Index
<b>Global Asset Allocation</b>				
Global Multi-Asset	0.0	6.0%	12.0%	Custom Benchmark
<b>Domestic Equity</b>				
Domestic Large Cap	15.0%	<del>19.7%</del> <u>19.0%</u>	40.0%	S&P 500 Index
Domestic Mid Cap	0.0%	<del>5.5%</del> <u>5.0%</u>	15.0%	Russell Mid Cap Index
Domestic Small Cap	0.0%	<del>3.0%</del> <u>5.0%</u>	12.5%	Russell 2000 Index
<b>International Equity</b>				
International Large Cap	10.0%	<del>17.2%</del> <u>17.5%</u>	35.0%	MSCI ACWI ex-US Index
International Small Cap	0.0%	<del>2.6%</del> <u>2.5%</u>	5.0%	MSCI EAFE Small Cap Index
<u>International Emerging Markets</u>	<u>0.0%</u>	<u>5.0%</u>	<u>10.0%</u>	<u>MSCI Emerging Markets Index</u>
Real Estate	5.0%	10.0%	12.5%	Custom Benchmark
Hedge Funds	5.0%	<del>7.5%</del> <u>5.0%</u>	10.0%	HFRI Fund of Funds Composite Index
Private Equity	3.0%	<del>5.0%</del> <u>10.0%</u>	10.0%	Russell 3000 Index

Custom benchmarks, where noted, represent a weighted average blend of the strategy specific benchmarks that may change from time to time depending on the allocations and appropriateness of the benchmarks of the underlying strategies.

## Investment Statistics – Descriptions

Statistic	Description
<b>Active Return</b>	Arithmetic difference between the manager's return and the benchmark return over a specified period.
<b>Excess Return</b>	Arithmetic difference between the manager's return and the risk-free return over a specified period.
<b>Standard Deviation</b>	Represents the degree of variation, or dispersion, of a portfolio's return in relation to its mean return. It is a measure of volatility or investment risk.
<b>Downside Risk</b>	A measure of the standard deviation, or volatility, of a portfolio's negative returns in relation to the mean of the negative returns over a specified period. The higher the figure, the riskier the portfolio in negative performance environments.
<b>Sharpe Ratio</b>	Represents the excess return over the risk-free return divided by the standard deviation of the portfolio's return. The ratio shows how well a portfolio performs versus a risk-free investment. The higher the value, the better the portfolio's historical risk-adjusted performance.
<b>Tracking Error</b>	A measure of the standard deviation of a portfolio's excess return over the return of appropriate market benchmark. Tracking error measures how closely a portfolio follows or tracks the index to which it is benchmarked.
<b>Information Ratio</b>	A measure of a portfolio's active return over its benchmark divided by the tracking error. A higher ratio indicates a manager's ability to consistently add active return relative to a benchmark.
<b>Beta</b>	A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk. A beta of 1.0 implies a portfolio is perfectly correlated to the market.
<b>Alpha</b>	A measure of the portfolio's value added relative to a benchmark, given its level of systematic risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market, or a portfolio's non-systematic return.
<b>Consistency</b>	Also known as batting average, the percentage of quarters that a portfolio achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the portfolio's active performance.
<b>R-Squared</b>	Also known as the coefficient of determination, R-Squared ( $R^2$ ) represents the percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. A high $R^2$ means a higher correlation of the portfolio's performance to that of the appropriate benchmark.
<b>Up Market Capture</b>	The ratio of a portfolio's average return over the benchmark during periods of positive benchmark return. Higher values indicate better performance in positive markets compared to the benchmark.
<b>Down Market Capture</b>	The ratio of a portfolio's average return over the benchmark during periods of negative benchmark return. Lower values indicate better performance (and better protection of capital) in down markets compared to the benchmark.
<b>Style Map</b>	Using returns-based style analysis, the style map gauges the adherence of a portfolio to its style mandate. The trend of the style plots identifies style drift, or lack thereof.
<b>Private Equity Investments</b>	
<b>Internal Rate of Return (IRR)</b>	An annualized money weighted return used primarily to measure performance of private equity investments. It represents the discount rate that makes the present value of the since inception paid-in capital and distributions associated with an investment equal to zero.
<b>Investment Multiple (TVPI)</b>	Also known as the total value paid-in capital. Multiple is calculated by dividing the fund's cumulative distributions and net asset value by the paid-in capital. The TVPI shows an investor the fund's total value as a multiple of its cost basis since inception.
<b>Realization Multiple (DPI)</b>	Also known as the distributions to paid-in capital (DPI) multiple. This is calculated by dividing the cumulative distributions by paid-in capital. It represents how much of an investor's invested capital has been returned to investors. A fund has broken even when multiple is greater than 1.0.
<b>RVPI Multiple (RVPI)</b>	Calculated by dividing residual value, or net asset value, by paid-in capital including fees paid and other expenses incurred. It measures how much of the fund's return is unrealized and dependent on the market value of its investments.
<b>PIC Multiple (PIC)</b>	Calculated by dividing paid-in capital by committed capital. This ratio allows a potential investor to see the percentage of a fund's committed capital that has been drawn down to date.

## Data Source Acknowledgements, Links and Disclaimers

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