



City of Milwaukee
Employees' Retirement System

Bernard J. Allen
Executive Director

David M. Silber, CFA, CAIA
Chief Investment Officer

Melody Johnson
Deputy Director

June 3, 2022

Mr. Jim Owczarski
City Clerk
Room 205, City Hall

Dear Mr. Owczarski:

Please be advised that an Investment Committee Meeting of the Annuity and Pension Board has been scheduled for **Thursday, June 9, 2022 at 9:15 a.m.** This meeting will be conducted via teleconference.

Special Notice: Instructions for the public on how to observe the meeting will be available on the ERS's website (www.cmers.com) prior to the meeting.

The agenda is as follows:

I. Approval of UBS Hedge Fund Solutions Guideline Change.

Please be advised that the Investment Committee may vote to convene in closed session on the following items (II. and III.) as provided in Section 19.85(1)(e), Wisconsin State Statutes, to deliberate or negotiate the purchasing of public properties, the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session. The Investment Committee may then vote to reconvene in open session following the closed session.

- II. Callan Real Estate Presentation.
- III. Approval of Recommendation regarding investment in Bryanston Retail Opportunity Fund, L.P.
- IV. Approval of Real Estate Investment Policy Statement Update.
- V. Approval of Statement of Investment Policy Update.
- VI. Chief Investment Officer Report.
- VII. Informational.
 - a. 1st Quarter 2022 Performance Report.
 - b. Callan 1st Quarter 2022 Performance Report.

Sincerely,

Bernard J. Allen
Executive Director

BJA:jmw

Memorandum

To: CMERS Investment Committee

From: Erich Sauer, CFA, CAIA

Date: June 9, 2022

Re: UBS Guideline update

Attached you will find a request from UBS to modify the guidelines of the custom fund-of-one they manage for CMERS. The guideline modification gives UBS the ability to invest up to 5% of assets into strategies that are categorized as “direct trading”.

This guideline change will enable UBS to change the way they implement co-investments in our fund. Currently, co-investments are allowed, but they are single line-items that are always implemented by an external manager. Our fund may have as few as one or two of these co-investments at any given time.

UBS would prefer to implement our co-investments through a pooled vehicle called the UBS direct opportunities fund. This is a more diversified way to implement co-investments, as it typically contains ten or more different investments at any given time. While all the ideas still come from external managers, to make implementation as efficient as possible, UBS sometimes directly implements the positions in this fund. That is the reason for the guideline change request to allow direct trading.

ERS staff and Callan are comfortable with this guideline change. Implementing co-investments through a more diversified approach should present a risk/return profile that is more aligned with the objectives of CMERS’ custom fund, compared to the specific risk that could be involved with only one or two co-investments. The fact that all the ideas are still coming from external managers, and UBS is only implementing them through the direct trades, makes us comfortable with allowing the direct trading.

ERS Staff and Callan are comfortable with this guideline change and recommend approval.

CMERS Low Beta LLC
725 Bridge St. W. Suite 101
Waterloo, Ontario
Canada, N2V 2H1

June [•], 2022

Re: **CMERS Low Beta LLC (the "Fund")**

Dear Investor:

The Management Board of the Fund is writing to inform you of the distribution of a supplement to the Confidential Memorandum dated December 2014 (the "Supplement") regarding certain changes to the Fund described below. Capitalized terms used but not defined herein have the meanings set forth in the Confidential Memorandum.

Beginning [____], 2022, the Investment Manager will allocate a portion of the Fund's assets to one or more Portfolio Funds or special purpose vehicles for which the Investment Manager acts as Submanager and implements a direct trading strategy. The Investment Manager may pursue a number of different categories of trades as a Submanager, including with respect to the categories described in the Supplement, although there can be no certainty that any particular category of trade will be effected at any particular time or that the Investment Manager will, or will not, effect multiple trades in several categories essentially simultaneously; provided, however, that the Investment Manager will limit the Fund's co-investment exposure (through Investment Manager direct trading) to not more than 5% of the NAV of the Fund at the time of any investment to obtain such exposure.

The Investment Manager will not receive any additional compensation with respect to the Fund's investments in Portfolio Funds or special purpose vehicles for which the Investment Manager implements a direct trading strategy (*i.e.*, the Investment Manager will not be separately compensated as a Submanager), although such Portfolio Funds and special purpose vehicles will have their own operating costs, including, from time to time, fees to third parties in connection with the sourcing of trading ideas.

Additionally, beginning [____], 2022, the Fund will bear the compensation of any affiliated subadvisors retained by the Investment Manager to source, implement, subadvise, and/or manage direct trades made on behalf of the Fund, whether through a Portfolio Fund or special purpose vehicle or taken directly by the Fund.

The Investment Manager's authority to implement direct trading strategies and compensate affiliated subadvisors on behalf of the Fund is qualified by the information set forth in the Supplement and, in the event of a conflict between the information contained in the Confidential Memorandum and the Supplement, the terms contained in the Supplement will control.

The Supplement contains a description of a number of the categories of direct trading strategies and updates to certain conflicts of interest in relation to the direct trading strategies associated with an investment in the Fund.

We have enclosed the Supplement for your review. For the records of the Fund, please indicate your acknowledgment to the terms reflected in the Supplement by countersigning the enclosed copy of this letter and returning it to the Fund, via e-mail to the Administrator at investorserviceshalifax@mfsadmin.com and copy Edward Burman on the email (edward.burman@ubs.com). Please contact your UBS representative if you have any questions regarding this letter or the Supplement.

Very truly yours,

CMERS Low Beta LLC

By: _____
Name:
Title: Management Board Member

AGREED AND ACKNOWLEDGED BY:

City of Milwaukee Employees' Retirement System

By: _____

Title: _____

Date: _____

AMENDMENT NO. 2 TO
AMENDED AND RESTATED INVESTMENT MANAGEMENT AGREEMENT
CMERS LOW BETA LLC and UBS HEDGE FUND SOLUTIONS LLC

This Amendment ("**Amendment**") is made as of this [•] day of ~~March~~June 2022 by and between CMERS Low Beta LLC (the "**Fund**") and UBS Hedge Fund Solutions LLC (the "**Investment Manager**").

WHEREAS, the Fund and the Investment Manager entered into an Amended and Restated Investment Management Agreement effective as of July 31, 2016 relating to the provision of discretionary investment management services by the Investment Manager to and for the benefit of the Fund (the "**Agreement**");

WHEREAS, the Fund and the Investment Manager entered into an Amendment No. 1 to the Agreement effective as of July 1, 2017 to amend Appendix A to the Agreement; and

WHEREAS, the Fund and the Investment Manager now wish to enter into this Amendment No. 2 to the Agreement to amend Appendix A to the Agreement as set forth below.

NOW THEREFORE, in consideration of the mutual promises and understandings set forth herein and other good and valuable consideration the sufficiency of which is hereby acknowledged, the Fund and the Investment Manager agree as follows:

1. Appendix A "Investment Program" to the Agreement is hereby deleted in its entirety and replaced with the Exhibit hereto.
2. Effective Date. This Amendment shall be effective as of ~~April 1~~,[], 2022.
3. Confirmation of the Agreement. Except as amended hereby, the Agreement shall remain in full force and effect.
4. Counterparts. This Amendment may be executed in one or more counterparts, each of which shall, however, together constitute one and the same document.

[Signatures follow]

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto as of the day and year first above written.

For and on behalf of

CMERS LOW BETA LLC

Name:
Title

Name:
Title

For and on behalf of

UBS HEDGE FUND SOLUTIONS LLC

Name:
Title

Name:
Title

EXHIBIT

APPENDIX A (Amended)

INVESTMENT PROGRAM

Investment Objectives

Generally, the Investment Manager will attempt to construct a broad based neutral portfolio with exposure to a number of hedge fund strategies

The Fund seeks to target limited beta to equity markets over an economic cycle (3-5 years), as measured relative to the MSCI \$ World Index.

Investment Objectives represent initial objectives only and may be modified in the future as agreed by all parties involved after initial implementation as Fund preferences evolve.

Investment Guidelines

The Fund acknowledges that the following represent initial guidelines only and may be modified in the future as agreed by all parties involved (the "Investment Guidelines").

Strategies and Anticipated Allocation Ranges

- Equity Hedged: (0-50%)
- Credit / Income (0-50%)
 - Credit sub-strategies currently include: Distressed, Corporate Long/Short, Structured Products and will not exceed 40% of the total portfolio.
 - Income: The Fund will retain flexibility to invest in managers that participate in reinsurance strategies. Reinsurance strategies will not exceed 10% of the portfolio.
- Relative Value: (0-60%)
- Trading: (0-40%)
- Other: (0-10%)
- Direct Trading: (0-~~20~~5%)

The Fund is also permitted to invest in Multi-Strategy Submanagers, which include allocations to a combination of strategies. These offerings are often the result of commonalties in the research and trading talent required for successful execution of the strategies. These Portfolio Funds allocate capital opportunistically among strategies believed to offer a suitable risk-adjusted return profile going forward. Applicable guidelines for multi-strategy Submanagers will be monitored on a look-through basis to the underlying strategies and will count toward the specified limits above.

Please refer to the Memorandum for detailed descriptions of the foregoing and additional strategies. Please be advised that the Investment Manager typically reviews and revises strategy classifications on an annual basis.

Note that target percentages are not intended to be guarantees or assurances that the Fund's portfolio will be within such target ranges at all times. They are intended as goals the Fund seeks to achieve and apply only after the Fund has completed a rebalancing of the portfolio after a liquidity request.

Investments in Portfolio Funds Managed by Affiliates of the Investment Manager

The Investment Manager will select and utilize its affiliates to source, implement, subadvise, and/or manage direct trades made on behalf of the Fund, for example, UBS O'Connor LLC. Except with respect to the implementation of a Direct Trading Strategy, investments in Portfolio Funds managed by affiliates of the Investment Manager will be capped at 20% and will be limited to customized baskets ("CBs"), managed accounts ("MAs"), or other special purpose vehicles ("SPVs") where the Investment Manager may seek to attain certain exposures pursuant to the investment objectives of the Fund and where such exposure may otherwise not be accessible to the Fund. The Investment Manager will not charge the Fund additional management fees or performance fees within the CBs, MAs, SPVs, or in any vehicle through which the Investment Manager implements its Direct Trading strategies.

Diversification

The Investment Manager will determine the appropriate number of Portfolio Funds in its sole discretion. However, the number will typically range between 15-39 Portfolio Funds, excluding co-investments, unless otherwise agreed by the Fund.

Liquidity Considerations

The Investment Manager will seek to invest in Portfolio Funds with a mix of different liquidity profiles. However, the Investment Manager will seek to maintain:

- At least 70% of the net asset value of the Fund will be allocated to Portfolio Funds with stated liquidity terms (with penalties) that allow for redemption within 1 year from the date of investment (including as of the anniversary date or the next periodic redemption date following termination of a 1 year hard lock-up period).
- Up to 30% of the net asset value of the Fund may be allocated to Portfolio Funds with stated liquidity terms that allow for redemption greater than a 1 year hard lock up. Approximately 10% of the net asset value of the Fund may be invested in Portfolio Funds that have a hard lock up of greater than 2 years, but no more than 3 years unless they fall into the category of Portfolio Funds with no predefined redemption period. The latter shall also fall inside the 10% limitation.
- An investor gate can cause a position to fall into multiple liquidity buckets. For example, a 1/8th quarterly liquidity fund would have 50% of its position in the "within 1 year" bucket and the remainder in the "greater than 1 year bucket", none of which would fall into the greater than 2 year bucket.

The above terms do not include audit withholds imposed by Portfolio Funds. The Fund acknowledges and understands that disbursements of any withheld amounts could take between 12 and 18 months to receive and will not be counted toward the above liquidity considerations.

The liquidity considerations assume a willingness by the Fund to pay a redemption fee or penalty of up to 5% to accelerate liquidity.

Redemption notice periods will not be taken into consideration for purposes of the foregoing liquidity considerations, but generally will not exceed 90 days.

From time to time, a Submanager may segregate certain securities from its Portfolio Fund and establish a "side pocket" structure and/or share class, which may have less liquid characteristics. The Investment Manager will attempt to limit the Fund's exposure to side pocket holdings. However, the ultimate side pocket exposure will be at the discretion of the each underlying manager.

Leverage

The Investment Manager does not expect to employ leverage above and beyond what may be undertaken by the underlying Portfolio Funds. The Fund indicated it is able to provide additional cash with sufficient notice for operating purposes such as funding short term subscriptions or coverage for FX currency hedging.

Investment Manager Bespoke Structures/Co-Investments

The Fund is eligible to participate in A&Q bespoke structures and co-investments in the discretion of the Investment Manager; provided, however, that the Investment Manager will limit the Fund's co-investment exposure (through Investment Manager direct trading) to not more than 5% of the NAV of the Fund at the time of any investment to obtain such exposure.

Investment Eligibility

The Fund may invest in both US tax transparent funds and/or offshore vehicles.

Tail/Overlay Hedging

The Fund is eligible to participate in A&Q Tail/Overlay Program (TAU).

New Issues

The Fund is eligible to participate in new issues, and as such the Fund may invest in the new issues eligible share classes, if deemed appropriate.

Guideline Monitoring

Investment guidelines as agreed in this document will be additionally signed-off and monitored by UBS Risk Control. In the event of a limit violation, the Investment Manager will contact the Fund to identify the issue(s) and agree on an appropriate plan of action to resolve the issue(s) in a timely manner.

REAL ESTATE INVESTMENT POLICY STATEMENT

June~~December~~ 2022~~19~~

**THE EMPLOYEES' RETIREMENT
SYSTEM OF THE CITY OF MILWAUKEE**

789 N. Water Street, 3rd Floor
Milwaukee, WI 53202
(414) 286-3557

I. PURPOSE

The purpose of this statement of Real Estate Investment Policy is to formalize the City of Milwaukee Employees' Retirement System's ("CMERS") investment objectives, policies, and procedures with respect to the real estate asset class. This statement is an extension of the CMERS overall Statement of Investment Policy.

II. INVESTMENT OBJECTIVE AND CONSIDERATIONS

A. Purpose of Real Estate Allocation

CMERS allocates a portion of its total assets to real estate for the following benefits:

1. Enhance the diversification of the CMERS overall investment portfolio due to real estate's low correlation with stocks and bonds;
2. Provide high current income and a rate of return that falls between stocks and bonds;
3. Lower the volatility of the total investment portfolio considering real estate returns have historically exhibited lower volatility than other public equity asset classes; and
4. Provide a hedge against unanticipated inflation.

B. Major Considerations

Major considerations impacting the structure of the real estate portfolio include:

1. Liquidity
2. Staffing
3. Investment decision-making process
4. Diversification

C. Asset Allocation

CMERS has a current target allocation of 13% to Real Assets and 9.1% to Private Real Estate. CMERS Statement of Investment Policy permits a minimum allocation to Real Assets, defined as Private Real Estate and Public Diversified Real Assets, of 10% and a maximum allocation to Real Assets of 16%. approved a long-term asset allocation of 7.7% of total CMERS assets for investment in equity and equity-oriented real estate investment. To facilitate maintaining the target allocation of 7.7%, CMERS will target a range 5% to 10%.

D. Return Objectives

CMERS seeks to achieve total net returns equivalent to the net returns of the NCREIF Fund Index Open-End Diversified Core Equity Index Value-Weighted Net ("NFI-ODCE" or "ODCE") as a minimum return for the total real estate portfolio over rolling five-year periods.

III. Portfolio Composition

CMERS's real estate allocation will be 100% invested in Core and Core plus strategies.

The portfolio will primarily be invested in Core strategies, with Core Plus used as a complement. Investment in Non-Core strategies will not be pursued. Non-Core funds that are currently in the portfolio will be liquidated by the managers at their discretion and according to the provisions established in the documents governing each fund.

Core/Core Plus and Non-Core strategies are defined as follows:

	Strategy	Leverage
Core/Core Plus	<p>Existing, operational assets that are substantially leased (greater than 80%) that are core quality properties located in major markets.</p> <p>Core strategies are typically concentrated in the four main property types: office, apartment, retail and industrial, but may include mixed-use properties, self-storage, and hotels.</p> <p>Core Plus strategies may have greater exposure to property types beyond the four main property types, including mixed-use, self-storage, hotels, senior housing, and student housing.</p> <p>Total return derived from income and appreciation, with income accounting for at least 60% of the total return.</p>	<p>Core strategies generally have leverage of less than 35%.</p> <p>Core Plus strategies may have higher leverage, up to 50%, but typically 35-40%.</p>
Non-Core Value-Add	<p>Institutional quality properties located in major and secondary markets with improvement needs or opportunities to add value through asset management initiatives.</p> <p>Includes office, apartment, retail, industrial, as well as more specialized property types such as mixed-use properties, hotels, senior housing, self-storage and student housing, among others.</p> <p>Return balanced between appreciation and income, with some initial income that grows over time as value-add strategy is implemented.</p>	<p>May include the use of leverage up to 65%</p>
Non-Core Opportunistic	<p>Properties, property portfolios or real estate companies offering recapitalization, turnaround, development, market arbitrage opportunities or other specialized approaches.</p> <p>Return primarily derived from appreciation.</p>	<p>Leverage is utilized and often is not limited</p>

IV. PERMISSIBLE INVESTMENTS

A. Investment Types

To achieve the benefits of investing in real estate, investments for CMERS will consist of equity and equity-oriented ownership in commercial real estate.

B. Investment Structures

This Policy authorizes the use of investment structures that provide legal protections to CMERS commensurate with the investment opportunity subject to legal review. Investments in real estate will be made through collective investment vehicles.

Collective investment vehicles, also known as commingled funds, are generally categorized into two sub-structures: Open-end and Closed-end. Open-end commingled funds are infinite life vehicles which provide periodic liquidity by allowing the investor to contribute capital contributions or redeem capital, typically on a quarterly basis. Closed-end funds are finite life vehicles where the timing of capital contribution and distributions are at the discretion of the manager.

Investment will be made exclusively using open-end funds.

CMERS will not purchase individual properties directly.

V. RISK MANAGEMENT

The primary risks associated with equity real estate investments are investment manager risk, vintage year risk, concentration risk (manager, property type, and geographic), leverage, loss of principal and liquidity risks. The following are risk management strategies:

A. Portfolio Composition

Focusing investment in Core/Core Plus open-end funds is a primary mechanism to manage liquidity risk, leverage and loss of principal.

B. Diversification

1. Manager Diversification

Diversification by manager will be used to limit manager concentration risk. To control manager exposure, the allocation to a single real estate manager is limited to no more than 35% of the real estate portfolio. Generally, the upper limit will only be considered for managers with substantial assets under management. Lower amounts will be appropriate for managers with single product lines and small assets under management.

Manager concentration will be calculated by aggregating the total real estate assets invested by CMERS across all real estate strategies managed by the manager.

2. Vehicle Diversification

To mitigate the impact of the failure of a single investment vehicle on total real estate performance, CMERS will limit its investment in any single open-end fund to 35% of the total real estate portfolio.

3. Property Type and Location Diversification

The portfolio will be broadly diversified by property type and by location. Diversification is expected to track, but not match, the diversification of the ODCE benchmark across the major property sectors (office, retail, industrial, apartments, and other) and regions (East, South, West, Midwest). The portfolio will be invested primarily in the U.S.; however up to 5% of the portfolio may be invested outside the U.S.

Each individual manager will determine the diversification of its portfolio. Most have targets relative to the ODCE benchmark weightings.

To achieve a broadly diversified portfolio, CMERS will have a preference for funds that are diversified by property type and location; however, single-sector funds may be considered.

4. Vintage Year Diversification

CMERS recognizes that real estate is cyclical and will pace its investment into the market across vintage years to the extent new allocations are made.

C. Liquidity Profile

Funds with a concentrated investor base will be avoided because they potentially reduce CMERS's ability to exercise its governance rights and/or limit liquidity.

Similarly, for liquidity management, CMERS's investment in any single commingled fund may not exceed 20% of the total net asset value of the open-end fund.

D. Leverage Limitations

CMERS will target portfolio-wide leverage of ~~25%~~ 25% of CMERS's aggregate real estate portfolio, with a maximum of 35%. CMERS will control the overall leverage amounts by investing in Funds with leverage profiles consistent with this Policy objective.

At the underlying investment vehicle level, leverage will be limited to the levels set within the investment vehicle's governing documents.

In the event that the portfolio-level and/or the style-level leverage constraint is breached due to a contraction in market values, Staff and Consultant will notify the Board and make a recommendation for action or exception.

E. Currency

Investments are expected to be made primarily in vehicles which invest in real estate in the U.S. Although non-U.S. investments are expected to be limited, CMERS accepts the currency risks inherent in the geographic exposures of the investment vehicles. Real estate managers may or may not hedge currency risk at the vehicle-level, but currency will not be hedged at the CMERS real estate portfolio level. Where possible, CMERS will make investments and receive distributions in U.S. dollars.

VI. Summary of Policy Targets and Limits

Policy Parameter	Policy Guidelines
Allocation to Real Estate	Target of 97.1% 7% of total plan assets; range of 5%-10%
<u>Real Assets Range</u>	<u>10% - 16%, includes both Private Real Estate and Public Diversified Real Assets</u>
Permissible Investments	Equity and equity-like investments in commercial real estate
Investment Vehicle <ul style="list-style-type: none"> Open-end Funds 	Open-end funds exclusively for any new allocations Legacy Non-Core closed-end funds are in wind down
Investment Styles <ul style="list-style-type: none"> Core/Core Plus Private Non-Core Private 	100%; Focus on Core No new investments; 0% long term target Legacy Non-Core portfolio is in wind down
Manager Exposure	Maximum of 35% to a manager
Single Investment Exposure	Maximum of 35% of the real estate allocation to a single open-end fund
Property Types <ul style="list-style-type: none"> Office Industrial Retail Apartment Other 	The portfolio will be broadly diversified and measured against ODCE property type weightings. Focus will be on the four main property types (office, retail, industrial, apartments) <u>and other (which can include but not limited to life sciences, self-storage, etc.)</u>
Locations <ul style="list-style-type: none"> East South West Midwest 	The portfolio will be broadly diversified and measured against ODCE regional weightings

• Non-U.S.	Non-U.S. – Up to 5% of the portfolio
Leverage	Maximum of 35% for the real estate portfolio; Target of 25% Core ≤ 35% Core Plus ≤ 50% Legacy Non-Core Funds will have leverage according to the levels allowed in their respective governing documents

VII. Benchmark

Each investment will be benchmarked against the NCREIF Fund Index Open-End Diversified Core Equity Index Value Weighted (“NFI-ODCE” or “ODCE”), Net of Fees. Peer Groups may also be used to evaluate performance.

VIII. Valuation

Investments will be valued by the underlying investment managers using the methodology approved with the selection of the particular investment. Managers are expected to conform to the real estate information standards promulgated by NCREIF.

IX. Program Management

The Board, Staff, and Consultant’s roles will be consistent with those described in the Statement of Investment Policy.

X. Compliance With Policy

Until the Non-Core portfolio is fully liquidated, the portfolio will have areas of non-compliance. The Core portfolio will be managed to comply with the Policy. New investments and strategic decisions shall be in compliance with the Policy.

REAL ESTATE INVESTMENT POLICY STATEMENT
June 2022

**THE EMPLOYEES' RETIREMENT
SYSTEM OF THE CITY OF MILWAUKEE**
789 N. Water Street, 3rd Floor
Milwaukee, WI 53202
(414) 286-3557

I. PURPOSE

The purpose of this statement of Real Estate Investment Policy is to formalize the City of Milwaukee Employees' Retirement System's ("CMERS") investment objectives, policies, and procedures with respect to the real estate asset class. This statement is an extension of the CMERS overall Statement of Investment Policy.

II. INVESTMENT OBJECTIVE AND CONSIDERATIONS

A. Purpose of Real Estate Allocation

CMERS allocates a portion of its total assets to real estate for the following benefits:

1. Enhance the diversification of the CMERS overall investment portfolio due to real estate's low correlation with stocks and bonds;
2. Provide high current income and a rate of return that falls between stocks and bonds;
3. Lower the volatility of the total investment portfolio considering real estate returns have historically exhibited lower volatility than other public equity asset classes; and
4. Provide a hedge against unanticipated inflation.

B. Major Considerations

Major considerations impacting the structure of the real estate portfolio include:

1. Liquidity
2. Staffing
3. Investment decision-making process
4. Diversification

C. Asset Allocation

CMERS has a current target allocation of 13% to Real Assets and 9.1% to Private Real Estate. CMERS Statement of Investment Policy permits a minimum allocation to Real Assets, defined as Private Real Estate and Public Diversified Real Assets, of 10% and a maximum allocation to Real Assets of 16%.

D. Return Objectives

CMERS seeks to achieve total net returns equivalent to the net returns of the NCREIF Fund Index Open-End Diversified Core Equity Index Value-Weighted Net ("NFI-ODCE" or "ODCE") as a minimum return for the total real estate portfolio over rolling five-year periods.

III. Portfolio Composition

CMERS's real estate allocation will be 100% invested in Core and Core plus strategies. The portfolio will primarily be invested in Core strategies, with Core Plus used as a complement. Investment in Non-Core strategies will not be pursued. Non-Core funds that are currently in the portfolio will be liquidated by the managers at their discretion and according to the provisions established in the documents governing each fund.

Core/Core Plus and Non-Core strategies are defined as follows:

Strategy		Leverage
Core/Core Plus	<p>Existing, operational assets that are substantially leased (greater than 80%) that are core quality properties located in major markets.</p> <p>Core strategies are typically concentrated in the four main property types: office, apartment, retail and industrial, but may include mixed-use properties, self-storage, and hotels.</p> <p>Core Plus strategies may have greater exposure to property types beyond the four main property types, including mixed-use, self-storage, hotels, senior housing, and student housing.</p> <p>Total return derived from income and appreciation, with income accounting for at least 60% of the total return.</p>	<p>Core strategies generally have leverage of less than 35%.</p> <p>Core Plus strategies may have higher leverage, up to 50%, but typically 35-40%.</p>
Non-Core Value-Add	<p>Institutional quality properties located in major and secondary markets with improvement needs or opportunities to add value through asset management initiatives.</p> <p>Includes office, apartment, retail, industrial, as well as more specialized property types such as mixed-use properties, hotels, senior housing, self-storage and student housing, among others.</p> <p>Return balanced between appreciation and income, with some initial income that grows over time as value-add strategy is implemented.</p>	May include the use of leverage up to 65%
Non-Core Opportunistic	<p>Properties, property portfolios or real estate companies offering recapitalization, turnaround, development, market arbitrage opportunities or other specialized approaches.</p> <p>Return primarily derived from appreciation.</p>	Leverage is utilized and often is not limited

IV. PERMISSIBLE INVESTMENTS

A. Investment Types

To achieve the benefits of investing in real estate, investments for CMERS will consist of equity and equity-oriented ownership in commercial real estate.

B. Investment Structures

This Policy authorizes the use of investment structures that provide legal protections to CMERS commensurate with the investment opportunity subject to legal review. Investments in real estate will be made through collective investment vehicles.

Collective investment vehicles, also known as commingled funds, are generally categorized into two sub-structures: Open-end and Closed-end. Open-end commingled funds are infinite life vehicles which provide periodic liquidity by allowing the investor to contribute capital contributions or redeem capital, typically on a quarterly basis. Closed-end funds are finite life vehicles where the timing of capital contribution and distributions are at the discretion of the manager.

Investment will be made exclusively using open-end funds.

CMERS will not purchase individual properties directly.

V. RISK MANAGEMENT

The primary risks associated with equity real estate investments are investment manager risk, vintage year risk, concentration risk (manager, property type, and geographic), leverage, loss of principal and liquidity risks. The following are risk management strategies:

A. Portfolio Composition

Focusing investment in Core/Core Plus open-end funds is a primary mechanism to manage liquidity risk, leverage and loss of principal.

B. Diversification

1. Manager Diversification

Diversification by manager will be used to limit manager concentration risk. To control manager exposure, the allocation to a single real estate manager is limited to no more than 35% of the real estate portfolio. Generally, the upper limit will only be considered for managers with substantial assets under management. Lower amounts will be appropriate for managers with single product lines and small assets under management. Manager concentration will be calculated by aggregating the total real estate assets invested by CMERS across all real estate strategies managed by the manager.

2. Vehicle Diversification

To mitigate the impact of the failure of a single investment vehicle on total real estate performance, CMERS will limit its investment in any single open-end fund to 35% of the total real estate portfolio.

3. Property Type and Location Diversification

The portfolio will be broadly diversified by property type and by location. Diversification is expected to track, but not match, the diversification of the ODCE benchmark across the major property sectors (office, retail, industrial, apartments, and other) and regions (East, South, West, Midwest). The portfolio will be invested primarily in the U.S.; however up to 5% of the portfolio may be invested outside the U.S.

Each individual manager will determine the diversification of its portfolio. Most have targets relative to the ODCE benchmark weightings.

To achieve a broadly diversified portfolio, CMERS will have a preference for funds that are diversified by property type and location; however, single-sector funds may be considered.

4. Vintage Year Diversification

CMERS recognizes that real estate is cyclical and will pace its investment into the market across vintage years to the extent new allocations are made.

C. Liquidity Profile

Funds with a concentrated investor base will be avoided because they potentially reduce CMERS's ability to exercise its governance rights and/or limit liquidity.

Similarly, for liquidity management, CMERS's investment in any single commingled fund may not exceed 20% of the total net asset value of the open-end fund.

D. Leverage Limitations

CMERS will target portfolio-wide leverage of 25% of CMERS's aggregate real estate portfolio, with a maximum of 35%. CMERS will control the overall leverage amounts by investing in Funds with leverage profiles consistent with this Policy objective.

At the underlying investment vehicle level, leverage will be limited to the levels set within the investment vehicle's governing documents.

In the event that the portfolio-level and/or the style-level leverage constraint is breached due to a contraction in market values, Staff and Consultant will notify the Board and make a recommendation for action or exception.

E. Currency

Investments are expected to be made primarily in vehicles which invest in real estate in the U.S. Although non-U.S. investments are expected to be limited, CMERS accepts the currency risks inherent in the geographic exposures of the investment vehicles. Real estate managers may or may not hedge currency risk at the vehicle-level, but currency will not be hedged at the CMERS real estate portfolio level. Where possible, CMERS will make investments and receive distributions in U.S. dollars.

VI. Summary of Policy Targets and Limits

Policy Parameter	Policy Guidelines
Allocation to Real Estate	Target of 9.1% of total plan assets
Real Assets Range	10% - 16%, includes both Private Real Estate and Public Diversified Real Assets
Permissible Investments	Equity and equity-like investments in commercial real estate
Investment Vehicle <ul style="list-style-type: none">• Open-end Funds	Open-end funds exclusively for any new allocations Legacy Non-Core closed-end funds are in wind down
Investment Styles <ul style="list-style-type: none">• Core/Core Plus Private• Non-Core Private	100%; Focus on Core No new investments; 0% long term target Legacy Non-Core portfolio is in wind down
Manager Exposure	Maximum of 35% to a manager
Single Investment Exposure	Maximum of 35% of the real estate allocation to a single open-end fund
Property Types <ul style="list-style-type: none">• Office• Industrial• Retail• Apartment• Other	The portfolio will be broadly diversified and measured against ODCE property type weightings. Focus will be on the four main property types (office, retail, industrial, apartments) and other (which can include but not limited to life sciences, self-storage, etc.)
Locations <ul style="list-style-type: none">• East• South• West• Midwest• Non-U.S.	The portfolio will be broadly diversified and measured against ODCE regional weightings Non-U.S. – Up to 5% of the portfolio
Leverage	Maximum of 35% for the real estate portfolio; Target of 25% Core ≤ 35% Core Plus ≤ 50% Legacy Non-Core Funds will have leverage according to the levels allowed in their respective governing documents

VII. Benchmark

Each investment will be benchmarked against the NCREIF Fund Index Open-End Diversified Core Equity Index Value Weighted (“NFI-ODCE” or “ODCE”), Net of Fees. Peer Groups may also be used to evaluate performance.

VIII. Valuation

Investments will be valued by the underlying investment managers using the methodology approved with the selection of the particular investment. Managers are expected to conform to the real estate information standards promulgated by NCREIF.

IX. Program Management

The Board, Staff, and Consultant’s roles will be consistent with those described in the Statement of Investment Policy.

X. Compliance With Policy

Until the Non-Core portfolio is fully liquidated, the portfolio will have areas of non-compliance. The Core portfolio will be managed to comply with the Policy. New investments and strategic decisions shall be in compliance with the Policy.

REAL ESTATE INVESTMENT POLICY STATEMENT

June~~December~~ 2022~~19~~

**THE EMPLOYEES' RETIREMENT
SYSTEM OF THE CITY OF MILWAUKEE**

789 N. Water Street, 3rd Floor
Milwaukee, WI 53202
(414) 286-3557

I. PURPOSE

The purpose of this statement of Real Estate Investment Policy is to formalize the City of Milwaukee Employees' Retirement System's ("CMERS") investment objectives, policies, and procedures with respect to the real estate asset class. This statement is an extension of the CMERS overall Statement of Investment Policy.

II. INVESTMENT OBJECTIVE AND CONSIDERATIONS

A. Purpose of Real Estate Allocation

CMERS allocates a portion of its total assets to real estate for the following benefits:

1. Enhance the diversification of the CMERS overall investment portfolio due to real estate's low correlation with stocks and bonds;
2. Provide high current income and a rate of return that falls between stocks and bonds;
3. Lower the volatility of the total investment portfolio considering real estate returns have historically exhibited lower volatility than other public equity asset classes; and
4. Provide a hedge against unanticipated inflation.

B. Major Considerations

Major considerations impacting the structure of the real estate portfolio include:

1. Liquidity
2. Staffing
3. Investment decision-making process
4. Diversification

C. Asset Allocation

CMERS has a current target allocation of 13% to Real Assets and 9.1% to Private Real Estate. CMERS Statement of Investment Policy permits a minimum allocation to Real Assets, defined as Private Real Estate and Public Diversified Real Assets, of 10% and a maximum allocation to Real Assets of 16%. approved a long-term asset allocation of 7.7% of total CMERS assets for investment in equity and equity-oriented real estate investment. To facilitate maintaining the target allocation of 7.7%, CMERS will target a range 5% to 10%.

D. Return Objectives

CMERS seeks to achieve total net returns equivalent to the net returns of the NCREIF Fund Index Open-End Diversified Core Equity Index Value-Weighted Net ("NFI-ODCE" or "ODCE") as a minimum return for the total real estate portfolio over rolling five-year periods.

III. Portfolio Composition

CMERS's real estate allocation will be 100% invested in Core and Core plus strategies.

The portfolio will primarily be invested in Core strategies, with Core Plus used as a complement. Investment in Non-Core strategies will not be pursued. Non-Core funds that are currently in the portfolio will be liquidated by the managers at their discretion and according to the provisions established in the documents governing each fund.

Core/Core Plus and Non-Core strategies are defined as follows:

	Strategy	Leverage
Core/Core Plus	<p>Existing, operational assets that are substantially leased (greater than 80%) that are core quality properties located in major markets.</p> <p>Core strategies are typically concentrated in the four main property types: office, apartment, retail and industrial, but may include mixed-use properties, self-storage, and hotels.</p> <p>Core Plus strategies may have greater exposure to property types beyond the four main property types, including mixed-use, self-storage, hotels, senior housing, and student housing.</p> <p>Total return derived from income and appreciation, with income accounting for at least 60% of the total return.</p>	<p>Core strategies generally have leverage of less than 35%.</p> <p>Core Plus strategies may have higher leverage, up to 50%, but typically 35-40%.</p>
Non-Core Value-Add	<p>Institutional quality properties located in major and secondary markets with improvement needs or opportunities to add value through asset management initiatives.</p> <p>Includes office, apartment, retail, industrial, as well as more specialized property types such as mixed-use properties, hotels, senior housing, self-storage and student housing, among others.</p> <p>Return balanced between appreciation and income, with some initial income that grows over time as value-add strategy is implemented.</p>	<p>May include the use of leverage up to 65%</p>
Non-Core Opportunistic	<p>Properties, property portfolios or real estate companies offering recapitalization, turnaround, development, market arbitrage opportunities or other specialized approaches.</p> <p>Return primarily derived from appreciation.</p>	<p>Leverage is utilized and often is not limited</p>

IV. PERMISSIBLE INVESTMENTS

A. Investment Types

To achieve the benefits of investing in real estate, investments for CMERS will consist of equity and equity-oriented ownership in commercial real estate.

B. Investment Structures

This Policy authorizes the use of investment structures that provide legal protections to CMERS commensurate with the investment opportunity subject to legal review. Investments in real estate will be made through collective investment vehicles.

Collective investment vehicles, also known as commingled funds, are generally categorized into two sub-structures: Open-end and Closed-end. Open-end commingled funds are infinite life vehicles which provide periodic liquidity by allowing the investor to contribute capital contributions or redeem capital, typically on a quarterly basis. Closed-end funds are finite life vehicles where the timing of capital contribution and distributions are at the discretion of the manager.

Investment will be made exclusively using open-end funds.

CMERS will not purchase individual properties directly.

V. RISK MANAGEMENT

The primary risks associated with equity real estate investments are investment manager risk, vintage year risk, concentration risk (manager, property type, and geographic), leverage, loss of principal and liquidity risks. The following are risk management strategies:

A. Portfolio Composition

Focusing investment in Core/Core Plus open-end funds is a primary mechanism to manage liquidity risk, leverage and loss of principal.

B. Diversification

1. Manager Diversification

Diversification by manager will be used to limit manager concentration risk. To control manager exposure, the allocation to a single real estate manager is limited to no more than 35% of the real estate portfolio. Generally, the upper limit will only be considered for managers with substantial assets under management. Lower amounts will be appropriate for managers with single product lines and small assets under management.

Manager concentration will be calculated by aggregating the total real estate assets invested by CMERS across all real estate strategies managed by the manager.

2. Vehicle Diversification

To mitigate the impact of the failure of a single investment vehicle on total real estate performance, CMERS will limit its investment in any single open-end fund to 35% of the total real estate portfolio.

3. Property Type and Location Diversification

The portfolio will be broadly diversified by property type and by location. Diversification is expected to track, but not match, the diversification of the ODCE benchmark across the major property sectors (office, retail, industrial, apartments, and other) and regions (East, South, West, Midwest). The portfolio will be invested primarily in the U.S.; however up to 5% of the portfolio may be invested outside the U.S.

Each individual manager will determine the diversification of its portfolio. Most have targets relative to the ODCE benchmark weightings.

To achieve a broadly diversified portfolio, CMERS will have a preference for funds that are diversified by property type and location; however, single-sector funds may be considered.

4. Vintage Year Diversification

CMERS recognizes that real estate is cyclical and will pace its investment into the market across vintage years to the extent new allocations are made.

C. Liquidity Profile

Funds with a concentrated investor base will be avoided because they potentially reduce CMERS's ability to exercise its governance rights and/or limit liquidity.

Similarly, for liquidity management, CMERS's investment in any single commingled fund may not exceed 20% of the total net asset value of the open-end fund.

D. Leverage Limitations

CMERS will target portfolio-wide leverage of ~~25%~~ 25% of CMERS's aggregate real estate portfolio, with a maximum of 35%. CMERS will control the overall leverage amounts by investing in Funds with leverage profiles consistent with this Policy objective.

At the underlying investment vehicle level, leverage will be limited to the levels set within the investment vehicle's governing documents.

In the event that the portfolio-level and/or the style-level leverage constraint is breached due to a contraction in market values, Staff and Consultant will notify the Board and make a recommendation for action or exception.

E. Currency

Investments are expected to be made primarily in vehicles which invest in real estate in the U.S. Although non-U.S. investments are expected to be limited, CMERS accepts the currency risks inherent in the geographic exposures of the investment vehicles. Real estate managers may or may not hedge currency risk at the vehicle-level, but currency will not be hedged at the CMERS real estate portfolio level. Where possible, CMERS will make investments and receive distributions in U.S. dollars.

VI. Summary of Policy Targets and Limits

Policy Parameter	Policy Guidelines
Allocation to Real Estate	Target of 97.1% 7% of total plan assets; range of 5%-10%
<u>Real Assets Range</u>	<u>10% - 16%, includes both Private Real Estate and Public Diversified Real Assets</u>
Permissible Investments	Equity and equity-like investments in commercial real estate
Investment Vehicle <ul style="list-style-type: none"> Open-end Funds 	Open-end funds exclusively for any new allocations Legacy Non-Core closed-end funds are in wind down
Investment Styles <ul style="list-style-type: none"> Core/Core Plus Private Non-Core Private 	100%; Focus on Core No new investments; 0% long term target Legacy Non-Core portfolio is in wind down
Manager Exposure	Maximum of 35% to a manager
Single Investment Exposure	Maximum of 35% of the real estate allocation to a single open-end fund
Property Types <ul style="list-style-type: none"> Office Industrial Retail Apartment Other 	The portfolio will be broadly diversified and measured against ODCE property type weightings. Focus will be on the four main property types (office, retail, industrial, apartments) <u>and other (which can include but not limited to life sciences, self-storage, etc.)</u>
Locations <ul style="list-style-type: none"> East South West Midwest 	The portfolio will be broadly diversified and measured against ODCE regional weightings

• Non-U.S.	Non-U.S. – Up to 5% of the portfolio
Leverage	Maximum of 35% for the real estate portfolio; Target of 25% Core ≤ 35% Core Plus ≤ 50% Legacy Non-Core Funds will have leverage according to the levels allowed in their respective governing documents

VII. Benchmark

Each investment will be benchmarked against the NCREIF Fund Index Open-End Diversified Core Equity Index Value Weighted (“NFI-ODCE” or “ODCE”), Net of Fees. Peer Groups may also be used to evaluate performance.

VIII. Valuation

Investments will be valued by the underlying investment managers using the methodology approved with the selection of the particular investment. Managers are expected to conform to the real estate information standards promulgated by NCREIF.

IX. Program Management

The Board, Staff, and Consultant’s roles will be consistent with those described in the Statement of Investment Policy.

X. Compliance With Policy

Until the Non-Core portfolio is fully liquidated, the portfolio will have areas of non-compliance. The Core portfolio will be managed to comply with the Policy. New investments and strategic decisions shall be in compliance with the Policy.

REAL ESTATE INVESTMENT POLICY STATEMENT
June 2022

**THE EMPLOYEES' RETIREMENT
SYSTEM OF THE CITY OF MILWAUKEE**
789 N. Water Street, 3rd Floor
Milwaukee, WI 53202
(414) 286-3557

I. PURPOSE

The purpose of this statement of Real Estate Investment Policy is to formalize the City of Milwaukee Employees' Retirement System's ("CMERS") investment objectives, policies, and procedures with respect to the real estate asset class. This statement is an extension of the CMERS overall Statement of Investment Policy.

II. INVESTMENT OBJECTIVE AND CONSIDERATIONS

A. Purpose of Real Estate Allocation

CMERS allocates a portion of its total assets to real estate for the following benefits:

1. Enhance the diversification of the CMERS overall investment portfolio due to real estate's low correlation with stocks and bonds;
2. Provide high current income and a rate of return that falls between stocks and bonds;
3. Lower the volatility of the total investment portfolio considering real estate returns have historically exhibited lower volatility than other public equity asset classes; and
4. Provide a hedge against unanticipated inflation.

B. Major Considerations

Major considerations impacting the structure of the real estate portfolio include:

1. Liquidity
2. Staffing
3. Investment decision-making process
4. Diversification

C. Asset Allocation

CMERS has a current target allocation of 13% to Real Assets and 9.1% to Private Real Estate. CMERS Statement of Investment Policy permits a minimum allocation to Real Assets, defined as Private Real Estate and Public Diversified Real Assets, of 10% and a maximum allocation to Real Assets of 16%.

D. Return Objectives

CMERS seeks to achieve total net returns equivalent to the net returns of the NCREIF Fund Index Open-End Diversified Core Equity Index Value-Weighted Net ("NFI-ODCE" or "ODCE") as a minimum return for the total real estate portfolio over rolling five-year periods.

III. Portfolio Composition

CMERS's real estate allocation will be 100% invested in Core and Core plus strategies. The portfolio will primarily be invested in Core strategies, with Core Plus used as a complement. Investment in Non-Core strategies will not be pursued. Non-Core funds that are currently in the portfolio will be liquidated by the managers at their discretion and according to the provisions established in the documents governing each fund.

Core/Core Plus and Non-Core strategies are defined as follows:

Strategy		Leverage
Core/Core Plus	<p>Existing, operational assets that are substantially leased (greater than 80%) that are core quality properties located in major markets.</p> <p>Core strategies are typically concentrated in the four main property types: office, apartment, retail and industrial, but may include mixed-use properties, self-storage, and hotels.</p> <p>Core Plus strategies may have greater exposure to property types beyond the four main property types, including mixed-use, self-storage, hotels, senior housing, and student housing.</p> <p>Total return derived from income and appreciation, with income accounting for at least 60% of the total return.</p>	<p>Core strategies generally have leverage of less than 35%.</p> <p>Core Plus strategies may have higher leverage, up to 50%, but typically 35-40%.</p>
Non-Core Value-Add	<p>Institutional quality properties located in major and secondary markets with improvement needs or opportunities to add value through asset management initiatives.</p> <p>Includes office, apartment, retail, industrial, as well as more specialized property types such as mixed-use properties, hotels, senior housing, self-storage and student housing, among others.</p> <p>Return balanced between appreciation and income, with some initial income that grows over time as value-add strategy is implemented.</p>	May include the use of leverage up to 65%
Non-Core Opportunistic	<p>Properties, property portfolios or real estate companies offering recapitalization, turnaround, development, market arbitrage opportunities or other specialized approaches.</p> <p>Return primarily derived from appreciation.</p>	Leverage is utilized and often is not limited

IV. PERMISSIBLE INVESTMENTS

A. Investment Types

To achieve the benefits of investing in real estate, investments for CMERS will consist of equity and equity-oriented ownership in commercial real estate.

B. Investment Structures

This Policy authorizes the use of investment structures that provide legal protections to CMERS commensurate with the investment opportunity subject to legal review. Investments in real estate will be made through collective investment vehicles.

Collective investment vehicles, also known as commingled funds, are generally categorized into two sub-structures: Open-end and Closed-end. Open-end commingled funds are infinite life vehicles which provide periodic liquidity by allowing the investor to contribute capital contributions or redeem capital, typically on a quarterly basis. Closed-end funds are finite life vehicles where the timing of capital contribution and distributions are at the discretion of the manager.

Investment will be made exclusively using open-end funds.

CMERS will not purchase individual properties directly.

V. RISK MANAGEMENT

The primary risks associated with equity real estate investments are investment manager risk, vintage year risk, concentration risk (manager, property type, and geographic), leverage, loss of principal and liquidity risks. The following are risk management strategies:

A. Portfolio Composition

Focusing investment in Core/Core Plus open-end funds is a primary mechanism to manage liquidity risk, leverage and loss of principal.

B. Diversification

1. Manager Diversification

Diversification by manager will be used to limit manager concentration risk. To control manager exposure, the allocation to a single real estate manager is limited to no more than 35% of the real estate portfolio. Generally, the upper limit will only be considered for managers with substantial assets under management. Lower amounts will be appropriate for managers with single product lines and small assets under management. Manager concentration will be calculated by aggregating the total real estate assets invested by CMERS across all real estate strategies managed by the manager.

2. Vehicle Diversification

To mitigate the impact of the failure of a single investment vehicle on total real estate performance, CMERS will limit its investment in any single open-end fund to 35% of the total real estate portfolio.

3. Property Type and Location Diversification

The portfolio will be broadly diversified by property type and by location. Diversification is expected to track, but not match, the diversification of the ODCE benchmark across the major property sectors (office, retail, industrial, apartments, and other) and regions (East, South, West, Midwest). The portfolio will be invested primarily in the U.S.; however up to 5% of the portfolio may be invested outside the U.S.

Each individual manager will determine the diversification of its portfolio. Most have targets relative to the ODCE benchmark weightings.

To achieve a broadly diversified portfolio, CMERS will have a preference for funds that are diversified by property type and location; however, single-sector funds may be considered.

4. Vintage Year Diversification

CMERS recognizes that real estate is cyclical and will pace its investment into the market across vintage years to the extent new allocations are made.

C. Liquidity Profile

Funds with a concentrated investor base will be avoided because they potentially reduce CMERS's ability to exercise its governance rights and/or limit liquidity.

Similarly, for liquidity management, CMERS's investment in any single commingled fund may not exceed 20% of the total net asset value of the open-end fund.

D. Leverage Limitations

CMERS will target portfolio-wide leverage of 25% of CMERS's aggregate real estate portfolio, with a maximum of 35%. CMERS will control the overall leverage amounts by investing in Funds with leverage profiles consistent with this Policy objective.

At the underlying investment vehicle level, leverage will be limited to the levels set within the investment vehicle's governing documents.

In the event that the portfolio-level and/or the style-level leverage constraint is breached due to a contraction in market values, Staff and Consultant will notify the Board and make a recommendation for action or exception.

E. Currency

Investments are expected to be made primarily in vehicles which invest in real estate in the U.S. Although non-U.S. investments are expected to be limited, CMERS accepts the currency risks inherent in the geographic exposures of the investment vehicles. Real estate managers may or may not hedge currency risk at the vehicle-level, but currency will not be hedged at the CMERS real estate portfolio level. Where possible, CMERS will make investments and receive distributions in U.S. dollars.

VI. Summary of Policy Targets and Limits

Policy Parameter	Policy Guidelines
Allocation to Real Estate	Target of 9.1% of total plan assets
Real Assets Range	10% - 16%, includes both Private Real Estate and Public Diversified Real Assets
Permissible Investments	Equity and equity-like investments in commercial real estate
Investment Vehicle <ul style="list-style-type: none">• Open-end Funds	Open-end funds exclusively for any new allocations Legacy Non-Core closed-end funds are in wind down
Investment Styles <ul style="list-style-type: none">• Core/Core Plus Private• Non-Core Private	100%; Focus on Core No new investments; 0% long term target Legacy Non-Core portfolio is in wind down
Manager Exposure	Maximum of 35% to a manager
Single Investment Exposure	Maximum of 35% of the real estate allocation to a single open-end fund
Property Types <ul style="list-style-type: none">• Office• Industrial• Retail• Apartment• Other	The portfolio will be broadly diversified and measured against ODCE property type weightings. Focus will be on the four main property types (office, retail, industrial, apartments) and other (which can include but not limited to life sciences, self-storage, etc.)
Locations <ul style="list-style-type: none">• East• South• West• Midwest• Non-U.S.	The portfolio will be broadly diversified and measured against ODCE regional weightings Non-U.S. – Up to 5% of the portfolio
Leverage	Maximum of 35% for the real estate portfolio; Target of 25% Core ≤ 35% Core Plus ≤ 50% Legacy Non-Core Funds will have leverage according to the levels allowed in their respective governing documents

VII. Benchmark

Each investment will be benchmarked against the NCREIF Fund Index Open-End Diversified Core Equity Index Value Weighted (“NFI-ODCE” or “ODCE”), Net of Fees. Peer Groups may also be used to evaluate performance.

VIII. Valuation

Investments will be valued by the underlying investment managers using the methodology approved with the selection of the particular investment. Managers are expected to conform to the real estate information standards promulgated by NCREIF.

IX. Program Management

The Board, Staff, and Consultant’s roles will be consistent with those described in the Statement of Investment Policy.

X. Compliance With Policy

Until the Non-Core portfolio is fully liquidated, the portfolio will have areas of non-compliance. The Core portfolio will be managed to comply with the Policy. New investments and strategic decisions shall be in compliance with the Policy.

REAL ESTATE INVESTMENT POLICY STATEMENT

June~~December~~ 2022~~19~~

**THE EMPLOYEES' RETIREMENT
SYSTEM OF THE CITY OF MILWAUKEE**

789 N. Water Street, 3rd Floor
Milwaukee, WI 53202
(414) 286-3557

I. PURPOSE

The purpose of this statement of Real Estate Investment Policy is to formalize the City of Milwaukee Employees' Retirement System's ("CMERS") investment objectives, policies, and procedures with respect to the real estate asset class. This statement is an extension of the CMERS overall Statement of Investment Policy.

II. INVESTMENT OBJECTIVE AND CONSIDERATIONS

A. Purpose of Real Estate Allocation

CMERS allocates a portion of its total assets to real estate for the following benefits:

1. Enhance the diversification of the CMERS overall investment portfolio due to real estate's low correlation with stocks and bonds;
2. Provide high current income and a rate of return that falls between stocks and bonds;
3. Lower the volatility of the total investment portfolio considering real estate returns have historically exhibited lower volatility than other public equity asset classes; and
4. Provide a hedge against unanticipated inflation.

B. Major Considerations

Major considerations impacting the structure of the real estate portfolio include:

1. Liquidity
2. Staffing
3. Investment decision-making process
4. Diversification

C. Asset Allocation

CMERS has a current target allocation of 13% to Real Assets and 9.1% to Private Real Estate. CMERS Statement of Investment Policy permits a minimum allocation to Real Assets, defined as Private Real Estate and Public Diversified Real Assets, of 10% and a maximum allocation to Real Assets of 16%. approved a long-term asset allocation of 7.7% of total CMERS assets for investment in equity and equity-oriented real estate investment. To facilitate maintaining the target allocation of 7.7%, CMERS will target a range 5% to 10%.

D. Return Objectives

CMERS seeks to achieve total net returns equivalent to the net returns of the NCREIF Fund Index Open-End Diversified Core Equity Index Value-Weighted Net ("NFI-ODCE" or "ODCE") as a minimum return for the total real estate portfolio over rolling five-year periods.

III. Portfolio Composition

CMERS's real estate allocation will be 100% invested in Core and Core plus strategies.

The portfolio will primarily be invested in Core strategies, with Core Plus used as a complement. Investment in Non-Core strategies will not be pursued. Non-Core funds that are currently in the portfolio will be liquidated by the managers at their discretion and according to the provisions established in the documents governing each fund.

Core/Core Plus and Non-Core strategies are defined as follows:

	Strategy	Leverage
Core/Core Plus	<p>Existing, operational assets that are substantially leased (greater than 80%) that are core quality properties located in major markets.</p> <p>Core strategies are typically concentrated in the four main property types: office, apartment, retail and industrial, but may include mixed-use properties, self-storage, and hotels.</p> <p>Core Plus strategies may have greater exposure to property types beyond the four main property types, including mixed-use, self-storage, hotels, senior housing, and student housing.</p> <p>Total return derived from income and appreciation, with income accounting for at least 60% of the total return.</p>	<p>Core strategies generally have leverage of less than 35%.</p> <p>Core Plus strategies may have higher leverage, up to 50%, but typically 35-40%.</p>
Non-Core Value-Add	<p>Institutional quality properties located in major and secondary markets with improvement needs or opportunities to add value through asset management initiatives.</p> <p>Includes office, apartment, retail, industrial, as well as more specialized property types such as mixed-use properties, hotels, senior housing, self-storage and student housing, among others.</p> <p>Return balanced between appreciation and income, with some initial income that grows over time as value-add strategy is implemented.</p>	<p>May include the use of leverage up to 65%</p>
Non-Core Opportunistic	<p>Properties, property portfolios or real estate companies offering recapitalization, turnaround, development, market arbitrage opportunities or other specialized approaches.</p> <p>Return primarily derived from appreciation.</p>	<p>Leverage is utilized and often is not limited</p>

IV. PERMISSIBLE INVESTMENTS

A. Investment Types

To achieve the benefits of investing in real estate, investments for CMERS will consist of equity and equity-oriented ownership in commercial real estate.

B. Investment Structures

This Policy authorizes the use of investment structures that provide legal protections to CMERS commensurate with the investment opportunity subject to legal review. Investments in real estate will be made through collective investment vehicles.

Collective investment vehicles, also known as commingled funds, are generally categorized into two sub-structures: Open-end and Closed-end. Open-end commingled funds are infinite life vehicles which provide periodic liquidity by allowing the investor to contribute capital contributions or redeem capital, typically on a quarterly basis. Closed-end funds are finite life vehicles where the timing of capital contribution and distributions are at the discretion of the manager.

Investment will be made exclusively using open-end funds.

CMERS will not purchase individual properties directly.

V. RISK MANAGEMENT

The primary risks associated with equity real estate investments are investment manager risk, vintage year risk, concentration risk (manager, property type, and geographic), leverage, loss of principal and liquidity risks. The following are risk management strategies:

A. Portfolio Composition

Focusing investment in Core/Core Plus open-end funds is a primary mechanism to manage liquidity risk, leverage and loss of principal.

B. Diversification

1. Manager Diversification

Diversification by manager will be used to limit manager concentration risk. To control manager exposure, the allocation to a single real estate manager is limited to no more than 35% of the real estate portfolio. Generally, the upper limit will only be considered for managers with substantial assets under management. Lower amounts will be appropriate for managers with single product lines and small assets under management.

Manager concentration will be calculated by aggregating the total real estate assets invested by CMERS across all real estate strategies managed by the manager.

2. Vehicle Diversification

To mitigate the impact of the failure of a single investment vehicle on total real estate performance, CMERS will limit its investment in any single open-end fund to 35% of the total real estate portfolio.

3. Property Type and Location Diversification

The portfolio will be broadly diversified by property type and by location. Diversification is expected to track, but not match, the diversification of the ODCE benchmark across the major property sectors (office, retail, industrial, apartments, and other) and regions (East, South, West, Midwest). The portfolio will be invested primarily in the U.S.; however up to 5% of the portfolio may be invested outside the U.S.

Each individual manager will determine the diversification of its portfolio. Most have targets relative to the ODCE benchmark weightings.

To achieve a broadly diversified portfolio, CMERS will have a preference for funds that are diversified by property type and location; however, single-sector funds may be considered.

4. Vintage Year Diversification

CMERS recognizes that real estate is cyclical and will pace its investment into the market across vintage years to the extent new allocations are made.

C. Liquidity Profile

Funds with a concentrated investor base will be avoided because they potentially reduce CMERS's ability to exercise its governance rights and/or limit liquidity.

Similarly, for liquidity management, CMERS's investment in any single commingled fund may not exceed 20% of the total net asset value of the open-end fund.

D. Leverage Limitations

CMERS will target portfolio-wide leverage of ~~25%~~ 25% of CMERS's aggregate real estate portfolio, with a maximum of 35%. CMERS will control the overall leverage amounts by investing in Funds with leverage profiles consistent with this Policy objective.

At the underlying investment vehicle level, leverage will be limited to the levels set within the investment vehicle's governing documents.

In the event that the portfolio-level and/or the style-level leverage constraint is breached due to a contraction in market values, Staff and Consultant will notify the Board and make a recommendation for action or exception.

E. Currency

Investments are expected to be made primarily in vehicles which invest in real estate in the U.S. Although non-U.S. investments are expected to be limited, CMERS accepts the currency risks inherent in the geographic exposures of the investment vehicles. Real estate managers may or may not hedge currency risk at the vehicle-level, but currency will not be hedged at the CMERS real estate portfolio level. Where possible, CMERS will make investments and receive distributions in U.S. dollars.

VI. Summary of Policy Targets and Limits

Policy Parameter	Policy Guidelines
Allocation to Real Estate	Target of 97.1% 7% of total plan assets; range of 5%-10%
<u>Real Assets Range</u>	<u>10% - 16%, includes both Private Real Estate and Public Diversified Real Assets</u>
Permissible Investments	Equity and equity-like investments in commercial real estate
Investment Vehicle <ul style="list-style-type: none"> Open-end Funds 	Open-end funds exclusively for any new allocations Legacy Non-Core closed-end funds are in wind down
Investment Styles <ul style="list-style-type: none"> Core/Core Plus Private Non-Core Private 	100%; Focus on Core No new investments; 0% long term target Legacy Non-Core portfolio is in wind down
Manager Exposure	Maximum of 35% to a manager
Single Investment Exposure	Maximum of 35% of the real estate allocation to a single open-end fund
Property Types <ul style="list-style-type: none"> Office Industrial Retail Apartment Other 	The portfolio will be broadly diversified and measured against ODCE property type weightings. Focus will be on the four main property types (office, retail, industrial, apartments) <u>and other (which can include but not limited to life sciences, self-storage, etc.)</u>
Locations <ul style="list-style-type: none"> East South West Midwest 	The portfolio will be broadly diversified and measured against ODCE regional weightings

• Non-U.S.	Non-U.S. – Up to 5% of the portfolio
Leverage	Maximum of 35% for the real estate portfolio; Target of 25% Core ≤ 35% Core Plus ≤ 50% Legacy Non-Core Funds will have leverage according to the levels allowed in their respective governing documents

VII. Benchmark

Each investment will be benchmarked against the NCREIF Fund Index Open-End Diversified Core Equity Index Value Weighted (“NFI-ODCE” or “ODCE”), Net of Fees. Peer Groups may also be used to evaluate performance.

VIII. Valuation

Investments will be valued by the underlying investment managers using the methodology approved with the selection of the particular investment. Managers are expected to conform to the real estate information standards promulgated by NCREIF.

IX. Program Management

The Board, Staff, and Consultant’s roles will be consistent with those described in the Statement of Investment Policy.

X. Compliance With Policy

Until the Non-Core portfolio is fully liquidated, the portfolio will have areas of non-compliance. The Core portfolio will be managed to comply with the Policy. New investments and strategic decisions shall be in compliance with the Policy.

REAL ESTATE INVESTMENT POLICY STATEMENT
June 2022

**THE EMPLOYEES' RETIREMENT
SYSTEM OF THE CITY OF MILWAUKEE**
789 N. Water Street, 3rd Floor
Milwaukee, WI 53202
(414) 286-3557

I. PURPOSE

The purpose of this statement of Real Estate Investment Policy is to formalize the City of Milwaukee Employees' Retirement System's ("CMERS") investment objectives, policies, and procedures with respect to the real estate asset class. This statement is an extension of the CMERS overall Statement of Investment Policy.

II. INVESTMENT OBJECTIVE AND CONSIDERATIONS

A. Purpose of Real Estate Allocation

CMERS allocates a portion of its total assets to real estate for the following benefits:

1. Enhance the diversification of the CMERS overall investment portfolio due to real estate's low correlation with stocks and bonds;
2. Provide high current income and a rate of return that falls between stocks and bonds;
3. Lower the volatility of the total investment portfolio considering real estate returns have historically exhibited lower volatility than other public equity asset classes; and
4. Provide a hedge against unanticipated inflation.

B. Major Considerations

Major considerations impacting the structure of the real estate portfolio include:

1. Liquidity
2. Staffing
3. Investment decision-making process
4. Diversification

C. Asset Allocation

CMERS has a current target allocation of 13% to Real Assets and 9.1% to Private Real Estate. CMERS Statement of Investment Policy permits a minimum allocation to Real Assets, defined as Private Real Estate and Public Diversified Real Assets, of 10% and a maximum allocation to Real Assets of 16%.

D. Return Objectives

CMERS seeks to achieve total net returns equivalent to the net returns of the NCREIF Fund Index Open-End Diversified Core Equity Index Value-Weighted Net ("NFI-ODCE" or "ODCE") as a minimum return for the total real estate portfolio over rolling five-year periods.

III. Portfolio Composition

CMERS's real estate allocation will be 100% invested in Core and Core plus strategies. The portfolio will primarily be invested in Core strategies, with Core Plus used as a complement. Investment in Non-Core strategies will not be pursued. Non-Core funds that are currently in the portfolio will be liquidated by the managers at their discretion and according to the provisions established in the documents governing each fund.

Core/Core Plus and Non-Core strategies are defined as follows:

Strategy		Leverage
Core/Core Plus	<p>Existing, operational assets that are substantially leased (greater than 80%) that are core quality properties located in major markets.</p> <p>Core strategies are typically concentrated in the four main property types: office, apartment, retail and industrial, but may include mixed-use properties, self-storage, and hotels.</p> <p>Core Plus strategies may have greater exposure to property types beyond the four main property types, including mixed-use, self-storage, hotels, senior housing, and student housing.</p> <p>Total return derived from income and appreciation, with income accounting for at least 60% of the total return.</p>	<p>Core strategies generally have leverage of less than 35%.</p> <p>Core Plus strategies may have higher leverage, up to 50%, but typically 35-40%.</p>
Non-Core Value-Add	<p>Institutional quality properties located in major and secondary markets with improvement needs or opportunities to add value through asset management initiatives.</p> <p>Includes office, apartment, retail, industrial, as well as more specialized property types such as mixed-use properties, hotels, senior housing, self-storage and student housing, among others.</p> <p>Return balanced between appreciation and income, with some initial income that grows over time as value-add strategy is implemented.</p>	May include the use of leverage up to 65%
Non-Core Opportunistic	<p>Properties, property portfolios or real estate companies offering recapitalization, turnaround, development, market arbitrage opportunities or other specialized approaches.</p> <p>Return primarily derived from appreciation.</p>	Leverage is utilized and often is not limited

IV. PERMISSIBLE INVESTMENTS

A. Investment Types

To achieve the benefits of investing in real estate, investments for CMERS will consist of equity and equity-oriented ownership in commercial real estate.

B. Investment Structures

This Policy authorizes the use of investment structures that provide legal protections to CMERS commensurate with the investment opportunity subject to legal review. Investments in real estate will be made through collective investment vehicles.

Collective investment vehicles, also known as commingled funds, are generally categorized into two sub-structures: Open-end and Closed-end. Open-end commingled funds are infinite life vehicles which provide periodic liquidity by allowing the investor to contribute capital contributions or redeem capital, typically on a quarterly basis. Closed-end funds are finite life vehicles where the timing of capital contribution and distributions are at the discretion of the manager.

Investment will be made exclusively using open-end funds.

CMERS will not purchase individual properties directly.

V. RISK MANAGEMENT

The primary risks associated with equity real estate investments are investment manager risk, vintage year risk, concentration risk (manager, property type, and geographic), leverage, loss of principal and liquidity risks. The following are risk management strategies:

A. Portfolio Composition

Focusing investment in Core/Core Plus open-end funds is a primary mechanism to manage liquidity risk, leverage and loss of principal.

B. Diversification

1. Manager Diversification

Diversification by manager will be used to limit manager concentration risk. To control manager exposure, the allocation to a single real estate manager is limited to no more than 35% of the real estate portfolio. Generally, the upper limit will only be considered for managers with substantial assets under management. Lower amounts will be appropriate for managers with single product lines and small assets under management. Manager concentration will be calculated by aggregating the total real estate assets invested by CMERS across all real estate strategies managed by the manager.

2. Vehicle Diversification

To mitigate the impact of the failure of a single investment vehicle on total real estate performance, CMERS will limit its investment in any single open-end fund to 35% of the total real estate portfolio.

3. Property Type and Location Diversification

The portfolio will be broadly diversified by property type and by location. Diversification is expected to track, but not match, the diversification of the ODCE benchmark across the major property sectors (office, retail, industrial, apartments, and other) and regions (East, South, West, Midwest). The portfolio will be invested primarily in the U.S.; however up to 5% of the portfolio may be invested outside the U.S.

Each individual manager will determine the diversification of its portfolio. Most have targets relative to the ODCE benchmark weightings.

To achieve a broadly diversified portfolio, CMERS will have a preference for funds that are diversified by property type and location; however, single-sector funds may be considered.

4. Vintage Year Diversification

CMERS recognizes that real estate is cyclical and will pace its investment into the market across vintage years to the extent new allocations are made.

C. Liquidity Profile

Funds with a concentrated investor base will be avoided because they potentially reduce CMERS's ability to exercise its governance rights and/or limit liquidity.

Similarly, for liquidity management, CMERS's investment in any single commingled fund may not exceed 20% of the total net asset value of the open-end fund.

D. Leverage Limitations

CMERS will target portfolio-wide leverage of 25% of CMERS's aggregate real estate portfolio, with a maximum of 35%. CMERS will control the overall leverage amounts by investing in Funds with leverage profiles consistent with this Policy objective.

At the underlying investment vehicle level, leverage will be limited to the levels set within the investment vehicle's governing documents.

In the event that the portfolio-level and/or the style-level leverage constraint is breached due to a contraction in market values, Staff and Consultant will notify the Board and make a recommendation for action or exception.

E. Currency

Investments are expected to be made primarily in vehicles which invest in real estate in the U.S. Although non-U.S. investments are expected to be limited, CMERS accepts the currency risks inherent in the geographic exposures of the investment vehicles. Real estate managers may or may not hedge currency risk at the vehicle-level, but currency will not be hedged at the CMERS real estate portfolio level. Where possible, CMERS will make investments and receive distributions in U.S. dollars.

VI. Summary of Policy Targets and Limits

Policy Parameter	Policy Guidelines
Allocation to Real Estate	Target of 9.1% of total plan assets
Real Assets Range	10% - 16%, includes both Private Real Estate and Public Diversified Real Assets
Permissible Investments	Equity and equity-like investments in commercial real estate
Investment Vehicle <ul style="list-style-type: none">• Open-end Funds	Open-end funds exclusively for any new allocations Legacy Non-Core closed-end funds are in wind down
Investment Styles <ul style="list-style-type: none">• Core/Core Plus Private• Non-Core Private	100%; Focus on Core No new investments; 0% long term target Legacy Non-Core portfolio is in wind down
Manager Exposure	Maximum of 35% to a manager
Single Investment Exposure	Maximum of 35% of the real estate allocation to a single open-end fund
Property Types <ul style="list-style-type: none">• Office• Industrial• Retail• Apartment• Other	The portfolio will be broadly diversified and measured against ODCE property type weightings. Focus will be on the four main property types (office, retail, industrial, apartments) and other (which can include but not limited to life sciences, self-storage, etc.)
Locations <ul style="list-style-type: none">• East• South• West• Midwest• Non-U.S.	The portfolio will be broadly diversified and measured against ODCE regional weightings Non-U.S. – Up to 5% of the portfolio
Leverage	Maximum of 35% for the real estate portfolio; Target of 25% Core ≤ 35% Core Plus ≤ 50% Legacy Non-Core Funds will have leverage according to the levels allowed in their respective governing documents

VII. Benchmark

Each investment will be benchmarked against the NCREIF Fund Index Open-End Diversified Core Equity Index Value Weighted (“NFI-ODCE” or “ODCE”), Net of Fees. Peer Groups may also be used to evaluate performance.

VIII. Valuation

Investments will be valued by the underlying investment managers using the methodology approved with the selection of the particular investment. Managers are expected to conform to the real estate information standards promulgated by NCREIF.

IX. Program Management

The Board, Staff, and Consultant’s roles will be consistent with those described in the Statement of Investment Policy.

X. Compliance With Policy

Until the Non-Core portfolio is fully liquidated, the portfolio will have areas of non-compliance. The Core portfolio will be managed to comply with the Policy. New investments and strategic decisions shall be in compliance with the Policy.

STATEMENT OF INVESTMENT POLICY
Updated ~~June~~**December** 202**21**

**THE EMPLOYES' RETIREMENT
SYSTEM OF THE CITY OF MILWAUKEE**
789 N. Water Street, 3rd Floor
Milwaukee, WI 53202
(414) 286-3557

Individual manager guidelines are updated upon Annuity and Pension Board Approval

TARGET ALLOCATIONS

The Board has determined that the following asset allocation policy is appropriate for the Fund. This allocation policy will be reviewed periodically and may be modified, if appropriate, in light of changes in the structure or goals of the Fund. The following asset allocation policy reflects interim Maximum and Minimum ranges for the Fixed Income and Absolute Return allocations, respectively, that were approved by the Board at its September 2021 meeting. For Real Assets, the target weights below reflect what Callan used in its 2020 ALM Study.

<u>Public Equity</u>	<u>Target</u>	<u>Minimum</u>	<u>Maximum</u>
Domestic Equity			
Passive Large Cap	8.0%		
Active Large Cap	5.2%		
Active Mid/Small Cap	6.8%		
Total Domestic Equity	20.0%	16.0%	24.0%
Total International Equity	16.0%	13.0%	19.0%
Total Global Equity	8.0%	4.0%	12.0%
Total Public Equity	44%	39%	49%
<u>Fixed Income</u>			
Cash	1%	0%	2.0%
Passive Fixed Income	5.5%		
Core Opportunistic Fixed Income	16.5%		
Total Fixed Income	23%	20%	30%
<u>Real Assets</u>			
Private Real Estate	9.1%	5.0%	10.0%
Public Diversified Real Assets	3.9%	1.9%	5.9%
Total Real Assets	13%	10%	16%
<u>Private Equity</u>	10%	7%	15%
<u>Absolute Return</u>	10%	6%	15%
<u>Total</u>	<u>100%</u>		

Fund:	CMERS Low Beta LLC
Managing Member:	UBS Hedge Fund Solutions LLC
Role:	Hedge Fund of Funds Strategy

Investment Objectives

The Investment Manager will attempt to construct a broad based neutral portfolio with exposure to a number of hedge fund strategies

The Fund seeks to target limited beta to equity markets over an economic cycle (3-5 years), as measured relative to the MSCI World Index USD.

Time Horizon	Performance Standard
	<u>Index</u>
Less than one market cycle (rolling 3-year periods).	
One market cycle (rolling 5-year periods).	Exceed (after fees) the Secured Overnight Financing Rate (SOFR) by 400 basis points.

Investment Guidelines

Strategies and Anticipated Allocation Ranges

Equity Hedged: (0-50%)

- The Fund will retain flexibility to invest in managers who may exhibit either long or short bias to risky assets depending on market environment provided downside risk is seen to be adequately restrained. Sub-strategies currently include: Fundamental and Equity Event.

13F Strategy: (0-5%)

- The Fund is permitted to invest in a Portfolio Fund managed by the Investment Manager which pursues the Investment Manager's "13F Strategy," an equity trading strategy that seeks to replicate the aggregate performance characteristics of a portfolio of equity securities held by a select number of Submanagers which have listed them on their respective filings under SEC Form 13F. The 13F Strategy shall be considered a subset of Equity Hedged such that the allocation range for the 13F Strategy and Equity Hedge together shall be (0-50%).

Credit / Income (0-50%)

- Credit: These strategies in aggregate are subject to a guideline of no more than 50% of the total portfolio. The Fund will retain flexibility to invest in managers who may exhibit either long or short bias to risky assets depending on market environment provided downside risk is seen to be adequately restrained.

- Sub-strategies currently include: Distressed, Corporate Long/Short, Structured Products and will not exceed 40% of the total portfolio.
- Income: The Fund will retain flexibility to invest in managers that participate in reinsurance strategies. Reinsurance strategies will not exceed 10% of the portfolio.

Relative Value: (0-60%)

- The Fund is permitted to invest in all Relative Value strategies, including: Quantitative Equity, Merger Arbitrage, Capital Structure/Volatility Arbitrage, Fixed Income Relative Value (FIRV), and Agency MBS.

Trading: (0-40%)

- The Fund is permitted to invest in all Trading strategies, including Global Macro, Commodities and Systematic CTAs. Sub-strategies currently include: Systematic, Global Macro, Commodities.

Other: (0-10%)

- This category contains investment approaches that are outside of the mainstream hedge fund strategies (Equity Hedged, Credit, Relative Value, and Trading). The category includes other alternative strategies, such as tactical asset allocation/risk parity, private equity, and real estate dealings, as well as new niche investment approaches that do not fit into any of the other mainstream strategies.

Direct Trading (0-5%)

Multi-Strategy:

- The Fund is permitted to invest in Multi-Strategy managers, which include allocations to a combination of strategies. These offerings are often the result of commonalities in the research and trading talent required for successful execution of the strategies. These funds allocate capital opportunistically among strategies believed to offer a suitable risk-adjusted return profile going forward.
- Applicable guidelines for multi-strategy managers will be monitored on a look-through basis to the underlying Strategies and will count toward the specified limits above.

Investments in Portfolio Funds Managed by Affiliates of the Investment Manager

Investments in Portfolio Funds managed by affiliates of the Investment Manager will be capped at 20% and would be limited to Customized Baskets ("CBs"), Managed Accounts ("MAs") or other Special Purpose Vehicles ("SPVs") where the Investment Manager may seek to attain certain exposures pursuant to the investment objectives of the Fund and where such exposure may otherwise not be accessible to the Fund. In the event such investments are implemented, the Investment Manager will not charge the Fund additional management fees or performance fees within the CBs, MAs or SPVs. Aside from such investments in CBs, MAs or SPVs, no investments will be made to UBS affiliates (e.g. O'Connor).

Diversification

The Investment Manager will determine the appropriate number of Portfolio Funds in its sole discretion. However, the number will typically range between 15-39 Portfolio Funds, excluding co-investments, unless otherwise agreed by the Fund.

Liquidity Considerations

The Investment Manager will seek to invest in Portfolio Funds with a mix of different liquidity profiles. However, the Investment Manager will seek to maintain:

- At least 70% of the net asset value of the Fund to be allocated to Portfolio Funds with stated liquidity terms (with penalties) that allow for redemption within 1 year.
- Up to 30% of the net asset value of the Fund may be allocated to Portfolio Funds with stated liquidity terms that allow for redemption greater than a 1 year hard lock up. Up to 1/3 of these Portfolio Funds (approximately 10% of the Fund) may have a hard lock up of greater than 2 years, but no more than 3 years unless they fall into the category of Portfolio Funds with no predefined redemption period. The latter shall also fall inside the 10% limitation.
- An investor gate can cause a position to fall into multiple liquidity buckets. For example, a 1/8th quarterly liquidity fund would have 50% of its position in the "within 1 year " bucket and the remainder in the "greater than 1 year bucket", none of which would fall into the greater than 2 year bucket.

The above terms do not include audit withholds imposed by Portfolio Funds. The Fund acknowledges and understands that disbursements of any withheld amounts could take between 12 and 18 months to receive and will not be counted toward the above liquidity considerations.

From time to time, a manager may segregate certain securities from its Portfolio Fund and establish a “side pocket” structure and/or share class, which may have less liquid characteristics. The Investment Manager will attempt to limit the Fund’s exposure to side pocket holdings. However, the ultimate side pocket exposure will be at the discretion of the each underlying manager.

Leverage

The Investment Manager does not expect to employ leverage above and beyond what may be undertaken by the underlying Portfolio Funds. The Fund indicated it is able to provide additional cash with sufficient notice for operating purposes such as funding short term subscriptions or coverage for FX currency hedging.

Investment Manager Bespoke Structures/Co-Investments

The Fund is eligible to participate in A&Q bespoke structures and co-investments with full discretion of the Investment Manager.

Investment Eligibility

The Fund may invest in both US tax transparent funds and/or offshore vehicles.

Tail/Overlay Hedging

The Fund is eligible to participate in A&Q Tail/Overlay Program (TAU).

New Issues

The Fund is eligible to participate in new issues, and as such the Fund may invest in the new issues eligible share classes, if deemed appropriate.

STATEMENT OF INVESTMENT POLICY
Updated June 2022

**THE EMPLOYEES' RETIREMENT
SYSTEM OF THE CITY OF MILWAUKEE**
789 N. Water Street, 3rd Floor
Milwaukee, WI 53202
(414) 286-3557

Individual manager guidelines are updated upon Annuity and Pension Board Approval

TARGET ALLOCATIONS

The Board has determined that the following asset allocation policy is appropriate for the Fund. This allocation policy will be reviewed periodically and may be modified, if appropriate, in light of changes in the structure or goals of the Fund. The following asset allocation policy reflects interim Maximum and Minimum ranges for the Fixed Income and Absolute Return allocations, respectively, that were approved by the Board at its September 2021 meeting. For Real Assets, the target weights below reflect what Callan used in its 2020 ALM Study.

<u>Public Equity</u>	<u>Target</u>	<u>Minimum</u>	<u>Maximum</u>
Domestic Equity			
Passive Large Cap	8.0%		
Active Large Cap	5.2%		
Active Mid/Small Cap	6.8%		
Total Domestic Equity	20.0%	16.0%	24.0%
Total International Equity	16.0%	13.0%	19.0%
Total Global Equity	8.0%	4.0%	12.0%
Total Public Equity	44%	39%	49%
<u>Fixed Income</u>			
Cash	1%	0%	2.0%
Passive Fixed Income	5.5%		
Core Opportunistic Fixed Income	16.5%		
Total Fixed Income	23%	20%	30%
<u>Real Assets</u>			
Private Real Estate	9.1%		
Public Diversified Real Assets	3.9%	1.9%	5.9%
Total Real Assets	13%	10%	16%
<u>Private Equity</u>	10%	7%	15%
<u>Absolute Return</u>	10%	6%	15%
<u>Total</u>	<u>100%</u>		

Fund:	CMERS Low Beta LLC
Managing Member:	UBS Hedge Fund Solutions LLC
Role:	Hedge Fund of Funds Strategy

Investment Objectives

The Investment Manager will attempt to construct a broad based neutral portfolio with exposure to a number of hedge fund strategies

The Fund seeks to target limited beta to equity markets over an economic cycle (3-5 years), as measured relative to the MSCI World Index USD.

Time Horizon	Performance Standard
	<u>Index</u>
Less than one market cycle (rolling 3-year periods).	
One market cycle (rolling 5-year periods).	Exceed (after fees) the Secured Overnight Financing Rate (SOFR) by 400 basis points.

Investment Guidelines

Strategies and Anticipated Allocation Ranges

Equity Hedged: (0-50%)

- The Fund will retain flexibility to invest in managers who may exhibit either long or short bias to risky assets depending on market environment provided downside risk is seen to be adequately restrained. Sub-strategies currently include: Fundamental and Equity Event.

13F Strategy: (0-5%)

- The Fund is permitted to invest in a Portfolio Fund managed by the Investment Manager which pursues the Investment Manager's "13F Strategy," an equity trading strategy that seeks to replicate the aggregate performance characteristics of a portfolio of equity securities held by a select number of Submanagers which have listed them on their respective filings under SEC Form 13F. The 13F Strategy shall be considered a subset of Equity Hedged such that the allocation range for the 13F Strategy and Equity Hedge together shall be (0-50%).

Credit / Income (0-50%)

- Credit: These strategies in aggregate are subject to a guideline of no more than 50% of the total portfolio. The Fund will retain flexibility to invest in managers who may exhibit either long or short bias to risky assets depending on market environment provided downside risk is seen to be adequately restrained.

- Sub-strategies currently include: Distressed, Corporate Long/Short, Structured Products and will not exceed 40% of the total portfolio.
- Income: The Fund will retain flexibility to invest in managers that participate in reinsurance strategies. Reinsurance strategies will not exceed 10% of the portfolio.

Relative Value: (0-60%)

- The Fund is permitted to invest in all Relative Value strategies, including: Quantitative Equity, Merger Arbitrage, Capital Structure/Volatility Arbitrage, Fixed Income Relative Value (FIRV), and Agency MBS.

Trading: (0-40%)

- The Fund is permitted to invest in all Trading strategies, including Global Macro, Commodities and Systematic CTAs. Sub-strategies currently include: Systematic, Global Macro, Commodities.

Other: (0-10%)

- This category contains investment approaches that are outside of the mainstream hedge fund strategies (Equity Hedged, Credit, Relative Value, and Trading). The category includes other alternative strategies, such as tactical asset allocation/risk parity, private equity, and real estate dealings, as well as new niche investment approaches that do not fit into any of the other mainstream strategies.

Direct Trading (0-5%)

Multi-Strategy:

- The Fund is permitted to invest in Multi-Strategy managers, which include allocations to a combination of strategies. These offerings are often the result of commonalities in the research and trading talent required for successful execution of the strategies. These funds allocate capital opportunistically among strategies believed to offer a suitable risk-adjusted return profile going forward.
- Applicable guidelines for multi-strategy managers will be monitored on a look-through basis to the underlying Strategies and will count toward the specified limits above.

Investments in Portfolio Funds Managed by Affiliates of the Investment Manager

Investments in Portfolio Funds managed by affiliates of the Investment Manager will be capped at 20% and would be limited to Customized Baskets ("CBs"), Managed Accounts ("MAs") or other Special Purpose Vehicles ("SPVs") where the Investment Manager may seek to attain certain exposures pursuant to the investment objectives of the Fund and where such exposure may otherwise not be accessible to the Fund. In the event such investments are implemented, the Investment Manager will not charge the Fund additional management fees or performance fees within the CBs, MAs or SPVs. Aside from such investments in CBs, MAs or SPVs, no investments will be made to UBS affiliates (e.g. O'Connor).

Diversification

The Investment Manager will determine the appropriate number of Portfolio Funds in its sole discretion. However, the number will typically range between 15-39 Portfolio Funds, excluding co-investments, unless otherwise agreed by the Fund.

Liquidity Considerations

The Investment Manager will seek to invest in Portfolio Funds with a mix of different liquidity profiles. However, the Investment Manager will seek to maintain:

- At least 70% of the net asset value of the Fund to be allocated to Portfolio Funds with stated liquidity terms (with penalties) that allow for redemption within 1 year.
- Up to 30% of the net asset value of the Fund may be allocated to Portfolio Funds with stated liquidity terms that allow for redemption greater than a 1 year hard lock up. Up to 1/3 of these Portfolio Funds (approximately 10% of the Fund) may have a hard lock up of greater than 2 years, but no more than 3 years unless they fall into the category of Portfolio Funds with no predefined redemption period. The latter shall also fall inside the 10% limitation.
- An investor gate can cause a position to fall into multiple liquidity buckets. For example, a 1/8th quarterly liquidity fund would have 50% of its position in the "within 1 year " bucket and the remainder in the "greater than 1 year bucket", none of which would fall into the greater than 2 year bucket.

The above terms do not include audit withholds imposed by Portfolio Funds. The Fund acknowledges and understands that disbursements of any withheld amounts could take between 12 and 18 months to receive and will not be counted toward the above liquidity considerations.

From time to time, a manager may segregate certain securities from its Portfolio Fund and establish a “side pocket” structure and/or share class, which may have less liquid characteristics. The Investment Manager will attempt to limit the Fund’s exposure to side pocket holdings. However, the ultimate side pocket exposure will be at the discretion of the each underlying manager.

Leverage

The Investment Manager does not expect to employ leverage above and beyond what may be undertaken by the underlying Portfolio Funds. The Fund indicated it is able to provide additional cash with sufficient notice for operating purposes such as funding short term subscriptions or coverage for FX currency hedging.

Investment Manager Bespoke Structures/Co-Investments

The Fund is eligible to participate in A&Q bespoke structures and co-investments with full discretion of the Investment Manager.

Investment Eligibility

The Fund may invest in both US tax transparent funds and/or offshore vehicles.

Tail/Overlay Hedging

The Fund is eligible to participate in A&Q Tail/Overlay Program (TAU).

New Issues

The Fund is eligible to participate in new issues, and as such the Fund may invest in the new issues eligible share classes, if deemed appropriate.

1st Quarter 2022 Performance Report

June 9, 2022

Employees' Retirement System

Presentation Agenda

- Fund Overview
- Public Equity
- Fixed Income
- Absolute Return
- Recent Performance Update
- Appendix: Manager Charts & Statistics

Market Environment

Asset Class	Benchmark	Target Weight	Benchmark Return Q1 2022
Public Equity	MSCI ACWI IMI	44%	-5.5%
Fixed Income	BBG U.S. Agg.	23%	-5.9%
Real Assets ⁽¹⁾	Blended Benchmark	13%	7.4%
Private Equity ⁽¹⁾	Russell 3000 + 2%	10%	9.6%
Absolute Return	90-Day T-Bill + 3%	10%	0.8%

	Q1 2022
CMERS Benchmark	-1.8%

⁽¹⁾Real Estate and Private Equity benchmark returns are reported on a 1-quarter lag.

Relative Performance Expectations

		Q1 2022		Q1 2022	Q1 2022
Value Equity Bias	Russell 3000 Value	-0.8%	Russell 3000 Growth	-9.3%	↑↑
Small Cap Equity Bias	Russell 2000	-7.5%	Russell 1000	-5.1%	↓
Fixed Income Credit	Loomis Sayles (net)	-5.8%	BBG Barclays US Agg.	-5.9%	
Private Equity⁽¹⁾⁽²⁾	CMERS PE (net)	-0.1%	PE Benchmark	9.6%	↓↓

	Q1 2022
CMERS Total Fund (net)	-0.5%
CMERS Benchmark	-1.8%

⁽¹⁾Private Equity benchmark return is reported on a 1-quarter lag.

⁽²⁾Private Equity returns are not typically reported during this time period because of the extra time these investment managers spend finalizing their year-end financial statements. Both Q4 2021 and Q1 2022 Private Equity returns are expected to be reported during the April-June time period.

Total Fund Performance

10 Year Rolling Returns – 11/1/1997 to 3/31/2022

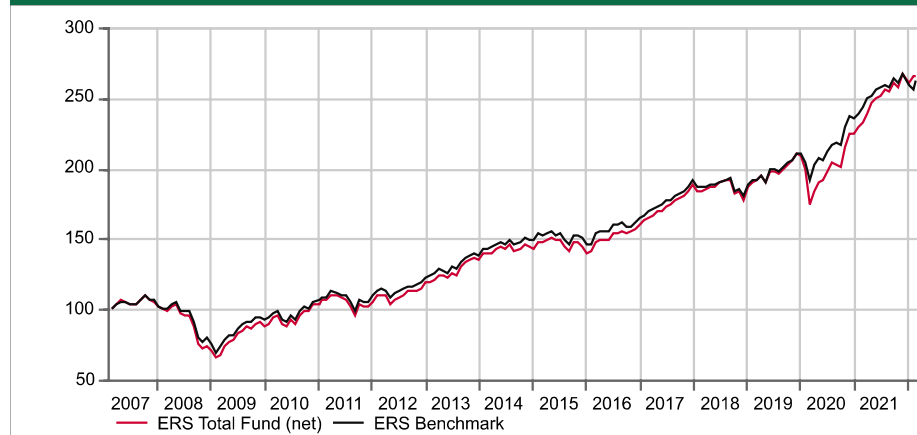


Trailing Returns

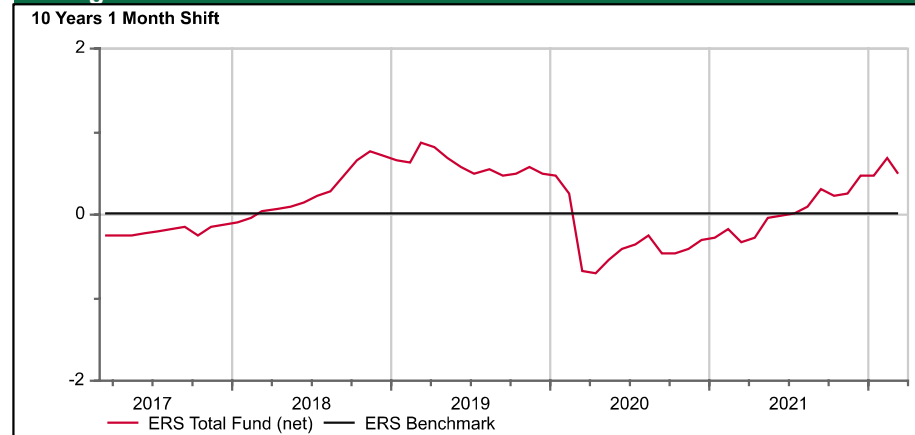
Annualized Return

	QTR	1 Year	3 Year	5 Year	7 Year	10 Year	15 Year
ERS Total Fund (net)	-0.5	14.3	11.6	10.1	8.9	9.2	6.7
ERS Benchmark	-1.8	7.4	11.1	9.2	8.1	8.7	6.6

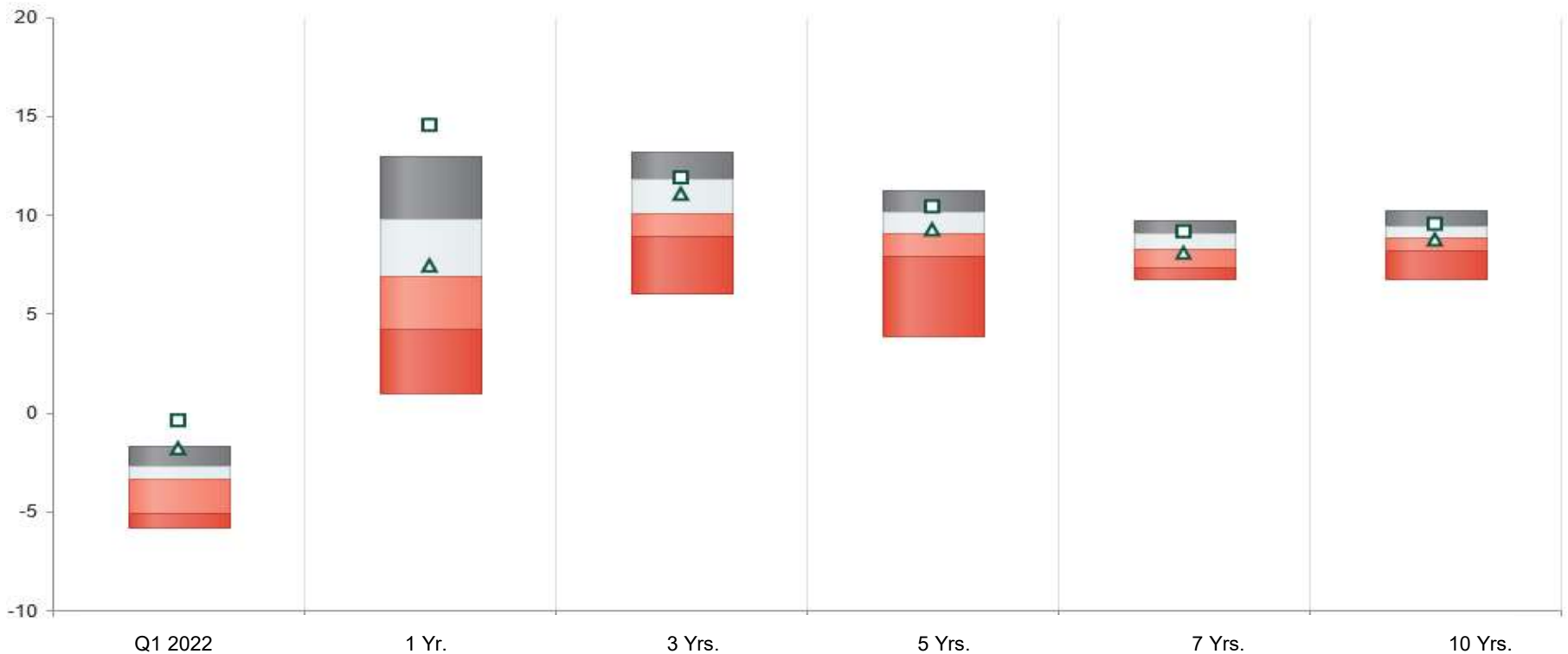
Investment Growth –4/1/2007 to 3/31/2022



Rolling Excess Returns –4/1/2007 to 3/31/2022



Total Fund vs Universe

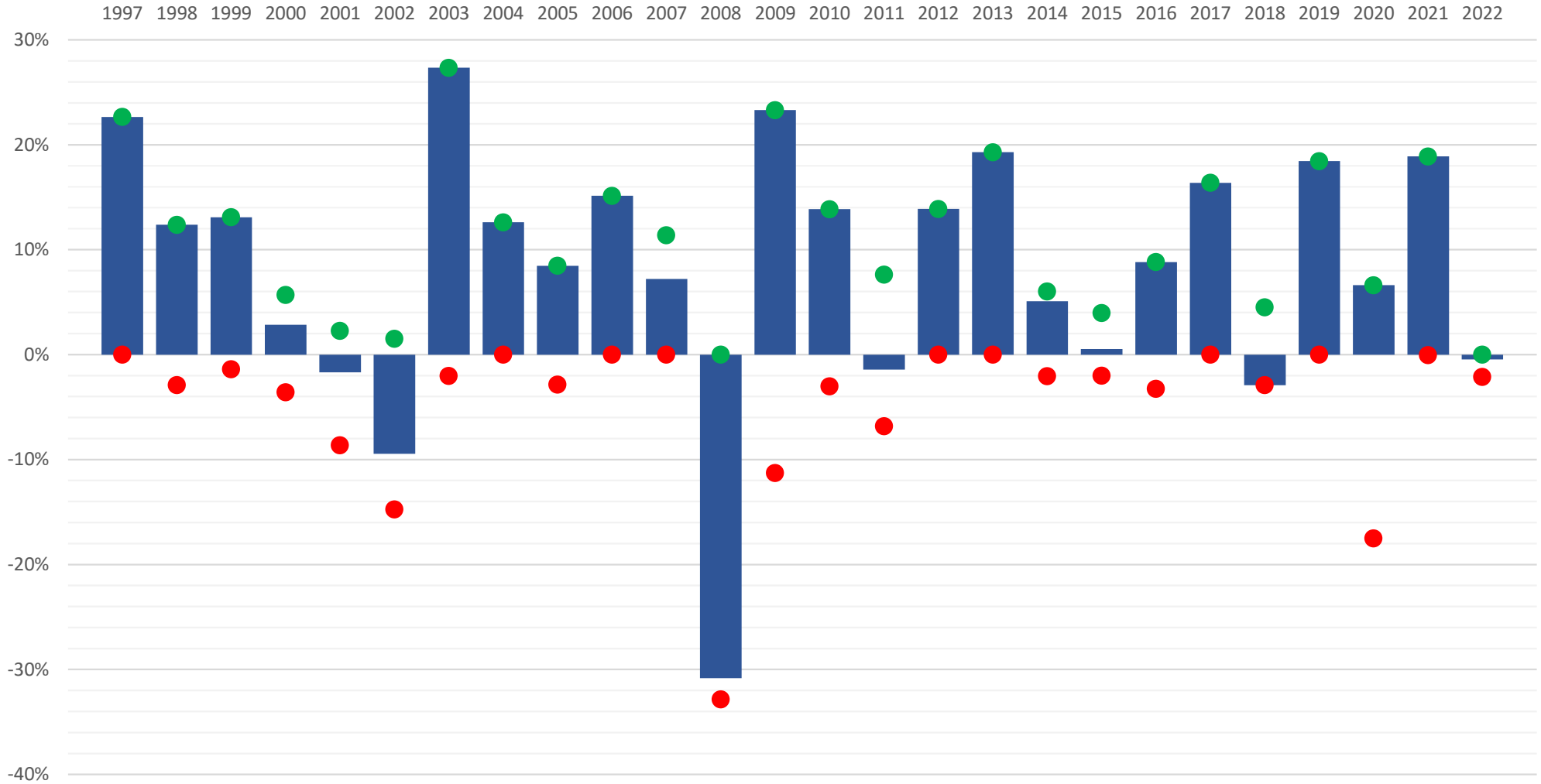


Account Index

	Q1 2022	1 Yr.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.
Account Return	-0.4	14.5	11.9	10.4	9.2	9.5
Percentile Rank	7	5	24	20	24	22
Index Return	-1.8	7.4	11.1	9.2	8.1	8.7
Percentile Rank	13	39	44	46	53	58
1st Quartile	-2.7	9.8	11.8	10.2	9.1	9.5
Median	-3.4	6.9	10.1	9.1	8.3	8.9
3rd Quartile	-5.1	4.2	8.9	7.9	7.3	8.2
Observations	44	44	43	41	31	24

Annual Returns, Peaks and Troughs

■ CMERS ● Peak ● Trough



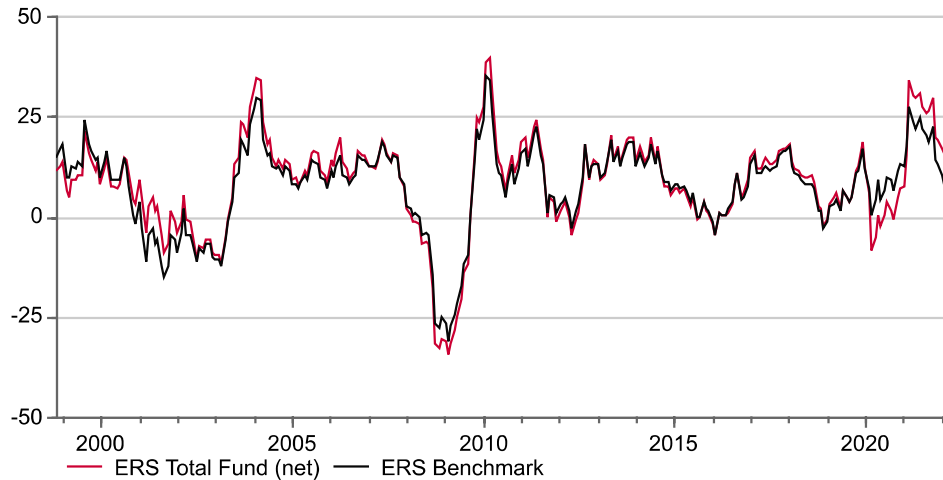
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD 2022
CMERS	22.7%	12.4%	13.1%	2.8%	-1.7%	-9.4%	27.3%	12.6%	8.5%	15.1%	7.2%	-30.8%	23.3%	13.9%	-1.4%	13.9%	19.3%	5.1%	0.5%	8.8%	16.4%	-2.9%	18.4%	6.6%	18.9%	-0.5%
Peak	22.7%	12.4%	13.1%	5.7%	2.3%	1.5%	27.3%	12.6%	8.5%	15.1%	11.4%	0.0%	23.3%	13.9%	7.6%	13.9%	19.3%	6.0%	4.0%	8.8%	16.4%	4.5%	18.4%	6.6%	18.9%	0.0%
Trough	0.0%	-2.9%	-1.4%	-3.6%	-8.6%	-14.7%	-2.0%	0.0%	-2.9%	0.0%	0.0%	-32.9%	-11.3%	-3.0%	-6.8%	0.0%	0.0%	-2.1%	-2.0%	-3.3%	0.0%	-2.9%	0.0%	-17.5%	0.0%	-2.1%

*Net of Fees

Total Fund Rolling Returns as of March 31, 2022

1 Year Rolling Returns – 12/1/1997 to 3/31/2022

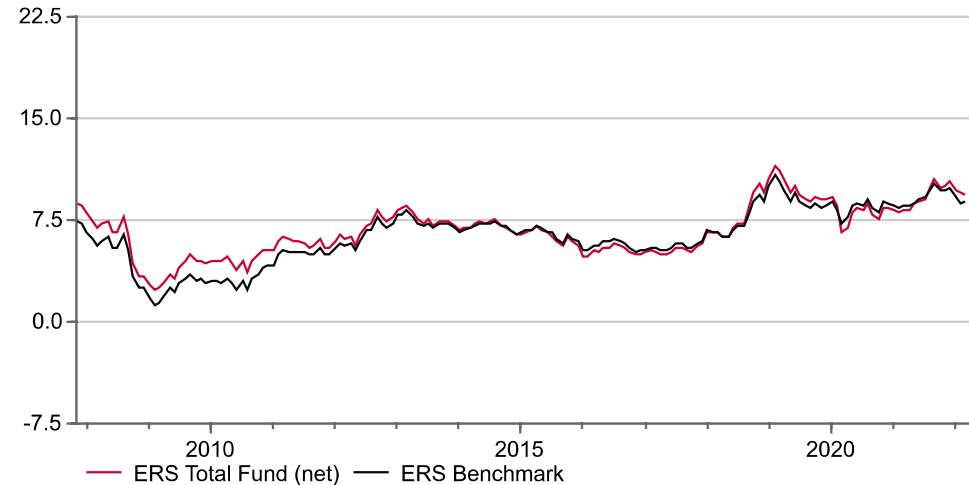
1 Year 1 Month Shift



©FactSet Research Systems

10 Year Rolling Returns – 12/1/1997 to 3/31/2022

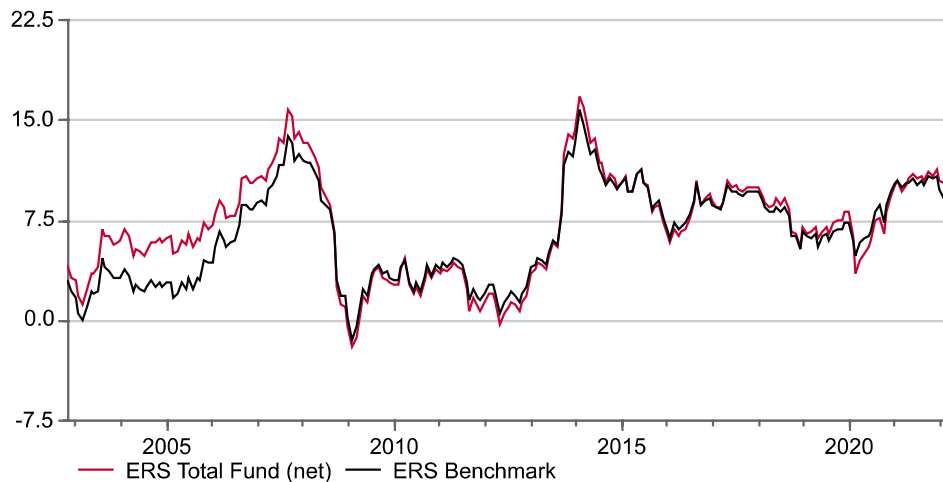
10 Years 1 Month Shift



©FactSet Research Systems

5 Year Rolling Returns – 12/1/1997 to 3/31/2022

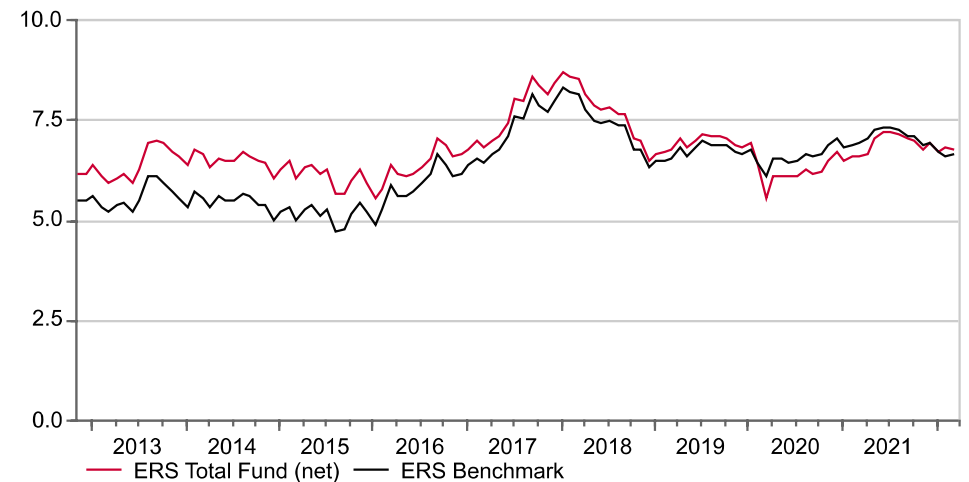
5 Years 1 Month Shift



©FactSet Research Systems

15 Year Rolling Returns – 12/1/1997 to 3/31/2022

15 Years 1 Month Shift

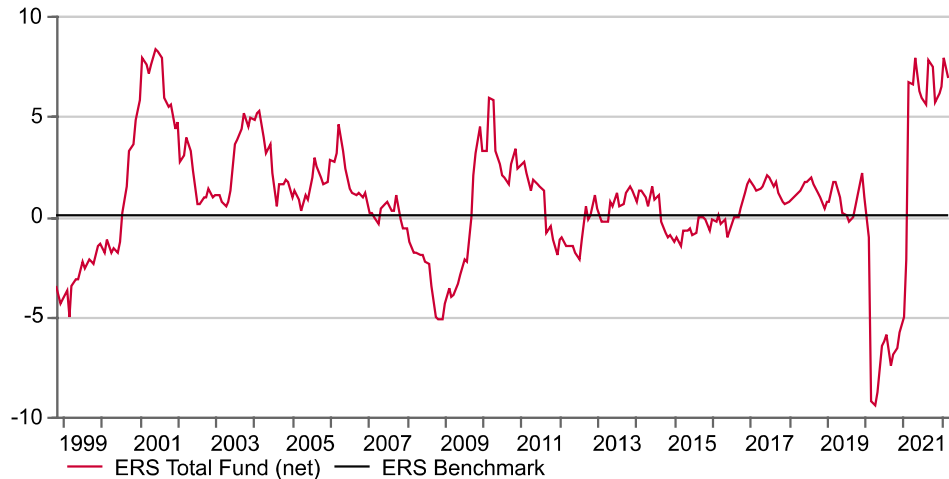


©FactSet Research Systems

Total Fund Rolling Excess Returns as March 31, 2022

1 Year Rolling Excess Returns – 12/1/1997 to 3/31/2022

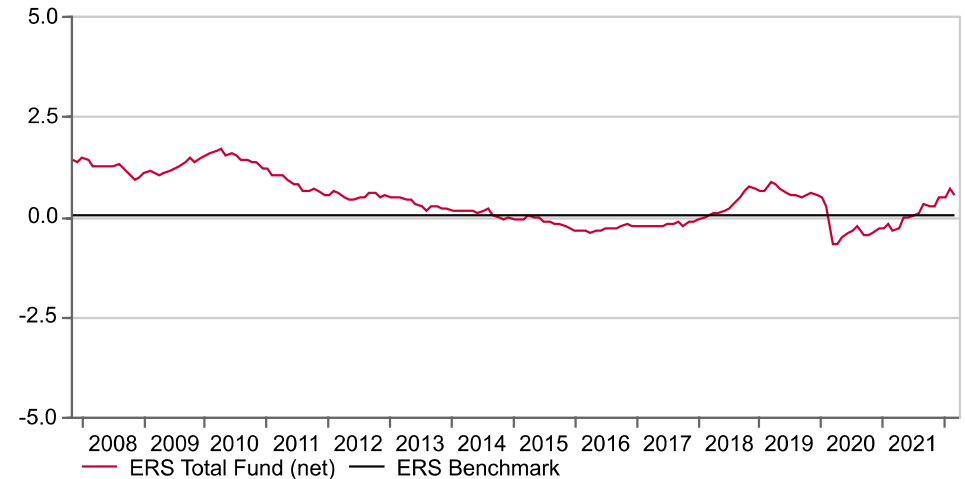
1 Year 1 Month Shift



©FactSet Research Systems

10 Year Rolling Excess Returns – 12/1/1997 to 3/31/2022

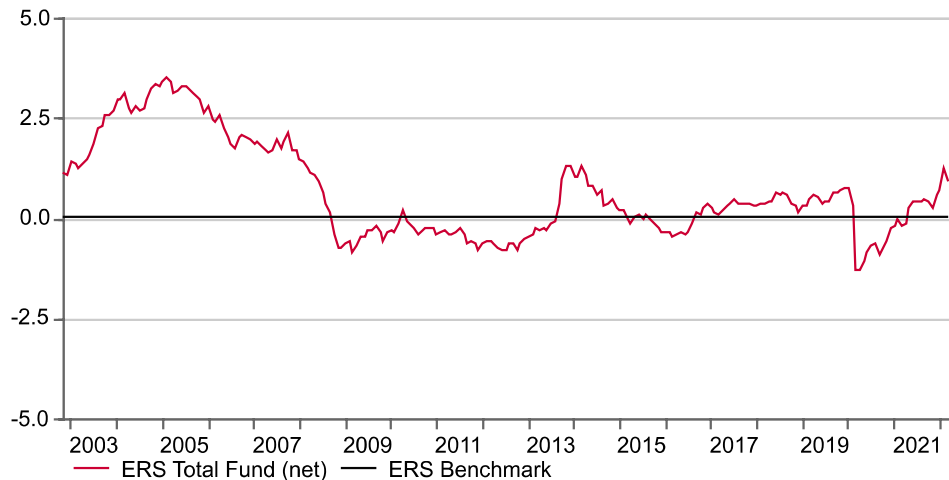
10 Years 1 Month Shift



©FactSet Research Systems

5 Year Rolling Excess Returns – 12/1/1997 to 3/31/2022

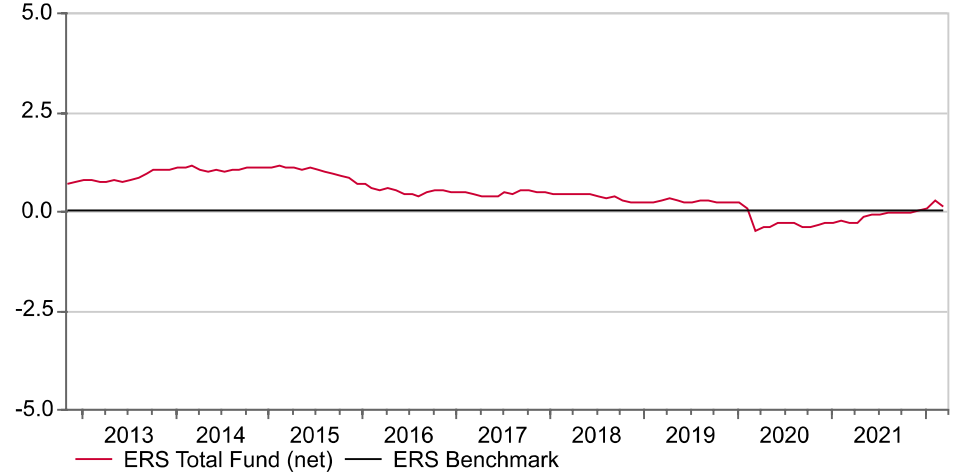
5 Years 1 Month Shift



©FactSet Research Systems

15 Year Rolling Excess Returns – 12/1/1997 to 3/31/2022

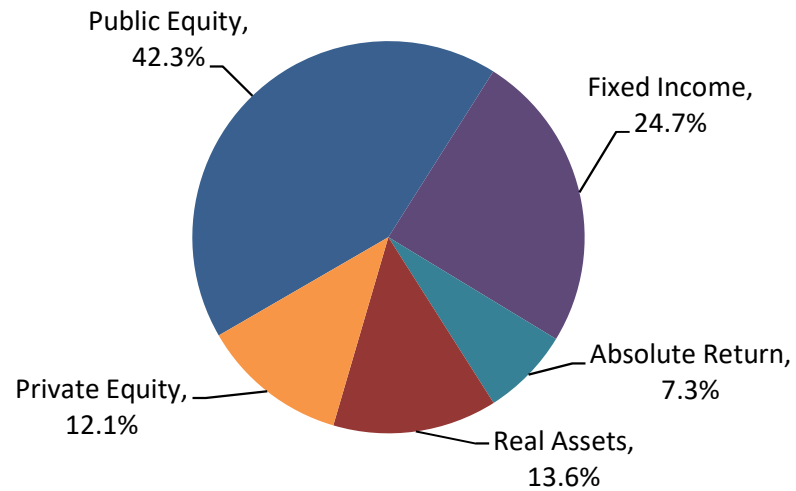
15 Years 1 Month Shift



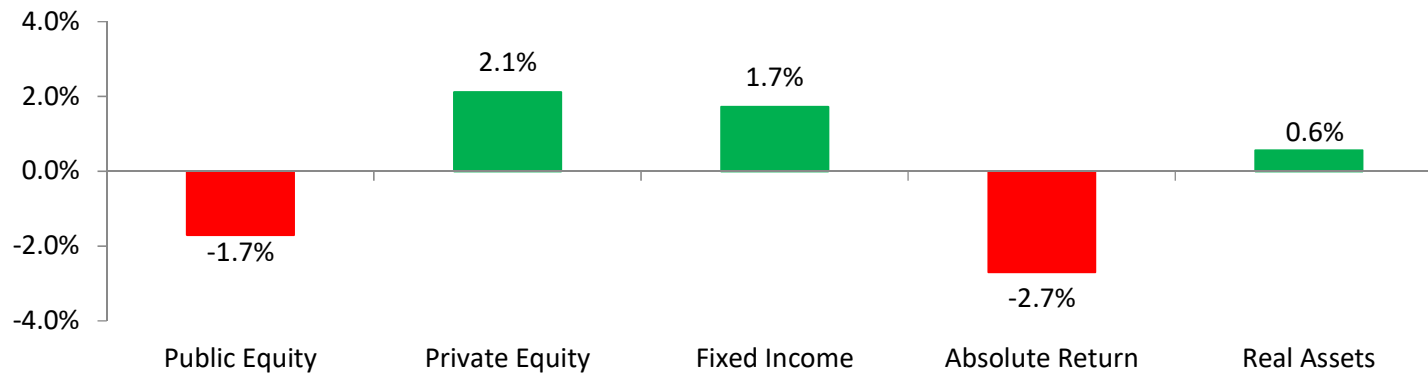
©FactSet Research Systems

Asset Allocation as of March 31, 2022

Actual Asset Allocation*



Actual Asset Allocation vs. Policy Target

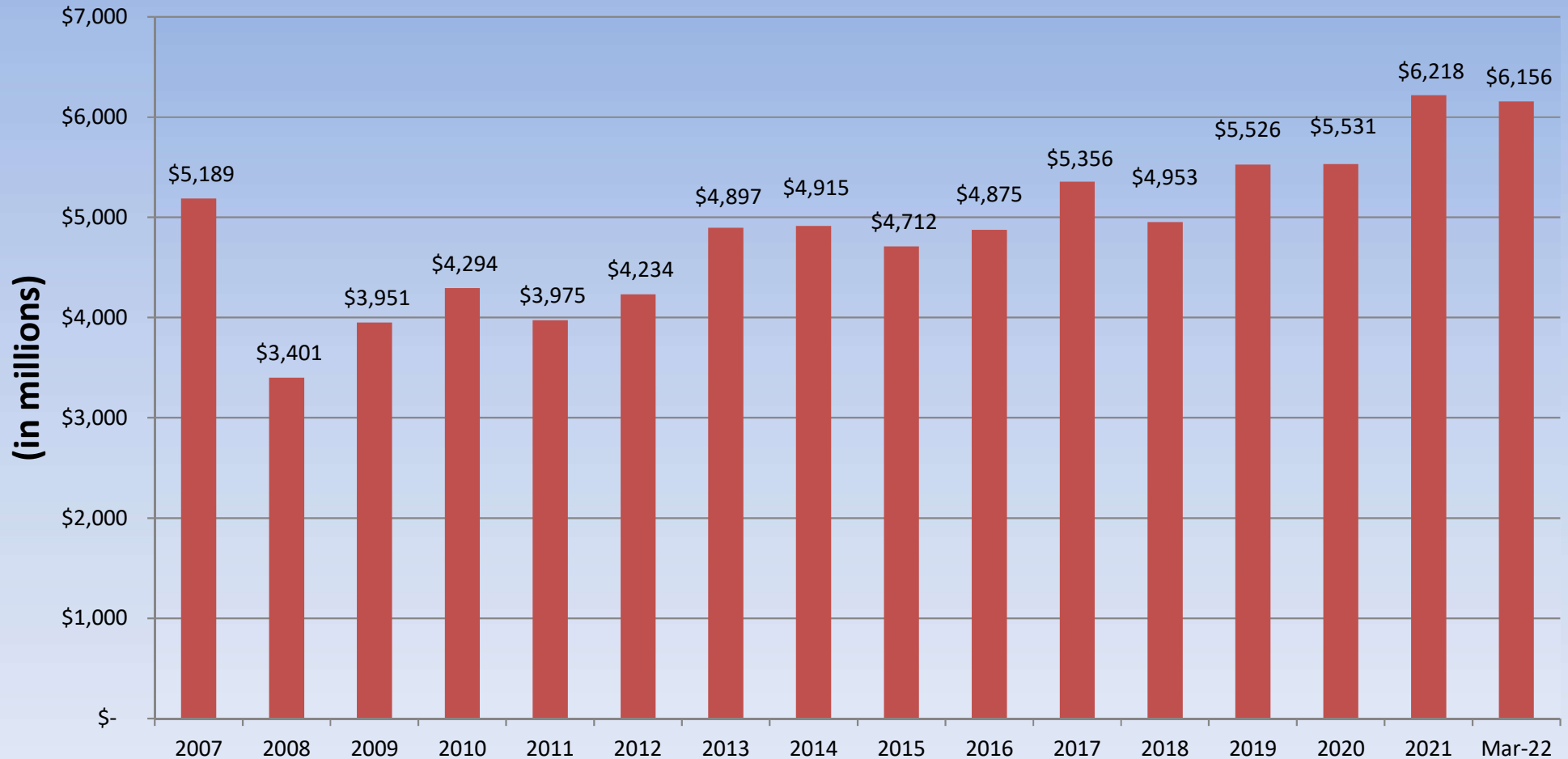


*May not sum to 100% due to rounding; Some Real Estate values are reported on a 1-quarter lag; Private Equity values reflect 9/30/2021 NAVs as Private Equity returns are not typically reported in Q1 because of the extra time these investment managers spend finalizing their year-end financial statement.

Fund Value of Assets: 2007 – March 31, 2022

(Year Ended Dates Reflect 12/31 Fund Values)

Market Value of Fund Assets



Most recent Actuarial valuation projects benefit payments to total \$5.1 billion in next 10 years.

*Some Real Estate values are reported on a 1-quarter lag; Private Equity values reflect 9/30/2021 NAVs as Private Equity returns are not typically reported in Q1 because of the extra time these investment managers spend finalizing their year-end financial statement.

Benefit Payments	\$4.8 billion
Expenses	\$250 million
Contributions	\$1.4 billion
Investment Gains	\$4.7 billion

14 1/4 Year Estimates (1/1/2008 - 3/31/2022)

Benefit Payments, Expenses, Contributions, and Investment Gain amounts are calculated using estimates of cash flows into and out of the Fund. These amounts are not audited and may not tie to CMERS Financial Statements.

YTD Market Value Change

December 31, 2021 Market Value including City Reserve & PABF Accounts			\$ 6,260,134,748
Monthly Cash Outflows thru	<u>March 31, 2022</u>		
Retiree Payroll Expense		\$ (110,771,632)	
PABF Payroll Expense		\$ (23,232)	
Expenses Paid		\$ (2,702,000)	
GPS Benefit Payments		\$ (2,138,149)	
Sub-Total Monthly Cash Outflows			\$ (115,635,013)
Monthly Cash Inflows thru	<u>March 31, 2022</u>		
Contributions		\$ 81,209,044	
PABF Contribution		\$ 23,733	
Sub-Total Monthly Contributions			\$ 81,232,777
City Reserve Fund Contribution			\$ 40,000,000
Capital Market Gain/(Loss)			<u>\$ (28,784,916)</u>
Value including City Reserve & PABF Accounts as of	<u>March 31, 2022</u>		<u>\$ 6,236,947,595</u>
Less City Reserve Account ¹			\$ 80,877,654
Less PABF Fund ²			\$ 2,501
Net Projected ERS Fund Value as of	<u>March 31, 2022</u>		<u><u>\$ 6,156,067,441</u></u>

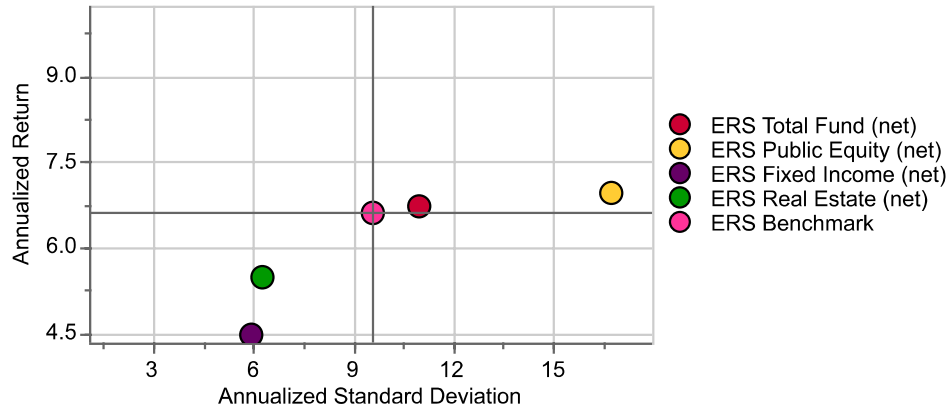
1 The City Reserve Account balance equals the market value currently held in the Baird account.

2 PABF Fund balance equals the market value currently held in the PABF account.

Monthly Cash Outflows, Monthly Cash Inflows, and Capital Market Gain/(Loss) amounts are calculated using estimates of cash flows into and out of the Fund. These amounts are not audited and may not tie to CMERS Financial Statements.

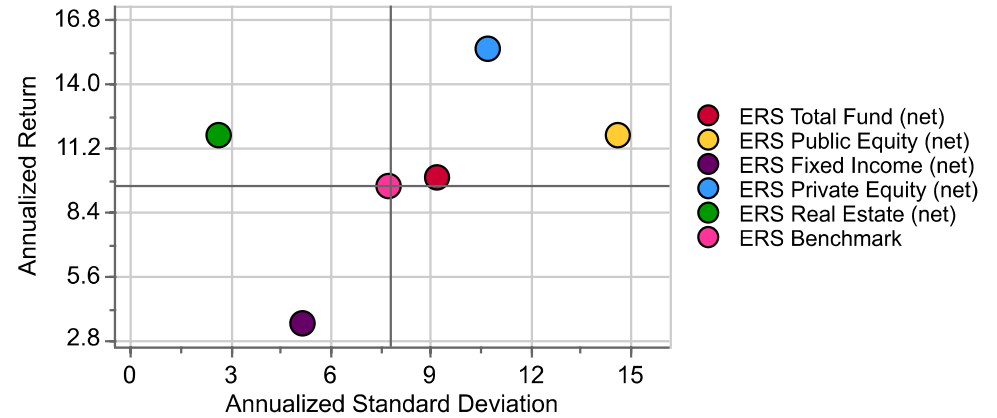
Total Fund Statistics

15 Year Risk-Reward-4/1/2007 to 3/31/2022



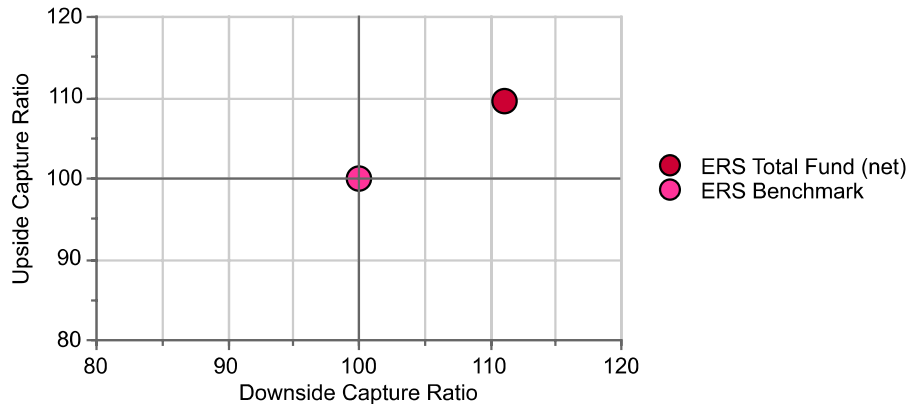
©FactSet Research Systems

Risk-Reward Since Private Equity Inception – 7/1/2010 to 3/31/2022



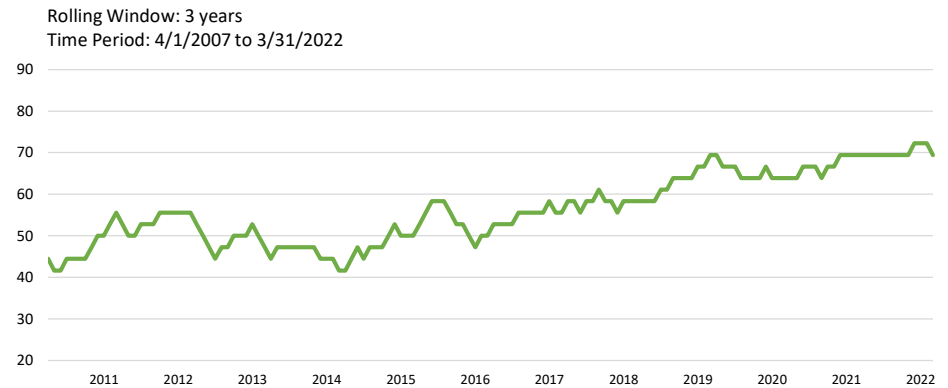
©FactSet Research Systems

15 Year Upside-Downside –4/1/2007 to 3/31/2022



©FactSet Research Systems

Batting Average



15 Year Risk –4/1/2007 to 3/31/2022

	Annualized Return	Standard Deviation	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
ERS Total Fund (net)	6.7	11.0	0.0	0.5	0.0	2.8	1.1
ERS Benchmark	6.6	9.6	0.0	0.6	--	--	1.0

Risk – 7/1/2013 to 3/31/2022

	Annualized Return	Standard Deviation	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
ERS Total Fund (net)	9.4	8.6	-0.1	1.0	0.1	3.2	1.2
ERS Benchmark	8.8	7.0	0.0	1.2	--	--	1.0

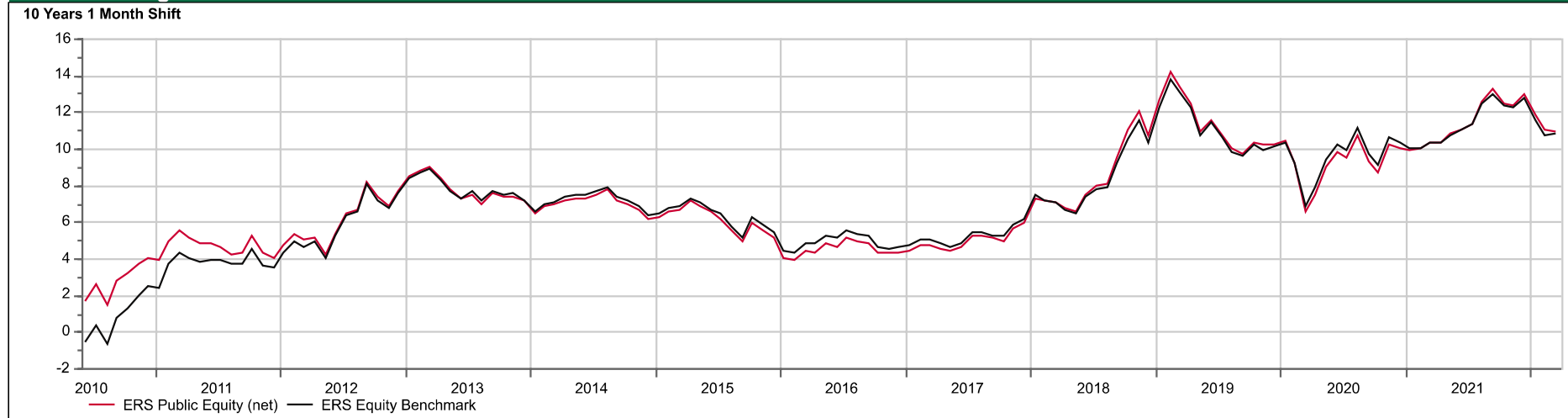
Notable CMERS Manager Events

Manager	Event	Date
JP Morgan	Steve Zaun, who was a co-Portfolio Manager on the JP Morgan Strategic Property Fund that ERS is invested in, will be transitioning to a PM role on the JP Morgan Special Situation Property Fund. Lead PM Kim Adams and co-PM Sue Kolasa remain on our strategy, and there is no expected change in philosophy or process. Mr. Zaun's co-PM role is expected to be filled by an internal hire.	March 2022

Public Equity

Public Equity Performance

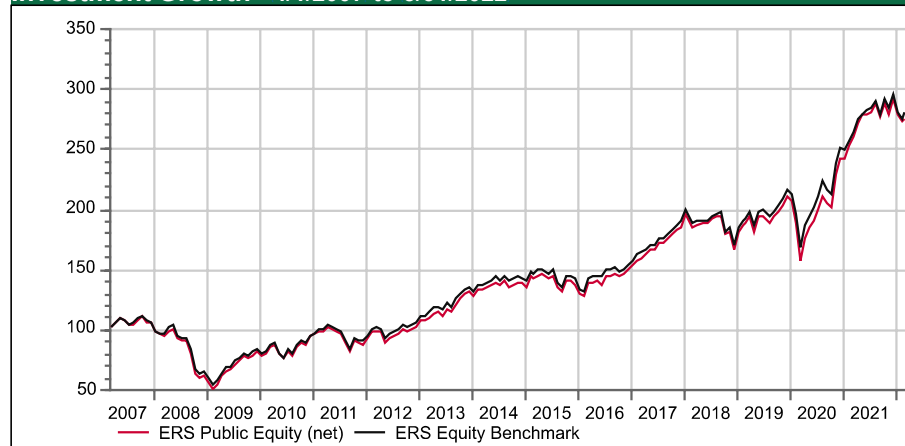
10 Year Rolling Returns – 7/1/2000 to 3/31/2022



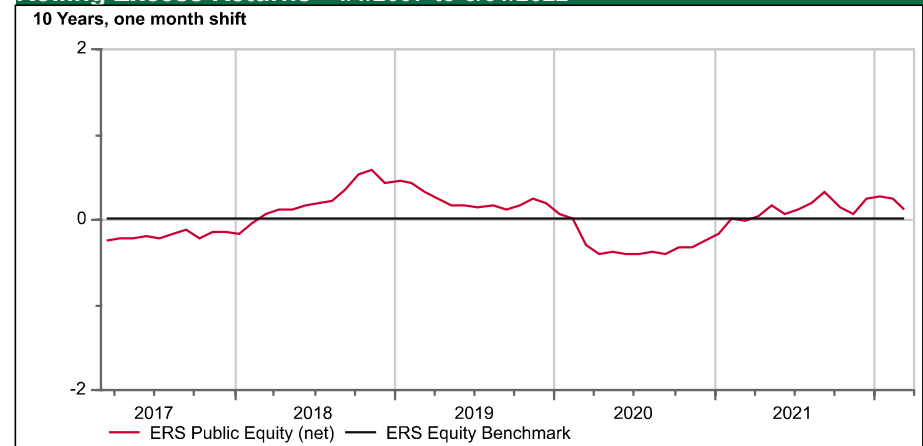
Trailing Returns

		Annualized Return					
	QTR	1 Year	3 Year	5 Year	7 Year	10 Year	15 Year
ERS Public Equity (Gross)	-5.4	6.0	14.1	12.0	10.4	11.2	7.3
ERS Public Equity (Net)	-5.5	5.7	13.7	11.6	10.0	10.8	6.9
ERS Public Equity Benchmark	-5.5	6.3	13.5	11.4	9.7	10.8	7.1
MSCI AC World IMI	-5.5	6.3	13.5	11.4	9.5	10.0	6.6

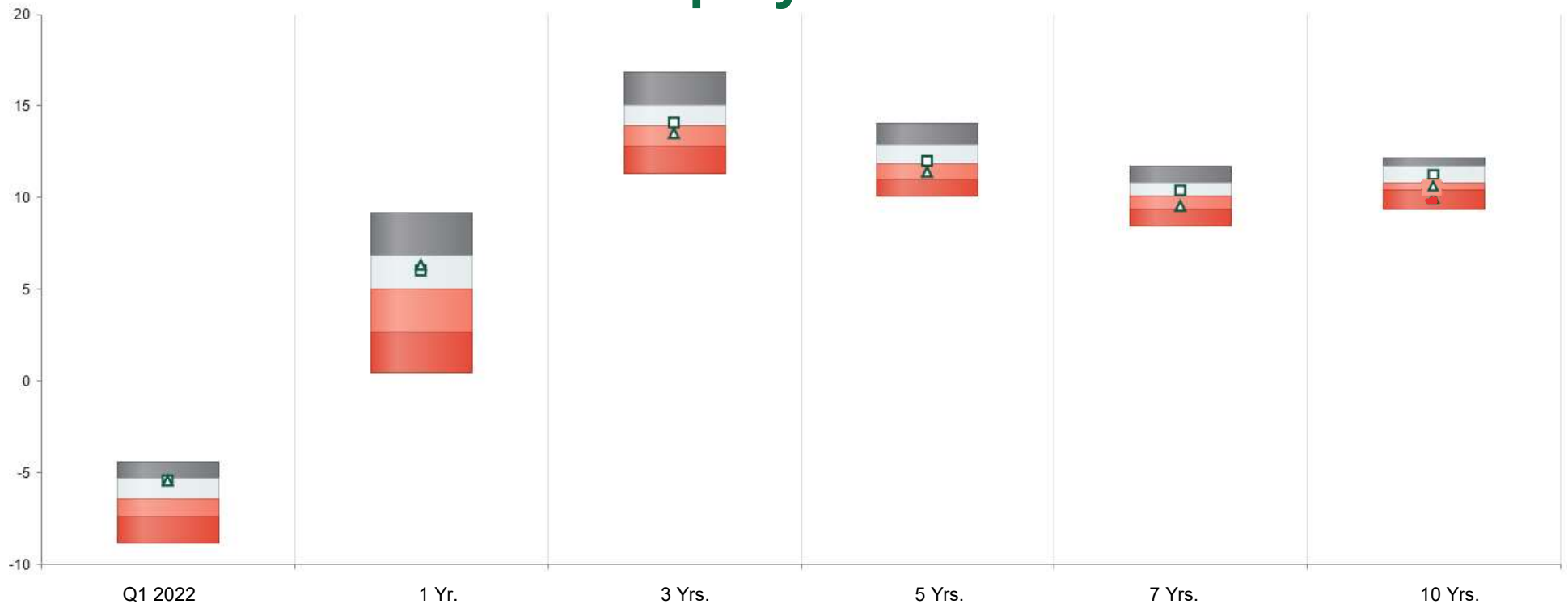
Investment Growth –4/1/2007 to 3/31/2022



Rolling Excess Returns –4/1/2007 to 3/31/2022



Public Equity vs Universe

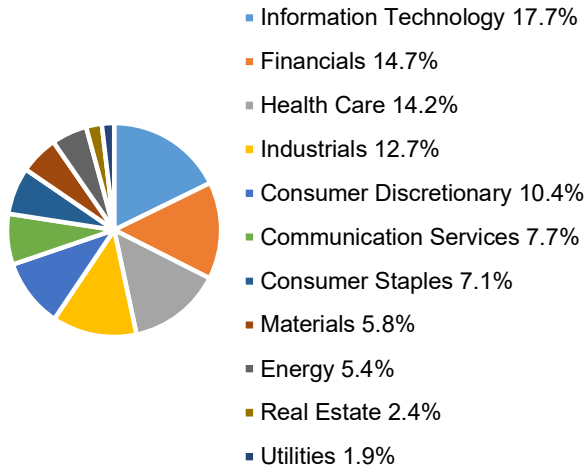


■ Account
 ▲ Index

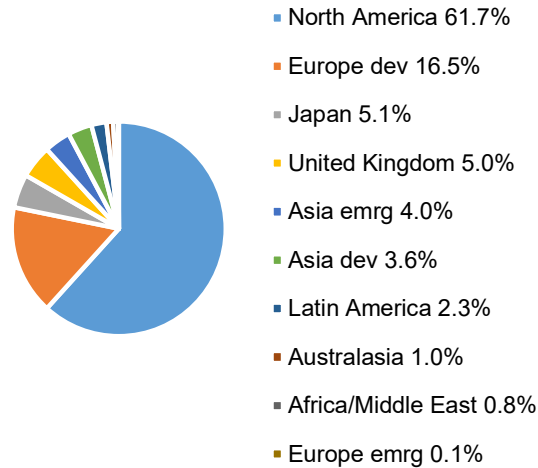
	Q1 2022	1 Yr.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.
Account Return	-5.4	6.0	14.1	12.0	10.4	11.2
Percentile Rank	31	34	46	46	37	41
Index Return	-5.5	6.3	13.5	11.4	9.7	10.8
Percentile Rank	31	30	56	68	3rd Quartile	3rd Quartile
1st Quartile	-5.3	6.8	15.0	12.9	10.8	11.7
Median	-6.4	5.0	13.9	11.8	10.1	10.8
3rd Quartile	-7.4	2.7	12.8	11.0	9.4	10.4
Observations	135	132	132	131	124	111

Public Equity Portfolio Snapshot

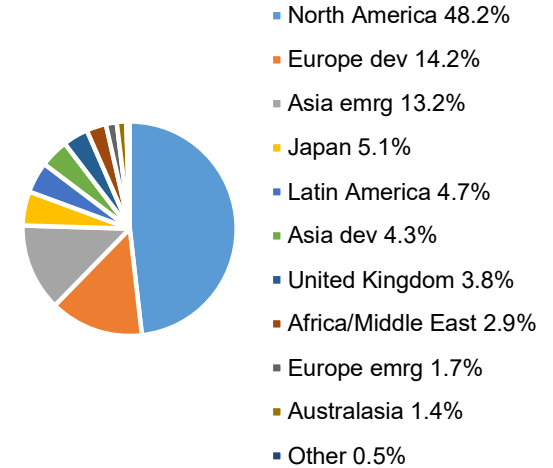
Equity Sector Exposure (GICS)



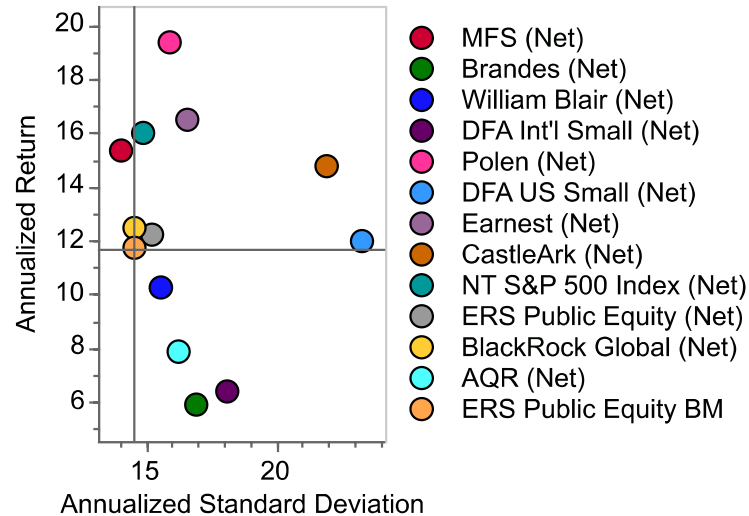
Regional Exposure by Domicile



Regional Exposure by Source of Revenue



Risk – Reward – 8/1/2016 to 3/31/2022



©FactSet Research Systems

Top 10 Holdings

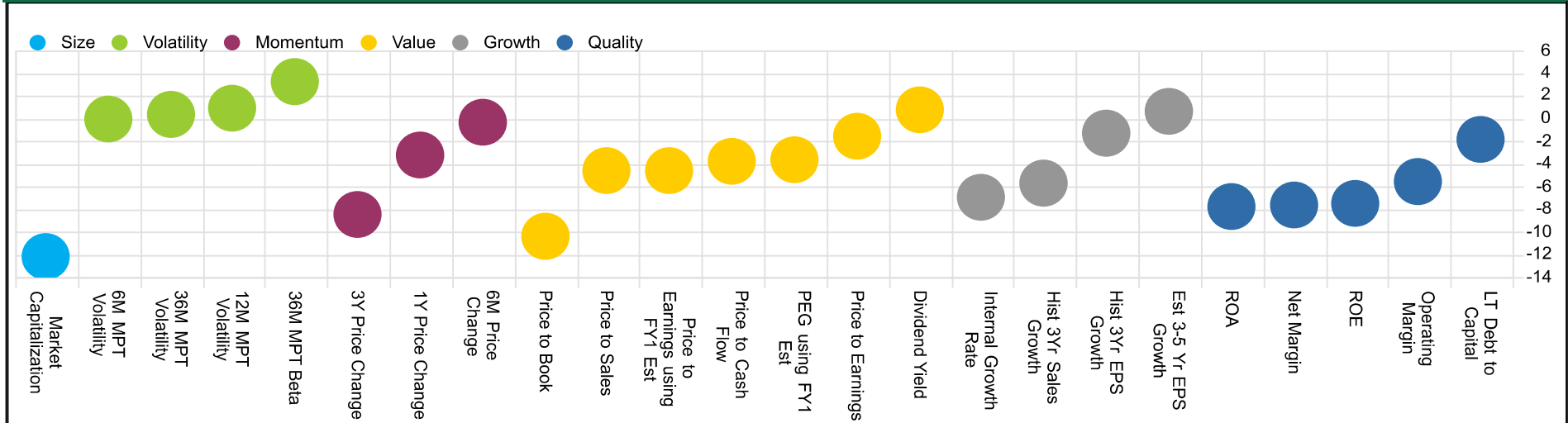
Portfolio Date 3/31/22	Weight %	Return %
Microsoft Corporation	2.0	-8.1
Alphabet Inc.	1.8	-3.7
Apple Inc.	1.5	-1.5
Amazon.com, Inc.	1.2	-2.2
Visa Inc.	0.7	2.5
Alibaba Group Holding	0.6	-6.1
Berkshire Hathaway Inc.	0.6	18.0
Meta Platforms, Inc.	0.6	-33.9
UnitedHealth Group	0.6	1.8
Takeda Pharmaceutical	0.6	8.5

Top 10 Managers

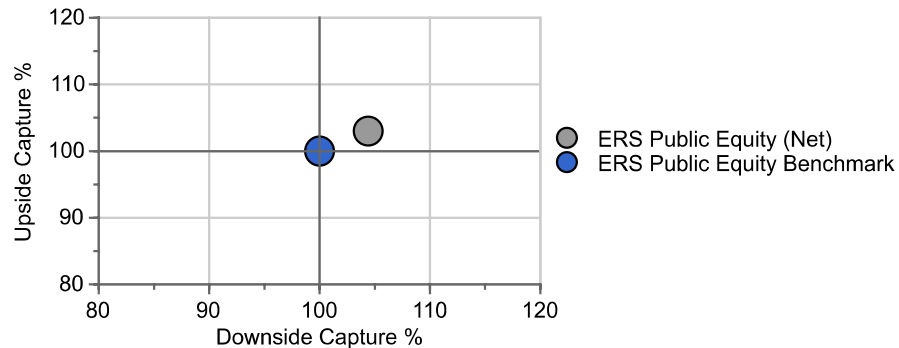
Portfolio Date 3/31/22	Weight %
Brandes Int'l Value	14.0
NTQA S&P 500 Index Core	12.8
BlackRock Global Core	11.1
William Blair Int'l Growth	10.1
DFA US Small Cap Value	7.6
MFS Global Growth	7.3
DFA Int'l Small Cap Value	7.1
BlackRock R1000 Value Index	6.2
DFA US Large Cap Value	6.2
Polen US Large Cap Growth	5.9

Public Equity Statistics

Characteristics Tilt vs MSCI ACWI IMI 3/31/2022

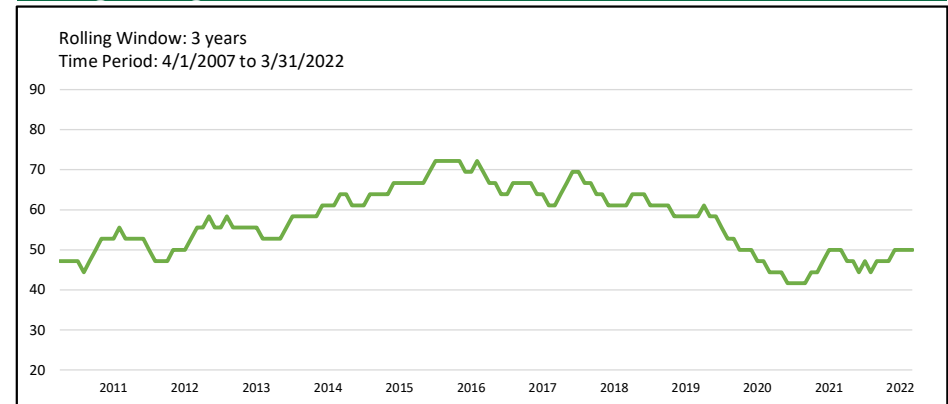


15 Year Upside-Downside -4/1/2007 to 3/31/2022



©FactSet Research Systems

Batting Average



15 Year Risk -4/1/2007 to 3/31/2022

	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error	Beta
ERS Public Equity (Net)	6.9	16.7	0.0	0.4	0.0	1.8
ERS Public Equity Benchmark	7.1	16.0	0.0	0.4	--	--

Risk - 7/1/2013 to 3/31/2022

	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error	Beta
ERS Public Equity (Net)	11.0	14.2	0.0	0.7	0.1	1.7
ERS Public Equity Benchmark	10.7	13.6	0.0	0.7	--	--

Public Equity Valuation Characteristics

As of March 31, 2022

	Price/ Earnings	P/E using FY2 Est	Price/ Book	Price/ CF	Dividend Yield
ERS Public Equity	14.6	13.3	1.7	9.3	1.83
MSCI AC World IMI	16.1	14.8	2.2	10.8	1.81

Domestic Managers	Price/ Earnings	P/E using FY2 Est	Price/ Book	Price/ CF	Dividend Yield	Global & International Managers	Price/ Earnings	P/E using FY2 Est	Price/ Book	Price/ CF	Dividend Yield
BlackRock R1000 Value Index	16.0	14.4	2.5	11.6	1.91	AQR Emerging Markets Core	6.8	7.0	1.2	4.2	4.24
CastleArk Small Growth	20.0	15.9	3.5	14.2	0.25	BlackRock Global Core	16.2	15.1	2.3	11.0	1.87
DFA Large Value	12.5	11.7	2.1	8.6	1.98	Brandes Int'l Value	9.6	8.8	0.9	4.7	3.84
DFA Small Value	12.5	11.4	2.0	8.5	1.06	DFA Int'l Small Value	7.7	8.9	0.8	4.9	2.93
Earnest Mid Core	18.7	13.8	2.8	12.7	1.17	MFS Global Growth	27.5	20.5	4.0	19.1	0.97
NT S&P 500 Index	21.0	18.0	3.2	15.4	1.35	William Blair Int'l Growth	23.9	21.1	3.9	19.4	1.08
Polen Large Growth	33.9	26.9	6.8	24.2	0.32						

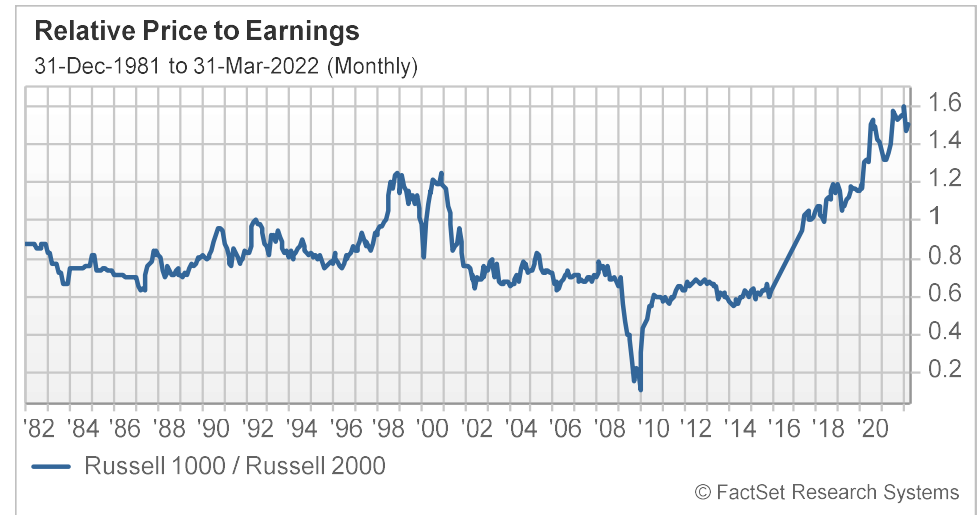
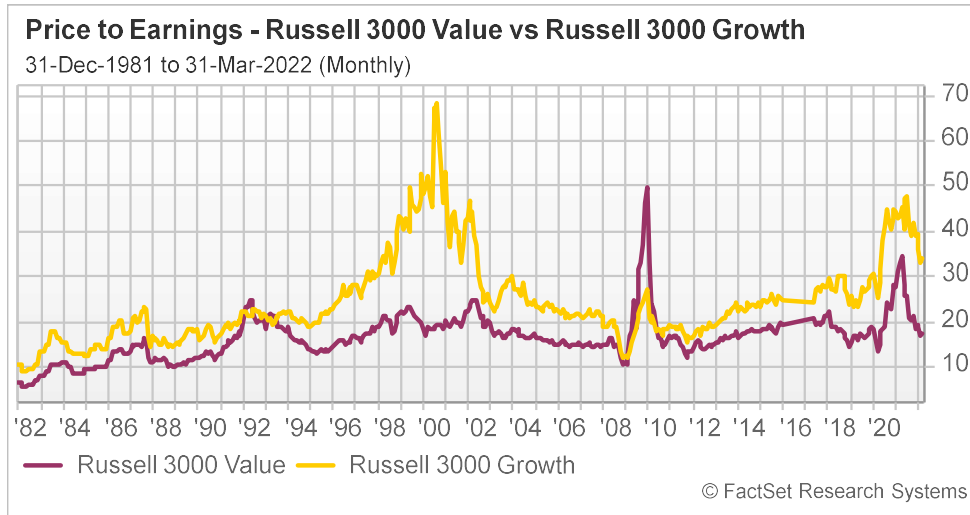
*"Price/Earnings" and "P/E using FY2 Est" values exclude companies with negative earnings from calculations.

P/E Ratio Comparisons in the U.S. Since 1980 - As of March 31, 2022

Value vs. Growth



Large vs. Small



Price to Earnings ratios for Value vs. Growth charts include companies with negative earnings in calculations.

Price to Earnings ratios for Large vs Small: Top chart includes companies with negative earnings in calculations; bottom chart excludes companies with negative earnings from calculation.

Relative Investment Performance – Active Equity Managers

As of March 31, 2022

Outperforming Equity Managers

	1st Qtr	1 Year	3 Year	5 Year	7 Year	10 Year
DFA International <i>MSCI EAFE Small Cap</i>	-2.6% 6.0%	4.5% 8.1%	8.2% 0.3%	4.6% 2.8%	5.5% 1.8%	7.2% 1.1%
AQR <i>MSCI EM</i>	-3.7% 3.3%	-8.0% 3.3%	7.3% 2.4%	6.0% 0.0%	N/A	N/A
DFA U.S. Small Value <i>Russell 2000 Value</i>	0.8% 3.2%	11.6% 8.3%	16.2% 3.5%	10.1% 1.5%	9.4% 0.6%	11.9% 1.3%
Brandes <i>MSCI EAFE</i>	-2.7% 3.2%	1.7% 0.6%	5.5% 2.3%	4.6% 2.1%	4.0% 1.1%	5.7% 0.6%
DFA U.S. Large Value <i>Russell 1000 Value</i>	0.3% 1.0%	11.0% 0.7%	12.6% 0.5%	N/A	N/A	N/A
BlackRock Global Alpha Tilts <i>MSCI ACWI</i>	-5.2% 0.1%	7.0% 0.3%	13.6% 0.2%	11.9% 0.3%	N/A	N/A
Earnest <i>Russell MidCap</i>	-5.6% 0.1%	8.1% 1.2%	18.0% 3.1%	15.6% 3.0%	14.0% 3.3%	14.3% 1.5%
ERS Public Equity <i>ERS Equity Benchmark</i>	-5.5% 0.1%	5.7% 0.6%	13.7% 0.2%	11.6% 0.2%	10.0% 0.3%	10.8% 0.1%

Relative outperformance in blue

Relative underperformance in red

*Returns net of fees

Relative Investment Performance – Active Equity Managers

As of March 31, 2022

Underperforming Equity Managers

	1st Qtr	1 Year	3 Year	5 Year	7 Year	10 Year
William Blair <i>MSCI ACWI ex US</i>	-14.9% 9.6%	-3.4% 2.3%	13.0% 5.0%	10.7% 3.5%	7.6% 1.9%	8.5% 2.4%
Polen <i>S&P 500</i>	-13.8% 9.2%	5.4% 10.3%	19.4% 0.5%	20.4% 4.4%	17.5% 3.5%	N/A
CastleArk <i>Russell 2000 Growth</i>	-15.4% 2.8%	-11.2% 3.1%	12.1% 2.2%	14.8% 4.5%	10.6% 2.1%	N/A
MFS <i>MSCI ACWI</i>	-7.5% 2.1%	6.2% 1.0%	16.7% 3.0%	16.2% 4.5%	13.2% 3.5%	N/A
ERS Public Equity <i>ERS Equity Benchmark</i>	-5.5% 0.1%	5.7% 0.6%	13.7% 0.2%	11.6% 0.2%	10.0% 0.3%	10.8% 0.1%

Relative outperformance in blue
Relative underperformance in red

*Returns net of fees

Relative Investment Performance – Passive Equity Managers & Other

As of March 31, 2022

Passive Equity Managers

	1st Qtr	1 Year	3 Year	5 Year	7 Year	10 Year
Northern Trust S&P 500 Index <i>S&P 500</i>	-4.6% 0.0%	15.6% 0.0%	18.9% 0.0%	16.0% 0.0%	14.0% 0.0%	14.7% 0.0%
BlackRock Russell 1000 Value Index <i>Russell 1000 Value</i>	-0.8% 0.0%	11.6% 0.0%	13.1% 0.1%	10.4% 0.1%	N/A	N/A

Real Assets Manager

	1st Qtr	1 Year	3 Year	5 Year	7 Year	10 Year
Principal Diversified Real Assets <i>Blended Benchmark</i>	5.8% 1.0%	19.4% 0.4%	11.0% 0.9%	8.0% 0.2%	N/A	N/A

Relative outperformance in blue

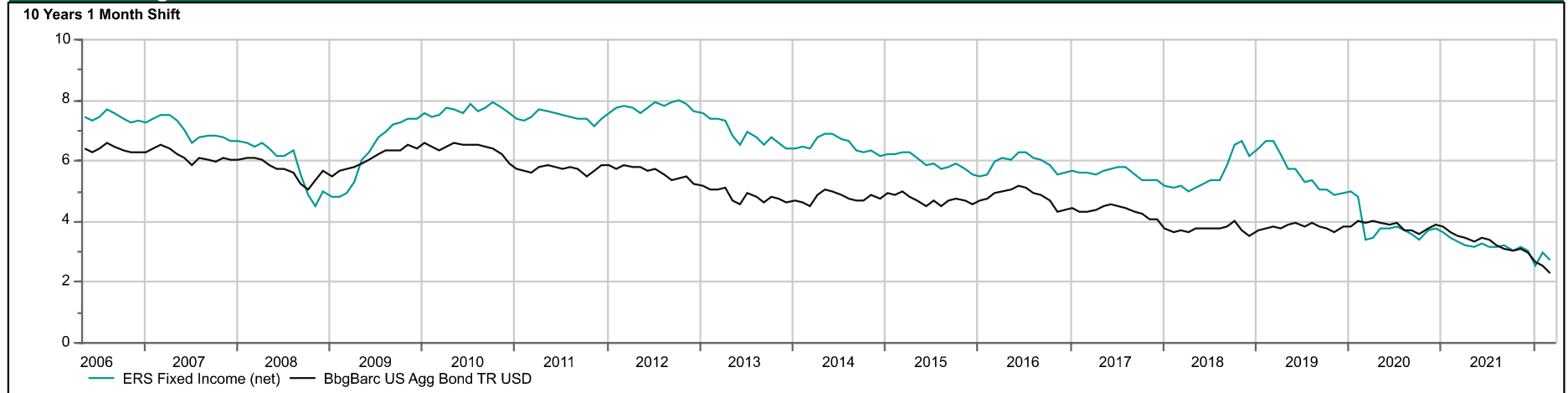
Relative underperformance in red

*Returns net of fees

Fixed Income

Fixed Income Performance

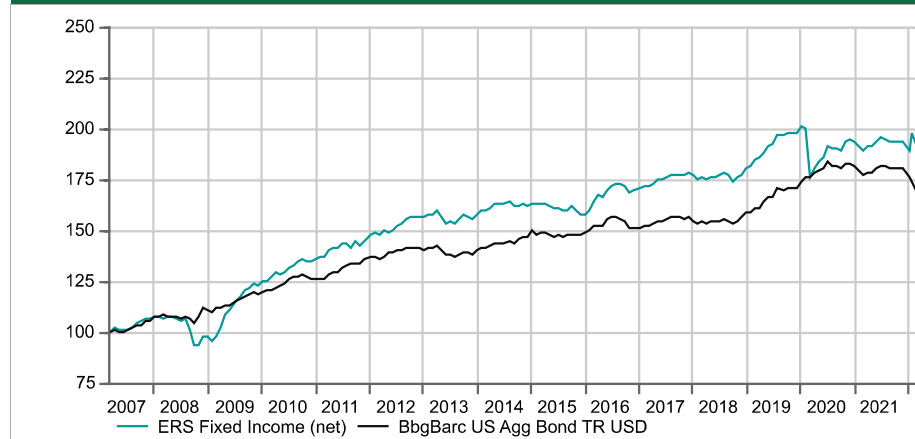
10 Year Rolling Returns – 6/1/1996 to 3/31/2022



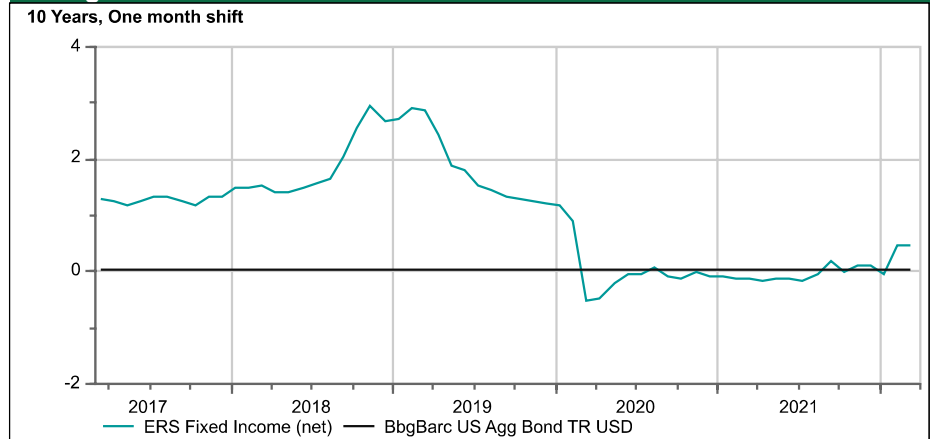
Trailing Returns

		Annualized Return					
	QTR	1 Year	3 Year	5 Year	7 Year	10 Year	15 Year
ERS Fixed Income (Gross)	-0.4	2.0	1.4	2.4	2.6	2.8	4.6
ERS Fixed Income (Net)	-0.4	1.9	1.3	2.3	2.5	2.7	4.5
Bloomberg US Aggregate	-5.9	-4.2	1.7	2.1	1.9	2.2	3.6

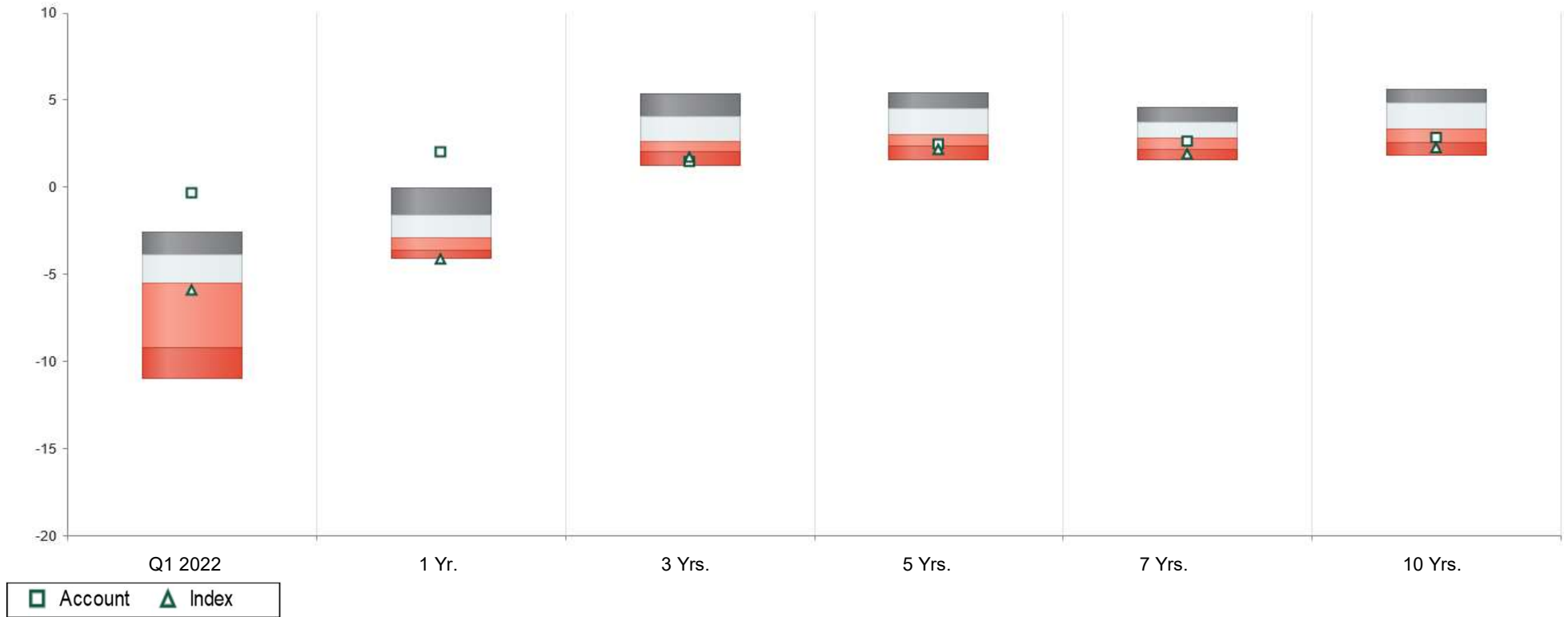
Investment Growth –4/1/2007 to 3/31/2022



Rolling Excess Return –4/1/2007 to 3/31/2022



Fixed Income vs Universe



	Q1 2022	1 Yr.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.
Account Return	-0.4	2.0	1.4	2.4	2.6	2.8
Percentile Rank	5	5	88	74	59	62
Index Return	-5.9	-4.2	1.7	2.1	1.9	2.2
Percentile Rank	63	93	79	81	83	82
1st Quartile	-3.9	-1.6	4.1	4.5	3.7	4.8
Median	-5.5	-2.9	2.6	3.0	2.8	3.3
3rd Quartile	-9.2	-3.6	2.0	2.4	2.2	2.6
Observations	98	97	97	96	94	87

Relative Investment Performance – Fixed Income Managers

As of March 31, 2022

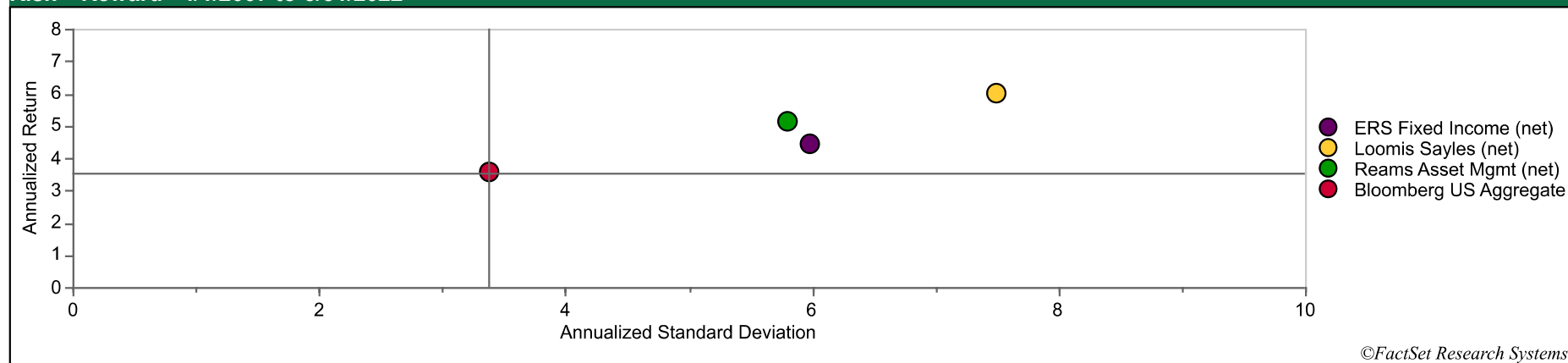
	1st Qtr	1 Year	3 Year	5 Year	7 Year	10 Year
Reams <i>Bloomberg U.S. Agg.</i>	-5.6% 0.4%	-3.4% 0.8%	4.8% 3.1%	4.3% 2.2%	3.6% 1.7%	3.4% 1.2%
Loomis Sayles <i>Bloomberg U.S. Agg.</i>	-5.8% 0.1%	-3.1% 1.1%	3.6% 1.9%	3.9% 1.7%	4.1% 2.2%	4.7% 2.4%
BlackRock Index <i>Bloomberg U.S. Government</i>	-5.4% 0.1%	N/A	N/A	N/A	N/A	N/A
ERS Fixed Income <i>Bloomberg U.S. Agg.</i>	-0.4% 5.6%	1.9% 6.0%	1.3% 0.3%	2.3% 0.2%	2.5% 0.6%	2.7% 0.4%

Relative outperformance in blue
Relative underperformance in red

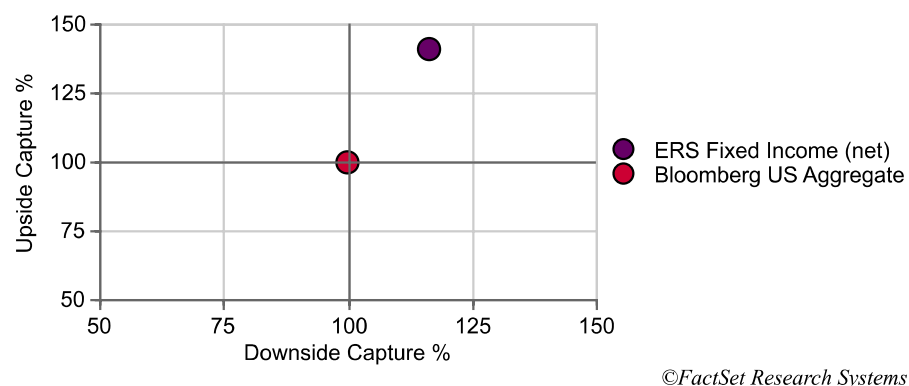
*Returns net of fees

Fixed Income Statistics

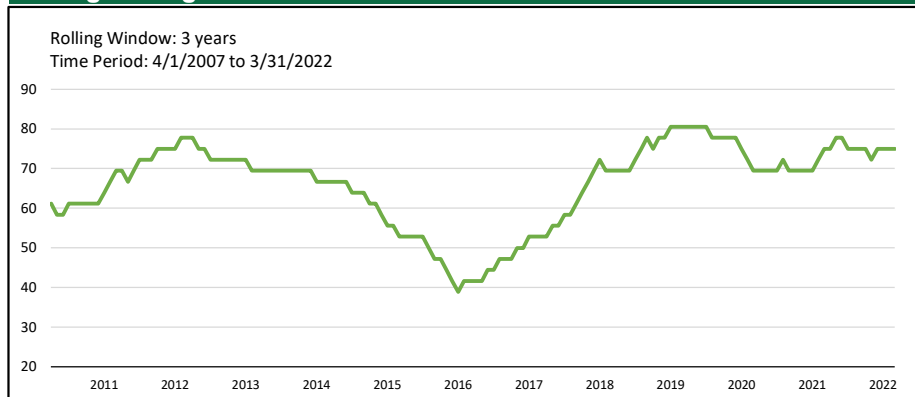
Risk – Reward –4/1/2007 to 3/31/2022



15 Year Upside-Downside –4/1/2007 to 3/31/2022



Batting Average



15 Year Risk –4/1/2007 to 3/31/2022

	Annualized Standard Return Deviation	Sharpe Alpha	Information Ratio	Tracking Ratio	Error	Beta
ERS Fixed Income (Net)	4.5	6.0	0.1	0.6	0.1	4.9
Bloomberg US Aggregate	3.6	3.4	0.0	0.8	--	1.0

Risk – 7/1/2013 to 3/31/2022

	Annualized Standard Return Deviation	Sharpe Alpha	Information Ratio	Tracking Ratio	Error	Beta
ERS Fixed Income (Net)	2.6	5.6	0.0	0.4	0.0	4.7
Bloomberg US Aggregate	2.4	3.2	0.0	0.5	--	1.0

Absolute Return

Relative Investment Performance – Absolute Return Managers

As of March 31, 2022

	1st Qtr	1 Year	3 Year	5 Year	7 Year
UBS A&Q	1.5%	7.2%	9.8%	7.3%	6.0%
<i>1 Year Libor / SOFR + 4%</i>	1.0%	3.7%	4.2%	1.4%	0.2%
ERS Absolute Return	16.0%	23.3%	5.2%	5.0%	4.8%
<i>3 Month T-Bill + 3%</i>	15.2%	20.2%	1.5%	0.9%	0.9%

Relative outperformance in blue
Relative underperformance in red

Risk Adjusted Returns (6/30/14 - 3/31/22)

	Return	Std Dev	Sharpe Ratio	Max Drawdown
ERS Public Equity (net)	9.2%	14.6%	0.6	-25.3%
ERS Fixed Income (net)	2.1%	5.9%	0.2	-12.6%
ERS Absolute Return (net)	5.2%	10.4%	0.4	-27.1%

*Returns net of fees

Performance Update

Performance Update

Estimated ERS Total Fund Market Value is \$5.94 billion as of May 31, 2022

Period	ERS Fund*	Benchmark
1 st Quarter	-0.5%	-1.8%
April	-3.2%	-4.4%
May (Estimate)	0.8%	0.2%
YTD Through May 2022 (Estimate)	-2.9%	-6.0%

*Returns Net of Fees

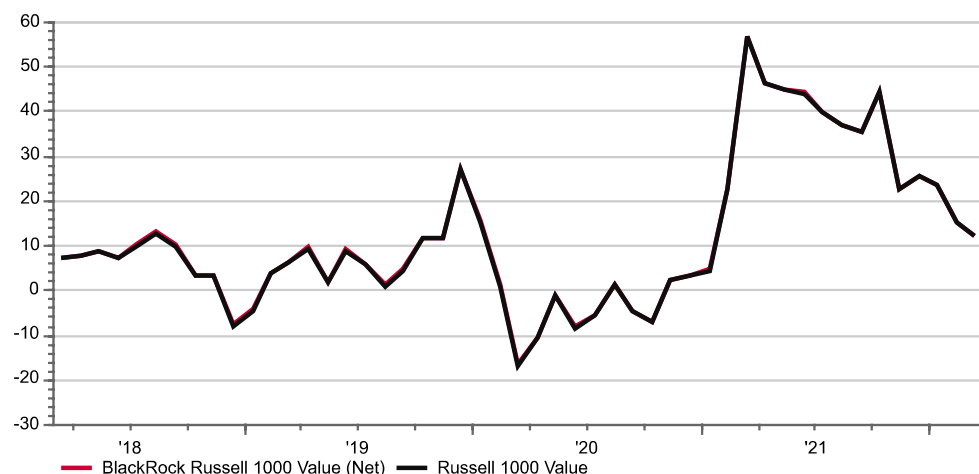
Appendix

Appendix – Table of Contents

<u>Domestic Equity</u>	<u>Page</u>
BlackRock Russell 1000 Value.....	36
CastleArk.....	38
DFA (Large Cap Value).....	42
DFA (U.S. Small Value).....	46
Earnest.....	50
Northern Trust S&P 500.....	54
Polen.....	56
<u>International Equity</u>	
AQR.....	60
Brandes.....	64
DFA (International).....	68
William Blair.....	72
<u>Global Equity</u>	
BlackRock Global Alpha Tilts.....	76
MFS.....	80
<u>Fixed Income</u>	
Loomis Sayles.....	84
Reams.....	86

BlackRock Russell 1000 Value Portfolio Snapshot –March 31, 2022

Rolling Returns Since Inception 4/1/2017 (One Year, One Month Shift)

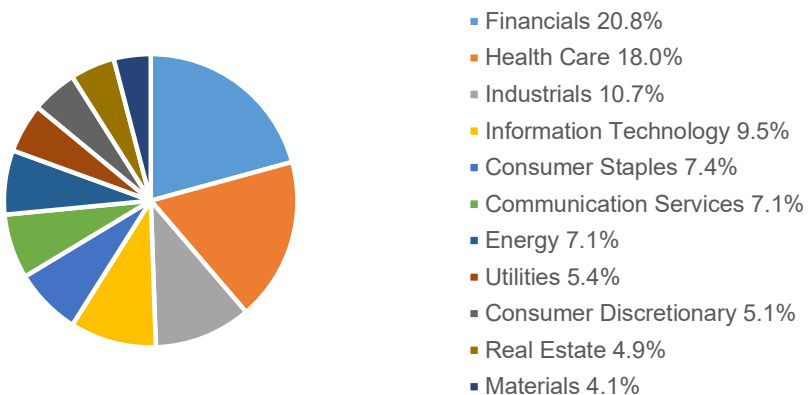


©FactSet Research Systems

Trailing Returns

	QTR	1 Year	3 Year	5 Year
BlackRock R1000 Value (Net)	-0.8	11.6	13.1	10.4
Russell 1000 Value	-0.7	11.7	13.0	10.3

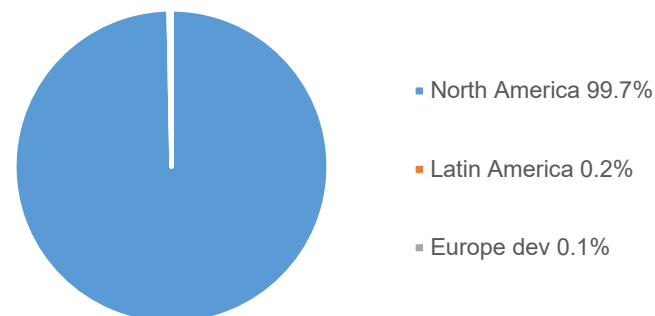
Equity Sector Exposure (GICS)



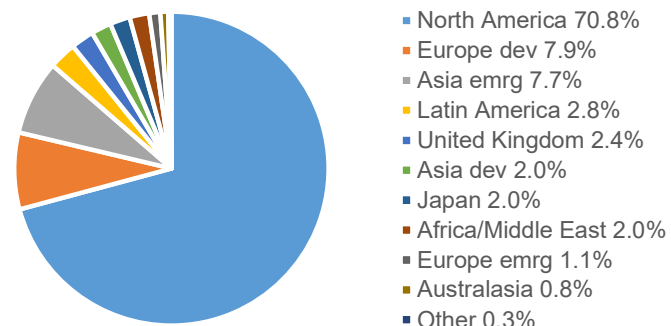
Top 10 Holdings

	Portfolio Weight	Quarterly Return
Berkshire Hathaway Inc.	3.12	18.03
Johnson & Johnson	2.25	4.27
UnitedHealth Group Incorporated	2.15	1.85
JPMorgan Chase & Co.	1.93	-13.33
Procter & Gamble Company	1.77	-6.08
Exxon Mobil Corporation	1.68	36.49
Chevron Corporation	1.52	40.12
Bank of America Corporation	1.41	-6.88
Pfizer Inc.	1.39	-11.66
Walt Disney Company	1.14	-11.45

Regional Exposure by Domicile



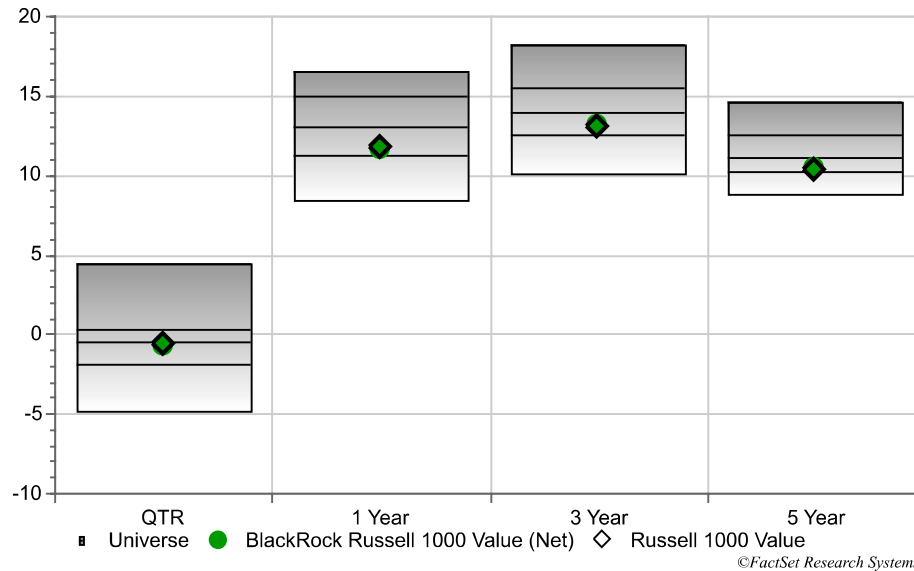
Regional Exposure by Source of Revenue



BlackRock Russell 1000 Value vs Universe & Benchmark

Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US:Large-Cap Value

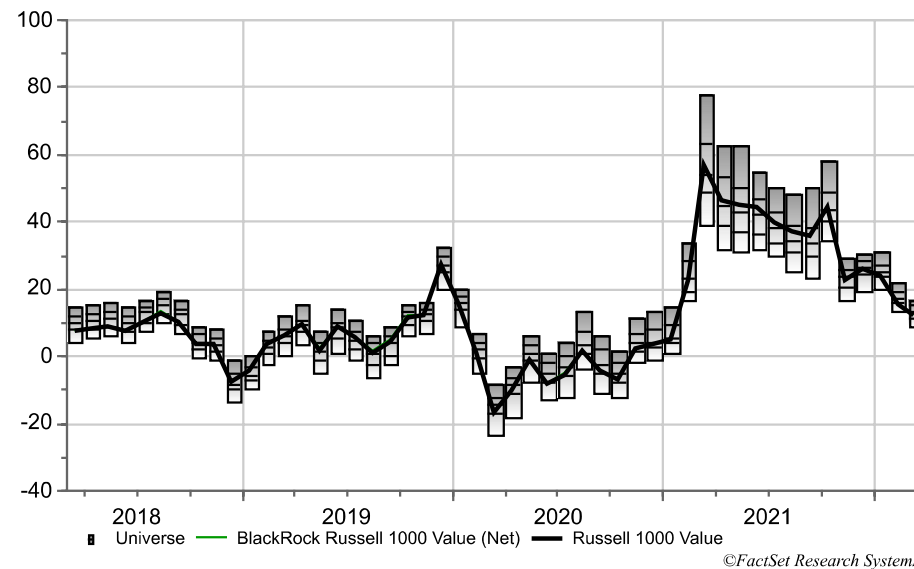


Investment Growth Since Inception 4/1/2017



Rolling Returns 4/1/2017 –3/31/2022 (1 Year, 1 Month Shift)

Universe: Lipper US:Large-Cap Value

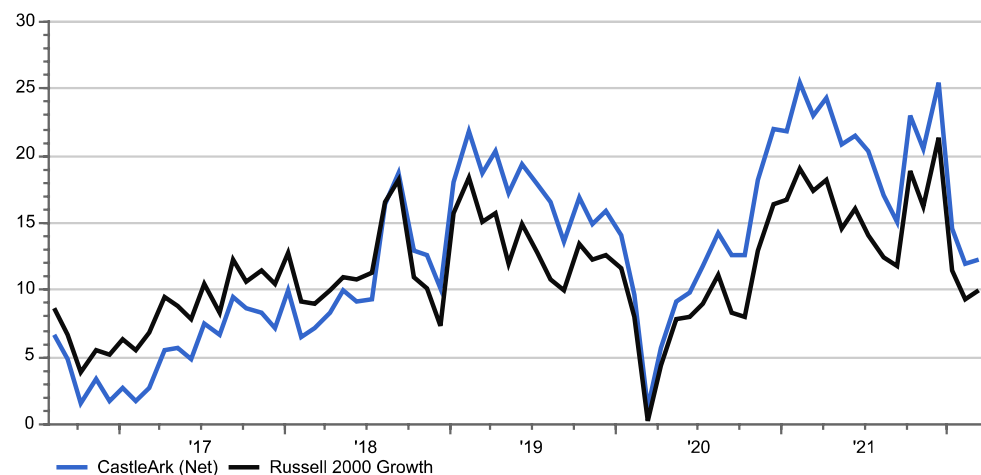


Risk Since Inception 4/1/2017

	Return	Std Dev	Sharpe Ratio	Tracking Error
BlackRock R1000 Value (Net)	10.4	16.4	0.6	0.1
Russell 1000 Value	10.3	16.4	0.6	--

CastleArk Portfolio Snapshot –March 31, 2022

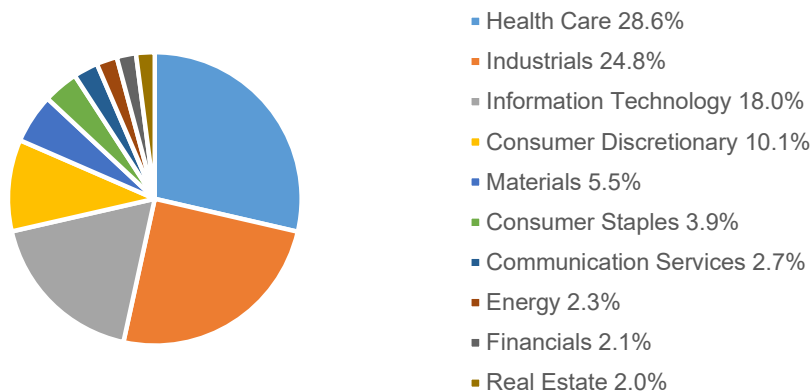
Rolling Returns Since Inception 9/1/2013 (Three Year, One Month Shift)



Trailing Returns

	QTR	1 Year	3 Year	5 Year	Inception 9/1/2013
CastleArk (Net)	-15.4	-11.2	12.1	14.8	11.9
Russell 2000 Growth	-12.6	-14.3	9.9	10.3	10.2

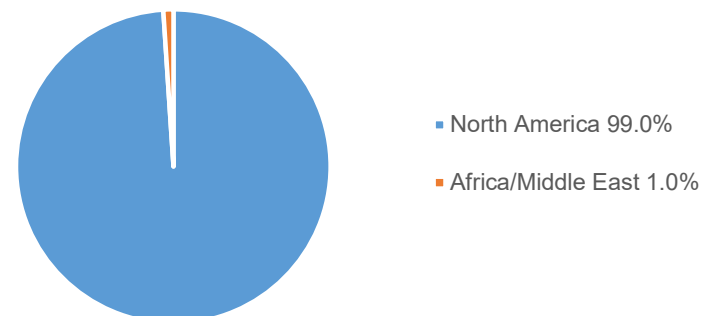
Equity Sector Exposure (GICS)



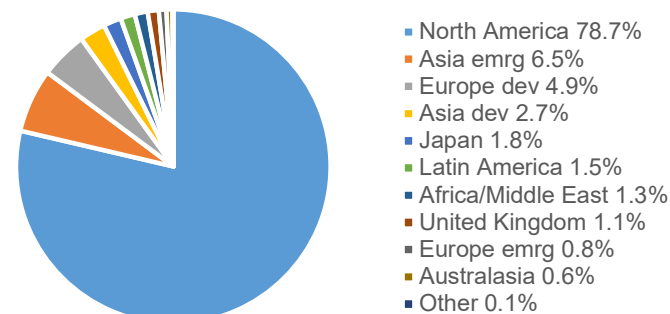
Top 10 Holdings

	Portfolio Weight	Quarterly Return
WillScot Mobile Mini Holdings Corp.	2.49	-4.19
ASGN Inc	1.94	-5.42
Regal Rexnord Corporation	1.91	-12.38
Option Care Health, Inc.	1.70	0.42
Shockwave Medical, Inc.	1.67	16.28
Acadia Healthcare Company, Inc.	1.62	7.96
Casella Waste Systems, Inc.	1.61	2.61
Planet Fitness, Inc.	1.57	-6.73
KBR, Inc.	1.51	15.18
Ping Identity Holding Corp.	1.51	19.89

Regional Exposure by Domicile



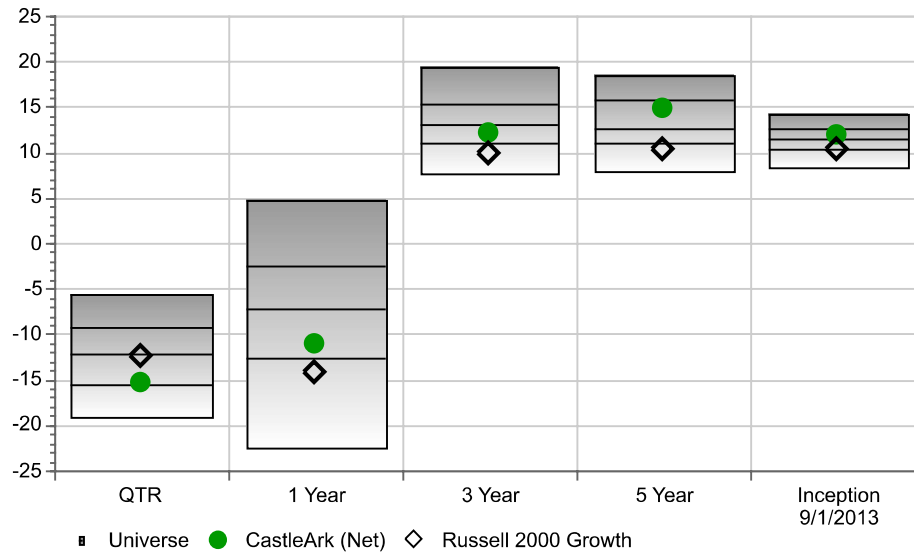
Regional Exposure by Source of Revenue



CastleArk vs Universe & Benchmark

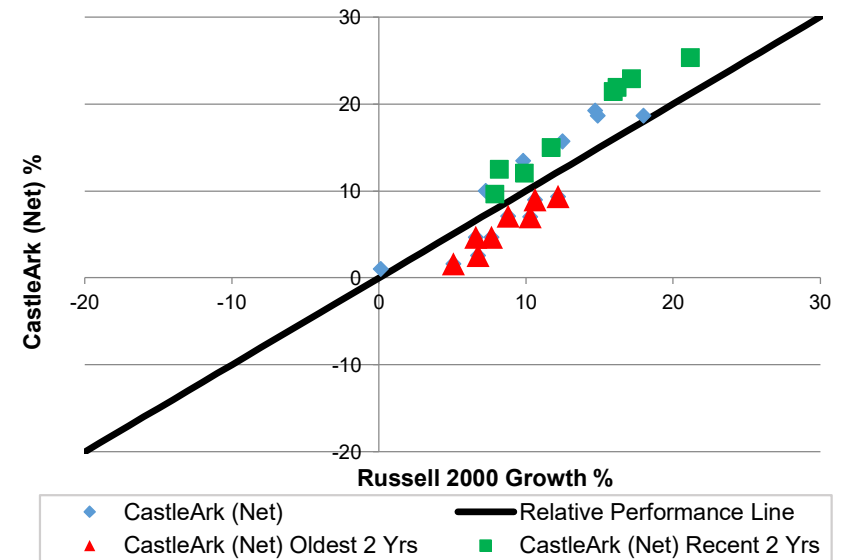
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US Small-Cap Growth



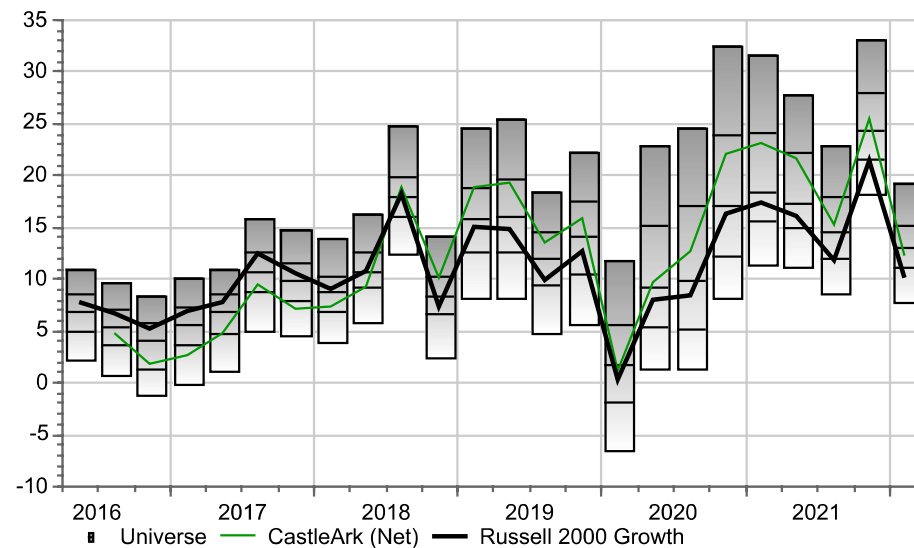
©FactSet Research Systems

Three-Year Rolling Return Versus Benchmark



Rolling Returns 9/1/2013 –3/31/2022 (3 Year, 3 Month Shift)

Universe: Lipper US:Small-Cap Growth



©FactSet Research Systems

Over/Under Benchmark Analysis

15	Outperform
8	Underperform
23	# Observations
65%	% Outperform

CastleArk Attribution Analysis –March 31, 2022

Top 10 Leading Contributors

	Avg. Weights	Relative Weights	Active Return
Ping Identity Holding Corp.	1.11	1.11	0.28
Nexstar Media Group, Inc.	0.98	0.98	0.21
Shockwave Medical, Inc.	1.22	0.80	0.19
LPL Financial Holdings Inc.	1.32	1.32	0.17
iRhythm Technologies, Inc.	0.58	0.31	0.15
Pure Storage, Inc.	0.90	0.90	0.14
Acadia Healthcare Company, Inc.	1.24	1.24	0.14
KBR, Inc.	1.21	0.77	0.14
Univar Solutions Inc.	0.83	0.83	0.13
Allegheny Technologies Inc.	0.46	0.34	0.10

Top 10 Leading Detractors

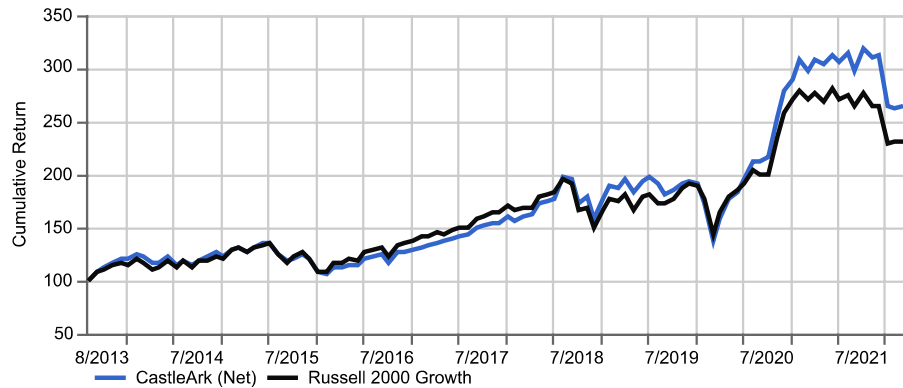
	Avg. Weights	Relative Weights	Active Return
Ranpak Holdings Corp.	1.47	1.46	-0.83
Kornit Digital Ltd.	1.21	1.21	-0.68
Vicor Corporation	1.04	0.89	-0.61
Natera, Inc.	0.79	0.79	-0.55
Skyline Champion Corp.	1.74	1.46	-0.49
Summit Materials, Inc.	1.54	1.54	-0.39
MaxLinear, Inc.	1.77	1.42	-0.37
Shyft Group, Inc.	1.34	1.23	-0.35
MACOM Technology Solutions Hldgs, Inc.	0.95	0.71	-0.33
Synaptics Incorporated	1.66	0.96	-0.32

Sector Attribution

	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	0.3	-3.6	-11.6	0.0	0.3	0.3
Consumer Discretionary	-0.4	-19.4	-18.8	0.0	0.0	0.0
Consumer Staples	-2.5	-33.1	-9.9	-0.1	0.0	-0.2
Energy	-0.4	7.1	37.5	-0.2	-0.5	-0.7
Financials	-2.8	-5.3	-13.7	0.0	0.2	0.3
Health Care	-3.0	-14.3	-15.2	0.1	0.2	0.3
Industrials	7.8	-11.2	-9.1	0.3	-0.5	-0.2
Information Technology	-1.6	-18.8	-14.7	0.0	-1.0	-1.1
Materials	4.4	-19.4	0.3	0.5	-1.5	-1.0
Real Estate	-2.9	5.1	-13.0	0.0	0.0	0.0
Utilities	-0.3	0.0	-10.3	0.0	0.0	0.0
Cash	1.5	0.1	0.0	0.1	0.0	0.1
Total	0.0	-14.8	-12.6	0.7	-2.9	-2.2

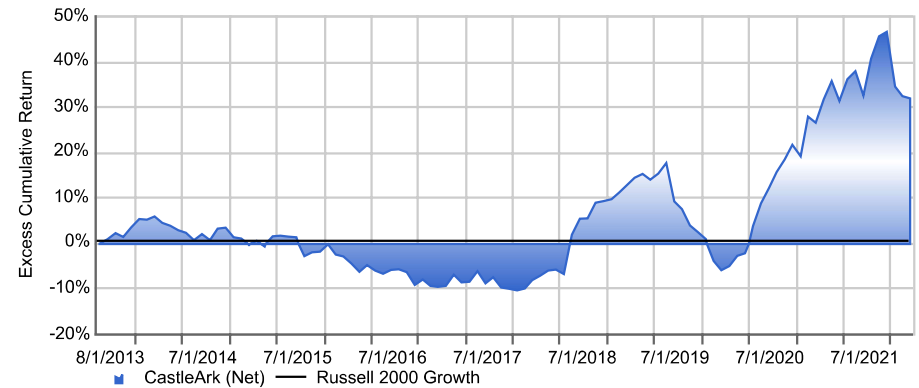
CastleArk Inception Performance & Statistics

Investment Growth Since Inception 9/1/2013



©FactSet Research Systems

Relative Cumulative Performance Since Inception 9/1/2013

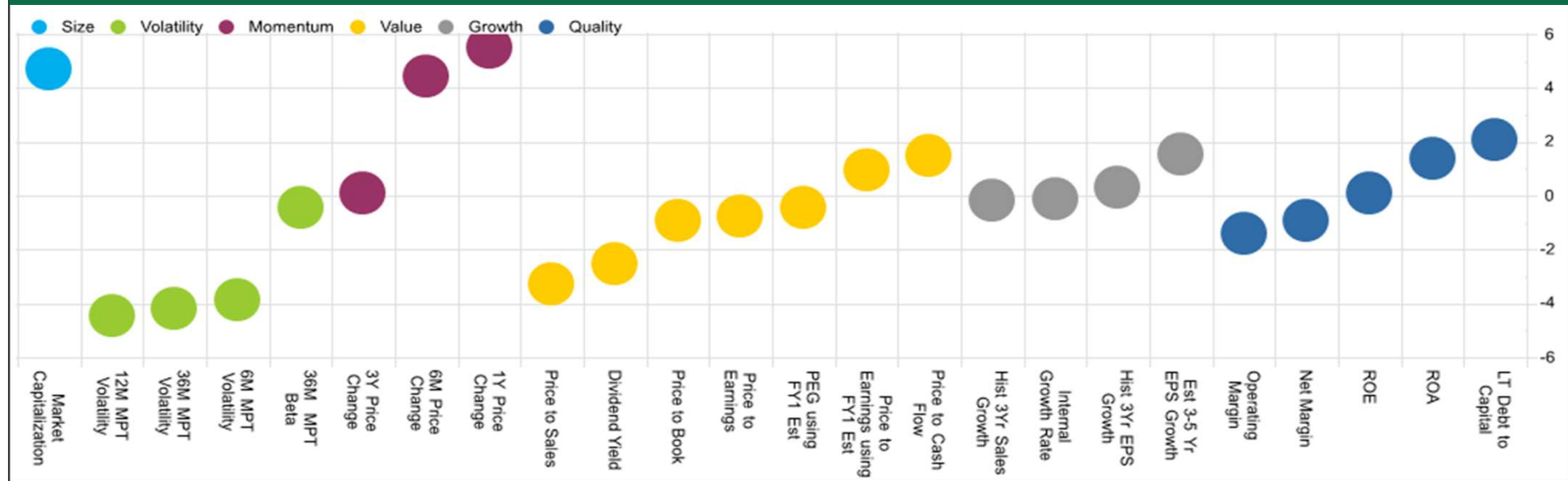


©FactSet Research Systems

Risk Since Inception 9/1/2013

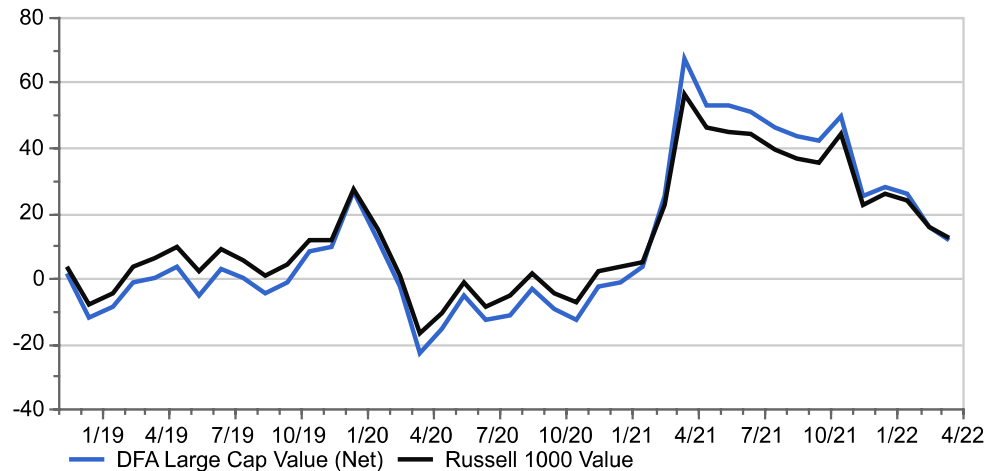
	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
CastleArk (Net)	11.9	20.1	1.6	0.6	0.3	5.1	1.0
Russell 2000 Growth	10.2	19.3	--	0.5	--	--	1.0

Characteristics Tilt vs Benchmark 3/31/2022



DFA LCV Portfolio Snapshot –March 31, 2022

Rolling Returns Since Inception 12/1/2017 (One Year, One Month Shift)



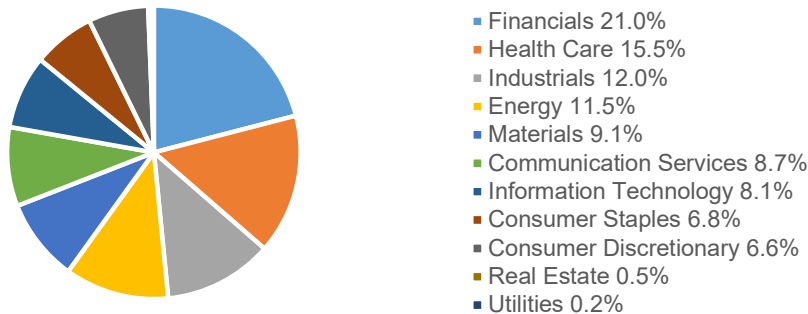
Top 10 Holdings

	Portfolio Weight	Quarterly Return
Pfizer Inc.	2.93	-11.66
JPMorgan Chase & Co.	2.83	-13.33
Berkshire Hathaway Inc.	2.22	18.03
Exxon Mobil Corporation	2.14	36.49
Comcast Corporation	2.08	-6.51
Intel Corporation	2.02	-3.03
Walmart Inc.	1.88	3.31
Chevron Corporation	1.86	40.12
ConocoPhillips	1.73	39.63
AT&T Inc.	1.73	-1.98

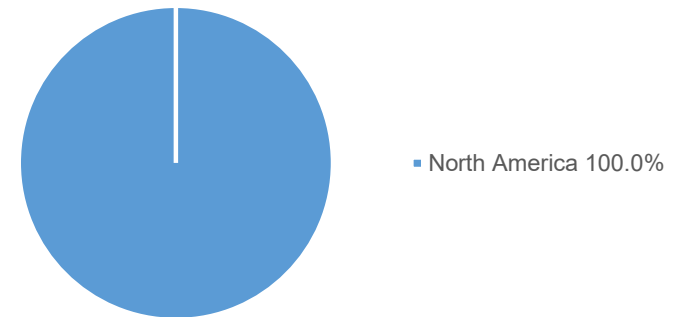
Trailing Returns

	QTR	1 Year	3 Year	Inception 12/1/2017
DFA US Large Value	0.3	11.0	12.6	8.5
Russell 1000 Value	-0.7	11.7	13.0	9.9

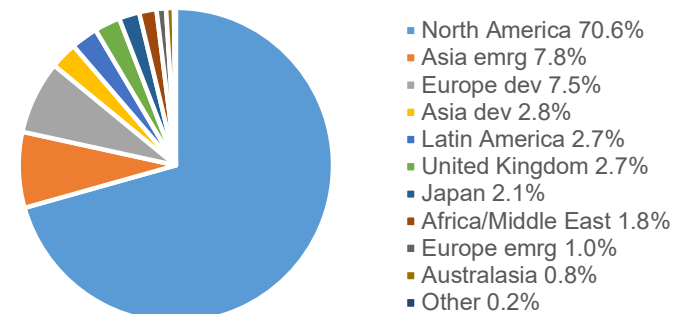
Equity Sector Exposure (GICS)



Regional Exposure by Domicile



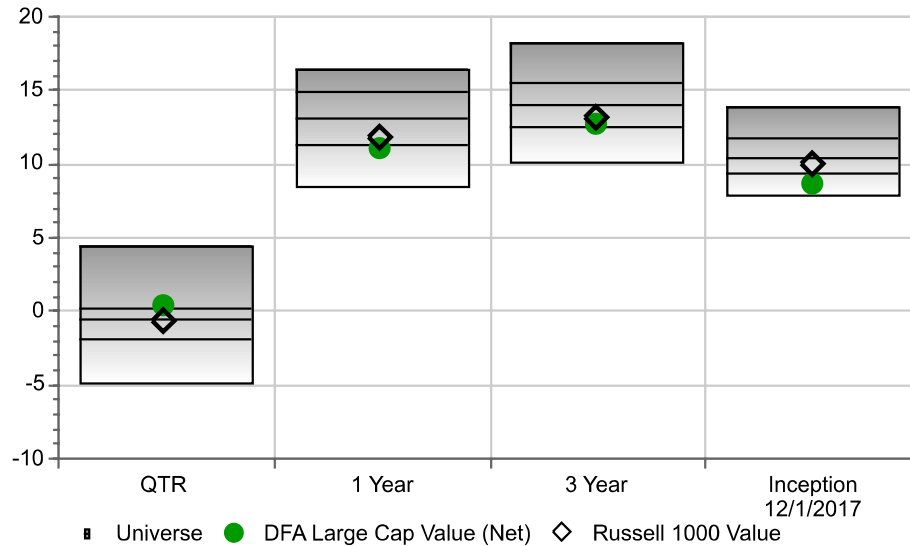
Regional Exposure by Source of Revenue



DFA LCV vs Universe & Benchmark

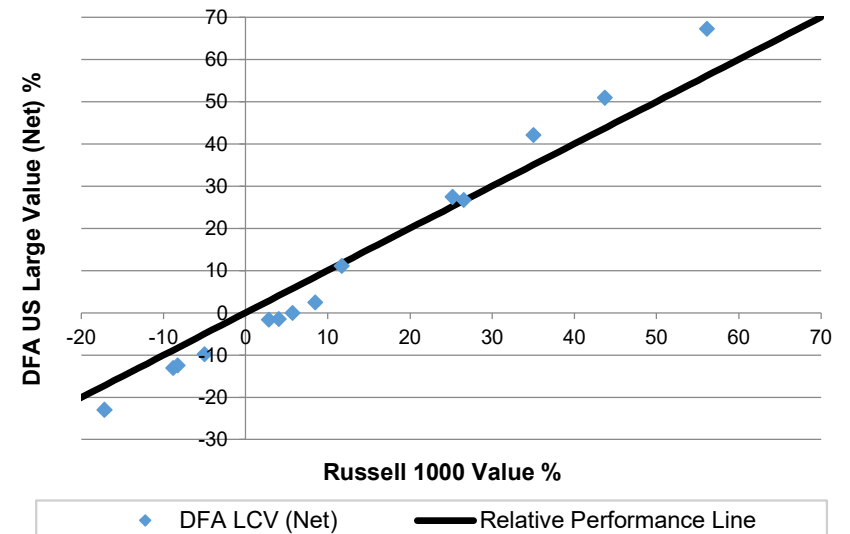
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US Large Cap Value



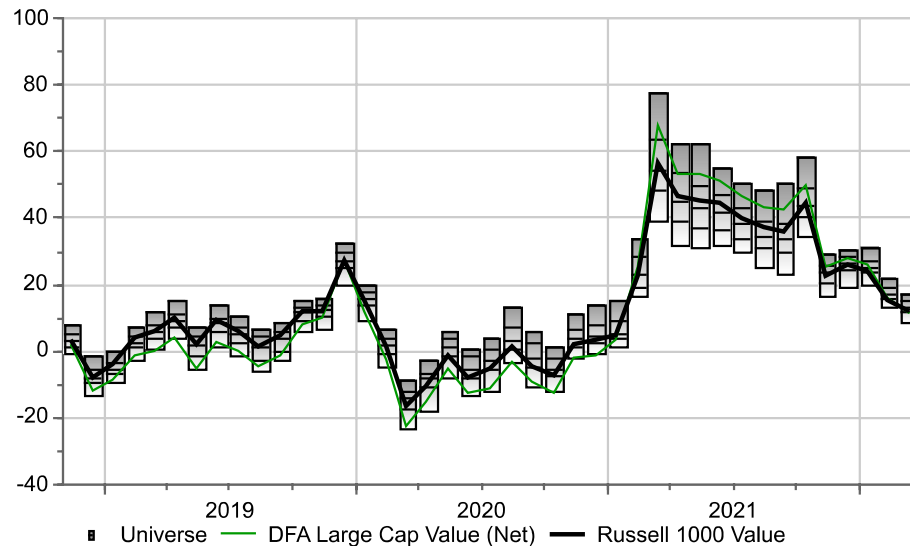
©FactSet Research Systems

One-Year Rolling Return Versus Benchmark



Rolling Returns 12/1/2017 –3/31/2022 (1 Year, 1 Month Shift)

Universe: Lipper US Large Cap Value



©FactSet Research Systems

Over/Under Benchmark Analysis

5	Outperform
9	Underperform
14	# Observations
36%	% Outperform

DFA LCV Attribution Analysis –March 31, 2022

Top 10 Leading Contributors

	Avg. Weights	Relative Weights	Active Return
ConocoPhillips	1.49	0.95	0.32
Occidental Petroleum Corporation	0.52	0.39	0.30
Nucor Corporation	0.79	0.63	0.19
salesforce.com, inc.	0.12	-0.73	0.14
Cisco Systems, Inc.	0.05	-1.14	0.14
CF Industries Holdings, Inc.	0.32	0.24	0.11
Steel Dynamics, Inc.	0.35	0.31	0.11
Freeport-McMoRan, Inc.	0.75	0.54	0.11
Schlumberger N.V.	0.57	0.33	0.11
Exxon Mobil Corporation	1.84	0.37	0.10

Top 10 Leading Detractors

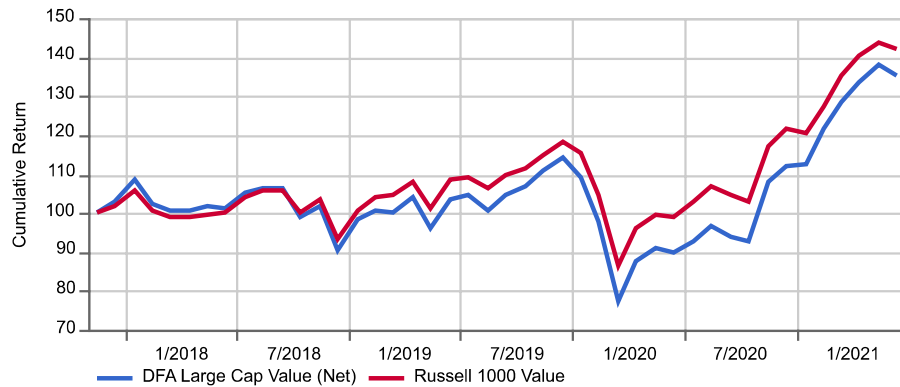
	Avg. Weights	Relative Weights	Active Return
D.R. Horton, Inc.	0.85	0.77	-0.28
Pfizer Inc.	3.12	1.69	-0.25
General Motors Company	0.86	0.51	-0.15
Berkshire Hathaway Inc.	1.99	-0.78	-0.14
Laboratory Corp of America Hldgs.	0.76	0.63	-0.11
Goldman Sachs Group, Inc.	1.30	0.77	-0.11
Lennar Corporation	0.45	0.32	-0.11
Micron Technology, Inc.	1.03	0.61	-0.11
Stanley Black & Decker, Inc.	0.52	0.38	-0.11
PulteGroup, Inc.	0.41	0.37	-0.11

Sector Attribution

	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	1.8	-2.4	-3.1	0.0	0.1	0.0
Consumer Discretionary	2.1	-18.6	-13.1	-0.3	-0.5	-0.7
Consumer Staples	-0.9	4.5	0.0	0.0	0.3	0.3
Energy	3.4	40.2	38.8	1.1	0.1	1.2
Financials	-0.1	-1.7	-1.2	0.0	-0.1	-0.1
Health Care	-2.0	-4.3	-1.3	0.0	-0.5	-0.5
Industrials	1.7	-5.1	-4.0	-0.1	-0.1	-0.2
Information Technology	-1.6	-7.2	-9.4	0.2	0.2	0.4
Materials	4.7	9.6	5.3	0.3	0.4	0.6
Real Estate	-4.4	-13.9	-4.4	0.2	-0.1	0.1
Utilities	-4.9	-4.0	4.6	-0.3	0.0	-0.3
Cash	0.3	0.1	0.0	0.0	0.0	0.0
Total	0.0	0.1	-0.7	1.1	-0.2	0.8

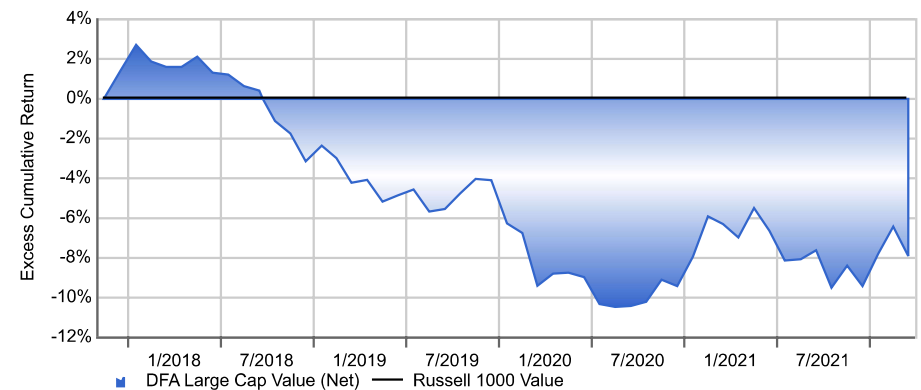
DFA LCV Inception Performance & Statistics

Investment Growth Since Inception 12/1/2017



©FactSet Research Systems

Relative Cumulative Performance Since Inception 12/1/2017

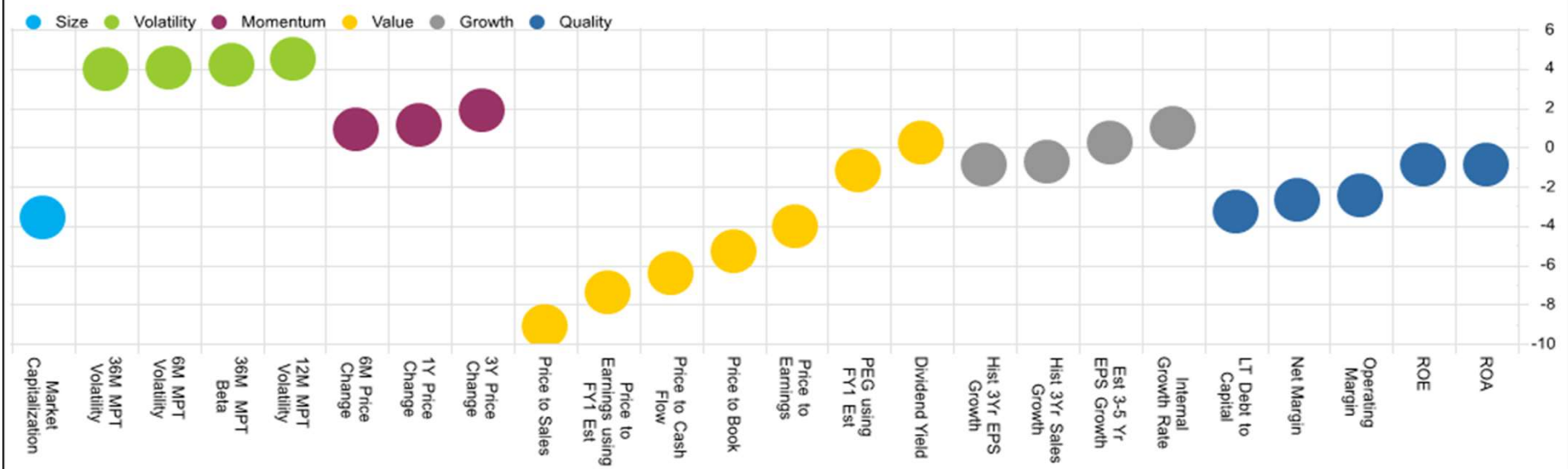


©FactSet Research Systems

Risk Since Inception 12/1/2017

	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
DFA US Large Value	8.5	20.4	-2.2	0.4	-0.3	3.9	1.2
Russell 1000 Value	9.9	17.5	--	0.5	--	--	1.0

Characteristics Tilt vs Benchmark 3/31/2022



DFA US SCV Portfolio Snapshot –March 31, 2022

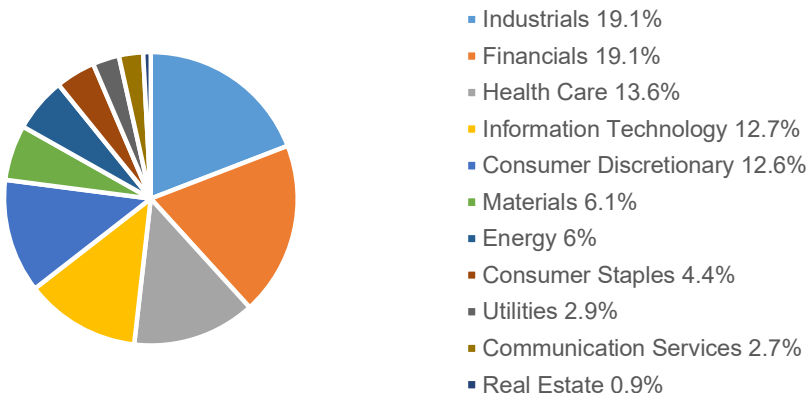
Rolling Returns Since Inception 10/1/1996 (Ten Year, One Month Shift)



Trailing Returns

	QTR	1 Year	3 Year	5 Year	10 Year	15 Year
DFA Small Cap Value (Net)	0.8	11.6	16.2	10.1	11.9	8.1
Russell 2000 Value	-2.4	3.3	12.7	8.6	10.5	6.9

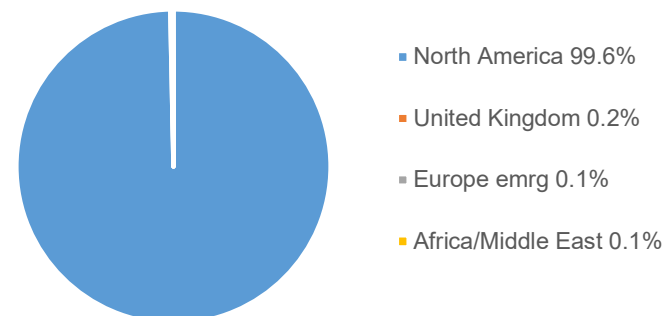
Equity Sector Exposure (GICS)



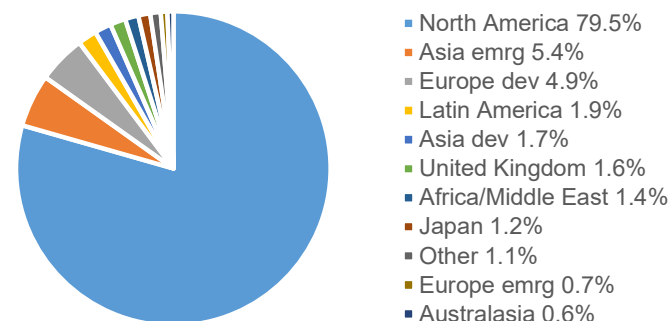
Top 10 Holdings

	Portfolio Weight	Quarterly Return
Tenet Healthcare Corporation	0.38	-0.03
Regal Rexnord Corporation	0.34	-12.38
PDC Energy, Inc.	0.32	49.51
Nexstar Media Group, Inc.	0.32	25.36
Range Resources Corporation	0.31	70.39
ASGN Inc	0.29	5.34
WESCO International, Inc.	0.29	-1.13
Webster Financial Corporation	0.28	-4.73
Synaptics Incorporated	0.28	-12.66
Acadia Healthcare Company, Inc.	0.27	7.96

Regional Exposure by Domicile



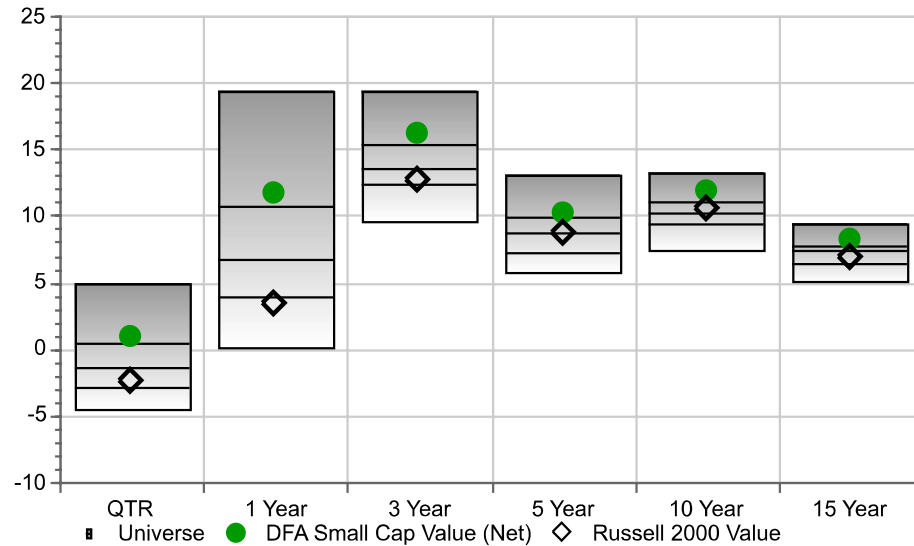
Regional Exposure by Source of Revenue



DFA US SCV vs Universe & Benchmark

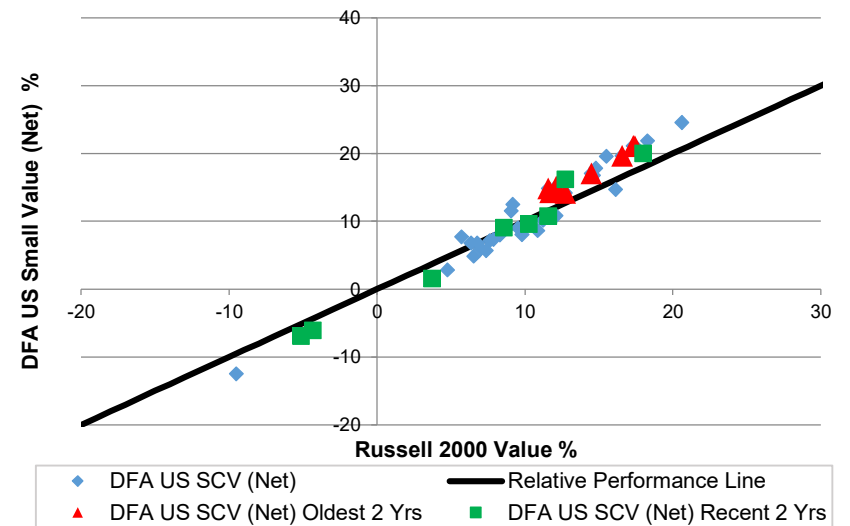
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US Small Cap Value



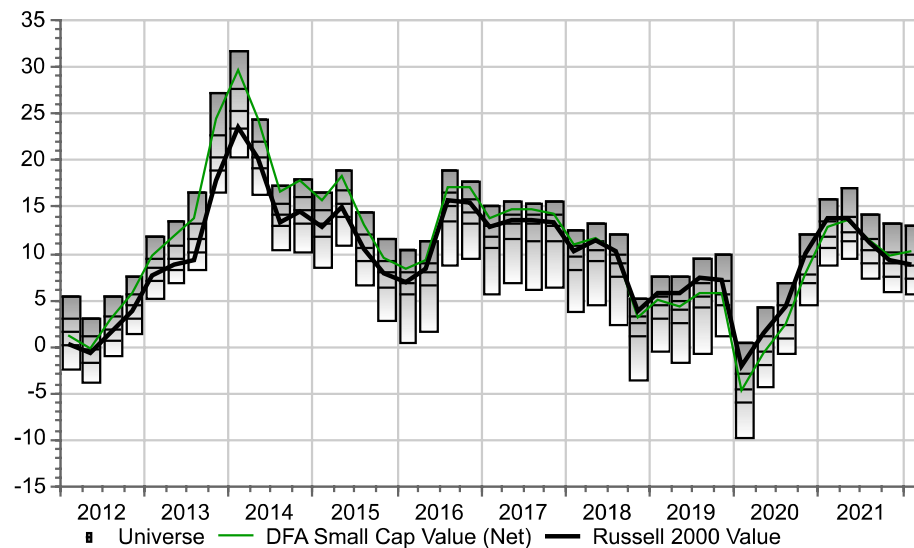
©FactSet Research Systems

Three-Year Rolling Return Versus Benchmark



Rolling Returns 7/1/2006 –3/31/2022 (5 Year, 3 Month Shift)

Universe: Lipper US Small Cap Value



©FactSet Research Systems

Over/Under Benchmark Analysis

21	Outperform
19	Underperform
40	# Observations
53%	% Outperform

DFA US SCV Attribution Analysis –March 31, 2022

Top 10 Leading Contributors

	Avg. Weights	Relative Weights	Active Return
Alcoa Corporation	0.70	0.70	0.32
Matador Resources Company	0.44	0.44	0.19
EnLink Midstream LLC	0.24	0.24	0.10
United States Steel Corporation	0.20	0.20	0.10
PDC Energy, Inc.	0.60	0.21	0.09
Murphy Oil Corporation	0.51	0.19	0.08
NOV Inc.	0.23	0.23	0.08
Assured Guaranty Ltd.	0.26	0.26	0.08
Unum Group	0.34	0.34	0.08
Popular, Inc.	0.46	0.46	0.06

Top 10 Leading Detractors

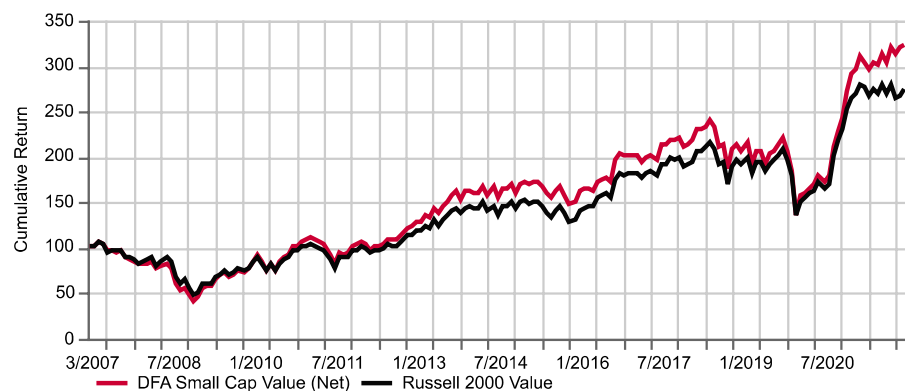
	Avg. Weights	Relative Weights	Active Return
Range Resources Corporation	0.09	-0.25	-0.14
Chesapeake Energy Corporation	0.14	-0.35	-0.13
Goodyear Tire & Rubber Company	0.64	0.27	-0.12
Lantheus Holdings, Inc.	0.04	-0.09	-0.09
Foot Locker, Inc.	0.22	0.22	-0.09
Century Communities, Inc.	0.27	0.22	-0.08
M.D.C. Holdings, Inc.	0.39	0.25	-0.08
Equitrans Midstream Corp.	0.23	0.00	-0.08
Qurata Retail, Inc.	0.22	0.22	-0.08
Xerox Holdings Corporation	0.37	0.37	-0.07

Sector Attribution

	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	-0.4	0.6	-2.7	0.0	0.1	0.1
Consumer Discretionary	5.4	-16.0	-14.2	-0.7	-0.2	-0.9
Consumer Staples	1.7	-3.3	-3.5	0.0	0.0	0.0
Energy	0.9	45.6	43.3	0.3	0.1	0.4
Financials	-1.0	-2.2	-5.3	0.5	1.0	1.5
Health Care	-2.5	-2.2	-12.9	0.5	0.6	1.1
Industrials	3.5	-2.1	-1.7	0.0	-0.1	-0.1
Information Technology	3.7	-6.5	-9.0	-0.2	0.2	0.0
Materials	2.8	5.3	-2.6	0.0	0.6	0.6
Real Estate	-10.3	-2.5	-2.4	0.0	0.0	0.0
Utilities	-3.9	6.2	4.2	-0.2	0.0	-0.2
Total	0.0	0.0	-2.4	0.2	2.2	2.4

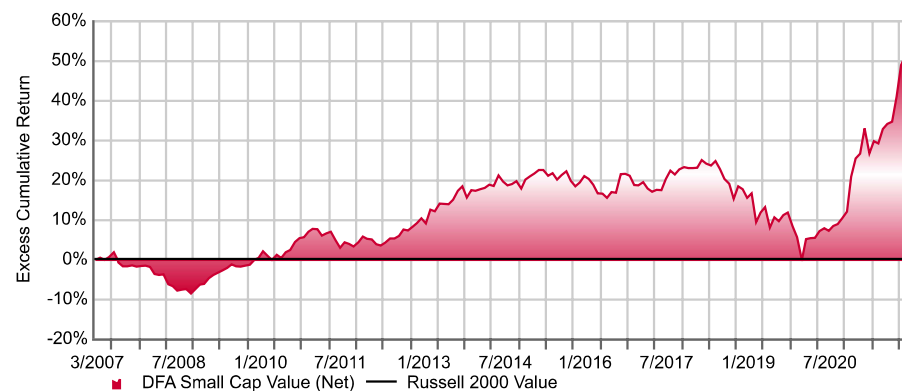
DFA US SCV 15 Year Performance & Statistics

Investment Growth – 15 Years



©FactSet Research Systems

Relative Cumulative Performance – 15 Years

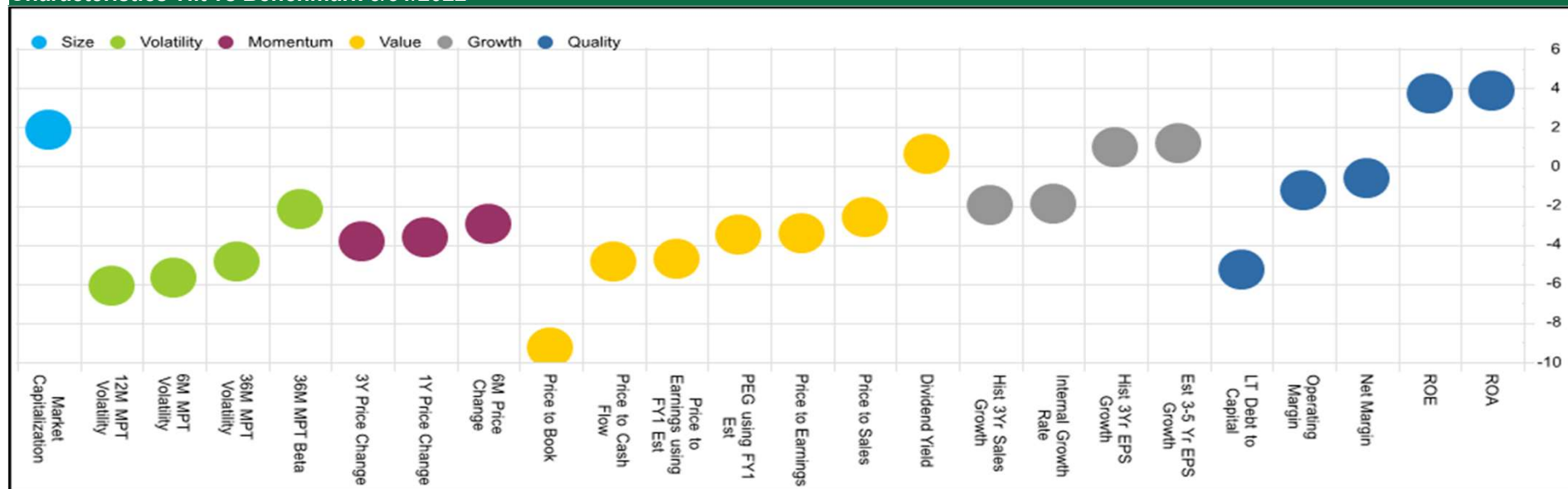


©FactSet Research Systems

Risk – 15 Years

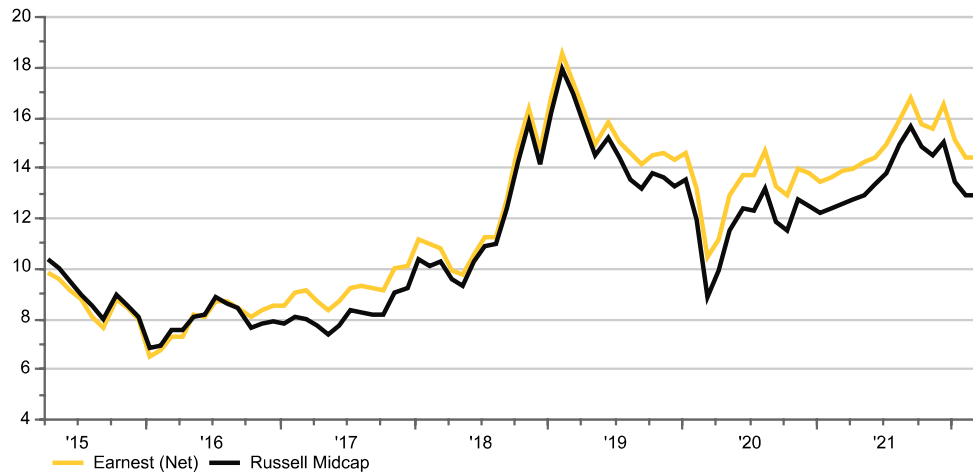
	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
DFA Small Cap Value (Net)	8.1	22.7	0.9	0.3	0.3	4.0	1.1
Russell 2000 Value	6.9	20.7	--	0.3	--	--	1.0

Characteristics Tilt vs Benchmark 3/31/2022



Earnest Portfolio Snapshot –March 31, 2022

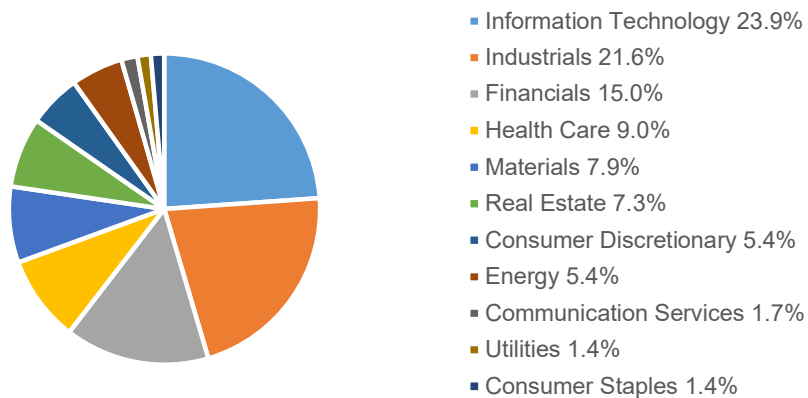
Rolling Returns Since Inception 5/1/2005 (Ten Year, One Month Shift)



Trailing Returns

	QTR	1 Year	3 Year	5 Year	10 Year	15 Year
Earnest (Net)	-5.6	8.1	18.0	15.6	14.3	11.2
Russell Midcap	-5.7	6.9	14.9	12.6	12.9	9.5

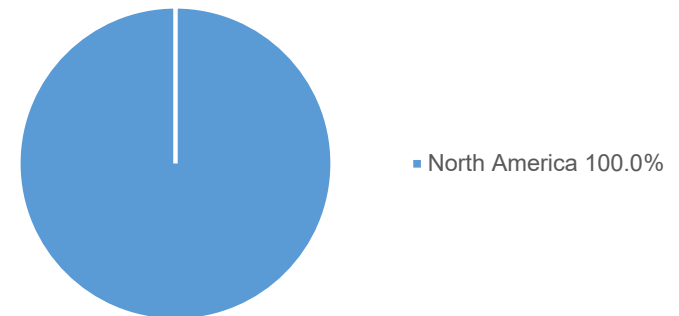
Equity Sector Exposure (GICS)



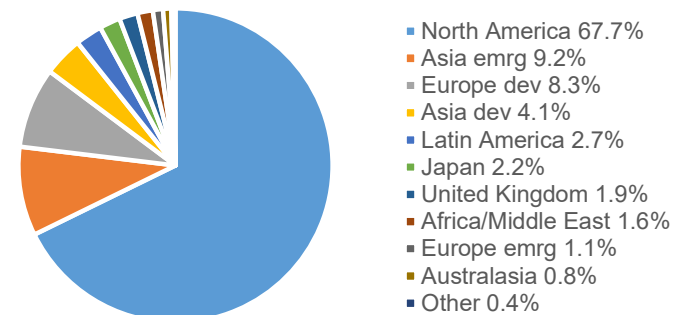
Top 10 Holdings

	Portfolio Weight	Quarterly Return
Republic Services, Inc.	2.75	-4.65
Coterra Energy Inc.	2.73	44.89
Continental Resources, Inc.	2.61	37.59
CBRE Group, Inc.	2.60	-15.66
CDK Global, Inc.	2.52	17.01
Keysight Technologies, Inc.	2.46	-23.50
Raymond James Financial, Inc.	2.32	9.82
Intercontinental Exchange, Inc.	2.29	-3.12
D.R. Horton, Inc.	2.22	-31.11
Progressive Corporation	2.17	11.15

Regional Exposure by Domicile



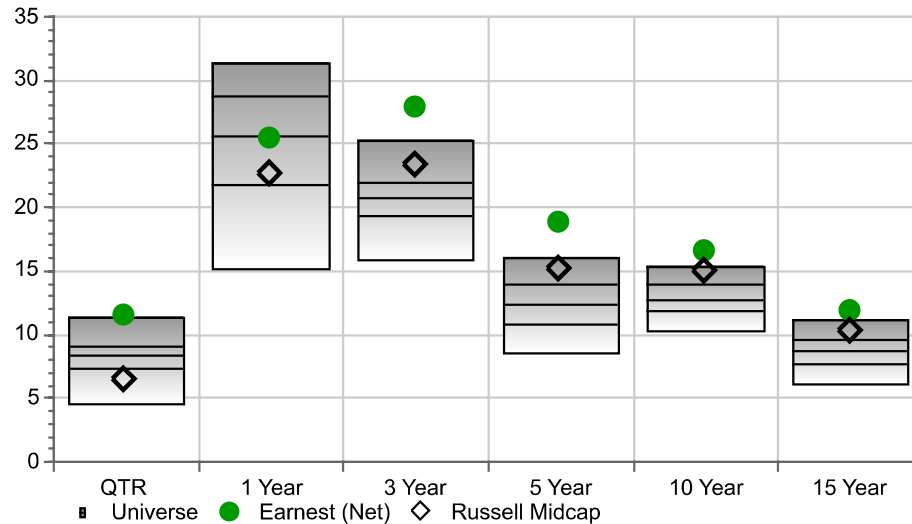
Regional Exposure by Source of Revenue



Earnest vs Universe & Benchmark

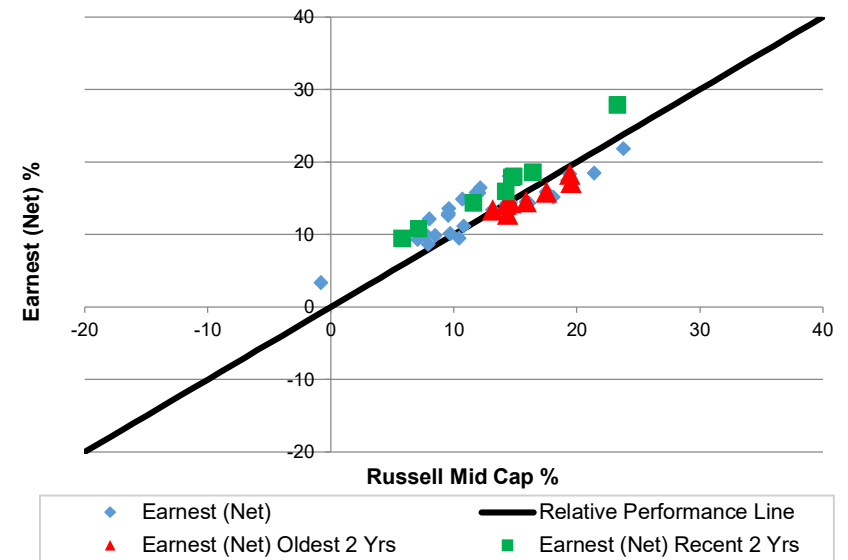
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US: Mid Cap Core



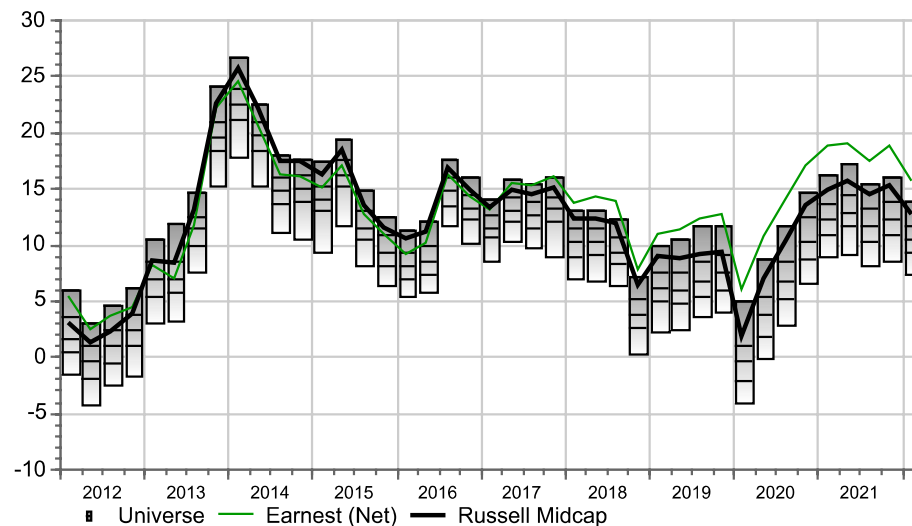
©FactSet Research Systems

Three-Year Rolling Return Versus Benchmark



Rolling Returns 4/1/2007 –3/31/2022 (5 Year, 3 Month Shift)

Universe: Lipper US: Mid Cap Core



©FactSet Research Systems

Over/Under Benchmark Analysis

25	Outperform
15	Underperform
40	# Observations
63%	% Outperform

Earnest Attribution Analysis –March 31, 20222

Top 10 Leading Contributors

	Avg. Weights	Relative Weights	Active Return
Coterra Energy Inc.	2.13	1.97	0.77
Continental Resources, Inc.	2.12	2.09	0.68
CDK Global, Inc.	2.20	2.15	0.35
Activision Blizzard, Inc.	1.53	1.53	0.26
Woodward, Inc.	1.76	1.70	0.23
General Dynamics Corporation	1.49	1.49	0.23
GATX Corporation	1.20	1.20	0.23
Progressive Corporation	1.97	1.97	0.21
Raymond James Financial, Inc.	2.18	2.00	0.18
Boston Properties, Inc.	1.50	1.33	0.17

Top 10 Leading Detractors

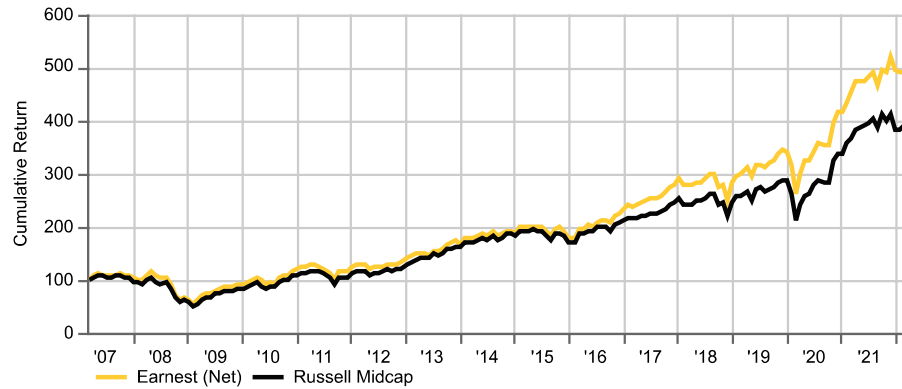
	Avg. Weights	Relative Weights	Active Return
D.R. Horton, Inc.	2.75	2.47	-0.87
Keysight Technologies, Inc.	2.70	2.40	-0.64
Bio-Rad Laboratories, Inc.	2.05	1.92	-0.54
Masco Corporation	1.81	1.67	-0.50
ANSYS, Inc.	2.32	2.04	-0.47
CBRE Group, Inc.	2.85	2.54	-0.42
Black Knight, Inc.	1.24	1.14	-0.40
Sensata Technologies Holding PLC	1.91	1.83	-0.34
Syneos Health, Inc.	1.48	1.39	-0.33
Scotts Miracle-Gro Company	1.25	1.20	-0.32

Sector Attribution

	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	-1.7	20.4	-8.4	0.0	0.4	0.4
Consumer Discretionary	-5.9	-22.1	-14.4	0.5	-0.5	0.0
Consumer Staples	-2.3	4.8	5.5	-0.2	0.0	-0.3
Energy	-0.3	40.8	40.4	-0.1	0.0	-0.1
Financials	2.0	-0.7	-3.5	0.0	0.4	0.4
Health Care	-1.7	-15.1	-9.9	0.1	-0.5	-0.4
Industrials	4.7	-3.5	-9.7	-0.2	1.2	1.0
Information Technology	5.8	-10.6	-11.5	-0.3	0.2	-0.1
Materials	1.9	-4.9	3.5	0.2	-0.6	-0.5
Real Estate	-1.1	-9.2	-4.6	0.0	-0.3	-0.4
Utilities	-3.5	3.4	3.7	-0.3	0.0	-0.3
Cash	2.2	0.1	0.0	0.2	0.0	0.2
Total	0.0	-5.6	-5.7	-0.2	0.2	0.1

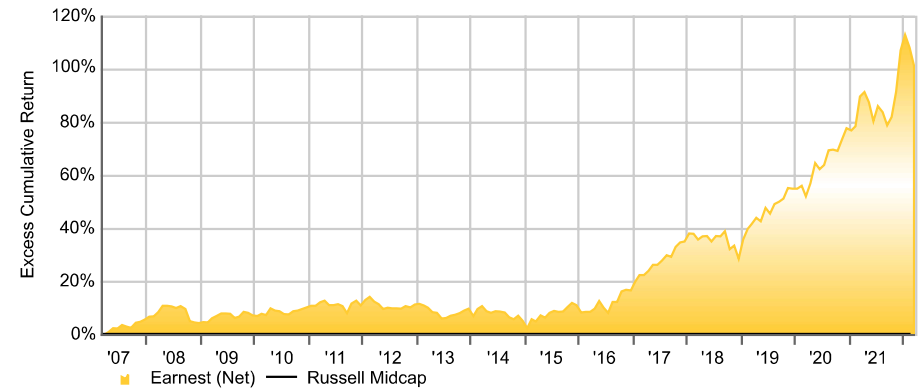
Earnest 15 Year Performance & Statistics

Investment Growth – 15 Years



©FactSet Research Systems

Relative Cumulative Performance – 15 Years

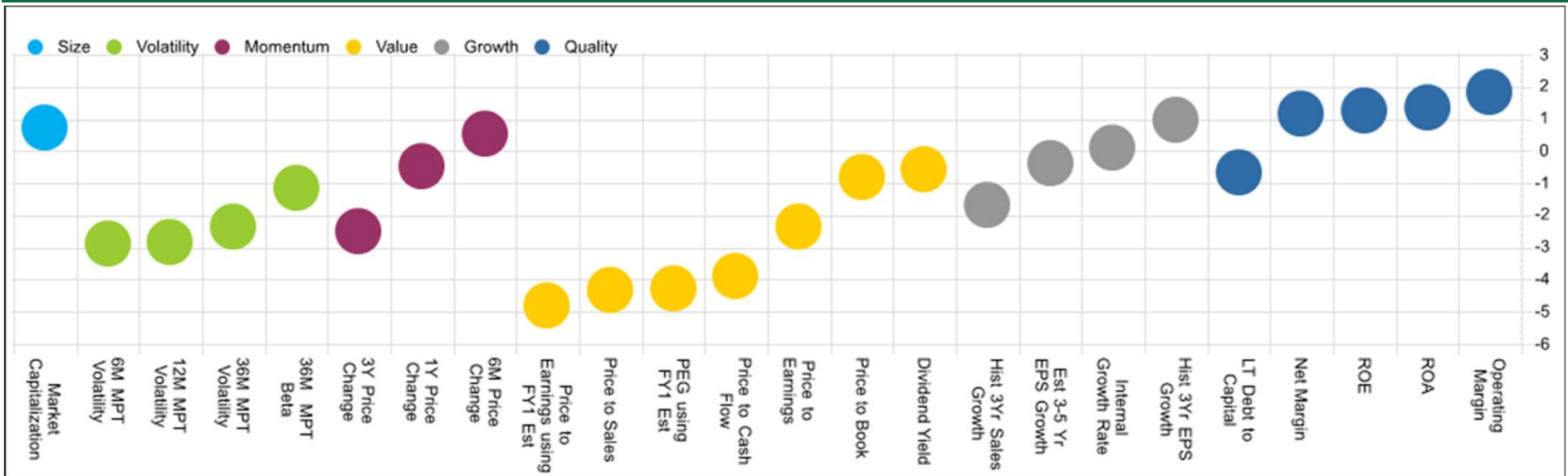


©FactSet Research Systems

Risk – 15 Years

	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
Earnest (Net)	11.2	18.2	1.7	0.6	0.5	3.6	1.0
Russell Midcap	9.5	18.0	--	0.5	--	--	1.0

Characteristics Tilt vs Benchmark 3/31/2022



Northern Trust S&P 500 Portfolio Snapshot –March 31, 2022

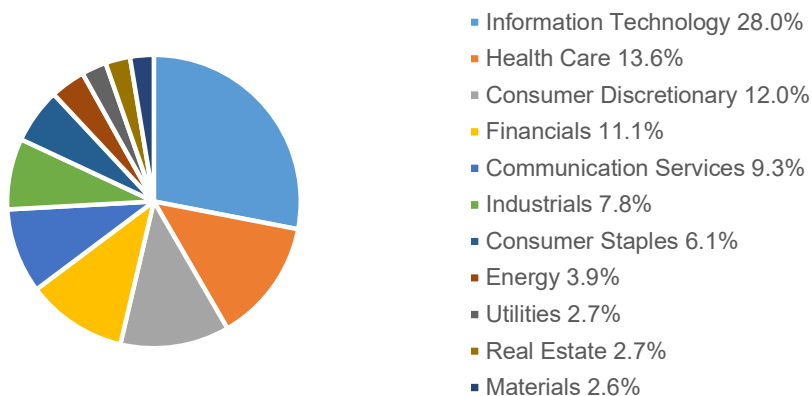
Rolling Returns Since 10/1/1999 (Ten Year, One Month Shift)



Trailing Returns

	QTR	1 Year	3 Year	5 Year	10 Year	15 Year
NT S&P 500 Index (Net)	-4.6	15.6	18.9	16.0	14.7	10.2
S&P 500	-4.6	15.6	18.9	16.0	14.6	10.3

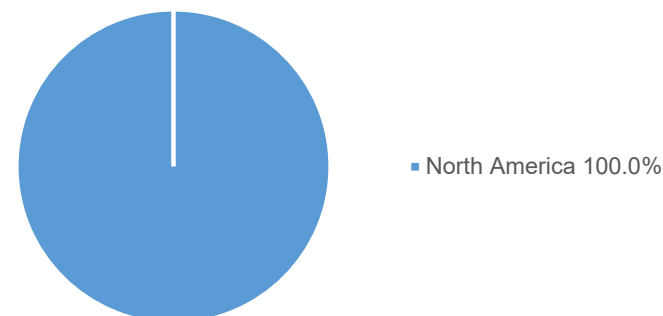
Equity Sector Exposure (GICS)



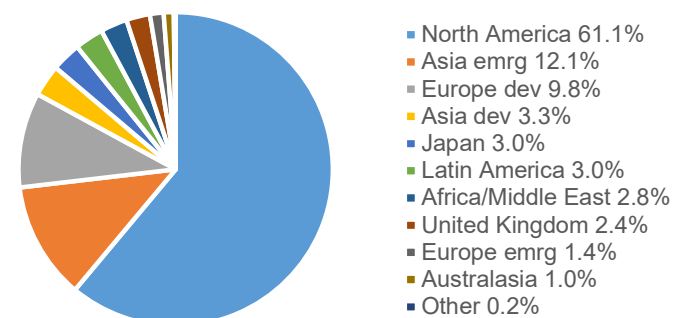
Top 10 Holdings

	Portfolio Weight	Quarterly Return
Apple Inc.	6.99	-1.54
Microsoft Corporation	5.96	-8.14
Alphabet Inc.	4.16	-3.74
Amazon.com, Inc.	3.68	-2.23
Tesla, Inc.	2.33	1.97
NVIDIA Corporation	1.76	-7.21
Berkshire Hathaway Inc.	1.67	18.03
Meta Platforms, Inc.	1.33	-33.89
UnitedHealth Group Incorporated	1.24	1.85
Johnson & Johnson	1.10	4.27

Regional Exposure by Domicile



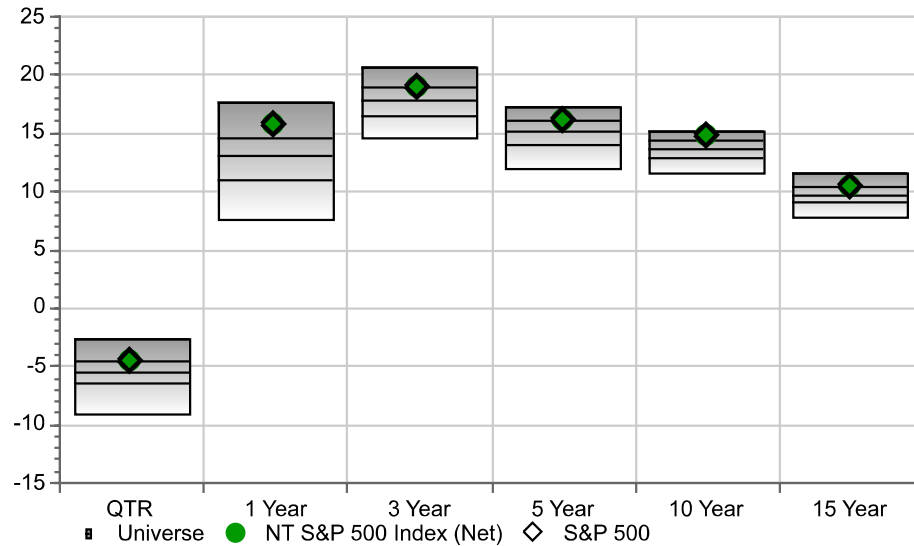
Regional Exposure by Source of Revenue



Northern Trust S&P 500 vs Universe & Benchmark

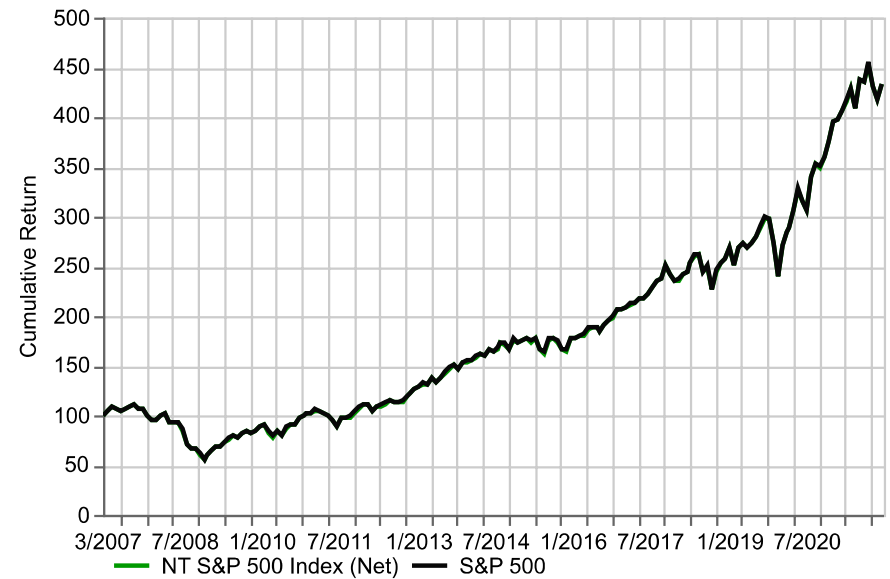
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US: Large Cap Core



©FactSet Research Systems

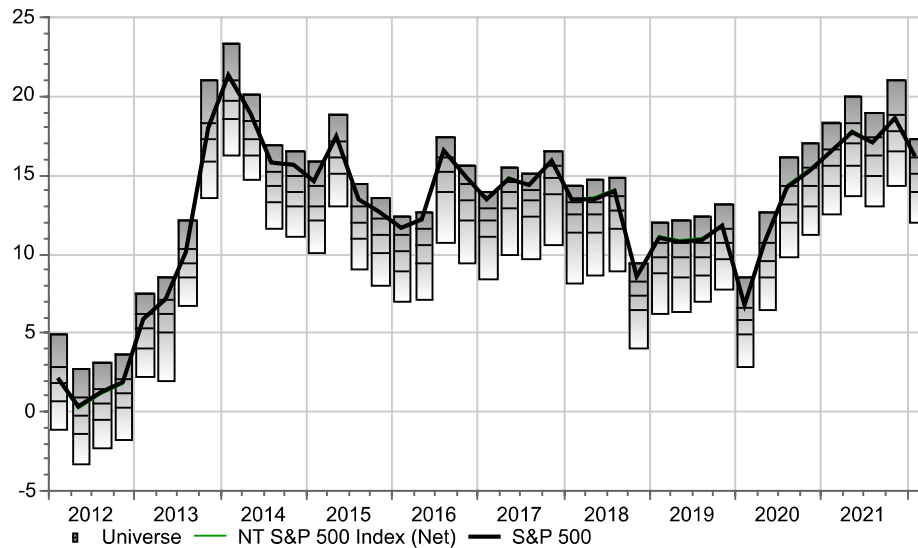
Investment Growth – 15 Years



©FactSet Research Systems

Rolling Returns 4/1/2007 –3/31/2022 (5 Year, 3 Month Shift)

Universe: Lipper US: Large Cap Core



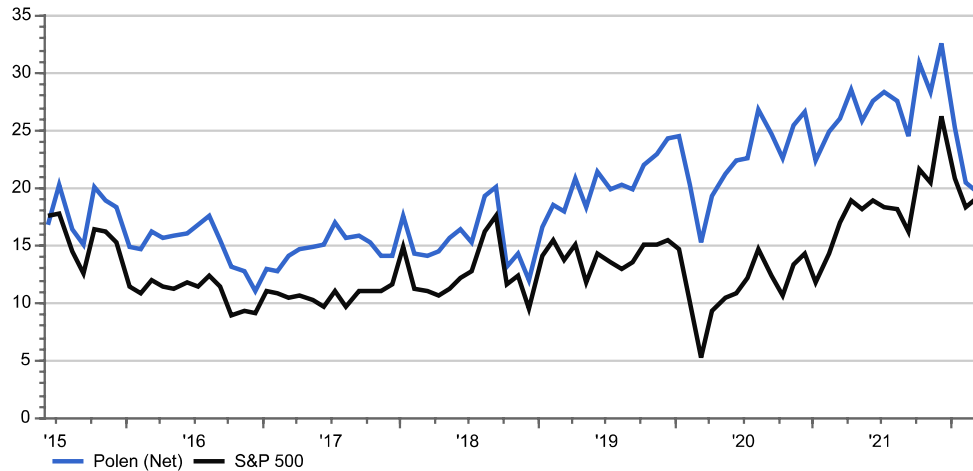
©FactSet Research Systems

Risk – 15 Years

	Return	Std Dev	Sharpe Ratio	Tracking Error
NT S&P 500 Index (Net)	10.2	15.5	0.6	0.2
S&P 500	10.3	15.4	0.6	--

Polen Portfolio Snapshot –March 31, 2022

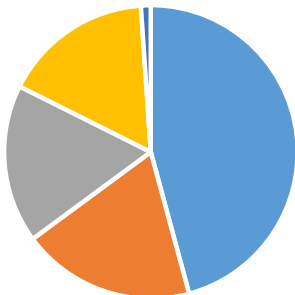
Rolling Returns Since Inception 7/1/2012 (Three Year, One Month Shift)



Trailing Returns

	QTR	1 Year	3 Year	5 Year	Inception 7/1/2012
Polen (Net)	-13.8	5.4	19.4	20.4	17.5
S&P 500	-4.6	15.6	18.9	16.0	15.4
S&P 500 Growth	-8.6	18.2	22.5	19.9	17.5

Equity Sector Exposure (GICS)

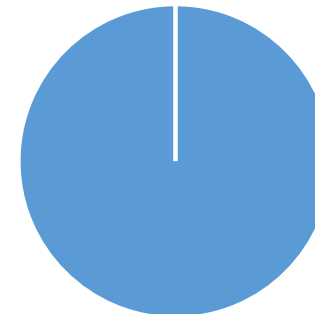


- Information Technology 45.8%
- Communication Services 19.1%
- Health Care 17.5%
- Consumer Discretionary 16.5%
- Financials 1.1%

Top 10 Holdings

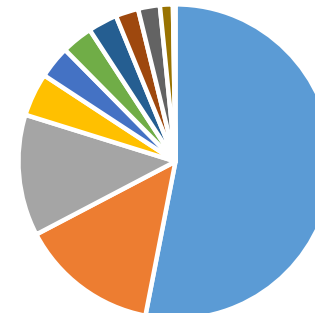
	Portfolio Weight	Quarterly Return
Amazon.com, Inc.	9.55	-2.23
Alphabet Inc.	8.94	-3.52
Adobe Incorporated	6.23	-19.65
Meta Platforms, Inc.	6.00	-33.89
Microsoft Corporation	5.96	-8.14
Mastercard Incorporated	5.70	-0.41
Visa Inc.	5.52	2.51
Abbott Laboratories	5.31	-15.59
Airbnb, Inc.	4.70	3.17
salesforce.com, inc.	4.49	-16.45

Regional Exposure by Domicile



- North America 100.0%

Regional Exposure by Source of Revenue

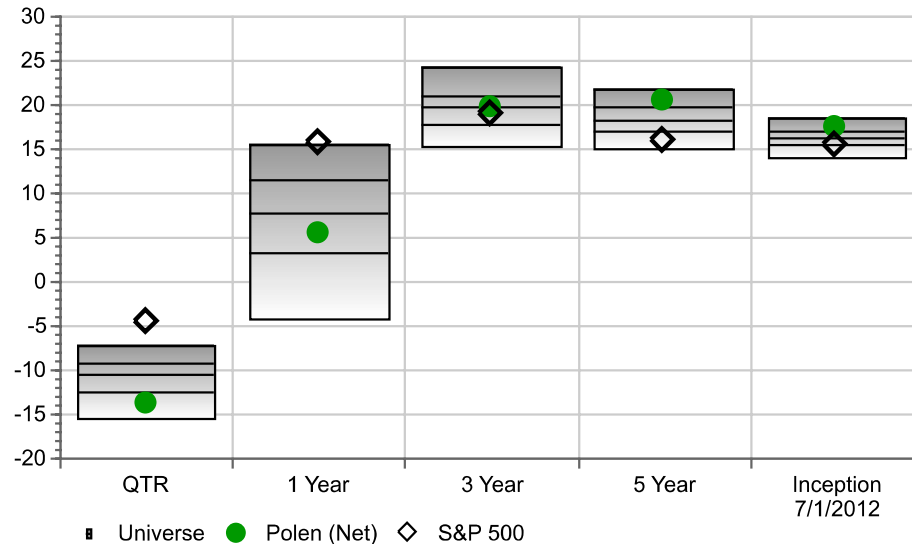


- North America 53.1%
- Europe dev 14.3%
- Asia emrg 12.5%
- Africa/Middle East 4.4%
- Latin America 3.3%
- Japan 3.2%
- United Kingdom 3.0%
- Asia dev 2.3%
- Europe emrg 2.3%
- Australasia 1.3%
- Other 0.3%

Polen vs Universe & Benchmark

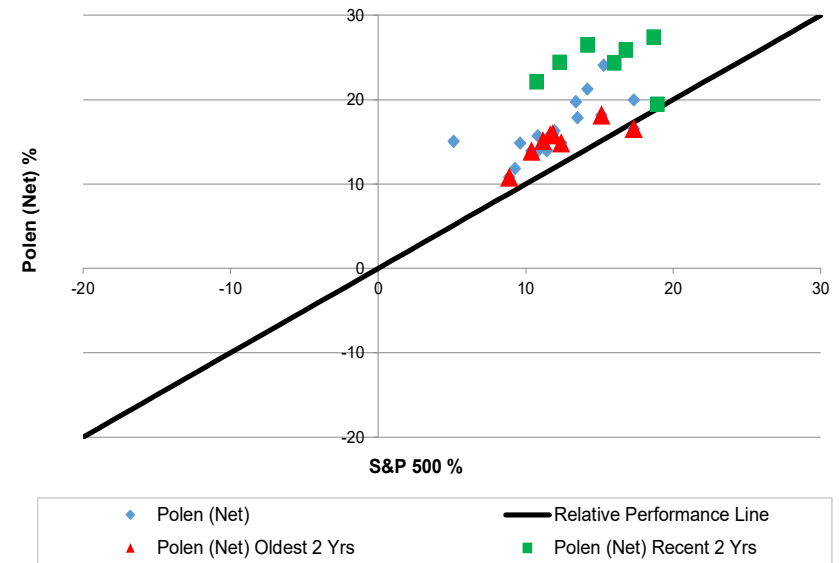
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US Large Cap Growth



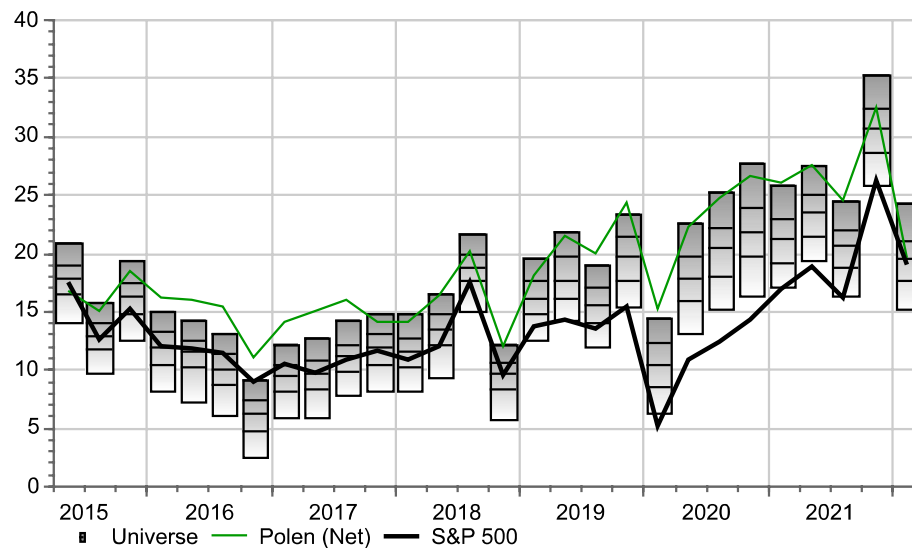
©FactSet Research Systems

Three-Year Rolling Return Versus Benchmark



Rolling Returns 7/1/2012 –3/31/2022 (3 Year, 3 Month Shift)

Universe: Lipper US Large Cap Growth



©FactSet Research Systems

Over/Under Benchmark Analysis

27	Outperform
1	Underperform
28	# Observations
96%	% Outperform

Polen Attribution Analysis –March 31, 2022

Contributors

	Avg. Weights	Relative Weights	Active Return
Airbnb, Inc.	3.71	3.71	0.29
UnitedHealth Group Incorporated	3.60	2.42	0.09
Microsoft Corporation	5.74	-0.40	0.08
Visa Inc.	4.91	3.95	0.05
Amazon.com, Inc.	8.89	5.35	0.02

Top 10 Leading Detractors

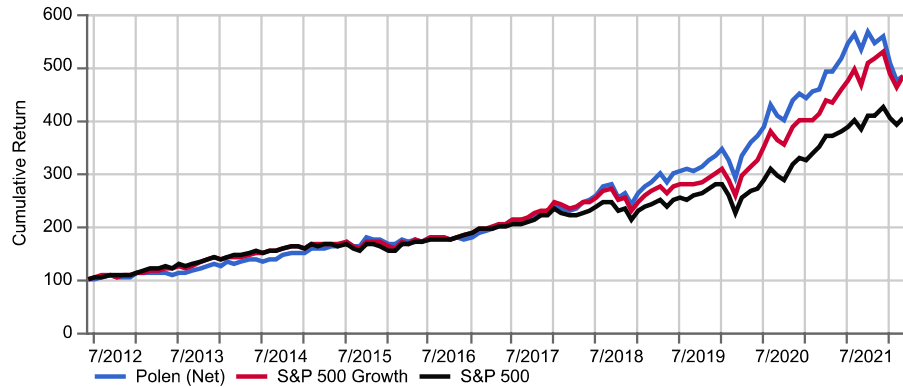
	Avg. Weights	Relative Weights	Active Return
Meta Platforms, Inc.	6.09	4.34	-1.47
Zoetis Inc.	3.94	3.68	-0.90
Netflix, Inc.	3.04	2.50	-0.90
Autodesk, Inc.	3.66	3.51	-0.89
Adobe Incorporated	4.82	4.18	-0.88
Abbott Laboratories	5.47	4.87	-0.78
Accenture plc	4.07	3.48	-0.71
salesforce.com, inc.	4.62	4.03	-0.68
PayPal Holdings, Inc.	2.55	2.07	-0.64
Align Technology, Inc.	1.67	1.57	-0.58

Sector Attribution

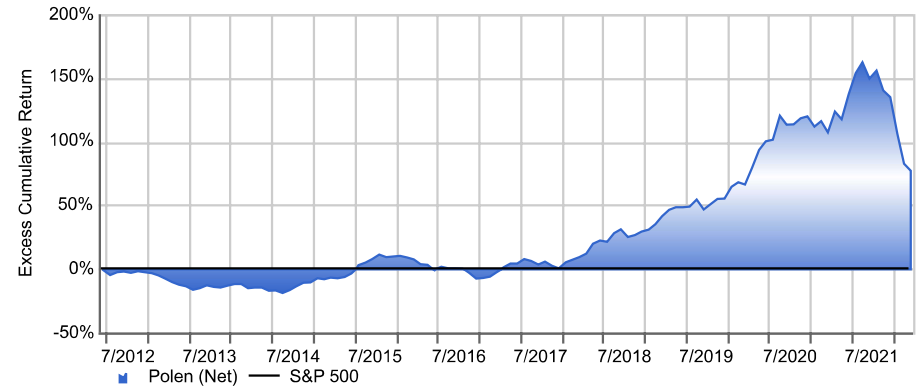
	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	8.6	-19.5	-12.0	-0.6	-1.4	-2.0
Consumer Discretionary	3.5	-4.5	-9.1	-0.2	0.7	0.5
Consumer Staples	-6.1	0.0	-1.0	-0.2	0.0	-0.2
Energy	-3.2	0.0	39.0	-1.1	0.0	-1.1
Financials	-9.8	-17.8	-1.4	-0.3	-0.3	-0.6
Health Care	5.4	-15.1	-2.6	0.1	-2.3	-2.2
Industrials	-7.6	0.0	-2.2	-0.2	0.0	-0.2
Information Technology	15.1	-13.9	-8.4	-0.5	-2.4	-3.0
Materials	-2.5	0.0	-2.4	-0.1	0.0	-0.1
Real Estate	-2.7	0.0	-6.2	0.1	0.0	0.1
Utilities	-2.5	0.0	5.0	-0.2	0.0	-0.2
Cash	1.9	0.1	0.1	0.2	0.0	0.2
Total	0.0	-13.5	-4.6	-3.1	-5.8	-8.9

Polen Inception Performance & Statistics

Investment Growth Since Inception 7/1/2012



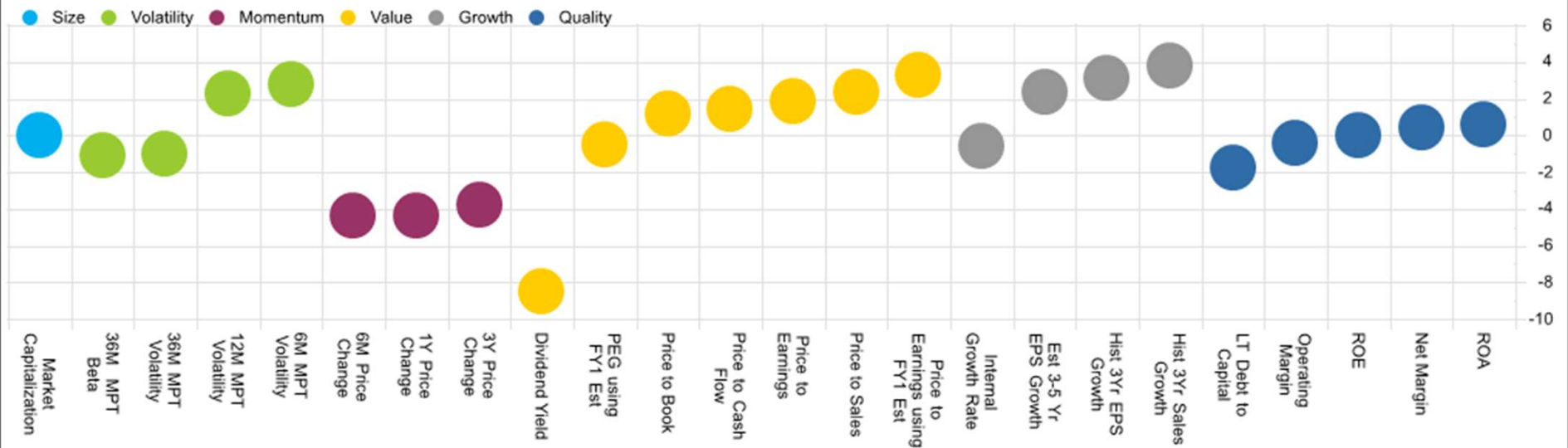
Relative Cumulative Performance Since Inception 7/1/2012



Risk Since Inception 7/1/2012

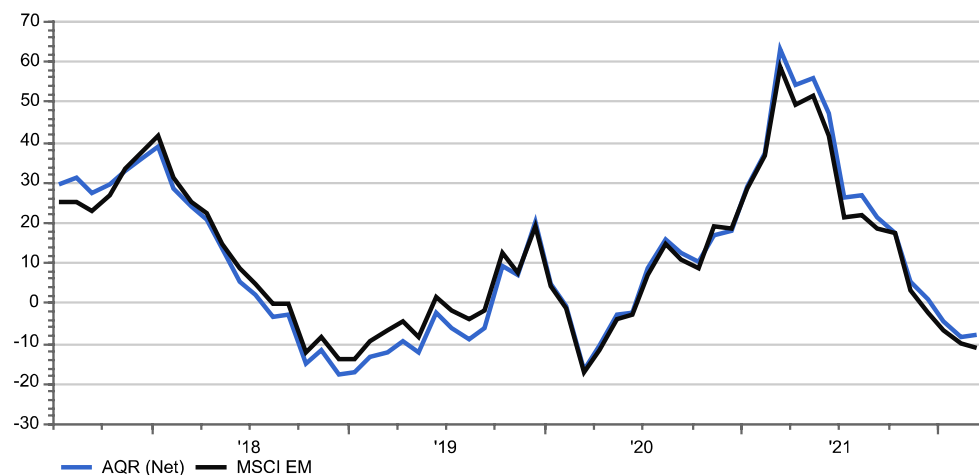
	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
Polen (Net)	17.5	14.1	2.4	1.2	0.4	6.0	1.0
S&P 500	15.4	13.1	--	1.1	--	--	1.0
S&P 500 Growth	17.5	13.9	1.7	1.2	0.6	3.9	1.0

Characteristics Tilt vs Benchmark 3/31/2022



AQR Portfolio Snapshot – March 31, 2022

Rolling Returns Since Inception 8/1/2016 (One Year, One Month Shift)

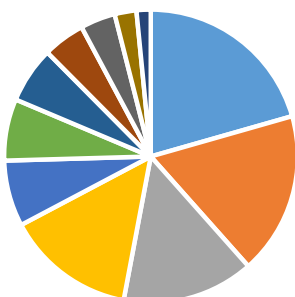


©FactSet Research Systems

Trailing Returns

		Inception			
	QTR	1 Year	3 Year	5 Year	8/1/16
AQR (Net)	-3.7	-8.0	7.3	6.0	7.8
MSCI EM	-7.0	-11.4	4.9	6.0	7.2

Equity Sector Exposure (GICS)

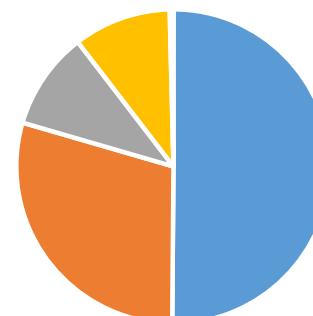


Information Technology	20.6%
Financials	17.9%
Materials	14.5%
Consumer Discretionary	14.3%
Industrials	7.3%
Energy	6.8%
Communication Services	6.2%
Health Care	4.6%
Consumer Staples	3.9%
Utilities	2.4%
Real Estate	1.6%

Top 10 Holdings

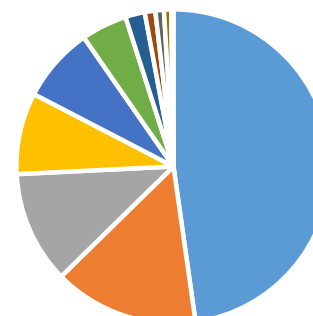
	Portfolio Weight	Quarterly Return
Taiwan Semiconductor Mfg. Co., Ltd.	4.96	-5.83
Samsung Electronics Co., Ltd.	2.85	-12.38
Alibaba Group Holding Ltd.	2.80	-6.16
Tencent Holdings Ltd.	2.48	-16.13
Vale S.A.	1.63	49.33
Petroleo Brasileiro SA	1.55	37.77
Cathay Financial Holdings Co., Ltd.	1.27	-0.44
Agricultural Bank of China Limited	1.20	11.61
Woori Financial Group, Inc.	1.15	18.54
NTPC Limited	1.14	9.78

Regional Exposure by Domicile



Asia emrg	50.1%
Asia dev	29.3%
Latin America	10.1%
Africa/Middle East	10.0%
Europe emrg	0.4%

Regional Exposure by Source of Revenue

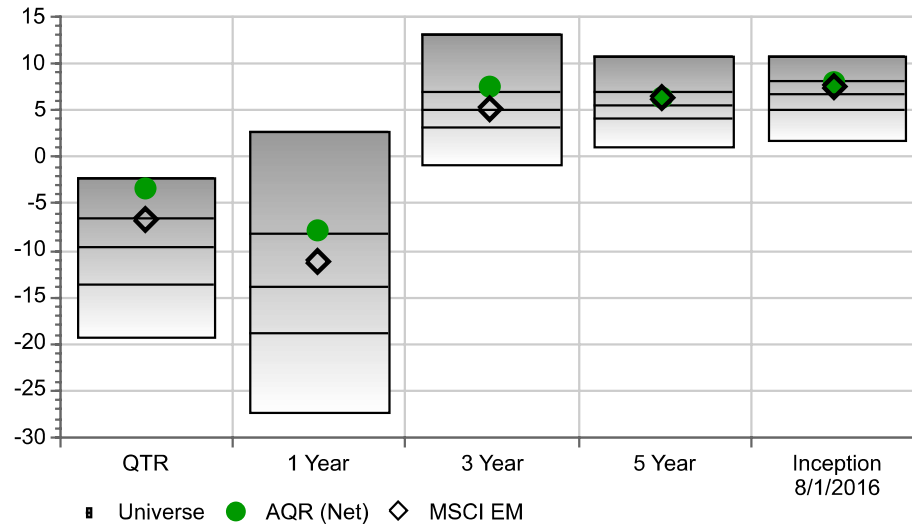


Asia emrg	47.8%
Asia dev	14.9%
North America	11.6%
Africa/Middle East	8.4%
Latin America	7.7%
Europe dev	4.7%
Japan	2.0%
Europe emrg	1.1%
United Kingdom	0.9%
Australasia	0.7%
Other	0.2%

AQR vs Universe & Benchmark

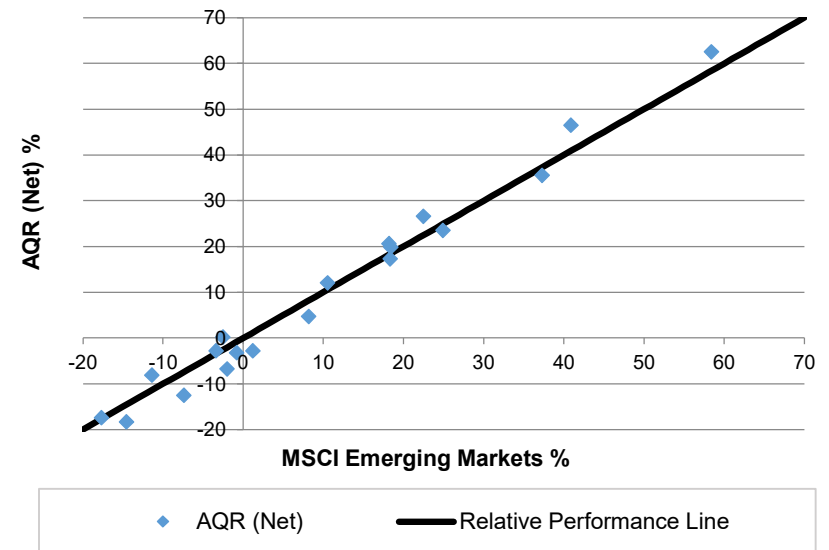
Performance Relative to Peer Group as of 3/31/2022

Universe: US Lipper Emerging Markets



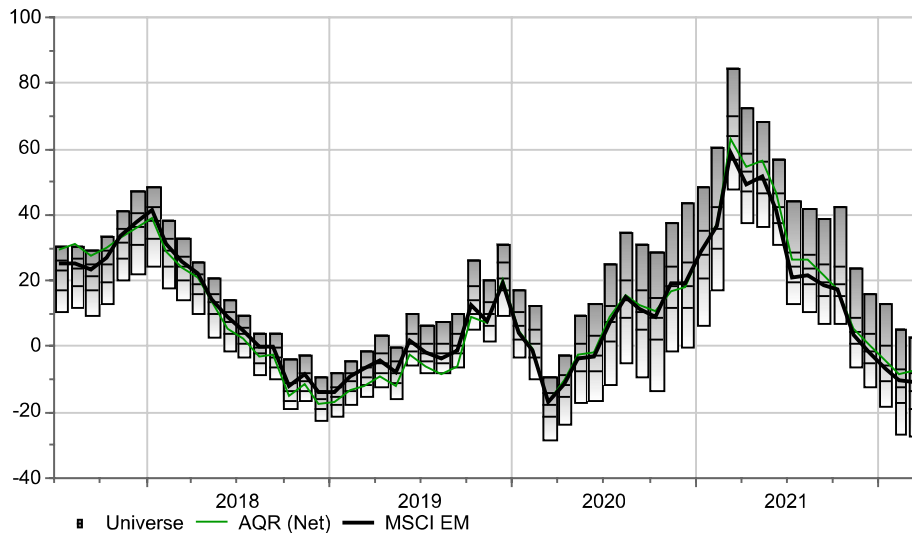
©FactSet Research Systems

One-Year Rolling Return Versus Benchmark



Rolling Returns 8/1/2016 –3/31/2022 (1 Year, 1 Month Shift)

Universe: Lipper US Emerging Markets



©FactSet Research Systems

Over/Under Benchmark Analysis

10	Outperform
9	Underperform
19	# Observations
53%	% Outperform

AQR Attribution Analysis –March 31, 2022

Top 10 Leading Contributors

	Avg. Weights	Relative Weights	Active Return
Sberbank Russia PJSC	0.01	-0.39	0.56
Gazprom PJSC	0.46	-0.12	0.47
Meituan	0.27	-1.13	0.40
Banco do Brasil S.A.	0.97	0.87	0.35
Oil Co. LUKOIL PJSC	0.35	-0.05	0.30
Exxaro Resources Limited	0.53	0.50	0.26
Vale S.A.	1.38	0.54	0.24
Tencent Holdings Ltd.	3.19	-1.16	0.22
Sasol Limited	0.56	0.41	0.18
Jardine Matheson Holdings Limited	1.33	1.19	0.18

Top 10 Leading Detractors

	Avg. Weights	Relative Weights	Active Return
Tech Mahindra Limited	1.05	0.88	-0.21
Saudi Telecom Co.	0.66	-0.70	-0.18
HCL Technologies Limited	1.12	0.90	-0.13
Reliance Industries Limited	0.02	-1.16	-0.11
Nanya Technology Corporation	0.72	0.68	-0.10
Luxshare Precision Industry Co. Ltd.	0.29	0.25	-0.09
Top Glove Corporation Bhd.	0.28	0.25	-0.09
PTT Global Chemical Plc	0.86	0.81	-0.09
LG Electronics Inc.	0.60	0.45	-0.08
AU Optronics Corp.	0.60	0.52	-0.08

Sector Attribution

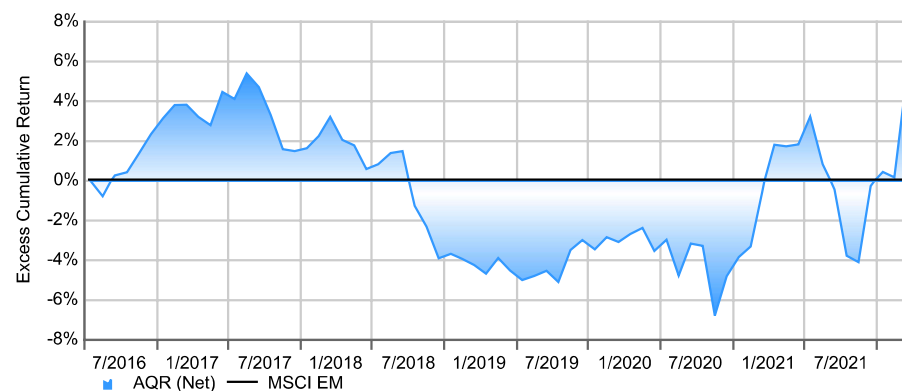
	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	-2.9	-4.1	-11.0	0.1	0.5	0.6
Consumer Discretionary	-1.3	-9.3	-16.4	0.2	0.9	1.0
Consumer Staples	-1.2	-5.4	-7.9	0.0	0.0	0.1
Energy	0.5	2.6	-20.9	-0.2	1.3	1.3
Financials	-3.8	11.6	5.7	-0.4	0.8	0.4
Health Care	1.0	-4.7	-14.0	-0.1	0.5	0.4
Industrials	1.6	2.2	-2.4	0.1	0.3	0.4
Information Technology	2.4	-10.4	-11.3	-0.1	0.2	0.1
Materials	4.4	14.5	3.3	0.4	1.1	1.9
Real Estate	-0.5	-4.0	-1.5	0.0	0.0	-0.1
Utilities	-0.2	6.5	-0.1	0.0	0.1	0.1
Total	0.0	-0.7	-6.9	0.0	5.7	6.3

AQR Inception Performance & Statistics

Investment Growth Since Inception 8/1/2016



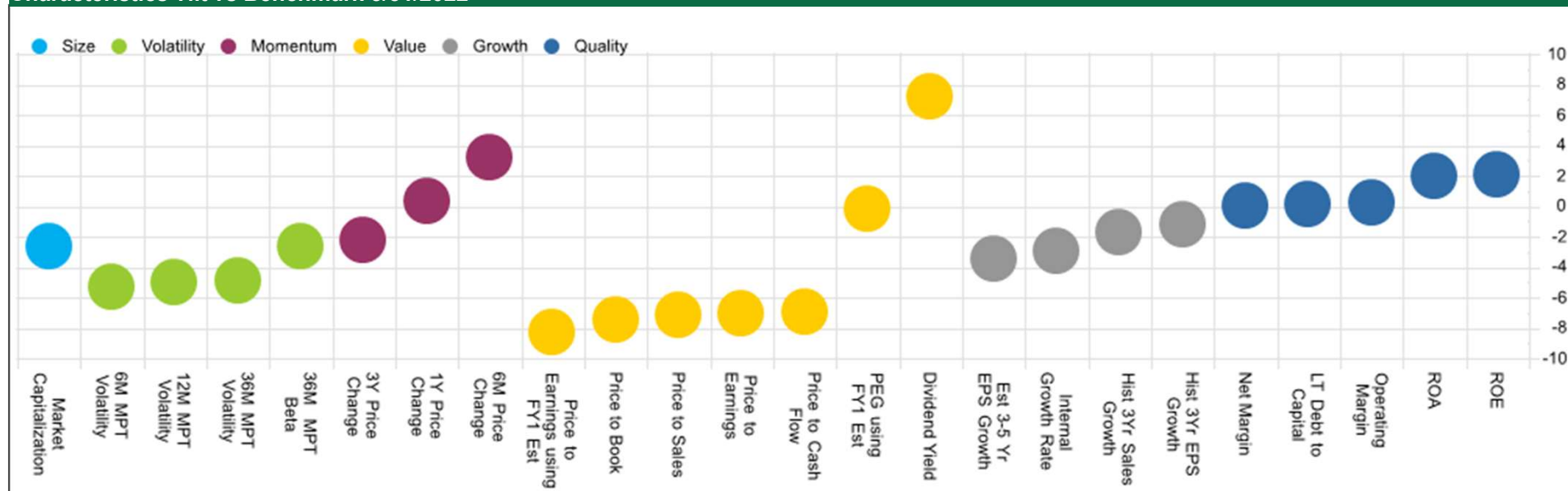
Relative Cumulative Performance Since Inception 8/1/2016



Risk Since Inception 8/1/2016

	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
AQR (Net)	7.8	16.3	0.6	0.4	0.2	3.4	1.0
MSCI EM	7.2	15.8	--	0.4	--	--	1.0

Characteristics Tilt vs Benchmark 3/31/2022



Brandes Portfolio Snapshot – March 31, 2022

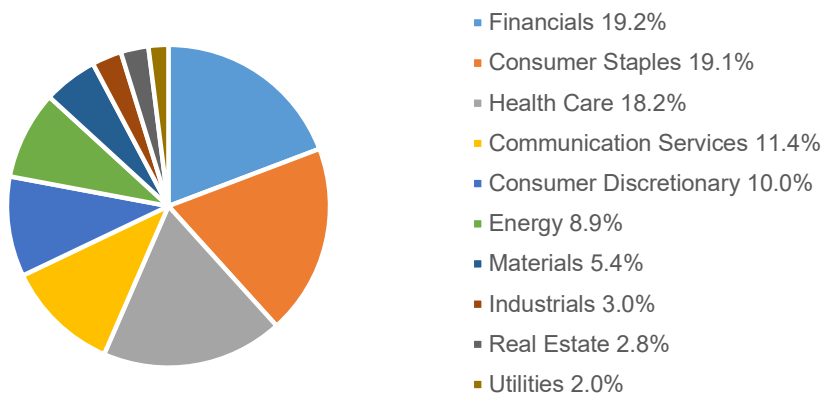
Rolling Returns Since Inception 2/1/1998 (Ten Year, One Month Shift)



Trailing Returns

	QTR	1 Year	3 Year	5 Year	10 Year	15 Year
Brandes (Net)	-2.7	1.7	5.5	4.6	5.7	2.5
MSCI EAFE	-5.9	1.2	7.8	6.7	6.3	2.9
MSCI EAFE Value	0.3	3.6	5.2	4.2	4.9	1.4

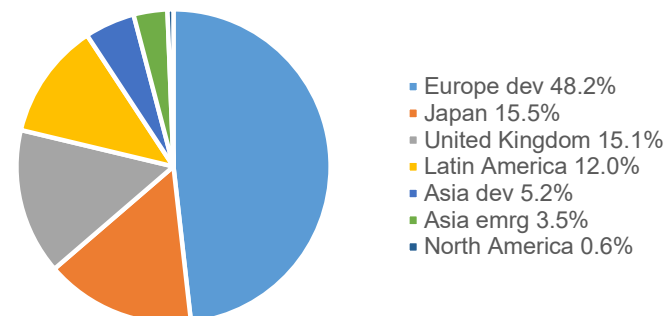
Equity Sector Exposure (GICS)



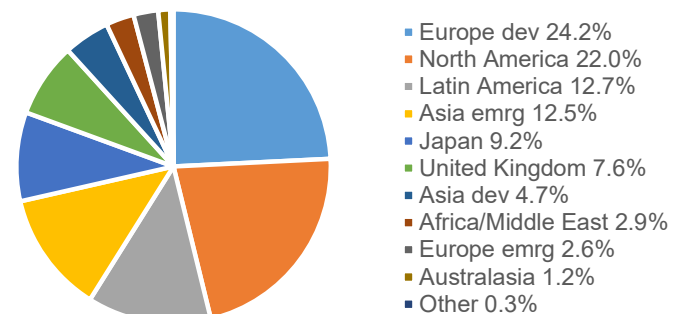
Top 10 Holdings

	Portfolio Weight	Quarterly Return
Takeda Pharmaceutical Co. Ltd.	3.97	8.52
GlaxoSmithKline plc	3.26	1.15
Carrefour SA	3.08	19.35
Fibra Uno Administracion SA de CV	2.72	13.76
UBS Group AG	2.64	9.41
Grifols, S.A.	2.61	5.49
Alibaba Group Holding Ltd.	2.61	-6.14
Sanofi	2.50	2.18
Novartis AG	2.48	4.03
Petroleo Brasileiro SA	2.37	37.82

Regional Exposure by Domicile



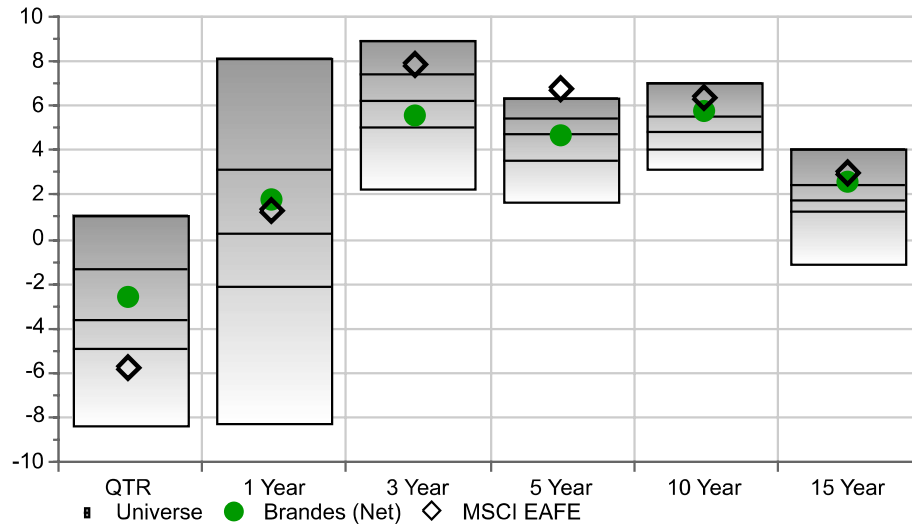
Regional Exposure by Source of Revenue



Brandes vs Universe & Benchmark

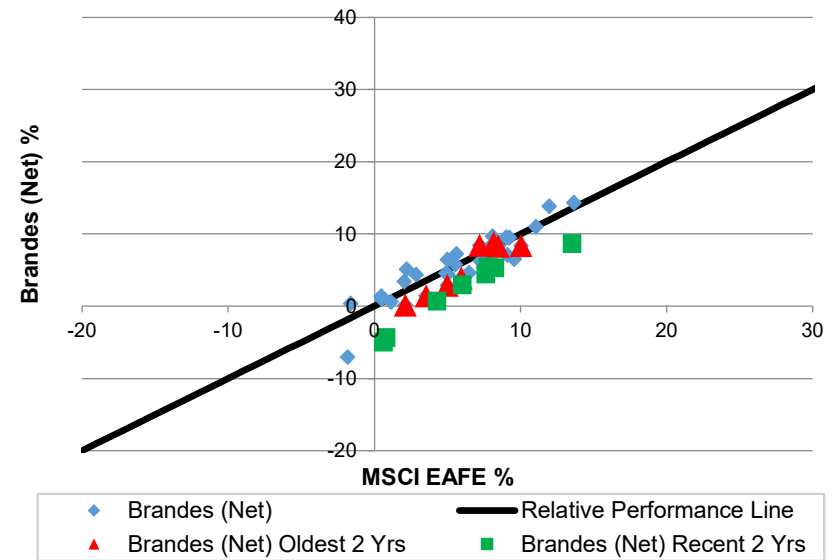
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US Int'l Multi-Cap Value



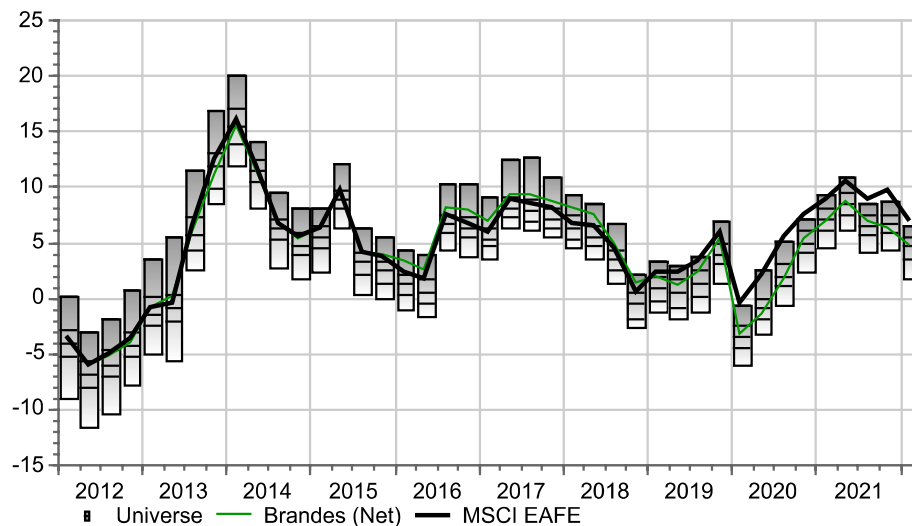
©FactSet Research Systems

Three-Year Rolling Return Versus Benchmark



Rolling Returns 4/1/2007 –3/31/2022 (5 Year, 3 Month Shift)

Universe: Lipper US Int'l Multi Cap Value



©FactSet Research Systems

Over/Under Benchmark Analysis

16	Outperform
24	Underperform
40	# Observations
40%	% Outperform

Brandes Attribution Analysis –March 31, 2022

Top 10 Leading Contributors

	Avg. Weights	Relative Weights	Active Return
Petroleo Brasileiro SA	1.91	1.91	0.60
Telefonica SA	2.06	1.90	0.57
Carrefour SA	2.58	2.51	0.46
Fibra Uno Administracion SA de CV	2.38	2.38	0.30
Mitsubishi UFJ Financial Group, Inc.	2.07	1.63	0.25
Takeda Pharmaceutical Co. Ltd.	3.76	3.49	0.24
Anheuser-Busch InBev SA/NV	2.46	2.15	0.20
UBS Group AG	2.62	2.24	0.19
Orange SA	1.92	1.78	0.17
Repsol SA	1.33	1.22	0.16

Top 10 Leading Detractors

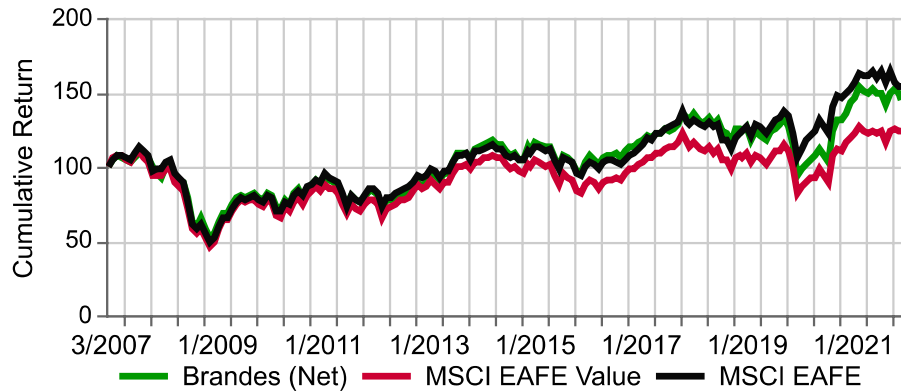
	Avg. Weights	Relative Weights	Active Return
Embraer S.A.	2.08	2.08	-0.68
Marks and Spencer Group plc	1.12	1.12	-0.43
Credit Suisse Group AG	1.96	1.81	-0.34
Henkel AG & Co. KGaA	2.18	2.05	-0.32
Telecom Italia S.p.A.	1.05	1.02	-0.30
HeidelbergCement AG	1.99	1.93	-0.30
CEMEX SAB de CV	1.25	1.25	-0.30
Kingfisher Plc	1.03	0.98	-0.28
WPP Plc	2.27	2.16	-0.26
Hyundai Mobis Co., Ltd	1.28	1.28	-0.23

Sector Attribution

	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	6.0	-1.1	-1.0	0.3	-0.5	0.2
Consumer Discretionary	-2.9	-9.5	-13.5	0.2	0.3	0.7
Consumer Staples	8.3	-3.7	-7.7	-0.2	0.5	0.5
Energy	5.7	6.0	17.0	1.4	-0.9	0.4
Financials	0.6	-1.0	-1.0	0.0	0.3	0.0
Health Care	5.3	2.9	-3.7	0.2	1.2	1.2
Industrials	-11.7	-18.9	-10.6	0.5	-0.7	0.2
Information Technology	-9.0	0.0	-16.1	0.9	0.0	1.0
Materials	-2.1	-11.5	3.3	-0.2	-0.8	-1.0
Real Estate	-0.5	13.0	-2.7	0.0	0.3	0.4
Utilities	-1.3	-10.3	-4.1	0.0	-0.1	-0.2
Cash	1.7	-1.7	0.0	0.1	0.0	0.1
Total	0.0	-2.3	-5.9	3.2	-0.5	3.6

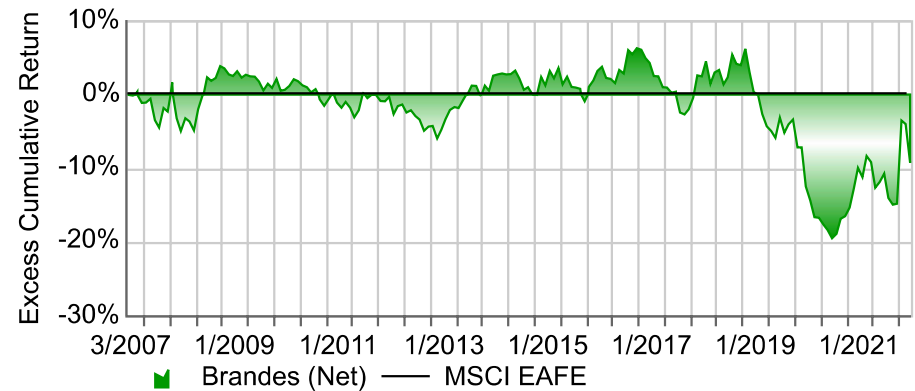
Brandes 15 Year Performance & Statistics

Investment Growth – 15 Years



©FactSet Research Systems

Relative Cumulative Performance – 15 Years

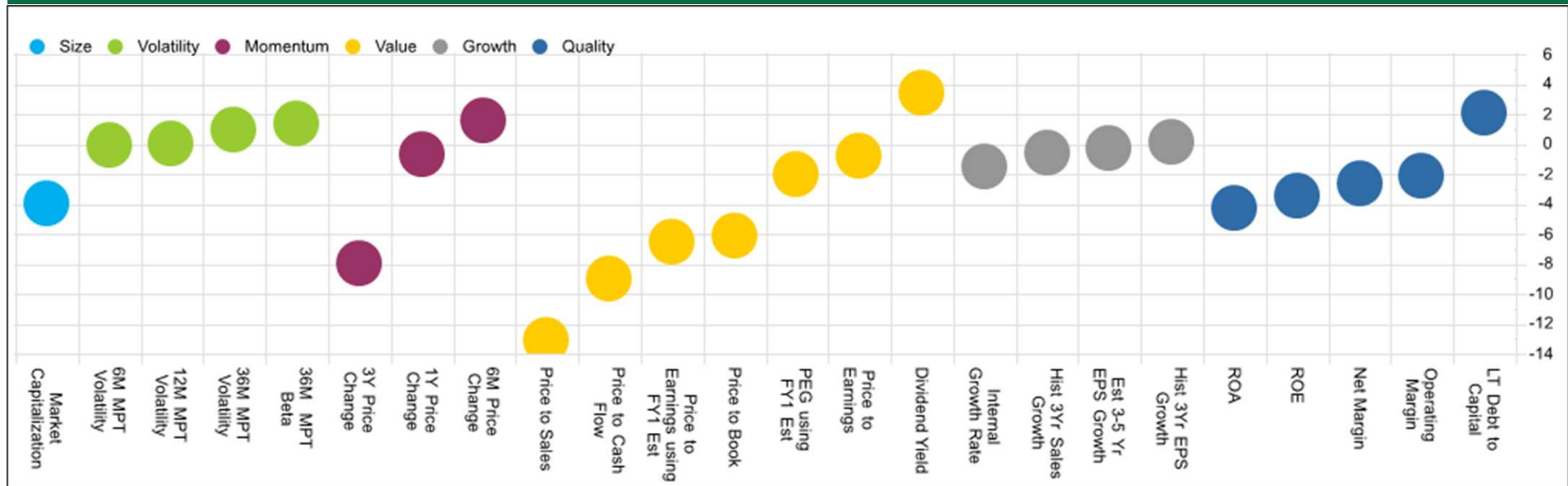


©FactSet Research Systems

Risk – 15 Years

	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
Brandes (Net)	2.5	18.1	-0.3	0.1	-0.1	5.5	1.0
MSCI EAFE	2.9	17.4	--	0.1	--	--	1.0
MSCI EAFE Value	1.4	18.9	-1.4	0.0	-0.4	3.8	1.1

Characteristics Tilt vs Benchmark 3/31/2022



DFA International Portfolio Snapshot –March 31, 2022

Rolling Returns Since Inception 5/1/2006 (Ten Year, One Month Shift)



©FactSet Research Systems

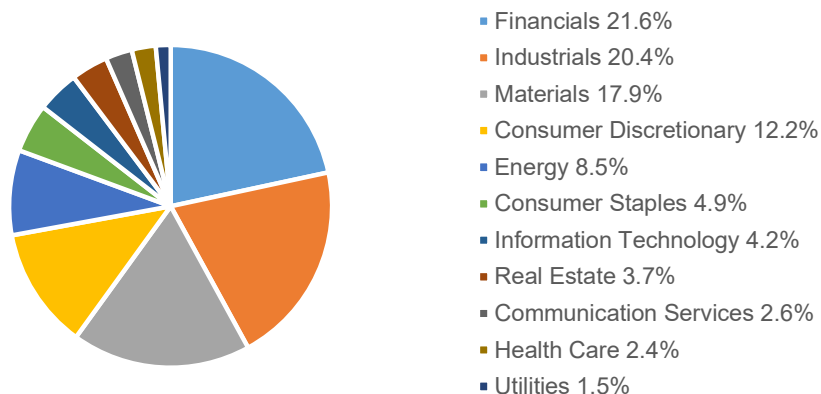
Top 10 Holdings

	Portfolio Weight	Quarterly Return
ASR Nederland NV	1.12	1.39
Aurubis AG	1.01	20.92
K+S Aktiengesellschaft	0.93	74.94
Helvetia Holding AG	0.69	11.13
Rheinmetall AG	0.67	124.60
Banco BPM SpA	0.64	-1.34
Yamana Gold Inc.	0.61	33.27
Travis Perkins plc	0.61	-21.97
Grafton Group Plc	0.59	-23.82
MEG Energy Corp.	0.58	47.57

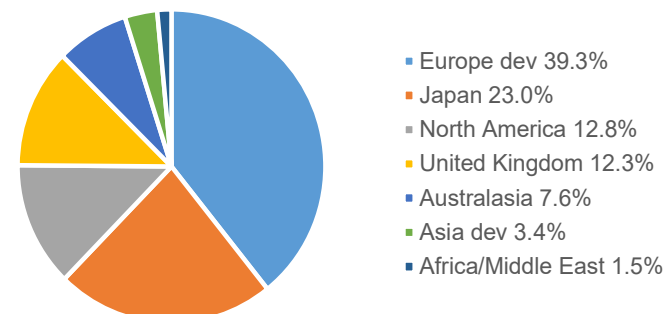
Trailing Returns

	QTR	1 Year	3 Year	5 Year	10 Year	15 Year
DFA Int'l Small Cap (Net)	-2.6	4.5	8.2	4.6	7.2	3.8
MSCI EAFE Small Cap	-8.5	-3.6	8.5	7.4	8.3	3.9
MSCI World ex US Small Cap Value	-2.9	2.1	8.3	6.3	7.0	4.5

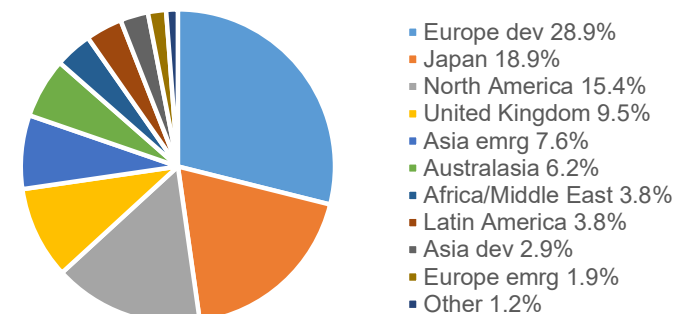
Equity Sector Exposure (GICS)



Regional Exposure by Domicile



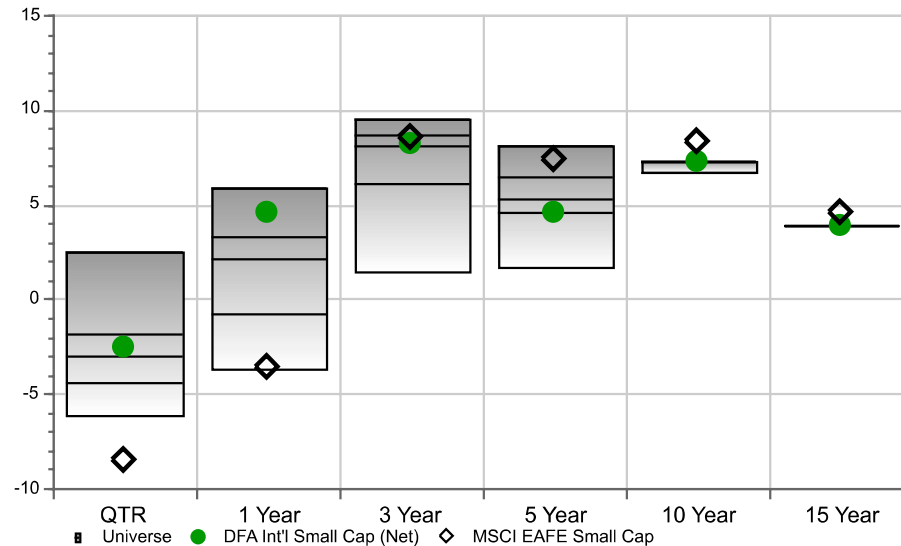
Regional Exposure by Source of Revenue



DFA International vs Universe & Benchmark

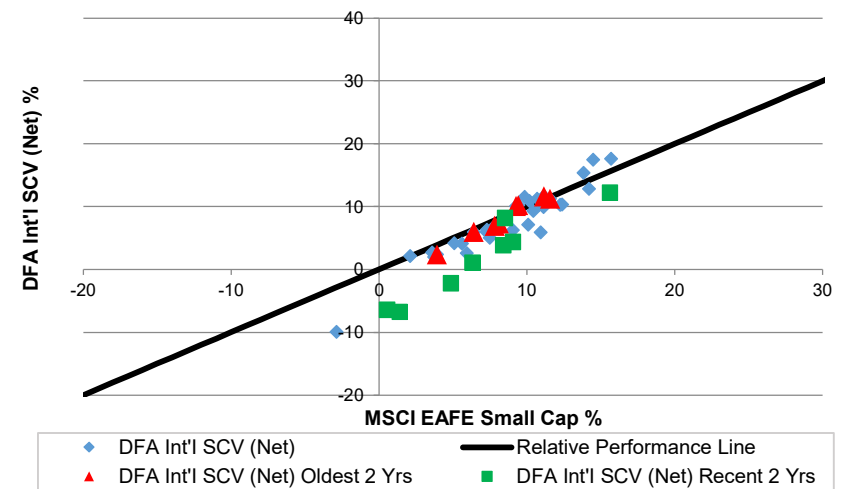
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US: Int'l Sm/Mid Cap Value



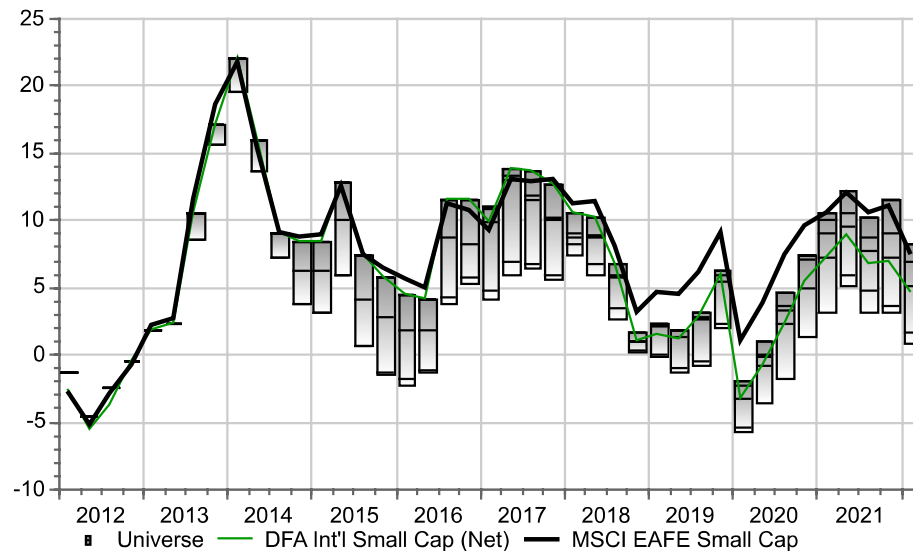
©FactSet Research Systems

Three-Year Rolling Return Versus Benchmark



Rolling Returns 7/1/2006 –3/31/2022 (5 Year, 3 Month Shift)

Universe: Lipper US: Int'l Sm/Mid Cap Value



©FactSet Research Systems

Over/Under Benchmark Analysis

10	Outperform
30	Underperform
40	# Observations
25%	% Outperform

DFA International Attribution Analysis –March 31, 2022

Top 10 Leading Contributors

	Avg. Weights	Relative Weights	Active Return
K+S Aktiengesellschaft	0.58	0.45	0.29
Rheinmetall AG	0.36	0.19	0.20
MEG Energy Corp.	0.47	0.47	0.18
Aurubis AG	0.90	0.78	0.16
ARC Resources Ltd.	0.35	0.35	0.16
Yamana Gold Inc.	0.46	0.46	0.15
Whitecap Resources Inc.	0.39	0.39	0.14
Rio Tinto plc	0.15	0.15	0.12
Crescent Point Energy Corp.	0.40	0.40	0.12
IGO Limited	0.65	0.46	0.11

Top 10 Leading Detractors

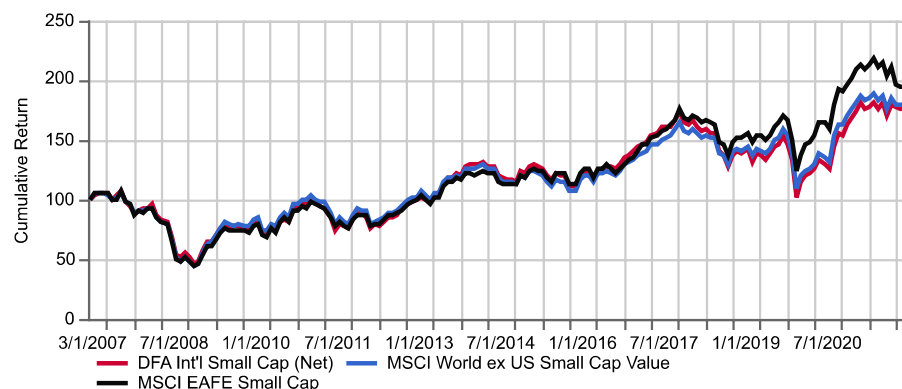
	Avg. Weights	Relative Weights	Active Return
LANXESS AG	0.56	0.56	-0.17
Bellway p.l.c.	0.65	0.48	-0.16
Raiffeisen Bank International AG	0.22	0.22	-0.14
Grafton Group Plc	0.70	0.58	-0.14
Vistry Group plc	0.62	0.51	-0.13
Travis Perkins plc	0.72	0.57	-0.13
Linamar Corporation	0.43	0.43	-0.11
Redrow plc	0.47	0.39	-0.11
Lindab International AB	0.36	0.28	-0.09
Vesuvius Plc	0.33	0.29	-0.08

Sector Attribution

	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	-1.8	-1.6	-11.1	0.1	0.2	0.3
Consumer Discretionary	0.9	-15.6	-14.6	0.0	-0.2	-0.2
Consumer Staples	-0.9	-6.0	-7.0	0.0	0.0	0.0
Energy	5.3	31.1	17.2	1.2	0.7	2.1
Financials	11.0	-1.4	-4.6	0.4	0.7	1.1
Health Care	-3.9	-10.6	-18.4	0.4	0.2	0.6
Industrials	-1.6	-5.7	-8.2	0.0	0.7	0.6
Information Technology	-6.2	-8.1	-14.7	0.4	0.3	0.7
Materials	7.4	4.4	-1.6	0.5	0.9	1.5
Real Estate	-8.7	-3.0	-6.0	-0.2	0.1	-0.1
Utilities	-1.5	3.9	0.3	-0.1	0.0	-0.1
Total	0.0	-1.9	-8.5	2.6	3.7	6.5

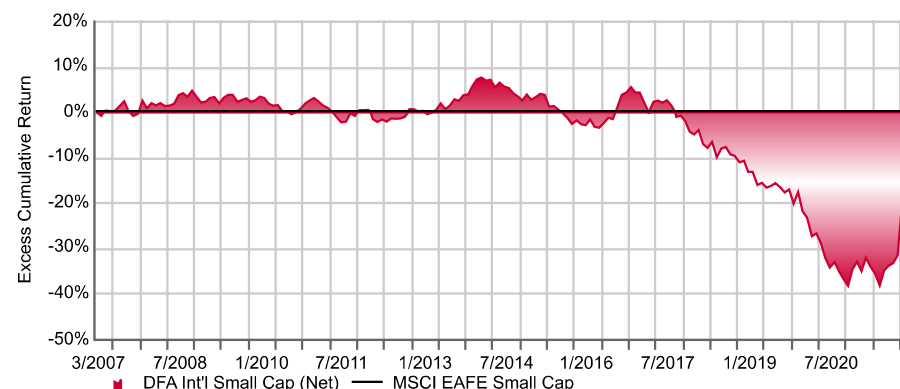
DFA International Inception Performance & Statistics

Investment Growth – 15 Years



©FactSet Research Systems

Relative Cumulative Performance – 15 Years

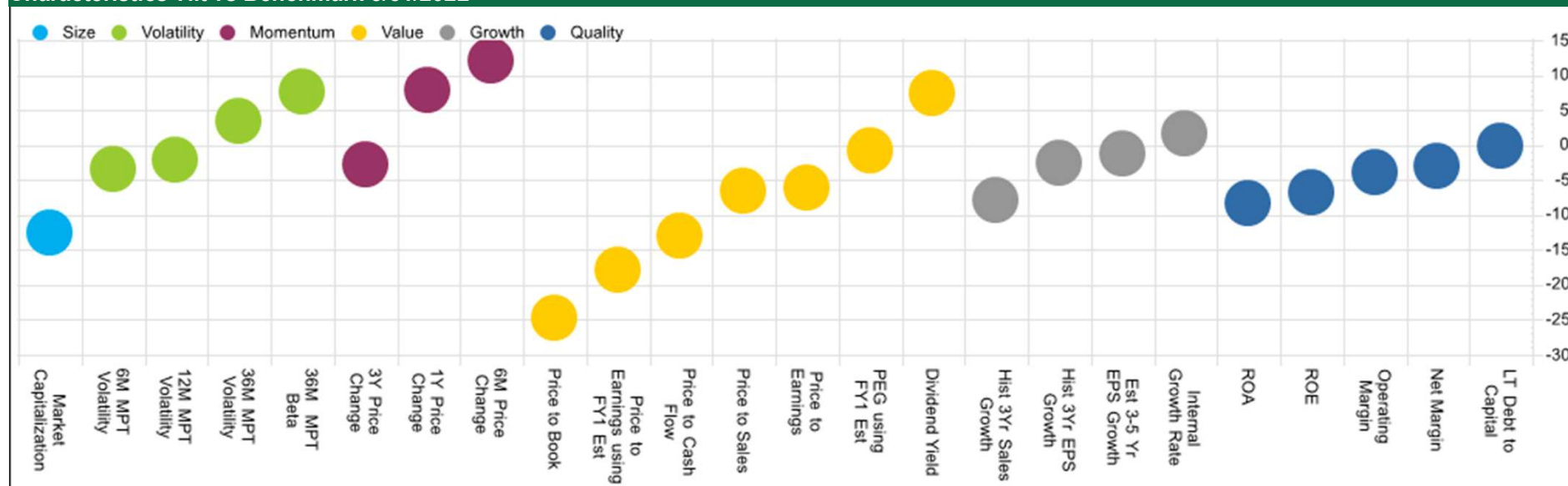


©FactSet Research Systems

Risk – 15 Years

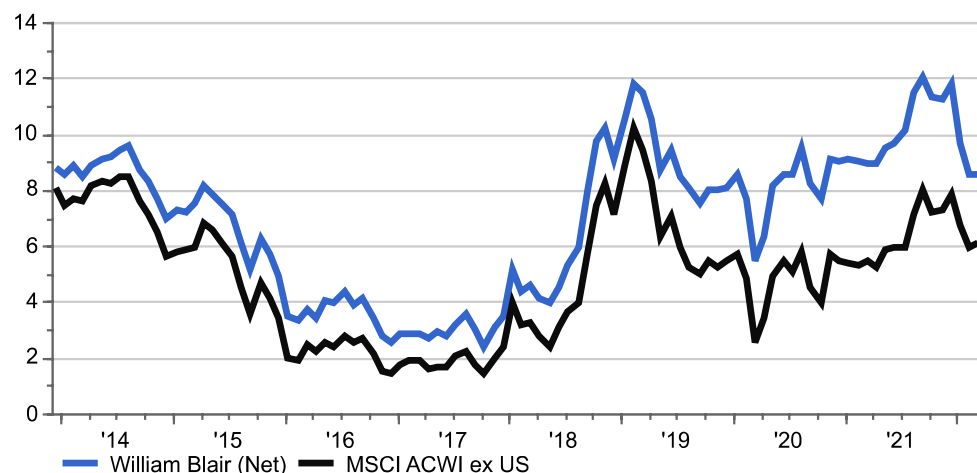
	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
DFA Int'l Small Cap (Net)	3.8	19.9	-0.6	0.2	-0.2	4.5	1.0
MSCI EAFE Small Cap	3.9	18.9	--	0.2	--	--	1.0
MSCI World ex USA Small Cap Value	4.5	19.4	-0.5	0.2	-0.2	3.2	1.0

Characteristics Tilt vs Benchmark 3/31/2022



William Blair Portfolio Snapshot –March 31, 2022

Rolling Returns Since Inception 1/1/2004 (Ten Year, One Month Shift)



©FactSet Research Systems

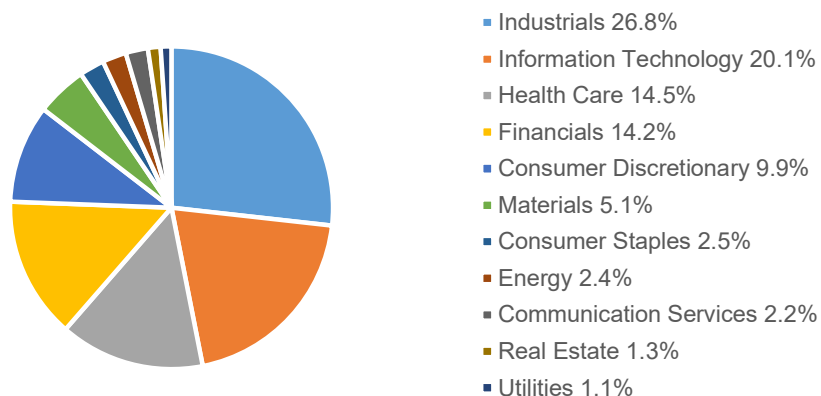
Top 10 Holdings

	Portfolio Weight	Quarterly Return
Canadian National Railway Company	2.47	9.62
AIA Group Limited	2.07	4.43
ASML Holding NV	1.97	-15.55
Airbus SE	1.87	-3.90
MTU Aero Engines AG	1.71	14.91
Lonza Group AG	1.63	-12.61
Taiwan Semiconductor Mfg. Co., Ltd.	1.58	-5.83
Novo Nordisk A/S	1.57	9.76
Compass Group PLC	1.57	-2.03
Sika AG	1.52	-19.95

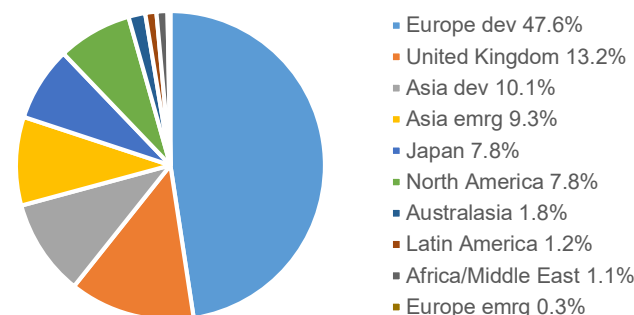
Trailing Returns

	QTR	1 Year	3 Year	5 Year	10 Year	15 Year
William Blair (Net)	-14.9	-3.4	13.0	10.7	8.5	5.4
MSCI ACWI ex US	-5.3	-1.0	8.0	7.3	6.0	3.6
MSCI ACWI ex US Growth	-10.7	-5.9	9.5	9.0	7.1	4.5

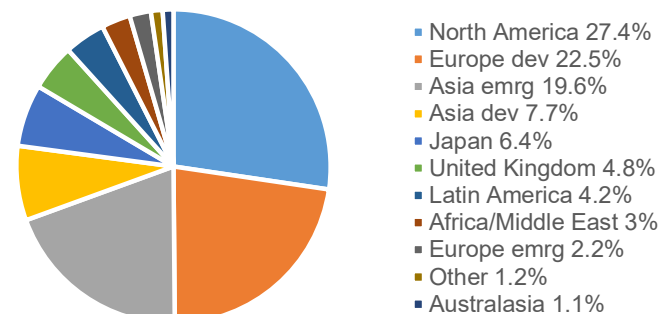
Equity Sector Exposure (GICS)



Regional Exposure by Domicile



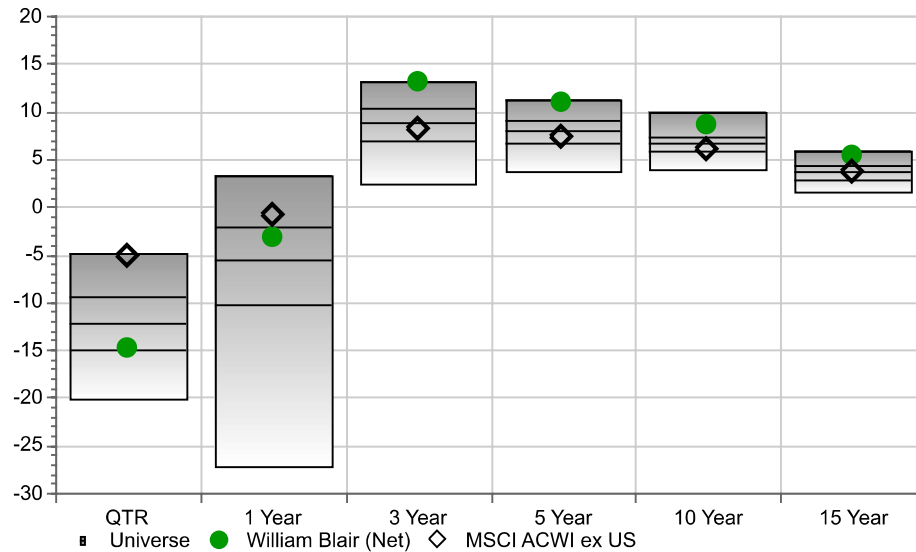
Regional Exposure by Source of Revenue



William Blair vs Universe & Benchmark

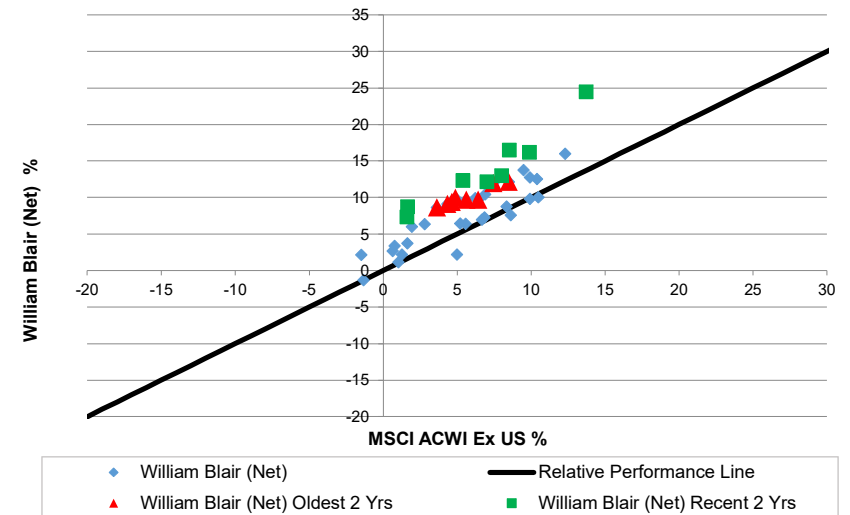
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US:International Multi-Cap Growth



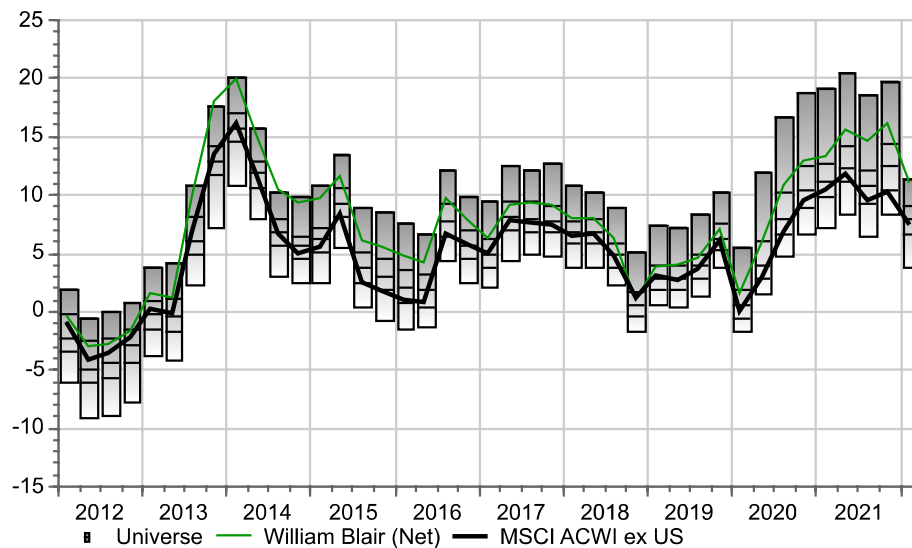
©FactSet Research Systems

Three-Year Rolling Return Versus Benchmark



Rolling Returns 4/1/2007 –3/31/2022 (5 Year, 3 Month Shift)

Universe: Lipper US:International Multi-Cap Growth



©FactSet Research Systems

Over/Under Benchmark Analysis

36	Outperform
4	Underperform
40	# Observations
90%	% Outperform

William Blair Attribution Analysis –March 31, 20222

Top 10 Leading Contributors

	Avg. Weights	Relative Weights	Active Return
MTU Aero Engines AG	1.43	1.39	0.20
Canadian National Railway Company	2.04	1.71	0.19
Tenaris S.A.	0.36	0.34	0.14
London Stock Exchange Group plc	1.05	0.94	0.14
Meituan	0.13	-0.28	0.09
Novo Nordisk A/S	0.35	-0.32	0.09
Tencent Holdings Ltd.	0.70	-0.57	0.09
Nestle S.A.	0.07	-1.39	0.09
Unilever PLC	0.07	-0.54	0.08
MonotaRO Co., Ltd.	0.27	0.26	0.06

Top 10 Leading Detractors

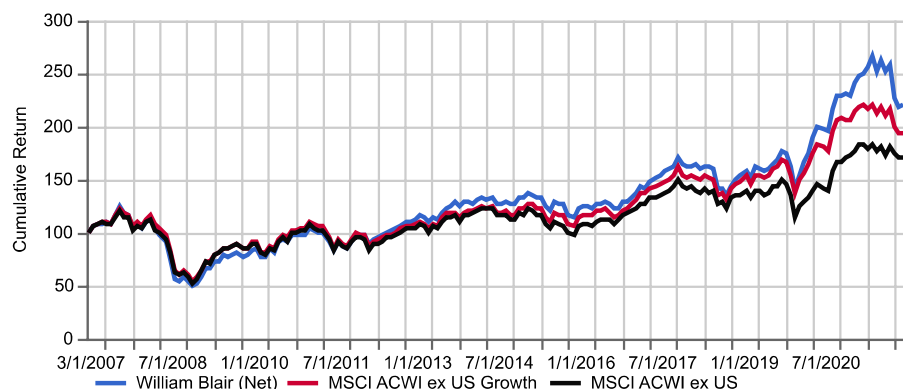
	Avg. Weights	Relative Weights	Active Return
Atlas Copco AB	1.47	1.25	-0.36
Ashtead Group plc	1.60	1.48	-0.35
Sika AG	1.70	1.51	-0.32
Partners Group Holding AG	1.24	1.11	-0.29
TCS Group Holding Plc	0.21	0.18	-0.28
ICON plc	1.14	1.14	-0.25
Straumann Holding AG	0.91	0.84	-0.24
Infineon Technologies AG	1.06	0.86	-0.24
DSV A/S	1.40	1.24	-0.24
Croda International Plc	0.94	0.88	-0.23

Sector Attribution

	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	-3.6	-17.1	-5.7	0.0	-0.3	-0.3
Consumer Discretionary	-1.3	-16.2	-14.3	0.1	-0.3	-0.1
Consumer Staples	-5.7	-13.8	-7.2	0.1	-0.2	-0.1
Energy	-3.3	8.1	6.9	-0.4	0.1	-0.3
Financials	-9.1	-10.0	1.6	-0.6	-1.0	-1.7
Health Care	3.2	-20.0	-5.1	0.0	-1.8	-1.8
Industrials	14.9	-14.4	-8.5	-0.4	-1.7	-2.1
Information Technology	9.2	-18.1	-15.1	-0.9	-0.8	-1.7
Materials	-4.0	-15.8	5.2	-0.3	-0.8	-1.3
Real Estate	-1.2	-9.8	-2.7	0.0	-0.1	-0.1
Utilities	-2.2	-0.8	-2.4	-0.1	0.0	0.0
Cash	3.2	0.1	0.0	0.1	0.0	0.2
Total	0.0	-14.7	-5.4	-2.3	-6.9	-9.3

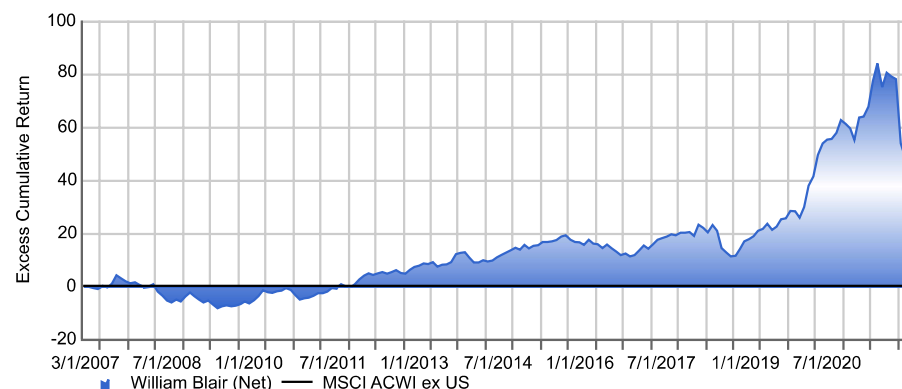
William Blair 15 Year Performance & Statistics

Investment Growth – 15 Years



©FactSet Research Systems

Relative Cumulative Performance – 15 Years

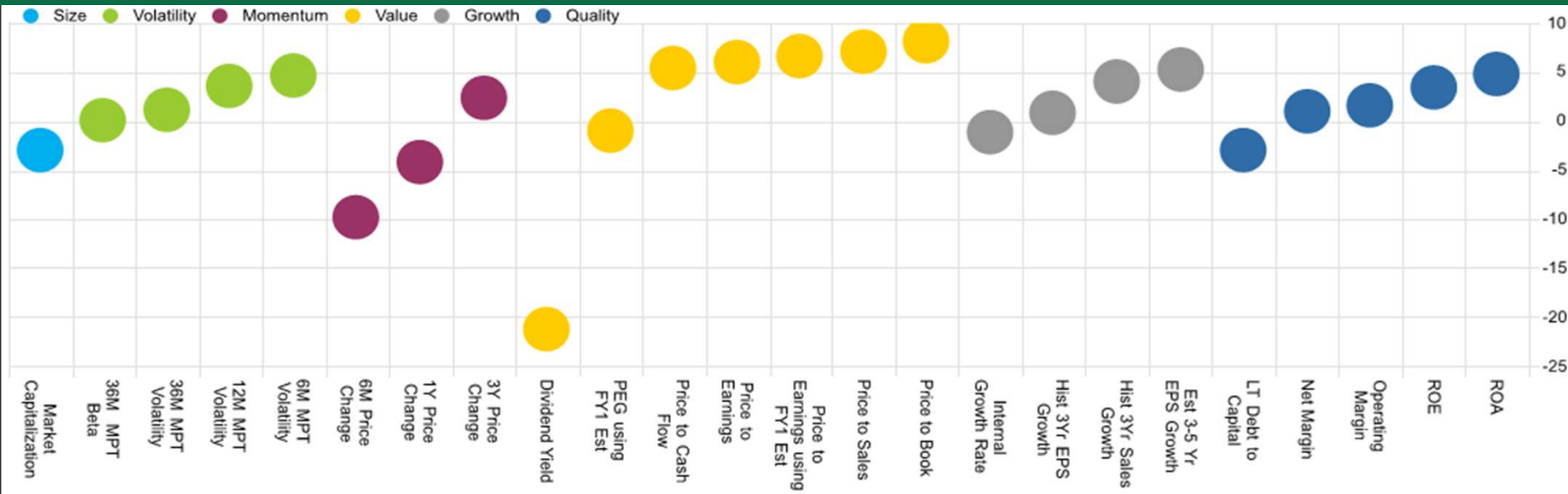


©FactSet Research Systems

Risk – 15 Years

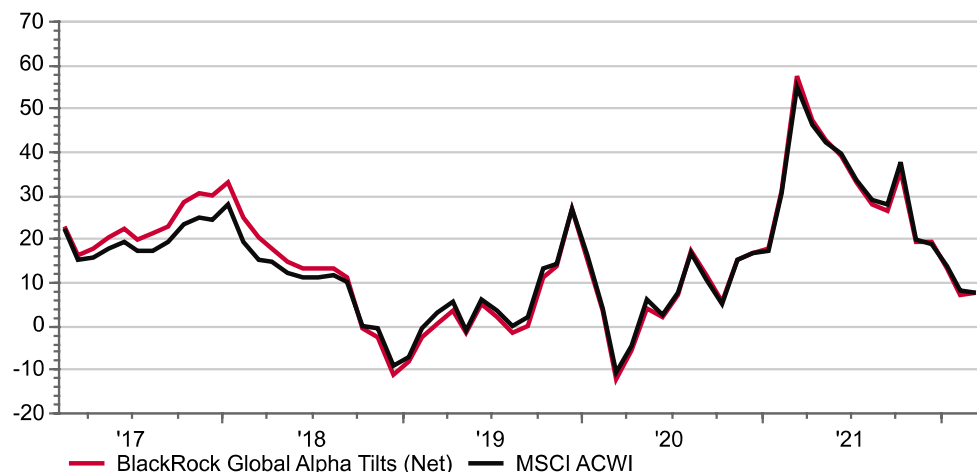
	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
William Blair (Net)	5.4	18.0	1.9	0.3	0.3	5.1	1.0
MSCI ACWI ex US	3.6	17.8	--	0.2	--	--	1.0
MSCI ACWI ex US Growth	4.5	17.4	1.0	0.2	0.3	3.2	1.0

Characteristics Tilt vs Benchmark 3/31/2022



BlackRock Global Portfolio Snapshot –March 31, 2022

Rolling Returns Since Inception 3/1/2016 (One Year, One Month Shift)



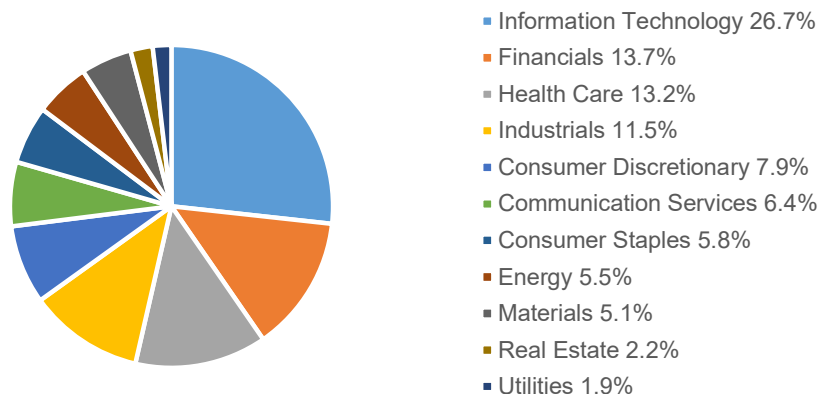
Top 10 Holdings

	Portfolio Weight	Quarterly Return
Apple Inc.	4.36	-1.54
Microsoft Corporation	4.29	-8.14
Alphabet Inc.	2.61	-3.74
Amazon.com, Inc.	1.94	-2.23
Johnson & Johnson	1.61	4.27
Visa Inc.	1.44	2.51
NVIDIA Corporation	1.24	-7.21
Merck & Co., Inc.	1.23	7.96
ASML Holding NV	1.21	-15.55
Taiwan Semiconductor Mfg. Co., Ltd.	1.17	-5.83

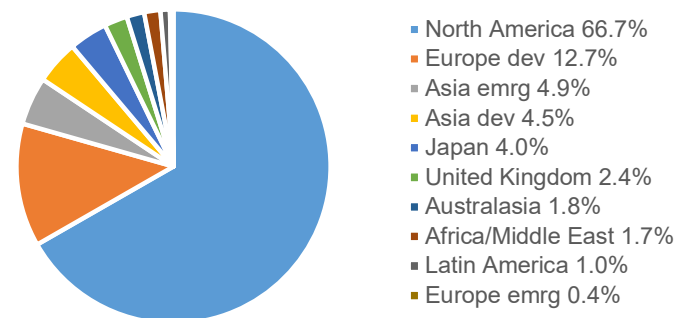
Trailing Returns

	QTR	1 Year	3 Year	5 Year	Inception 3/1/2016
BlackRock Global Alpha Tilts (Net)	-5.2	7.0	13.6	11.9	13.7
MSCI ACWI	-5.4	7.3	13.8	11.6	13.3

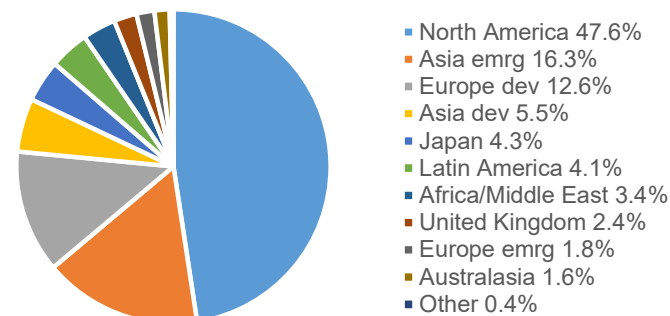
Equity Sector Exposure (GICS)



Regional Exposure by Domicile



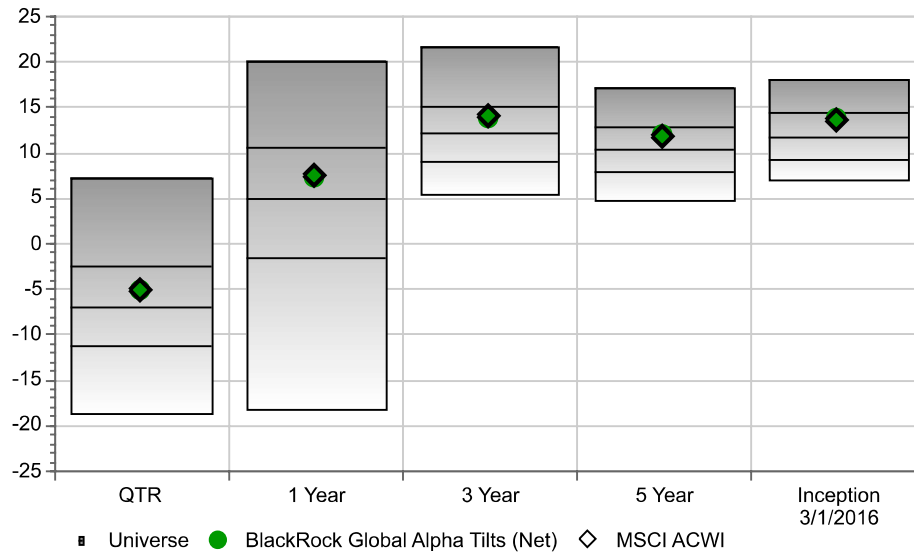
Regional Exposure by Source of Revenue



BlackRock Global vs Universe & Benchmark

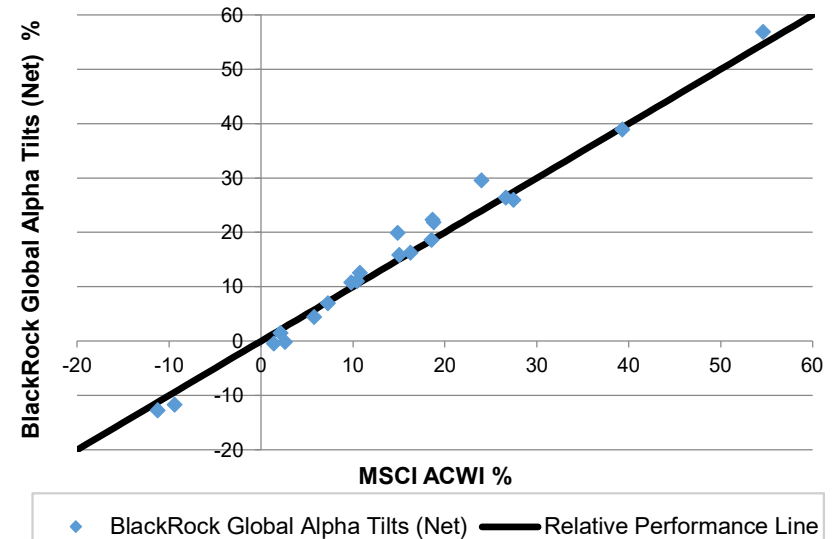
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US:Global



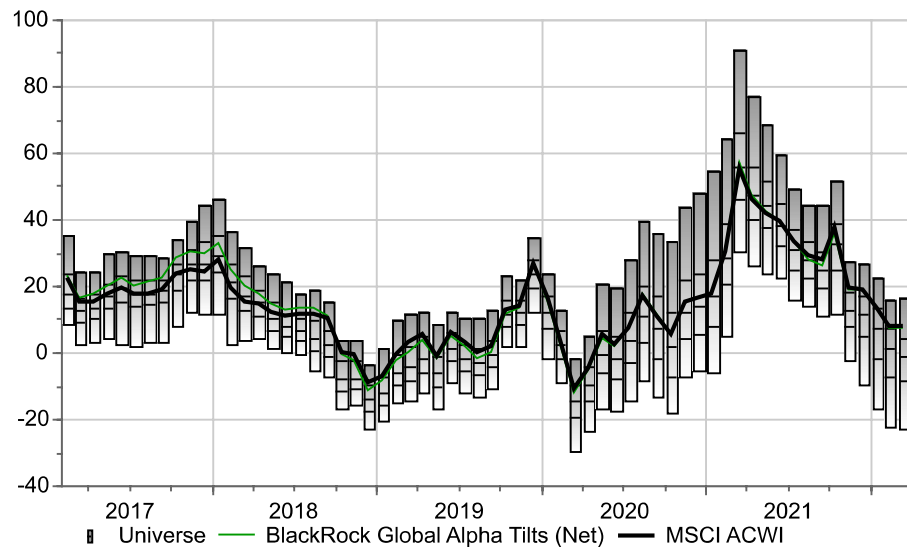
©FactSet Research Systems

One-Year Rolling Return Versus Benchmark



Rolling Returns 3/1/2016 –3/31/2022 (1 Year, 1 Month Shift)

Universe: Lipper US Global Equity



©FactSet Research Systems

Over/Under Benchmark Analysis

11	Outperform
10	Underperform
21	# Observations
52%	% Outperform

BlackRock Global Attribution Analysis –March 31, 2022

Top 10 Leading Contributors

	Avg. Weights	Relative Weights	Active Return
Meta Platforms, Inc.	0.22	-0.80	0.28
Equinor ASA	0.75	0.69	0.27
Tourmaline Oil Corp.	0.38	0.37	0.16
EOG Resources, Inc.	0.59	0.50	0.15
Home Depot, Inc.	0.15	-0.42	0.15
Canadian Natural Resources Ltd.	0.42	0.33	0.14
Travelers Companies, Inc.	0.82	0.76	0.12
Netflix, Inc.	0.03	-0.28	0.12
British American Tobacco p.l.c.	0.99	0.85	0.12
PayPal Holdings, Inc.	0.07	-0.19	0.12

Top 10 Leading Detractors

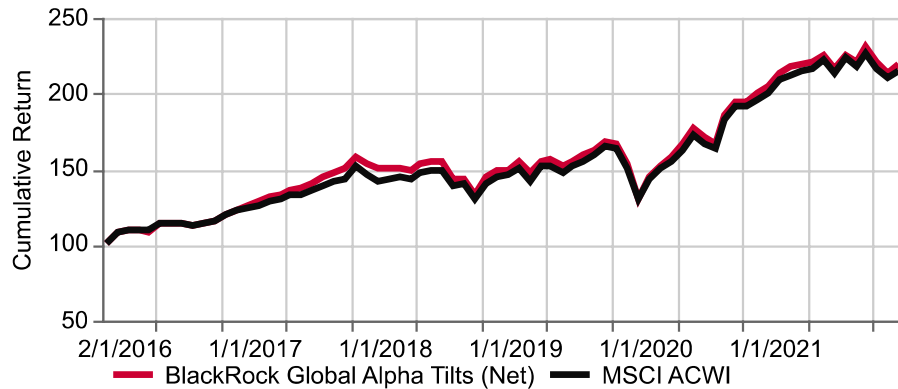
	Avg. Weights	Relative Weights	Active Return
Intuit Inc.	1.10	0.87	-0.25
SAP SE	0.92	0.72	-0.19
Estee Lauder Companies Inc.	0.75	0.64	-0.19
ASML Holding NV	1.31	0.87	-0.14
L'Oreal SA	1.04	0.88	-0.14
Agilent Technologies, Inc.	0.80	0.73	-0.13
Chevron Corporation	0.03	-0.35	-0.13
Kone Oyj	0.49	0.46	-0.12
MediaTek Inc.	0.48	0.39	-0.11
Align Technology, Inc.	0.36	0.30	-0.11

Sector Attribution

	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	-1.7	-8.3	-10.4	0.1	0.1	0.2
Consumer Discretionary	-3.5	-10.0	-11.4	0.2	0.1	0.3
Consumer Staples	1.1	-4.4	-3.9	0.0	0.0	0.0
Energy	0.5	31.3	21.4	0.1	0.3	0.5
Financials	-0.2	-1.1	-0.3	-0.1	-0.2	-0.2
Health Care	1.0	-4.4	-3.7	0.0	-0.1	-0.1
Industrials	1.9	-7.7	-5.9	0.0	-0.2	-0.2
Information Technology	2.2	-12.0	-10.3	-0.1	-0.4	-0.6
Materials	-0.5	1.9	2.8	0.0	0.0	-0.1
Real Estate	-0.2	-10.2	-5.4	0.0	-0.1	-0.1
Utilities	-0.6	2.5	1.4	0.0	0.0	0.0
Total	0.0	-5.6	-5.3	0.1	-0.5	-0.3

BlackRock Global Inception Performance & Statistics

Investment Growth Since Inception 3/1/2016



©FactSet Research Systems

Relative Cumulative Performance Since Inception 3/1/2016

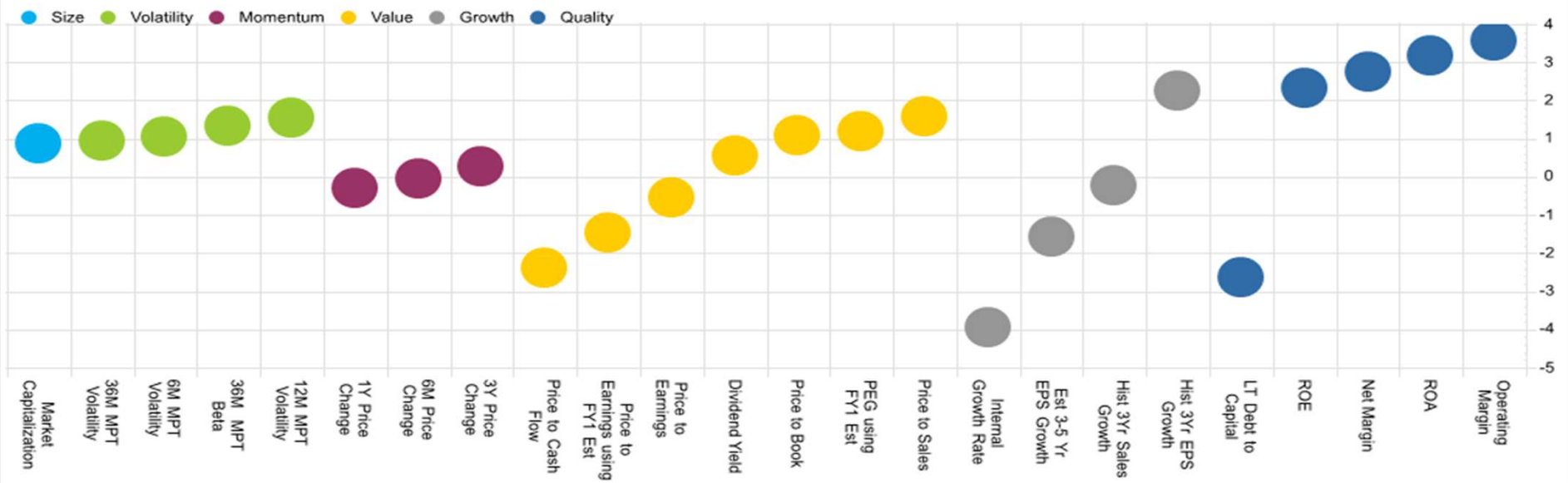


©FactSet Research Systems

Risk Since Inception 3/1/2016

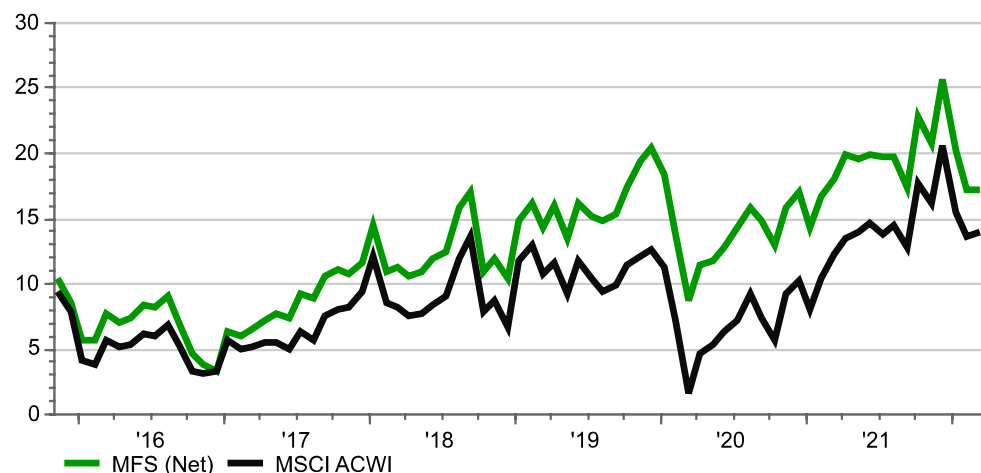
	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
BlackRock Global Alpha Tilts (Net)	13.7	14.4	0.1	0.9	0.2	1.6	1.0
MSCI ACWI	13.3	14.0	--	0.9	--	--	1.0

Characteristics Tilt vs Benchmark 3/31/2022



MFS Portfolio Snapshot –March 31, 2022

Rolling Returns Since Inception 12/1/2012 (Three Year, One Month Shift)



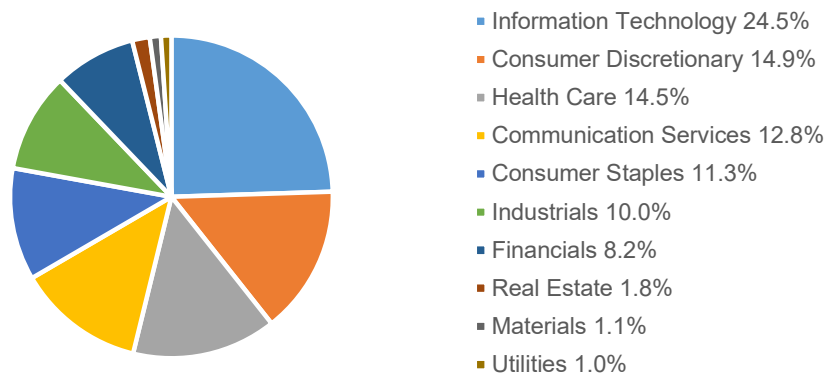
Top 10 Holdings

	Portfolio Weight	Quarterly Return
Alphabet Inc.	5.84	-3.99
Microsoft Corporation	5.18	-8.14
Canadian Pacific Railway Limited	2.66	14.95
Accenture plc	2.58	-18.43
Apple Inc.	2.35	-1.54
Alibaba Group Holding Ltd.	1.97	-6.14
Visa Inc.	1.92	2.51
Aon Plc	1.90	8.54
ICON plc	1.87	-21.47
Dollarama Inc.	1.81	13.34

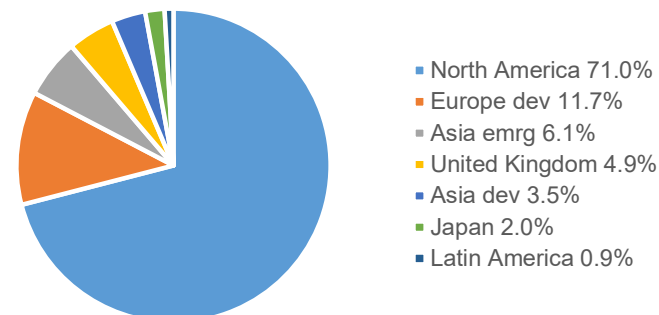
Trailing Returns

	QTR	1 Year	3 Year	5 Year	Inception 12/1/2012
MFS (Net)	-7.5	6.2	16.7	16.2	13.3
MSCI ACWI	-5.4	7.3	13.8	11.6	10.6
MSCI ACWI Growth	-9.7	5.4	17.9	15.5	12.9

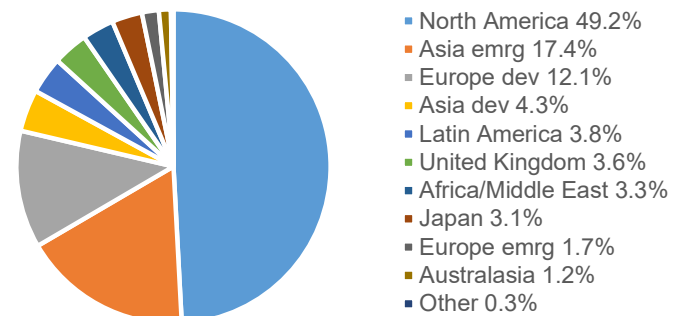
Equity Sector Exposure (GICS)



Regional Exposure by Domicile



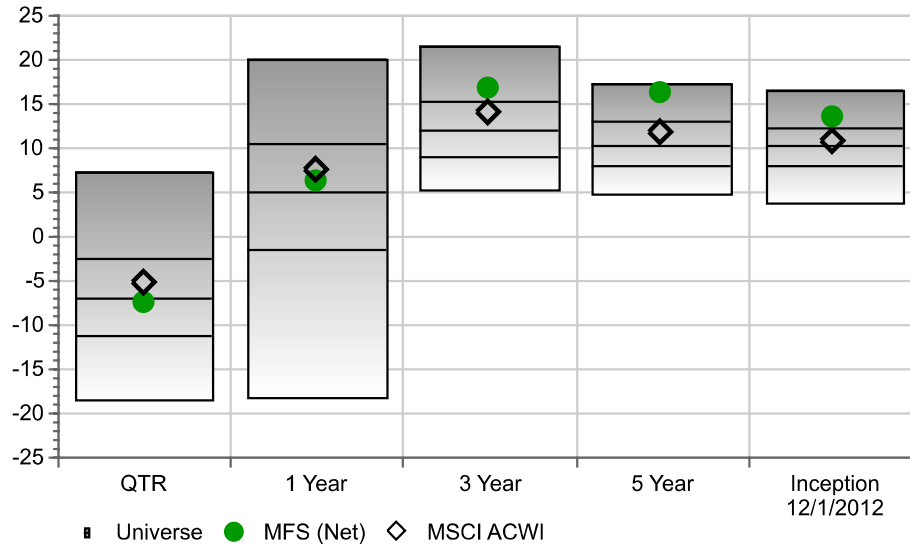
Regional Exposure by Source of Revenue



MFS vs Universe & Benchmark

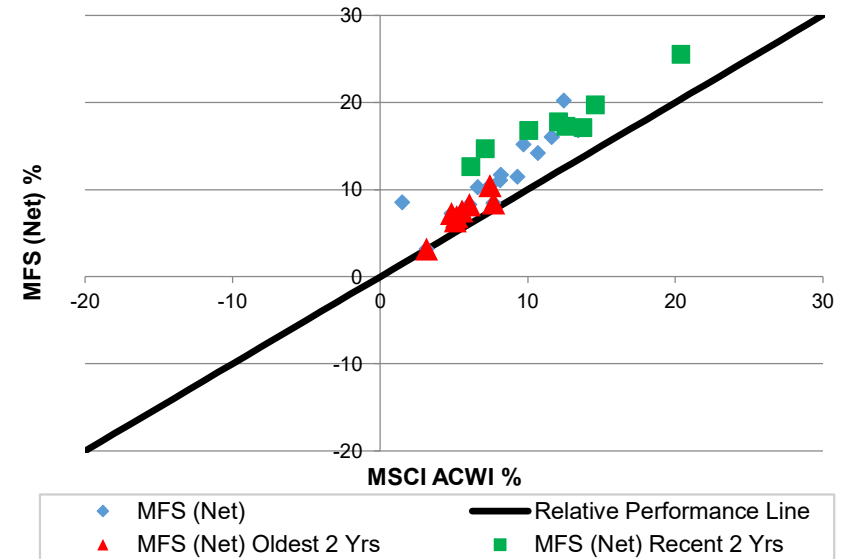
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US:Global



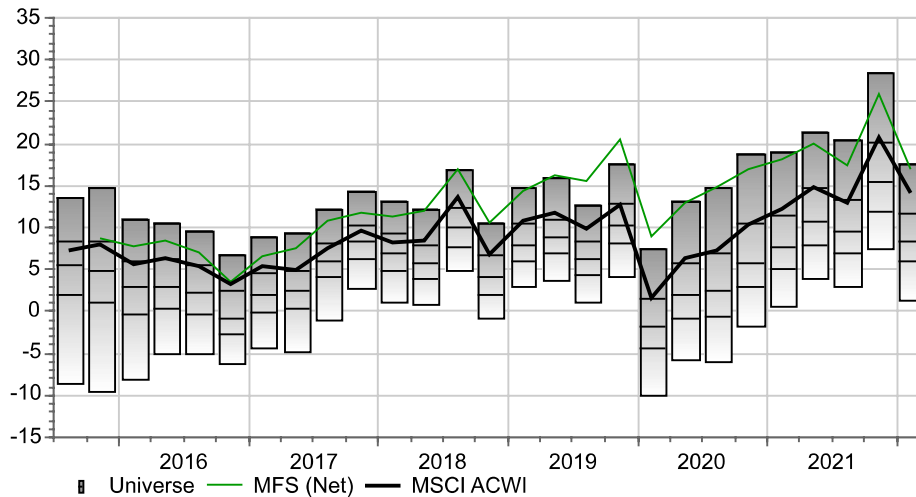
©FactSet Research Systems

Three-Year Rolling Return Versus Benchmark



Rolling Returns 12/1/2012 –3/31/2022 (3 Year, 3 Month Shift)

Universe: Lipper US Global Equity



©FactSet Research Systems

Over/Under Benchmark Analysis

26	Outperform
0	Underperform
26	# Observations
100%	% Outperform

MFS Attribution Analysis –March 31, 20222

Top 10 Leading Contributors

	Avg. Weights	Relative Weights	Active Return
Canadian Pacific Railway Limited	2.49	2.39	0.38
Credicorp Ltd.	0.87	0.86	0.30
Dollarama Inc.	2.14	2.12	0.25
Aon Plc	1.65	1.55	0.16
Boston Scientific Corporation	1.92	1.83	0.08
Becton, Dickinson and Company	1.31	1.20	0.07
Xcel Energy Inc.	0.95	0.90	0.06
Cellnex Telecom SA	0.25	0.21	0.06
Medtronic Public Limited Company	0.80	0.59	0.05
McCormick & Company, Incorporated	1.24	1.20	0.04

Top 10 Leading Detractors

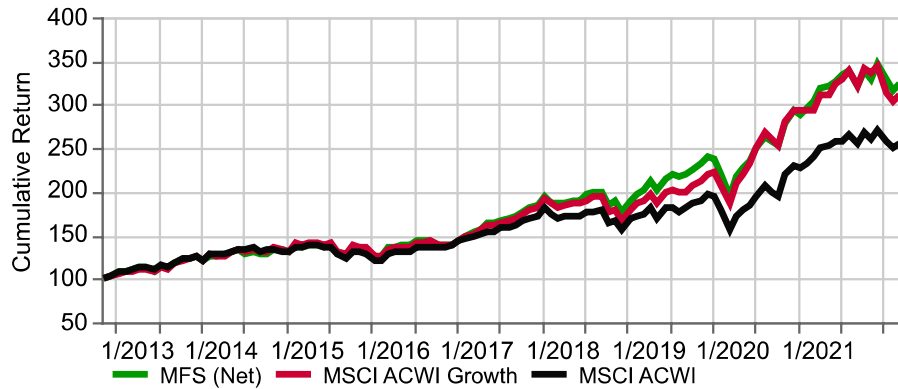
	Avg. Weights	Relative Weights	Active Return
ICON plc	2.03	2.03	-0.48
Accenture plc	2.68	2.34	-0.47
adidas AG	1.71	1.63	-0.32
Fortive Corporation	1.38	1.34	-0.29
NIKE, Inc.	1.63	1.35	-0.28
Tencent Holdings Ltd.	2.09	1.59	-0.27
Amphenol Corporation	1.80	1.73	-0.25
Flutter Entertainment Plc	0.80	0.76	-0.25
American Tower Corporation	1.75	1.57	-0.23
Sherwin-Williams Company	0.74	0.63	-0.21

Sector Attribution

	Average relative weighting (%)	Portfolio returns (%)	Benchmark returns (%)	Sector allocation (%)	Stock selection (%)	Relative contribution (%)
Communication Services	3.8	-7.6	-10.4	-0.2	0.3	0.1
Consumer Discretionary	2.3	-12.7	-11.4	-0.1	-0.2	-0.3
Consumer Staples	4.8	-7.2	-3.9	0.1	-0.3	-0.3
Energy	-3.9	0.0	21.4	-0.9	0.0	-0.9
Financials	-6.3	2.7	-0.3	-0.3	0.2	-0.1
Health Care	3.1	-5.7	-3.7	0.0	-0.3	-0.2
Industrials	0.1	-7.5	-5.9	0.0	-0.2	-0.1
Information Technology	1.3	-7.7	-10.3	-0.1	0.6	0.6
Materials	-3.6	-25.5	2.8	-0.3	-0.4	-0.6
Real Estate	-0.9	-14.1	-5.4	0.0	-0.2	-0.2
Utilities	-1.8	7.1	1.4	-0.1	0.0	-0.1
Cash	1.0	0.1	0.0	0.1	0.0	0.1
Total	0.0	-7.4	-5.3	-1.8	-0.4	-2.1

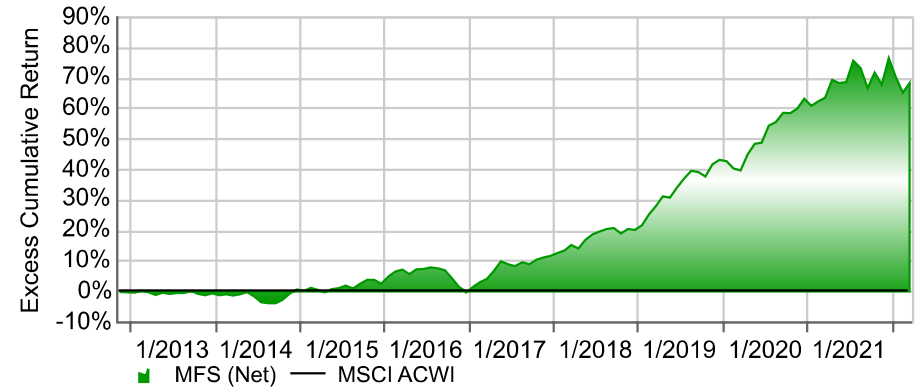
MFS Inception Performance & Statistics

Investment Growth Since Inception 12/1/2012



©FactSet Research Systems

Relative Cumulative Performance Since Inception 12/1/2012

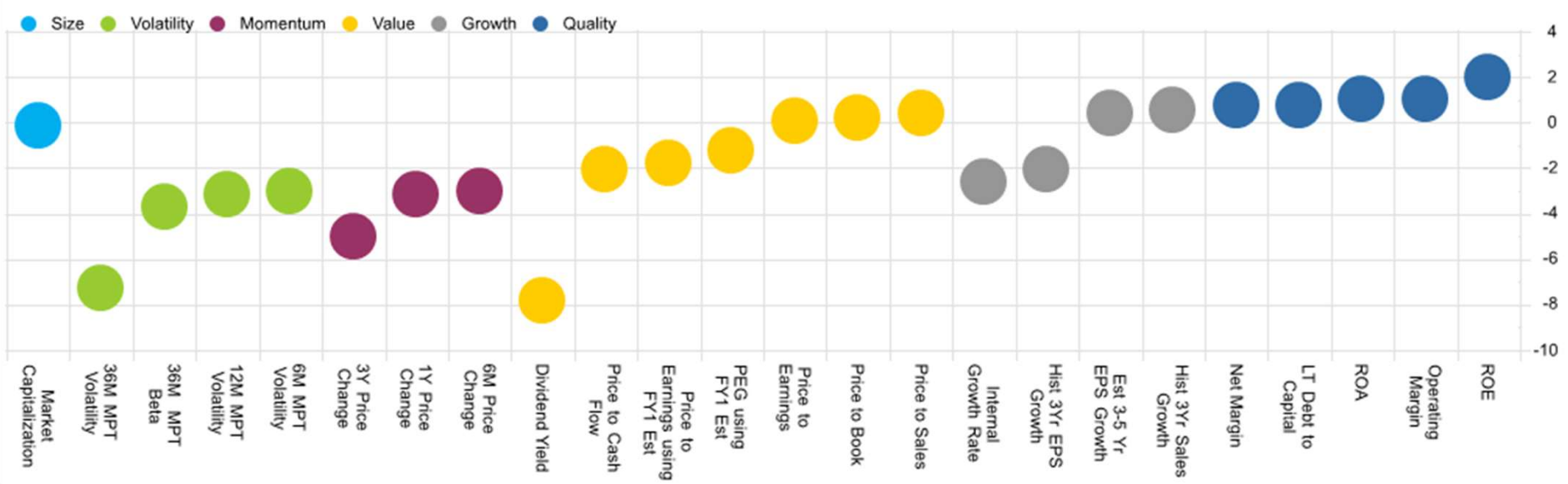


©FactSet Research Systems

Risk Since Inception 12/1/2012

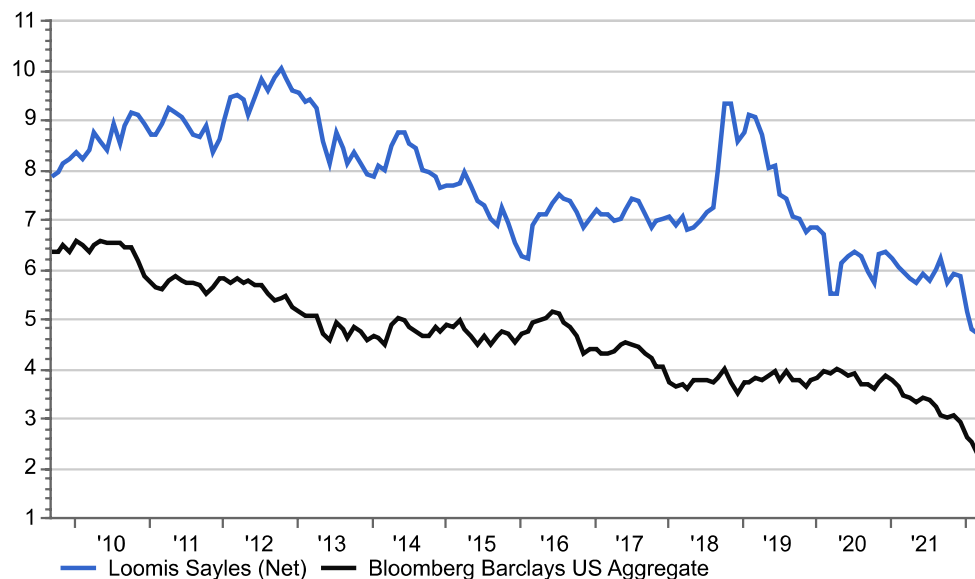
	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
MFS (Net)	13.3	13.1	2.9	1.0	0.9	3.2	1.0
MSCI ACWI	10.6	13.1	--	0.8	--	--	1.0
MSCI ACWI Growth	12.9	13.6	2.1	0.9	0.6	3.6	1.0

Characteristics Tilt vs Benchmark 3/31/2022



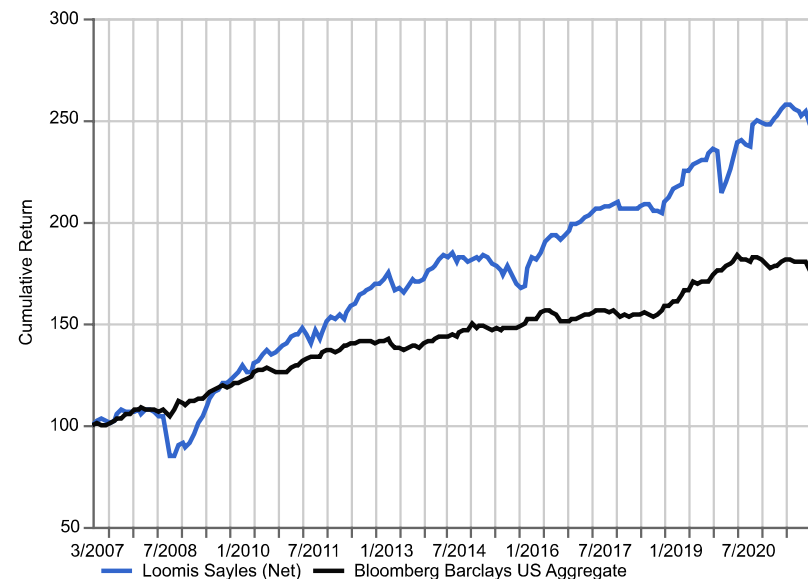
Loomis Sayles Portfolio Snapshot –March 31, 2022

Rolling Returns Since 10/1/1999 (Ten Year, One Month Shift)



©FactSet Research Systems

Investment Growth – 15 Years



©FactSet Research Systems

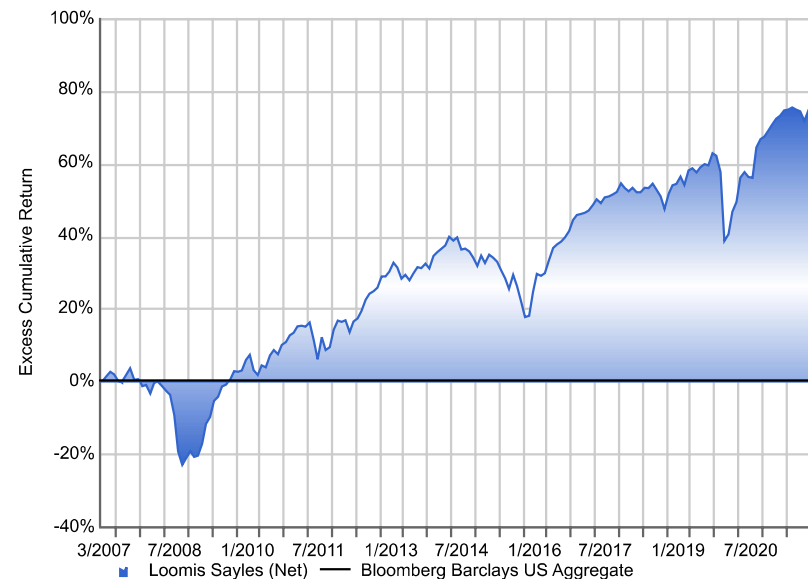
Trailing Returns

	QTR	1 Year	3 Year	5 Year	10 Year	15 Year
Loomis Sayles (Net)	-5.8	-3.1	3.6	3.9	4.7	6.0
Bbg Barclays US Agg	-5.9	-4.2	1.7	2.1	2.2	3.6

Risk – 15 Years

	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
Loomis Sayles (Net)	6.0	7.5	2.3	0.7	0.4	6.5	1.1
Bbg Barclays US Agg	3.6	3.4	--	0.8	--	--	1.0

Relative Cumulative Performance – 15 Years

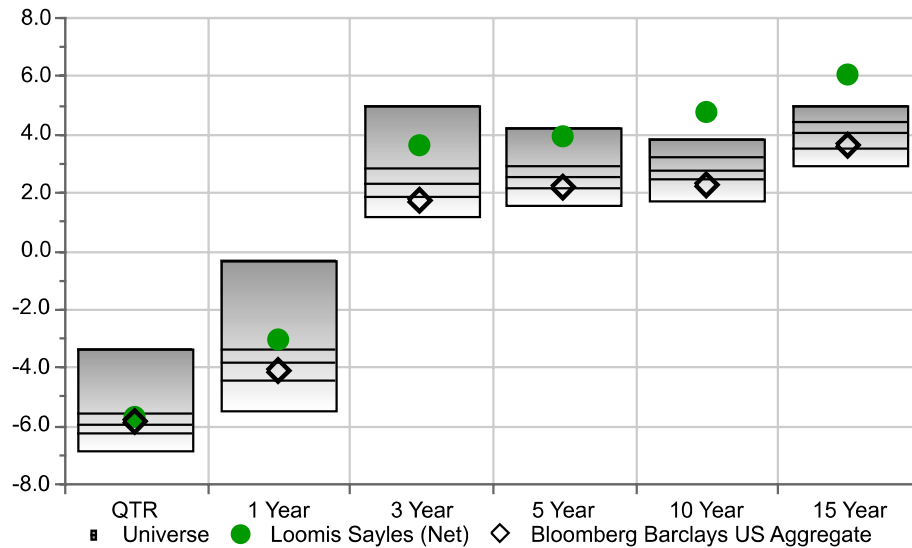


©FactSet Research Systems

Loomis Sayles vs Universe & Benchmark

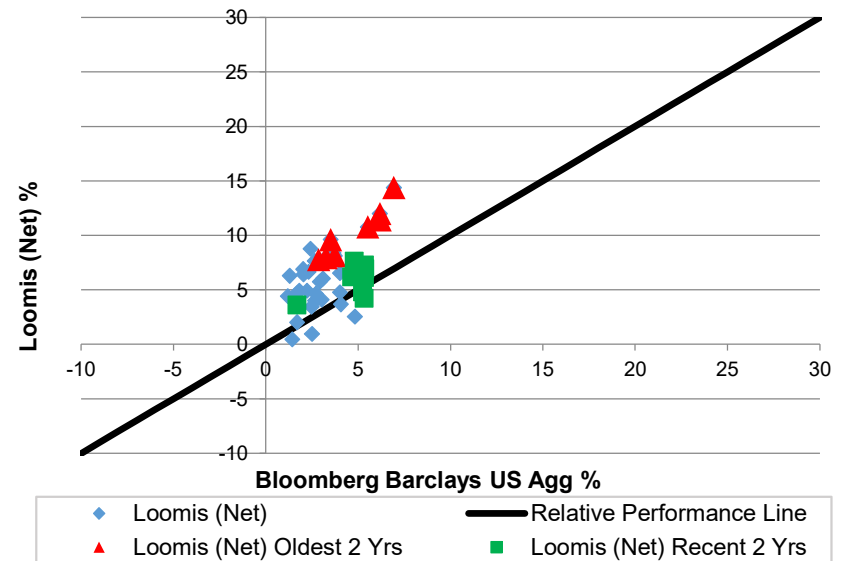
Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US Core Plus Bond



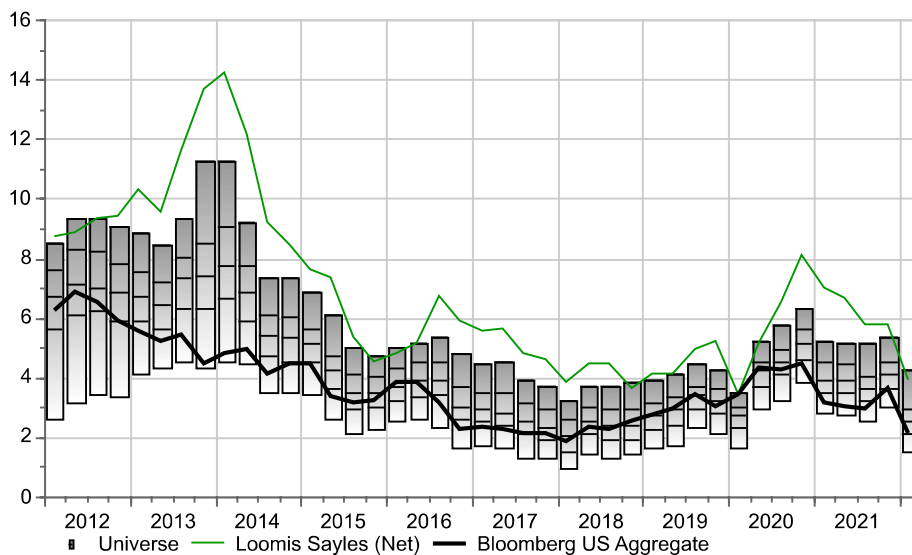
©FactSet Research Systems

Three-Year Rolling Return Versus Benchmark



Rolling Returns 4/1/2007 –3/31/2022 (5 Year, 3 Month Shift)

Universe: Lipper US:Core Plus Bond



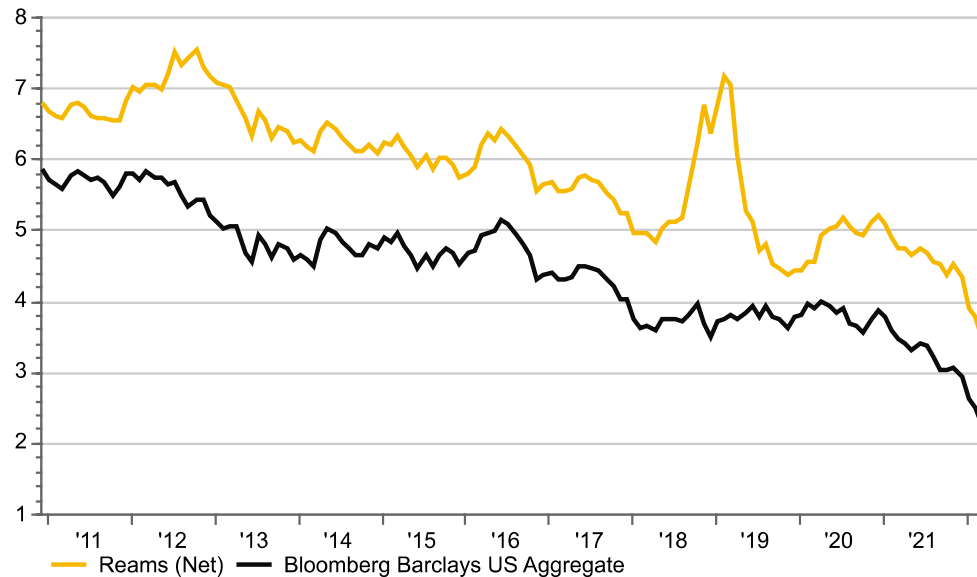
©FactSet Research Systems

Over/Under Benchmark Analysis

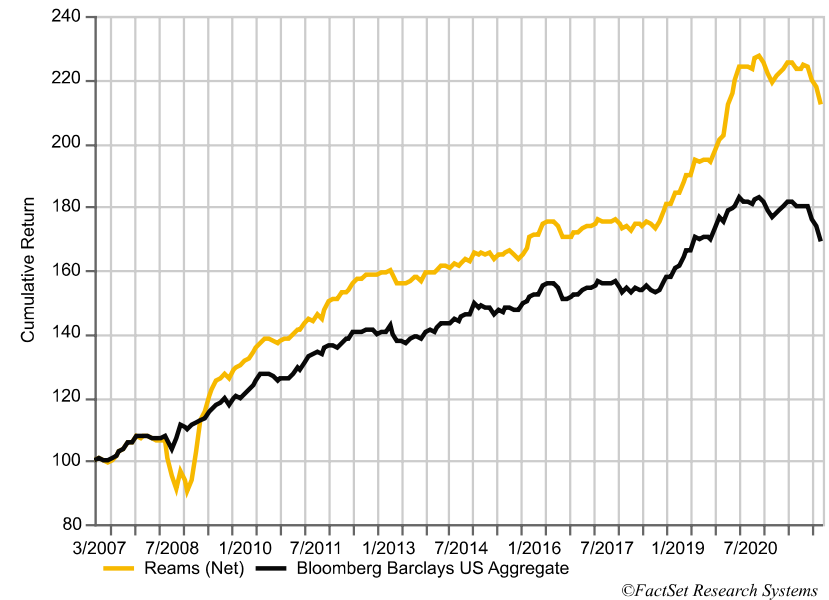
34	Outperform
6	Underperform
40	# Observations
85%	% Outperform

Reams Portfolio Snapshot –March 31, 2022

Rolling Returns Since Inception 1/1/2001 (Ten Year, One Month Shift)



Investment Growth – 15 Years



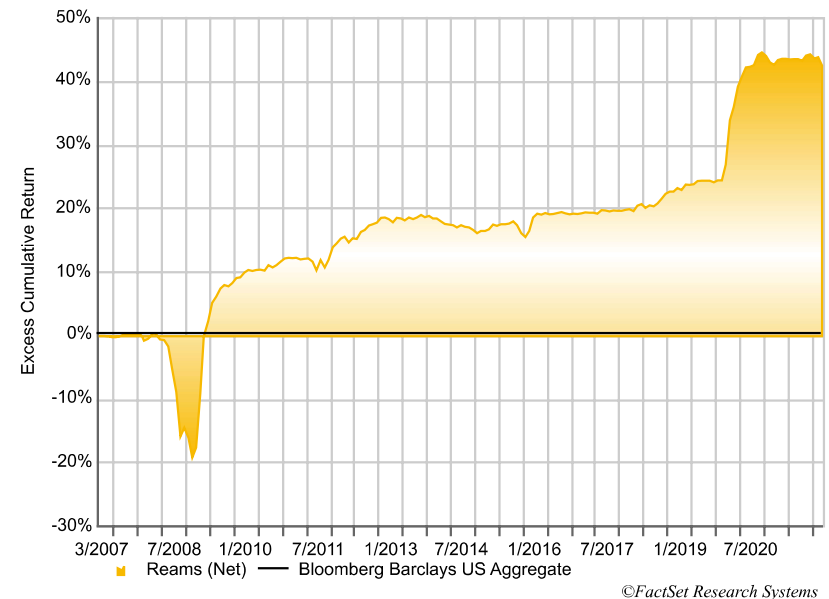
Trailing Returns

	QTR	1 Year	3 Year	5 Year	10 Year	15 Year
Reams (Net)	-5.6	-3.4	4.8	4.3	3.4	5.1
Bbg Barclays US Agg	-5.9	-4.2	1.7	2.1	2.2	3.6

Risk – 15 Years

	Return	Std Dev	Alpha	Sharpe Ratio	Information Ratio	Tracking Error	Beta
Reams (Net)	5.1	5.8	1.4	0.7	0.3	4.5	1.1
Bbg Barclays US Agg	3.6	3.4	--	0.8	--	--	1.0

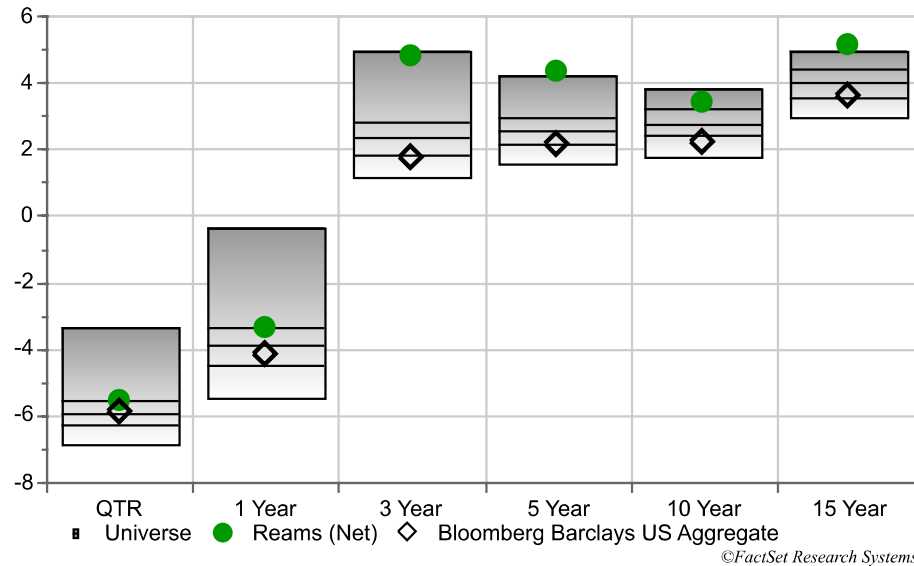
Relative Cumulative Performance – 15 Years



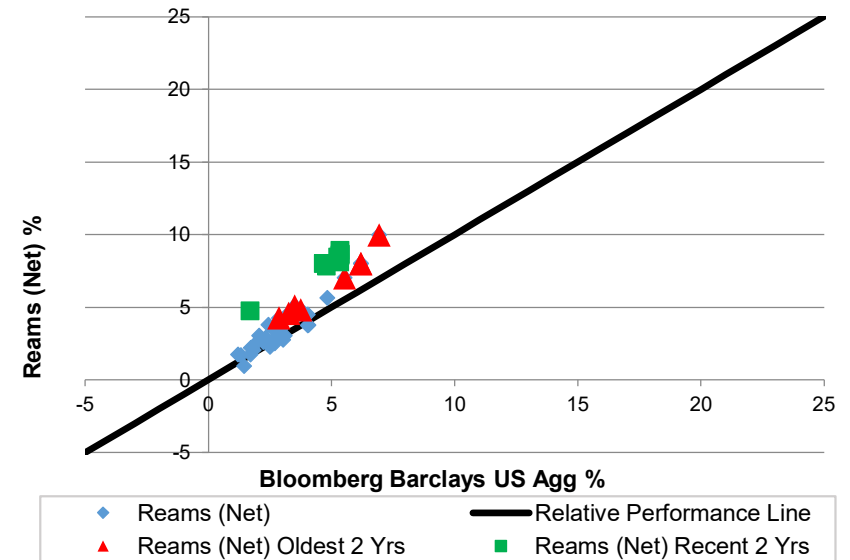
Reams vs Universe & Benchmark

Performance Relative to Peer Group as of 3/31/2022

Universe: Lipper US Core Plus Bond

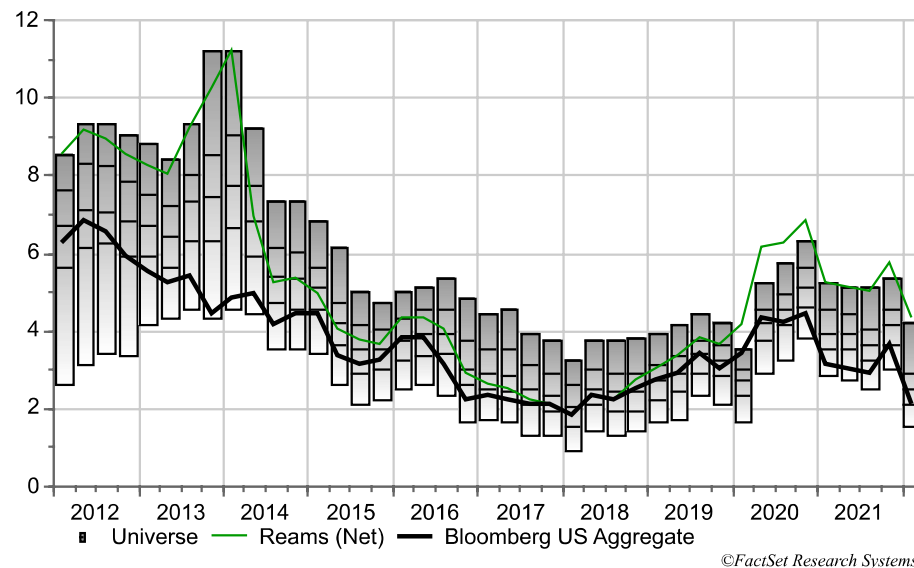


Three-Year Rolling Return Versus Benchmark



Rolling Returns 4/1/2007 –3/31/2022 (5 Year, 3 Month Shift)

Universe: Lipper US Core Plus Bond



Over/Under Benchmark Analysis

33	Outperform
7	Underperform
40	# Observations
83%	% Outperform

March 31, 2022



City of Milwaukee Employees' Retirement System

Investment Measurement Service Quarterly Review

Information contained herein includes confidential, trade secret and proprietary information. Neither this Report nor any specific information contained herein is to be used other than by the intended recipient for its intended purpose or disseminated to any other person without Callan's permission. Certain information herein has been compiled by Callan and is based on information provided by a variety of sources believed to be reliable for which Callan has not necessarily verified the accuracy or completeness of or updated. This content may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. This content is for informational purposes only and should not be construed as legal or tax advice on any matter. Any decision you make on the basis of this content is your sole responsibility. You should consult with legal and tax advisers before applying any of this information to your particular situation. Past performance is no guarantee of future results. For further information, please see the Appendix section in your investment measurement service quarterly review report for Important Information and Disclosures.

Table of Contents

March 31, 2022

Capital Markets Review	1
Total Fund	
Investment Manager Asset Allocation	7
Actual vs. Target Asset Allocation	8
Total Fund vs. Total Public Fund Database	10
Investment Manager Returns - Gross of Fee	13
Investment Manager Returns - Net of Fee	17
Asset Class Rankings	19
Active Share Structure Analysis	21
Total Equity Style Analysis	22
Manager Comparison Style Analysis	24
Callan Research/Education	25
Disclosures	28

U.S. EQUITY

- The S&P 500 Index fell 4.6% in 1Q22, but was down more than 12% early in March before rallying into quarter-end.
- Value stocks sharply outpaced growth across capitalizations, with the spread exceeding 10% in both mid and small caps and just over 8% in large caps.
- Energy (+39%) was the best-performing sector given a 33% spike in WTI crude oil prices. Commodity-linked Materials and Utilities sectors also performed well on a relative basis.
- Communication Services (-12%), Consumer Discretionary (-9%), and Information Technology (-8%) were the worst-performing sectors.
- Uncertainty over rates, inflation, and geopolitical tensions all contributed to a volatile and risk-averse environment.
- Interestingly, the Russell Dynamic Index (-4.3%) outperformed the Russell Defensive Index (-5.9%) during the 1Q downturn.

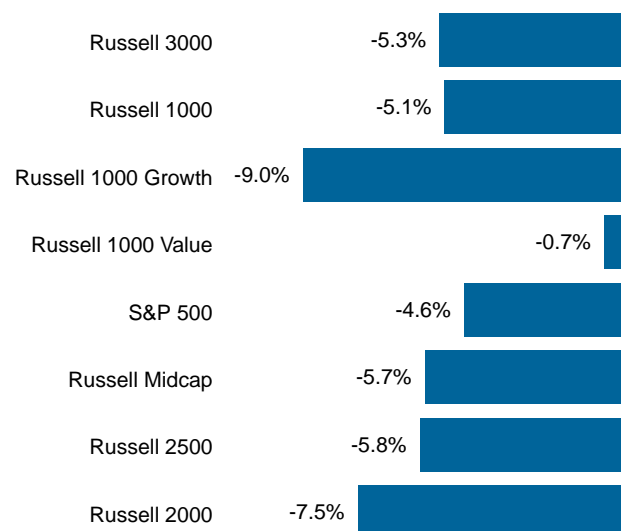
Historical small cap discount relative to large cap

- The Russell 2000 Index continues to underperform the Russell 1000 Index; the small cap index now trails large cap by almost 1,660 basis points cumulatively on a three-year basis and over 2,360 bps on a five-year basis.

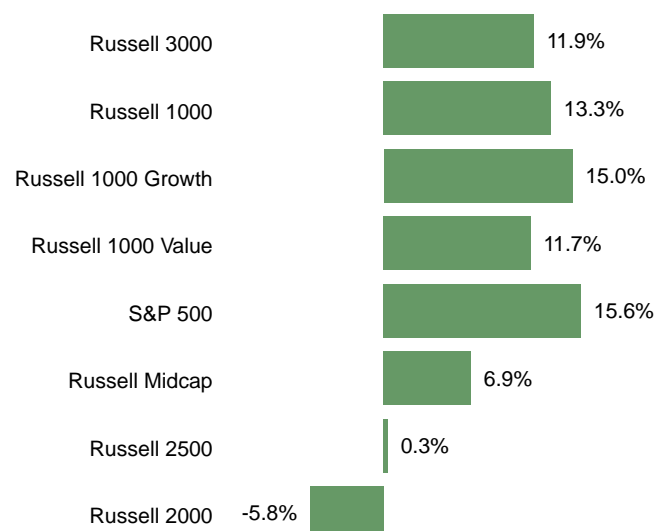
Index concentration

- Index concentration continues despite negative 1Q core index returns and falling earnings contribution.
- Among mega cap tech stocks, Apple and Microsoft now seen as providing downside protection
- Index concentration continues to cause active managers significant headwinds in the large cap growth space—the Russell 1000 Growth Index has nearly 50% of its capitalization in just the top 10 names (Apple and Microsoft are greater than 10% weights).

U.S. Equity: Quarterly Returns

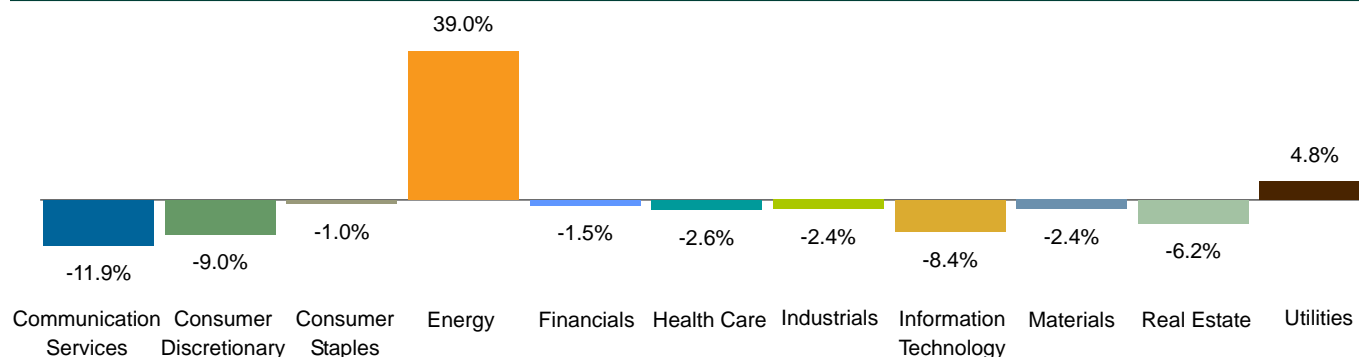


U.S. Equity: One-Year Returns



Sources: FTSE Russell, S&P Dow Jones Indices

S&P Sector Returns, Quarter Ended 3/31/22



Source: S&P Dow Jones Indices

GLOBAL EQUITY

War in Ukraine stoked market volatility

- In the aftermath of invading Ukraine, Russia faced condemnation and sanctions that crippled its stocks, bonds, and currency and shocked the global markets.
- The fog of war exacerbated inflationary concerns and led to a surge in energy prices, as Russia is the second-largest natural gas provider and third-largest oil producer in the world.
- Energy exporters notably outperformed importers given the soaring prices.

Fears of COVID-19

- A resurgence of COVID-19 cases in Europe and Asia, specifically in China, weighed on the global recovery.
- China's zero-COVID policy has injected doubt into its 2022 projected GDP growth of 5.5%, which is already its lowest annual target in more than 25 years.

Growth vs. value

- Value sectors such as Energy, Materials, and Financials were in favor relative to growth sectors like Consumer Discretionary and Information Technology, due to recession fears and a tightening monetary cycle.
- However, Energy was the worst performer within emerging markets due to the removal of Russia from indices.

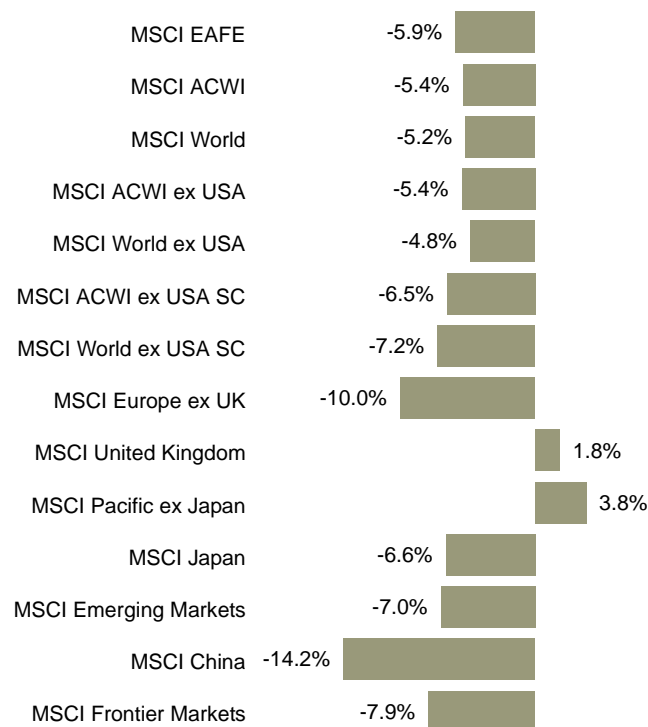
U.S. dollar vs. other currencies

- With the uncertainty of war, the U.S. dollar strengthened against other major currencies, including the yen, as the Bank of Japan maintained an easing policy.

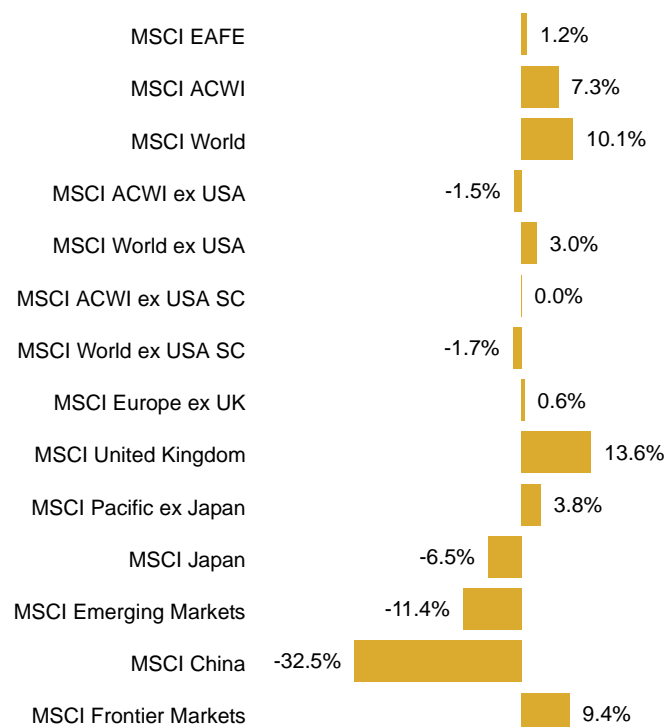
Value is attractive relative to history

- There are attractive valuations in multiple regions.
- Growth relative to value is more vulnerable as interest rates normalize.
- Global recovery from COVID and deficit in Energy should support value.
- Value sectors are underexposed in international indices relative to history.
- Value outperforms in “heating up” inflationary environments.

Global Equity: Quarterly Returns



Global Equity: One-Year Returns



Source: MSCI

U.S. FIXED INCOME

Bonds hit hard as rates rose sharply

- Bloomberg Aggregate worst quarterly return since 1980
- Curve flattened; as of 3/31 5-year U.S. Treasury yield was 10 bps higher than 10-year UST yield (2.42% vs. 2.32%).
- TIPS topped nominal Treasuries, and 10-year breakeven spread widened to 2.84% from 2.56% at year-end.
- Fed raised rates by 25 bps, with many more hikes expected this year.

Credit sectors underperformed

- Investment-grade corporates underperformed duration-matched U.S. Treasuries by 145 bps, RMBS by 71 bps.
- High yield “benefited” from less interest rate sensitivity and relatively higher exposure to the energy sector; excess return vs. U.S. Treasuries was 92 bps.
- Defaults remain low (less than 1%) and yield breached 6%.

Leveraged loans performed relatively well

- Helped by floating rate coupons/low duration

Securitized sectors also performed well

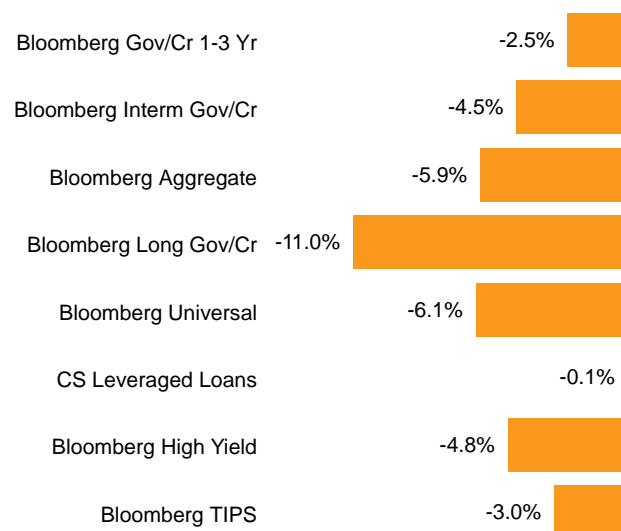
- Consumer ABS was the best within the sector due to its shorter duration profile and solid consumer spending.
- Conduit CMBS traded in line as the economy re-opens.
- Agency MBS saw duration extend by 0.4 year due to higher rates.
- The U.S. yield curve “bear-flattened” as the Fed pivoted to focus on higher-than-expected inflation.
- The U.S. yield curve (2Y/10Y) inverted on the last (intra) day of the quarter, which has not been seen since Aug. 2019.
- Despite rates moving higher this year, could the recent back-up indicate a new regime of higher rates, or is the market simply trading to the higher end of this secular range that has persisted for nearly 40 years?

MUNICIPAL BONDS

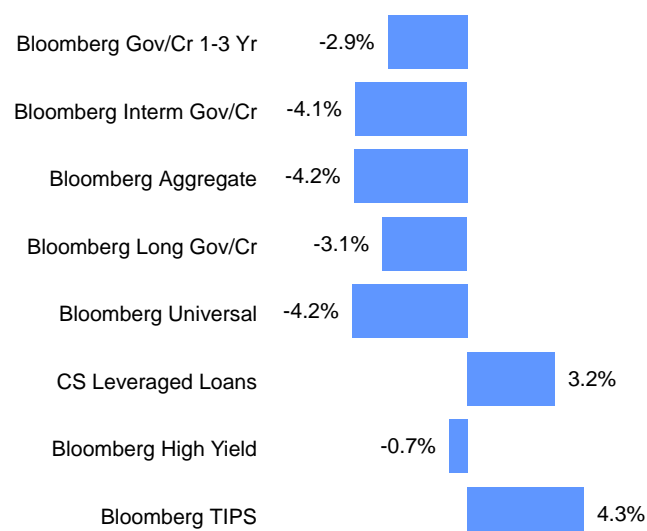
Municipal bond returns hurt by rising rates

- Bloomberg Municipal Bond Index suffered its worst quarterly return since 3Q81.
- Lower quality underperformed: BBB -7.1%; AAA -6.1%
- As with U.S. Treasuries, the muni yield curve flattened with 2-year yields rising more than 10-year and 30-year yields

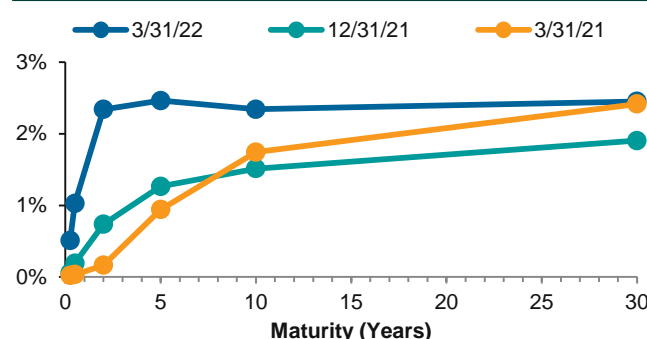
U.S. Fixed Income: Quarterly Returns



U.S. Fixed Income: One-Year Returns



U.S. Treasury Yield Curves



Sources: Bloomberg, Credit Suisse

MUNICIPAL BONDS (cont.)**Valuations relatively attractive**

- 10-year AAA Muni/10-year U.S. Treasury ratio = 94%
- Up from 68% at year-end; 10-year median = 90%
- Municipal Bond Index after-tax yield = 4.4% (tax rate of 37%)

Supply/demand

- Heavy outflows in 1Q22 following record inflows in 2021
- \$22 billion in outflows in 1Q (one-fifth of 2021 inflows)
- Supply down modestly vs. 1Q21

Credit quality remains stable to improving

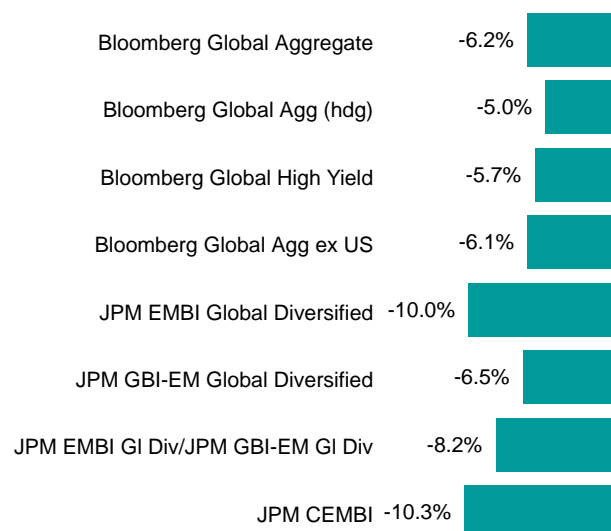
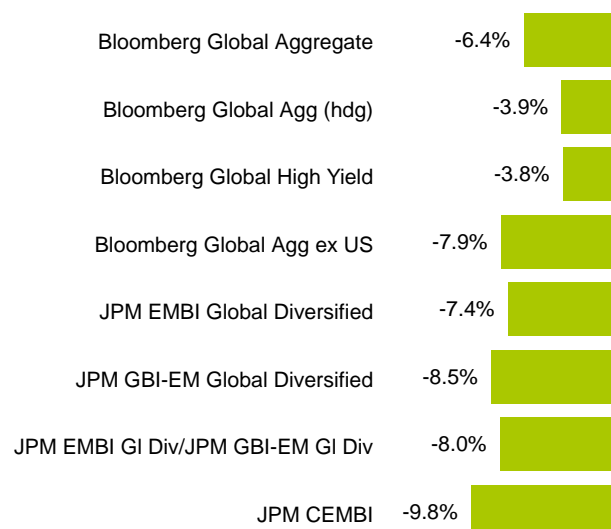
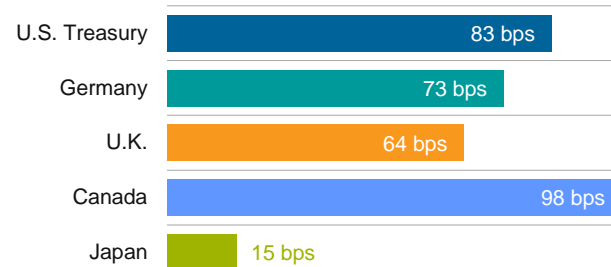
- Tax revenues continued to rise and reserve levels are high
- Upgrades outpaced downgrades

GLOBAL FIXED INCOME**Negative returns driven by broad interest rate increases**

- U.S. dollar appreciated against the Japanese yen, euro, and British pound.

Emerging market debt was not spared

- JPM Global Diversified hurt by rising rates in the U.S.
- GBI-EM hurt by rising local rates, but currency appreciation helped in Latin America and Africa.
- Russia removed from indices at a price of \$0 (-100% return).

Global Fixed Income: Quarterly Returns**Global Fixed Income: One-Year Returns****Change in 10-Year Global Government Bond Yields****4Q21 to 1Q22**

Sources: Bloomberg, JP Morgan

Investment Manager Asset Allocation

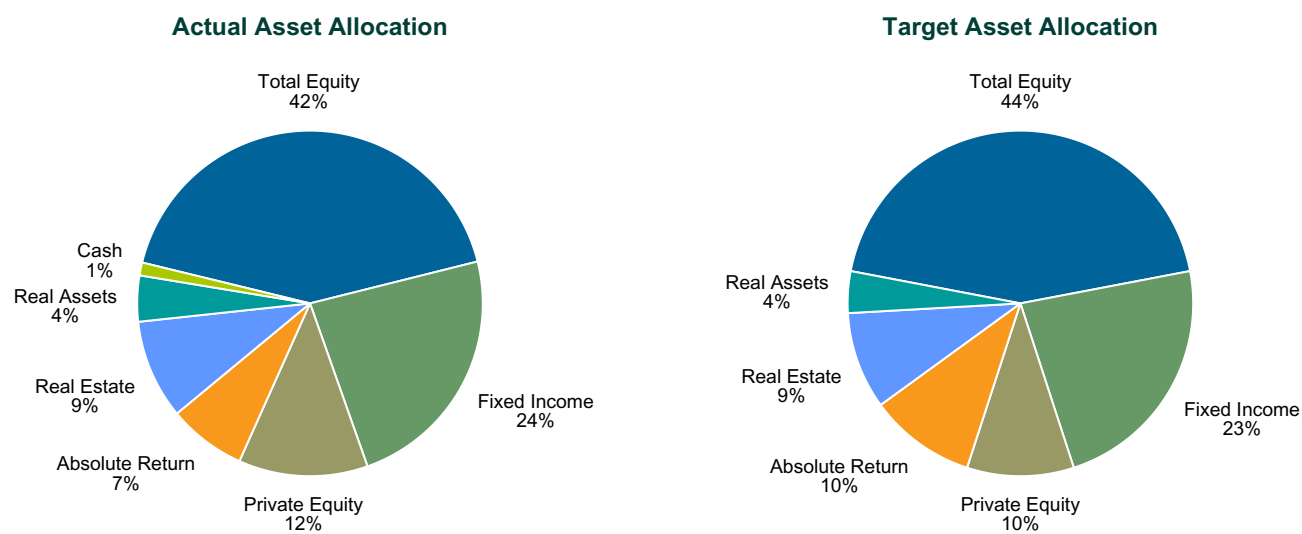
The table below contrasts the distribution of assets across the Fund's investment managers as of March 31, 2022, with the distribution as of December 31, 2021.

Asset Distribution Across Investment Managers

	March 31, 2022		December 31, 2021	
	Market Value	Weight	Market Value	Weight
Total Domestic Equity	\$1,218,780,744	19.80%	\$1,225,055,592	19.70%
BlackRock Russell 1000 Value	161,110,859	2.62%	162,342,754	2.61%
DFA Large Cap Value	160,609,212	2.61%	160,098,792	2.57%
Northern Trust Global	332,088,512	5.39%	329,597,979	5.30%
Polen Capital Management	154,641,096	2.51%	155,925,522	2.51%
Earnest Partners LLC	117,395,530	1.91%	124,222,736	2.00%
DFA Small Cap Value	198,062,605	3.22%	198,175,261	3.19%
CastleArk Management	94,872,932	1.54%	94,692,549	1.52%
Total Global Equity	\$480,157,017	7.80%	\$514,044,092	8.27%
BlackRock Global Alpha Tilts	289,018,287	4.69%	310,576,017	4.99%
MFS Investment Management	191,138,731	3.10%	203,468,075	3.27%
Total International Equity	\$903,955,073	14.68%	\$973,838,505	15.66%
AQR Emerging Markets	91,162,238	1.48%	94,625,993	1.52%
Brandes Investment Partners	364,701,775	5.92%	386,359,448	6.21%
William Blair & Company	262,240,277	4.26%	294,789,424	4.74%
DFA International Small Cap	185,850,783	3.02%	198,063,639	3.19%
Total Fixed Income	\$1,446,956,245	23.50%	\$1,384,433,408	22.26%
BlackRock US Govt Bond	401,669,346	6.52%	424,668,206	6.83%
Reams Asset Management	594,119,824	9.65%	516,683,840	8.31%
Loomis, Sayles & Company, L.P.	451,167,075	7.33%	443,081,362	7.13%
Total Private Equity	\$746,031,706	12.12%	\$770,114,625	12.39%
Abbott Capital Management 2010	28,305,063	0.46%	29,880,063	0.48%
Abbott Capital Management 2011	58,339,194	0.95%	61,089,194	0.98%
Abbott Capital Management 2012	49,026,793	0.80%	51,626,793	0.83%
Abbott Capital Management 2013	47,754,822	0.78%	50,204,822	0.81%
Abbott Capital Management 2014	51,945,588	0.84%	54,745,588	0.88%
Abbott Capital Management 2015	36,205,084	0.59%	38,092,584	0.61%
Abbott Capital Management 2016	27,699,416	0.45%	28,579,416	0.46%
Abbott Capital Management 2018	17,962,563	0.29%	17,222,563	0.28%
Abbott Capital Management 2019	13,385,148	0.22%	13,385,148	0.22%
Abbott Capital Management 2020	11,889,608	0.19%	11,889,608	0.19%
Abbott Capital Management 2021	4,642,156	0.08%	2,982,156	0.05%
Abbott Capital Management 2022	1,225,000	0.02%	-	-
Mesirow V	59,416,304	0.97%	63,691,304	1.02%
Mesirow VI	90,118,955	1.46%	94,498,955	1.52%
Mesirow VII	113,397,816	1.84%	114,916,758	1.85%
Mesirow VIII	35,825,430	0.58%	35,825,430	0.58%
NB Secondary Opp Fund III	8,555,192	0.14%	9,092,478	0.15%
NB Secondary Opp Fund IV	17,861,084	0.29%	19,525,286	0.31%
NB Secondary Opp Fund V	3,125,000	0.05%	-	-
Private Advisors VI	22,511,350	0.37%	26,546,578	0.43%
Private Advisors VII	14,696,819	0.24%	15,765,520	0.25%
Private Advisors VIII	13,748,774	0.22%	13,462,488	0.22%
Private Advisors IX	18,394,547	0.30%	17,091,893	0.27%
Absolute Return	\$449,877,178	7.31%	\$443,410,582	7.13%
UBS A & Q	449,877,178	7.31%	443,410,582	7.13%
Real Assets	\$264,014,036	4.29%	\$258,013,600	4.15%
Principal DRA	264,014,036	4.29%	258,013,600	4.15%
Total Real Estate	\$570,720,678	9.27%	\$545,009,761	8.76%
Real Estate	570,720,678	9.27%	545,009,761	8.76%
Total Cash	\$75,577,264	1.23%	\$104,133,681	1.67%
Cash	75,577,264	1.23%	104,133,681	1.67%
Total Fund	\$6,156,069,941	100.0%	\$6,218,053,846	100.0%

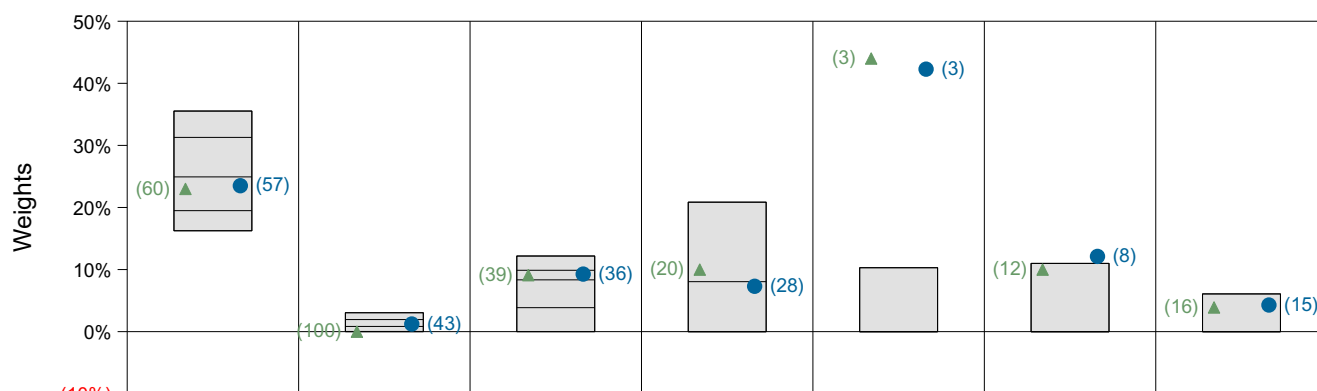
Actual vs Target Asset Allocation As of March 31, 2022

The top left chart shows the Fund's asset allocation as of March 31, 2022. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Public Fund Sponsor Database.



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Total Equity	2,602,893	42.3%	44.0%	(1.7%)	(105,778)
Fixed Income	1,446,956	23.5%	23.0%	0.5%	31,060
Private Equity	746,032	12.1%	10.0%	2.1%	130,425
Absolute Return	449,877	7.3%	10.0%	(2.7%)	(165,730)
Real Estate	570,721	9.3%	9.1%	0.2%	10,518
Real Assets	264,014	4.3%	3.9%	0.4%	23,927
Cash	75,577	1.2%	0.0%	1.2%	75,577
Total	6,156,070	100.0%	100.0%		

Asset Class Weights vs Callan Public Fund Sponsor Database



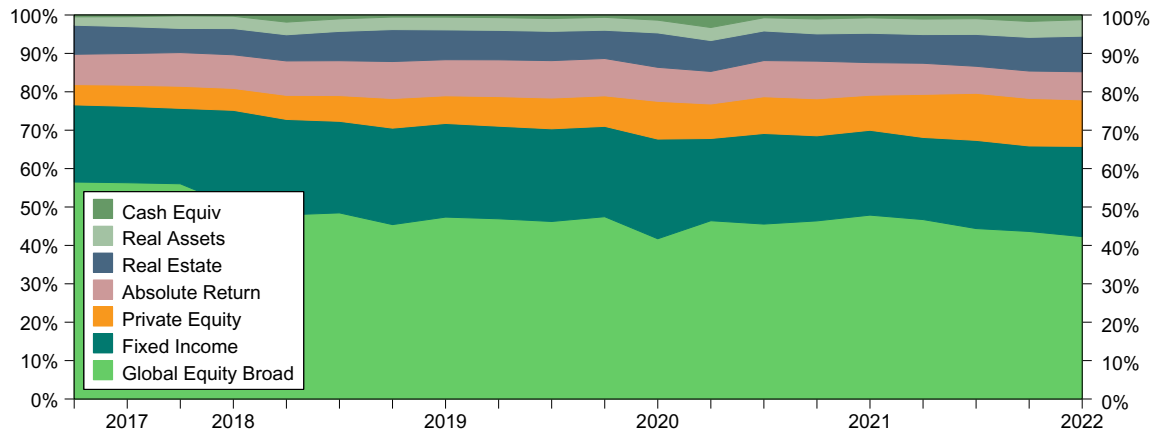
10th Percentile	35.53	3.05	12.18	20.86	10.30	10.99	6.08
25th Percentile	31.29	1.94	9.88	8.05	0.00	0.00	0.00
Median	24.93	0.84	8.34	0.00	0.00	0.00	0.00
75th Percentile	19.49	0.03	3.86	0.00	0.00	0.00	0.00
90th Percentile	16.25	0.00	0.00	0.00	0.00	0.00	0.00
Fund ●	23.50	1.23	9.27	7.31	42.28	12.12	4.29
Target ▲	23.00	0.00	9.10	10.00	44.00	10.00	3.90
% Group Invested	99.13%	77.39%	79.13%	33.04%	14.78%	24.35%	20.00%

* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmgb Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

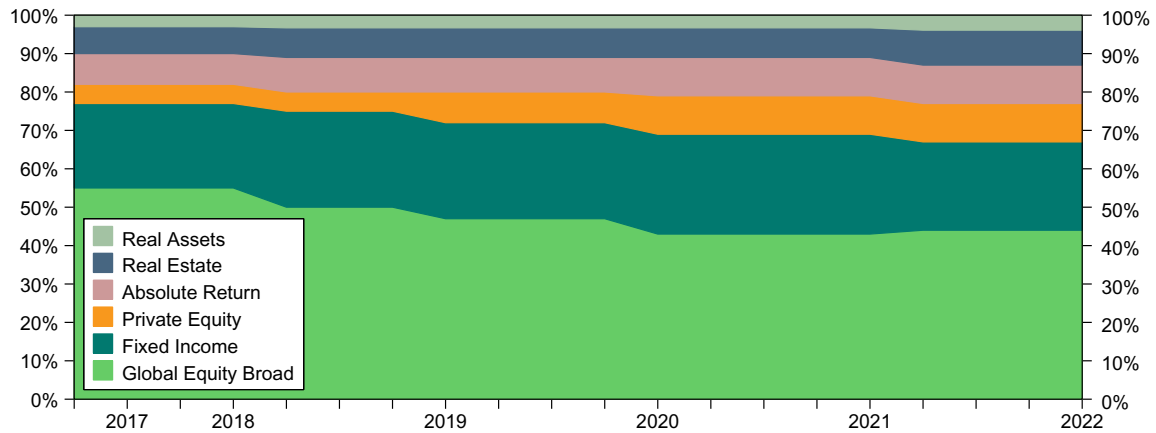
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Sponsor Database.

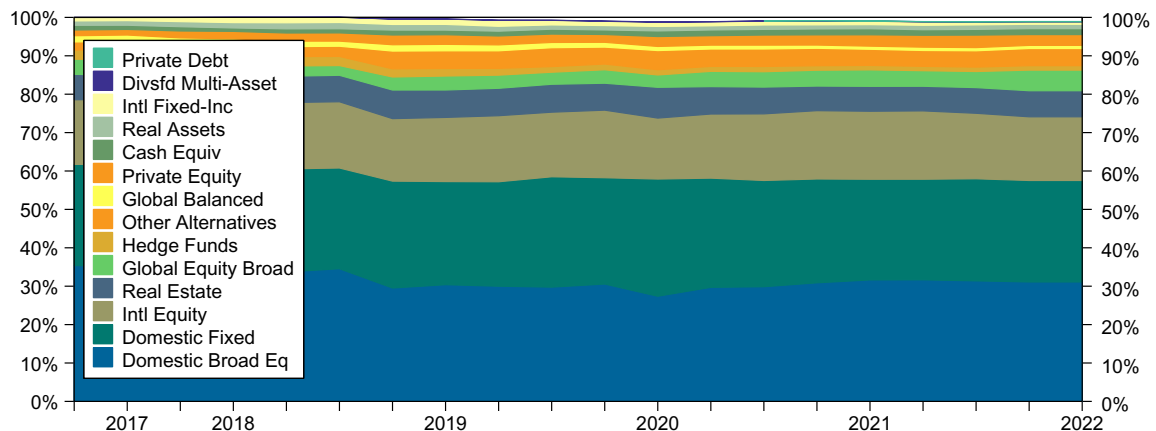
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average Callan Public Fund Sponsor Database Historical Asset Allocation



* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

Total Fund Period Ended March 31, 2022

Investment Philosophy

The Public Fund Sponsor Database consists of public employee pension total funds including both Callan Associates client and surveyed non-client funds. Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

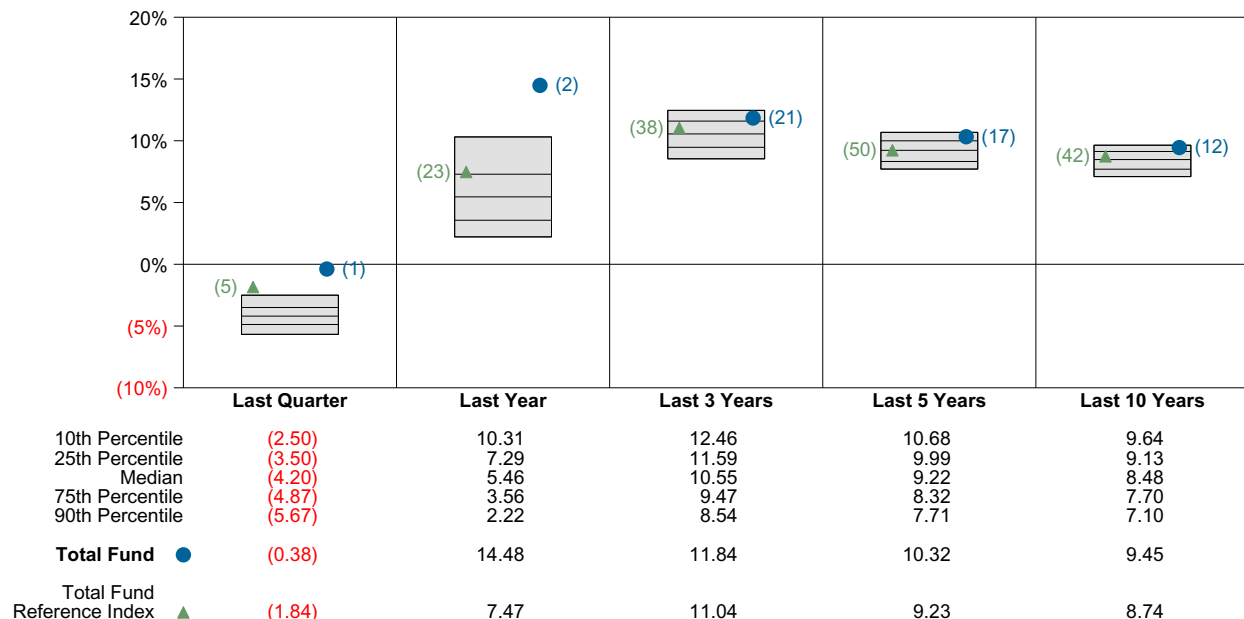
Quarterly Summary and Highlights

- Total Fund's portfolio posted a (0.38)% return for the quarter placing it in the 1 percentile of the Callan Public Fund Sponsor Database group for the quarter and in the 2 percentile for the last year.
- Total Fund's portfolio outperformed the Total Fund Reference Index by 1.46% for the quarter and outperformed the Total Fund Reference Index for the year by 7.01%.

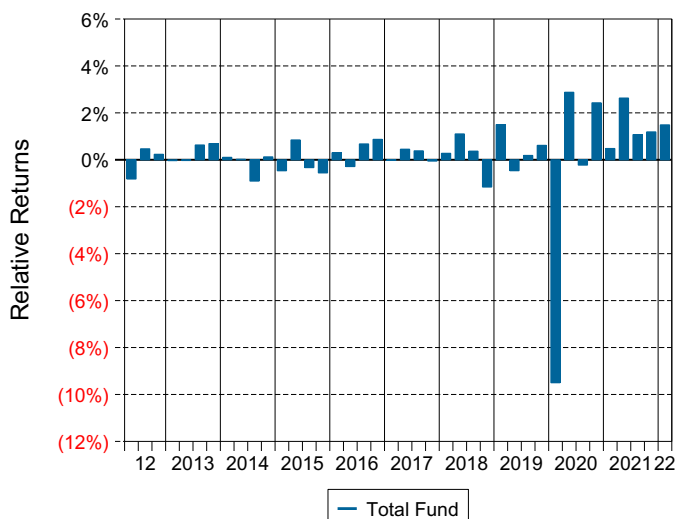
Quarterly Asset Growth

Beginning Market Value	\$6,218,053,846
Net New Investment	\$-34,808,218
Investment Gains/(Losses)	\$-27,175,687
Ending Market Value	\$6,156,069,941

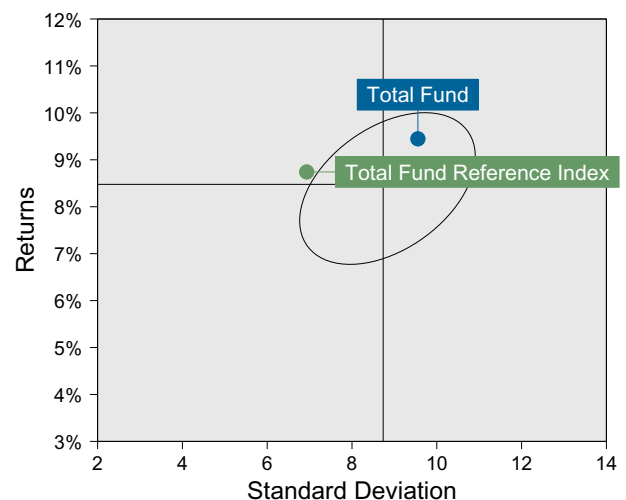
Performance vs Callan Public Fund Sponsor Database (Gross)



Relative Return vs Total Fund Reference Index



Callan Public Fund Sponsor Database (Gross) Annualized Ten Year Risk vs Return

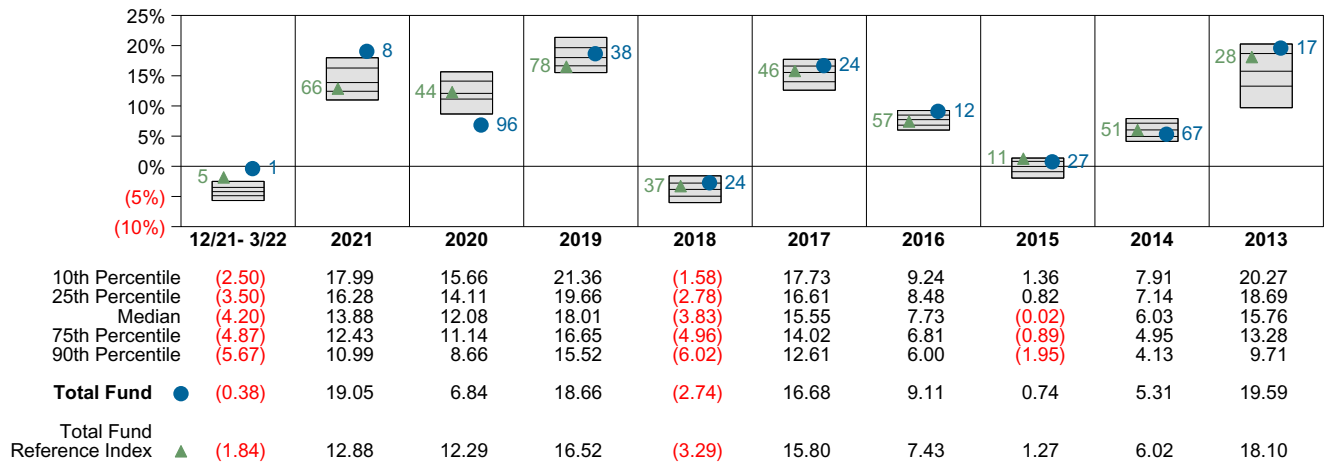


Total Fund Return Analysis Summary

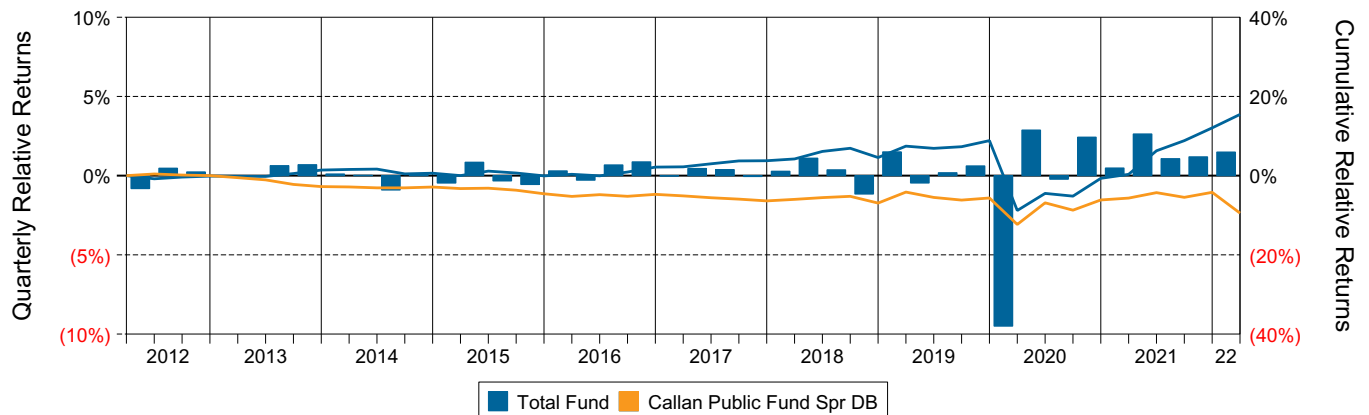
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

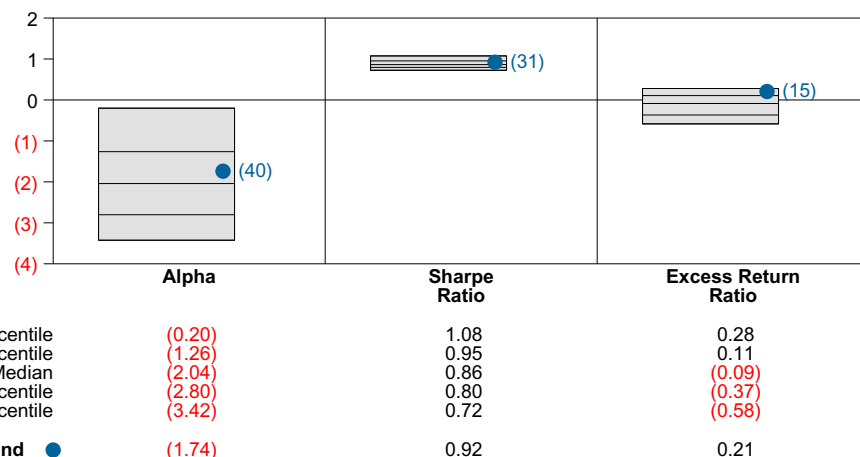
Performance vs Callan Public Fund Sponsor Database (Gross)



Cumulative and Quarterly Relative Returns vs Total Fund Reference Index



Risk Adjusted Return Measures vs Total Fund Reference Index Rankings Against Callan Public Fund Sponsor Database (Gross) Ten Years Ended March 31, 2022



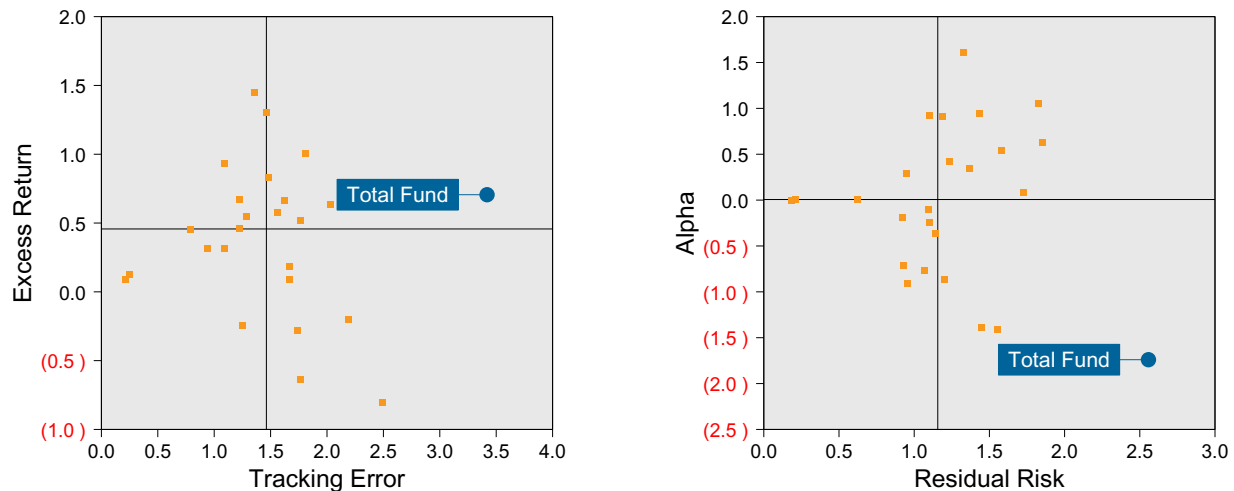
Total Fund

Total Fund vs Target Risk Analysis

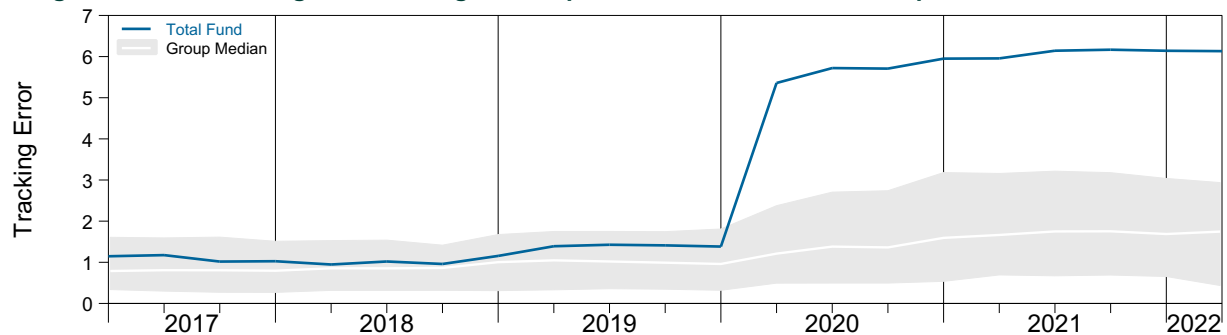
Risk Analysis

The graphs below analyze the performance and risk of the fund relative to the appropriate target mix. This relative performance is compared to a peer group of funds wherein each member fund is measured against its own target mix. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the target. The second scatter chart displays the relationship, sometimes called Information Ratio, between alpha (market-risk or "beta" adjusted return) and residual risk (non-market or "unsystematic" risk). The third chart shows tracking error patterns over time compared to the range of tracking error patterns for the peer group. The last two charts show the ranking of the fund's risk statistics versus the peer group.

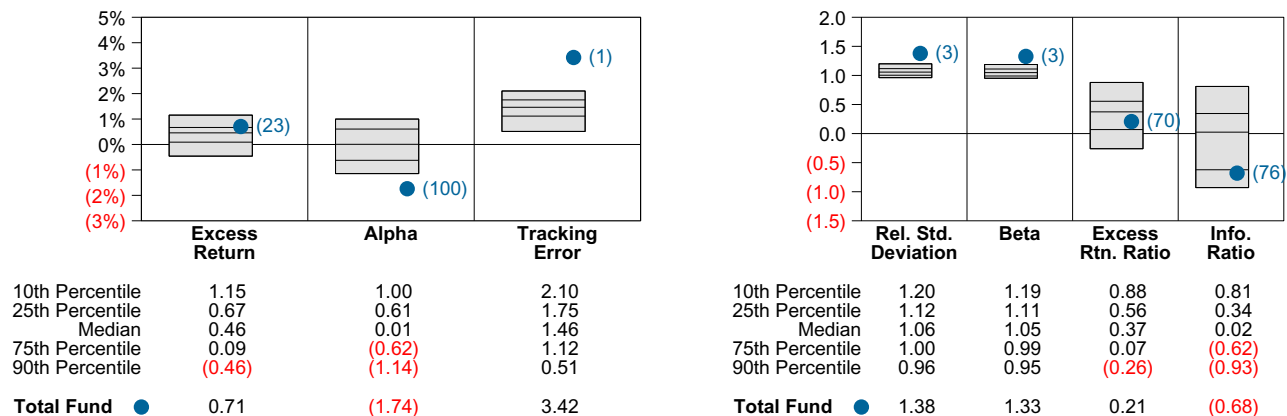
Risk Analysis vs Callan Public Fund Sponsor Database Ten Years Ended March 31, 2022



Rolling 12 Quarter Tracking Error vs Targets Compared to Callan Public Fund Sponsor Database



Risk Statistics Rankings vs Targets Rankings Against Callan Public Fund Sponsor Database Ten Years Ended March 31, 2022



Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns and Rankings for Periods Ended March 31, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	
Total Domestic Equity	(4.58%)	28	10.04%	69	17.19%	54	14.69%	46	8.46%	(7/98)
Russell 3000 Index	(5.28%)	59	11.92%	35	18.24%	18	15.40%	19	8.18%	(7/98)
Pub Pln- Dom Equity	(5.14%)		11.11%		17.25%		14.60%		-	
BlackRock Russell 1000 Value	(0.76%)	79	11.64%	83	13.26%	72	10.49%	72	10.47%	(3/17)
Russell 1000 Value Index	(0.74%)	79	11.67%	83	13.02%	78	10.29%	82	9.89%	(3/17)
Callan Large Cap Value	0.45%		14.04%		14.59%		11.56%		-	
DFA Large Cap Value	0.32%	52	11.20%	85	12.79%	81	-		9.55%	(11/17)
Russell 1000 Value Index	(0.74%)	79	11.67%	83	13.02%	78	10.29%	82	10.43%	(11/17)
Callan Large Cap Value	0.45%		14.04%		14.59%		11.56%		-	
Northern Trust Global	(4.59%)	53	15.64%	30	18.93%	47	16.02%	34	11.12%	(8/88)
S&P 500 Index	(4.60%)	53	15.65%	30	18.92%	48	15.99%	34	11.07%	(8/88)
Callan Large Cap Core	(4.59%)		13.91%		18.61%		15.70%		-	
Polen Capital Management	(13.10%)	81	6.57%	65	20.23%	45	21.02%	17	18.06%	(7/12)
S&P 500 Index	(4.60%)	1	15.65%	11	18.92%	71	15.99%	93	15.37%	(7/12)
Callan Large Cap Growth	(10.01%)		9.25%		20.04%		19.42%		-	
Earnest Partners LLC	(5.50%)	52	8.70%	42	18.64%	12	16.23%	21	12.16%	(5/05)
Russell MidCap Index	(5.68%)	53	6.92%	54	14.89%	65	12.62%	50	10.55%	(5/05)
Callan Mid Capitalization	(4.99%)		7.26%		15.83%		12.74%		-	
DFA Small Cap Value	0.99%	9	11.97%	17	16.38%	26	10.27%	34	12.12%	(11/96)
Russell 2000 Value Index	(2.40%)	54	3.32%	79	12.73%	71	8.57%	71	9.68%	(11/96)
Callan Small Cap Value	(2.25%)		7.67%		13.92%		9.41%		-	
CastleArk Management	(14.66%)	74	(9.93%)	63	13.10%	72	15.76%	54	12.78%	(9/13)
Russell 2000 Growth Index	(12.63%)	50	(14.33%)	79	9.88%	94	10.33%	96	10.24%	(9/13)
Callan Small Cap Growth	(12.62%)		(7.81%)		15.16%		16.44%		-	
Total Global Equity	(6.12%)	49	6.89%	41	15.17%	35	14.03%	33	10.21%	(4/10)
MSCI World	(5.15%)	36	10.12%	14	14.98%	36	12.42%	50	10.19%	(4/10)
Callan Global Equity	(6.30%)		5.95%		14.18%		12.38%		-	
BlackRock Global Alpha Tilts	(5.22%)	38	7.09%	38	13.80%	55	12.25%	53	14.02%	(3/16)
MSCI ACWI Gross	(5.26%)	39	7.73%	31	14.30%	48	12.20%	54	13.93%	(3/16)
Callan Global Equity	(6.30%)		5.95%		14.18%		12.38%		-	
MFS Investment Management	(7.42%)	56	6.67%	43	17.29%	14	16.68%	9	13.81%	(12/12)
MSCI ACWI Gross	(5.26%)	39	7.73%	31	14.30%	48	12.20%	54	11.14%	(12/12)
Callan Global Equity	(6.30%)		5.95%		14.18%		12.38%		-	
Total International Equity	(6.33%)	38	0.28%	18	9.29%	35	7.19%	67	7.14%	(5/96)
MSCI EAFE	(5.91%)	30	1.16%	14	7.78%	76	6.72%	80	4.79%	(5/96)
Pub Pln- Intl Equity	(6.98%)		(2.08%)		8.94%		7.77%		-	
AQR Emerging Markets	(3.48%)	15	(7.47%)	25	8.20%	18	6.49%	49	8.29%	(8/16)
MSCI EM Gross	(6.92%)	35	(11.08%)	42	5.31%	59	6.36%	51	7.56%	(8/16)
Callan Emerging Broad	(8.86%)		(13.32%)		5.68%		6.38%		-	
Brandes Investment Partners	(2.64%)	15	2.16%	24	5.95%	89	5.09%	88	7.64%	(2/98)
MSCI EAFE	(5.91%)	44	1.16%	34	7.78%	66	6.72%	66	4.87%	(2/98)
Callan NonUS Eq	(6.66%)		(1.00%)		8.93%		7.72%		-	
William Blair & Company	(14.72%)	94	(2.83%)	67	13.61%	5	11.23%	7	8.37%	(12/03)
MSCI ACWIxUS Gross	(5.33%)	35	(1.04%)	50	8.01%	63	7.26%	55	6.96%	(12/03)
Callan NonUS Eq	(6.66%)		(1.00%)		8.93%		7.72%		-	
DFA International Small Cap	(2.57%)	9	4.81%	7	8.83%	49	4.99%	88	5.09%	(5/06)
Blended Benchmark	(8.53%)	37	(3.63%)	51	8.51%	57	7.42%	39	4.22%	(5/06)
Callan Intl Small Cap	(10.40%)		(3.24%)		8.77%		6.91%		-	

Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns and Rankings for Periods Ended March 31, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	
Total Fixed Income	(0.31%)	1	2.03%	1	1.47%	90	2.41%	64	6.95%	(12/87)
Bimbg Aggregate	(5.93%)	80	(4.15%)	94	1.69%	83	2.14%	78	5.82%	(12/87)
Pub Pln- Dom Fixed	(4.98%)		(3.33%)		2.36%		2.76%		-	
BlackRock US Govt Bond	(5.42%)	7	-	-	-	-	-	-	-	
Bimbg Aggregate	(5.93%)	69	(4.15%)	82	1.69%	96	2.14%	95	-	
Callan Core Bond FI	(5.81%)		(3.79%)		2.33%		2.70%		-	
Reams Asset Management	(5.49%)	30	(3.21%)	43	4.92%	2	4.52%	2	5.44%	(1/01)
Bimbg Aggregate	(5.93%)	58	(4.15%)	89	1.69%	98	2.14%	99	4.17%	(1/01)
Callan Core Plus FI	(5.83%)		(3.29%)		2.83%		3.11%		-	
Loomis, Sayles & Company, L.P.	(5.70%)	35	(2.89%)	18	3.75%	10	4.00%	7	8.51%	(12/87)
Bimbg Aggregate	(5.93%)	58	(4.15%)	89	1.69%	98	2.14%	99	5.82%	(12/87)
Callan Core Plus FI	(5.83%)		(3.29%)		2.83%		3.11%		-	
Total Private Equity	(0.05%)		67.78%		33.71%		27.78%		14.87%	(6/10)
Russell 3000 (1 Qtr in Arrears) + 3%	9.85%		28.69%		29.11%		21.21%		-	
Abbott Capital Management 2010	0.00%		65.55%		33.89%		29.59%		3.37%	(6/10)
Abbott Capital Management 2011	0.00%		76.29%		39.65%		32.49%		7.70%	(6/11)
Abbott Capital Management 2012	0.00%		72.85%		38.03%		31.01%		15.44%	(7/12)
Abbott Capital Management 2013	0.00%		70.21%		38.43%		31.56%		16.57%	(5/13)
Abbott Capital Management 2014	0.00%		75.52%		38.53%		29.90%		16.05%	(4/14)
Abbott Capital Management 2015	0.00%		75.81%		33.15%		23.43%		17.13%	(4/15)
Abbott Capital Management 2016	(0.09%)		70.89%		30.93%		19.63%		15.60%	(3/16)
Abbott Capital Management 2018	(0.14%)		47.29%		24.84%		-		18.45%	(7/18)
Abbott Capital Management 2019	0.00%		57.98%		-		-		27.59%	(1/20)
Abbott Capital Management 2020	0.00%		65.36%		-		-		49.53%	(1/21)
Abbott Capital Management 2021	(0.28%)		11.05%		-		-		9.40%	(2/21)
Mesirow V	0.00%		79.27%		36.08%		29.23%		18.76%	(6/10)
Mesirow VI	0.00%		88.78%		44.15%		33.30%		17.97%	(7/13)
Mesirow VII	(0.02%)		60.24%		24.86%		-		4.07%	(6/17)
Mesirow VIII	0.00%		10.14%		-		-		(2.51%)	(9/20)
NB Secondary Opp Fund III	(1.44%)		28.46%		14.52%		16.42%		12.86%	(12/13)
NB Secondary Opp Fund IV	(1.29%)		49.17%		25.81%		25.29%		25.29%	(4/17)
Private Advisors VI	0.03%		83.78%		36.22%		27.09%		15.28%	(4/15)
Private Advisors VII	(0.00%)		52.55%		20.83%		15.21%		14.43%	(1/17)
Private Advisors VIII	0.00%		47.25%		17.81%		-		18.43%	(8/18)
Private Advisors IX	0.25%		37.43%		-		-		27.76%	(2/20)
Absolute Return	18.04%		25.58%		6.17%		5.68%		5.58%	(6/14)
UBS A & Q	1.46%	57	7.23%	44	9.70%	15	7.30%	15	6.03%	(12/14)
1-month LIBOR + 4%	1.05%	63	4.14%	61	4.76%	79	5.18%	41	4.92%	(12/14)
Callan Abs Rtn Hedge FoF	1.49%		6.51%		5.96%		4.42%		-	
Real Assets	5.99%		20.21%		11.70%		8.35%		8.36%	(1/16)
Principal DRA	5.99%	49	20.21%	48	11.70%	36	8.35%	41	8.36%	(1/16)
Principal Blended Benchmark (1)	6.84%	49	19.04%	49	10.11%	43	7.73%	42	7.66%	(1/16)
Callan Alternative Inv DB	5.76%		14.79%		7.92%		6.60%		-	
Total Real Estate	7.57%		29.59%		12.13%		10.70%		7.14%	(7/86)
Real Estate	7.57%	4	29.59%	14	12.13%	19	10.70%	15	7.14%	(7/86)
Blended Benchmark (2)	7.38%	6	21.88%	48	8.90%	61	8.18%	67	-	
Callan Tot Real Est DB	4.91%		21.34%		9.43%		9.18%		-	
Total Fund	(0.38%)	1	14.48%	2	11.84%	21	10.32%	17	9.67%	(1/79)
Total Fund Reference Index*	(1.84%)	5	7.47%	23	11.04%	38	9.23%	50	-	
Callan Public Fund Spr DB	(4.20%)		5.46%		10.55%		9.22%		-	

* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Bimbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

(1) Current Principal Blended Benchmark = 35% Bloomberg US Treasury US TIPS Idx, 15% Bloomberg Commodity Idx, 20% S&P Global Infrastructure Idx, 20% S&P Global Natural Resources Idx and 10% FTSE EPRA/NAREIT Developed Market Idx.

(2) Blended Benchmark = NCREIF (NPI) through 6/30/06, NCREIF (NPI 1 Qtr Arrears) through 12/31/13 and NFI-ODCE (1 Qtr Arrears) thereafter.

Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	12/2021- 3/2022		2021		2020		2019		2018	
Total Domestic Equity	(4.58%)	28	28.12%	13	16.35%	76	29.24%	75	(5.80%)	48
Russell 3000 Index	(5.28%)	59	25.66%	53	20.89%	25	31.02%	29	(5.24%)	33
Pub Pln- Dom Equity	(5.14%)		25.75%		18.62%		30.26%		(5.84%)	
BlackRock Russell 1000 Value	(0.76%)	79	25.18%	79	3.28%	46	26.79%	46	(8.12%)	43
Russell 1000 Value Index	(0.74%)	79	25.16%	79	2.80%	52	26.54%	50	(8.27%)	45
Callan Large Cap Value	0.45%		28.39%		3.04%		26.52%		(8.70%)	
DFA Large Cap Value	0.32%	52	27.52%	65	(1.56%)	90	26.71%	47	(12.40%)	84
Russell 1000 Value Index	(0.74%)	79	25.16%	79	2.80%	52	26.54%	50	(8.27%)	45
Callan Large Cap Value	0.45%		28.39%		3.04%		26.52%		(8.70%)	
Northern Trust Global	(4.59%)	53	28.69%	53	18.42%	53	31.54%	39	(4.34%)	33
S&P 500 Index	(4.60%)	53	28.71%	53	18.40%	53	31.49%	39	(4.38%)	33
Callan Large Cap Core	(4.59%)		28.98%		19.19%		30.50%		(5.33%)	
Polen Capital Management	(13.10%)	81	24.84%	43	35.13%	55	38.85%	11	9.14%	4
S&P 500 Index	(4.60%)	1	28.71%	20	18.40%	98	31.49%	76	(4.38%)	91
Callan Large Cap Growth	(10.01%)		24.26%		35.55%		34.55%		0.51%	
Earnest Partners LLC	(5.50%)	52	26.09%	48	21.61%	41	38.38%	12	(9.80%)	45
Russell MidCap Index	(5.68%)	53	22.58%	58	17.10%	48	30.54%	52	(9.06%)	41
Callan Mid Capitalization	(4.99%)		25.38%		16.17%		31.00%		(10.60%)	
DFA Small Cap Value	0.99%	9	40.61%	16	3.85%	45	18.79%	89	(14.84%)	53
Russell 2000 Value Index	(2.40%)	54	28.27%	64	4.63%	37	22.39%	64	(12.86%)	23
Callan Small Cap Value	(2.25%)		31.82%		2.88%		24.31%		(14.79%)	
CastleArk Management	(14.66%)	74	12.30%	42	45.10%	46	23.28%	86	3.29%	15
Russell 2000 Growth Index	(12.63%)	50	2.83%	80	34.63%	73	28.48%	54	(9.31%)	84
Callan Small Cap Growth	(12.62%)		10.73%		44.48%		30.25%		(2.91%)	
Total Global Equity	(6.12%)	49	19.03%	54	18.78%	43	31.05%	27	(8.18%)	40
MSCI World	(5.15%)	36	21.82%	28	15.90%	55	27.67%	49	(8.71%)	44
Callan Global Equity	(6.30%)		19.47%		17.13%		27.49%		(9.52%)	
BlackRock Global Alpha Tilts	(5.22%)	38	18.73%	57	16.53%	52	26.86%	53	(11.20%)	67
MSCI ACWI Gross	(5.26%)	39	19.04%	54	16.82%	51	27.30%	51	(8.93%)	46
Callan Global Equity	(6.30%)		19.47%		17.13%		27.49%		(9.52%)	
MFS Investment Management	(7.42%)	56	19.56%	49	22.42%	32	37.31%	4	(3.75%)	11
MSCI ACWI Gross	(5.26%)	39	19.04%	54	16.82%	51	27.30%	51	(8.93%)	46
Callan Global Equity	(6.30%)		19.47%		17.13%		27.49%		(9.52%)	
Total International Equity	(6.33%)	38	13.08%	12	10.84%	73	21.68%	74	(15.19%)	69
MSCI EAFE	(5.91%)	30	11.26%	22	7.82%	90	22.01%	64	(13.79%)	42
Pub Pln- Intl Equity	(6.98%)		8.89%		13.20%		22.93%		(14.03%)	
AQR Emerging Markets	(3.48%)	15	1.23%	36	18.26%	49	20.54%	63	(18.31%)	86
MSCI EM Gross	(6.92%)	35	(2.22%)	55	18.69%	44	18.90%	71	(14.24%)	28
Callan Emerging Broad	(8.86%)		(0.75%)		18.17%		22.12%		(15.34%)	
Brandes Investment Partners	(2.64%)	15	14.42%	18	(1.30%)	96	15.31%	98	(8.79%)	6
MSCI EAFE	(5.91%)	44	11.26%	52	7.82%	66	22.01%	66	(13.79%)	36
Callan NonUS Eq	(6.66%)		11.45%		11.48%		23.78%		(15.13%)	
William Blair & Company	(14.72%)	94	13.27%	30	31.44%	6	31.58%	9	(16.86%)	73
MSCI ACWIxUS Gross	(5.33%)	35	8.29%	71	11.13%	51	22.13%	64	(13.77%)	35
Callan NonUS Eq	(6.66%)		11.45%		11.48%		23.78%		(15.13%)	
DFA International Small Cap	(2.57%)	9	16.47%	14	1.47%	89	21.62%	81	(23.31%)	91
Blended Benchmark	(8.53%)	37	10.10%	72	12.34%	45	24.96%	50	(17.89%)	30
Callan Intl Small Cap	(10.40%)		12.78%		11.08%		24.96%		(19.67%)	

Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	12/2021- 3/2022		2021		2020		2019		2018	
Total Fixed Income	(0.31%)	1	(0.36%)	41	(1.82%)	98	11.82%	6	(0.33%)	72
Bimbg Aggregate	(5.93%)		(1.54%)		7.51%	65	8.72%		0.01%	
Pub Pln- Dom Fixed	(4.98%)	80	(0.70%)	90	8.37%		8.97%	58	0.11%	57
BlackRock US Govt Bond	(5.42%)	7	-		-		-		-	
Bimbg Aggregate	(5.93%)	69	(1.54%)	88	7.51%	94	8.72%	82	0.01%	62
Callan Core Bond FI	(5.81%)		(1.04%)		8.70%		9.17%		0.11%	
Reams Asset Management	(5.49%)	30	(1.23%)	91	17.28%	2	8.82%	92	1.91%	1
Bimbg Aggregate	(5.93%)	58	(1.54%)	97	7.51%	91	8.72%	93	0.01%	30
Callan Core Plus FI	(5.83%)		(0.26%)		9.25%		10.03%		(0.24%)	
Loomis, Sayles & Company, L.P.	(5.70%)	35	2.13%	5	7.14%	92	14.42%	1	(2.11%)	98
Bimbg Aggregate	(5.93%)	58	(1.54%)	97	7.51%	91	8.72%	93	0.01%	30
Callan Core Plus FI	(5.83%)		(0.26%)		9.25%		10.03%		(0.24%)	
Total Private Equity	(0.05%)		67.66%		22.14%		16.63%		21.48%	
Russell 3000 (1 Qtr in Arrears) + 3%	9.85%		34.93%		18.77%		6.19%		20.60%	
Abbott Capital Management 2010	0.00%		65.55%		24.43%		16.52%		26.90%	
Abbott Capital Management 2011	0.00%		76.29%		29.13%		19.64%		25.70%	
Abbott Capital Management 2012	0.00%		72.85%		29.04%		17.91%		24.39%	
Abbott Capital Management 2013	0.00%		70.21%		28.65%		21.13%		25.17%	
Abbott Capital Management 2014	0.00%		75.52%		26.51%		19.74%		22.58%	
Abbott Capital Management 2015	0.00%		75.81%		16.62%		15.14%		13.57%	
Abbott Capital Management 2016	(0.09%)		71.04%		20.02%		9.08%		9.43%	
Abbott Capital Management 2018	(0.14%)		47.06%		22.73%		7.26%		-	
Abbott Capital Management 2019	0.00%		57.22%		10.04%		-		-	
Abbott Capital Management 2020	0.00%		65.36%		-		-		-	
Abbott Capital Management 2021	(0.28%)		-		-		-		-	
Mesirow V	0.00%		78.52%		21.39%		16.29%		18.01%	
Mesirow VI	0.00%		88.26%		29.10%		22.73%		24.87%	
Mesirow VII	(0.02%)		60.27%		16.43%		3.33%		(7.82%)	
Mesirow VIII	0.00%		10.14%		-		-		-	
NB Secondary Opp Fund III	(1.44%)		30.34%		4.23%		12.18%		16.65%	
NB Secondary Opp Fund IV	(1.29%)		48.73%		14.80%		14.76%		68.26%	
Private Advisors VI	0.03%		83.78%		16.54%		17.98%		15.19%	
Private Advisors VII	(0.00%)		52.55%		3.97%		11.23%		19.02%	
Private Advisors VIII	0.00%		47.25%		15.78%		(4.08%)		-	
Private Advisors IX	0.25%		37.25%		-		-		-	
Absolute Return	18.04%		8.87%		(14.04%)		12.79%		1.61%	
UBS A & Q	1.46%	57	8.08%	47	12.18%	11	9.53%	4	2.65%	12
1-month LIBOR + 4%	1.05%	63	4.10%	75	4.49%	45	6.26%	31	6.07%	2
Callan Abs Rtn Hedge FoF	1.49%		6.85%		4.03%		4.71%		0.58%	
Real Assets	5.99%		18.26%		4.69%		15.39%		(7.47%)	
Principal DRA	5.99%	49	18.26%	42	4.69%	25	15.39%	15	(7.47%)	51
Principal Blended Benchmark (1)	6.84%	49	15.87%	45	2.08%	34	14.86%	17	(7.27%)	49
Callan Alternative Inv DB	5.76%		13.57%		(0.39%)		7.90%		(7.42%)	
Total Real Estate	7.57%		23.85%		0.76%		6.21%		9.18%	
Real Estate	7.57%	4	23.85%	31	0.76%	54	6.21%	65	9.18%	40
Blended Benchmark (2)	7.38%	6	14.83%	59	0.89%	52	5.26%	72	7.89%	51
Callan Tot Real Est DB	4.91%		18.95%		1.25%		7.78%		7.95%	
Total Fund	(0.38%)	1	19.05%	8	6.84%	96	18.66%	38	(2.74%)	24
Total Fund Reference Index*	(1.84%)	5	12.88%	66	12.29%	44	16.52%	78	(3.29%)	37
Callan Public Fund Spr DB	(4.20%)		13.88%		12.08%		18.01%		(3.83%)	

* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Bimbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

(1) Current Principal Blended Benchmark = 35% Bloomberg US Treasury US TIPS Idx, 15% Bloomberg Commodity Idx, 20% S&P Global Infrastructure Idx, 20% S&P Global Natural Resources Idx and 10% FTSE EPRA/NAREIT Developed Market Idx.

(2) Blended Benchmark = NCREIF (NPI) through 6/30/06, NCREIF (NPI 1 Qtr Arrears) through 12/31/13 and NFI-ODCE (1 Qtr Arrears) thereafter.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended March 31, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Net of Fee Returns					
Total Domestic Equity Net	(4.65%)	9.81%	16.94%	14.40%	13.47%
Russell 3000 Index	(5.28%)	11.92%	18.24%	15.40%	14.28%
BlackRock Russell 1000 Value	(0.76%)	11.63%	13.24%	10.47%	-
Russell 1000 Value Index	(0.74%)	11.67%	13.02%	10.29%	11.70%
DFA Large Cap Value	0.27%	11.05%	12.57%	-	-
Russell 1000 Value Index	(0.74%)	11.67%	13.02%	10.29%	11.70%
Northern Trust Global	(4.60%)	15.63%	18.92%	16.00%	14.66%
S&P 500 Index	(4.60%)	15.65%	18.92%	15.99%	14.64%
Polen Capital Management	(13.19%)	6.15%	19.75%	20.49%	-
S&P 500 Index	(4.60%)	15.65%	18.92%	15.99%	14.64%
Earnest Partners LLC	(5.62%)	8.27%	18.06%	15.65%	14.32%
Russell MidCap Index	(5.68%)	6.92%	14.89%	12.62%	12.85%
DFA Small Cap Value	0.87%	11.69%	16.22%	9.94%	11.72%
Russell 2000 Value Index	(2.40%)	3.32%	12.73%	8.57%	10.54%
CastleArk Management	(14.80%)	(10.53%)	12.34%	14.99%	-
Russell 2000 Growth Index	(12.63%)	(14.33%)	9.88%	10.33%	11.21%
Total Global Equity Net	(6.17%)	6.68%	14.86%	13.69%	10.78%
MSCI World	(5.15%)	10.12%	14.98%	12.42%	10.88%
BlackRock Global Alpha Tilts	(5.23%)	7.03%	13.62%	12.12%	-
MFS Investment Management	(7.52%)	6.22%	16.79%	16.19%	-
MSCI ACWI Gross	(5.26%)	7.73%	14.30%	12.20%	10.57%
Total International Equity Net	(6.43%)	(0.17%)	8.77%	6.68%	6.87%
MSCI EAFE Index	(5.91%)	1.16%	7.78%	6.72%	6.27%
AQR Emerging Markets	(3.66%)	(8.16%)	7.39%	5.69%	-
MSCI EM Gross	(6.92%)	(11.08%)	5.31%	6.36%	3.73%
Brandes Investment Partners	(2.73%)	1.78%	5.54%	4.68%	5.69%
MSCI EAFE Index	(5.91%)	1.16%	7.78%	6.72%	6.27%
William Blair & Company	(14.82%)	(3.26%)	13.10%	10.75%	8.40%
MSCI ACWI ex-US Index	(5.33%)	(1.04%)	8.01%	7.26%	6.04%
DFA International Small Cap	(2.67%)	4.31%	8.19%	4.62%	7.17%
Blended Benchmark	(8.53%)	(3.63%)	8.51%	7.42%	8.30%
Total Fixed Income Net	(0.33%)	1.93%	1.37%	2.28%	2.64%
Bimbg Aggregate	(5.93%)	(4.15%)	1.69%	2.14%	2.24%
BlackRock US Govt Bond	(5.42%)	-	-	-	-
Reams Asset Management	(5.52%)	(3.35%)	4.78%	4.37%	3.48%
Loomis, Sayles & Company, L.P.	(5.73%)	(3.03%)	3.60%	3.85%	4.67%
Bimbg Aggregate	(5.93%)	(4.15%)	1.69%	2.14%	2.24%
Total Private Equity	(0.05%)	67.78%	33.71%	27.78%	18.38%
Russell 3000 (1 Qtr in Arrears) + 3%	9.85%	28.69%	29.11%	21.21%	19.45%
Abbott Capital Management 2010	0.00%	65.55%	33.89%	29.59%	18.38%
Abbott Capital Management 2011	0.00%	76.29%	39.65%	32.49%	17.87%
Abbott Capital Management 2012	0.00%	72.85%	38.03%	31.01%	-
Abbott Capital Management 2013	0.00%	70.21%	38.43%	31.56%	-
Abbott Capital Management 2014	0.00%	75.52%	38.53%	29.90%	-
Abbott Capital Management 2015	0.00%	75.81%	33.15%	23.43%	-
Abbott Capital Management 2016	(0.09%)	70.89%	30.93%	19.63%	-
Abbott Capital Management 2018	(0.14%)	47.29%	24.84%	-	-
Abbott Capital Management 2019	0.00%	57.98%	-	-	-
Abbott Capital Management 2020	0.00%	65.36%	-	-	-
Abbott Capital Management 2021	(0.28%)	11.05%	-	-	-
Mesirow V	0.00%	79.27%	36.08%	29.23%	21.65%
Mesirow IV	0.00%	88.78%	44.15%	33.30%	-
Mesirow VII	(0.02%)	60.24%	24.86%	-	-
Mesirow VIII	0.00%	10.14%	-	-	-
NB Secondary Opp Fund III	(1.44%)	28.46%	14.52%	16.42%	-
NB Secondary Opp Fund IV	(1.29%)	49.17%	25.81%	25.29%	-
Private Advisors VI	0.03%	83.78%	36.22%	27.09%	-
Private Advisors VII	(0.00%)	52.55%	20.83%	15.21%	-
Private Advisors VIII	0.00%	47.25%	17.81%	-	-
Private Advisors IX	0.25%	37.43%	-	-	-
Absolute Return	18.04%	25.52%	5.99%	5.57%	-
UBS A & Q	1.46%	7.23%	9.70%	7.30%	-
1-month LIBOR + 4%	1.05%	4.14%	4.76%	5.18%	4.73%
Real Assets	5.82%	19.45%	10.99%	7.94%	-
Principal DRA	5.82%	19.45%	10.99%	7.94%	-
Principal Blended Benchmark (1)	6.84%	19.04%	10.11%	7.73%	-
Total Real Estate	7.48%	29.17%	11.75%	10.38%	11.30%
Real Estate	7.48%	29.17%	11.75%	10.38%	11.30%
Blended Benchmark (2)	7.38%	21.88%	8.90%	8.18%	9.64%
Total Fund Net	(0.44%)	14.24%	11.58%	10.05%	9.16%
Total Fund Reference Index	(1.84%)	7.47%	11.04%	9.23%	8.74%

*Net returns are simulated with the use of fee schedules through March 31, 2019. Actual fees paid are used thereafter.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

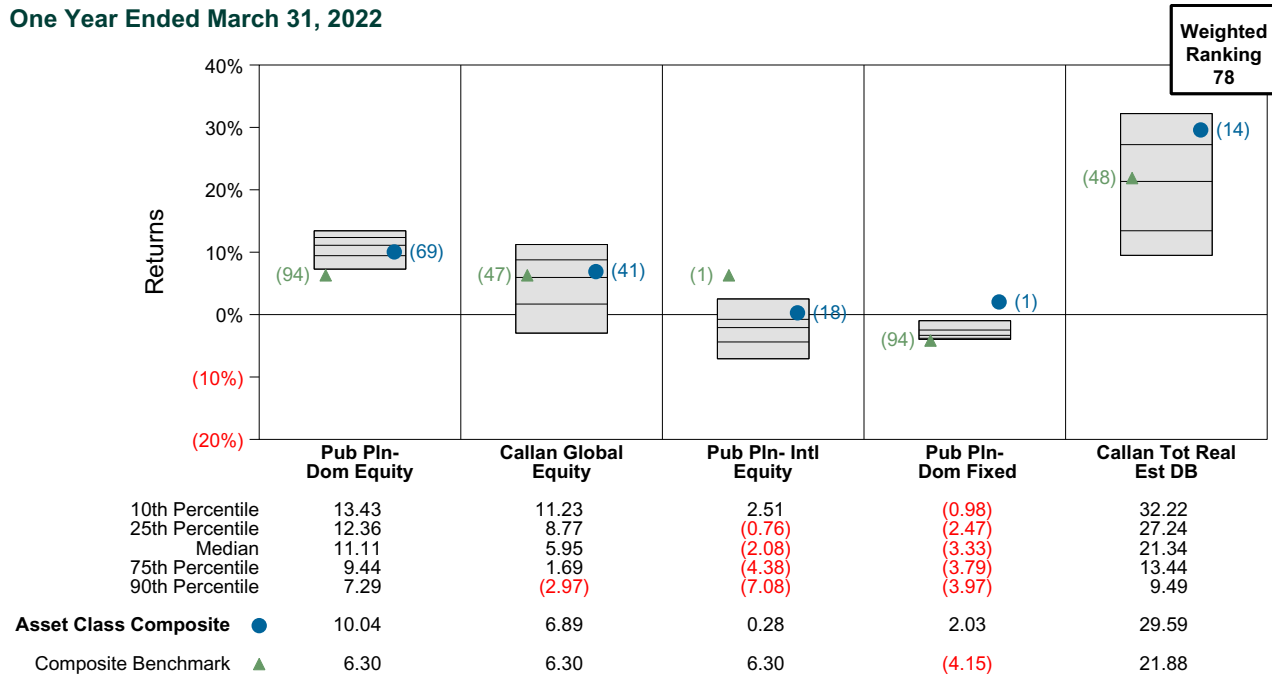
	12/2021- 3/2022	2021	2020	2019	2018
Net of Fee Returns					
Total Domestic Equity Net	(4.65%)	27.88%	16.09%	28.94%	(6.10%)
Russell 3000 Index	(5.28%)	25.66%	20.89%	31.02%	(5.24%)
BlackRock Russell 1000 Value	(0.76%)	25.17%	3.27%	26.77%	(8.13%)
Russell 1000 Value Index	(0.74%)	25.16%	2.80%	26.54%	(8.27%)
DFA Large Cap Value	0.27%	27.35%	(1.78%)	26.42%	(12.60%)
Russell 1000 Value Index	(0.74%)	25.16%	2.80%	26.54%	(8.27%)
Northern Trust Global	(4.60%)	28.68%	18.41%	31.53%	(4.37%)
S&P 500 Index	(4.60%)	28.71%	18.40%	31.49%	(4.38%)
Polen Capital Management	(13.19%)	24.34%	34.59%	38.27%	8.60%
S&P 500 Index	(4.60%)	28.71%	18.40%	31.49%	(4.38%)
Earnest Partners LLC	(5.62%)	25.59%	20.96%	37.65%	(10.29%)
Russell MidCap Index	(5.68%)	22.58%	17.10%	30.54%	(9.06%)
DFA Small Cap Value	0.87%	40.38%	3.74%	18.58%	(15.30%)
Russell 2000 Value Index	(2.40%)	28.27%	4.63%	22.39%	(12.86%)
CastleArk Management	(14.80%)	11.55%	44.12%	22.47%	2.60%
Russell 2000 Growth Index	(12.63%)	2.83%	34.63%	28.48%	(9.31%)
Total Global Equity Net	(6.17%)	18.80%	18.48%	30.55%	(8.51%)
MSCI World	(5.15%)	21.82%	15.90%	27.67%	(8.71%)
BlackRock Global Alpha Tilts	(5.23%)	18.67%	16.39%	26.48%	(11.24%)
MFS Investment Management	(7.52%)	19.05%	21.88%	36.74%	(4.16%)
MSCI ACWI Gross	(5.26%)	19.04%	16.82%	27.30%	(8.93%)
Total International Equity Net	(6.43%)	12.57%	10.28%	21.08%	(15.60%)
MSCI EAFE Index	(5.91%)	11.26%	7.82%	22.01%	(13.79%)
AQR Emerging Markets	(3.66%)	0.47%	17.38%	19.64%	(18.93%)
MSCI EM Gross	(6.92%)	(2.22%)	18.69%	18.90%	(14.24%)
Brandes Investment Partners	(2.73%)	14.00%	(1.69%)	14.86%	(9.17%)
MSCI EAFE Index	(5.91%)	11.26%	7.82%	22.01%	(13.79%)
William Blair & Company	(14.82%)	12.77%	30.84%	31.01%	(17.20%)
MSCI ACWI ex-US Index	(5.33%)	8.29%	11.13%	22.13%	(13.77%)
DFA International Small Cap	(2.67%)	15.89%	0.81%	21.00%	(23.31%)
Blended Benchmark	(8.53%)	10.10%	12.34%	24.96%	(17.89%)
Total Fixed Income Net	(0.33%)	(0.45%)	(1.91%)	11.68%	(0.47%)
Bimbg Aggregate	(5.93%)	(1.54%)	7.51%	8.72%	0.01%
BlackRock US Govt Bond	(5.42%)	-	-	-	-
Reams Asset Management	(5.52%)	(1.36%)	17.11%	8.65%	1.76%
Loomis, Sayles & Company, L.P.	(5.73%)	1.98%	6.99%	14.25%	(2.24%)
Bimbg Aggregate	(5.93%)	(1.54%)	7.51%	8.72%	0.01%
Total Private Equity	(0.05%)	67.66%	22.14%	16.63%	21.48%
Russell 3000 (1 Qtr in Arrears) + 3%	9.85%	34.93%	18.77%	6.19%	20.60%
Abbott Capital Management 2010	0.00%	65.55%	24.43%	16.52%	26.90%
Abbott Capital Management 2011	0.00%	76.29%	29.13%	19.64%	25.70%
Abbott Capital Management 2012	0.00%	72.85%	29.04%	17.91%	24.39%
Abbott Capital Management 2013	0.00%	70.21%	28.65%	21.13%	25.17%
Abbott Capital Management 2014	0.00%	75.52%	26.51%	19.74%	22.58%
Abbott Capital Management 2015	0.00%	75.81%	16.62%	15.14%	13.57%
Abbott Capital Management 2016	(0.09%)	71.04%	20.02%	9.08%	9.43%
Abbott Capital Management 2018	(0.14%)	47.06%	22.73%	7.26%	-
Abbott Capital Management 2019	0.00%	57.22%	10.04%	-	-
Abbott Capital Management 2020	0.00%	65.36%	-	-	-
Abbott Capital Management 2021	(0.28%)	-	-	-	-
Mesirow V	0.00%	78.52%	21.39%	16.29%	18.01%
Mesirow IV	0.00%	88.26%	29.10%	22.73%	24.87%
Mesirow VII	(0.02%)	60.27%	16.43%	3.33%	(7.82%)
Mesirow VIII	0.00%	10.14%	-	-	-
NB Secondary Opp Fund III	(1.44%)	30.34%	4.23%	12.18%	16.65%
NB Secondary Opp Fund IV	(1.29%)	48.73%	14.80%	14.76%	68.26%
Private Advisors VI	0.03%	83.78%	16.54%	17.98%	15.19%
Private Advisors VII	(0.00%)	52.55%	3.97%	11.23%	19.02%
Private Advisors VIII	0.00%	47.25%	15.78%	(4.08%)	-
Private Advisors IX	0.25%	37.25%	-	-	-
Absolute Return	18.04%	8.77%	(14.21%)	12.52%	1.61%
UBS A & Q	1.46%	8.08%	12.18%	9.53%	2.65%
1-month LIBOR + 4%	1.05%	4.10%	4.49%	6.26%	6.07%
Real Assets	5.82%	17.51%	4.02%	14.84%	(7.47%)
Principal DRA	5.82%	17.51%	4.02%	14.84%	(7.47%)
Principal Blended Benchmark (1)	6.84%	15.87%	2.08%	14.86%	(7.27%)
Total Real Estate	7.48%	23.45%	0.39%	5.95%	8.94%
Real Estate	7.48%	23.45%	0.39%	5.95%	8.94%
Blended Benchmark (2)	7.38%	14.83%	0.89%	5.26%	7.89%
Total Fund Net	(0.44%)	18.80%	6.59%	18.34%	(3.01%)
Total Fund Reference Index	(1.84%)	12.88%	12.29%	16.52%	(3.29%)

*Net returns are simulated with the use of fee schedules through March 31, 2019. Actual fees paid are used thereafter.

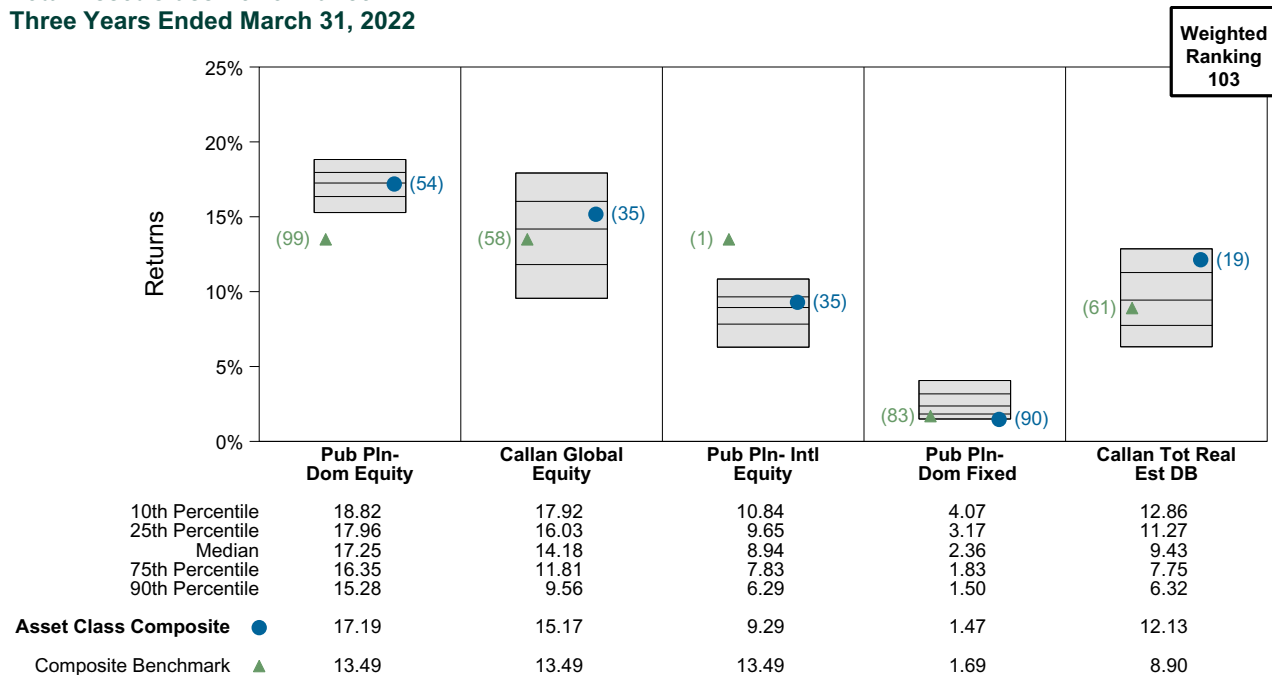
Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

Total Asset Class Performance One Year Ended March 31, 2022



Total Asset Class Performance Three Years Ended March 31, 2022

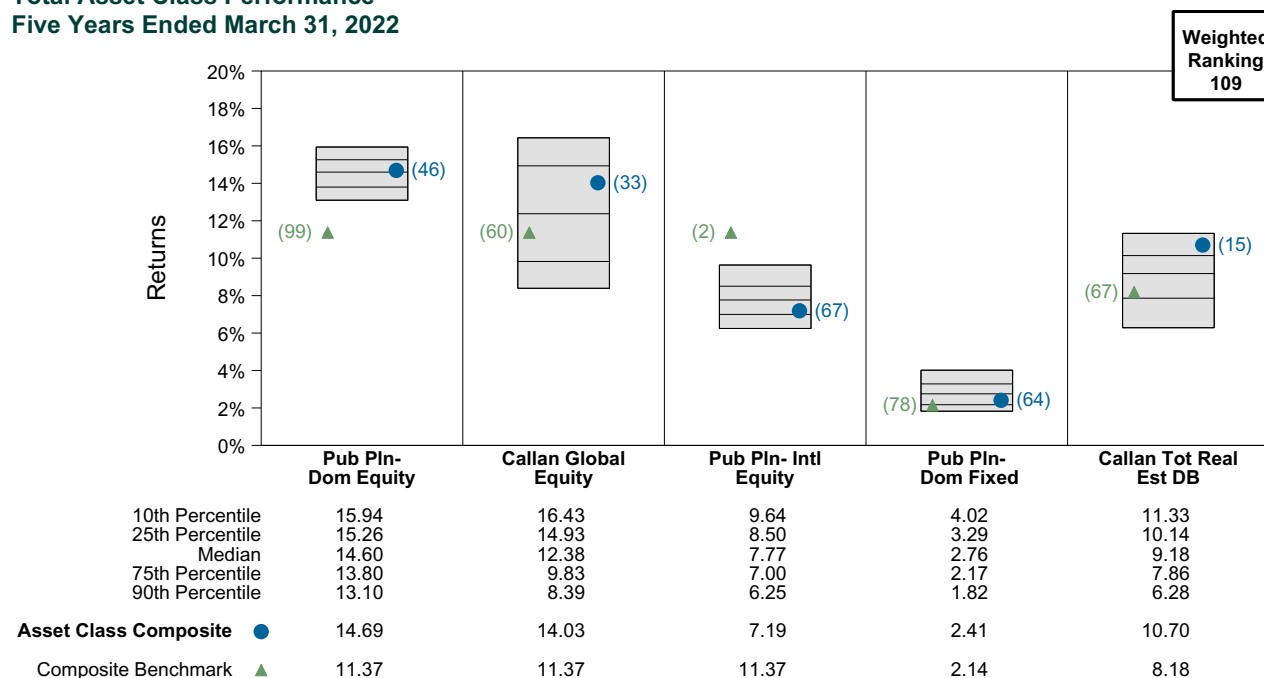


* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

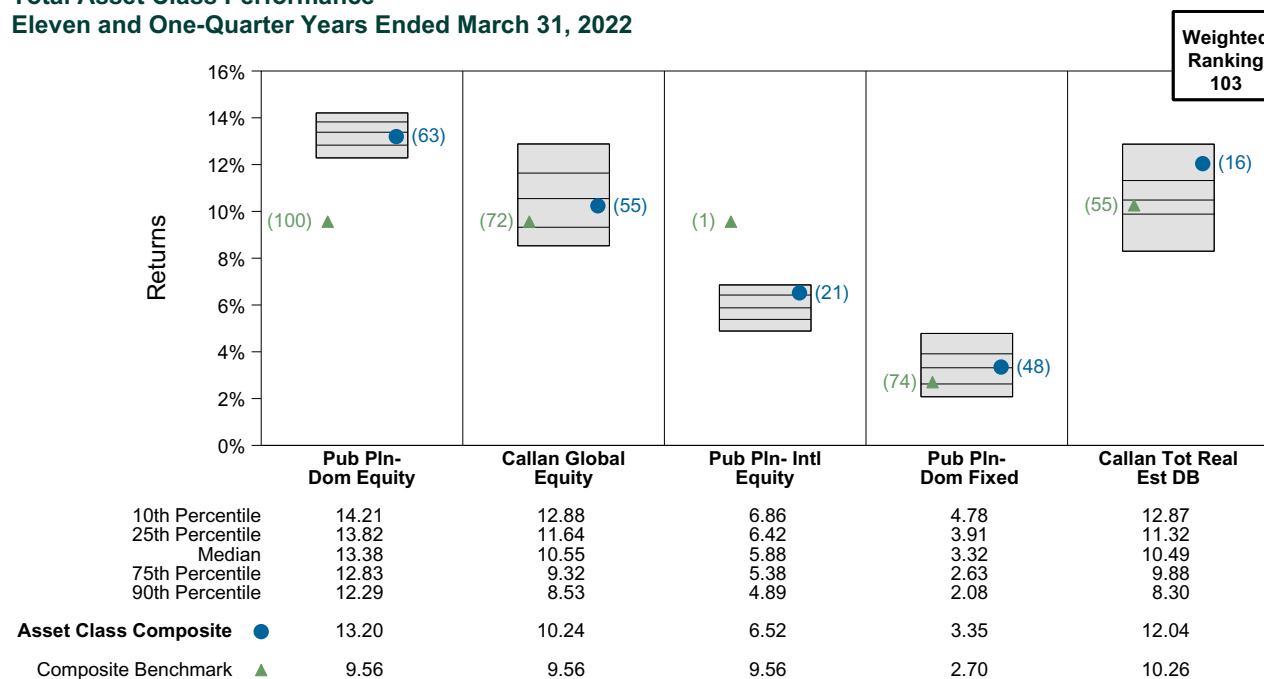
Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

Total Asset Class Performance Five Years Ended March 31, 2022



Total Asset Class Performance Eleven and One-Quarter Years Ended March 31, 2022

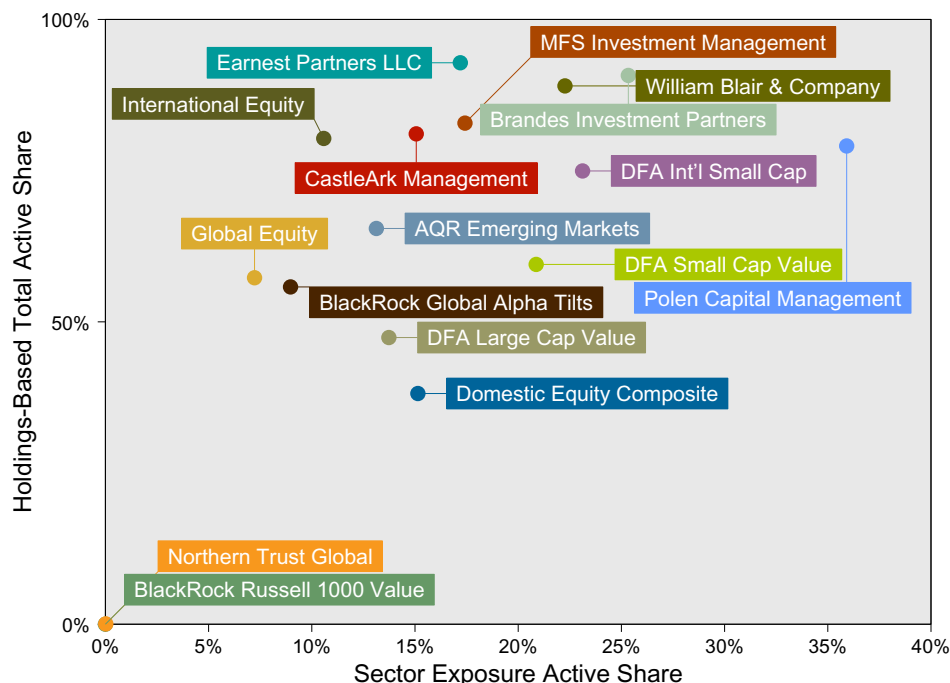


* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

Active Share Structure Analysis For One Quarter Ended March 31, 2022

This analysis compares multiple portfolios and composites in an active share context, illustrating the varying degrees of active risk taken by individual portfolios, and how they combine into active risk profiles for composites and the equity structure. Two sources of active share (active risk) are shown: 1) Total Holdings-Based Active Share based on individual position comparisons to the index (and the subcomponent from holding non-index securities), and 2) Sector Exposure Active Share that quantifies the more macro-level sector differences from the index.

Active Share Analysis Ended March 31, 2022



	Index	Total Act Share	Non-Idx Act Share	Sector Act Share	Number Securities	Security Diverse
Domestic Equity Composite	Russell 3000	38.15%	1.04%	15.14%	1897	114.27
BlackRock Russell 1000 Value	Russell 1000 Value	0.00%	0.00%	0.00%	846	64.54
DFA Large Cap Value	Russell 1000 Value	47.40%	1.08%	13.73%	312	41.95
Northern Trust Global	S&P 500	0.06%	0.00%	0.02%	505	39.48
Polen Capital Management	S&P 500	79.08%	3.00%	35.91%	24	7.28
Earnest Partners LLC	Russell MidCap	92.83%	10.01%	17.20%	57	22.49
DFA Small Cap Value	Russell 2000 Value	59.49%	14.58%	20.87%	977	118.92
CastleArk Management	Russell 2000 Growth	81.08%	16.16%	15.06%	110	35.01
Global Equity	MSCI World	57.29%	8.18%	7.23%	857	55.84
BlackRock Global Alpha Tilts	MSCI ACWI Gross	55.77%	5.04%	8.97%	818	51.53
MFS Investment Management	MSCI ACWI Gross	82.86%	3.79%	17.42%	77	22.81
International Equity	MSCI EAFE	80.32%	28.18%	10.58%	2440	63.19
AQR Emerging Markets	MSCI EM Gross	65.44%	3.12%	13.13%	291	33.01
Brandes Investment Partners	MSCI EAFE	90.74%	15.58%	25.34%	61	19.49
William Blair & Company	MSCI ACWIxUS Gross	89.01%	20.24%	22.27%	264	44.61
DFA Int'l Small Cap	MSCI World ex US Sm Cap	74.95%	9.16%	23.12%	1967	164.17

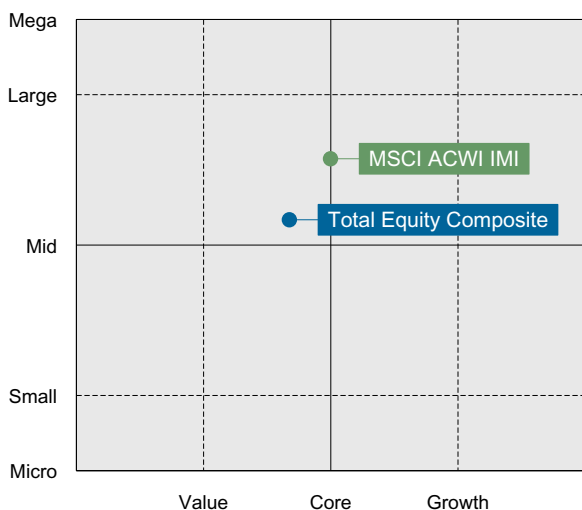
Current Holdings Based Style Analysis

Total Equity Composite

As of March 31, 2022

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

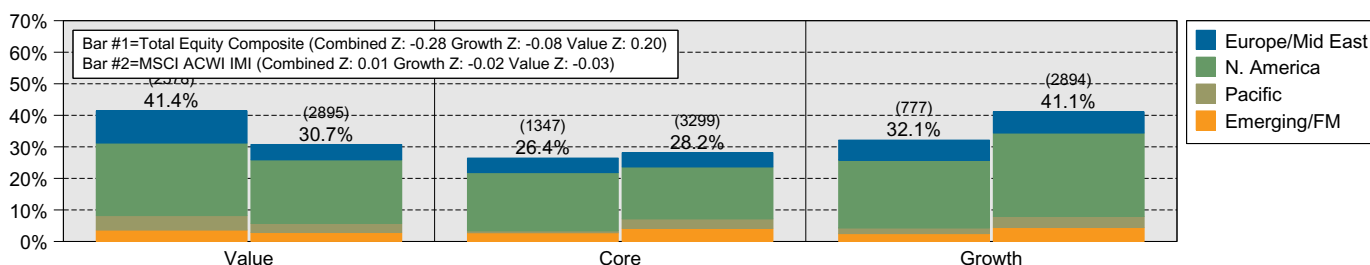
Style Map vs Callan Public Fund Spr DB
Holdings as of March 31, 2022



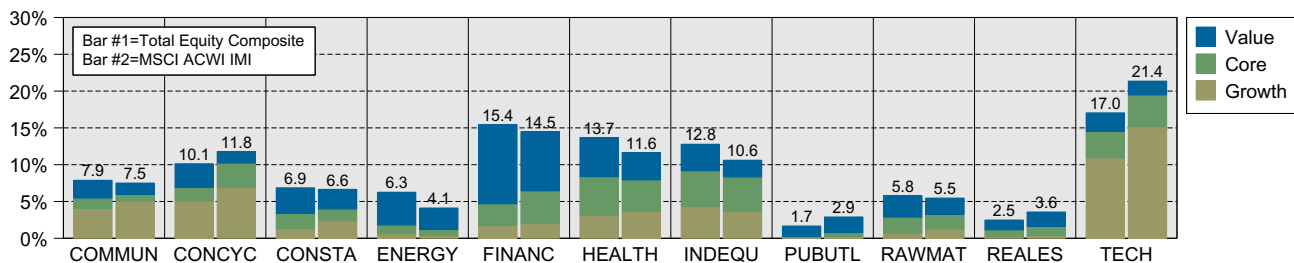
Style Exposure Matrix
Holdings as of March 31, 2022

Europe/ Mid East	10.2% (461)	4.6% (291)	6.4% (173)	21.2% (925)
	4.9% (502)	4.5% (529)	6.7% (542)	16.1% (1573)
N. America	23.0% (1007)	18.5% (682)	21.5% (359)	63.0% (2048)
	20.1% (877)	16.5% (1156)	26.4% (803)	63.0% (2836)
Pacific	4.6% (920)	0.6% (237)	1.8% (111)	7.0% (1268)
	2.9% (530)	3.0% (554)	3.5% (515)	9.4% (1599)
Emerging/ FM	3.6% (190)	2.8% (137)	2.5% (134)	8.9% (461)
	2.8% (986)	4.2% (1060)	4.4% (1034)	11.5% (3080)
Total	41.4% (2578)	26.4% (1347)	32.1% (777)	100.0% (4702)
	30.7% (2895)	28.2% (3299)	41.1% (2894)	100.0% (9088)
	Value	Core	Growth	Total

Combined Z-Score Style Distribution
Holdings as of March 31, 2022



Sector Weights Distribution
Holdings as of March 31, 2022



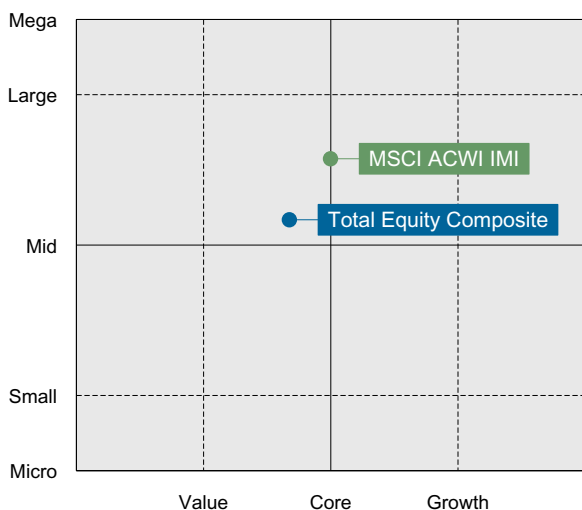
Current Holdings Based Style Analysis

Total Equity Composite

As of March 31, 2022

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

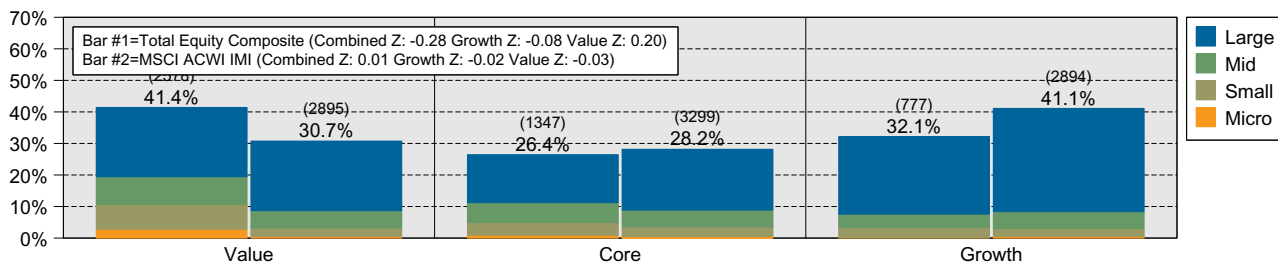
Style Map vs Callan Public Fund Spr DB
Holdings as of March 31, 2022



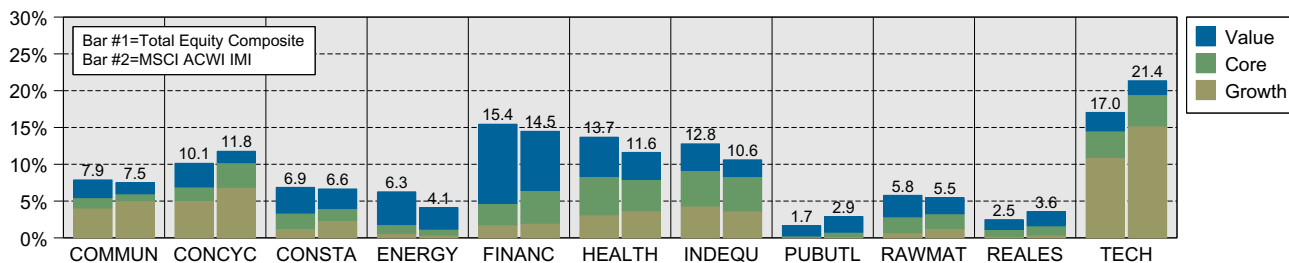
Style Exposure Matrix
Holdings as of March 31, 2022

	Value	Core	Growth	Total
Large	22.0% (251) 22.1% (313)	15.2% (192) 19.3% (266)	24.6% (210) 32.7% (330)	61.7% (653) 74.1% (909)
Mid	8.7% (316) 5.5% (569)	6.3% (290) 5.3% (611)	4.3% (230) 5.3% (637)	19.4% (836) 16.2% (1817)
Small	7.9% (534) 2.6% (1136)	4.0% (396) 2.9% (1318)	3.1% (220) 2.6% (1183)	15.0% (1150) 8.1% (3637)
Micro	2.8% (1477) 0.5% (877)	0.9% (469) 0.6% (1104)	0.2% (117) 0.5% (744)	3.9% (2063) 1.7% (2725)
Total	41.4% (2578) 30.7% (2895)	26.4% (1347) 28.2% (3299)	32.1% (777) 41.1% (2894)	100.0% (4702) 100.0% (9088)

Combined Z-Score Style Distribution
Holdings as of March 31, 2022



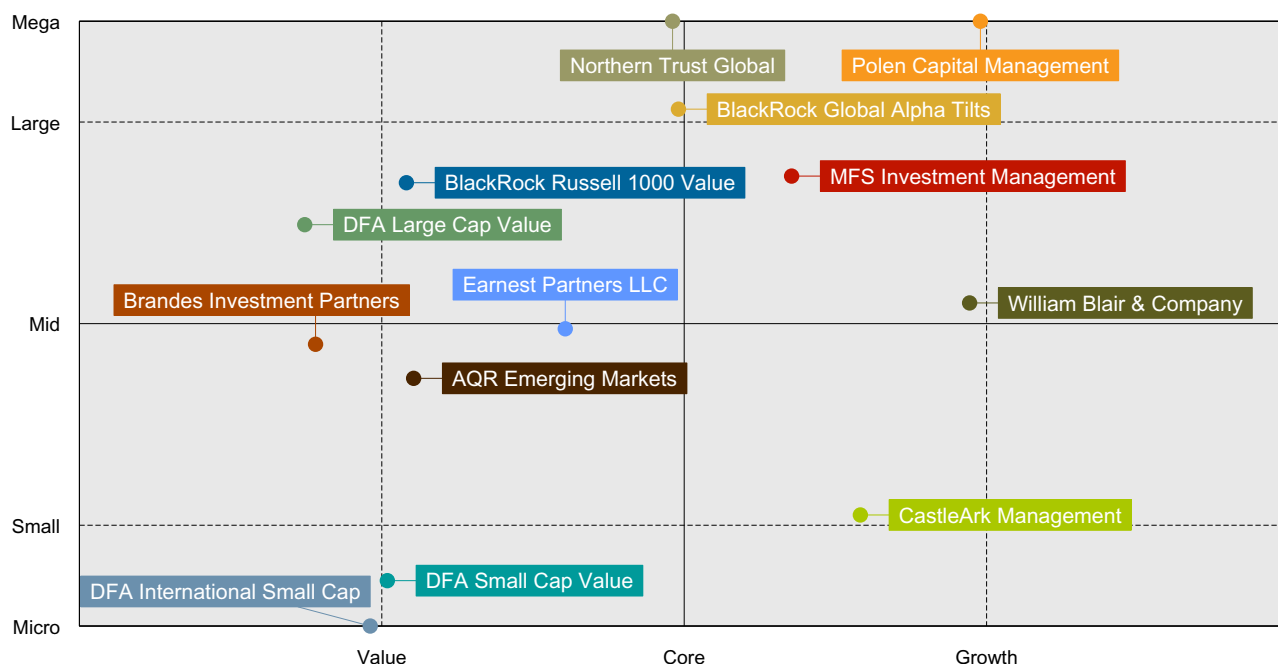
Sector Weights Distribution
Holdings as of March 31, 2022



Global Holdings Based Style Analysis For One Quarter Ended March 31, 2022

This page analyzes and compares the investment styles of multiple portfolios using a detailed holdings-based style analysis methodology. The size component of style is measured by the weighted median market capitalization of the holdings. The value/core/growth style dimension is captured by the "Combined Z-Score" of the portfolio. This score is based on eight fundamental factors used in the MSCI stock style scoring system. The table below gives a more detailed breakdown of several relevant style metrics on the portfolios.

Style Map Holdings for One Quarter Ended March 31, 2022



	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
BlackRock Russell 1000 Value	6.19%	77.10	(0.81)	(0.35)	0.47	846	64.54
DFA Large Cap Value	6.17%	60.78	(1.12)	(0.30)	0.81	312	41.95
Northern Trust Global	12.76%	203.56	(0.02)	(0.02)	(0.00)	505	39.48
Polen Capital Management	5.94%	224.88	0.97	0.33	(0.64)	24	7.28
Earnest Partners LLC	4.51%	21.81	(0.34)	(0.12)	0.22	57	22.49
DFA Small Cap Value	7.61%	2.69	(0.87)	(0.18)	0.69	977	118.92
CastleArk Management	3.64%	4.66	0.59	0.10	(0.48)	110	35.01
MFS Investment Management	7.34%	79.69	0.36	(0.03)	(0.39)	77	22.81
BlackRock Global Alpha Tilts	11.10%	113.86	(0.00)	0.01	0.01	818	51.53
AQR Emerging Markets	3.50%	17.24	(0.79)	(0.12)	0.67	291	33.01
Brandes Investment Partners	14.01%	20.38	(1.09)	(0.30)	0.79	61	19.49
William Blair & Company	10.07%	30.34	0.94	0.27	(0.67)	264	44.61
DFA International Small Cap	7.14%	1.81	(0.92)	(0.20)	0.72	1967	164.17

Quarterly Highlights

The Callan Institute provides research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/research-library to see all of our publications, and www.callan.com/blog to view our blog. For more information contact Barb Gerraty at 415-274-3093 / institute@callan.com.

New Research from Callan's Experts

Alternatives Focus: Outlook for Hedge Funds | Joe McGuane analyzes hedge fund performance in 2021 and provides his outlook for the asset class in 2022.

2022-2031 Capital Markets Assumptions | A white paper detailing the process involved in creating our 2022-2031 Capital Markets Assumptions and the reasoning behind them. You can also view our interactive webpage and charticle featuring this year's assumptions.

2022 Defined Contribution Trends Survey | This survey provides extensive information for DC plan sponsors to use in improving and benchmarking their plans.

Callan Periodic Table of Investment Returns & Collection | The Periodic Table of Investment Returns depicts annual returns for key asset classes, ranked from best to worst performance for each calendar year. Expanding upon our Classic Periodic Table, the Collection offers additional versions focused on equity, fixed income, institutional investors, and alternatives such as real estate, private equity, and hedge funds. Other tables compare the performance of key indices to zero and to inflation.

Blog Highlights

DOL Weighs in on Cryptocurrencies in DC Plans | The U.S. Department of Labor issued a compliance assistance bulletin, which does not carry the force of law, regarding offering cryptocurrency investments in a defined contribution plan, with a number of stern warnings about the potential fiduciary challenges.

Hedge Funds and Ukraine: A Guide for Institutional Investors | This post provides an analysis of the performance of hedge funds through the end of February, categorized by strategy type, and how they have been grappling with the Ukraine crisis.

Why It Was a Tough 4Q21 for Large Cap Growth Managers |

With rising case counts stemming from the Omicron variant, and concerns about interest rates and inflation, volatility in the markets spiked in 4Q21. For large cap growth investment managers, pro-cyclical positioning generally hurt portfolios given those fears. More than 90% of large cap growth managers underperformed the benchmark for the quarter.

Risky Business Update: Rising Inflation and Continued Uncertainty Challenge Investors | Using our proprietary Capital Markets Assumptions, we found that investors in 2022 needed to take on over five times as much risk as they did 30 years ago to earn the same nominal return.

Quarterly Periodicals

Private Equity Trends, 4Q21 | A high-level summary of private equity activity in the quarter through all the investment stages

Active vs. Passive Charts, 4Q21 | A comparison of active managers alongside relevant benchmarks over the long term

Market Pulse Flipbook, 4Q21 | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

Capital Markets Review, 4Q21 | Analysis and a broad overview of the economy and public and private market activity each quarter across a wide range of asset classes

Hedge Fund Quarterly, 4Q21 | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

Real Assets Reporter, 4Q21 | A summary of market activity for real assets and private real estate during the quarter

Events

A complete list of all upcoming events can be found on our website: callan.com/events-education.

Please mark your calendar and look forward to upcoming invitations:

Research Café: How to Navigate Private Equity Fees and Terms (webinar)

May 11, 2022 at 9:30am PT

June Regional Workshop

June 7, 2022 – Atlanta

June 9, 2022 – Portland

For more information about events, please contact Barb Gerraty: 415-274-3093 / gerraty@callan.com

Education: By the Numbers

50+

Unique pieces of research the Institute generates each year

525

Attendees (on average) of the Institute's annual National Conference

3,700

Total attendees of the "Callan College" since 1994

Education

Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

Introduction to Investments

July 26-27, 2022 – San Francisco

September 20-22 – Virtual

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. Our virtual session is held over three days with virtual modules of 2.5-3 hours, while the in-person session lasts one-and-a-half days. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Virtual tuition is \$950 per person and includes instruction and digital materials. In-person tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including registration can be found at: callan.com/events/



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer

List of Callan's Investment Manager Clients

Confidential – For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry, and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor, and disclose potential conflicts on an ongoing basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database, or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Please note that if an investment manager receives a product or service on a complimentary basis (e.g., attending an educational event), they are not included in the list below. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group, and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance department.

Manager Name

abrdn (Aberdeen Standard Investments)
Acadian Asset Management LLC
Adams Street Partners, LLC
AEGON USA Investment Management Inc.
AllianceBernstein
Allianz
Allspring Global Investments
American Century Investments
Amundi US, Inc.
Antares Capital LP
AQR Capital Management
Ares Management LLC
Ariel Investments, LLC
Aristotle Capital Management, LLC
Atlanta Capital Management Co., LLC
AXA Investment Managers
Baillie Gifford International, LLC
Baird Advisors

Manager Name

Barings LLC
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC
BentallGreenOak
BlackRock
Blackstone Group (The)
BNY Mellon Asset Management
Boston Partners
Brandes Investment Partners, L.P.
Brandywine Global Investment Management, LLC
Brookfield Asset Management
Brown Brothers Harriman & Company
Burgundy Asset Management
Capital Group
Carillon Tower Advisers
CastleArk Management, LLC
Chartwell Investment Partners
ClearBridge Investments, LLC

Manager Name
Cohen & Steers Capital Management, Inc.
Columbia Threadneedle Investments North America
Comgest
Credit Suisse Asset Management, LLC
Crescent Capital Group LP
DePrince, Race & Zollo, Inc.
Dimensional Fund Advisors L.P.
Doubleline
Duff & Phelps Investment Management Co.
DWS
EARNEST Partners, LLC
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Hermes, Inc.
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Hawaiian Bank Wealth Management Division
First Sentier Investors
Fisher Investments
Franklin Templeton
Fred Alger Management, LLC
GAM (USA) Inc.
Garrett Investment Advisors, LLC
GlobeFlex Capital, L.P.
GoldenTree Asset Management, LP
Goldman Sachs
Golub Capital
Guggenheim Investments
GW&K Investment Management
Harbor Capital Group Trust
Hardman Johnston Global Advisors LLC
Heitman LLC
Hotchkis & Wiley Capital Management, LLC
Impax Asset Management LLC
Income Research + Management Inc.
Insight Investment
Intech Investment Management LLC
Intercontinental Real Estate Corporation
Invesco
J O Hambro Capital Management Limited

Manager Name
J.P. Morgan
Janus
Jennison Associates LLC
Jobs Peak Advisors
Jupiter Asset Management
KeyCorp
Lazard Asset Management
LGIM America
Lincoln National Corporation
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
LSV Asset Management
MacKay Shields LLC
Macquarie Asset Management
Manning & Napier Advisors, LLC
Manulife Investment Management
Marathon Asset Management, L.P.
McKinley Capital Management, LLC
Mellon
MetLife Investment Management
MFS Investment Management
MidFirst Bank
MLC Asset Management
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
MUFG Union Bank, N.A.
Natixis Investment Managers
Neuberger Berman
Newton Investment Management
Ninety One North America, Inc.
Northern Trust Asset Management
Nuveen
P/E Investments
Pacific Investment Management Company
Pantheon Ventures
Parametric Portfolio Associates LLC
Partners Group (USA) Inc.
Pathway Capital Management, LP

Manager Name

Peregrine Capital Management, LLC

PFM Asset Management LLC

PGIM Fixed Income

PGIM Quantitative Solutions LLC

Pictet Asset Management

PineBridge Investments

Polen Capital Management, LLC

Principal Global Investors

Putnam Investments, LLC

RBC Global Asset Management

Regions Financial Corporation

Richard Bernstein Advisors LLC

Robeco Institutional Asset Management, US Inc.

Rothschild & Co. Asset Management US

S&P Dow Jones Indices

Schroder Investment Management North America Inc.

Segall Bryant & Hamill

SLC Management

Smith Graham & Co. Investment Advisors, L.P.

State Street Global Advisors

Strategic Global Advisors, LLC

Manager Name

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

Thompson, Siegel & Walmsley LLC

Thornburg Investment Management, Inc.

Timberland Investment Resources, LLC

Tri-Star Trust Bank

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Vulcan Value Partners, LLC

Walter Scott & Partners Limited

WCM Investment Management

Wellington Management Company, LLP

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair & Company LLC