

# City of Cincinnati Retirement System Investment Committee

## City Hall Council Chambers and via Zoom February 3, 2022 – 12:00 PM

#### **AGENDA**

MembersCRS StaffTom GamelKath RahtzMike BarnhillBill MollerErica WinsteadRenee KabinDon StiensJeff CramerdingBev NussmanMark Menkhaus, Jr.Keva Eleam

#### Call to Order

John Juech

## **Approval of Minutes**

♣ November 4, 2021

#### **Unfinished Business**

♣ Investment Policy Update

#### **New Business**

- ♣ Market Environment
- 4 4th Quarter, 2021 Investment Report
- ♣ International Equity exposure
- **♣** Small Cap Private Equity Buyout Search

#### Adjournment

**Next Meeting**: April 7, 2022 12:00 P.M.



# City of Cincinnati Retirement System Investment Committee Meeting Minutes

November 4, 2021 / 12:00 P.M. City Hall – Council Chambers

PresentAbsentBill MollerDon StiensTom GamelMike BarnhillMark Menkhaus, Jr.Paula TilsleyKathy RahtzKeva EleamDon StiensRenee KabinErica WinsteadBev Nussman

Meeting was called to order at 12:06 P.M. and a roll call was taken of attendance.

#### **APPROVAL OF MINUTES**

T. Gamel made a motion to approve the minutes from the August 5, 2021 Investment Committee meeting. E. Winstead seconded the motion. A roll call vote was taken and the results follow:

Mr. Gamel - Y

Mr. Juech - Y

Mr. Menkhaus, Jr. -Y

Mr. Moller - Y

Ms. Rahtz -Y

Ms. Winstead - Y

The motion to approve minutes of the August 5, 2021 Investment Committee meeting passed and the minutes were approved.

#### **UNFINISHED BUSINESS**

#### **4** Asset/Liability Study Follow-up

B. Moller requested staff to request Cheiron's presence at a future Board meeting to discuss employer contribution amounts that would maintain the treadwater level for the pension plan in addition to running other requested scenarios.

#### **NEW BUSINESS**

#### **♣** Ft. Washington Private Equity Presentation

Representatives from Ft. Washington Capital Partners, Marty Flesher, Stephen Baker and Rob Maeder discussed the status of the various Ft. Washington private equity funds in which CRS invests. Ft. Washington has had a 15-year relationship with CRS back to Fund V, with total distributions to date of \$173 million to CRS. Four of the six funds CRS invests are distributing this year. Funds V through X are performing robustly. Two new funds, Small Market II and Fund XI were presented. The aggregate net IRR of Ft. Washington's small market investments (2003-2020 vintage) is 21.1%.

B. Moller asked about past problems with staff turnover. Mr. Baker replied that they've redesigned the compensation and focus of the team to better incent partners to build a career path with Ft. Washington.

M. Barnhill asked about the impact of rising entry multiples. Mr. Maeder replied that the focus on the small market was indeed due to high entry multiples in larger market funds.

#### **♣** Private Equity Search

Investment Consultant, B. Christenson discussed the need to regularly invest in private equity funds in order to maintain the CRS policy allocation. In the future, a discussion of managers will occur with the inclusion of small market managers.

M. Barnhill recommended deleting the word "venture" from the description on the 2<sup>nd</sup> page of the private equity search materials.

#### **4** 3rd Quarter 2021 Executive Summary Review

Market Value of Assets - \$2.5 Billion

Mr. Christenson, Managing Director & COO, Marquette Associates discussed the previous meeting's decisions to invest in Neuberger Berman's Volatility Risk Premium product and Ullico's Infrastructure Fund. Those commitments are waiting to be deployed. Overall, year-to-date net return for the CRS portfolio is strong. The goal is to see lower volatility now that the portfolio is more closely paired with the Russell 3000. The overall real estate portfolio is up ten percent and it is lower risk compared with equities.

#### Committee Action

T. Gamel made a motion to accept the 3<sup>rd</sup> Quarter 2021 Investment Report. E. Winstead seconded the motion. A roll call vote was taken and the results are as follows:

Mr. Gamel – Y

Mr. Juech - Y

Mr. Menkhaus, Jr. – Y

Mr. Moller - Y

Ms. Rahtz - Y

Ms. Winstead - Y

The motion to accept the 3<sup>rd</sup> Quarter 2021 Investment Report passed.

#### **4** Private Debt

B. Christenson explained the "evergreen strategy" utilized by three managers of private debt, Alliance Bernstein, Carlyle and Owl Rock. The strategy uses a structure that preserves some liquidity while offering higher returns than core fixed income. Mr. Christenson recommended investing \$20 million each with Carlyle and Owl Rock.

#### Committee Action

B. Moller made a motion to approve \$20 million each to Carlyle and Owl Rock for Private Debt investment in accordance with the CRS Investment Policy. A roll call vote was taken and the results are as follows:

T. Gamel - Y

J. Juech - Y

M. Menkhaus, Jr. - Y

B. Moller - Y

K. Rahtz – Y

Ms. Winstead – Y

The motion to approve investing \$20 million each into Carlyle and Owl Rock for Private Debt in accordance with the CRS Investment Policy passed.

#### **♣** Investment Policy Update

A proposed change to the Investment Policy reflecting the Board's decision to reduce the risk parity asset allocation by 2.5% and create a new volatility risk premia allocation was tabled for the next meeting.

#### **4** International Equity Review

B. Christenson gave a brief presentation on the differences between U.S versus non-U.S. equities. M. Menkhaus, Jr. asked for an example of the "sweet spot" in allocations of U.S. vs. non-U.S. equities. K. Rahtz requested more assistance in understanding the quarterly and specialized reports such as a glossary of terms to help non-professionals follow along better.

#### Committee Action

Having no further business, E. Winstead made a motion to adjourn. T. Gamel seconded the motion. A roll call vote was taken and results are as follows:

T. Gamel - Y

J. Juech - Y

M. Menkhaus, Jr. - Y

B. Moller - Y

K. Rahtz – Y

E. Winstead - Y

The motion to adjourn passed.

The Investment Committee meeting adjourned at 2:11 p.m.

Next meeting: February 5, 2022 at 12:00 p.m.

# Cincinnati Retirement System

Statement of Investment Policy

February February, 20221

### **Definition of Terms**

#### "System" Defined

In this Policy, the "System" refers to the pool of assets held in trust under the terms of a Trust Agreement established by the Cincinnati Retirement System, which will be used to pay qualified employee, disability, and health benefits (see Addendum C).

#### "Board of Trustees" Defined

In this Policy, the "Board of Trustees" refers to the named fiduciary appointed to administer the System pursuant to the Trust Agreement (see Addendum E).

#### "Investment Professionals" Defined

In this Policy, the "Investment Professionals" refers to investment managers, the cash equitization manager, the investment consultant(s), the custodian, the securities lending provider, commission re-capturing agent(s), and third party proxy voting service provider.

#### "Investment Manager" Defined

In this Policy, the "Investment Manager" refers to any firm, fund, or individual that analyzes, selects, and executes the purchase or sale of individual securities. The investment manager may manage the assets of the System in separate accounts held by a third party custodian, a commingled fund, a limited partnership, or a mutual fund.

#### "Investment Consultant" Defined

In this Policy, the "Investment Consultant" refers to any firm that provides investment advice and information and assists the Board of Trustees in fulfilling their fiduciary responsibilities as Trustees.

#### "Cash Equitization Manager" Defined

In this policy the "Cash Equitization Manager" refer to any firm, fund, or individual that executes the purchase or sale of futures contracts in order to replicate the returns of the equity markets on the cash holdings in the equity manager portfolios.

#### "Custodian" Defined

In this Policy, the "Custodian" refers to any third party firm that safe-keeps the assets of the System.

#### "Securities Lending Provider" Defined

In this Policy, the "Securities Lending Provider" refers to any third party firm or investment manager that lends the assets of the System to other parties in exchange for collateral and interest.

#### The Statement of Purpose

#### The System's Purpose

The System was established in 1931 as a defined benefit System and provides for both monthly pension benefits and medical benefits to qualified retirees, survivors of retirees, and disabled retirees of the City as well as retired members from closed groups (University Hospital, University of Cincinnati, and Hamilton County). The System is governed by Section 203 of the Cincinnati Municipal Code as adopted by the City of Cincinnati Council. A Board of Trustee's has been established to oversee the operation of the System.

#### The Purpose of the Investment Policy

This investment policy is set forth by the Board of Trustees in order to:

- Define and assign the responsibilities of all involved parties.
- Establish a clear understanding of all involved parties of the investment goals and objectives of System.
- · Establish the relevant investment horizon for which the System assets will be managed.
- Establish a target asset allocation and re-balancing procedures.
- Establish a methodology and criteria for hiring and firing investment professionals.
- Offer guidance and limitations to all investment managers regarding the investment of System.
- · Establish a basis of evaluating investment results.

In general, the purpose of this Policy is to outline a philosophy which will guide the investment management of the assets toward the desired results. It is intended to be sufficiently specific to be meaningful, yet flexible enough to be practical. This document is intended to serve as a reference tool, an operating code, and a communications link between the Board of Trustees, its staff, and its investment professionals.

#### **Distinction of Responsibilities**

#### The Board of Trustees' Authority and Responsibilities

Chapter 203-65 of the Cincinnati Municipal Code assigns a Board of Trustees with the responsibility for managing the assets of the System. The Board of Trustees must discharge its duties solely in the interest of the System and the System participants. The standards of care for the System are specified in Section 203-65 of the Cincinnati Municipal Code and conform to the standards described in Section 5809.02 of the Ohio Revised Code.

The Board of Trustees will generally be responsible for the following:

- 1) Complying with applicable laws, regulations, and rulings, including the Collaborative Settlement Agreement between the City of Cincinnati and various plantiff groups representing certain active and retired members of the System that was approved by the Court on October 5, 2015 and generally effective January 1, 2016.
- 2) Selecting all qualified investment professionals.
- 3) Monitoring and evaluating investment performance and compliance with this Policy.
- 4) Reviewing and suggesting changes, as needed, to this Policy.
- 5) Establishing and reviewing the appropriateness of the System's asset allocation policy.
- 6) Taking action according to this Policy.

#### The Investment Manager's Authority and Responsibilities

The Board of Trustees will hire competent, registered professional investment managers to manage the assets of the System. Investment managers have the following responsibilities:

- 1) Vote proxy issues on securities held, unless a third party proxy voting service provider has been retained by the System. All proxies will be voted exclusively for the best interests of the System and their participants. Managers will maintain written policies for proxy voting and keep a proper record of all proxies to which the Program is entitled. Managers will provide an annual report that including their current proxy voting policy, a summary and detailed records of all proxies voted, and a statement indicating whether proxies were voted in conformance with the manager's internal proxy voting guidelines.
- Provide written reports to the plan sponsor and consultant on at least a quarterly basis detailing performance for the most recent period as well as the current outlook of the markets.

- 3) Notify the client and the investment consultant on a timely basis of any significant changes in the ownership, organizational structure, investment strategy, portfolio design, or configuration of the investment team.
- 4) The investment firm shall notify the client annually when, in aggregate as a firm, the organization owns more than 10% of the outstanding shares in a single stock.
- 5) All qualified investment managers retained by the Board of Trustees will exercise discretion within the parameters set forth in these guidelines for the portfolio(s) they manage on behalf of the System (see Addendum A).

#### The Investment Consultant's Authority and Responsibilities

The Board of Trustees will hire an investment consultant to assist the Board of Trustees in fulfilling their fiduciary responsibilities and in fulfilling their responsibilities in accord with this Policy. The investment consultant will generally be responsible for the following:

- 1) Complying with applicable laws, regulations, and rulings.
- Maintaining databases of qualified investment managers, custodians, securities lending providers, and any other pertinent professionals that may assist in oversight of assets.
- 3) If needed, the investment consultant will assist the Board of Trustees with the search and selection of investment managers, custodians, and securities lending providers.
- Calculate investment performance and reconcile that performance with the investment managers.
- 5) Providing written reports that summarize the performance and analysis of the System's investments to the Board of Trustees no later than 45 days after of the end of each calendar quarter.
- 6) Monitoring and evaluating investment performance and compliance with this Policy. This includes meeting with the System's investment managers on a regular basis.
- Make long-term assumptions on the capital markets for the purpose of evaluating the System's asset allocation policy.
- 8) Establishing and reviewing the appropriateness of the System's asset allocation policy.
- 9) Reviewing and suggesting changes, as needed, to this Policy.

The investment consultant retained by the Board of Trustees will exercise discretion within the parameters set forth in these guidelines on behalf of the System (see Addendum A).

#### The Custodian's Authority and Responsibilities

The Board of Trustees may utilize a third party custodian for the following:

- 1) hold and safeguard the assets of the System,
- 2) collect the interest, dividends, distributions, redemptions or other amounts due,
- 3) provide monthly reporting to all necessary parties,
- 4) forward any proxies to the investment manager, the client, or their designee,
- 5) sweep all interest and dividend payments and any other un-invested cash into a short-term money market fund for re-deployment, and
- 6) other duties as detailed in the respective custodial agreement

The custodian retained by the Board of Trustees will exercise discretion within the parameters set forth in these guidelines on behalf of the System (see Addendum A).

#### The Cash Equitization Manager's Authority and Responsibilities

The Board of Trustees may utilize a cash equitization manager to replicate the investment returns of the equity markets on the cash held in the equity managers portfolios. The cash equitization manager will purchase and sell futures contracts whose market value is based on the returns of specific equity markets. The notional value of the futures contracts will be closely equivalent to the aggregate cash holdings of all equity managers employed by the Board of Trustees. In addition, the Board may utilize a cash equitization manager to replicate the investment returns of the overall portfolio on the cash held in the margin account and/or checking accounts. These cash holdings will be monitored on a daily basis and futures contracts will be bought or sold accordingly (see Addendum A and B).

#### The Securities Lending Provider's Authority and Responsibilities

The Board of Trustees may utilize a securities lending provider to create income through the lending of the assets of the System. Securities lending providers will provide reports on a monthly basis to all necessary parties. The securities lending provider will be responsible for ensuring that adequate collateral will be provided to the System for the securities that are lent and that the interest rate generated by the securities lending program is fair and reasonable. Furthermore, the securities lending provider will attempt to return all lent securities to the System's appropriate account before any transactions on the lent securities are executed. The securities lending provider retained by the Board of Trustees will exercise discretion within the parameters set forth in these guidelines on behalf of the System (see Addendum A).

#### **Investment Objectives**

#### **Return Objectives**

The primary return objectives of the System are to:

- (a) preserve the safety of principal,
- (b) earn the highest possible total return consistent with prudent levels of risk, and
- (c) create a stream of investment returns to insure the systematic and adequate funding of actuarially determined benefits through contributions and professional management of the System assets.

To achieve these goals, the System has been optimized to meet its actuarial assumed rate of return (see Addendum C). The performance objective for the System is to exceed, after investment management fees, a customized blended benchmark. To evaluate success, the Board of Trustees will compare the performance of the System to the actuarial assumed rate of return and the performance of a custom benchmark. This benchmark represents a passive implementation of the historical investment policy targets and it is re-balanced regularly.

#### Risk Tolerance

While achieving the return objectives, the System is able to tolerate certain levels of risk, which are:

- (a) to accept prudent levels of short and long-term volatility consistent with the near-term cash flow needs, funding level, and long-term liability structure of the System,
- (b) to tolerate appropriate levels of downside risk relative to the System's actuarial assumed rate of return (see Addendum C). In doing so, the Board of the Trustees will attempt to minimize the probability of underperforming the System's actuarial assumed rate of return over the long-term and to minimize the shortfall in the event such underperformance occurs.
- (c) to accept prudent variances in the asset allocation structure of the System relative to the broad financial markets and peer groups, and
- (d) to tolerate prudent levels of short-term underperformance by the System's investment managers.

#### **Constraints on the Investment Objectives**

The investment objectives of the System are constrained by Federal law, State law, Section 203 of the Cincinnati Municipal Code, time, taxes, and liquidity. The System has a long-term time horizon as the assets are used to pay qualified participant and disability benefits. The System is a tax-exempt entity, but can be subject to taxes involving unrelated business taxable income ("UBTI"). UBTI is income earned by a tax-exempt entity that does not result from tax-exempt activities. The liquidity needs of the System are to meet the regular cash flow requirements of the System.

#### **Investment Philosophy**

#### Fixed Income

The fixed income portion of the portfolio is intended to offset the volatility of equities, particularly during market downturns, as well as generate yield and provide deflation protection. The System's current fixed income investment philosophy is to allocate approximately 35% to core plus fixed income (core investment grade bonds with the ability of the manager to add high yield and global bonds to the portfolio), approximately 35% to core fixed income, approximately 12% to opportunistic fixed income (comprised mostly of non-investment grade bonds and loans), and approximately 18% to private debt (non-publicly traded fixed income offering higher returns, offset by less liquidity). This approach allows the fixed income portfolio to provide higher yield (and therefore a higher expected return) than a core fixed income portfolio while also providing diversification to the rest of the portfolio.

#### U.S. Equity

U.S. equities are a source of long-term growth for the portfolio. The System's current U.S. equity investment philosophy is to allocate 64% to large cap stocks, 19% to mid cap stocks, and 17% to small cap stocks. Considering the overall U.S. public equity market is roughly 76% large cap, 17% mid cap, and 7% small cap, the System's allocation over weights small cap and underweights large cap by approximately 10%. Over the long run, small cap stocks are expected to outperform large cap and therefore a strategic overweight is targeted. Further, because value stocks are expected to outperform growth stocks over the long-term (and this is more pronounced in small), a value bias is also targeted, with 65% of small cap equities managed in a value style, approximately 35% of mid cap managed in a value style, and approximately 23% of large cap managed in a value style. This results in a total U.S. equity portfolio overweight to value of 22%. Due to the efficiency of the U.S. equity market, the assets are passively managed, which also significantly lowers management fees.

#### International Equities

International equities also provide long-term growth for the portfolio. Today nearly half of the world's public equity market capitalization is outside the U.S., and therefore, allocating to non-U.S. stocks reduces overall portfolio volatility, expands the universe of stocks and countries to invest, and potentially increases expected returns with higher risk emerging markets. The System's current investment philosophy is to allocate approximately 77% to large cap stocks, 10% to mid cap stocks, and 13% to small cap stocks, resulting in an overweight to small cap stocks of approximately 13%. Separately, the System is targeting 39% to emerging markets (with 33% of the emerging markets exposure allocated to small caps). Emerging markets comprise approximately 30% of the non-U.S. public equity market capitalization, and therefore the System employs a 9% overweight to emerging markets in order to capture the higher expected returns. Due to the efficiency of the Non-U.S. equity market, the vast majority of the assets are passively managed, which also significantly lowers management fees.

#### **Private Equity**

The allocation to private equity is meant to capture outperformance of over 2 percentage points, net of fees, above the traditional equity portfolio. The System will utilize a Fund of Funds approach of multiple managers and allocate as evenly as possible among calendar years to properly diversify. Although private equity funds are illiquid and incur higher fees, the expected benefits of higher returns should outweigh these costs.

#### **Real Estate**

The allocation to real estate is meant to capture consistent yield in excess of fixed income, as well as provide some inflation protection and diversification from other asset classes. The System currently uses open-end core real estate funds to maintain maximum liquidity and minimum risk in the asset class.

#### **Infrastructure**

The allocation to infrastructure is meant to capture consistent yield in excess of fixed income as well as provide diversification from other asset classes. The System is moving to an open-end, core investment philosophy in infrastructure for maximum liquidity and minimum risk in the asset class.

#### **Risk Parity**

The allocation to risk parity is meant to add diversification to the overall portfolio and help stabilize overall volatility by targeting a 10% standard deviation. This mandate serves as a liquid and low cost approach to diversification and eliminates many of the issues with traditional hedge funds.

#### Volatility Risk Premium

The allocation to volatility risk premium is meant to add diversification to the overall portfolio by capturing premiums via selling S&P 500 puts to generate consistent monthly premiums on the equity market with volatility that has historically been 50-75% less than the equity markets,

#### **Asset Allocation and Re-Balancing Procedures**

#### General Methods and Frequency of Evaluating the Asset Allocation

The Board of Trustees, with the assistance of the investment consultant, will review the target asset allocation of the System at least every three years. They will take into consideration applicable statutes, the actuarial rate of return of the System, the long-term nature of the asset pool, the cash flow needs of the System, and the general asset allocation structure of their peers. They

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ill make assumptions on the capital markets over the long-term and optimize the asset allocation best meet the actuarial and cash flow needs of the System at a prudent level of risk.	

#### Asset Allocation/Rebalancing

The minimum and maximum allocation range for each specific asset class is also shown in the table set forth below:

Asset Class	Target	Minimum*	Maximum*
Core Plus Bonds	6.0%	4.0%	8.0%
Core Bonds	6.0%	4.0%	8.0%
Opportunistic Credit	2.0%	1.0%	3.0%
Private Debt	3.0%	0.0%	<u>5.0%</u>
Total Fixed Income	<u>17.0%</u>	13.0%	<u>21.0%</u>
All-Cap Core Equity	18.5%	13.5%	23.5%
Large-Cap Value Equity	3.5%	1.5%	5.5%
Mid-Cap Value Equity	2.0%	0.0%	4.0%
Small-Cap Value Equity	<u>3.5%</u>	1.5%	<u>5.5%</u>
Total Domestic Equity	<u>27.5%</u>	<u>22.5%</u>	<u>32.5%</u>
All-CapNon-U.S.	20.0%	15.0%	25.0%
EM Small-Cap	3.0%	1.0%	<u>5.0%</u>
Total Non-U.S. Equity	<u>23.0%</u>	<u>18.0%</u>	<u>28.0%</u>
Real Estate Core	7.5%	5.0%	10.0%
Total Real Estate	7.5%	5.0% 5.0%	10.0%
Total Real Estate	7.570	5.070	10.070
Infrastructure	10.0%	5.0%	15.0%
Total Infrastructure	10.0%	5.0%	15.0%
			<u> </u>
Risk Parity	2.5 <del>5.0</del> %	1.02.5%	4.0 <del>7.5</del> %
Total Risk Parity	2.5 <mark>5.0</mark> %	1.0 <u>2.5</u> %	4.0 <del>7.5</del> %
Volatility Risk Premium	2.5%	1.0%	4.0%
Total Volotility Dick Dramings		1.00/	1 004
Total Volatility Risk Premium	<u>2.5%</u>	1.0%	1.0%
Private Equity - Fund of Funds	10.0%	0.0%	14.0%
Total Private Equity	10.0%	0.0%	14.0%
TOTAL	100.0%		

<sup>\*</sup>May not equal 100%

The Board of Trustees, with the assistance of the investment consultant, will review the asset allocation of the System on a regular basis and adjust the portfolio to comply with the guidelines above. The Board of Trustees anticipates that the on-going natural cash flow needs of the System (contributions and withdrawals) will be sufficient to maintain the asset allocation of the System within policy guidelines under most market conditions.

The Retirement System Finance staff will monitor the asset allocation structure of the portfolio and attempt to stay within the ranges allowed for each asset category. The Finance staff, with advice from the investment consultant, will develop and implement a plan of action to rebalance when necessary. The Board of Trustees is to be notified within 24 hours.

#### **Investment Professional Selection, Communication, and Evaluation**

#### **Investment Manager Selection**

No investment managers shall be hired who are a party in interest or who have not, by their record and experience, demonstrated their fiduciary responsibility, their investment expertise, their investment experience, and their capacity to undertake the mandate for which they are being considered. Investment manager candidates must be GIPS® compliant and have a track record of at least three years. (The GIPS® compliance and three-year track record requirements do not apply to managers of real estate, private equity, infrastructure, hedge funds, risk parity, and overlay managers.) The firm's GIPS® compliance must be audited at least every 4 years.

Investment managers are required to comply with the following:

- Acknowledge in writing a fiduciary and investment manager relationship with respect to the System.
- Be granted by the System the power to manage, acquire or dispose of any assets of the System pursuant to the System documents.

The System will establish this Policy for the investment managers and, with the assistance of the investment consultant, will conduct due diligence before the appointment of all investment managers.

#### Frequency of Measurement and Meetings

The Board of Trustees, with the assistance of the investment consultant, expects to measure investment performance quarterly.

#### **Investment Manager Communication and Evaluation Terminology**

The following terminology has been developed to facilitate efficient communication between the investment managers, investment consultant, and the System's staff. Each term signifies a particular status with the System and any conditions that may require improvement. In each case, communication is made only after consultation with the Board of Trustees.

#### **STATUS**

#### **DESCRIPTION**

<i>A</i> .	''In Compliance''	The investment manager is acting in accordance with the Investment Policy Guidelines.
В.	"Alert"	The investment manager is notified of a problem in performance (usually related to a benchmark or volatility measure), a change in investment characteristics, an alteration in management style or key investment professionals, and/or any other irregularities. The investment manager will be completing a monthly compliance checklist from the investment consultant to ensure thorough oversight.
С.	"On Notice"	The investment manager is notified of continued concern with one or more Alert issues. Failure to improve upon stated issues within a specific time frame justifies termination. The investment manager will be completing a monthly compliance checklist from the investment consultant to ensure thorough oversight.
D.	"Termination"	The program's management has decided to terminate the investment manager. The investment manager is notified and transition plans are in place.

#### **Operational Guidelines**

#### Investment Policy Guidelines for the Core Plus Bond Manager(s)

This document contains the guidelines and restrictions that apply to the core plus bond investment manager(s) of the Pension Fund (see Addendum A).

#### **Permissible Investments**

- No single issuer should comprise more than 5% of the market value of the portfolio, as
  determined at the time of purchase. The only exception is for securities issued by the U.S.
  Treasury, its agencies, instrumentalities or government sponsored entities (such as FNMA
  and FHLMC), and G-7 sovereigns.
- 2. Up to 20% of the market value of the portfolio may be invested in securities rated below investment grade. If the ratings assigned to a security by Standard & Poor's, Moody's, and/or Fitch are not the same, the highest rating of these rating agencies will be used. If an issue is not rated by any of these agencies, then the investment manager will determine a rating. If an investment grade security already held in the portfolio is downgraded to below investment and a breach of the 20% limit occurs, prompt client notification is required concerning intent to hold the issue going forward. The minimum average portfolio quality shall be A-.
- 3. At least 75% of the market value of the portfolio must be invested in U.S. dollar denominated securities, counting cash and cash equivalents toward this percentage, as determined at the time of purchase. Included in this limit are U.S. dollar denominated securities issued in the U.S. by foreign domiciled issuers and traded in U.S. markets. Non-U.S. dollar denominated bonds may be held up to 25% of the portfolio.
- 4. Effective aggregate currency exposure is limited to a maximum of 10% of portfolio market value. This includes direct currency exposure (long and short foreign currency positions held without owning securities denominated in such currencies).
- 5. Local currency emerging market debt (defined using the World Bank definition, which is based on GNP per capita) is limited to 10% of portfolio market value. Emerging market yankee bonds limited to 20% of portfolio market value.
- 6. In aggregate, investment in convertible, convertible preferred and preferred securities (including trust preferreds) may not exceed 25% of the market value of the portfolio, as determined at the time of purchase.
- 7. Common stock may only be held if it is acquired as a result of a financial restructuring, bankruptcy or from an exchange or conversion of a permissible security held in the portfolio. The investment manager will provide notification concerning the intent to hold the issue going forward.

- 8. The portfolio may invest up to 75% of the market value of the portfolio, as determined at the time of purchase, in securities issued pursuant to Rule 144(a), including those issued with and without registration rights.
- 9. Eligible derivatives include contracts to buy or sell futures on securities, indices, interest rates and currencies ("Futures"); structured notes; forward contracts for securities, indices, interest rates and currencies; credit default swaps (long and short) and swap contracts on indices, interest rates and currencies ("Swaps"); put and call options on securities, indices, interest rates, Futures, Swaps, and currencies ("Options"), foreign currency exchange contracts, and senior loans. Futures cannot be used to create economic leverage. Additionally, there is a 50% gross notional limit on futures.
- 10. Put and call options on exchange-traded options on Treasury Futures may be written if they are fully covered. Call options are considered covered if the manager owns an amount equal to the exercise cost in high-quality fixed income securities (A-rated or higher) with maturities that are comparable to the maturities in the deliverable basket for the Treasury futures contract. Put options are considered covered if cash equivalent assets in an amount equal to the exercise cost are maintained in the account. Investment managers may purchase back options on exchange-traded Treasury future contracts in order to close out positions. The aggregate value of each manager's option positions shall not exceed 25% on an absolute basis of the account's market value.
- 11. The average effective duration of the portfolio is not to vary more than  $\pm -30\%$  of the duration of the portfolio's benchmark index.
- 12. The investment manager may hold up to 15% of its portfolio in cash and cash equivalents. The only exception to this rule is during trading activity associated with the initial start-up phase of the portfolio. The portfolio should be fully-invested and construction completed within 60 days of the start date. The investment manager is not responsible for investments made pursuant to any cash sweep arrangement with the custodian.
- 13. If any of the parameters described above are breached as a result of market movements, capital additions, or withdrawals, the investment manager shall have a reasonable period, not to exceed sixty (60) days, to bring the portfolio into compliance with the applicable investment guidelines. The investment manager must receive written permission to permit such a breach to continue past this 60-day window.
- 14. Eligible investments include public or private debt obligations issues or guaranteed by U.S. or foreign issuers, including but not limited to corporations, governments (including their agencies, instrumentalities and sponsored entities, partnerships and trusts (such obligations may be issued at fixed, variable, adjustable or zero coupon rates or convertible into equity securities); private debt obligations are limited to those issued pursuant to regulations S and Rule 144A; preferred, hybrid, mortgage-backed, commercial mortgage-backed or asset-backed securities issues by any of the above-names entities; senior loans; interests specified under

"Eligible Commingled Investments"; derivatives specified under "Eligible Derivatives" and cash equivalents specified under "Eligible Cash Equivalents."

#### **Investment Objective**

Over reasonable measurement periods (3 to 5 years), the portfolio's return net of fees should exceed the return of the appropriate benchmark index (see Addendum A).

#### Investment Policy Guidelines for the Separately-Managed, U.S. Equity Manager(s)

This document contains the guidelines and restrictions that apply to the separately-managed equity investment manager(s) of the System (see Addendum A).

#### **Permissible Investments**

- 1. The investment manager may hold up to 5% of its portfolio in a money market and/or cash. The only exception to this rule is during trading activity, which can only be maintained for very short time periods, i.e. less than 30 days.
- Options, financial futures, private placements, restricted stock, issues related to the investment manager, or venture capital may not be purchased. The purchase of securities on margin and short selling is prohibited.
- No investments should be made in securities not traded on an U.S. exchange or traded in U.S. dollars
- 4. The combined holdings of preferred stocks and convertible bonds shall not exceed 5% of the portfolio.
- 5. No single security in the manager's portfolio, including Exchange Traded Funds, will comprise more than 10% of the portfolio at market.
- 6. Investments in Rule 144a securities are permitted if the securities have registration rights requiring the issuer to swap the securities for fully registered publicly traded bonds and if the investment is otherwise consistent with the above guidelines. The combined holdings of these investments may not exceed 10% of the portfolio's overall asset allocation.
- 7. At no point in time should the aggregate position (within each equity investment manager's portfolio in the System) in any company exceed 5% of the fair market value of the outstanding stock in the company.

#### **Investment Objective**

Over reasonable measurement periods (3 to 5 years), the portfolio's return net of fees should exceed the return of the appropriate benchmark index (see Addendum A).

#### Investment Policy Guidelines for the Separately-Managed, Non-U.S. Equity Manager(s)

This document contains the guidelines and restrictions that apply to the separately-managed non-U.S. equity investment manager(s) of the System (see Addendum A).

#### **Permissible Investments**

- 1. The investment manager may hold up to 5% of its portfolio in a money market and/or cash. The only exception to this rule is during trading activity, which can only be maintained for very short time periods, i.e. less than 30 days.
- Options, financial futures, private placements, restricted stock, issues related to the investment manager, or venture capital may not be purchased. The purchase of securities on margin and short selling is prohibited.
- 3. The maximum investment in companies classified by MSCI in the United States is 5%. Investment in ADRs and GDRs, which are classified by MSCI in non-U.S. countries, are excluded from the calculation. ADRs, or American Deposit Receipts, is a stock that trades in the United States but represents a specified number of shares in a foreign corporation. GDRs, or Global Deposit Receipts, are the global equivalent of ADRs.,
- 4. The combined holdings of preferred stocks and convertible bonds shall not exceed 5% of the portfolio.
- 5. No single security in the investment manager's portfolio, including Exchange Traded Funds, will comprise more than 10% of the portfolio at market.
- 6. Investments in Rule 144a securities are permitted if the securities trade on a recognized exchange; are fully fungible with securities traded on a recognized exchange; or will be, when seasoned, fully fungible with securities traded on a recognized exchange, provided that the investment is otherwise consistent with the other guidelines. The combined holdings of these investments may not exceed 10% of the portfolio's overall asset allocation.
- 7. At no point in time should the aggregate position (within each equity manager's portfolio in the System) in any company exceed 1.5% of the fair market value of the outstanding stock in the company.
- 8. Currency hedging for defensive purposes will be permitted. Forward currency contracts may be used to hedge currencies. This includes hedging back into the base currency. Cross currency hedging is permitted.
- 9. The combined holdings of emerging and frontier market equities as defined by. MSCI in aggregate shall not exceed 30% of the portfolio at market.
- 10. The combined holdings of Canada stocks and convertible bonds shall not exceed 10% of the portfolio at market.

#### **Investment Objective**

Over reasonable measurement periods (3 to 5 years), the portfolio's return net of fees should exceed the return of the appropriate benchmark index (see Addendum A).

Investment Policy Guidelines for Limited Partnership, Commingled Fund, Collective Trusts, Limited Liability Companies, Mutual Fund, and any other type of Commingled Fund Manager(s) ("Commingled Funds")

This document contains the guidelines and restrictions that apply to all commingled fund investment manager(s) of the System (see Addendum A).

#### **Permissible Investments**

1. These funds are governed by the guidelines and restrictions contained in any of the following applicable documents: prospectus', subscription agreements, limited partnership agreements, and confidential information memorandums.

#### **Investment Objective**

Over reasonable measurement periods (3 to 5 years), the portfolio's return net of fees should exceed the return of the appropriate benchmark index (see Addendum A).

#### Investment Policy Guidelines for the Cash Equitization Manager

This document contains the guidelines and restrictions that apply to the cash equitization investment manager of the System (see Addendum A).

#### **Permissible Investments**

1. The cash equitization program is governed by Addendum B.

#### **Investment Objective**

The cash equitization program should maintain a futures program for unallocated cash and cash reserves in accordance with the guidelines set forth in Addendum B.

#### **Investment Policy Modification and Revision**

#### **Policy Modification**

The Board of Trustees, with the assistance of the investment consultant, will review this Policy annually. Key environmental or operational occurrences, which could result in a Policy modification, include:

- (1) significant changes in expected patterns of the System's liability stream,
- (2) impractical time horizons or changes,
- (3) change in the System's priorities,
- (4) convincing arguments for change presented by investment professionals,
- (5) legislation, and
- (6) areas found to be important, but not covered by the Policy.

#### **Modification of Addendums**

Changes to investment professionals, Board of Trustees, or plan information contained within Addendums A-D can and should be modified, as necessary, without a complete review by the Board of Trustees.

Addendum A-Defining the Investment Professionals and Benchmark Indexes

Asset Class	Investment Manager	Benchmark Index
Core Bonds	Northern Trust	Bloomberg U.S. Aggregate
Core Plus Bonds	Loomis	Bloomberg U.S. Aggregate
Opportunistic High Yield Bonds	Shenkman	Bloomberg High Yield Bond
Private Debt	H.I.G.	CSFB Levered Loan- IndexBloomberg U.S. Aggregate
<u>Private Debt</u>	<u>Carlyle</u>	Bloomberg U.S. Aggregate
<u>Private Debt</u>	Blue Owl	Bloomberg U.S. Aggregate
U.S. Large-Cap Value Equity	Northern Trust	Russell 1000 Value
Broad U.S. Equity	-Northern Trust	-Russell 3000
U.S. Mid-Cap Value Equity	Vanguard Mid Cap Value	CRSP US Mid Cap Value
U.S. Small-Cap Value Equity	Northern Trust	Russell 2000 Value
Broad Non-U.S. Core Equity	Northern Trust	MSCI ACWI ex. U.S.
Emerging Market Small Cap Equity	Dimensional Fund Advisors	MSCI EM Small Cap
Real Estate - Core	Morgan Stanley	NCREIF_ODCE
Real Estate - Core	J.P. Morgan	NCREIF_ODCE
Real Estate- Value Added	Prudential	NCREIF_ODCE
Real Estate - Value Added	Principal	NCREIF_ODCE
Real Estate-Non U.S.	Mesirow/Courtland	NCREIF ODCE
Private Equity Fund of Funds	Fort Washington	Cambridge All PE
Private Equity Fund of Funds	North Sky	Cambridge All PE
Private Equity Fund of Funds	Portfolio Advisors	Cambridge All PE
Infrastructure	Macquarie	T-Bill + 4%
Infrastructure	Alinda	T-Bill + 4%
Infrastructure	JP Morgan	T-Bill + 4%
Infrastructure	IFM	T-Bill + 4%
Risk Parity	AQR	60% W <u>5</u> \$000/40% Bar. Agg.
Volatility Risk Premium	Neuberger Berman	CBOE Put/Write Index

Investment Professional	Service Provider
Custodian	Bank of New York Mellon
Investment Consultant	Marquette Associates
Cash Equitization Manager	Parametric
Securities Lending Provider	Bank of New York Mellon

The Total Fund customized benchmark is currently 152% Bloomberg U.S. Aggregate Index, 2% Bloomberg US High Yield Index, 3% CSFB Levered Loan Index, 18.5% Russell 3000 Index, 3.5% Russell 1000 Value Index, 2% CRSP US Mid Value Index, 3.5% Russell 2000 Value Index, 20% MSCI ACWI ex. U.S. Index, 3% MSCI Emerging Markets Small-Cap Index, 2.55% 60/40 S&P 500/Bloomberg U.S. Aggregate, 2.5% CBOE Put/Write Index, 7.5% NCREIF ODCE Index,

10.0% T-Bill+4%, 10% Cambridge Associates All Private Equity Index.

# Addendum B-Cash Equitization Guidelines

The System will select the assets to be overlaid by Parametric's PIOS program. Specifically, that portion shall consist of those funds designated by the System as cash reserves at its custodian as well as cash held from time to time by other investment managers for the System (the investment manager portfolio(s)).

The asset class allocation targets and associated benchmark indexes are as follows:

Asset Class Domestic Equity International Equity-Dev	<u>Target %</u> 27.5% . 23.0%	Benchmark Index Russell 3000 MSCI ACWI ex. U.S.
Fixed Income	17.0%	Bloomberg U.S. Aggregate
Real Estate	7.5.0%	NCREIFODCE
Infrastructure	10.0%	T-Bill 4%
Risk Parity	<u>2.5</u> 5.0%	60% W5000/40% Bar. U.S.
<u>VRP</u>	<u>2.5%</u>	CBOE Put/Write
Private Equity	10.0%	Cambridge All PE
Total	100.0%	

It is the System's responsibility to establish and revise as necessary the asset class categories.

#### INVEST UNALLOCATED CASH COMPONENT OF CASH/MARGIN ACCOUNTS:

Unallocated cash will be synthetically invested as follows:

Asset Class	Target %	Benchmark Index
Domestic Equity	42.5%	Russell 3000 MSCI
International Equity	23.0%	ACWI ex. U.S.
Fixed Income	<u>34.5%</u>	Bloomberg U.S. Aggregate
Total	100%	

#### INVEST UNALLOCATED CASH COMPONENT OF EQUITY ACCOUNTS:

Unallocated cash will be synthetically invested as follows:

Asset Class	Target %	Benchmark Index
Domestic Equity	100.0%	Russell 3000 MSCI
International Equity	100.0%	ACWI ex. U.S.

#### Addendum C-Summary of Plan Information

Plan Name:City of Cincinnati Retirement SystemType of Plan:Defined Benefit

Plan Adoption Date: 1931

Plan Year-End Date: December 31st

Assumed Actuarial Rate of Return (Net-of-fees): 7.50%

#### Addendum D-Investment Professional Adoption of Policy

This Policy document was adopted by the Board of Trustees for the Cincinnati Retirement System on February  $\underline{34}$ ,  $202\underline{21}$ .

#### **Investment Professional's Acknowledgments:**

Investment Professional

The firm has received this copy of the System's Policy. The firm has studied its provisions and
believe that we can both abide by its restrictions and fulfill its goals and expectations over the
timetables set forth in the Policy.
Firm Name

#### Addendum E-Board of Trustees Adoption of Policy

This Policy document was adopted by the Board of Trustees for the System on February February  $\underline{3}4$ ,  $202\underline{2}1$ .

#### **Board of Trustees' Acknowledgments:**

The Board of Trustees of the Cincinnati Retirement System has approved the System's Policy.

Secretary of the CRS Board of Trustees



# 2022 Market Preview

# **U.S.** economy overview

- Omicron to peak in mid-to late-January, consistent with its pattern in other countries
- Fed expected to complete its taper by end of March, removing significant stimulus from the economy
- Inflation will persist through 2022, but expected to moderate in second half of the year
- Fed is currently projected to hike three times in 2022, with first hike expected in March; inflation and growth will impact the timing and magnitude of hikes
- Labor market shortages continue to push wages higher as participation rate is still below pre-pandemic levels
- Pent up-demand and savings from pandemic should fuel strong growth, particularly in the second half of the year
- Supply chain pressures should ease as consumption drifts back towards more services rather than goods

# Fixed income: Rates expected to rise as Fed tapers and hikes

# Elevated inflation and strong rebound from COVID will likely drive rates higher, but spreads expected to remain tight

		1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
<b>Broad Market Indices</b>	Blm Aggregate	-0.26	0.01	-1.54	-1.54	4.79	3.57	2.90
Intermediate Indices	Blm Int. Gov./Credit	-0.13	-0.57	-1.44	-1.44	3.86	2.91	2.38
<b>Government Only Indices</b>	Blm Long Gov.	-1.42	3.05	-4.57	-4.57	8.78	6.53	4.53
	Blm Int. Gov.	-0.26	-0.58	-1.69	-1.69	3.02	2.32	1.68
	Blm 1-3 Year Gov.	-0.21	-0.58	-0.60	-0.60	2.03	1.62	1.10
	Blm U.S. TIPS	0.32	2.36	5.96	5.96	8.44	5.34	3.09
Credit Indices	Blm U.S. Long Credit	-0.37	1.52	-1.18	-1.18	11.37	7.64	6.42
	Blm High Yield	1.87	0.71	5.28	5.28	8.83	6.30	6.83
	CS Leveraged Loan Index	0.63	0.71	5.40	5.40	5.43	4.32	4.83
Securitized Bond Indices	Blm MBS	-0.09	-0.37	-1.04	-1.04	3.01	2.50	2.28
	Blm ABS	-0.16	-0.57	-0.34	-0.34	2.87	2.39	2.04
	Blm CMBS	-0.16	-0.64	-1.16	-1.16	4.98	3.80	3.68
Non-U.S. Indices	Blm Global Aggregate Hedged	-0.41	0.04	-1.39	-1.39	4.06	3.39	3.49
	JPM EMBI Global Diversified	1.40	-0.44	-1.80	-1.80	5.94	4.65	5.28
	JPM GBI-EM Global Diversified	1.56	-2.53	-8.75	-8.75	2.07	2.82	0.74
Municipal Indices	Blm Municipal 5 Year	0.13	0.04	0.34	0.34	3.34	2.97	2.38
	Blm HY Municipal	0.26	1.16	7.77	7.77	7.75	7.53	6.72

Note: The local currency GBI index is hedged and denominated in U.S. dollars. Sources: Bloomberg, Credit Suisse, JPMorgan, as of December 31, 2021



# Themes for the year/quarter

- Yield curve: With the gradual reopening through 2021 despite the Omicron surge at the tail end of the year the yield curve generally rose across the board, with the 2-year rising from 0.13% to 0.73% through the year, the 10-year rising from 0.93% to 1.52% and the 30-year rising from 1.65% to 1.90%
- Spreads: Credit spreads also generally tightened through the year:
  - Agg's OAS tightened from 43bp to 36bp
  - □ CS Lev Loan 3yr discount margin from 486bp to 439bp
  - □ Bloomberg HY OAS from 359bp to 283bp
  - However, JPMorgan EMBI Global Diversified (hard currency sovereign EMD) spreads widened from 352bp to 369bp given the lagged vaccine access in the developing world

#### ∨ Vaccine proliferation:

- FDA authorizing Pfizer vaccine for children; Moderna announcing its vaccine is safe for children
- GE and Union Pacific requiring vaccines; FDA authorizing Moderna and J&J boosters; Pfizer booster at 95.6% efficacy
- Idiosyncratic shocks widened spreads: But fears subsided, tightening spreads back in
  - Evergrande contagion fears resume from previous month but recede; sell-off surged in Chinese property developers as more are at elevated risk of default despite Evergrande paying overdue interest
  - Debt ceiling neared but deal was struck to lift ceiling
  - □ Tech sector sell-off with investors profit-taking
- Strong earnings reports kept tightening pressure on spreads:
  - 3Q earnings results largely strong, especially from large banks like BofA, Citi, and MS
- □ Omicron:
  - Moderna and Pfizer have already mobilized to produce updated vaccines against Omicron, which would be expected to help tighten spreads further once more news of their progress is released
  - Concerns over Omicron surge quickly faded as the variant's low virulence tightened spreads and steepened the yield curve at the tail end of the quarter



# U.S. stocks end 2021 on high note after strong December

# U.S. equity markets performed extremely well in 2021, as the S&P 500 finished the year up 28.7%; mid- and small-cap core indices also posted double-digit returns during the year after a robust fourth quarter

	Month (%)	3-Month (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
Broad Market Indices							
Dow Jones	5.5	7.9	20.9	20.9	18.5	15.5	14.2
Wilshire 5000	3.9	9.6	26.7	26.7	26.1	18.1	16.4
Russell 3000	3.9	9.3	25.7	25.7	25.8	18.0	16.3
Large-Cap Market Indices							
S&P 500	4.5	11.0	28.7	28.7	26.1	18.5	16.6
Russell 1000	4.1	9.8	26.5	26.5	26.2	18.4	16.5
Russell 1000 Value	6.3	7.8	25.2	25.2	17.6	11.2	13.0
Russell 1000 Growth	2.1	11.6	27.6	27.6	34.1	25.3	19.8
Mid-Cap Market Indices							
Russell Mid-Cap	4.1	6.4	22.6	22.6	23.3	15.1	14.9
Russell Mid-Cap Value	6.3	8.5	28.3	28.3	19.6	11.2	13.4
Russell Mid-Cap Growth	0.4	2.8	12.7	12.7	27.5	19.8	16.6
Small-Cap Market Indices							
Russell 2000	2.2	2.1	14.8	14.8	20.0	12.0	13.2
Russell 2000 Value	4.1	4.4	28.3	28.3	18.0	9.1	12.0
Russell 2000 Growth	0.4	0.0	2.8	2.8	21.2	14.5	14.1

Source: Morningstar Direct as of December 31, 2021



# Themes for the quarter

- December proved to be a strong month for U.S. equity markets, and most domestic stock indices finished the quarter having posted solid gains
  - Large-cap equities outperformed their smaller peers in both December and the fourth quarter, while style leadership depended on market capitalization segment; specifically, growth stocks led their value counterparts within the Large-cap space during the quarter, while the reverse was true in the Mid- and Small-cap areas of the market
  - After notching a return of 11.0% in the fourth quarter, the S&P 500 ended the year up 28.7%, making 2021 the fourth calendar year in the last five during which the index returned greater than 18.0%
- Most U.S. equity market valuations remain elevated across the size and style spectrums relative to historical norms, however some index multiples have experienced contraction due to strong earnings growth by many companies in those spaces in recent months; for the first time in the last several years, 2021 returns for U.S. equities were not driven by multiple expansion
- Despite a sharp increase near the beginning of December amid fears surrounding the Omicron variant of the COVID-19 virus, the VIX stabilized in the final weeks of 2021 and ended the year below its 20-year average



# A positive 2021 for global equities, except EM

# Developed markets outperform EM as China faced a challenging year, losing 21.7%

	Month (%)	3-Month (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
MSCI ACWI	4.0	6.7	18.5	18.5	20.4	14.4	11.9
MSCI ACWI ex. U.S.	4.1	1.8	7.8	7.8	13.2	9.6	7.3
MSCI EAFE	5.1	2.7	11.3	11.3	13.5	9.5	8.0
MSCI EAFE Local	4.3	3.9	18.7	18.7	13.4	8.4	10.1
MSCI Emerging Markets	1.9	-1.3	-2.5	-2.5	10.9	9.9	5.5
MSCI EM Local	1.5	-0.9	-0.2	-0.2	12	10.5	8.0
MSCI EAFE Small-Cap	4.4	0.1	10.1	10.1	15.6	11.0	10.8
MSCI EM Small-Cap	4.2	1.3	18.8	18.8	16.5	11.5	7.4
MSCI Frontier	1.5	0.7	19.7	19.7	12.7	9.6	7.3

Source: eVestment as of December 31, 2021



# Themes for the quarter

- After a strong 2020, China lost 20.7% due largely to regulatory changes, default concerns, and a policy shift from all-out-growth to sustainable growth/common prosperity
- Non-U.S. developed markets outperformed emerging markets with positive earnings surprises and improved sentiment
- ☑ Within EM, the growth style came under pressure as China growth stocks sold off; style performance was more balanced in DM large-caps
- Energy was the strongest performing sector across global equities, boosting the value factor
- □ Global inflation accelerated through 2021

# Hedge funds wrapped up the year on a tepid note

# Hedge funds saw small gains in December, lagging the broader market by a wide margin

	Month (%)	3-Month (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
HFRX Global	0.5	0.1	3.7	3.7	6.3	3.5	2.6
HFRX Hedged Equity	1.7	2.7	12.1	12.1	9.1	5.3	4.1
HFRI Composite	1.3	0.6	10.3	10.3	10.9	7.1	5.8
HFRI Fund of Funds	0.8	0.8	6.5	6.5	8.6	5.8	4.6
HFRI Convertible Arbitrage	0.3	1.7	7.8	7.8	10.3	6.6	6.1
HFRI Equity Hedge	1.9	0.9	12.0	12.0	14.5	9.6	7.5
HFRI Event-Driven	1.8	1.6	13.1	13.1	9.9	6.9	6.3
HFRI Macro	0.7	-0.5	7.5	7.5	6.5	3.4	2.2
HFRI Merger Arbitrage	-0.1	0.7	9.8	9.8	7.2	5.8	4.5
HFRI Relative Value	0.3	0.2	7.6	7.6	6.1	4.6	5.2
CBOE S&P 500 PutWrite	3.7	7.0	21.8	21.8	12.2	8.0	8.1

Sources: Hedge Fund Research, CBOE as of December 31, 2021



# Themes for the quarter

- December was the second worst month for long alpha with long/short funds suffering the worst year of performance since 2009
- Hedge fund net exposure continued to rise through the quarter and ended the year at elevated levels, while gross exposure declined into year end
- □ The global long/short ratio remained unchanged, offset by positive performance in equities despite Americas-based hedge funds contributing to most of the selling activity in global equities throughout December

Sources: Hedge Fund Research, Morgan Stanley Prime Brokerage, Barclays Strategic Consulting Analysis, BarclayHedge

# Real estate expected to remain resilient

# Despite the added uncertainty from the Omicron variant and other systemic risks, the outlook for commercial real estate remains positive amidst a growing economy

Indices	4Q21 (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
NPI	6.2	17.7	17.7	8.4	7.8	9.3
Income	1.1	4.2	4.2	4.3	4.4	4.9
Appreciation	5.1	13.1	13.1	3.9	3.2	4.3
NFI-ODCE	8.0	22.2	22.2	9.2	8.7	10.5
Income	1.0	4.0	4.0	4.0	5.1	4.6
Appreciation	7.0	17.6	17.6	5.0	4.5	5.7
FTSE NAREIT All Eq. REITs	16.2	41.3	41.3	19.9	12.4	12.2
Property Type						
NPI Apartment	6.8	19.9	19.9	8.8	7.7	9.0
NPI Office	1.7	6.1	6.1	4.7	5.4	7.6
NPI Industrial	13.3	43.3	43.3	22.0	18.6	15.6
NPI Retail	2.2	4.2	4.2	-0.6	1.2	6.6
NPI Hotel	4.6	5.5	5.5	-6.7	-1.7	3.5
Geographic Sectors						
NPI East	4.7	13.4	13.4	6.4	5.9	7.5
NPI Midwest	3.9	12.2	12.2	4.5	4.7	7.4
NPI South	7.0	19.8	19.8	9.0	8.1	9.8
NPI West	7.2	21.1	21.1	10.4	9.8	11.1

Source: NCREIF Performance data as of December 31, 2021



# Infrastructure performance

Infrastructure assets have exhibited resiliency throughout the pandemic crisis and recent economic downturn, as well as showing signs of continuing that momentum in 2022

	2Q21 (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
MSCI Global Infrastructure Asset Index (Private)	0.8	8.6	7.8	9.7	12.4
DJB Global Infrastructure Index	6.9	18.8	8.0	6.8	8.2
Bloomberg Barclays Aggregate	1.8	-0.3	5.3	3.0	3.4
CPI + 5%	7.6	10.4	7.5	7.4	6.9
S&P 500	8.5	40.8	18.7	17.6	14.8
DJ Industrial Average	5.1	36.3	15.0	16.7	13.5

Source: Bloomberg as of June 30, 2021



# Private equity outperformance

# Performance across the private equity market continues to outpace public market indices with North America venture capital providing market leading returns

	2024 (0/)	4 V., (0/)	2 V., (0/)	E V., (0/)	10 V- (0/)	4 F V., (0/)	20 V., (0/)
	2Q21 (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)	15 Yr (%)	20 Yr (%)
Global Private Equity	14.9	54.9	22.9	20.6	15.6	13.4	13.9
North America Private Equity	14.6	56.3	23.7	21.0	16.7	14.0	13.9
Europe Private Equity	17.1	57.5	24.5	22.2	13.7	11.8	14.0
Rest of World Private Equity	12.9	42.3	15.5	15.1	12.4	12.9	12.5
Global VC	17.2	65.5	29.0	22.2	16.2	12.7	9.0
North America VC	18.1	71.3	30.8	22.9	16.5	12.8	9.0
Europe VC	21.3	34.4	15.5	18.0	13.5	11.6	8.9
Rest of World VC	8.3	33.8	18.7	16.2	12.9	11.5	9.8
MSCI All Country World Index	7.5	39.9	15.1	15.2	10.5	8.2	7.9
S&P 500	8.6	40.8	18.7	17.7	14.8	10.7	8.6
Russell 3000	8.2	44.2	18.7	17.9	14.7	10.8	8.9
Russell 2000 Growth	3.9	51.4	15.9	18.8	13.5	10.9	9.0

Source: Pitchbook as of June 30, 2021



# Themes for the year and a look ahead

- Market expansion continues across the private equity and venture capital market as managers both raised and deployed capital at record pace in 2021, resulting in investors having to make commitment decisions with larger funds being raised and managers coming back to market quicker which appears poised to continue into 2022
- Venture capital continued to be the best performing area of the market as the space has broadened and matured into a sizeable asset class capable of accelerating innovation and supporting growth in multi-billion dollar companies
- ∨ Venture investors benefited from ~300 public listings in 2021 and the liquidity could continue in 2022 as the inventory of venture-backed companies remains very strong with ~700 companies valued over this past year's median IPO valuation (\$630m) and ~120 valued over the average IPO valuation (\$3.3 billion)
- 2022 is poised to set another fundraising record with many large buyout funds coming to market and investors continuing to spread commitments not only to private equity but across the venture capital, growth equity, and international markets
- Dry powder is likely to have dropped slightly in 2021 as deployment eclipsed fundraising across the market, but may build back up as managers look to reload with significant fundraises in 2022 and managers appear cautious with deployment due to elevated valuations, potential growth deceleration, rising interest rates, labor/supply issues, and tax concerns



# Private credit performance

Private credit performance was strong in 2Q21 and posted similar 7+% performance over the trailing 1-year period; private debt has lagged traditional equity but has outpaced leveraged loans over the 5- and 10-year horizons

	Q2 2021 (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
Private Credit	7.6	7.3	2.5	5.6	6.3
Credit Suisse Leveraged Loan	1.4	11.7	4.4	5.0	4.5
Bloomberg Barclays High Yield	2.7	15.4	7.5	7.5	6.7
Bloomberg Barclays Aggregate	1.8	-0.3	5.3	3.0	3.4
DJ Industrial Average	5.1	36.3	15.0	16.7	13.5
S&P 500	8.6	40.8	18.7	17.6	14.8
Russell 2000	4.3	62.0	13.5	16.5	12.3

Source: Pitchbook as of March 31, 2021



Purpose:

# Empower our clients to meet their investment objectives

#### **Vision**

Be a trusted partner to our clients through effective investment programs

#### Mission

Provide independent and thoughtful investment guidance

#### Why Marquette?

- ✓ Our people
- ✓ Independent expertise
- √ Focused client service
- ✓ Careful research

# **Disclosure**

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#### **About Marquette Associates**

Marquette was founded in 1986 with the sole objective of providing investment consulting at the highest caliber of service. Our expertise is grounded in our commitment to client service — our team aims to be a trusted partner and as fiduciaries, our clients' interests and objectives are at the center of everything we do. Our approach brings together the real-world experience of our people and our dedication to creativity and critical thinking in order to empower our clients to meet their goals. For more information, please visit www.MarquetteAssociates.com.







#### **Cincinnati Retirement System**

City of Cincinnati

Retirement System

**Executive Summary** 

**December 31, 2021** 

Total Fund Composite Manager Status

Market Value: \$2,580.8 Million and 100.0% of Fund

Investment Manager	Asset Class	Status	Reason
NTGI Agg Bond	Core Fixed Income	In Compliance	
Loomis Sayles Core-Plus	Core Plus Fixed Income	In Compliance	
Shenkman - Four Points	High Yield Fixed Income	In Compliance	
H.I.G. Bayside Opportunity VI	Private Debt	In Compliance	
Carlyle	Private Debt	In Compliance	
Blue Owl - Owl Rock	Private Debt	In Compliance	
NTGI Russell 3000	All-Cap Core	In Compliance	
NTGI Russell 1000 Value	Large-Cap Value	In Compliance	
Vanguard Mid Cap Value	Mid-Cap Value	In Compliance	
NTGI Russell 2000 Value	Small-Cap Value	In Compliance	
NTGI ACWI Ex-US	Non-U.S. All-Cap Core	In Compliance	
AQR Risk Parity	Risk Parity	In Compliance	
NB US Index Putwrite Strategy	Volatility Risk Premium	In Compliance	
J.P. Morgan SPF	Core Real Estate	In Compliance	
Morgan Stanley P.P.	Core Real Estate	In Compliance	
PRISA III	Value-Added Real Estate	In Compliance	
Principal Enhanced	Value-Added Real Estate	In Compliance	
StepStone RE Intl Partnership I	Non-U.S. Core Real Estate	In Compliance	
Alinda Fund II	Core Infrastructure	In Compliance	
Macquarie Fund II	Core Infrastructure	In Compliance	
J.P. Morgan Infrastructure	Core Infrastructure	In Compliance	
IFM Global Infrastructure (U.S)	Global Infrastructure	In Compliance	
Ullico	Core Infrastructure	In Compliance	
Blue Chip Fund IV	Venture Private Equity	In Compliance	
Fort Washington Fund V	Divers. Private Equity	In Compliance	
Fort Washington Fund VI	Divers. Private Equity	In Compliance	
Fort Washington Fund VIII	Divers. Private Equity	In Compliance	
Fort Washington Fund IX	Divers. Private Equity	In Compliance	
Fort Washington Fund X	Divers. Private Equity	In Compliance	
Fort Washington Opp Fund III	Secondary Private Equity FoF	In Compliance	
North Sky Fund III - LBO	LBO Private Equity	In Compliance	
North Sky Fund III - VC	Venture Private Equity	In Compliance	
North Sky Fund IV - LBO	LBO Private Equity	In Compliance	
North Sky Fund V	Divers. Private Equity	In Compliance	
Portfolio Advisors IV - Special Sit	Mezz./Special Sit. Private Equity FoF	In Compliance	
Portfolio Advisors V - Special Sit	Mezz./Special Sit. Private Equity FoF	In Compliance	
JP Morgan Global Private Equity VIII	Global Divers. Private Equity FoF	In Compliance	
JP Morgan Global Private Equity IX	Global Divers. Private Equity FoF	In Compliance	

#### **Investment Manager Evaluation Terminology**

The following terminology has been developed by Marquette Associates to facilitate efficient communication among the Investment Manager, Investment Consultant, and the Plan Sponsor. Each term signifies a particular status with the Fund and any conditions that may require improvement. In each case, communication is made only after consultation with the Trustees and/or the Investment Committee of the Plan.

In Compliance - The investment manager states it is acting in accordance with the Investment Policy Guidelines.

Alert – The investment manager is notified of a problem in performance (usually related to a benchmark or volatility measure), a change in investment characteristics, an alteration in management style or key investment professionals, and/or any other irregularities.

On Notice – The investment manager is notified of continued concern with one or more Alert issues. Failure to improve upon stated issues within a specific time frame justifies termination.

Termination - The Trustees have decided to terminate the investment manager. The investment manager is notified and transition plans are in place.



# **Total Fund Composite**

Market Value: \$2,580.8 Million and 100.0% of Fund

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		2,580,811,042	-40,361,443	100.0	100.0	0
Fixed Income Composite		437,801,857	-30,120,350	17.0	14.0	76,488,311
NTGI Agg Bond	Core Fixed Income	194,269,102	-30,007,013	7.5	6.0	39,420,440
Loomis Sayles Core-Plus	Core Plus Fixed Income	161,132,174	-113,337	6.2	6.0	6,283,512
Shenkman - Four Points	High Yield Fixed Income	82,400,580	0	3.2	2.0	30,784,359
Private Debt Composite		11,361,395	3,519,900	0.4	3.0	-66,062,936
H.I.G. Bayside Opportunity VI	Private Debt	11,361,395	3,519,900	0.4	3.0	-66,062,936
U.S. Equity Composite		743,042,113	-34,826,074	28.8	27.5	33,319,076
NTGI Russell 3000	All-Cap Core	503,560,097	-34,818,481	19.5	18.5	26,110,055
NTGI Russell 1000 Value	Large-Cap Value	94,247,272	-3,279	3.7	3.5	3,918,886
Vanguard Mid Cap Value	Mid-Cap Value	55,231,635	0	2.1	2.0	3,615,414
NTGI Russell 2000 Value	Small-Cap Value	90,003,108	-4,314	3.5	3.5	-325,278
Non-U.S. Equity Composite		570,509,080	-48,502	22.1	23.0	-23,077,459
NTGI ACWI Ex-US	Non-U.S. All-Cap Core	496,081,323	-48,502	19.2	20.0	-20,080,885
DFA Emerging Markets Small Cap	EM Small-Cap	72,768,432	0	2.8	3.0	-4,655,899
Risk Parity Composite		111,139,246	0	4.3	2.5	46,618,970
AQR Risk Parity	Risk Parity	111,139,246	0	4.3	2.5	46,618,970
Volatility Risk Premium Composite		-			2.5	-64,520,276
Real Estate Composite		224,631,156	-6,547,240	8.7	7.5	31,070,328
J.P. Morgan SPF	Core Real Estate	63,795,429	-131,666	2.5	1.9	15,276,182
Morgan Stanley P.P.	Core Real Estate	59,620,184	-658,025	2.3	1.9	11,100,937
PRISA III	Value-Added Real Estate	43,274,175	-4,655,773	1.7	1.9	-5,245,072
Principal Enhanced	Value-Added Real Estate	55,977,997	-651,777	2.2	1.9	7,458,749
StepStone RE Intl Partnership I	Non-U.S. Core Real Estate	1,963,370	-450,000	0.1	0.0	1,963,370
Infrastructure Composite		168,265,046	0	6.5	10.0	-89,816,058
Alinda Fund II	Core Infrastructure	13,814,072	0	0.5	0.0	13,814,072
Macquarie Fund II	Core Infrastructure	333,328	0	0.0	0.0	333,328
J.P. Morgan Infrastructure	Core Infrastructure	52,846,117	0	2.0	5.0	-76,194,435
IFM Global Infrastructure (U.S)	Global Infrastructure	101,271,529	0	3.9	5.0	-27,769,023

# **Total Fund Composite**

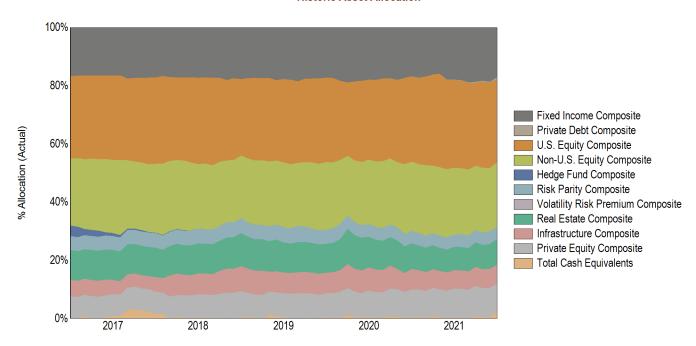
Market Value: \$2,580.8 Million and 100.0% of Fund

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Private Equity Composite		250,328,055	-10,499,846	9.7	10.0	-7,753,049
Fort Washington Fund V	Divers. Private Equity	11,315,415	-1,904,000	0.4		
North Sky Fund III - LBO	LBO Private Equity	2,711,304	-1,067,951	0.1		
North Sky Fund III - VC	Venture Private Equity	2,887,228	0	0.1		
Portfolio Advisors IV - Special Sit	Mezz./Special Sit. Private Equity FoF	1,652,332	0	0.1		
Fort Washington Fund VI	Divers. Private Equity	8,487,747	-1,173,000	0.3		
North Sky Fund IV - LBO	LBO Private Equity	3,850,042	-1,005,000	0.1		
Portfolio Advisors V - Special Sit	Mezz./Special Sit. Private Equity FoF	887,529	-59,151	0.0		
Fort Washington Fund VIII	Divers. Private Equity	47,114,877	-2,750,000	1.8		
Fort Washington Opp Fund III	Secondary Private Equity FoF	10,759,042	-2,775,000	0.4		
North Sky Fund V	Divers. Private Equity	39,667,095	-3,866,516	1.5		
Fort Washington Fund IX	Divers. Private Equity	58,365,655	-3,000,000	2.3		
Fort Washington Fund X	Divers. Private Equity	23,025,181	0	0.9		
JP Morgan Global Private Equity VIII	Global Divers. Private Equity FoF	29,975,835	5,568,314	1.2		
JP Morgan Global Private Equity IX	Global Divers. Private Equity FoF	7,832,514	1,532,457	0.3		
Blue Chip Fund IV	Venture Private Equity	1,796,258	0	0.1		
Total Cash Equivalents		63,733,094	38,160,669	2.5	-	63,733,094

#### **Asset Allocation**

Market Value: \$2,580.8 Million and 100.0% of Fund

#### **Historic Asset Allocation**



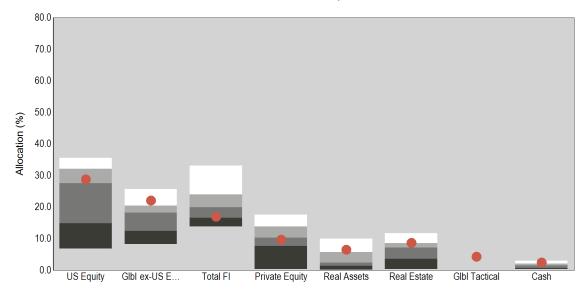
	Current	Policy	Difference	%
Fixed Income Composite	\$437,801,857	\$361,313,546	\$76,488,311	3.0%
Private Debt Composite	\$11,361,395	\$77,424,331	-\$66,062,936	-2.6%
U.S. Equity Composite	\$743,042,113	\$709,723,036	\$33,319,076	1.3%
Non-U.S. Equity Composite	\$570,509,080	\$593,586,540	-\$23,077,459	-0.9%
Risk Parity Composite	\$111,139,246	\$64,520,276	\$46,618,970	1.8%
Volatility Risk Premium Composite		\$64,520,276		_
Real Estate Composite	\$224,631,156	\$193,560,828	\$31,070,328	1.2%
Infrastructure Composite	\$168,265,046	\$258,081,104	-\$89,816,058	-3.5%
Private Equity Composite	\$250,328,055	\$258,081,104	-\$7,753,049	-0.3%
Total Cash Equivalents	\$63,733,094			
Total	\$2,580,811,042			

## **Total Fund Composite**

## **Asset Allocation**

Market Value: \$2,580.8 Million and 100.0% of Fund

#### Total Plan Allocation vs. InvMetrics Public DB > \$1B Net



5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios

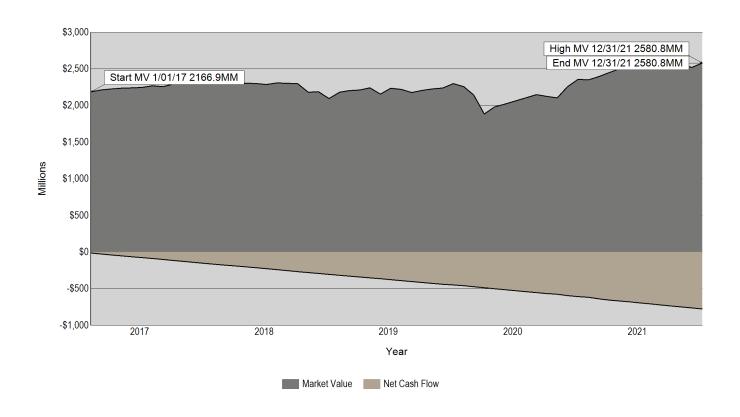
Γotal	Fund	Com	posite

Allocation	n (Rank	)													
35.6		25.8		33.1		17.6		10.0		11.7			3.0		
32.1		20.5		24.0		13.9		5.8		8.6			2.1		
27.6		18.2		20.0		10.4		2.4		7.2			1.5		
14.8		12.4		16.6		7.7		1.4		3.7			0.7		
6.9		8.3		13.9		0.4		0.2		0.4			0.4		
15		17		18		15		11		17			18		
28.8	(42)	22.1	(13)	17.0	(73)	9.7	(59)	6.5	(19)	8.7	(25)	4.3	 2.5	(21)	

## **Total Fund Composite**

## Market Value History

Market Value: \$2,580.8 Million and 100.0% of Fund



#### **Summary of Cash Flows**

	Fourth Quarter	Year-To-Date	One Year	Three Years	Five Years
Beginning Market Value	\$2,522,467,189.20	\$2,356,810,380.40	\$2,356,810,380.40	\$2,095,589,169.17	\$2,166,936,179.06
Net Cash Flow	-\$40,203,788.08	-\$185,864,892.59	-\$185,864,892.59	-\$500,486,257.75	-\$796,076,514.56
Net Investment Change	\$98,547,640.44	\$409,865,553.75	\$409,865,553.75	\$985,708,130.14	\$1,209,951,377.06
Ending Market Value	\$2,580,811,041.56	\$2,580,811,041.56	\$2,580,811,041.56	\$2,580,811,041.56	\$2,580,811,041.56

Total Fund Composite Attribution

Market Value: \$2,580.8 Million and 100.0% of Fund

# Attribution Summary 5 Years Ending December 31, 2021

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Fixed Income Composite	4.96%	3.57%	1.39%	0.21%	-0.20%	0.04%	0.05%
Private Debt Composite				0.03%	0.15%	-0.03%	0.16%
U.S. Equity Composite	15.08%	17.97%	-2.88%	-0.70%	0.03%	-0.03%	-0.69%
Non-U.S. Equity Composite	8.66%	9.61%	-0.95%	-0.18%	0.01%	0.01%	-0.17%
Hedge Fund Composite				0.00%	-0.03%	-0.06%	-0.09%
Risk Parity Composite	8.37%	12.43%	-4.06%	-0.21%	0.00%	0.02%	-0.20%
Volatility Risk Premium Composite	-					-	
Real Estate Composite	10.13%	7.75%	2.38%	0.22%	-0.07%	0.02%	0.17%
Infrastructure Composite	7.50%	5.12%	2.38%	0.23%	0.12%	-0.05%	0.30%
Private Equity Composite	18.22%	21.18%	-2.95%	-0.26%	-0.14%	0.02%	-0.37%
Total Cash Equivalents	1.69%	1.08%	0.61%			-	
Total	10.82%	11.75%	-0.94%	-0.66%	-0.12%	-0.07%	-0.84%

#### **Calendar Years**

	2021	2020	2019	2018	Quarter	1 Yr	3 Yrs
Wtd. Actual Return	17.2%	10.5%	17.0%	-4.1%	3.9%	17.2%	14.8%
Wtd. Index Return *	13.4%	14.5%	18.6%	-2.6%	3.9%	13.4%	15.5%
Excess Return	3.8%	-4.1%	-1.6%	-1.5%	0.0%	3.8%	-0.7%
Selection Effect	3.1%	-3.0%	-1.2%	-1.2%	-0.1%	3.1%	-0.4%
Allocation Effect	0.5%	-0.7%	-0.4%	-0.1%	0.1%	0.5%	-0.2%
Interaction Effect	0.2%	-0.2%	0.0%	-0.1%	0.0%	0.2%	0.0%

<sup>\*</sup>Calculated from the benchmark returns and weightings of each composite. Returns will differ slightly from the official Policy Benchmark.

## Attribution

Market Value: \$2,580.8 Million and 100.0% of Fund

	Market Value	3 Mo	Contribution	% Contribution
	(\$)	Return	to Return	to Return
<b>Total Fund Composite</b>	2,580,811,042	3.9	3.9	100.0%
Fixed Income Composite	437,801,857	0.0	0.0	0.0%
NTGI Agg Bond	194,269,102	0.0	0.0	-0.1%
Loomis Sayles Core-Plus	161,132,174	-0.1	0.0	-0.2%
Shenkman - Four Points	82,400,580	0.3	0.0	0.3%
Private Debt Composite	11,361,395	0.0	0.0	0.0%
H.I.G. Bayside Opportunity VI	11,361,395	0.0	0.0	0.0%
U.S. Equity Composite	743,042,113	8.5	2.4	62.0%
NTGI Russell 3000	503,560,097	9.3	1.8	46.4%
NTGI Russell 1000 Value	94,247,272	7.8	0.3	7.1%
Vanguard Mid Cap Value	55,231,635	8.2	0.2	4.4%
NTGI Russell 2000 Value	90,003,108	4.3	0.1	3.8%
Non-U.S. Equity Composite	570,509,080	2.1	0.5	11.9%
NTGI ACWI Ex-US	496,081,323	2.3	0.4	11.2%
DFA Emerging Markets Small Cap	72,768,432	1.0	0.0	0.7%
Risk Parity Composite	111,139,246	3.1	0.1	3.4%
AQR Risk Parity	111,139,246	3.1	0.1	3.4%
Real Estate Composite	224,631,156	8.5	0.7	18.7%
J.P. Morgan SPF	63,795,429	7.9	0.2	4.9%
Morgan Stanley P.P.	59,620,184	9.6	0.2	5.5%
PRISA III	43,274,175	6.2	0.1	2.8%
Principal Enhanced	55,977,997	10.5	0.2	5.6%
StepStone RE Intl Partnership I	1,963,370	0.0	0.0	0.0%
Infrastructure Composite	168,265,046	2.2	0.1	3.6%
Alinda Fund II	13,814,072	0.0	0.0	0.0%
Macquarie Fund II	333,328	0.0	0.0	0.0%
J.P. Morgan Infrastructure	52,846,117	0.0	0.0	0.0%
IFM Global Infrastructure (U.S)	101,271,529	3.7	0.1	3.7%
Private Equity Composite	250,328,055	0.0	0.0	0.0%
Total Cash Equivalents	63,733,094	3.8	0.1	1.7%

## **Total Fund Composite**

## Annualized Performance (Net of Fees)

Market Value: \$2,580.8 Million and 100.0% of Fund

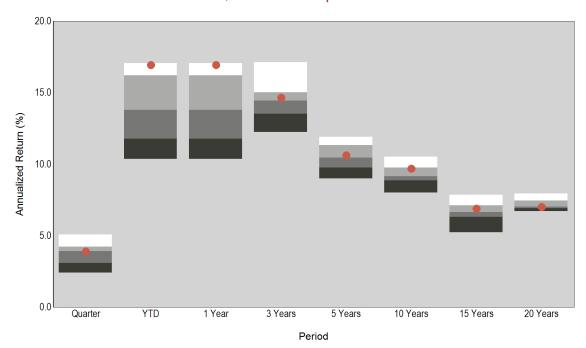
	3 Mo	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	15 Yrs	20 Yrs
Total Fund Composite	3.9%	16.9%	13.6%	14.7%	10.6%	8.8%	9.7%	6.9%	7.0%
Target Benchmark	3.7%	14.8%	13.8%	15.1%	11.1%	9.2%	9.9%	6.8%	7.4%
InvMetrics Public DB > \$1B Net Rank	53	13	30	43	49	30	40	40	57
Fixed Income Composite	0.0%	0.6%	5.0%	6.5%	4.8%	4.2%	4.4%	5.2%	5.4%
Bloomberg US Aggregate TR	0.0%	-1.5%	2.9%	4.8%	3.6%	3.0%	2.9%	4.1%	4.3%
InvMetrics Public DB Total Fix Inc Net Rank	17	17	5	10	6	3	9	12	17
Private Debt Composite	0.0%	-10.2%							
Bloomberg US Aggregate TR	0.0%	-1.5%	2.9%	4.8%	3.6%	3.0%	2.9%	4.1%	4.3%
U.S. Equity Composite	8.5%	30.3%	21.1%	23.2%	15.0%	12.5%	14.7%	9.8%	9.0%
Russell 3000	9.3%	25.7%	23.3%	25.8%	18.0%	14.5%	16.3%	10.6%	9.7%
InvMetrics Public DB US Eq Net Rank	82	3	72	77	92	86	71	63	79
Non-U.S. Equity Composite	2.1%	10.2%	8.8%	12.1%	8.5%	6.3%	7.4%	4.5%	6.4%
MSCI ACWI ex USA	1.8%	7.8%	9.2%	13.2%	9.6%	6.6%	7.3%	3.8%	6.8%
InvMetrics Public DB ex-US Eq Net Rank	22	16	76	88	91	88	84	64	82
Risk Parity Composite	3.1%	10.3%	8.0%	12.5%	8.4%	6.0%			
60% Wilshire 5000/40% BarCap Aggregate	5.7%	14.7%	15.5%	17.6%	12.4%	10.2%	11.1%	8.3%	8.0%
Volatility Risk Premium Composite				-			-		
Real Estate Composite	8.5%	22.4%	11.8%	9.8%	9.0%	9.8%	10.7%		-
NFI-ODCE	7.7%	21.1%	10.2%	8.2%	7.7%	8.6%	9.4%	5.8%	7.3%
NPI	6.2%	17.7%	9.4%	8.4%	7.8%	8.6%	9.3%	7.2%	8.7%
InvMetrics All DB Real Estate Priv Net Rank	32	31	11	13	15	2	2		
Infrastructure Composite	2.2%	10.2%	9.2%	9.9%	7.3%	6.9%	7.0%		
3 Month T-Bill +4%	1.0%	4.0%	4.3%	4.9%	5.1%	4.8%	4.6%	4.8%	5.2%
Private Equity Composite	0.0%	28.2%	25.0%	20.3%	18.2%	15.2%	14.9%	13.5%	7.8%
Cambridge Associates All PE	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	13.3%	14.1%

<sup>\*</sup> Cambridge Associates All PE benchmark data is updated through 6/30/21



Market Value: \$2,580.8 Million and 100.0% of Fund

#### InvMetrics Public DB > \$1B Net Return Comparison



	5th Percentile
	25th Percentile
	Median
	75th Percentile
	95th Percentile
	# of Portfolios
)	Total Fund Composit

Return							
5.1	17.1	17.1	17.1	11.9	10.5	7.9	8.0
4.2	16.2	16.2	15.0	11.3	9.8	7.1	7.5
3.9	13.8	13.8	14.4	10.5	9.2	6.7	7.0
3.1	11.8	11.8	13.5	9.8	8.9	6.3	6.9
2.4	10.4	10.4	12.3	9.0	8.0	5.3	6.7
26	26	26	26	26	24	22	21
3.9	16.9	16.9	14.7	10.6	9.7	6.9	7.0

## **Total Fund Composite**

## Calendar Performance (Net of Fees)

Market Value: \$2,580.8 Million and 100.0% of Fund

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	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Total Fund Composite	16.9%	10.3%	16.8%	-4.3%	14.9%	8.9%	-0.1%	6.4%	17.5%	12.0%	1.1%
Target Benchmark	14.8%	12.7%	17.8%	-4.0%	15.5%	8.8%	0.5%	5.8%	17.2%	12.2%	-1.8%
InvMetrics Public DB > \$1B Net Rank	13	57	53	60	62	13	46	18	13	69	32
Fixed Income Composite	0.6%	9.5%	9.6%	-0.6%	5.6%	7.2%	-2.1%	5.6%	0.7%	8.6%	5.6%
Bloomberg US Aggregate TR	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%
InvMetrics Public DB Total Fix Inc Net Rank	17	11	31	57	45	14	78	17	20	36	67
Private Debt Composite	-10.2%				-	-	-		-		
Bloomberg US Aggregate TR	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%
U.S. Equity Composite	30.3%	12.5%	27.8%	-8.6%	17.8%	16.3%	-3.0%	10.8%	35.4%	15.4%	-0.1%
Russell 3000	25.7%	20.9%	31.0%	-5.2%	21.1%	12.7%	0.5%	12.6%	33.6%	16.4%	1.0%
InvMetrics Public DB US Eq Net Rank	3	94	91	92	96	3	89	54	24	58	66
Non-U.S. Equity Composite	10.2%	7.5%	18.9%	-16.2%	27.7%	7.3%	-4.9%	-1.4%	14.5%	18.2%	-10.2%
MSCI ACWI ex USA	7.8%	10.7%	21.5%	-14.2%	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%	-13.7%
InvMetrics Public DB ex-US Eq Net Rank	16	97	98	68	59	7	68	13	79	49	6
Risk Parity Composite	10.3%	5.8%	21.8%	-6.1%	11.9%	11.2%	-9.4%	6.5%	-2.9%		
60% Wilshire 5000/40% BarCap Aggregate	14.7%	16.2%	21.9%	-2.9%	13.7%	9.2%	0.8%	10.0%	17.9%	11.3%	4.0%
Volatility Risk Premium Composite	-	-		-	-	-	-	-	-	-	-
Real Estate Composite	22.4%	2.2%	5.8%	7.5%	7.9%	9.3%	14.8%	12.4%	14.8%	11.0%	16.9%
NFI-ODCE	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%	15.0%
NPI	17.7%	1.6%	6.4%	6.7%	7.0%	8.0%	13.3%	11.8%	11.0%	10.5%	14.3%
InvMetrics All DB Real Estate Priv Net Rank	31	7	43	39	20	7	22	31	17	30	14
Infrastructure Composite	10.2%	8.1%	11.3%	4.8%	2.4%	0.4%	11.2%	12.5%	4.2%	5.6%	11.7%
3 Month T-Bill +4%	4.0%	4.5%	6.1%	6.0%	5.0%	4.3%	4.0%	4.0%	4.1%	4.1%	4.0%
Private Equity Composite	28.2%	22.0%	11.3%	16.0%	14.3%	8.1%	8.2%	8.5%	26.5%	8.4%	11.8%
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%

<sup>\*</sup> Cambridge Associates All PE benchmark data is updated through 6/30/21



	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
<b>Total Fund Composite</b>	3.0%	3.9%	16.9%	13.6%	14.7%	10.6%	8.8%	9.7%	9.2%	May-85
Target Benchmark	2.5%	3.7%	14.8%	13.8%	15.1%	11.1%	9.2%	9.9%		May-85
InvMetrics Public DB > \$1B Net Rank	37	53	13	30	43	49	30	40	2	May-85
Fixed Income Composite	0.2%	0.0%	0.6%	5.0%	6.5%	4.8%	4.2%	4.4%	5.7%	Nov-95
Bloomberg US Aggregate TR	-0.3%	0.0%	-1.5%	2.9%	4.8%	3.6%	3.0%	2.9%	4.9%	Nov-95
InvMetrics Public DB Total Fix Inc Net Rank	17	17	17	5	10	6	3	9	34	Nov-95
NTGI Agg Bond	-0.3%	0.0%	-						-0.8%	Jan-21
Bloomberg US Aggregate TR	-0.3%	0.0%	-1.5%	2.9%	4.8%	3.6%	3.0%	2.9%	-0.8%	Jan-21
eV US Core Fixed Inc Net Rank	68	34							56	Jan-21
Loomis Sayles Core-Plus	0.3%	-0.1%	-1.0%	4.9%	6.4%	4.7%			4.3%	Jul-15
Bloomberg US Aggregate TR	-0.3%	0.0%	-1.5%	2.9%	4.8%	3.6%	3.0%	2.9%	3.2%	Jul-15
eV US Core Plus Fixed Inc Net Rank	4	72	78	14	33	23			25	Jul-15
Shenkman - Four Points	1.0%	0.3%	4.6%	8.0%	9.8%	7.1%	6.6%	7.1%	6.9%	Aug-10
Bloomberg US High Yield TR	1.9%	0.7%	5.3%	6.2%	8.8%	6.3%	6.1%	6.8%	7.0%	Aug-10
eV US High Yield Fixed Inc Net Rank	92	84	59	8	8	6	9	16	28	Aug-10
Private Debt Composite	0.0%	0.0%	-10.2%						0.4%	Sep-20
Bloomberg US Aggregate TR	-0.3%	0.0%	-1.5%	2.9%	4.8%	3.6%	3.0%	2.9%	-0.7%	Sep-20
H.I.G. Bayside Opportunity VI	0.0%	0.0%	-10.2%						0.4%	Sep-20
Bloomberg US Aggregate TR	-0.3%	0.0%	-1.5%	2.9%	4.8%	3.6%	3.0%	2.9%	-0.7%	Sep-20

<sup>\*\*</sup> Cambridge Associates All PE benchmark data is updated through 6/30/21



<sup>\*</sup> Certain values are lagged. HIG Bayside VI, StepStone RE I, Alinda II, Macquarie II, JPM IIF, Fort Washington funds, North Sky funds, Portfolio Advisors IV, Portfolio Advisors V, JP Morgan GPE VIII, JP Morgan GPE IX, and Blue Chip IV are valued as of September 30, 2021. All lagged values have been updated for corresponding cash flows.

	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
U.S. Equity Composite	4.4%	8.5%	30.3%	21.1%	23.2%	15.0%	12.5%	14.7%	10.0%	Feb-89
Russell 3000	3.9%	9.3%	25.7%	23.3%	25.8%	18.0%	14.5%	16.3%	11.2%	Feb-89
InvMetrics Public DB US Eq Net Rank	57	82	3	72	77	92	86	71	99	Feb-89
NTGI Russell 3000	3.9%	9.3%							18.1%	Mar-21
Russell 3000	3.9%	9.3%	25.7%	23.3%	25.8%	18.0%	14.5%	16.3%	18.2%	Mar-21
eV US Passive All Cap Equity Gross Rank	68	59							61	Mar-21
NTGI Russell 1000 Value	6.3%	7.8%	25.2%	13.5%	17.7%	11.2%	9.8%		10.3%	Dec-13
Russell 1000 Value	6.3%	7.8%	25.2%	13.4%	17.6%	11.2%	9.7%	13.0%	10.2%	Dec-13
eV US Large Cap Value Equity Net Rank	48	54	65	66	61	68	62		56	Dec-13
Vanguard Mid Cap Value	6.2%	8.2%	28.8%	14.9%	19.1%				9.5%	Jan-18
CRSP US Mid Cap Value TR USD	6.2%	8.2%	28.8%	14.9%	19.1%	11.6%	10.1%	13.8%	9.5%	Jan-18
Mid-Cap Value MStar MF Rank	74	42	49	59	49				45	Jan-18
NTGI Russell 2000 Value	4.0%	4.3%	28.1%	15.9%	18.1%	9.2%	9.6%		8.9%	Dec-13
Russell 2000 Value	4.1%	4.4%	28.3%	15.9%	18.0%	9.1%	9.5%	12.0%	8.8%	Dec-13
eV US Small Cap Value Equity Net Rank	84	83	56	63	66	60	54		51	Dec-13
Non-U.S. Equity Composite	3.9%	2.1%	10.2%	8.8%	12.1%	8.5%	6.3%	7.4%	6.3%	May-93
MSCI ACWI ex USA	4.1%	1.8%	7.8%	9.2%	13.2%	9.6%	6.6%	7.3%		May-93
InvMetrics Public DB ex-US Eq Net Rank	27	22	16	76	88	91	88	84	99	<i>May-</i> 93
NTGI ACWI Ex-US	4.0%	2.3%							4.4%	Mar-21
MSCI ACWI ex USA	4.1%	1.8%	7.8%	9.2%	13.2%	9.6%	6.6%	7.3%	4.2%	Mar-21
eV ACWI ex-US All Cap Equity Net Rank	61	44							62	Mar-21
DFA Emerging Markets Small Cap	3.9%	1.0%	14.6%	14.2%	14.4%	10.8%	7.8%		7.8%	Dec-14
MSCI Emerging Markets Small Cap	4.2%	1.3%	18.8%	19.0%	16.5%	11.5%	7.3%	7.4%	7.3%	Dec-14
eV Emg Mkts Small Cap Equity Net Rank	40	59	56	70	72	72	59		59	Dec-14
Risk Parity Composite	2.1%	3.1%	10.3%	8.0%	12.5%	8.4%	6.0%		5.2%	Jul-12
60% Wilshire 5000/40% BarCap Aggregate	2.2%	5.7%	14.7%	15.5%	17.6%	12.4%	10.2%	11.1%	10.9%	Jul-12
AQR Risk Parity	2.1%	3.1%	10.3%	8.0%	12.5%	8.4%	6.0%		5.2%	Jul-12
60% Wilshire 5000/40% BarCap Aggregate	2.2%	5.7%	14.7%	15.5%	17.6%	12.4%	10.2%	11.1%	10.9%	Jul-12
60% MSCI World / 40% BarCap Aggregate	2.5%	4.7%	12.0%	12.7%	15.1%	10.6%	8.3%	8.9%	8.8%	Jul-12
Volatility Risk Premium Composite										

<sup>\*</sup> Certain values are lagged. HIG Bayside VI, StepStone RE I, Alinda II, Macquarie II, JPM IIF, Fort Washington funds, North Sky funds, Portfolio Advisors IV, Portfolio Advisors V, JP Morgan GPE VIII, JP Morgan GPE IX, and Blue Chip IV are valued as of September 30, 2021. All lagged values have been updated for corresponding cash flows.

	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Real Estate Composite	7.0%	8.5%	22.4%	11.8%	9.8%	9.0%	9.8%	10.7%	6.3%	Aug-07
NFI-ODCE	2.5%	7.7%	21.1%	10.2%	8.2%	7.7%	8.6%	9.4%	5.3%	Aug-07
NPI	2.0%	6.2%	17.7%	9.4%	8.4%	7.8%	8.6%	9.3%	6.8%	Aug-07
InvMetrics All DB Real Estate Priv Net Rank	37	32	31	11	13	15	2	2	9	Aug-07
J.P. Morgan SPF	2.6%	7.9%	19.8%	9.7%	7.5%	7.1%	8.1%	9.3%	5.7%	Jan-08
NFI-ODCE	2.5%	7.7%	21.1%	10.2%	8.2%	7.7%	8.6%	9.4%	5.2%	Jan-08
NPI	2.0%	6.2%	17.7%	9.4%	8.4%	7.8%	8.6%	9.3%	6.6%	Jan-08
InvMetrics All DB Real Estate Pub Net Rank	44	24	30	31	44	54	56	30	7	Jan-08
Morgan Stanley P.P.	9.6%	9.6%	21.5%	10.9%	9.3%	8.9%	9.8%	11.0%	6.7%	Aug-07
NFI-ODCE	2.5%	7.7%	21.1%	10.2%	8.2%	7.7%	8.6%	9.4%	5.3%	Aug-07
NPI	2.0%	6.2%	17.7%	9.4%	8.4%	7.8%	8.6%	9.3%	6.8%	Aug-07
InvMetrics All DB Real Estate Pub Net Rank	4	20	29	21	12	11	6	10	6	Aug-07
PRISA III	6.2%	6.2%	24.6%	16.8%	14.2%	12.0%	13.7%	14.1%	5.9%	Dec-07
NFI-ODCE	2.5%	7.7%	21.1%	10.2%	8.2%	7.7%	8.6%	9.4%	5.2%	Dec-07
NPI	2.0%	6.2%	17.7%	9.4%	8.4%	7.8%	8.6%	9.3%	6.6%	Dec-07
InvMetrics All DB Real Estate Pub Net Rank	12	27	12	3	7	2	1	1	7	Dec-07
Principal Enhanced	10.5%	10.5%	25.9%	12.6%	10.6%	10.1%	12.0%	12.8%	5.4%	Mar-08
NFI-ODCE	2.5%	7.7%	21.1%	10.2%	8.2%	7.7%	8.6%	9.4%	5.2%	Mar-08
NPI	2.0%	6.2%	17.7%	9.4%	8.4%	7.8%	8.6%	9.3%	6.6%	Mar-08
InvMetrics All DB Real Estate Pub Net Rank	1	11	11	14	10	10	1	1	23	Mar-08
StepStone RE Intl Partnership I	0.0%	0.0%	-4.4%	-7.4%	-4.3%	-3.6%	-2.3%	0.2%	-2.7%	Oct-07
NFI-ODCE	2.5%	7.7%	21.1%	10.2%	8.2%	7.7%	8.6%	9.4%	5.2%	Oct-07
NPI	2.0%	6.2%	17.7%	9.4%	8.4%	7.8%	8.6%	9.3%	6.7%	Oct-07
Infrastructure Composite	2.0%	2.2%	10.2%	9.2%	9.9%	7.3%	6.9%	7.0%	8.3%	Aug-08
3 Month T-Bill +4%	0.3%	1.0%	4.0%	4.3%	4.9%	5.1%	4.8%	4.6%	4.5%	Aug-08
Alinda Fund II	0.0%	0.0%	-12.3%	-9.9%	-5.8%	-7.2%	-4.1%	-0.9%	2.6%	Aug-08
3 Month T-Bill +4%	0.3%	1.0%	4.0%	4.3%	4.9%	5.1%	4.8%	4.6%	4.5%	Aug-08
Macquarie Fund II	0.0%	0.0%	3.5%	23.9%	20.1%	14.8%	12.8%	10.5%	10.8%	Sep-08
3 Month T-Bill +4%	0.3%	1.0%	4.0%	4.3%	4.9%	5.1%	4.8%	4.6%	4.5%	Sep-08
J.P. Morgan Infrastructure	0.0%	0.0%	5.2%	4.8%	6.2%				5.9%	Dec-17
CPI +4%	0.6%	2.6%	11.3%	8.3%	7.7%	7.0%	6.6%	6.2%	7.2%	Dec-17
IFM Global Infrastructure (U.S)	3.4%	3.7%	17.7%	10.0%	11.5%				13.8%	Feb-18
CPI +4%	0.6%	2.6%	11.3%	8.3%	7.7%	7.0%	6.6%	6.2%	7.1%	Feb-18

<sup>\*</sup> Certain values are lagged. HIG Bayside VI, StepStone RE I, Alinda II, Macquarie II, JPM IIF, Fort Washington funds, North Sky funds, Portfolio Advisors IV, Portfolio Advisors V, JP Morgan GPE VIII, JP Morgan GPE IX, and Blue Chip IV are valued as of September 30, 2021. All lagged values have been updated for corresponding cash flows.

	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Private Equity Composite	0.0%	0.0%	28.2%	25.0%	20.3%	18.2%	15.2%	14.9%	9.1%	Jul-93
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	16.6%	Jul-93
Fort Washington Fund V	0.0%	0.0%	22.6%	20.0%	14.9%	12.5%	9.6%	11.2%	9.6%	Sep-07
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	12.7%	Sep-07
North Sky Fund III - LBO	0.0%	0.0%	15.6%	21.6%	17.2%	14.9%	14.8%	15.3%	12.4%	May-07
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	13.0%	May-07
North Sky Fund III - VC	0.0%	0.0%	-7.0%	15.7%	21.5%	23.3%	16.1%	16.1%	13.9%	May-07
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	13.0%	May-07
Portfolio Advisors IV - Special Sit	0.0%	0.0%	10.3%	2.6%	0.1%	1.0%	0.7%	3.4%	3.8%	Jun-07
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	12.7%	Jun-07
Fort Washington Fund VI	0.0%	0.0%	24.8%	20.9%	19.3%	18.5%	15.5%	16.3%	15.7%	Apr-08
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	13.0%	Apr-08
North Sky Fund IV - LBO	0.0%	0.0%	24.1%	19.7%	15.5%	17.8%	17.0%	16.1%	16.9%	Aug-08
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	14.0%	Aug-08
Portfolio Advisors V - Special Sit	0.0%	0.0%	7.8%	6.9%	4.7%	4.6%	4.7%	6.8%	6.7%	Aug-08
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	14.0%	Aug-08
Fort Washington Fund VIII	0.0%	0.0%	23.9%	24.9%	21.3%	18.1%	19.2%		14.3%	Jan-14
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	17.1%	Jan-14
Fort Washington Opp Fund III	0.0%	0.0%	24.7%	2.1%	-0.3%	7.1%	15.1%		16.7%	Jul-14
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	17.2%	Jul-14
North Sky Fund V	0.0%	0.0%	32.3%	31.9%	27.6%	24.8%	18.5%		12.7%	Apr-14
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	17.1%	Apr-14
Fort Washington Fund IX	0.0%	0.0%	34.3%	31.1%	24.9%	16.7%			25.7%	Sep-16
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	20.6%	Sep-16
Fort Washington Fund X	0.0%	0.0%	47.2%	34.4%	-	-	-		26.6%	May-19
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	25.4%	<i>May-19</i>

<sup>\*\*</sup> Cambridge Associates All PE benchmark data is updated through 6/30/21



<sup>\*</sup> Certain values are lagged. HIG Bayside VI, StepStone RE I, Alinda II, Macquarie II, JPM IIF, Fort Washington funds, North Sky funds, Portfolio Advisors IV, Portfolio Advisors V, JP Morgan GPE VIII, JP Morgan GPE IX, and Blue Chip IV are valued as of September 30, 2021. All lagged values have been updated for corresponding cash flows.

#### **Investment Manager**

#### Annualized Performance (Net of Fees)

	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
JP Morgan Global Private Equity VIII	0.0%	0.0%	22.1%	17.2%					13.4%	Jun-19
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	25.6%	Jun-19
JP Morgan Global Private Equity IX	0.0%	0.0%	19.1%						29.7%	Nov-20
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	27.5%	Nov-20
Blue Chip Fund IV	0.0%	0.0%	3.3%	8.1%	10.3%	-7.2%	-10.1%	-6.3%	-1.3%	Dec-00
Cambridge Associates All PE	0.0%	0.0%	23.3%	28.5%	24.8%	21.2%	17.7%	17.1%	12.2%	Dec-00

<sup>\*\*</sup> Cambridge Associates All PE benchmark data is updated through 6/30/21



<sup>\*</sup> Certain values are lagged. HIG Bayside VI, StepStone RE I, Alinda II, Macquarie II, JPM IIF, Fort Washington funds, North Sky funds, Portfolio Advisors IV, Portfolio Advisors V, JP Morgan GPE VIII, JP Morgan GPE IX, and Blue Chip IV are valued as of September 30, 2021. All lagged values have been updated for corresponding cash flows.

## Investment Manager

## Calendar Performance (Net of Fees)

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	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>Total Fund Composite</b>	16.9%	10.3%	16.8%	-4.3%	14.9%	8.9%	-0.1%	6.4%	17.5%	12.0%	1.1%
Target Benchmark	14.8%	12.7%	17.8%	-4.0%	15.5%	8.8%	0.5%	5.8%	17.2%	12.2%	-1.8%
InvMetrics Public DB > \$1B Net Rank	13	57	53	60	62	13	46	18	13	69	32
Fixed Income Composite	0.6%	9.5%	9.6%	-0.6%	5.6%	7.2%	-2.1%	5.6%	0.7%	8.6%	5.6%
Bloomberg US Aggregate TR	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%
InvMetrics Public DB Total Fix Inc Net Rank	17	11	31	57	45	14	78	17	20	36	67
NTGI Agg Bond											
Bloomberg US Aggregate TR	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%
eV US Core Fixed Inc Net Rank											
Loomis Sayles Core-Plus	-1.0%	11.1%	9.5%	-0.5%	5.2%	6.9%	-			-	
Bloomberg US Aggregate TR	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%
eV US Core Plus Fixed Inc Net Rank	78	11	60	47	24	17					-
Shenkman - Four Points	4.6%	11.6%	13.3%	-1.0%	7.5%	16.1%	-4.2%	2.6%	10.7%	11.9%	1.7%
Bloomberg US High Yield TR	5.3%	7.1%	14.3%	-2.1%	7.5%	17.1%	-4.5%	2.5%	7.4%	15.8%	5.0%
eV US High Yield Fixed Inc Net Rank	59	2	53	28	39	20	66	35	10	91	86
Private Debt Composite	-10.2%	-					-			-	
Bloomberg US Aggregate TR	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%
H.I.G. Bayside Opportunity VI	-10.2%						-			-	
Bloomberg US Aggregate TR	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%

<sup>\*</sup> Cambridge Associates All PE benchmark data is updated through 6/30/21



## Calendar Performance (Net of Fees)

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	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
U.S. Equity Composite	30.3%	12.5%	27.8%	-8.6%	17.8%	16.3%	-3.0%	10.8%	35.4%	15.4%	-0.1%
Russell 3000	25.7%	20.9%	31.0%	-5.2%	21.1%	12.7%	0.5%	12.6%	33.6%	16.4%	1.0%
InvMetrics Public DB US Eq Net Rank	3	94	91	92	96	3	89	54	24	58	66
NTGI Russell 3000											
Russell 3000	25.7%	20.9%	31.0%	-5.2%	21.1%	12.7%	0.5%	12.6%	33.6%	16.4%	1.0%
eV US Passive All Cap Equity Gross Rank											
NTGI Russell 1000 Value	25.2%	3.0%	26.6%	-8.2%	13.8%	17.3%	-3.6%	13.5%			
Russell 1000 Value	25.2%	2.8%	26.5%	-8.3%	13.7%	17.3%	-3.8%	13.5%	32.5%	17.5%	0.4%
eV US Large Cap Value Equity Net Rank	65	53	48	42	84	19	57	24			
Vanguard Mid Cap Value	28.8%	2.5%	28.0%	-	-	-	-		-	-	
CRSP US Mid Cap Value TR USD	28.8%	2.5%	28.1%	-12.4%	17.1%	15.3%	-1.8%	14.1%	37.4%	17.9%	-0.4%
Mid-Cap Value MStar MF Rank	49	58	42								
NTGI Russell 2000 Value	28.1%	4.9%	22.6%	-12.7%	8.1%	31.9%	-7.3%	4.3%			
Russell 2000 Value	28.3%	4.6%	22.4%	-12.9%	7.8%	31.7%	-7.5%	4.2%	34.5%	18.0%	-5.5%
eV US Small Cap Value Equity Net Rank	56	47	60	29	68	13	72	56			-
Non-U.S. Equity Composite	10.2%	7.5%	18.9%	-16.2%	27.7%	7.3%	-4.9%	-1.4%	14.5%	18.2%	-10.2%
MSCI ACWI ex USA	7.8%	10.7%	21.5%	-14.2%	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%	-13.7%
InvMetrics Public DB ex-US Eq Net Rank	16	97	98	68	59	7	68	13	79	49	6
NTGI ACWI Ex-US		-		-	-					-	
MSCI ACWI ex USA	7.8%	10.7%	21.5%	-14.2%	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%	-13.7%
eV ACWI ex-US All Cap Equity Net Rank											
DFA Emerging Markets Small Cap	14.6%	13.8%	14.9%	-17.6%	35.3%	10.9%	-8.7%				
MSCI Emerging Markets Small Cap	18.8%	19.3%	11.5%	-18.6%	33.8%	2.3%	-6.8%	1.0%	1.0%	22.2%	-27.2%
eV Emg Mkts Small Cap Equity Net Rank	56	64	52	46	55	15	59				

## Calendar Performance (Net of Fees)

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	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Risk Parity Composite	10.3%	5.8%	21.8%	-6.1%	11.9%	11.2%	-9.4%	6.5%	-2.9%		
60% Wilshire 5000/40% BarCap Aggregate	14.7%	16.2%	21.9%	-2.9%	13.7%	9.2%	0.8%	10.0%	17.9%	11.3%	4.0%
AQR Risk Parity	10.3%	5.8%	21.8%	-6.1%	11.9%	11.2%	-9.4%	6.5%	-2.9%		
60% Wilshire 5000/40% BarCap Aggregate	14.7%	16.2%	21.9%	-2.9%	13.7%	9.2%	0.8%	10.0%	17.9%	11.3%	4.0%
60% MSCI World / 40% BarCap Aggregate	12.0%	13.3%	20.0%	-5.1%	14.5%	5.7%	-0.1%	5.4%	14.5%	11.3%	0.0%
Volatility Risk Premium Composite											
Real Estate Composite	22.4%	2.2%	5.8%	7.5%	7.9%	9.3%	14.8%	12.4%	14.8%	11.0%	16.9%
NFI-ODCE	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%	15.0%
NPI	17.7%	1.6%	6.4%	6.7%	7.0%	8.0%	13.3%	11.8%	11.0%	10.5%	14.3%
InvMetrics All DB Real Estate Priv Net Rank	31	7	43	39	20	7	22	31	17	30	14
J.P. Morgan SPF	19.8%	0.4%	3.3%	7.0%	6.2%	7.3%	14.1%	10.3%	14.8%	10.9%	16.0%
NFI-ODCE	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%	15.0%
NPI	17.7%	1.6%	6.4%	6.7%	7.0%	8.0%	13.3%	11.8%	11.0%	10.5%	14.3%
InvMetrics All DB Real Estate Pub Net Rank	30	67	89	53	56	45	31	85	10	34	29
Morgan Stanley P.P.	21.5%	1.3%	6.2%	8.0%	8.7%	9.2%	14.6%	14.1%	16.2%	11.7%	16.5%
NFI-ODCE	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%	15.0%
NPI	17.7%	1.6%	6.4%	6.7%	7.0%	8.0%	13.3%	11.8%	11.0%	10.5%	14.3%
InvMetrics All DB Real Estate Pub Net Rank	29	29	42	15	10	11	21	25	5	22	21
PRISA III	24.6%	9.5%	9.1%	7.9%	9.9%	13.2%	22.7%	16.9%	14.9%	13.7%	23.1%
NFI-ODCE	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%	15.0%
NPI	17.7%	1.6%	6.4%	6.7%	7.0%	8.0%	13.3%	11.8%	11.0%	10.5%	14.3%
InvMetrics All DB Real Estate Pub Net Rank	12	1	19	20	9	1	1	14	8	16	1
Principal Enhanced	25.9%	0.7%	6.8%	9.5%	9.3%	13.5%	20.3%	13.8%	18.0%	12.6%	16.7%
NFI-ODCE	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%	15.0%
NPI	17.7%	1.6%	6.4%	6.7%	7.0%	8.0%	13.3%	11.8%	11.0%	10.5%	14.3%
InvMetrics All DB Real Estate Pub Net Rank	11	48	31	1	10	1	1	27	2	17	21
StepStone RE Intl Partnership I	-4.4%	-10.3%	2.2%	-6.6%	1.7%	1.8%	0.0%	6.9%	7.9%	4.1%	7.3%
NFI-ODCE	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%	15.0%
NPI	17.7%	1.6%	6.4%	6.7%	7.0%	8.0%	13.3%	11.8%	11.0%	10.5%	14.3%

# Calendar Performance (Net of Fees)

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	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
nfrastructure Composite	10.2%	8.1%	11.3%	4.8%	2.4%	0.4%	11.2%	12.5%	4.2%	5.6%	11.7%
3 Month T-Bill +4%	4.0%	4.5%	6.1%	6.0%	5.0%	4.3%	4.0%	4.0%	4.1%	4.1%	4.0%
Alinda Fund II	-12.3%	-7.5%	3.0%	-13.0%	-5.4%	-4.4%	13.1%	21.9%	0.2%	0.6%	8.4%
3 Month T-Bill +4%	4.0%	4.5%	6.1%	6.0%	5.0%	4.3%	4.0%	4.0%	4.1%	4.1%	4.0%
Macquarie Fund II	3.5%	48.4%	12.8%	4.5%	10.1%	7.8%	8.2%	0.8%	6.2%	8.6%	14.0%
3 Month T-Bill +4%	4.0%	4.5%	6.1%	6.0%	5.0%	4.3%	4.0%	4.0%	4.1%	4.1%	4.0%
J.P. Morgan Infrastructure	5.2%	4.5%	9.1%	4.9%							
CPI +4%	11.3%	5.4%	6.4%	6.0%	6.2%	6.2%	4.8%	4.8%	5.6%	5.8%	7.1%
IFM Global Infrastructure (U.S)	17.7%	2.8%	14.6%	_		_	_	_	_	_	-
CPI +4%	11.3%	5.4%	6.4%	6.0%	6.2%	6.2%	4.8%	4.8%	5.6%	5.8%	7.1%
Private Equity Composite	28.2%	22.0%	11.3%	16.0%	14.3%	8.1%	8.2%	8.5%	26.5%	8.4%	11.8%
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
Fort Washington Fund V	22.6%	17.4%	5.3%	9.0%	9.3%	2.6%	2.7%	12.1%	22.4%	11.0%	14.0%
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
North Sky Fund III - LBO	15.6%	27.9%	8.9%	5.2%	18.3%	17.0%	12.4%	10.9%	25.3%	13.8%	14.3%
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
North Sky Fund III - VC	-7.0%	43.8%	34.3%	27.6%	24.4%	-3.1%	3.2%	14.4%	36.0%	0.5%	14.5%
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
Portfolio Advisors IV - Special Sit	10.3%	-4.5%	-4.8%	-2.1%	7.2%	1.4%	-1.6%	5.3%	10.2%	14.7%	7.6%
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
Fort Washington Fund VI	24.8%	17.2%	16.2%	18.0%	16.7%	0.4%	16.8%	17.0%	24.5%	12.9%	13.3%
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
North Sky Fund IV - LBO	24.1%	15.4%	7.4%	20.7%	22.1%	13.9%	16.5%	13.7%	17.3%	10.8%	9.3%
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
Portfolio Advisors V - Special Sit	7.8%	6.1%	0.5%	4.4%	4.5%	7.7%	1.9%	14.3%	9.6%	12.3%	10.4%
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
Fort Washington Fund VIII	23.9%	26.0%	14.3%	13.1%	13.6%	19.6%	24.3%	-	-	-	
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
Fort Washington Opp Fund III	24.7%	-16.4%	-4.9%	16.6%	22.0%	29.0%	47.4%				
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
North Sky Fund V	32.3%	31.4%	19.5%	34.2%	8.7%	9.4%	-1.3%				
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%

<sup>\*</sup> Cambridge Associates All PE benchmark data is updated through 6/30/21



# Investment Manager

# Calendar Performance (Net of Fees)

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	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Fort Washington Fund IX	34.3%	28.0%	13.3%	11.3%	-0.3%		-				
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
Fort Washington Fund X	47.2%	22.7%									
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
JP Morgan Global Private Equity VIII	22.1%	12.6%									
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
JP Morgan Global Private Equity IX	19.1%										
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%
Blue Chip Fund IV	3.3%	13.2%	14.8%	-40.0%	-14.8%	-18.0%	-15.7%	3.4%	4.4%	1.8%	-6.3%
Cambridge Associates All PE	23.3%	33.8%	17.8%	11.3%	20.7%	9.0%	9.8%	12.6%	21.9%	13.2%	7.8%

<sup>\*</sup> Cambridge Associates All PE benchmark data is updated through 6/30/21



Closed End Funds Statistics

### Detail for Period Ending December 31, 2021

Account Name	Vintage Year	Commitment (\$)	Unfunded Commitment (\$)	Call Ratio	Cumulative A Contributions (\$)	Additional Fees (\$)	Cumulative Distributions (\$)	Valuation (\$)	Total Value (\$)	DPI	TVPI	RVPI	IRR (%)
Infrastructure													
Alinda Fund II	2008	65,000,000	4,969,944	1.31	85,454,109	0	81,514,603	13,814,072	95,328,675	0.95	1.12	0.16	2.33
Macquarie Fund II	2008	65,000,000	3,292,222	0.95	61,707,778	0	114,009,496	333,328	114,342,825	1.85	1.85	0.01	8.95
Total Infrastructure		130,000,000	8,262,166	1.13	147,161,887	0	195,524,099	14,147,400	209,671,500	1.33	1.42	0.10	6.24
Other													
H.I.G. Bayside Opportunity VI	2020	40,000,000	29,453,354	0.32	12,710,653	0	2,732,060	11,361,395	14,093,455	0.21	1.11	0.89	
Total Other		40,000,000	29,453,354	0.32	12,710,653	0	2,732,060	11,361,395	14,093,455	0.21	1.11	0.89	65.78
Private Equity													
Fort Washington Fund V	2007	40,000,000	2,449,299	0.94	37,550,701	0	64,602,062	11,315,415	75,917,477	1.72	2.02	0.30	10.69
North Sky Fund III - LBO	2007	30,000,000	8,400,000	0.72	21,600,000	0	42,726,709	2,711,304	45,438,014	1.98	2.10	0.13	11.05
North Sky Fund III - VC	2007	10,000,000	850,000	0.92	9,150,000	0	16,421,592	2,887,228	19,308,820	1.79	2.11	0.32	9.54
Portfolio Advisors IV - Special Sit	2007	18,900,000	1,928,786	0.90	16,971,214	0	22,068,793	1,652,332	23,721,125	1.30	1.40	0.10	5.38
Fort Washington Fund VI	2008	30,000,000	4,309,950	0.86	25,690,050	0	48,694,158	8,487,747	57,181,905	1.90	2.23	0.33	14.62
North Sky Fund IV - LBO	2008	15,000,000	5,325,000	0.65	9,675,000	0	19,756,865	3,850,042	23,606,907	2.04	2.44	0.40	13.32
Portfolio Advisors V - Special Sit	2008	8,500,000	1,020,626	0.88	7,479,374	0	10,999,379	887,529	11,886,908	1.47	1.59	0.12	8.53
Fort Washington Fund VIII	2014	50,000,000	13,500,001	0.73	36,499,999	0	30,375,000	47,114,877	77,489,877	0.83	2.12	1.29	18.09
Fort Washington Opp Fund III	2014	30,000,000	7,800,000	0.74	22,200,000	0	25,875,000	10,759,042	36,634,042	1.17	1.65	0.48	15.78
North Sky Fund V	2014	40,000,000	13,600,000	0.66	26,400,000	0	30,805,134	39,667,095	70,472,229	1.17	2.67	1.50	22.12
Fort Washington Fund IX	2016	50,000,000	15,250,000	0.70	34,750,000	0	6,750,000	58,365,655	65,115,655	0.19	1.87	1.68	24.12
Fort Washington Fund X	2019	40,000,000	25,200,000	0.37	14,800,000	0	0	23,025,181	23,025,181	0.00	1.56	1.56	34.79
JP Morgan Global Private Equity VIII	2019	40,000,000	13,927,232	0.65	26,072,768	198,367	870,714	29,975,835	30,846,549	0.03	1.18	1.15	17.92
JP Morgan Global Private Equity IX	2020	20,000,000	13,264,192	0.34	6,735,808	41,343	0	7,832,514	7,832,514	0.00	1.16	1.16	
Blue Chip Fund IV	2000	25,000,000	0	1.00	25,000,000	0	23,770,550	1,796,258	25,566,808	0.95	1.02	0.07	0.31
Total Private Equity		447,400,000	126,825,086	0.72	320,574,914	239,710	343,715,956	250,328,055	594,044,011	1.07	1.85	0.78	11.20
Real Estate													
StepStone RE Intl Partnership I	2007	30,000,000	6,721,072	0.78	23,423,371	0	22,730,765	1,963,370	24,694,135	0.97	1.05	0.08	0.84
Total Real Estate		30,000,000	6,721,072	0.78	23,423,371	0	22,730,765	1,963,370	24,694,135	0.97	1.05	0.08	0.84
Total		647,400,000	171,261,679	0.78	503,870,823	239,710	564,702,880	277,800,220	842,503,100	1.12	1.67	0.55	8.26



Closed End Funds Statistics

### Detail for Period Ending December 31, 2021

Account Name	Vintage Year	IRR (1 Yr) (%)	IRR (3 Yrs) (%)	IRR (5 Yrs) (%)	IRR (7 Yrs) (%)	IRR (10 Yrs) (%)	IRR (%)	Prim PME (Long Nickels) (%)	Prim PME <sup>Si</sup> Benchmark	ec PME (Long Nickels) (%)	Sec PME Benchmark
Infrastructure											
Alinda Fund II	2008	-12.68	-4.62	-6.36	-1.64	2.08	2.33	16.32	Russell 3000	14.30	Russell 2000
Macquarie Fund II	2008	0.16	23.35	12.34	10.62	8.58	8.95	14.41	Russell 3000	12.90	Russell 2000
Total Infrastructure		-12.10	9.64	3.64	4.54	5.69	6.24	15.32		13.57	
Other											
H.I.G. Bayside Opportunity VI	2020								Bloomberg US Aggregate TR		
Total Other		8.80					65.78	-1.47			
Private Equity											
Fort Washington Fund V	2007	25.61	14.31	11.49	7.28	11.11	10.69	11.96	Russell 3000	11.33	Russell 2000
North Sky Fund III - LBO	2007	15.95	13.93	14.05	14.01	15.81	11.05	9.35	Russell 3000	9.07	Russell 2000
North Sky Fund III - VC	2007	-6.84	23.26	24.94	10.23	13.21	9.54	9.80	Russell 3000	9.05	Russell 2000
Portfolio Advisors IV - Special Sit	2007	9.96	-1.66	-0.07	0.40	7.75	5.38	9.63	Russell 3000	9.19	Russell 2000
Fort Washington Fund VI	2008	25.07	17.56	17.32	13.27	15.56	14.62	13.36	Russell 3000	12.35	Russell 2000
North Sky Fund IV - LBO	2008	26.14	13.86	17.71	16.45	15.54	13.32	15.03	Russell 3000	13.42	Russell 2000
Portfolio Advisors V - Special Sit	2008	7.55	3.40	4.86	4.15	10.11	8.53	13.24	Russell 3000	11.94	Russell 2000
Fort Washington Fund VIII	2014	25.85	21.41	18.08	18.34		18.09	16.63	Russell 3000	13.02	Russell 2000
Fort Washington Opp Fund III	2014	25.75	-0.96	10.60	15.25		15.78	12.90	Russell 3000	9.13	Russell 2000
North Sky Fund V	2014	33.26	26.74	25.72	23.19		22.12	15.78	Russell 3000	11.89	Russell 2000
Fort Washington Fund IX	2016	34.85	27.17	22.87			24.12	19.87	Russell 3000	14.67	Russell 2000
Fort Washington Fund X	2019	43.27					34.79	25.42	Russell 3000	20.10	Russell 2000
JP Morgan Global Private Equity VIII	2019	22.41					17.92	24.92	Russell 3000	16.25	Russell 2000
JP Morgan Global Private Equity IX	2020								Russell 3000		Russell 2000
Blue Chip Fund IV	2000	3.34	10.37	-7.79	-11.37	-3.46	0.31	9.46	Russell 3000	9.37	Russell 2000
Total Private Equity		28.76	19.97	17.77	14.58	14.44	11.20	11.81		10.79	
Real Estate											
StepStone RE Intl Partnership I	2007	-4.38	-3.37	-1.88	-0.33	3.12	0.84	9.66	FTSE NAREIT All REIT		
Total Real Estate		-4.38	-3.37	-1.88	-0.33	3.12	0.84	9.66			
Total		24.98	17.94	13.51	11.04	11.03	8.26	11.88			

Closed End Funds 2Q21 Rankings

### Detail for Period Ending June 30, 2021

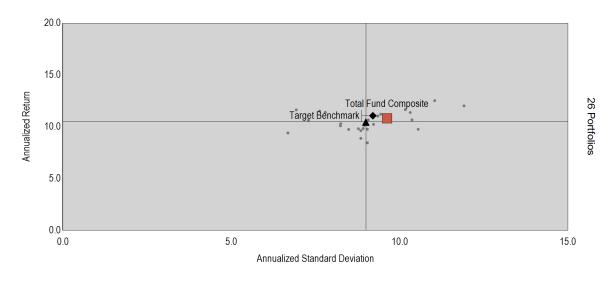
Account Name	Pitchbook Universe	Vintage Year	IRR (%)	Quartile Rank	Top Quartile (%)	Median (%)	Bottom Quartile (%)	# of Funds
Infrastructure								
Alinda Fund II	Real Assets - North America	2008	2.38	3rd	8.32	3.79	-1.87	14
Macquarie Fund II	Real Assets - North America	2008	8.95	1st	8.32	3.79	-1.87	14
Other								
H.I.G. Bayside Opportunity VI	Private Debt - North America	2020						
Private Equity								
Fort Washington Fund V	Private Equity - North America	2007	10.84	2nd	16.37	10.05	4.30	107
North Sky Fund III - LBO	Private Equity - North America	2007	11.06	2nd	16.37	10.05	4.30	107
North Sky Fund III - VC	Private Equity - North America	2007	9.28	3rd	16.37	10.05	4.30	107
Portfolio Advisors IV - Special Sit	Private Equity - North America	2007	5.38	3rd	16.37	10.05	4.30	107
Fort Washington Fund VI	Private Equity - North America	2008	14.58	2nd	19.74	13.20	8.13	78
North Sky Fund IV - LBO	Private Equity - North America	2008	13.45	2nd	19.74	13.20	8.13	78
Portfolio Advisors V - Special Sit	Private Equity - North America	2008	8.50	3rd	19.74	13.20	8.13	78
Fort Washington Fund VIII	Private Equity - North America	2014	18.98	2nd	26.00	18.19	10.60	61
Fort Washington Opp Fund III	Private Equity - North America	2014	15.64	3rd	26.00	18.19	10.60	61
North Sky Fund V	Private Equity - North America	2014	22.39	2nd	26.00	18.19	10.60	61
Fort Washington Fund IX	Private Equity - North America	2016	24.02	2nd	29.00	23.00	15.69	77
Fort Washington Fund X	Private Equity - North America	2019						
JP Morgan Global Private Equity VIII	Private Equity - Global	2019						
JP Morgan Global Private Equity IX	Private Equity - Global	2020						
Blue Chip Fund IV	Private Equity - North America	2000	0.29	4th	22.41	13.27	8.23	78
Real Estate								
StepStone RE Intl Partnership I	Real Estate - Global	2007	0.87	3rd	8.81	4.96	-1.17	80



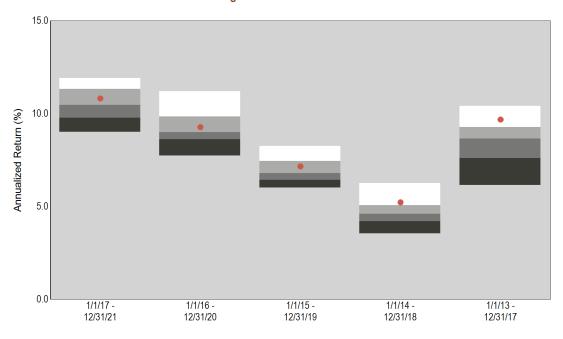
# Total Fund vs. Peer Universe

Market Value: \$2,580.8 Million and 100.0% of Fund

# Annualized Return vs. Annualized Standard Deviation 5 Years Ending December 31, 2021



#### **Rolling 5 Year Returns**



	Return (Rank)									
5th Percentile	11.9		11.2		8.3		6.3		10.4	
25th Percentile	11.3		9.9		7.4		5.1		9.3	
Median	10.5		9.0		6.8		4.6		8.7	
75th Percentile	9.8		8.6		6.4		4.2		7.6	
95th Percentile	9.0		7.7		6.0		3.6		6.2	
# of Portfolios	26		80		67		62		60	
Total Fund Composite	10.8	(36)	9.3	(41)	7.2	(38)	5.2	(21)	9.7	(14)

Market Value: \$2,580.8 Million and 100.0% of Fund

	Sharpe Ratio	Tracking Error	Anlzd Alpha	Beta	R-Squared	Information Ratio	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Total Fund Composite	1.2	8.3%	-0.8%	0.6	0.8	-1.4	11.4%	46.4%	65.7%
S&P 500	1.4						17.4%		
Total Fund Composite	1.2	6.9%	1.8%	0.6	0.9	-0.8	11.4%	55.3%	62.9%
MSCI ACWI	1.1	-				-	17.1%		
Total Fund Composite	1.2	2.1%	-0.8%	1.0	1.0	-0.1	11.4%	100.5%	103.2%
Target Benchmark	1.3			-			10.8%		
Fixed Income Composite	1.1	4.4%	2.7%	0.8	0.3	0.4	5.1%	121.5%	85.9%
Bloomberg US Aggregate TR	1.2						3.4%		
Loomis Sayles Core-Plus	1.4	1.9%	1.6%	1.1	0.8	1.0	4.0%	126.7%	95.1%
Bloomberg US Aggregate TR	1.2	-	-	-		-	3.4%	-	
Shenkman - Four Points	0.9	2.3%	0.7%	1.0	0.9	0.4	9.6%	105.2%	95.8%
Bloomberg US High Yield TR	0.9		-				9.1%		
U.S. Equity Composite	1.1	6.1%	-6.6%	1.1	0.9	-0.5	20.7%	103.4%	116.0%
S&P 500	1.4	-					17.4%		
U.S. Equity Composite	1.1	5.4%	-0.9%	1.2	1.0	0.5	20.7%	123.2%	111.2%
MSCI ACWI	1.1						17.1%		
U.S. Equity Composite	1.1	5.0%	-5.4%	1.1	1.0	-0.5	20.7%	101.9%	112.6%
Russell 3000	1.4						18.2%		
NTGI Russell 1000 Value	0.9	0.1%	0.1%	1.0	1.0	2.2	19.3%	100.2%	99.8%
Russell 1000 Value	0.9						19.3%		
Vanguard Mid Cap Value	0.8	0.0%	0.0%	1.0	1.0	-0.5	21.9%	99.9%	100.0%
CRSP US Mid Cap Value TR USD	0.8	0.076				-0.3	21.9%	99.976	
NTGI Russell 2000 Value	0.7	0.1%	0.2%	1.0	1.0	1.4	25.3%	100.1%	99.8%
Russell 2000 Value	0.7						25.4%		
Nussell 2000 value	0.7						25.470	-	

Market Value: \$2,580.8 Million and 100.0% of Fund

	Sharpe Ratio	Tracking Error	Anlzd Alpha	Beta	R-Squared	Information Ratio	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Non-U.S. Equity Composite	0.6	3.2%	-2.3%	1.1	1.0	-0.3	18.8%	105.5%	108.7%
MSCI ACWI ex USA	0.7	-					17.0%		
DFA Emerging Markets Small Cap	0.6	3.2%	-1.6%	1.0	1.0	-0.6	21.8%	94.0%	101.7%
MSCI Emerging Markets Small Cap	0.7						22.2%		
Risk Parity Composite	1.3	6.2%	0.5%	0.7	0.7	-0.8	9.1%	63.6%	72.0%
60% Wilshire 5000/40% BarCap Aggregate	1.5						11.0%		
AQR Risk Parity	1.3	6.2%	0.5%	0.7	0.7	-0.8	9.1%	63.6%	72.0%
60% Wilshire 5000/40% BarCap Aggregate	1.5	-		-			11.0%		

Market Value: \$2,580.8 Million and 100.0% of Fund

					- /				
	Sharpe Ratio	Tracking Error	Anlzd Alpha	Beta	R-Squared	Information Ratio	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Total Fund Composite	1.0	7.7%	0.3%	0.6	0.8	-1.0	9.6%	40.4%	64.0%
S&P 500	1.1						15.4%		
Total Fund Composite	1.0	6.2%	1.9%	0.6	0.9	-0.6	9.6%	49.9%	63.0%
MSCI ACWI	0.9	-					14.8%		
Total Fund Composite	1.0	1.7%	-0.6%	1.0	1.0	-0.1	9.6%	98.3%	100.2%
Target Benchmark	1.1						9.2%		
Fixed Income Composite	0.9	3.7%	2.5%	0.7	0.3	0.4	4.1%	103.8%	56.2%
Bloomberg US Aggregate TR	0.8	-					3.1%		
Loomis Sayles Core-Plus	1.2	1.7%	1.6%	1.0	0.8	0.9	3.4%	116.7%	79.1%
Bloomberg US Aggregate TR	0.8	-					3.1%		
Shenkman - Four Points	0.8	2.0%	0.6%	1.0	0.9	0.4	7.8%	105.1%	94.2%
Bloomberg US High Yield TR	0.7						7.4%		
U.S. Equity Composite	0.8	5.2%	-5.5%	1.1	0.9	-0.6	17.9%	94.5%	110.4%
S&P 500	1.1						15.4%		
U.S. Equity Composite	0.8	5.3%	-1.6%	1.2	0.9	0.1	17.9%	115.7%	108.0%
MSCI ACWI	0.9						14.8%		
U.S. Equity Composite	0.8	4.2%	-4.5%	1.1	1.0	-0.7	17.9%	94.8%	108.1%
Russell 3000	1.1						16.0%		
NTGI Russell 1000 Value	0.6	0.0%	0.1%	1.0	1.0	2.3	16.5%	100.3%	99.8%
Russell 1000 Value	0.6	-					16.5%		
NTGI Russell 2000 Value	0.4	0.1%	0.2%	1.0	1.0	2.0	21.7%	100.4%	99.8%
Russell 2000 Value	0.4						21.7%		



Market Value: \$2,580.8 Million and 100.0% of Fund

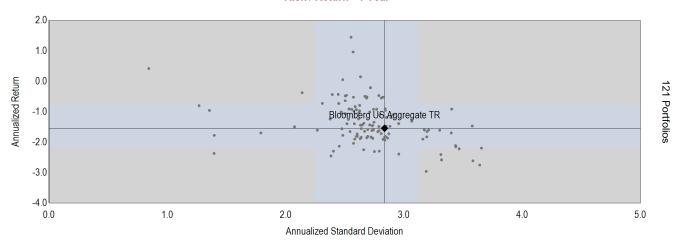
	Sharpe Ratio	Tracking Error	Anlzd Alpha	Beta	R-Squared	Information Ratio	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Non-U.S. Equity Composite	0.5	2.7%	-1.7%	1.1	1.0	-0.4	16.2%	105.0%	106.5%
MSCI ACWI ex USA	0.6						14.8%		
DFA Emerging Markets Small Cap	0.5	2.8%	-0.4%	1.0	1.0	-0.2	19.0%	98.5%	101.2%
MSCI Emerging Markets Small Cap	0.5						19.2%		
Risk Parity Composite	0.9	5.7%	-0.1%	0.7	0.7	-0.7	8.1%	57.1%	71.3%
60% Wilshire 5000/40% BarCap Aggregate	1.2						9.7%		
AQR Risk Parity	0.9	5.7%	-0.1%	0.7	0.7	-0.7	8.1%	57.1%	71.3%
60% Wilshire 5000/40% BarCap Aggregate	1.2						9.7%		

# NTGI Agg Bond

# Characteristics

As of December 31, 2021 Market Value: \$194.3 Million and 7.5% of Fund

#### Risk / Return - 1 Year



	Portfolio	Index
	Q4-21	Q4-21
Yield to Maturity	1.7%	1.7%
Avg. Eff. Maturity	8.7 yrs.	8.6 yrs.
Avg. Duration	6.9 yrs.	6.8 yrs.
Avg. Quality	AA	

**Characteristics** 

Region	Number Of Assets
North America ex U.S.	99
United States	7,284
Europe Ex U.K.	96
United Kingdom	66
Pacific Basin Ex Japan	17
Japan	25
Emerging Markets	55
Other	88
Total	7,730

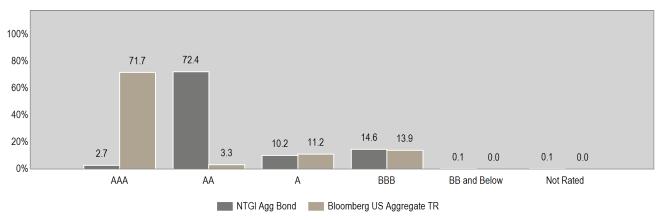
	Portfolio	Index
	Q4-21	Q4-21
US Sector Allocation		
UST/Agency	41.1	40.4
Corporate	25.6	25.7
MBS	28.8	29.4
ABS	0.3	0.4
Foreign	3.3	3.4
Muni	0.8	0.7
Cash	-0.1	

**Sector** 

	Q4-21
<1 Year	0.2%
1-3 Years	18.5%
3-5 Years	26.2%
5-7 Years	17.1%
7-10 Years	17.8%
10-15 Years	1.1%
15-20 Years	5.3%
>20 Years	13.7%
Not Rated/Cash	0.0%

**Maturity** 

#### **Quality Distribution**



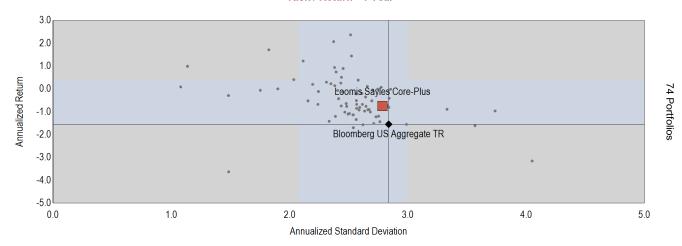
# Loomis Sayles Core-Plus

# Characteristics

As of December 31, 2021

Market Value: \$161.1 Million and 6.2% of Fund

#### Risk / Return - 1 Year



Characteristics			
Portfolio Index			
	Q4-21	Q4-21	
Yield to Maturity	2.6%	1.7%	
Avg. Eff. Maturity	9.5 yrs.	8.6 yrs.	
Avg. Duration	6.8 yrs.	6.8 yrs.	
Avg. Quality	Α		
Region		Number Of	

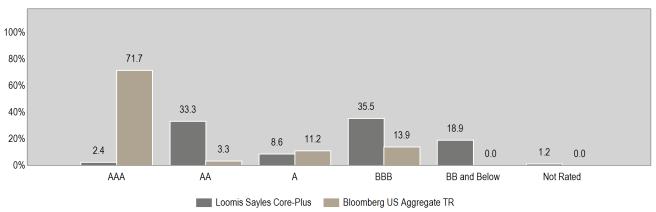
Region	Number Of Assets
North America ex U.S.	1
United States	277
Europe Ex U.K.	24
United Kingdom	7
Pacific Basin Ex Japan	1
Japan	3
Emerging Markets	38
Other	24
Total	375

	Portfolio Q4-21	Index Q4-21
US Sector Allocation		
UST/Agency	19.0	40.4
Corporate	35.3	25.7
MBS	2.6	29.4
ABS	2.7	0.4
Foreign	6.3	3.4
Muni	0.3	0.7
Cash	0.9	

**Sector** 

Maturity		
	Q4-21	
<1 Year	17.5%	
1-3 Years	13.0%	
3-5 Years	13.8%	
5-7 Years	8.8%	
7-10 Years	21.7%	
10-15 Years	3.9%	
15-20 Years	8.9%	
>20 Years	12.5%	
Not Rated/Cash	0.0%	

### **Quality Distribution**



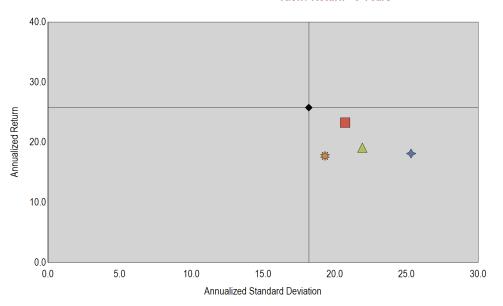
# U.S. Equity Composite

Characteristics

Market Value: \$743.0 Million and 28.8% of Fund

As of December 31, 2021

Risk / Return - 3 Years



- U.S. Equity Composite
- \* NTGI Russell 1000 Value
- ▲ Vanguard Mid Cap Value
- NTGI Russell 2000 Value
- Russell 3000

Characteristics

***************************************		
	Portfolio	Russell 3000
Number of Holdings	3,081	3,065
Weighted Avg. Market Cap. (\$B)	409.3	568.6
Median Market Cap. (\$B)	3.1	2.8
Price To Earnings	21.6	24.9
Price To Book	3.5	4.5
Price To Sales	2.7	3.4
Return on Equity (%)	19.1	22.9
Yield (%)	1.5	1.3
Beta	1.1	1.0
R-Squared	1.0	1.0

#### Characteristics

	Portfolio	Russell 3000
INDUSTRY SECTOR DISTRIBUTION (% Equity)		
Energy	3.6	2.4
Materials	3.3	2.4
Industrials	10.0	8.9
Consumer Discretionary	10.7	12.2
Consumer Staples	5.3	5.4
Health Care	12.9	13.5
Financials	14.6	11.4
Information Technology	21.5	28.4
Communication Services	7.8	9.2
Utilities	3.7	2.5
Real Estate	5.4	3.6
Unclassified	1.2	0.0

#### **Largest Holdings**

	End Weight	Return
APPLE INC	3.9	25.7
MICROSOFT CORP	3.6	19.5
AMAZON.COM INC	2.0	1.5
ALPHABET INC	1.3	8.4
ALPHABET INC	1.2	8.6

#### **Top Contributors**

	End Weight	Return	Contribution
APPLE INC	3.9	25.7	1.0
MICROSOFT CORP	3.6	19.5	0.7
TESLA INC	1.2	36.3	0.4
NVIDIA CORPORATION	1.0	42.0	0.4
UNITEDHEALTH GROUP INC	0.9	28.9	0.3

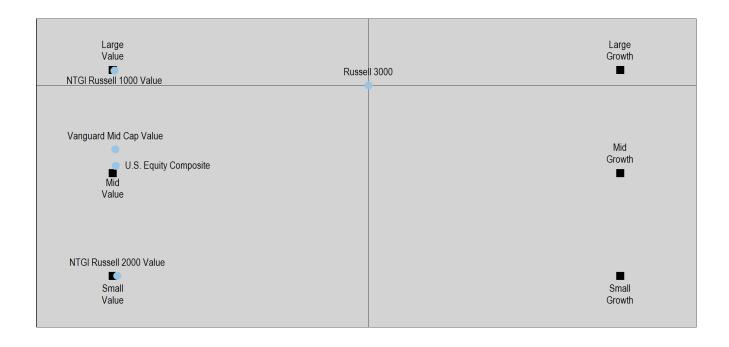
#### **Bottom Contributors**

	End Weight	Return	Contribution
PAYPAL HOLDINGS INC	0.3	-27.5	-0.1
MEDTRONIC PLC	0.3	-17.0	0.0
WALT DISNEY CO (THE)	0.6	-8.4	0.0
AMC ENTERTAINMENT HOLDINGS INC	0.2	-28.5	0.0
COMCAST CORP	0.5	-9.6	0.0

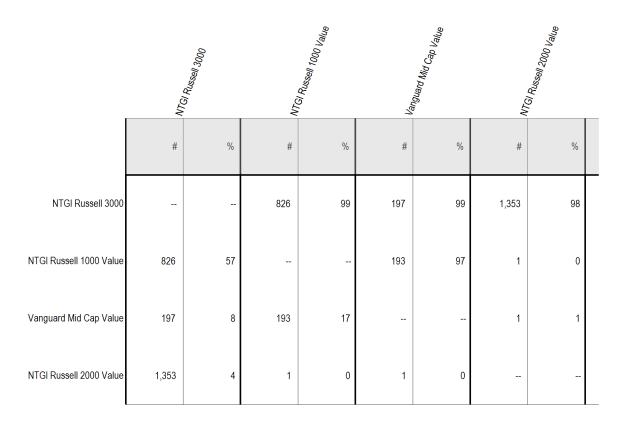
	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
U.S. Equity Composite	12.4%	9.3%	20.6%	21.3%	36.4%
Russell 3000	5.6%	7.6%	15.5%	24.5%	46.8%
Weight Over/Under	6.8%	1.7%	5.1%	-3.2%	-10.3%

As of December 31, 2021

#### U.S. Equity Style Map



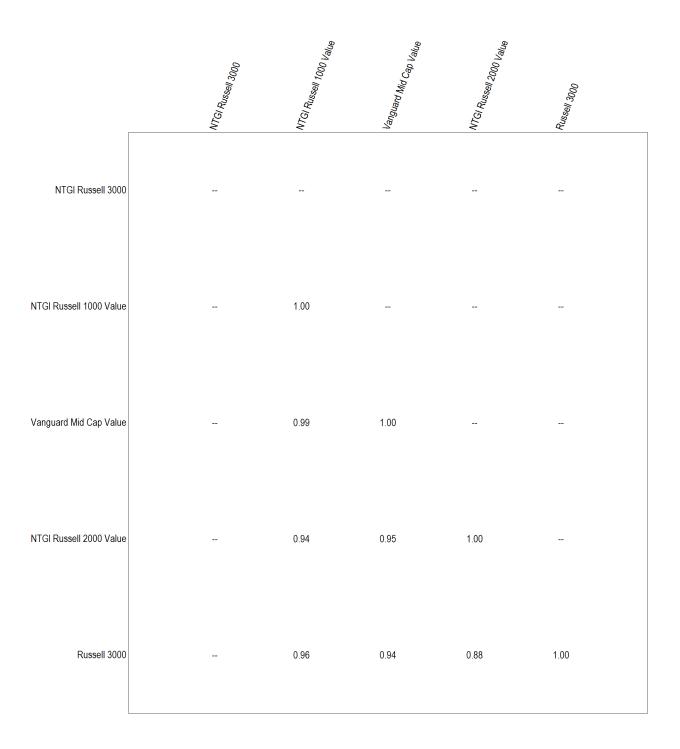
#### **Common Holdings Matrix**



Market Value: \$743.0 Million and 28.8% of Fund

As of December 31, 2021

Correlation Matrix 3 Years



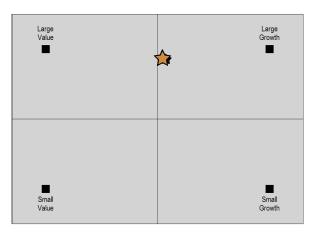
# NTGI Russell 3000

Characteristics

Market Value: \$503.6 Million and 19.5% of Fund

As of December 31, 2021

#### Style Drift - 3 Years



NTGI Russell 3000

Russell 3000

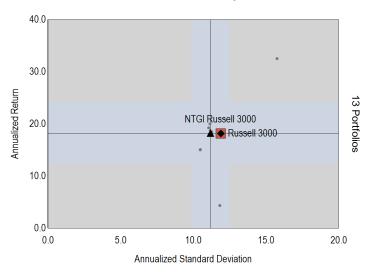
#### **Characteristics**

	Portfolio	3000
Number of Holdings	3,071	3,065
Weighted Avg. Market Cap. (\$B)	569.4	568.6
Median Market Cap. (\$B)	2.8	2.8
Price To Earnings	24.8	24.9
Price To Book	4.5	4.5
Price To Sales	3.4	3.4
Return on Equity (%)	22.8	22.9
Yield (%)	1.3	1.3
Beta		1.0
R-Squared		1.0

#### **Characteristics**

	Portfolio	Russell 3000
INDUSTRY SECTOR DISTRIBUTION (% Ed	quity)	
Energy	2.6	2.4
Materials	2.4	2.4
Industrials	8.8	8.9
Consumer Discretionary	12.2	12.2
Consumer Staples	5.4	5.4
Health Care	13.2	13.5
Financials	11.1	11.4
Information Technology	28.0	28.4
Communication Services	9.1	9.2
Utilities	2.4	2.5
Real Estate	3.5	3.6
Unclassified	1.3	0.0

#### Risk / Return - Since Inception



### Largest Holdings

	End Weight	Return
APPLE INC	5.7	25.7
MICROSOFT CORP	5.3	19.5
AMAZON.COM INC	3.0	1.5
ALPHABET INC	1.8	8.4
TESLA INC	1.8	36.3

#### **Top Contributors**

	End Weight	Return	Contribution
APPLE INC	5.7	25.7	1.5
MICROSOFT CORP	5.3	19.5	1.0
TESLA INC	1.8	36.3	0.6
NVIDIA CORPORATION	1.5	42.0	0.6
UNITEDHEALTH GROUP INC	1.0	28.9	0.3

#### **Bottom Contributors**

	End Weight	Return	Contribution
PAYPAL HOLDINGS INC	0.5	-27.5	-0.1
MODERNA INC	0.2	-34.0	-0.1
WALT DISNEY CO (THE)	0.6	-8.4	0.0
MEDTRONIC PLC	0.3	-17.0	0.0
COMCAST CORP	0.5	-9.6	0.0

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
NTGI Russell 3000	4.4%	7.7%	15.7%	24.9%	47.3%
Russell 3000	5.6%	7.6%	15.5%	24.5%	46.8%
Weight Over/Under	-1.3%	0.1%	0.2%	0.4%	0.6%

# NTGI Russell 1000 Value

# Characteristics

As of December 31, 2021

Market Value: \$94.2 Million and 3.7% of Fund

### Style Drift - 3 Years



NTGI Russell 1000 Value

Russell 1000 Value

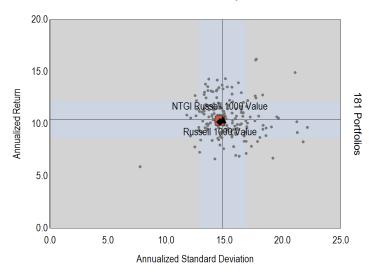
#### **Characteristics**

	Portfolio	1000 Value
Number of Holdings	856	852
Weighted Avg. Market Cap. (\$B)	166.8	167.3
Median Market Cap. (\$B)	15.0	15.0
Price To Earnings	18.9	19.0
Price To Book	2.8	2.8
Price To Sales	2.4	2.5
Return on Equity (%)	16.0	16.0
Yield (%)	1.9	1.9
Beta	1.0	1.0
R-Squared	1.0	1.0

#### **Characteristics**

	Portfolio	Russell 1000 Value
INDUSTRY SECTOR DISTRIBUTION (% Eq	quity)	
Energy	5.0	4.5
Materials	3.8	3.9
Industrials	11.4	11.6
Consumer Discretionary	5.6	5.4
Consumer Staples	7.3	7.4
Health Care	17.7	18.2
Financials	20.5	20.9
Information Technology	10.0	10.3
Communication Services	7.2	7.4
Utilities	5.1	5.2
Real Estate	5.1	5.2
Unclassified	1.1	0.0

#### Risk / Return - Since Inception



#### **Largest Holdings**

	End Weight	Return
BERKSHIRE HATHAWAY INC	2.6	9.5
JPMORGAN CHASE & CO	2.2	-2.7
JOHNSON & JOHNSON	2.1	6.6
UNITEDHEALTH GROUP INC	2.1	28.9
PROCTER & GAMBLE CO (THE)	1.8	17.7

#### **Top Contributors**

	End Weight	Return	Contribution
UNITEDHEALTH GROUP INC	2.1	28.9	0.6
PFIZER INC	1.5	38.5	0.6
PROCTER & GAMBLE CO (THE)	1.8	17.7	0.3
BERKSHIRE HATHAWAY INC	2.6	9.5	0.2
CISCO SYSTEMS INC	1.3	17.2	0.2

#### **Bottom Contributors**

	End Weight	Return	Contribution
MEDTRONIC PLC	0.7	-17.0	-0.1
WALT DISNEY CO (THE)	1.3	-8.4	-0.1
COMCAST CORP	1.1	-9.6	-0.1
CITIGROUP INC	0.6	-13.3	-0.1
AT&T INC	0.8	-7.2	-0.1

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
NTGI Russell 1000 Value	0.6%	9.6%	24.5%	31.3%	34.0%
Russell 1000 Value	1.5%	9.4%	24.4%	30.8%	33.9%
Weight Over/Under	-0.9%	0.1%	0.1%	0.5%	0.1%

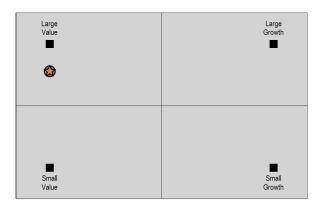
# Vanguard Mid Cap Value

### Characteristics

As of December 31, 2021

Market Value: \$55.2 Million and 2.1% of Fund

#### Style Drift - 2 Years



● Vanguard Mid Cap Value
CRSP US Mid Cap Value TR
USD

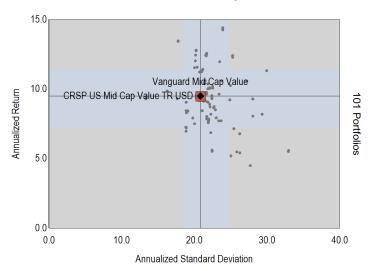
#### **Characteristics**

MidCap Value
703
23.2
11.8
18.6
2.7
2.2
14.2
1.7
1.0
1.0

#### Characteristics

	Portfolio	Russell MidCap Value
INDUSTRY SECTOR DISTRIBUTION (% Eq	quity)	
Energy	5.4	4.5
Materials	8.3	7.6
Industrials	11.2	15.6
Consumer Discretionary	10.3	10.4
Consumer Staples	5.0	4.2
Health Care	7.0	8.0
Financials	17.3	16.5
Information Technology	8.2	10.4
Communication Services	3.5	3.5
Utilities	10.8	7.3
Real Estate	12.8	11.8
Unclassified	0.0	0.0

#### Risk / Return - Since Inception



#### **Largest Holdings**

	End Weight	Return
CARRIER GLOBAL CORP	1.3	5.3
MOTOROLA SOLUTIONS INC	1.3	17.3
INTERNATIONAL FLAVORS & FRAGRANCES INC	1.1	13.3
KEYSIGHT TECHNOLOGIES INC	1.0	25.7
WELLTOWER INC	1.0	4.8

#### **Top Contributors**

	End Weight	Return	Contribution
DOLLAR TREE INC	0.9	46.8	0.4
D.R. HORTON INC.	1.0	29.4	0.3
KEYSIGHT TECHNOLOGIES INC	1.0	25.7	0.3
DUKE REALTY CORP	0.7	37.8	0.3
SEAGATE TECHNOLOGY HOLDINGS PLC	0.7	37.8	0.3

#### **Bottom Contributors**

	End Weight	Return	Contribution
SOUTHWEST AIRLINES CO.	0.7	-16.7	-0.1
VIACOMCBS INC	0.5	-23.0	-0.1
AMC ENTERTAINMENT HOLDINGS INC	0.4	-28.5	-0.1
CARNIVAL CORPORATION & PLC	0.5	-19.6	-0.1
GARMIN LTD	0.6	-12.0	-0.1

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
Vanguard Mid Cap Value	0.0%	7.5%	87.9%	4.6%	0.0%
Russell MidCap Value	2.9%	26.7%	62.8%	7.6%	0.0%
Weight Over/Under	-2.9%	-19.2%	25.1%	-3.0%	0.0%

# Attribution

As of December 31, 2021 Market Value: \$55.2 Million and 2.1% of Fund

#### Sector Attribution vs Russell MidCap Value

GICS Sector	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Energy	5.9%	4.5%	1.4%	2.1%	6.3%	-4.2%	0.0%	-0.2%	-0.3%	-0.1%	-0.4%
Materials	8.3%	7.3%	1.0%	8.2%	12.1%	-3.8%	0.0%	-0.3%	-0.3%	0.3%	0.0%
Industrials	10.7%	15.7%	-5.0%	6.9%	8.7%	-1.8%	0.0%	-0.2%	-0.2%	0.0%	-0.2%
Consumer Discretionary	10.0%	10.8%	-0.8%	11.1%	6.3%	4.7%	0.0%	0.5%	0.5%	-0.2%	0.3%
Consumer Staples	4.4%	4.2%	0.2%	8.9%	10.6%	-1.7%	0.0%	-0.1%	-0.1%	0.1%	0.0%
Health Care	6.4%	8.5%	-2.1%	7.2%	4.1%	3.1%	0.1%	0.2%	0.3%	-0.4%	-0.1%
Financials	18.9%	17.0%	2.0%	5.3%	6.3%	-1.0%	0.0%	-0.2%	-0.2%	-0.4%	-0.6%
Information Technology	8.2%	9.9%	-1.7%	10.7%	12.9%	-2.2%	-0.1%	-0.2%	-0.3%	0.4%	0.2%
Communication Services	4.4%	4.1%	0.4%	-10.2%	-6.1%	-4.1%	-0.1%	-0.2%	-0.2%	-0.6%	-0.8%
Utilities	10.8%	7.0%	3.7%	13.9%	12.9%	1.0%	0.2%	0.1%	0.3%	0.3%	0.6%
Real Estate	11.9%	11.0%	0.9%	14.2%	13.9%	0.3%	0.0%	0.0%	0.1%	0.6%	0.7%
Total				8.1%	8.6%	-0.4%	0.1%	-0.6%	-0.4%	0.0%	-0.4%

### Vanguard Mid Cap Value Performance Attribution vs. Russell MidCap Value

	Total	Selection	Allocation	Interaction	
	Effects	Effect	Effect	Effects	
Energy	-0.2%	-0.2%	0.1%	-0.1%	
Materials	-0.2%	-0.3%	0.1%	0.0%	
Industrials	-0.6%	-0.3%	-0.4%	0.1%	
Consumer Discretionary	0.4%	0.5%	0.0%	0.0%	
Consumer Staples	-0.1%	-0.1%	0.0%	0.0%	
Health Care	0.1%	0.3%	-0.1%	-0.1%	
Financials	-0.1%	-0.2%	0.1%	0.0%	
Information Technology	-0.4%	-0.2%	-0.2%	0.0%	
Communication Services	-0.2%	-0.2%	0.0%	0.0%	
Utilities	0.6%	0.1%	0.5%	0.0%	
Real Estate	0.2%	0.0%	0.1%	0.0%	
Cash	0.0%				
Portfolio	-0.4%	= -0.5%	+ 0.1%	+ -0.1%	

#### Market Cap Attribution vs. Russell MidCap Value

	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Market Cap. Quintile (\$Bil)											
1) Above 30.94	16.1%	19.6%	-3.5%	8.5%	10.3%	-1.8%	-0.1%	-0.3%	-0.3%	0.3%	0.0%
2) 22.48 - 30.94	32.4%	20.2%	12.3%	7.4%	8.4%	-1.0%	0.0%	-0.3%	-0.3%	0.0%	-0.4%
3) 15.84 - 22.48	29.8%	20.2%	9.6%	9.5%	9.9%	-0.4%	0.1%	-0.1%	0.0%	0.3%	0.3%
4) 9.28 - 15.84	20.6%	20.1%	0.5%	6.9%	8.4%	-1.5%	0.0%	-0.3%	-0.3%	0.0%	-0.3%
5) 0.00 - 9.28	1.1%	20.0%	-18.9%	11.4%	5.9%	5.5%	0.5%	0.1%	0.6%	-0.5%	0.0%
Total				8.1%	8.6%	-0.4%	0.5%	-1.0%	-0.4%	0.0%	-0.4%

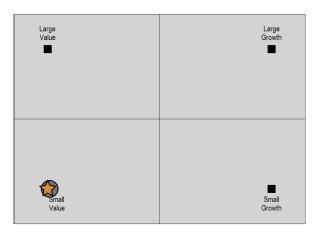
# NTGI Russell 2000 Value

# Characteristics

As of December 31, 2021 Mar

Market Value: \$90.0 Million and 3.5% of Fund

#### Style Drift - 3 Years



NTGI Russell 2000 Value

Russell 2000 Value

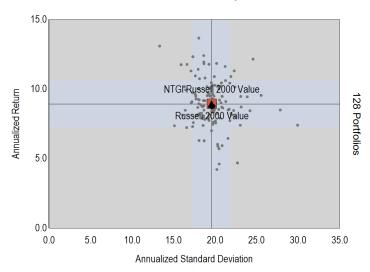
#### Characteristics

	Portfolio	2000 Value
Number of Holdings	1,453	1,449
Weighted Avg. Market Cap. (\$B)	3.0	3.0
Median Market Cap. (\$B)	1.1	1.1
Price To Earnings	14.2	14.2
Price To Book	1.8	1.8
Price To Sales	1.5	1.5
Return on Equity (%)	5.3	5.3
Yield (%)	1.7	1.7
Beta	1.0	1.0
R-Squared	1.0	1.0

#### **Characteristics**

	Portfolio	Russell 2000 Value
INDUSTRY SECTOR DISTRIBUTION (% Eq	juity)	
Energy	6.4	6.5
Materials	4.5	4.6
Industrials	15.0	15.2
Consumer Discretionary	7.9	8.0
Consumer Staples	3.0	3.0
Health Care	9.7	10.4
Financials	26.2	26.5
Information Technology	5.6	5.7
Communication Services	3.5	3.5
Utilities	5.0	5.0
Real Estate	11.3	11.7
Unclassified	1.8	0.0

#### Risk / Return - Since Inception



#### **Largest Holdings**

	End Weight	Return
AMC ENTERTAINMENT HOLDINGS INC	0.9	-28.5
AVIS BUDGET GROUP INC	0.6	78.0
STAG INDUSTRIAL INC	0.6	23.2
OVINTIV INC	0.6	2.6
MACY'S INC	0.6	16.5

#### **Top Contributors**

	End Weight	Return	Contribution
AVIS BUDGET GROUP INC	0.6	78.0	0.4
ARENA PHARMACEUTICALS INC	0.3	56.1	0.2
TERRENO REALTY CORP	0.4	35.5	0.2
CHEMOCENTRYX INC	0.1	112.9	0.1
STAG INDUSTRIAL INC	0.6	23.2	0.1

#### **Bottom Contributors**

	End Weight	Return	Contribution
AMC ENTERTAINMENT HOLDINGS INC	0.9	-28.5	-0.3
INVITAE CORP	0.2	-46.3	-0.1
RANGE RESOURCES CORP.	0.3	-21.2	-0.1
TURNING POINT THERAPEUTICS INC	0.1	-28.2	0.0
AMYRIS INC	0.1	-60.6	0.0

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
NTGI Russell 2000 Value	79.7%	19.3%	1.0%	0.0%	0.0%
Russell 2000 Value	80.6%	18.4%	0.9%	0.0%	0.0%
Weight Over/Under	-0.9%	0.9%	0.0%	0.0%	0.0%

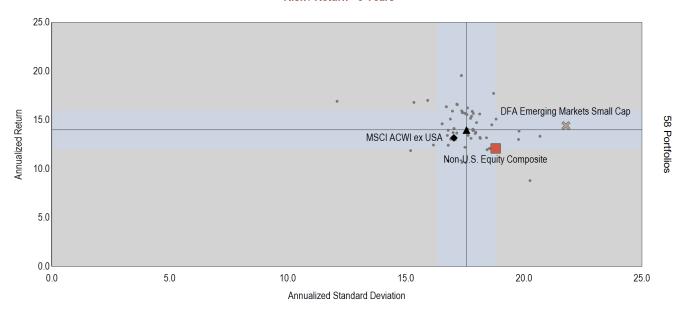
# Non-U.S. Equity Composite

# Characteristics

As of December 31, 2021

Market Value: \$570.5 Million and 22.1% of Fund

#### Risk / Return - 3 Years



#### Characteristics

	Portfolio	ACWI ex USA
Number of Holdings	7,155	2,330
Weighted Avg. Market Cap. (\$B)	87.2	98.9
Median Market Cap. (\$B)	0.9	10.3
Price To Earnings	14.7	15.3
Price To Book	2.7	2.7
Price To Sales	1.5	1.6
Return on Equity (%)	14.0	14.8
Yield (%)	2.6	2.6
Beta	1.1	1.0
R-Squared	1.0	1.0

Region	% of Total	% of Bench
North America ex U.S.	6.4%	7.6%
United States	0.7%	0.0%
Europe Ex U.K.	29.5%	32.5%
United Kingdom	6.9%	9.4%
Pacific Basin Ex Japan	8.5%	7.1%
Japan	12.5%	14.5%
Emerging Markets	34.1%	28.4%
Other	1.4%	0.6%
Total	100.0%	100.0%

#### Characteristics

O I I II I I I I I I I I I I I I I I I		
	Portfolio	MSCI ACWI ex USA
INDUSTRY SECTOR DISTRIBUTION (% Eq	uity)	
Energy	4.3	4.8
Materials	8.7	7.9
Industrials	12.8	12.6
Consumer Discretionary	12.1	12.2
Consumer Staples	8.2	8.6
Health Care	9.1	9.4
Financials	17.5	19.2
Information Technology	13.9	13.7
Communication Services	5.8	6.0
Utilities	3.3	3.1
Real Estate	2.9	2.4
Unclassified	0.5	0.0

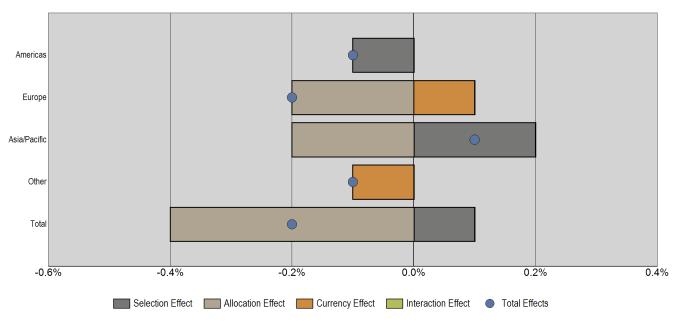
	Small Cap	Mid Cap	Large Cap
Non-U.S. Equity Composite	22.5%	22.3%	55.2%
MSCI ACWI ex USA	13.4%	24.6%	62.0%
Weight Over/Under	9.1%	-2.2%	-6.8%

# Non-U.S. Equity Composite

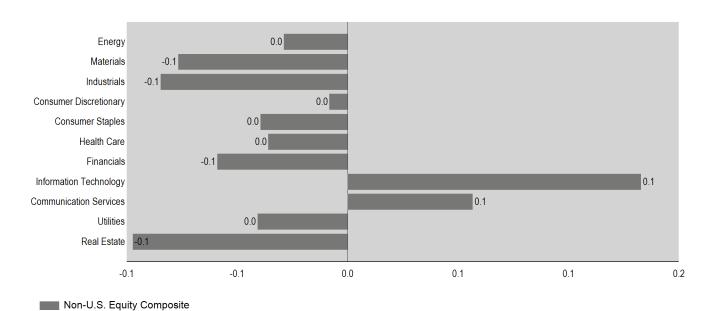
### Attribution

As of December 31, 2021 Market Value: \$570.5 Million and 22.1% of Fund





Active Contribution vs. MSCI ACWI ex USA



Market Cap Attribution vs. MSCI ACWI ex USA

	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Market Cap. Quintile (\$Bil)											
1) Above 126.96	17.3%	19.9%	-2.6%	4.1%	4.1%	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%
2) 57.88 - 126.96	17.3%	20.1%	-2.9%	2.8%	2.8%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%
3) 30.14 - 57.88	17.0%	20.0%	-2.9%	2.6%	2.8%	-0.2%	0.0%	0.0%	0.0%	0.2%	0.2%
4) 13.21 - 30.14	17.7%	20.1%	-2.4%	0.6%	0.5%	0.1%	0.0%	0.0%	0.1%	-0.3%	-0.2%
5) 0.00 - 13.21	30.7%	19.9%	10.8%	-0.5%	-1.1%	0.6%	-0.3%	0.1%	-0.2%	-0.6%	-0.8%
Total				1.6%	1.8%	-0.2%	-0.4%	0.1%	-0.2%	0.0%	-0.2%

# Non-U.S. Equity Composite

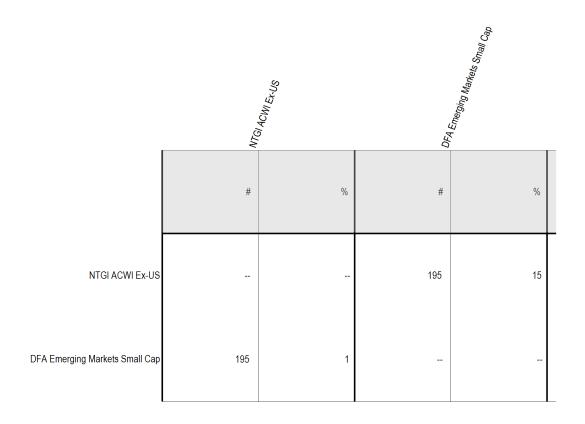
As of December 31, 2021

Market Value: \$570.5 Million and 22.1% of Fund

#### **Equity Style Map**



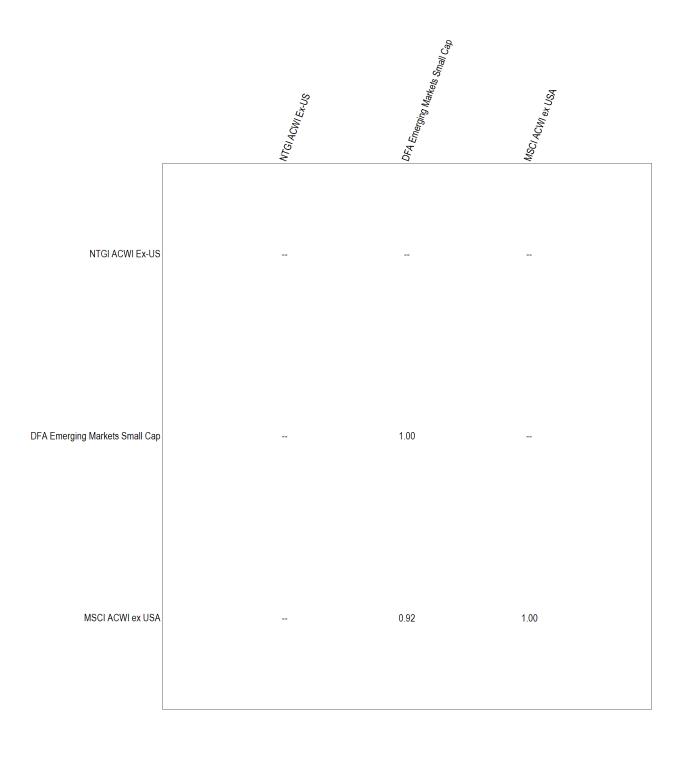
#### **Common Holdings Matrix**



Market Value: \$570.5 Million and 22.1% of Fund

As of December 31, 2021

# Correlation Matrix 3 Years



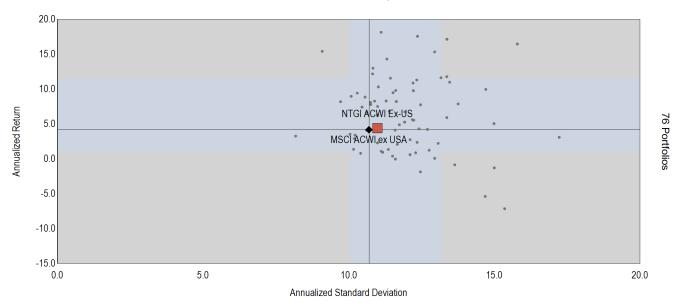
# NTGI ACWI Ex-US

# Characteristics

Market Value: \$496.1 Million and 19.2% of Fund

#### As of December 31, 2021

#### Risk / Return - Since Inception



#### **Characteristics**

	Portfolio	MSCI ACWI ex USA
Number of Holdings	2,511	2,330
Weighted Avg. Market Cap. (\$B)	99.5	98.9
Median Market Cap. (\$B)	10.2	10.3
Price To Earnings	15.4	15.3
Price To Book	2.8	2.7
Price To Sales	1.6	1.6
Return on Equity (%)	15.0	14.8
Yield (%)	2.6	2.6
Beta		1.0
R-Squared		1.0

Region	% of Total	% of Bench
North America ex U.S.	7.4%	7.6%
United States	0.7%	0.0%
Europe Ex U.K.	33.8%	32.5%
United Kingdom	7.9%	9.4%
Pacific Basin Ex Japan	8.7%	7.1%
Japan	14.3%	14.5%
Emerging Markets	25.9%	28.4%
Other	1.4%	0.6%
Total	100.0%	100.0%

#### **Characteristics**

	Portfolio	MSCI ACWI ex USA
INDUSTRY SECTOR DISTRIBUTION (% Eq.	uity)	
Energy	4.7	4.8
Materials	8.0	7.9
Industrials	12.4	12.6
Consumer Discretionary	12.0	12.2
Consumer Staples	8.4	8.6
Health Care	9.3	9.4
Financials	18.9	19.2
Information Technology	13.4	13.7
Communication Services	5.9	6.0
Utilities	3.1	3.1
Real Estate	2.3	2.4
Unclassified	0.5	0.0

	Small Cap	Mid Cap	Large Cap
NTGI ACWI Ex-US	11.5%	25.4%	63.1%
MSCI ACWI ex USA	13.4%	24.6%	62.0%
Weight Over/Under	-2.0%	0.8%	1.1%

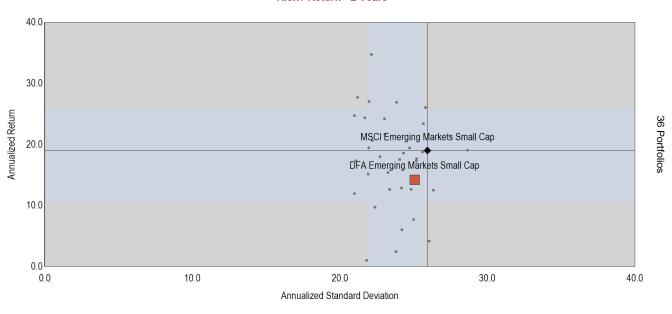


# DFA Emerging Markets Small Cap

# Characteristics

As of December 31, 2021 Market Value: \$72.8 Million and 2.8% of Fund

#### Risk / Return - 2 Years



#### **Characteristics**

	Portfolio	MSCI Emerging Markets Small Cap
Number of Holdings	4,840	1,791
Weighted Avg. Market Cap. (\$B)	2.0	2.0
Median Market Cap. (\$B)	0.4	1.0
Price To Earnings	11.4	12.8
Price To Book	2.3	2.6
Price To Sales	0.9	1.3
Return on Equity (%)	11.6	13.5
Yield (%)	2.6	2.3
Beta	1.0	1.0
R-Squared	1.0	1.0

Region	% of Total	% of Bench
EM Asia	73.1%	78.9%
EM Latin America	7.7%	7.9%
EM Europe & Middle East	1.8%	3.4%
EM Africa	3.7%	4.1%
Other	13.7%	5.7%
Total	100.0%	100.0%

#### Characteristics

	Portfolio	MSCI Emerging Markets Small Cap
INDUSTRY SECTOR DISTRIBUTION (% Eq	uity)	
Energy	1.8	2.0
Materials	13.8	12.6
Industrials	15.2	15.4
Consumer Discretionary	13.0	11.4
Consumer Staples	6.3	5.5
Health Care	7.9	8.5
Financials	8.2	10.7
Information Technology	17.9	19.4
Communication Services	4.4	4.8
Utilities	4.7	3.5
Real Estate	6.4	6.3
Unclassified	0.4	0.0

	Small Cap	Mid Cap	Large Cap
DFA Emerging Markets Small Cap	89.9%	9.7%	0.3%
MSCI Emerging Markets Small Cap	95.0%	5.0%	0.0%
Weight Over/Under	-5.0%	4.7%	0.3%

# DFA Emerging Markets Small Cap

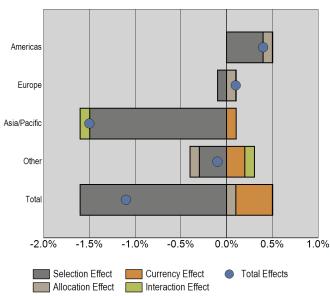
As of December 31, 2021

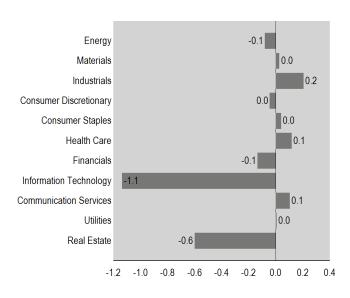
### Attribution

Market Value: \$72.8 Million and 2.8% of Fund

#### **Active Contribution**







DFA Emerging Markets Small Cap

#### **Performance By Characteristic**

	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Market Cap. Quintile (\$Bil)											
1) Above 2.77	24.0%	19.9%	4.1%	-3.8%	4.1%	-7.9%	0.1%	-1.9%	-1.8%	0.5%	-1.3%
2) 1.82 - 2.77	11.4%	20.1%	-8.6%	2.0%	3.5%	-1.5%	-0.2%	0.0%	-0.2%	0.4%	0.1%
3) 1.26 - 1.82	13.5%	20.0%	-6.5%	0.5%	0.8%	-0.3%	0.1%	0.0%	0.1%	-0.2%	-0.1%
4) 0.78 - 1.26	15.5%	20.0%	-4.6%	0.4%	0.7%	-0.3%	0.0%	0.0%	0.0%	-0.2%	-0.1%
5) 0.00 - 0.78	35.6%	20.0%	15.6%	2.9%	-1.0%	3.9%	-0.4%	1.2%	0.8%	-0.5%	0.3%
Total				0.5%	1.6%	-1.1%	-0.4%	-0.7%	-1.1%	0.0%	-1.1%

# **AQR Risk Parity**

### Characteristics

As of December 31, 2021 Market Value: \$111.1 Million and 4.3% of Fund

Manager: AQR Capital Management AUM: \$138,424.96 MM 12/31/2021

Global Risk Premium Strategy **Strategy:** Hedge Funds - Risk Parity

Date as of: Dec 31st, 2021

Benchmark 1: 60% MSCI World/40% BarCap Aggregat

Benchmark 2:

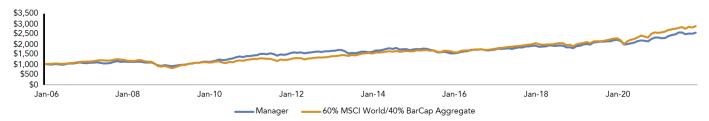
#### Investment Strategy:

AQR has one of the longest active track records in the risk parity space, which includes 2008. The GRP-EL ("enhanced liquidity") product does not include exposure to credit spreads and as a result has better liquidity terms. AQR's approach to risk parity includes a very active monitoring process that reduces exposure to asset classes as the volatility increases. AQR does this to help maintain the 10% volatility target they have set for the fund. As a result, exposures in this fund typically fluctuate more than peers.

#### Monthly Returns: (Net of Fees)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2021	0.19%	-1.61%	0.52%	4.08%	2.21%	1.22%	3.77%	0.00%	-3.35%	1.41%	-0.38%	2.05%	10.33%
2020	0.58%	-2.51%	-8.19%	1.52%	1.69%	1.84%	3.44%	1.51%	-0.89%	-1.18%	5.35%	3.16%	5.79%
2019	5.44%	1.05%	3.24%	1.13%	-1.42%	5.38%	0.70%	1.22%	-0.04%	0.91%	0.01%	2.53%	21.84%
2018	0.18%	-2.96%	0.78%	0.60%	2.60%	-0.95%	-0.57%	1.16%	-0.64%	-4.00%	-0.04%	-2.23%	-6.09%
2017	0.92%	3.03%	-1.16%	0.97%	0.90%	-1.78%	2.40%	1.90%	-0.39%	2.70%	0.38%	1.57%	11.92%
2016	0.33%	1.26%	2.93%	1.77%	0.84%	3.95%	0.30%	-0.08%	1.42%	-2.28%	-1.41%	1.74%	11.15%

#### **Growth of \$1000 Since Inception**



Trailing Returns				3MO	1YR	3YR	5YR	10YR	INCEPT		
Manager				3.10%	10.33%	12.45%	8.37%	5.50%	5.98%		
60% MSCI World/40% BarCap Aggregate				4.67%	12.04%	15.07%	10.62%	8.92%	6.42%		
Calendar Returns	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Manager	6.23%	9.69%	-2.88%	6.52%	-9.42%	11.15%	11.92%	-6.09%	21.84%	5.79%	10.33%
60% MSCI World/40% BarCap Aggregate	-0.01%	11.29%	14.46%	5.43%	-0.07%	5.71%	14.52%	-5.07%	20.01%	13.31%	12.04%

Risk and Re	turn 3YR Statistics	

Risk and Return 3YR Statistics			Risk and Return Sinc	Risk and Return Since Inception Statistics			
	Manager	Benchmark 1		Manager	Benchmark 1		
Annualized Return	12.45%	15.07%	Annualized Return	5.98%	6.42%		
Standard Deviation	9.08%	10.55%	Standard Deviation	8.52%	9.55%		
Sharpe Ratio	1.28	1.35	Sharpe Ratio	0.62	0.57		
Skew	-0.71	-0.40	Skew	-0.62	-0.81		
Kurtosis	2.27	1.53	Kurtosis	0.81	2.89		
Up Capture		75.01%	Up Capture		77.01%		
Down Capture		71.26%	Down Capture		71.97%		

#### Benchmark Based Return Statistics 3 Year

Benchmark Based Re	turn Statistics 3 Year	Benchmark Based Return Statistics Since Inception			
	Benchmark1		Benchmark1		
Alpha	1.41%	Alpha	1.63%		
Beta	0.73	Beta	0.69		
R2	72.59%	R2	62.66%		

#### **Crisis Performance**

	Financial Crisis	Euro Crisis	Taper Tantrum	
	May '07 - Feb '09	April '11 - Sept '11	April '13 - Aug '13	
Manager	-15.3%	-5.6%	-9.0%	
60% MSCI World/40% B	-32.2%	-10.4%	-1.1%	

# **Investment Terms & Service Providers**

Inception Date	1/31/2006
Management Fee	0.38%
Liquidity	Weekly
Administrator	Institutional Fund Services
Auditors	PricewaterhouseCoopers

#### Crisis Performance Cont.

	Oil/Shale Crash	COVID-19		
	May '15 - Jan '16	Dec '19 - Mar '20		
Manager	-12.3%	-10.0%		
60% MSCI World/40% B	-6.4%	-11.8%		



# J.P. Morgan SPF

### Characteristics

As of September 30, 2021

Market Value: \$59.1 Million and 2.3% of Fund

#### **Characteristics**

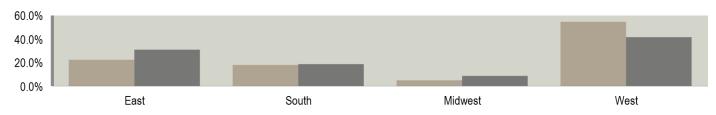
_	_	_
Strategy	Prop	kdown
Suateuv	Diea	KUUWII

			% of Portfolio	Top Five Metro Areas % of NAV
Fund GAV (\$MM)	\$41,125.5	Pre-Development		Los Angeles-Long Beach-Santa 14.5%
Fund NAV (\$MM)	\$30,827.3	Development	6.0%	Dallas-Fort Worth-Arlington, TX 10.6%
Cash (% of NAV)	2.2%	Initial Leasing	2.6%	San Jose-Sunnyvale-Santa Cla 9.2%
# of Investments	144	Operating	91.4%	Riverside-San Bernardino-Onta 8.9%
% in Top 10 by NAV	29.3%	Re-Development		New York-Northern New Jersey 8.8%
Leverage %	24.9%	Other		
Occupancy	93.0%			
# of MSAs	75	Queue In:		Queue Out:
1-Year Dividend Yield	3.5%	Contribution Queue (\$MM)	\$639.10	Redemption Queue (\$MM) \$0.00
As of Date	30-Sep-21	Anticipated Drawdown (Months)	3	Anticipated Payout (Months)

#### Top Ten Holdings Investment Detail

	. op . on . oo			
#	Property	Type	Location	% of Fund NAV
1	Valley Fair Mall	Retail	San Jose, CA	3.8%
2	Edens - SPF	Retail	Various	3.5%
3	DSRG - SPF	Retail	Various	3.3%
4	Alliance Texas - Industrial	Industrial	Fort Worth, TX	3.2%
5	Royal Hawaiian Center	Retail	Honolulu, HI	2.8%
6	Century Plaza Towers	Office	Los Angeles, CA	2.7%
7	Greater Los Angeles Industrials	Industrial	Various, CA	2.7%
8	China Basin	Office	San Francisco, CA	2.6%
9	RealTerm Portfolio	Industrial	Various	2.4%
10	1345 Avenue of the Americas	Office	New York, NY	2.2%
Total				29.3%

#### Regional Breakdown by NAV (Excluding Cash & Debt)



#### Property Type Breakdown by NAV (Excluding Cash & Debt)





# Morgan Stanley Characteristics

As of September 30, 2021

### Strategy Breakdown

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Fund GAV (\$MM)	\$37,104.9
Fund NAV (\$MM)	\$30,585.9
Cash (% of NAV)	1.7%
# of Investments	474
% in Top 10 by NAV	18.0%
Leverage %	16.9%
Occupancy	94.6%
# of MSAs	31
1-Year Dividend Yield	4.0%
As of Date	30-Sep-21

	% of Portfolio	Top Five Metro Areas	% of NAV
Pre-Development	0.5%	Los Angeles, CA	13.8%
Development	1.9%	Chicago, IL	8.6%
Initial Leasing	5.1%	Boston, MA	8.3%
Operating	88.9%	New York, NY	8.0%
Re-Development	3.6%	Miami, FL	7.4%
Other	0.0%		
0		0	

Queue In:
Contribution Queue (\$MM) \$1,553.98
Anticipated Drawdown (Months)

Queue Out:
Redemption Queue (\$MM) \$0.00
Anticipated Payout (Months)

Market Value: \$54.9 Million and 2.2% of Fund

#### Top Ten Holdings Investment Detail

#	Property	Type	Location	% of Fund NAV
1	One Post Office Square	Office	Boston, MA	2.6%
2	Hills Plaza	Office	San Francisco, CA	2.5%
3	Fashion Valley Mall	Retail	San Diego, CA	1.9%
4	Two Park Avenue	Office	New York, NY	1.9%
5	One Maritime Plaza	Office	San Francisco, CA	1.7%
6	151 N. Franklin	Office	Chicago, IL	1.6%
7	155 North Wacker	Office	Chicago, IL	1.5%
8	AMLI Marina del Rey	Apartment	Marina del Rey, CA	1.5%
9	Wilshire Beverly Center	Office	Los Angeles, CA	1.4%
10	Waterview Tower	Office	Arlington, VA	1.4%
Total				18.0%

#### Regional Breakdown by NAV (Excluding Cash & Debt)



#### Property Type Breakdown by NAV (Excluding Cash & Debt)





PRISA III Characteristics

As of September 30, 2021

#### Market Value: \$45.0 Million and 1.8% of Fund

#### **Characteristics**

Fund GAV (\$MM)	\$5,036.0
Fund NAV (\$MM)	\$2,542.0
Cash (% of NAV)	2.3%
# of Investments	77
% in Top 10 by NAV	38.0%
Leverage %	37.3%
Occupancy	91.5%
# of MSAs	36
1-Year Dividend Yield	10.3%
As of Date	30-Sep-21

#### Strategy Breakdown

	% of Portfolio	Top Five Metro Areas	% of NAV
Pre-Development	3.1%	Seattle-Tacoma-Bellevue, WA	11.5%
Development	25.8%	New York-Northern New Jersey	10.9%
Initial Leasing	5.3%	Raleigh-Cary, NC	9.9%
Operating	47.1%	Washington-Arlington-Alexandri	8.2%
Re-Development	11.8%	Chicago-Naperville-Joliet, IL-IN	5.3%
Other	7.0%		

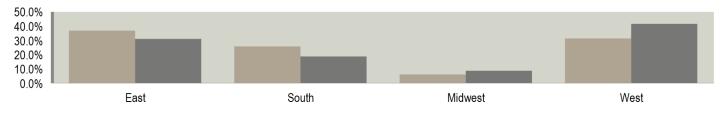
Queue In:
Contribution Queue (\$MM) \$496.70
Anticipated Drawdown (Months) 0

Queue Out:
Redemption Queue (\$MM) \$0.00
Anticipated Payout (Months) 0

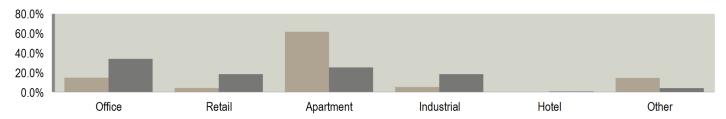
Top Ten Holdings Investment Detail

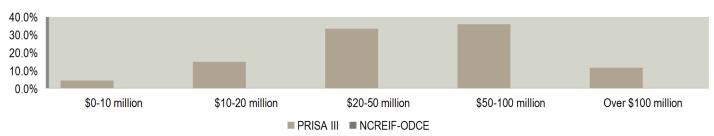
	Top Ten Holdings investment betain							
#	Property	Туре	Location	% of Fund NAV				
1	One Esterra Park	Office	Redmond, WA	5.9%				
2	295 Fifth Avenue (Textile Building)	Office	New York, NY	5.6%				
3	Alexan Union Market	Apartment	Washington, DC	4.2%				
4	Park 7 Student Housing Portfolio	Other	Waco, TX	4.0%				
5	Alta Potrero Hill	Apartment	San Francisco, CA	3.7%				
6	Riverside Business Center	Industrial	Riverside, CA	3.5%				
7	Esterra Commons Apartments	Apartment	Redmond, WA	3.0%				
8	Montrose & Clarendon	Apartment	Chicago, IL	2.8%				
9	Novel Midtown Tampa	Apartment	Tampa, FL	2.8%				
10	Arium Lake Johnson	Apartment	Raleigh, NC	2.6%				
Total				38.0%				

### Regional Breakdown by NAV (Excluding Cash & Debt)



#### Property Type Breakdown by NAV (Excluding Cash & Debt)





### Principal Enhanced

### Characteristics

\$9.00

As of September 30, 2021

As of Date

Market Value: \$51.1 Million and 2.0% of Fund

Redemption Queue (\$MM)

Anticipated Payout (Months)

#### Characteristics

Fund GAV (\$MM)	\$4,434.0
Fund NAV (\$MM)	\$2,502.0
Cash (% of NAV)	4.1%
# of Investments	53
% in Top 10 by NAV	34.8%
Leverage %	35.5%
Occupancy	90.3%
# of MSAs	23
1-Year Dividend Yield	6.0%

30-Sep-21

### Strategy Breakdown

	% of Portfolio	Top Five Metro Areas	% of NAV
Pre-Development	0.0%	Houston, TX	11.1%
Development	4.4%	Seattle, WA	10.7%
Initial Leasing	11.9%	Oakland, CA	10.5%
Operating	83.8%	Phoenix, AZ	9.4%
Re-Development	0.0%	Charlotte, NC	7.6%
Other	0.0%		
Queue In:		Queue Out:	

\$107.00

#### Top Ten Holdings Investment Detail

Contribution Queue (\$MM)

Anticipated Drawdown (Months)

	100 101	in moralingo inivocamonic Botan		
#	Property	Type Loc	cation	% of Fund NAV
1	Alta Clara at the Fells	Apartment Bos	ston, MA	5.5%
2	Mid-South Logistics Center	Industrial Na	shville, TN	4.8%
3	Bay Center	Other Oa	akland, CA	4.5%
4	Bay Area Business Park (Phase I)	Industrial Ho	ouston, TX	4.0%
5	Piedmont Office	Office Ch	narlotte, NC	3.7%
6	M-Line Tower	Industrial Da	ıllas, TX	3.4%
7	7140 Optima Kierland	Industrial Pho	oenix, AZ	3.4%
8	San Leandro Business Center	Industrial Oa	akland, CA	3.1%
9	Bay Area Business Park (Phase II)	Industrial Ho	ouston, TX	3.1%
10	The Beacon	Industrial Oa	akland, CA	3.0%
Total				38.4%

#### Regional Breakdown by NAV (Excluding Cash & Debt)



#### Property Type Breakdown by NAV (Excluding Cash & Debt)





Alinda Characteristics

As of December 31, 2017

#### Characteristics

Market Value: \$45.0 Million and 1.9% of Fund

#### Strategy Breakdown

	Alinda Capital Partners LLC
Fund Vintage Year	2008
Total Size of Fund (\$M)	\$4,065.08
% of Capital Called	0.56%
Total Fund GAV (\$M)	\$2,809.70
Total Fund NAV (\$M)	\$2,788.80

	# of Cos.	Current or Realized MV (\$M)	% of Portfolio
Assets in Portfolio	7	\$2,783.40	100.0%
Active Assets in Portfolio	7	\$2,783.40	100.0%
Assets Realized	4	-\$5.30	0.0%
Assets Written Off	0	\$0.00	0.0%
Assets Written Down	2	-\$129.51	0.0%
Assets Written Up	5	\$1,032.24	0.0%

#### **Active Assets**

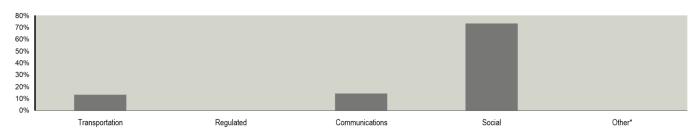
			Investment	Distributions	Fair Mkt	
Holding	Sector	Location	(\$M)	(\$M)	Val (\$M)	% of Portfolio
Binnenlandse Container Terminals Nederland b.	Transportaion	Netherlands	\$103.7	\$50.6	\$151.0	5.4%
Regency Gas Pipeline System	Regulated	Louisiana	\$159.8	\$717.0	\$45.0	1.6%
BCTN Currency Options	Not Applicable	Not Applicable	\$12.9	\$0.0	\$7.3	0.3%
Santa Paula Water LLC	Other	Santa Paula, California	\$0.0	\$0.0	\$0.0	0.0%

Total \$276.4 \$203.3 \$767.6

#### **Country Breakdown of Active Assets**



#### **Sector Breakdown of Active Assets**



#### **Total Fund Annual Cash Flow Summary (\$M)**

	2011	2012	2013	2014	2015	2016	2017
Paid-In Capital	-\$1,541	-\$133	-\$730	-\$1,111	-\$172	-\$112	-\$86
Return of Capital	98	141	334	651	333	316	1,273
Income + Gains	3	24	-9	774	639	-236	-325
Fees	-65	-63	-59	-46	-52	43	40
Yearly Total	-1,508	-55	-455	-506	109	160	1,146
Cumulative Total	-\$2,335	-\$2,391	-\$2,846	-\$3,352	-\$3,243	-\$3,082	-\$1,936

Other \* =



Macquarie Characteristics

As of December 31, 2018

#### **Characteristics**

Market Value: \$60.3 Million and 2.9% of Fund

#### Strategy Breakdown

	Macquarie Asset Management		# of Cos.	Current or Realized MV (\$M)	% of Portfolio
Fund Vintage Year	2008	Assets in Portfolio	6	\$1,631.50	104.0%
Total Size of Fund (\$M)	\$1,568.95	Active Assets in Portfolio	5	\$1,631.50	104.0%
% of Capital Called	94.94%	Assets Realized	1	\$965.62	61.5%
Total Fund GAV (\$M)	\$1,644.86	Assets Written Off	0	\$0.00	0.0%
Total Fund NAV (\$M)	\$1,640.09	Assets Written Down	2	\$244.10	15.6%
		Assets Written Up	3	\$1,387.40	88.4%

#### **Active Assets**

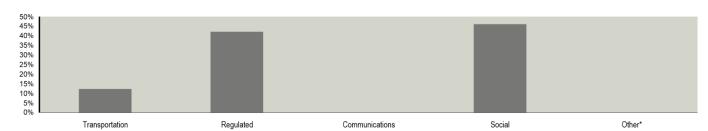
			Investment	Distributions	Fair Mkt	
Holding	Sector	Location	(\$M)	(\$M)	Val (\$M)	% of Portfolio
Puget	Regulated	USA - WA	\$342.4	\$142.6	\$684.5	42.0%
WCA Waste Corporation	Other	USA - Texas	\$275.4	\$4.7	\$504.9	30.9%
Elizabeth River Tunnels	Transportation	USA - VA	\$75.6	\$3.0	\$198.0	12.1%
Leaf River Energy Center	Other	USA - MS	\$238.5	\$0.0	\$144.7	8.9%
Broadrock Renewables	Other	Brea, California and Johnst	\$128.0	\$0.0	\$99.4	6.1%
GTP	Communication	USA, Puerto Rico & Mexico	\$0.0	\$1,019.7	\$0.0	0.0%

Total \$1,059.9 \$1,169.9 \$1,631.5 100.0%

#### **Country Breakdown of Active Assets**



#### **Sector Breakdown of Active Assets**



#### Total Fund Annual Cash Flow Summary (\$M)

	2013	2014	2015	2016	2017	2018	2019
Paid-In Capital	-\$43	<b>\$</b> 0	<b>\$</b> 0	-\$75	\$0	\$0	\$0
Return of Capital	889	20	0	0	40	0	0
Income + Gains	161	-51	110	107	258	46	42
Fees	-22	-17	-16	-16	-16	-16	-4
Yearly Total	824	3	-16	-91	24	-16	-4
Cumulative Total	-\$745	-\$742	-\$758	-\$849	-\$825	-\$841	-\$845

Other \* =

# J.P. Morgan Infrastructure

### Characteristics

As of September 30, 2021

Market Value: \$52.8 Million and 2.1% of Fund

#### Characteristics

JPMorgan	
Fund Inception/Vintage Year	2007
Total Fund GAV (\$M)	\$38,354.4
Total Fund NAV (\$M)	\$18,643.2
Cash Balance % of NAV	1.3%
% in Top 10 by NAV	76.5%

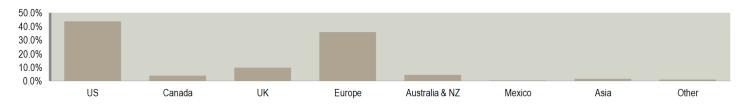
#### Strategy Breakdown

# of Investments			18
# of Investors			1022
# OECD Countries			22
Trailing 12-month Dividend Yield			6.3%
Queue Out:	\$151.0	Queue In:	\$8,502.8

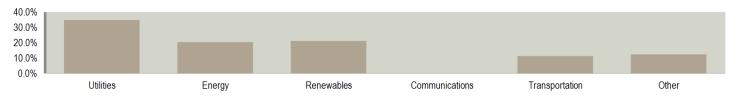
#### Top 10 Fund investments by NAV

Investment	Sector	Location	Investment (\$M)	Fair Mkt Val (\$M)	% of Portfolio
El Paso Electric	Electric	US		\$2,564.7	13.9%
Onward Energy	Diversified	US		\$1,872.0	10.2%
Ventient Energy Limited	Wind	Various		\$1,676.1	9.1%
Koole Terminals	Storage	Various		\$1,620.3	8.8%
Sonnedix	Solar	Various		\$1,268.9	6.9%
Adven	Other	Various		\$1,250.5	6.8%
Summit Utilities	Gas	US		\$1,225.0	6.7%
BWC Terminals	Storage	US		\$1,011.2	5.5%
North Queensland Airports	Airports	Australia		\$813.8	4.4%
NorteGas	Gas	Spain		\$773.8	4.2%
Total			\$0.0	\$14,076.3	76.5%

#### **Country Breakdown of Active Assets**



#### **Sector Breakdown of Active Assets**



#### Investment by Revenue Source



IFM Characteristics

As of September 30, 2021

#### Market Value: \$97.7 Million and 3.9% of Fund

#### Characteristics

industry Funds Management	
Fund Inception/Vintage Year	2009
Total Fund GAV (\$M)	\$57,869.7
Total Fund NAV (\$M)	\$36,463.7
Cash Balance % of NAV	1.6%
% in Top 10 by NAV	87.0%

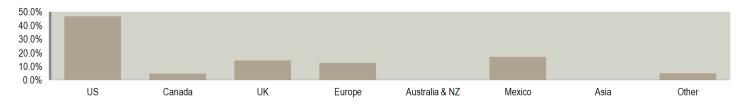
# of Investments			18
# of Investors			499
# OECD Countries			18
Trailing 12-month Dividend Yield			6.1%
Queue Out:	\$0.0	Queue In:	\$7,895.0

Strategy Breakdown

#### Top 10 Fund investments by NAV

Investment	Sector	Location	Investment (\$M)	Fair Mkt Val (\$M)	% of Portfolio
Indiana Toll Road	Toll Roads	United States	\$4,216.4	\$7,014.4	19.6%
Buckeye Partners	Midstream Services	United States	\$4,463.6	\$6,858.2	19.1%
Aleatica	Toll Roads	Mexico	\$5,645.4	\$6,075.8	16.9%
Manchester Airports group	Airports	United Kingdom	\$1,648.2	\$2,881.4	8.0%
Freeport Train 2	Midstream Services	United States	\$1,299.2	\$2,179.6	6.1%
Aqualia	Water	Spain	\$1,206.6	\$1,730.7	4.8%
VTTI	Midstream Services	Global	\$1,222.4	\$1,316.1	3.7%
Vienna Airport	Airports	Austria	\$882.3	\$1,166.2	3.3%
Anglian Water Group	Water	United Kingdom	\$630.7	\$1,018.6	2.8%
GCT	Ports	Canada	\$759.8	\$962.8	2.7%
Total			\$21,974.5	\$31,203.7	87.0%

#### **Country Breakdown of Active Assets**



#### **Sector Breakdown of Active Assets**



#### **Investment by Revenue Source**



# Fort Washington Fund V

# Characteristics

As of March 31, 2021

Market Value: \$16.3 Million and 0.7% of Fund

#### Characteristics

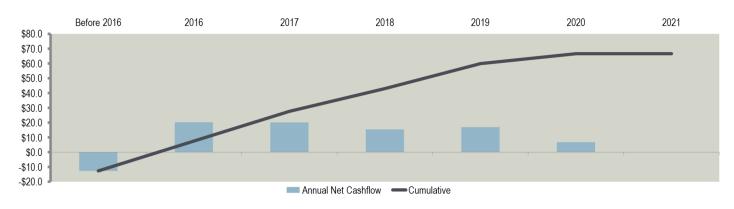
	Fort Washington Capital Partners
Total Size of Fund (\$M)	\$120.
Total Capital Called to Date	\$112.8
% of Committed Capital Called	94.0%
Capital Distributed (\$M)	\$172.
Capital Distributed (as a % of 0	Capital Calle 152.6%

Fund Vintage Year	2006
Total Underlying Commitments	\$135.6
# of Underlying Commitments	27
% of Capital Committed	112.9%
Fund NAV (\$M)	\$47.0
Net Multiple	1.94x
Net IRR	10.3%

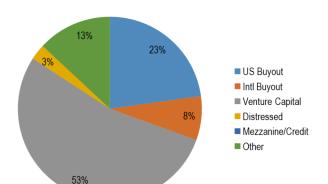
# Top Ten Funds by Market Value

				Total			
				Commitment	Total Investment	Fair Market Value	Total
Fund	Туре	Vintage Year	% of Portfolio	(\$M)	(\$M)	(\$M)	Distribution (\$M)
Inventus Capital Partners, L.P.	Venture Capital	2007	14.9%	\$2.5	\$2.5	\$8.0	\$1.7
Upfront III, L.P.	Venture Capital	2007	13.9%	\$5.0	\$4.6	\$7.5	\$2.0
Draper Fisher Jurvetson Fund IX, L.P.	Venture Capital	2007	9.5%	\$5.0	\$5.0	\$5.1	\$7.5
Draper Fisher Jurvetson Growth Fund 2006, L.P.	Other	2007	9.5%	\$5.0	\$5.0	\$5.1	\$8.6
New Mountain Capital III, L.P.	US Buyout	2006	7.5%	\$7.5	\$7.0	\$4.1	\$12.5
Shasta Ventures II, L.P.	Venture Capital	2008	7.5%	\$2.5	\$2.4	\$4.1	\$8.3
The Resolute Fund II, L.P.	US Buyout	2007	5.4%	\$7.5	\$7.0	\$2.9	\$7.9
Providence Equity Partners VI, L.P.	US Buyout	2006	4.6%	\$7.5	\$7.2	\$2.5	\$8.1
KKR 2006, L.P.	Intl Buyout	2006	3.5%	\$7.5	\$7.7	\$1.9	\$12.4
Sun Capital Partners V, L.P.	Distressed	2006	2.8%	\$6.0	\$5.6	\$1.5	\$4.9

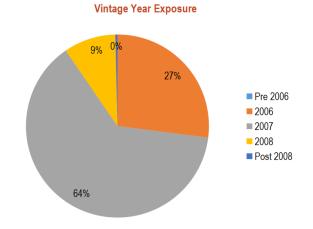
## **Annual Cash Flow Summary (\$M)**



	Before 2016	2016	2017	2018	2019	2020	2021
Paid In Capital w/o Fees	\$117.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Fees Paid	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Distribution	\$105.1	\$20.2	\$20.1	\$15.4	\$16.9	\$6.7	\$0.0
Cumulative	-\$12.7	\$7.5	\$27.6	\$43.0	\$59.9	\$66.6	\$66.6



**Strategy Exposure** 



# Fort Washington Fund VI

# Characteristics

As of March 31, 2021

Market Value: \$9.4 Million and 0.4% of Fund

#### **Characteristics**

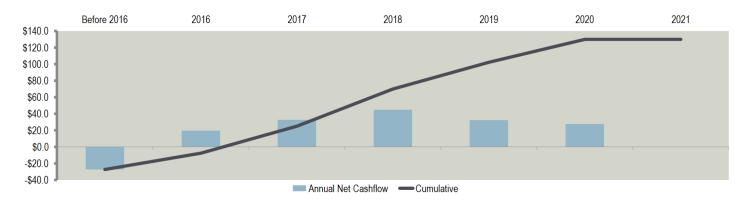
	Fort Washington Capital Partners
Total Size of Fund (\$M)	\$169.1
Total Capital Called to Date	\$144.8
% of Committed Capital Called	85.6%
Capital Distributed (\$M)	\$254.2
Capital Distributed (as a % of Ca	pital Calle 175.6%

Fund Vintage Year	2007
Total Underlying Commitments	\$185.0
# of Underlying Commitments	40
% of Capital Committed	109.4%
Fund NAV (\$M)	\$65.2
Net Multiple	2.2x
Net IRR	14.8%

# Top Ten Funds by Market Value

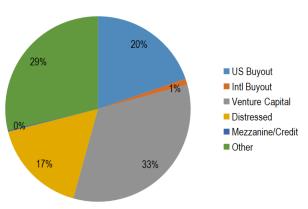
				l otal Commitment	Total Investment	Fair Market Value	Total
Fund	Туре	Vintage Year	% of Portfolio	(\$M)	(\$M)	(\$M)	Distribution (\$M)
Draper Fisher Jurvetson Fund IX, L.P.	Venture Capital		9.0%	\$5.0	\$5.0	\$5.1	\$7.5
Pangaea Two, L.P.	Other		9.0%	\$5.0	\$4.7	\$5.0	\$1.9
Hellman & Friedman Capital Partners VII, L.P.	US Buyout		8.0%	\$7.5	\$7.2	\$4.9	\$18.0
Highland Capital Partners VIII, L.P.	Venture Capital		8.0%	\$5.0	\$5.0	\$4.8	\$1.8
Atlas Capital Resources, L.P.	Mezzanine/Credit		8.0%	\$5.0	\$4.0	\$4.7	\$6.9
Shasta Ventures II, L.P.	Venture Capital		7.0%	\$2.5	\$2.4	\$4.1	\$8.3
New Enterprise Associates 13, L.P.	Venture Capital		6.0%	\$5.0	\$5.0	\$3.6	\$9.6
Great Hill Equity Partners IV, L.P.	Other		6.0%	\$5.0	\$5.0	\$3.5	\$11.9
Fort Washington Private Equity Opportunities Fund	Other		5.0%	\$9.1	\$8.0	\$2.9	\$13.2
SV Life Sciences Fund V, L.P.	Venture Capital		4.0%	\$5.0	\$4.9	\$2.5	\$3.4

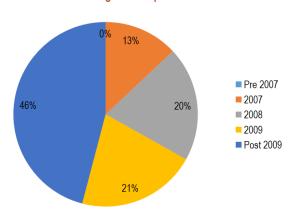
# Annual Cash Flow Summary (\$M)



	Before 2016	2016	2017	2018	2019	2020	2021
Paid In Capital w/o Fees	\$158.8	\$5.2	\$5.6	\$1.3	\$1.6	\$0.5	\$0.0
Fees Paid	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Distribution	\$131.5	\$24.9	\$38.2	\$46.2	\$33.9	\$28.2	\$0.0
Cumulative	-\$27.3	-\$7.6	\$25.0	\$69.9	\$102.2	\$129.9	\$129.9







# Fort Washington Fund VIII

# Characteristics

As of March 31. 2021 Market Value: \$55.6 Million and 2.3% of Fund

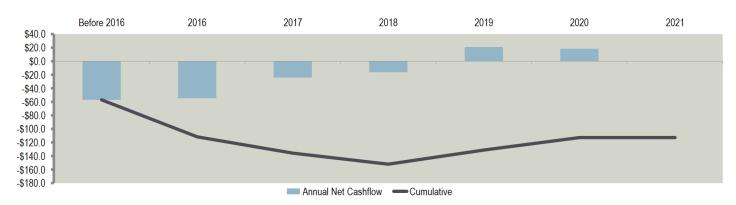
#### Characteristics

	Fort Was	shington Capital Partners
Total Size of Fund (\$M)		\$271.4
Total Capital Called to Date		\$198.1
% of Committed Capital Called		73.0%
Capital Distributed (\$M)		\$78.0
Capital Dietributed (as a % of C	anital Calle	30.4%

Fund Vintage Year	2013
Total Underlying Commitments	\$306.1
# of Underlying Commitments	37
% of Capital Committed	112.8%
Fund NAV (\$M)	\$277.7
Net Multiple	1.8x
Net IRR	16.8%

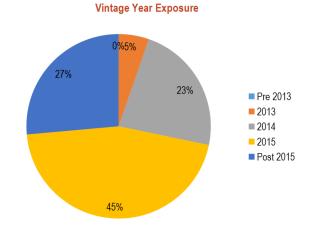
#### Top Ten Funds by Market Value

				lotal			
				Commitment	Total Investment	Fair Market Value	Total
Fund	Type	Vintage Year	% of Portfolio	(\$M)	(\$M)	(\$M)	Distribution (\$M)
OrbiMed Private Investments VI, L.P.	Venture Capital		15.0%	\$14.0	\$13.1	\$41.9	\$2.3
Cressey & Company Fund V, L.P.	US Buyout		8.0%	\$14.0	\$13.4	\$22.2	\$7.2
Meritech Capital Partners V, L.P.	Venture Capital		6.0%	\$4.2	\$3.9	\$17.7	\$4.3
TCV IX, L.P.	Venture Capital		6.0%	\$9.3	\$7.4	\$16.0	\$3.0
Summit Partners Venture Capital Fund IV-A, L.P.	Other		5.0%	\$14.0	\$11.9	\$14.0	\$8.0
HitecVision VII, L.P.	Other		4.0%	\$12.8	\$10.0	\$12.6	\$2.4
Verdane Capital IX, L.P.	Other		4.0%	\$4.5	\$4.2	\$11.1	\$0.9
PeakSpan Capital Growth Partners I, L.P.	Other		4.0%	\$9.3	\$8.5	\$11.0	\$3.6
Livingbridge Enterprise 2 LP	Other		4.0%	\$12.0	\$11.5	\$10.8	\$2.2
Accel-KKR Capital Partners V, L.P.	US Buyout		3.0%	\$12.0	\$9.3	\$8.9	\$3.4



	Before 2016	2016	2017	2018	2019	2020	2021
Paid In Capital w/o Fees	\$58.1	\$57.3	\$53.4	\$45.7	\$31.0	\$18.6	\$0.0
Fees Paid	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Distribution	\$1.0	\$2.7	\$29.3	\$29.4	\$51.9	\$37.0	\$0.0
Cumulative	-\$57.1	-\$111.7	-\$135.8	-\$152.1	-\$131.2	-\$112.8	-\$112.8





# Fort Washington Fund IX

# Characteristics

As of June 30, 2021

Market Value: \$54.4 Million and 2.1% of Fund

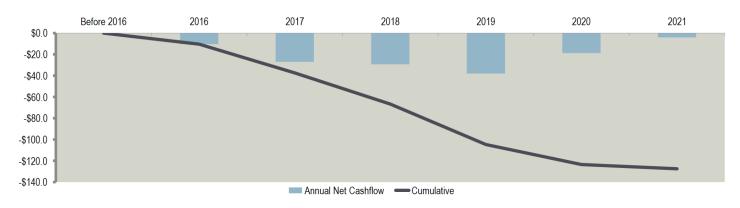
# Characteristics

	Fort Was	hington Capital	<b>Partners</b>
Total Size of Fund (\$M)			\$350.0
Total Capital Called to Date			\$136.4
% of Committed Capital Called			64.5%
Capital Distributed (\$M)			\$7.4
Capital Distributed (as a % of Ca	apital Calle		5.4%

Fund Vintage Year	2016
Total Underlying Commitments	\$244.5
# of Underlying Commitments	49
% of Capital Committed	69.9%
Fund NAV (\$M)	\$229.4
Net Multiple	1.74x
Net IRR	23.8%

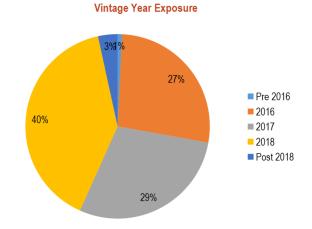
## Top Ten Funds by Market Value

				Total			
				Commitment	Total Investment	Fair Market Value	Total
Fund	Туре	Vintage Year	% of Portfolio	(\$M)	(\$M)	(\$M)	Distribution (\$M)
G Square Capital II, L.P.	Intl Buyout	2016	8.8%	\$10.5	\$11.7	\$23.0	\$2.5
InTandem Capital Partners Fund, L.P.	US Buyout	2017	5.3%	\$3.0	\$2.7	\$12.4	\$1.2
Zarvona III-A, L.P.	Other	2017	5.2%	\$8.7	\$8.2	\$12.3	\$0.8
OrbiMed Private Investments VII, L.P.	Venture Capital	2018	4.8%	\$8.7	\$6.9	\$11.2	\$2.7
Luminate Capital Partners, LP	Other	2016	4.5%	\$8.5	\$8.7	\$10.6	\$10.5
Meritech Capital Partners VI, L.P.	Venture Capital	2018	4.4%	\$5.8	\$5.4	\$10.2	\$1.6
Livingbridge 6 L.P.	Other	2018	4.2%	\$8.9	\$8.8	\$9.8	\$1.3
EBS Aggregator LLC	US Buyout	2018	3.7%	\$2.4	\$2.3	\$8.7	\$1.2
ABRY Senior Equity V, L.P.	Mezzanine/Credit	2017	3.7%	\$8.7	\$8.0	\$8.6	\$1.6
Pfingsten Partners IV, L.P.	US Buyout	2017	3.4%	\$4.0	\$3.3	\$8.0	\$0.0



	Before 2016	2016	2017	2018	2019	2020	2021
Paid In Capital w/o Fees	\$0.0	\$10.4	\$27.0	\$32.0	\$41.9	\$37.6	\$17.7
Fees Paid	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Distribution	\$0.0	\$0.0	\$0.0	\$2.7	\$3.9	\$18.8	\$13.7
Cumulative	\$0.0	-\$10.4	-\$37.4	-\$66.7	-\$104.7	-\$123.5	-\$127.5





# Fort Washington Fund X

# Characteristics

As of March 31, 2021

Market Value: \$12.4 Million and 0.5% of Fund

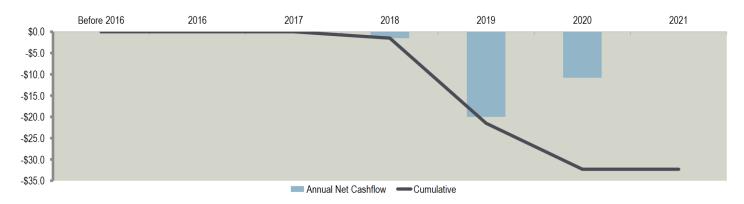
#### Characteristics

	Fort Washington Capital I	Partners
Total Size of Fund (\$M)		\$171.1
Total Capital Called to Date		\$34.2
% of Committed Capital Called		20.0%
Capital Distributed (\$M)		\$0.0
Capital Distributed (as a % of 0	Capital Calle	0.0%

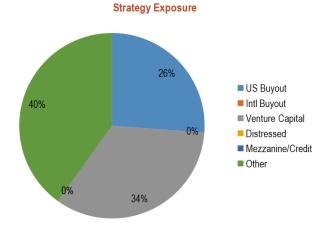
Fund Vintage Year	2018
Total Underlying Commitments	\$124.7
# of Underlying Commitments	25
% of Capital Committed	72.9%
Fund NAV (\$M)	\$43.7
Net Multiple	1.28x
Net IRR	27.6%

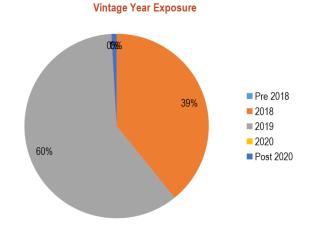
# Top Ten Funds by Market Value

				Total			
				Commitment	Total Investment	Fair Market Value	Total
Fund	Type	Vintage Year	% of Portfolio	(\$M)	(\$M)	(\$M)	Distribution (\$M)
TCV X, L.P.	Other	2018	17.0%	\$7.2	\$4.6	\$7.6	\$0.0
Azure Continuation Fund I, LP	Other	2019	12.0%	\$5.2	\$5.0	\$5.3	\$1.4
Sky Island MSC Investment LP	US Buyout	2019	10.0%	\$4.7	\$3.9	\$4.6	\$0.0
Luminate Capital Partners II, LP	Other	2018	9.0%	\$5.8	\$3.7	\$4.0	\$0.0
PeakSpan Capital Growth Partners II, L.P.	Venture Capital	2019	9.0%	\$7.2	\$3.2	\$3.8	\$0.0
5AM Ventures VI, L.P.	Venture Capital	2019	7.0%	\$5.8	\$2.8	\$3.3	\$0.0
Longitude Venture Partners IV, L.P.	Venture Capital	2018	7.0%	\$7.2	\$2.0	\$3.2	\$0.0
InTandem Capital Partners Fund II, LP	US Buyout	2018	7.0%	\$5.1	\$0.4	\$2.9	\$0.1
Verdane Capital X, L.P.	Venture Capital	2019	5.0%	\$5.5	\$1.0	\$2.2	\$0.0
Accel-KKR Capital Partners CV III, LP	US Buyout	2019	5.0%	\$2.5	\$2.0	\$2.2	\$0.4



	Before 2016	2016	2017	2018	2019	2020	2021
Paid In Capital w/o Fees	\$0.0	\$0.0	\$0.0	\$1.5	\$21.2	\$11.8	\$0.0
Fees Paid	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Distribution	\$0.0	\$0.0	\$0.0	\$0.0	\$1.2	\$1.0	\$0.0
Cumulative	\$0.0	\$0.0	\$0.0	-\$1.5	-\$21.5	-\$32.3	-\$32.3





# Fort Washington Opp Fund III

# Characteristics

As of March 31, 2021

Market Value: \$12.5 Million and 0.5% of Fund

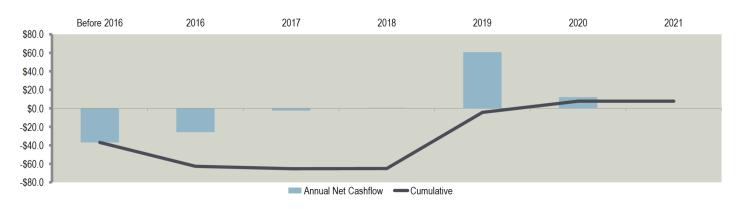
## Characteristics

Foi	t Washington Capital Partners
Total Size of Fund (\$M)	\$133.4
Total Capital Called to Date	\$98.7
% of Committed Capital Called	74.0%
Capital Distributed (\$M)	\$100.1
Capital Distributed (as a % of Capital	al Calle 101.4%

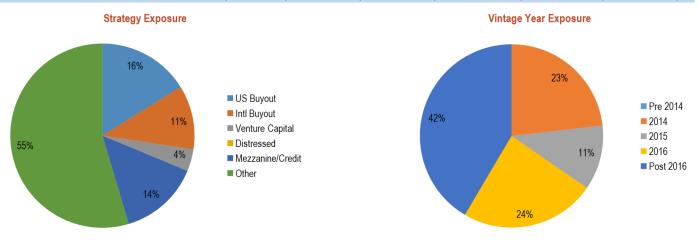
Fund Vintage Year	2014
Total Underlying Commitments	\$105.3
# of Underlying Commitments	10
% of Capital Committed	78.9%
Fund NAV (\$M)	\$60.2
Net Multiple	1.62x
Net IRR	16.9%

# Top Ten Funds by Market Value

				Total			
				Commitment	Total Investment	Fair Market Value	Total
Fund	Туре	Vintage Year	% of Portfolio	(\$M)	(\$M)	(\$M)	Distribution (\$M)
Airdrie Partners I, L.P.	Other		23.0%	\$8.3	\$8.3	\$13.8	\$0.9
Scribe Aggregator, LLC	Other		20.0%	\$6.7	\$6.7	\$11.9	\$0.9
Capital Resource Partners V, L.P.	Mezzanine/Credit		14.0%	\$8.1	\$8.1	\$8.3	\$0.0
Exaltare Capital Partners Fund I, L.P.	Intl Buyout		11.0%				
Pangaea Two, L.P.	Other		11.0%	\$63.0	\$5.8	\$6.9	\$2.1
Lime Rock Partners IV AF, L.P.	US Buyout		9.0%	\$6.7	\$6.7	\$5.2	\$0.0
DCCP (FW) SPV Fund, L.P.	US Buyout		6.0%	\$7.3	\$7.2	\$3.6	\$0.3
Ascent Venture Partners IV-B, L.P.	Venture Capital		4.0%	\$16.9	\$16.4	\$2.3	\$13.4
Accel-KKR Growth Capital Partners, L.P.	US Buyout		1.0%	\$4.3	\$4.2	\$0.8	\$11.5
Arch Global Precision, LLC	Other		0.0%	\$4.3	\$4.1	\$0.8	\$11.5



	Before 2016	2016	2017	2018	2019	2020	2021
Paid In Capital w/o Fees	\$37.2	\$26.6	\$17.7	\$16.7	\$0.6	\$0.6	\$0.0
Fees Paid	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Distribution	\$0.3	\$0.8	\$15.1	\$16.9	\$61.3	\$12.7	\$0.0
Cumulative	-\$36.9	-\$62.7	-\$65.3	-\$65.1	-\$4.4	\$7.7	\$7.7



# North Sky Fund III - LBO

# Characteristics

As of March 31, 2020

Market Value: \$5.9 Million and 0.3% of Fund

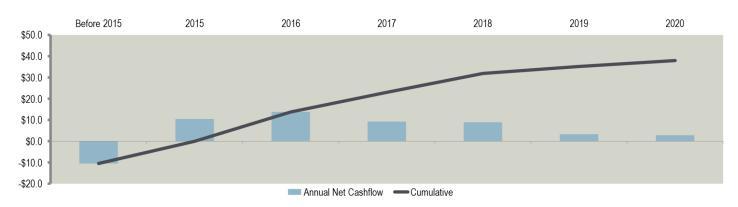
#### Characteristics

	North Sky Capital
Total Size of Fund (\$M)	\$74.0
Total Capital Called to Date	\$53.3
% of Committed Capital Called	72.0%
Capital Distributed (\$M)	\$91.9
Capital Distributed (as a % of Capital Calle	172.4%

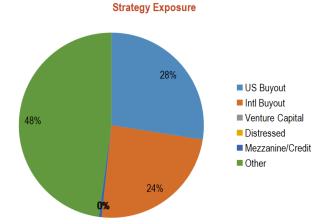
Fund Vintage Year	2006
Total Underlying Commitments	\$73.4
# of Underlying Commitments	11
% of Capital Committed	99.2%
Fund NAV (\$M)	\$15.3
Net Multiple	1.81x
Net IRR	10.7%

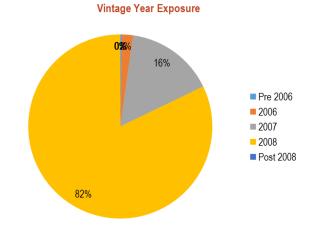
## Top Ten Funds by Market Value

				TOlai			
				Commitment	Total Investment	Fair Market Value	Total
Fund	Туре	Vintage Year	% of Portfolio	(\$M)	(\$M)	(\$M)	Distribution (\$M)
TCV VII	Other		38.6%	\$10.0	\$9.8	\$6.9	\$21.4
Warburg Pincus PE X	Intl Buyout		21.9%	\$10.0	\$10.0	\$2.3	\$14.5
Water Street II	US Buyout		15.9%	\$8.0	\$8.2	\$2.6	\$15.4
Castle Harlan Partners V	US Buyout		12.4%	\$5.0	\$4.8	\$1.2	\$4.6
Advent GPE VI	Intl Buyout		8.5%	\$10.0	\$10.0	\$1.2	\$19.5
Lightyear Fund II	US Buyout		0.9%	\$5.0	\$5.0	\$0.1	\$7.8
Carval Global Value Fund	Mezzanine/Credit		0.8%	\$5.0	\$4.8	\$0.1	\$7.2
MDCP V (Madison Dearborn)	US Buyout		0.6%	\$5.0	\$4.9	\$0.1	\$7.7
REF III	Intl Buyout		0.4%	\$2.9	\$3.0	\$0.0	\$2.4



	Before 2015	2015	2016	2017	2018	2019	2020
Paid In Capital w/o Fees	\$53.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Fees Paid	\$2.3	\$0.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0
Distribution	\$45.1	\$10.6	\$13.9	\$9.3	\$9.0	\$3.4	\$2.8
Cumulative	-\$10.5	\$0.0	\$13.8	\$23.0	\$31.9	\$35.2	\$38.0





# North Sky Fund III - Venture

# Characteristics

As of March 31, 2020

Market Value: \$1.8 Million and 0.1% of Fund

#### Characteristics

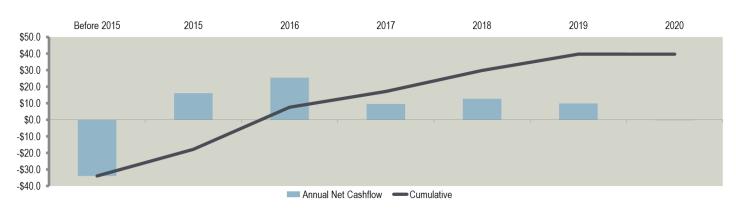
	North Sky Capital
Total Size of Fund (\$M)	\$67.1
Total Capital Called to Date	\$61.4
% of Committed Capital Called	92.0%
Capital Distributed (\$M)	\$104.0
Capital Distributed (as a % of Capital Calle	169.5%

Fund Vintage Year	2006
Total Underlying Commitments	\$78.5
# of Underlying Commitments	9
% of Capital Committed	117.1%
Fund NAV (\$M)	\$15.0
Net Multiple	1.79x
Net IRR	8.7%

# Top Ten Funds by Market Value

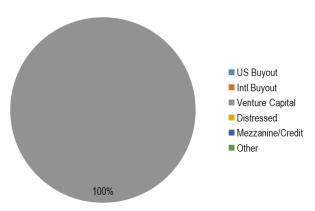
Fund	Туре	Vintage Year	% of Portfolio	Commitment (\$M)	Total Investment (\$M)	Fair Market Value (\$M)	Total Distribution (\$M)
Draper Fisher Jurvetson Fund IX	Venture Capital	2007					
Alta Partners VIII	Venture Capital	2006	66.6%	\$10.0	\$10.0	\$9.3	\$19.2
IDG Ventures SF I	Venture Capital	2008	13.2%	\$3.0	\$3.0	\$2.3	\$3.1
De Novo Ventures III	Venture Capital	2007	6.7%	\$10.0	\$9.9	\$0.9	\$2.6
IVP XII	Venture Capital	2007	5.6%	\$5.0	\$5.0	\$1.0	\$12.4
DCM V	Venture Capital	2007	6.1%	\$3.0	\$3.0	\$1.0	\$6.6
GGV Capital III	Venture Capital	2006	1.8%	\$11.0	\$10.7	\$0.3	\$29.1

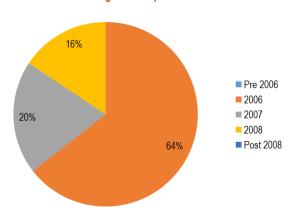
## **Annual Cash Flow Summary (\$M)**



	Before 2015	2015	2016	2017	2018	2019	2020
Paid In Capital w/o Fees	\$61.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Fees Paid	\$2.4	\$0.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0
Distribution	\$29.8	\$16.3	\$25.6	\$9.6	\$12.8	\$10.0	\$0.0
Cumulative	-\$33.9	-\$17.9	\$7.6	\$17.1	\$29.8	\$39.7	\$39.6







# North Sky Fund IV - LBO

# Characteristics

As of March 31, 2020

Market Value: \$6.7 Million and 0.4% of Fund

## Characteristics

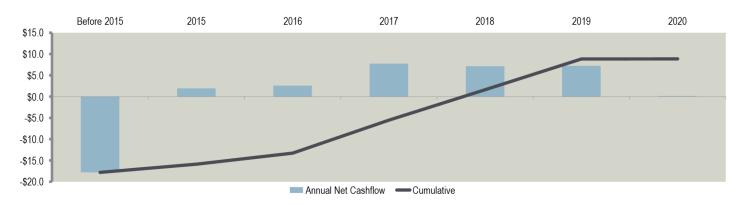
	North Sky Capital
Total Size of Fund (\$M)	\$34.2
Total Capital Called to Date	\$22.0
% of Committed Capital Called	64.5%
Capital Distributed (\$M)	\$32.5
Capital Distributed (as a % of Capital Calle	147.7%

Fund Vintage Year	2008
Total Underlying Commitments	\$37.0
# of Underlying Commitments	12
% of Capital Committed	108.2%
Fund NAV (\$M)	\$16.6
Net Multiple	1.81x
Net IRR	12.6%

# Top Ten Funds by Market Value

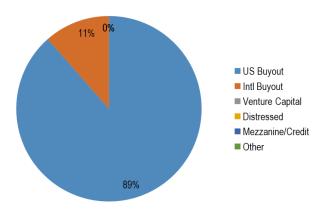
				Total			
				Commitment	Total Investment	Fair Market Value	Total
Fund	Туре	Vintage Year	% of Portfolio	(\$M)	(\$M)	(\$M)	Distribution (\$M)
Stone Arch Capital II	US Buyout		23.3%	\$7.5	\$6.2	\$3.7	\$5.4
Incline Equity III	US Buyout		13.9%	\$4.0	\$4.9	\$2.2	\$8.5
DW Healthcare Partners III	US Buyout		15.6%	\$4.0	\$3.6	\$2.5	\$4.1
AEA Small Business Fund II	US Buyout		10.6%	\$3.0	\$3.4	\$1.7	\$5.4
Insight Equity II	US Buyout		9.2%	\$2.3	\$2.3	\$1.3	\$2.4
Francisco Partners III	US Buyout		11.4%	\$2.5	\$2.3	\$1.8	\$3.9
REF IV	Intl Buyout		6.2%	\$3.2	\$3.5	\$1.0	\$3.9
CapStreet III	US Buyout		4.7%	\$4.0	\$4.0	\$0.7	\$7.7
Procuritas Capital Investors IV	Intl Buyout		2.7%	\$1.3	\$1.4	\$0.4	\$2.4
CITIC Capital China Partners II	Intl Buyout		2.4%	\$1.5	\$1.5	\$0.4	\$2.2

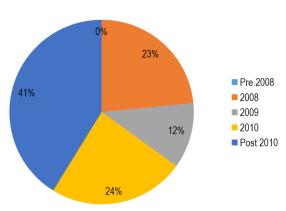
#### **Annual Cash Flow Summary (\$M)**



	Before 2015	2015	2016	2017	2018	2019	2020
Paid In Capital w/o Fees	\$22.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Fees Paid	\$1.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0
Distribution	\$5.4	\$2.1	\$2.7	\$7.8	\$7.2	\$7.3	\$0.0
Cumulative	-\$17.8	-\$15.9	-\$13.3	-\$5.5	\$1.6	\$8.8	\$8.9









# North Sky Fund V Characteristics

As of March 31, 2020

# Market Value: \$41.8 Million and 2.2% of Fund

#### Characteristics

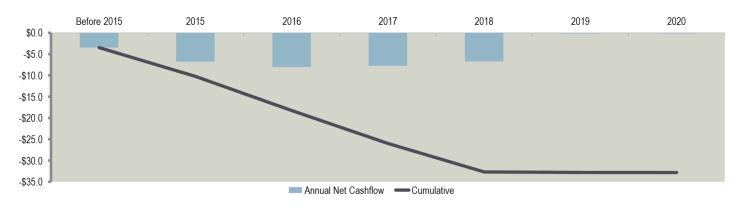
	North Sky Capital
Total Size of Fund (\$M)	\$50.9
Total Capital Called to Date	\$33.2
% of Committed Capital Called	66.0%
Capital Distributed (\$M)	\$1.5
Capital Distributed (as a % of Capital Calle	4.6%

Fund Vintage Year	2014
Total Underlying Commitments	\$53.0
# of Underlying Commitments	11
% of Capital Committed	104.1%
Fund NAV (\$M)	\$54.6
Net Multiple	1.54x
Net IRR	15.3%

## Top Ten Funds by Market Value

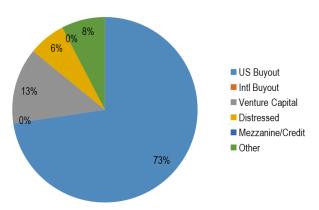
				l otal			
				Commitment	Total Investment	Fair Market Value	Total
Fund	Туре	Vintage Year	% of Portfolio	(\$M)	(\$M)	(\$M)	Distribution (\$M)
Guardian II	US Buyout	2014	16.3%	\$6.5	\$6.2	\$8.7	\$0.2
Tower Arch I	US Buyout	2014	12.2%	\$6.5	\$5.4	\$6.6	\$4.3
IVP XV	Venture Capital	2015	12.3%	\$5.0	\$5.0	\$6.6	\$1.0
Francisco Partners IV	US Buyout	2015	9.4%	\$4.0	\$3.9	\$5.0	\$3.2
CapStreet IV	US Buyout	2015	6.7%	\$5.0	\$4.2	\$3.6	\$2.0
Cressey & Company V	US Buyout	2015	10.0%	\$5.0	\$4.7	\$5.4	\$1.4
PEP V Co-Invest	Other	2014	7.1%	\$2.5	\$2.6	\$3.8	\$1.6
AEA Small Business Fund III	US Buyout	2016	7.6%	\$3.5	\$3.3	\$4.1	\$0.0
Stone Arch Capital III	US Buyout	2015	5.3%	\$5.0	\$3.1	\$2.8	\$0.0
Staple Street II	Distressed	2015	6.0%	\$5.0	\$2.9	\$3.2	\$0.6

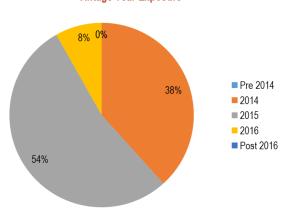
## **Annual Cash Flow Summary (\$M)**



	Before 2015	2015	2016	2017	2018	2019	2020
Paid In Capital w/o Fees	\$3.3	\$6.5	\$7.8	\$7.5	\$8.1	\$0.0	\$0.0
Fees Paid	\$0.2	\$0.3	\$0.2	\$0.2	\$0.2	\$0.1	\$0.0
Distribution	\$0.0	\$0.0	\$0.0	\$0.0	\$1.5	\$0.0	\$0.0
Cumulative	-\$3.5	-\$10.2	-\$18.2	-\$26.0	-\$32.7	-\$32.8	-\$32.8







# Securities Lending Income

As of December 31, 2021

\$196,183

CRS Earnings	<u>Quarter</u>		CRS Earnings
\$1,721	Q1		\$23,827
\$1,255	Q2		\$88,148
\$1,441	Q3		\$35,461
\$898	Q4		\$48,747
\$881			
\$774			
\$701			
\$879			
\$842			
\$1,369			
\$1,790			
\$1,929			
	\$1,721 \$1,255 \$1,441 \$898 \$881 \$774 \$701 \$879 \$842 \$1,369 \$1,790	CRS Earnings         Quarter           \$1,721         Q1           \$1,255         Q2           \$1,441         Q3           \$898         Q4           \$881         \$774           \$701         \$879           \$842         \$1,369           \$1,790         \$1,790	CRS Earnings     Quarter       \$1,721     Q1       \$1,255     Q2       \$1,441     Q3       \$898     Q4       \$881     \$774       \$701     \$879       \$842     \$1,369       \$1,790     \$1,790

\$14,480

#### Historic BNY Mellon Securities Lending Revenue

Total YTD BNY Mellon Sec. Lending Revenue

2021 BNY Mellon Securities Lending Revenue

#### Historic Northern Trust Securities Lending Revenue

Total YTD Northern Trust Sec. Lending Revenue

2021 Northern Trust Securities Lending

	HISTORIC DIVI MEHOR SECURILES LE	siluling Nevellue		HISTORIC NOTTHERN TRUST SECURITIES LER	unig Kevenue
<u>Year</u>		CRS Earnings	<u>Year</u>		CRS Earnings
2020		\$297	2020		\$373,741
2019		-\$76,416	2019		\$426,454
2018		-\$29,442	2018		\$384,112
2017		\$125,636	2017		\$390,918
2016		\$351,379			
2015		\$542,312			
2014		\$562,374			
2013		\$321,534			
2012		\$277,849			
2011		\$362,989			
2010		\$340,835			
2009		\$964,503			
2008		\$2,365,591			
2007		\$1,432,567			
2006		\$983,293			
2005		\$989,492			
2004		\$1,513,575			
2003		\$352,142			
Total BNY	Mellon Sec. Lending Revenue	\$11.394.991	Total Nor	thern Trust Sec. Lending Revenue	\$1,771,408

## Update on Collateral Pool Deficiency

Realized loss from Lehman (CRS Share):	\$10,427,650
<sup>1</sup> Securities lending credit towards Lehman loss:	\$1,924,058
Other payments:	\$1,850,000
<sup>2</sup> Remaining balance from Lehman loss:	\$6,653,592

<sup>&</sup>lt;sup>1</sup> Beginning in March 2013, all securities lending revenue is being directed to the CRS collateral account to pay down the realized loss from Lehman.



<sup>&</sup>lt;sup>2</sup> As of 9/30/19

Total Fund Composite Fee Schedule

Market Value: \$2,580.8 Million and 100.0% of Fund

Asset Class	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry  Median <sup>2</sup>
Fixed Income	0.21% \$930,317	0.21%
Private Debt	1.50% \$170,421	1.50%
US Equity	0.02% \$171,512	0.07%
Non-US Equity	0.11% \$635,043	0.24%
Hedge Funds/Risk Parity	0.38% \$422,329	0.45%
Real Estate	1.03% \$2,308,728	1.00%
Infrastructure	0.83% \$1,392,506	1.50%
Private Equity	0.69% \$1,732,120	1.00%
Total	0.30% \$7,762,977	0.43%

<sup>&</sup>lt;sup>1</sup> Expense Ratio & Estimated Annual Fee are Based on Market Value at Quarter End.

 $<sup>^{\</sup>rm 2}$  Source: Marquette Associates Investment Management Fee Study.

# **Total Fund Composite**

# Fee Schedule

Market Value: \$2,580.8 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry Median <sup>2</sup>
Core Fixed Income	NTGI Agg Bond	.0125% on the balance	0.01% \$24,284	0.04%
Core Plus Fixed Income	Loomis Sayles Core-Plus	0.30% on the first \$100 million 0.25% on the next \$100 million 0.20% on the next \$200 million 0.15% on the balance	0.28% \$452,830	0.27%
High Yield Fixed Income	Shenkman - Four Points	0.55% on the balance	0.55% \$453,203	0.50%
Private Debt	H.I.G. Bayside Opportunity VI	1.5% on invested assets 0.25% on the difference between aggregate commitments and invested assets	1.50% \$170,421	1.50%
All-Cap Core	NTGI Russell 3000	.02% on the balance	0.02% \$100,712	0.06%
Large-Cap Value	NTGI Russell 1000 Value	0.015% on the balance	0.02% \$14,137	0.06%
Mid-Cap Value	Vanguard Mid Cap Value	0.07% on the balance	0.07% \$38,662	0.16%
Small-Cap Value	NTGI Russell 2000 Value	0.02% on the balance	0.02% \$18,001	0.04%
Non-U.S. All-Cap Core	NTGI ACWI Ex-US	.04% on the balance	0.04% \$198,433	0.08%
EM Small-Cap	DFA Emerging Markets Small Cap	0.60% on the balance	0.60% \$436,611	1.35%
Risk Parity	AQR Risk Parity	0.38% on the balance	0.38% \$422,329	0.45%
Core Real Estate	J.P. Morgan SPF	1.00% on the first \$25 million 0.95% on the next \$25 million 0.85% on the next \$50 million	0.95% \$604,761	1.00%
Core Real Estate	Morgan Stanley P.P.	0.90% on the balance Incentive Fee: 5%*NAV*(Return-NCREIF)	0.90% \$536,582	1.00%
Value-Added Real Estate	PRISA III	1.10% on assets 0.10% on cash balance 0.40% on distributions All expenses capped at 2.0%	1.10% \$476,016	1.00%
Value-Added Real Estate	Principal Enhanced	1.20% on the balance 15% performance fee on returns > 11%	1.20% \$671,736	1.00%
Non-U.S. Core Real Estate	StepStone RE Intl Partnership I	1.00% on the balance (Following seventh anniversary, fee drops to 90% of prior years fee). (8% preferred internal rate of return to investor) 5% carry with 100% catch up provision	1.00% \$19,634	1.50%
Core Infrastructure	Alinda Fund II	0.765% on ordinary capital contributinos (20% incentive over 8% preferred return)	0.77% \$105,678	1.50%
Core Infrastructure	Macquarie Fund II	1.50% on invested capital (20% incentive over 8% preferred return)	1.50% \$5,000	1.50%
Core Infrastructure	J.P. Morgan Infrastructure	0.95% on the Balance Performance Fee: 15% with 7% Hurdle	0.95% \$502,038	1.07%
Global Infrastructure	IFM Global Infrastructure (U.S)	0.77% on the Balance Performance Fee: 10% of return above 8%, with 33.3% catch-up	0.77% \$779,791	1.50%



# Total Fund Composite

# Fee Schedule

Market Value: \$2,580.8 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry Median <sup>2</sup>
Venture Private Equity	Blue Chip Fund IV	\$100,000 annual fee for administrative expenses Plus 20% of profits after all capital returned	5.57% \$100,000	0.60%
Divers. Private Equity	Fort Washington Fund V	0.40% on committed assets (5% incentive over 8% return)	0.88% \$100,000	2.12%
Divers. Private Equity	Fort Washington Fund VI	0.40% on committed assets (5% incentive over 8% return)	1.41% \$120,000	2.12%
Divers. Private Equity	Fort Washington Fund VIII	0.20% on committed assets Yr 1 0.30% on committed assets Yr 2 0.40% on committed assets Yrs 3-8	0.42% \$200,000	0.64%
Divers. Private Equity	Fort Washington Fund IX	0.09% on committed assets Yr 1 0.18% on committed assets Yr 2 0.27% on committed assets Yr 3 0.36% on committed assets Yrs 4-10	0.31% \$180,000	0.86%
Divers. Private Equity	Fort Washington Fund X	0.15% on committed assets Yr 1 0.30% on committed assets Yr 2 0.45% on committed assets Yr 3 0.60% on committed assets Yrs 4-10	0.78% \$180,000	1.74%
Secondary Private Equity FoF	Fort Washington Opp Fund III	0.75% on committed assets (15% incentive over 8% preferred return)	2.09% \$225,000	1.67%
LBO Private Equity	North Sky Fund III - LBO	0.45% on committed assets (5% incentive over 8% return)	4.98% \$135,000	6.64%
Venture Private Equity	North Sky Fund III - VC	0.45% on committed assets (5% incentive over 8% return)	1.56% \$45,000	2.08%
LBO Private Equity	North Sky Fund IV - LBO	0.45% on committed assets (5% incentive over 8% return)	1.75% \$67,500	2.34%
Divers. Private Equity	North Sky Fund V	0.65% on committed assets Yrs 1-3 0.55% on committed assets Yrs 4-6 0.45% on committed assets Yrs 7-9 0.35% on committed assets thereafter	0.45% \$180,000	0.61%
Mezz./Special Sit. Private Equity FoF	Portfolio Advisors IV - Special Sit	0.375% on committed assets Yrs 1-3 0.30% on committed assets Yrs 4-5 0.30% on invested capital thereafter (5% incentive over 8% preferred return)	0.30% \$4,957	0.60%
Mezz./Special Sit. Private Equity FoF	Portfolio Advisors V - Special Sit	0.375% on committed assets Yrs 1-3 0.30% on committed assets Yrs 4-5 0.30% on invested capital thereafter (5% incentive over 8% preferred return)	0.30% \$2,663	0.60%
Global Divers. Private Equity FoF	JP Morgan Global Private Equity VIII	0.31% on committed capital (est.) Performance Fee (Hurdle Rate 8%): Primary: 5% Secondary: 10% Direct: 15%	0.41% \$124,000	1.33%
Global Divers. Private Equity FoF	JP Morgan Global Private Equity IX	0.34% on committed capital (est.) Performance Fee (Hurdle Rate 8%): Primary: 5% Secondary: 10% Direct: 15%	0.87% \$68,000	2.55%
Total Investment Management Fees			0.30% \$7,762,977	0.43%

<sup>&</sup>lt;sup>1</sup> Expense Ratio & Estimated Annual Fee are Based on Market Value at Quarter End.

<sup>&</sup>lt;sup>3</sup> Annualized



<sup>&</sup>lt;sup>2</sup> Source: Marquette Associates Investment Management Fee Study.

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Private Equity Fund of Fund - Buy-Out

Cincinnati Retirement

Searchbook

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# **Search Background**

Cincinnati Retirement (the Fund) has retained Marquette Associates to conduct, among other things, an investment manager search to manage a private equity fund of fund buy-out portfolio. The search is to emphasize a complementary investment style to the existing manager roster and to further diversify the portfolio to improve the overall efficiency of the investment program. Marquette Associates has prepared this search utilizing data from various sources. The sources of information are believed to be reliable. Marquette has not independently verified all of the information contained herein. Past performance is no guarantee of future results.

NOTE: All Data is as of September 30, 2021

NOTE: Approximate amount of assets in consideration: \$40,000,000

NOTE: Glossary of definitions enclosed

### Methodology

The following highlights provide a summary of our general impressions of the various investment managers and recommendations we think should be implemented to govern the future management of the Fund's private equity fund of fund buy-out assets.

#### **Candidate Lineup**

Fort Washington Small Market II BPEA Fund VI Siguler Guff Small Buyout Opportunities Fund V



The information below may help make distinctions between investment managers. This information is intended to make reference to general areas Marquette Associates believes are important to consider when evaluating private equity fund of fund buy-out managers.

#### 1. Net IRR and Net Multiple:

Private equity funds report two different performance figures: Net IRR and Net Multiple. Net IRR is expressed as a percentage and looks at the annualized return of a dollar of capital invested with the manager, net of fees. Net multiple is the total value received by the LP (distributions plus current market value) divided by the total amount of capital invested. Funds that turnover capital quickly can generate high net IRRs, but often have low multiples. Funds that hold capital for long periods of time may generate lower net IRRs, but higher multiples. Both of these are important ways to assess fund performance and LPs should use both is analyzing the performance of past funds.

#### 2. GP Committment:

Proper alignment of interest between the general partner (GP) and the limited partner (LP) is very important in private equity because of the long duration nature of the asset class. GPs often make sizeable investments in their own funds to demonstrate to their LPs that their interests are properly aligned with their LPs. A material investment in the fund by the GP is typically viewed favorably by potential LPs.

#### 3. Quartile Rank:

Benchmarking in private equity is very difficult and this can make assessing manager skill for prospective LPs. The Quartile rank is a peer ranking that measures the performance of a fund against the performance of funds raised during the same vintage year. Quartile ranks are split into quartiles with the first quartile being the best. Note that the number of funds used to determine the Quartile ranking may vary depending on the vintage year and fund type.

#### 4. Capital Distributed:

In order to report performance on a quarterly basis GPs must mark their portfolio companies to market every quarter. Despite FAS 157, which is designed to lead to more transparent and accurate valuing of portfolio companies, valuing private firms is not an exact science and managers have considerable leeway in how they value a portfolio company. As a result fund performance based mostly on market values is less reliable than performance based on capital distributed back to LPs. Potential investors should weight the performance of funds with the majority of their capital distributed back to LPs more heavily than funds where most of the value remains unrealized.

### 5. Committments by Vintage Year (\$M):

When analyzing performance on a vintage year basis it is important to look at both net IRRs and the amount of capital deployed. Often times firms will generate the highest returns when they are allocating small amounts of capital. This often happens early in a firm's development when fund size tends to be small, or during periods of economic stress when capital is scarce and subsequent returns tend to be small. LPs should make sure that managers that have generated strong returns in prior vintage years were allocating a similar amount of capital as the current strategy.



## **Manager Fund Introduction**

The following represents Marquette Associates' first take on each investment manager, serving as a brief introduction to each manager's strategy.

#### **Fort Washington Capital Partners**

Fort Washington Capital Partners ("Fort Washington") is currently raising Small Market II, a \$200 million small market fund-of-funds. Fort Washington is the wholly owned asset management subsidiary of Western & Southern Financial Group, a diversified insurance company based in Cincinnati, OH. Fort Washington manages private equity commitments for Western & Southern as well as third-party LP capital. Fort Washington has always focus a significant amount of their historical deployment within smaller U.S. private equity funds. Small Market II will exclusively focus on the smaller end of the market, targeting funds primarily under \$500 million, and is expected to be deployed over two years with a 70% allocation to buyout and 30% allocation to growth focused funds. Fund II is expected to have a 30-50% allocation to secondaries and co-investments.

#### **BPEA**

Brooke Private Equity ("BPEA") is currently raising Fund VI, a \$250 million U.S. buyout fund-of-funds. BPEA is a fund-of-funds manager based in Boston, MA and was founded in 2002. BPEA manages over \$1.1 billion in capital and has successfully launched 5 funds. John Brooke, Christopher Austen, Marcin Szajda, and Daniel LeMoine have over 80 years of private equity experience investing directly and through fund managers. The BPEA team leverages this experience to provide private equity solutions for institutions and investors with a focus on small market managers, which benefit from favorable market and company characteristics, and co-investments. Fund VI is expected to commit to 12 small market buyout and growth equity funds with a heavy allocation to co-investments, which will make up 60% of the Fund across 20-30 investments.

#### Siguler Guff

Siguler Guff & Company ("Siguler Guff") is currently raising the Siguler Guff Small Buyout Opportunities Fund V, a \$1.65 billion U.S. buyout fund-of-funds. Siguler Guff was founded by George Siguler and Drew Guff as the private equity group within PaineWebber and became an independent firm in 1995. Employees own 80% of the business, and BNY Mellon acquired a 20% stake in the firm in 2009. The Siguler Guff Small Buyout Opportunities team is based in Boston, MA and run by Kevin Kester. Kevin formerly worked at Colorado ERS where he ran their private market portfolio and brings a strong LP mindset to fund-of-funds investing. SBOF V will make commitments to approximately 25 underlying small buyout funds where Siguler Guff can be a meaningful LP, driving favorable terms and governance. The fund will allocated up to 45% to co-investments through over 40 direct co-investments in underlying portfolio companies. The significant allocation to co-investments will help to reduce the fee drag from the fund-of-funds structure and increases the pace at which capital is invested.



#### Firm Ownership

		# Employee		% Owned by	% Minority	% Female
Firm Name	% Employee Owned	Owners	% Parent Owned*	Other*	Owned	Owned
Fort Washington	0.0%	0	100.0%	0.0%	0.0%	0.0%
BPEA	90.0%	2	0.0%	10.0%	0.0%	0.0%
Siguler Guff	80.0%	4	0.0%	20.0%	0.0%	0.0%

#### Firm Compliance

Firm Name	Dedicated Compliance Officer	Last SEC Audit Date	Registered Investment Advisor	Fund Accountant	E&O Insurance (\$M)	Fund Advisory Board
Fort Washington	Yes	2021	Yes	Ernst & Young	\$5	Yes
BPEA	Yes	2015	Yes	RSM	\$5	Yes
Siguler Guff	Yes	2018	Yes		\$40	Yes

#### **General Information Summary**

Firm Name	Location	Contact Name	Phone	Contact Email
Fort Washington	Cincinnati, OH	Jamie Daugherty	(513) 361-7971	jamie.daugherty@fwcapital.com
BPEA	Boston, MA	<b>BPEA Reporting</b>	(617) 227-3160	reporting@bpea-pe.com
Siguler Guff	New York, NY	Jacqueline Battista	(212) 332-5100	jbattista@sigulerguff.com

<sup>\*</sup>See Parent Owned & Other Manager Notes in Appendix



# **Product Summary**

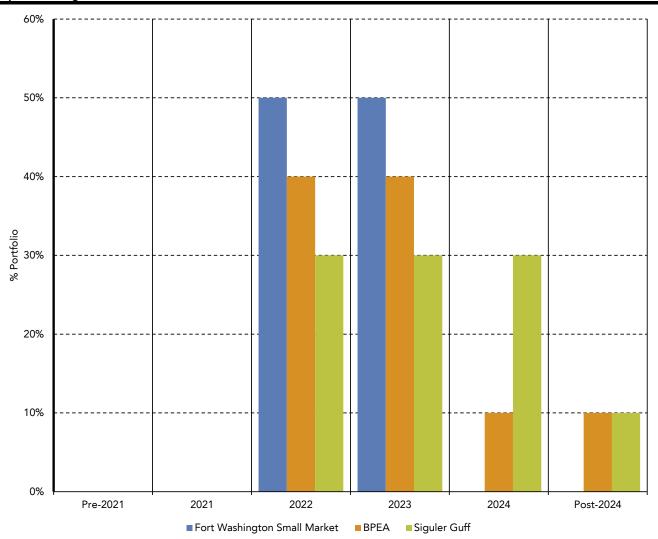
#### **Product Summary**

Firm Name	Total Firm Assets (\$M)	Private Equity Assets (\$M)	Strategy Assets (\$M)	Total Investment Professionals Responsible for Strategy	Target Fund Size (\$M)	Maximum Fund Size (\$M)
Fort Washington Small Market	\$72,686	\$4,355		11	\$200	
ВРЕА	\$1,060	\$1,060		10	\$250	
Siguler Guff	\$15,828	\$15,628		15	\$1,650	

Firm Name	Expected First Close	Expected Final Close	Expected GP Committment to the Fund	LP Committments to Date (\$M)	Capital Called to Date (\$M)	Data as of
Fort Washington Small Market	4Q 2021	2Q 2022	0.5%	\$40		Jan-22
BPEA	1Q 2022	4Q2022	2.0%			Jan-22
Siguler Guff	1Q 2022	4Q 2022	2.5%			Jan-22



# **Expected Vintage Year Diversification (% of Portfolio)**



# **Expected Vintage Year Diversification (# of Primary Committments)**

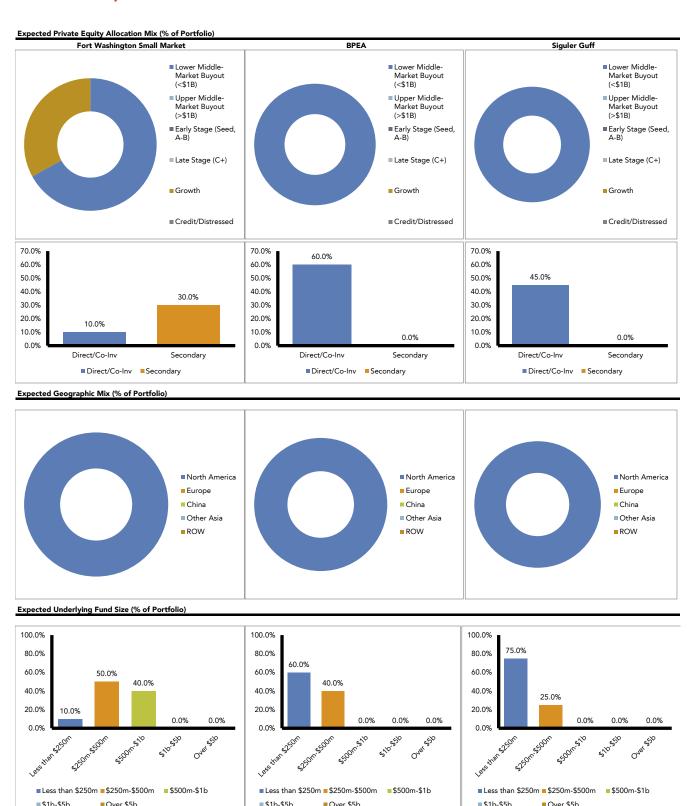
						Expected Total
Firm	2021	2022	2023	2024	Post-2024	Committments
Fort Washington Small Market		7	7			14
BPEA		5	5	1	1	12
Siguler Guff		7	8	7	3	25

## Expected Vintage Year Diversification (# of Secondary/Co-Inv Investments)

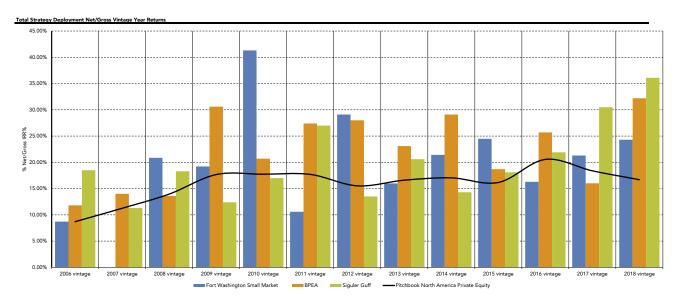
Firm	2021	2022	2023	2024	Post-2024	Expected Total Committments
Fort Washington Small Market		3	3			6
BPEA		6	6	6	6	24
Siguler Guff		10	10	10	10	40



# **Portfolio Comparison**







#### Total Strategy Deployment by Vintage Year (\$M)

Firm	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fort Washington Small Market (historical													
allocations to funds <\$1 billion)	\$20	-	\$29	\$7	\$33	\$5	\$34	\$39	\$64	\$102	\$54	\$73	\$88
Primary		-		-					-		-	-	
Co-Inv		-		-					-		-	-	
Secondary	-	-	-	-	-	-	-	-	-	-	-	-	
BPEA Total	\$16	\$23	\$14	\$4	\$22	\$24	\$15	\$16	\$37	\$47	\$31	\$61	\$70
Primary	\$12	\$10	\$11	\$3	\$15	\$13	\$1	\$10	\$17	\$19	\$15	\$27	\$24
Co-Inv	\$4	\$14	\$3	\$1	\$7	\$11	\$14	\$6	\$20	\$28	\$16	\$34	\$46
Secondary	-	-	-	_	-	-	-	-	_	-	_	-	
Siguler Guff Total	\$37	\$206	\$110	\$38	\$124	\$83	\$180	\$291	\$402	\$207	\$305	\$415	\$317
Primary	\$37	\$197	\$80	\$20	\$85	\$60	\$142	\$189	\$318	\$86	\$175	\$266	\$165
Co-Inv		\$9	\$30	\$18	\$39	\$23	\$38	\$102	\$84	\$121	\$130	\$149	\$152
Secondary		-	-	-	-	-	-		-	-	-	-	

Performance as of 6/30/2021, BPEA Performance as of 3/31/2021 Benchmark as of 3/31/2021



**Total Strategy Deployment Net/Gross Vintage Year Returns** 

	Fort Washington Small Market	BPEA	Siguler Guff
2006	8.71%	11.8%	18.5%
2007		14.0%	11.3%
2008	20.86%	13.6%	18.3%
2009	19.21%	30.6%	12.4%
2010	41.31%	20.7%	17.0%
2011	10.59%	27.4%	27.0%
2012	29.10%	28.0%	13.5%
2013	15.98%	23.1%	20.6%
2014	21.42%	29.1%	14.3%
2015	24.47%	18.7%	18.1%
2016	16.28%	25.7%	21.9%
2017	21.29%	16.0%	30.5%
2018	24.30%	32.2%	36.1%
Median	21.1%	23.1%	18.3%
Avg	21.1%	22.4%	20.0%
High	41.3%	32.2%	36.1%
Low	8.7%	11.8%	11.3%

# **Total Strategy Fund Performance - Net IRR**

	Fort Washington Small Market	BPEA	Siguler Guff
2006		11.4%	12.2%
2007			
2008			
2009			
2010			
2011		19.8%	13.2%
2012			
2013			
2014		18.8%	
2015			
2016			25.1%
2017		22.8%	
2018			
Median		19.3%	13.2%
Avg		18.2%	16.8%
High		22.8%	25.1%
Low		11.4%	12.2%

Performance as of 6/30/2021, BPEA Performance as of 3/31/2021

Please Note: Relative performance color codes are a forced relative ranking between these identified peers.



Fort Washington Small Market	BPEA	Siguler Guff
Pike Street Capital Partners	Shore Capital	North Castle Partners
\$15.0	\$24.4	\$100.0
InTandem Capital Partners	Tilia Holdings	Seidler Equity Partners
\$12.5	\$14.5	\$90.0
NaviMed Partners	Wavecrest Growth	DFW Capital Partners
\$12.5	\$13.0	\$60.0
EIV Capital	Aldrich Capital	Frontenac Company
\$12.0	\$12.0	\$60.0
OceanSound Partners	Prelude Growth	Hammond, Kennedy, Whitney & Company
\$12.0	\$10.0	\$60.0
Princeton Equity Partners	Artemis Capital	Encore Consumer Capital
\$12.0		\$55.0
Radial Equity	Silver Oak Services	HCI Equity Partners
\$12.0	\$10.0	\$55.0
Edgewater Capital Partners	Everlane Equity	The CapStreet Group
\$10.0	\$10.0	\$50.3
Meritech Capital Partners	Digital Fuel Capital	Morgenthaler Private Equity
\$10.0	\$7.0	\$50.0
Southfield Capital	Denali Growth	Transom Capital Group
\$10.0	\$7.0	\$50.0

Top 10 General Partner relationships by committed capital over the last five years out of the strategy. There is no guarantee that these GPs will be represented in the funds profiled in this search.



# **Fund Terms**

Fund Name	Primary Fund Committment Period (Years)	Co-Inv/Secondary Fund Investment Period (Years)	Investment Period Begins at First Close, First Call or Final Close	Fund Terms (Years)	One-Year Extensions	Maximum Fund Life (Years)
Fort Washington Small Market	2	3	First Close	12	2	14
BPEA	2	3	First Call	12	2	14
Siguler Guff	3	5	First Close	12	3	15



	Avg 13-Year Management Fee on Committed Capital*	Performance Fee	Preferred Return	Waterfall	Estimated Management Fee for \$40,000,000*
Fort Washington Small				_	\$180,000
Market	0.45%			European	
Primary Investments		7.5%	7.0%		
Secondarys		7.5%	7.0%		
Co-Investments		7.5%	7.0%		
BPEA	1.02%			European	\$408,000
Primary Investments		10.0%	8.0%		
Secondarys					
Co-Investments		10.0%	8.0%		
Siguler Guff	0.55%			European	\$220,000
Primary Investments		5.0%	8.0%		
Secondarys		5/15%	8.0%		
Co-Investments		15.0%	8.0%		

<sup>\*</sup>Estimated fee is based on management fee only

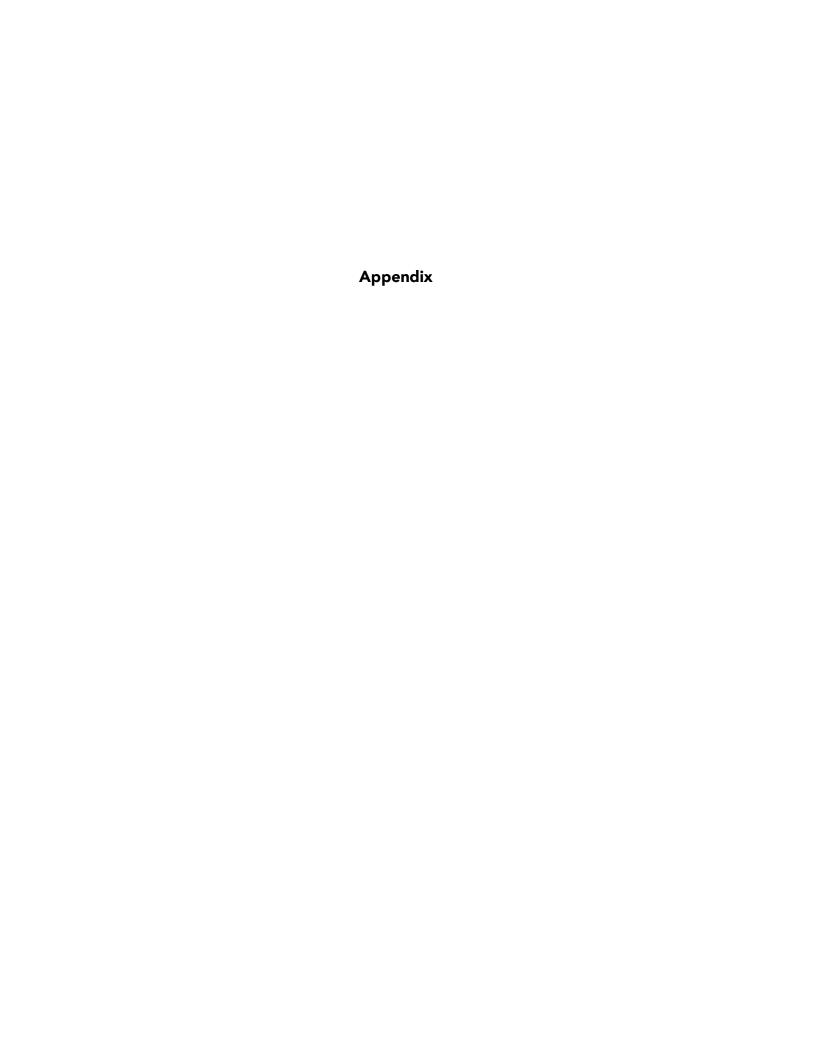
#### Notes

Fort Washington Small Market - clients will receive a 40% discount and new Marquette/FWCP clients would receive discounts of 10-40% at the final closing based on the total aggregate capital committed by Marquette clients. Performance fee reflects a 40% discount from Fort Washington 0.75% standard fee.

Siguler Guff - Marquette's average management fee is 60 bps, which is a 20% discount from Siguler Guff's standard rate, but Marquette clients who commit to the early closes in January and February will receive a additional 5 bp reduction resulting in a 27% discount.



<sup>\*</sup>Fees listed above do not include the fees of the underlying funds



## **Client Breakdown**

# Firm AUM by Client Type Breakdown

	Fort Washington		
	Small Market	BPEA	Siguler Guff
Corporate	6.3%	1.2%	8.4%
E&F	2.7%	25.5%	14.2%
HNW/Family	1.8%	38.0%	9.4%
Ins/Fin	63.0%	9.0%	2.8%
Mutual Fund	0.0%	0.0%	0.0%
Public	19.8%	2.6%	32.5%
Religious	0.8%	0.0%	0.0%
Taft-Hartley	0.8%	23.7%	28.3%
Sub-Advisory	0.0%	0.0%	3.7%
Wrap*	0.0%	0.0%	0.0%
Other	4.9%	0.0%	0.7%

## **Notes on Other**

Fort Washington Small Market - Corporate Pension/Institutional Trust Siguler Guff - 0.3% Other Financial Services

# Last Fund Client Type Breakdown

	Fort Washington		
	Small Market	BPEA	Siguler Guff
Corporate	12.9%	0.0%	12.7%
E&F	4.2%	22.6%	19.0%
HNW/Family	2.4%	47.7%	9.0%
Ins/Fin	30.4%	12.3%	0.0%
Mutual Fund	0.0%	0.0%	0.0%
Public	38.0%	12.7%	14.6%
Religious	1.1%	0.0%	0.0%
Taft-Hartley	2.0%	4.7%	43.6%
Sub-Advisory	0.0%	0.0%	1.0%
Wrap*	0.0%	0.0%	0.0%
Other	9.0%	0.0%	0.1%

# Notes on Other

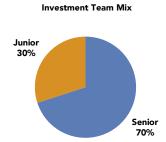
Fort Washington Small Market - Corporate Pension/Institutional Trust



#### Current Team (Top 15 or VP and Above)

				Years on	
Name	Role on Product	Years Experience	Years with Firm	Product	Education
Stephen A. Baker	MD/GP	28	22	22	BA, MBA
Julia Ossipov-Grodsky	MD/GP	23	17	17	CFA, BS
M. Robert Maeder	MD/GP	25	15	15	BA, CFA, MBA
Tarik Adam	Principal	20	13	13	BS, MBA
Andrea M. Newton	VP	16	6	6	BS, CPA
Ryan H. Boggs	Analyst	4	5	5	BA, CPA
Jeffrey D. Aebischer	Principal	6	5	5	BS, MBA
Joshua M. Young	Principal	11	4	4	BBA, Masters
Chris C. Amaya	Analyst	4	2	2	BBA
Drew M. Gleason	Principal	8	1	1	BA
Justin S. Kim	Analyst		1	1	BA

Investment Team Breakdown					
MD/GP	3				
Partner	0				
Principal	4				
VP	1				
Analyst/Associate	3				
Total Investment Team	11				



#### **Product Turnover**

	2016	2017	2018	2019	2020
Total Clients	225	246	268	279	287
Total Assets (\$M)	\$1.119	\$1.217	\$1.492	\$1.505	\$1.529

Team Turnover (5 Years)				
Hired	16			
Terminated				
Retired	1			
Resigned	12			
Total Employees	29			

## Five Largest Limited Partners in Previous Funds

LP Type	Assets (\$M)	% of Assets
Insurance/Financial	\$454.1	
Public	\$221.0	14.45%
Public	\$210.0	13.73%
Corporate	\$121.9	7.97%
Public	\$100.0	6.54%

Commitments (\$M)	
Avg LP Size	
Smallest LP Size	

# **Fort Washington Small Market Fund Performance**

## Historical Fund Performance Within Strategy

	Date of First	Total LP Committments	Capital Called	Capital Distributed	Market Value			Russell 3000
Fund Name	Capital Call	(\$M)	· (\$M)	(\$M)	(\$M)	Net IRR	Net Multiple	PME
Fort Washington Private Equity								
Small Market Investors X-S, L.P.	Sep-19	\$40.5	\$8.1	\$0.0	\$12.0	43.1%	1.5	26.0%



# Fort Washington Small Market Fund Performance

#### Historical Fund Mix & Performance Breakdown

Fund Name	% Committed to Buyout Funds	% Committed to Venture Funds	% Committed to Other Funds	% Committed to Secondary/Co- Invest & Direct	Buyout Net IRR	Venture Net IRR	Other Net IRR	% of Underlying Funds First Quartile	% of Underlying Funds Above Median
Fort Washington Private Equity Small Market Investors X-S, L.P.	45.3%	0.0%	29.1%	25.5%	100.0%	0.0%	25.3%	45.5%	54.5%

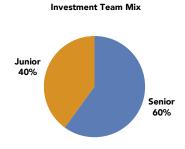


## **BPEA Product Overview**

### Current Team (Top 15 or VP and Above)

				Years on	
Name	Role on Product	Years Experience	Years with Firm	Product	Education
John Brooke	MD/GP	35	20	20	MBA
Chris Austen	MD/GP	23	16	16	MBA
Daniel LeMoine	Principal	12	14	14	MBA
Marcin Szajda	Principal	16	14	14	MBA
Biyi Animashaun	Analyst	4	5	5	BA
Jay Scuteri	Analyst	3	5	5	MBA
Taylor Parkinson	Analyst	2	4	4	BA, BS

Investment Team Breakdown				
MD/GP	2			
Partner	2			
Principal	0			
VP	3			
Analyst/Associate	2			
Total Investment Team 10				



### **Product Turnover**

	2016	2017	2018	2019	2020
Total Clients	0	8	10		
Total Assets (\$M)	\$	\$12	\$12		

Team Turnover (5 Years)				
Hired	7			
Terminated				
Retired				
Resigned	2			
Total Employees	-			

### Five Largest Limited Partners in Previous Funds

LP Type	Assets (\$M)	% of Assets
Family Office	\$62.0	
Insurance/Financial	\$55.0	
Endowment/Foundation	\$46.0	
Endowment/Foundation	\$32.5	
Insurance/Financial	\$32.0	

Commitments (\$M)				
Avg LP Size	\$4.0			
Smallest LP Size				



## Historical Fund Performance Within Strategy

		Total LP		Capital				
Fund Name	Date of First Capital Call	Committments (\$M)	Capital Called (\$M)	Distributed (\$M)	Market Value (\$M)	Net IRR	Net Multiple	Russell 3000 PME
BPEA Fund I, LP	Feb-04	\$40.0	\$38.9	\$53.3	\$0.0	5.7%	1.4	
BPEA Fund II, LP	Sep-06	\$86.1	\$83.8	\$131.3	\$23.1	11.4%	1.8	
BPEA Fund SBG, LP	Apr-11	\$50.0	\$49.4	\$88.9	\$23.9	19.8%	2.3	
BPEA III, LP	Jun-14	\$113.3	\$109.9	\$92.8	\$126.9	18.8%	2.0	
BPEA IV, LP	Apr-17	\$159.3	\$122.7	\$32.9	\$170.1	22.8%	1.7	
BPEA V, LP	Jul-19	\$203.5	\$78.6	\$24.5	\$70.9	36.6%	1.2	



## **BPEA Fund Performance**

### Historical Fund Mix & Performance Breakdown

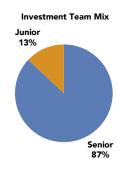
	% Committed	% Committed		% Committed to				% of Underlying	% of Underlying
Fund Name	to Buyout Funds	to Venture Funds	% Committed to Other Funds	Secondary/Co- Invest & Direct	Buyout Net IRR	Venture Net IRR	Other Net IRR	Funds First Quartile	Funds Above Median
BPEA Fund I, LP	46.0%	16.0%		38.0%	13.4%			27.0%	67.0%
BPEA Fund II, LP	50.0%	9.0%		41.0%	15.8%			38.0%	57.0%
BPEA Fund SBG, LP	52.0%			48.0%	17.7%			30.0%	70.0%
BPEA III, LP	42.0%			58.0%	21.7%			36.0%	55.0%
BPEA IV, LP	43.0%			57.0%	25.6%			29.0%	43.0%
BPEA V, LP	47.0%			53.0%	21.9%			67.0%	67.0%



## Current Team (Top 15 or VP and Above)

				Years on	
Name	Role on Product	Years Experience	Years with Firm	Product	Education
George Siguler	Partner	48			
Drew Guff	Partner	38			
Kevin Kester	Portfolio Manager	26			
Jonathan Wilson	Portfolio Manager	20			
Jason Mundt	Managing Director	21			
Christopher Barbier	Managing Director	17			
Sara Bowdoin	Managing Director	15			
Lagdon Mitchell	Principal	12			
Trey Meyer	Vice President	7			
Bibhusha Dangol	Vice President	6			

Investment Team Breakdown				
MD/GP	6			
Partner	4			
Principal	3			
VP	2			
Analyst/Associate	0			
Total Investment Team	15			



### **Product Turnover**

	2016	2017	2018	2019	2020
Total Clients	156	206	213	•	
Total Assets (\$M)	\$306	\$297	\$397		

Team Turnover (5 Years)				
Hired	99			
Terminated	8			
Retired				
Resigned				
Total Employees 185				

## Five Largest Limited Partners in Previous Funds

LP Type	Assets (\$M)	% of Assets
Public	\$115.0	
Taft-Hartley	\$100.0	
Taft-Hartley	\$100.0	
Taft-Hartley	\$75.0	
Taft-Hartley	\$75.0	

Commitments (\$M)	
Avg LP Size	\$7.2
Smallest LP Size	

# **Siguler Guff Fund Performance**

## Historical Fund Performance Within Strategy

		Total LP		Capital				
Fund Name	Date of First Capital Call	Committments (\$M)	Capital Called (\$M)	Distributed (\$M)	Market Value (\$M)	Net IRR	Net Multiple	Russell 3000 PME
Siguler Guff Small Buyout Opportunities Fund, LP	Oct-06	\$505.0	\$496.4	\$881.2	\$77.6	12.2%	1.9	10.8%
Siguler Guff Small Buyout Opportunities Fund II, LP	Sep-11	\$940.0	\$874.4	\$894.6	\$684.2	13.2%	1.8	13.7%
Siguler Guff Small Buyout Opportunities Fund III, LP	Feb-16	\$1,103.1	\$929.2	\$501.9	\$1,221.1	25.1%	1.8	18.8%
Siguler Guff Small Buyout Opportunities Fund IV, LP	Nov-19	\$1,575.0	\$567.3	\$17.4	\$702.4	33.4%	1.3	



### Historical Fund Mix & Performance Breakdown

	% Committed	% Committed		% Committed to				% of Underlying	% of Underlying
Fund Name	to Buyout Funds	to Venture Funds	% Committed to Other Funds	Secondary/Co- Invest & Direct	Buyout Net IRR	Venture Net IRR	Other Net IRR	Funds First Quartile	Funds Above Median
Siguler Guff Small Buyout									
Opportunities Fund, LP	78.2%	0.0%	1.1%	21.8%	15.8%	0.0%	-3.2%	42.0%	42.0%
Siguler Guff Small Buyout Opportunities Fund II, LP	65.0%	0.0%	3.1%	31.9%	17.0%	0.0%	0.9%	25.0%	43.0%
Siguler Guff Small Buyout	03.070	0.070	3.170	31.770	17.070	0.070	0.770	25.070	43.070
Opportunities Fund III, LP	65.7%	0.0%	0.0%	34.3%	29.7%	0.0%	0.0%	32.0%	63.0%
Siguler Guff Small Buyout									
Opportunities Fund IV, LP	67.9%	0.0%	0.0%	32.1%	36.1%	0.0%	0.0%		



# **Other Manager Notes**

# Notes on % Owned by Parent or Other

Firm Name	Notes					
Fort Washington Small Market	Fort Washington is a wholly-owned subsidiary of W&SFG, a Fortune 500 company.					
ВРЕА	10% interest owned by Squadron Capital (Advisor to the firm)					
Siguler Guff	One hundred percent of the voting interests of Siguler Guff are held by George Siguler, Drew Guff, Donald Spencer, Ken Burns and their family-related partnerships and trusts. In November 2009, The Bank of New York Mellon Corporation ("BNY Mellon") acquired a 20%, non-voting, equity interest in Siguler Guff. The majority of Siguler Guff's investment professionals share in the profitability of the Firm's products with which they are actively involved.					



**Bottom-up Evaluation Process:** We use a bottom-up process to vet investment ideas. As an idea passes through multiple evaluation phases, the idea is provided with additional resources (i.e. time, attention, and money) and will be placed at a higher level of scrutiny. While the traditional and alternative research efforts utilize the same general approach, there are differences due to the specifics of each asset class. There is a product Set-Up and five levels of due diligence. Phase I and Phase II are the initial evaluation phases, Phase III is the documentation phase, Phase IV is the validation phase, and the last phase is the final recommendation and on-going due diligence. During every stage of the process, the lead analyst presents information at the weekly Investment Manager Search Committee ("IMC") meetings. The lead analyst or the IMC may "fail" an idea at any step in the process. In order to pass Phase III and IV, an idea must receive unanimous support from the IMC. Note: Managers included in Marquette searches may not be fully through all five phases of the evaluation process at the time the search is published.

		Set Up	Phase I	Phase II	Phase III	Phase IV	Recommendation / Ongoing	
ucts	Traditional		Collect Basic Information	Quantitative Screen	Asset- Class/Account Specific RFI			
Manager Products	Open Alternatives	Enter Product into proprietary MAI database	Collect Basic Information	Qualitative /Quantitative Screen	Asset- Class/Account Specific RFI	Full Due Diligence Check/Data Verification	Final Recommendations and Ongoing Due Diligence	
	Closed Alternatives		Collect Basic Information	Qualitative /Quantitative Screen	Asset- Class/Account Specific RFI			
•						I		
		Initial Product	Determine Viability of	Determine whether	Develop clear	Includes:	Ongoing	

Initial Product Determine Viability of Determine whether Discovery Product product is attractive understanding of necessary info, including potential shortfalls

1.On-site visit
2.Reference check
3.Technology
evaluation
4.Culture evaluation
5.Compliance
evaluation
6.Peer comparisons
7.IMC follow-up review

due

diligence



### **Glossary**

### **Definitions**

Vintage the fund vintage is designated as the first year of investment/drawdown from an investor.

**Committment** is the specified sum of capital an LP has agreed to contribute to a private equity fund. The sum of commitments to a private equity fund equals the total size of the fund.

**Called** is the actual act of transferring capital into the fund's portfolio companies; when a fund manager/general partner has decided where it would like to invest the private equity fund capital, it will approach its limited partners in order to call some of the capital that was initially committed to the fund.

**Distributions to Paid-in (DPI)** is the proportion of the called up capital that has been distributed or returned back to LPs. This will include cash and stock distributions, with the latter being valued as at the date of distribution and treated in the same way as a cash distribution.

**Residual Value to Paid-in (RVPI)** is the value of the LPs' remaining interest in the partnership, as derived from the GP's valuation of the unrealized portfolio and its allocation of this to the LP. Valuation of unrealized investments expressed as a percentage of called capital.

**Total Value to Paid-in (TVPI)** is the ratio between the total value that the LP has derived from its interest in the partnership - i.e. distributed cash and securities plus the value of the LP's remaining interest in the partnership - and its total cash investment in the partnership, expressed as a multiple. It is important to note that this measure does not reflect the time value of money, and therefore will not show whether one partnership has returned value to LPs more quickly or more slowly than another.

**Net IRR** is earned by an LP to date after fees & carry. The internal rate of return is based upon the realized cash flows and the valuation of the remaining interest in the partnership. IRR is an estimated figure, given that it relies upon not only cash flows but also the valuation of unrealized assets. The IRR estimates shown are both those as reported by the LP and / or GP, and those that Preqin has calculated internally, based upon cash flows and valuations, provided for individual

**Target Allocation** is the Pre-determined proportion of total portfolio assets to be invested in private equity funds. Often given as a percentage, the investor will invest to reach or maintain their long-term target.

**Unfunded Commitments** is the amount of capital that has been committed to a private equity funds minus the amount that has been called by the GPs for investment. The unfunded commitment is the remaining capital the LP is obliged to pay to the GP of the fund for future investments.

**Bitesize** is a range of money which an investor looks to commit in each vintage year. In some cases it is taken as an investor's average commitment to funds it has committed to in the past and can vary with different fund types.

**Current Allocation** is the total amount of committed capital that has been and is currently invested in private equity assets by private equity funds as a percentage of total portfolio assets.



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## Simulated Asset Class Characteristics 12-31-2021

The results of the simulated capital market returns are shown below. It is important to note that these values represent output from the software simulations, and not deterministic views of future capital market performance. The first column is the average annualized 10 year return of all the simulations, and the second column is the average annualized 10 year volatility. The last five columns indicate the annualized 10 year return for the 5th, 25th, 50th, 75th, and 95th percentile; the higher the percentiles, the better the performance.

	Average	10 Year		10 Year	Annualized R	eturns		
Asset Class	Annualized Return	Annualized Volatility	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile	
Broad Fixed Income	1.9%	2.9%	0.9%	1.4%	1.9%	2.4%	3.1%	
BarCap Int Aggregate	1.8%	2.8%	0.5%	1.2%	1.7%	2.3%	3.2%	
Core Plus	2.5%	3.1%	1.2%	2.0%	2.5%	3.0%	3.6%	
Govt/Credit	1.9%	2.0%	1.3%	1.7%	1.9%	2.1%	2.4%	
Int Govt/Credit	1.6%	1.4%	1.2%	1.5%	1.6%	1.8%	2.0%	
Long Govt/Credit	2.7%	3.8%	1.3%	2.2%	2.8%	3.2%	3.9%	
Short Govt/Credit	1.3%	0.7%	0.8%	1.1%	1.3%	1.5%	1.8%	
Govt	1.4%	1.8%	0.9%	1.2%	1.4%	1.6%	1.9%	
Int Govt	1.3%	1.4%	0.9%	1.1%	1.3%	1.5%	1.7%	
Long Govt	2.0%	3.9%	0.5%	1.4%	2.0%	2.6%	3.3%	
Short Govt	1.1%	0.7%	0.6%	0.9%	1.1%	1.3%	1.6%	
Credit	2.5%	2.5%	1.8%	2.3%	2.6%	2.8%	3.1%	
Int Credit	2.2%	1.7%	1.7%	2.0%	2.2%	2.4%	2.6%	
Long Credit	3.2%	3.9%	1.9%	2.7%	3.2%	3.6%	4.3%	
Short Credit	1.3%	1.1%	0.6%	1.0%	1.3%	1.6%	2.1%	
Mortgage	1.9%	5.5%	-1.2%	0.5%	1.8%	3.3%	5.3%	
High Yield	4.5%	6.4%	-0.4%	4.4%	4.9%	5.4%	6.0%	
TIPS	2.9%		0.5%	1.6%	2.8%	3.4%	6.1%	
Universal	1.9%	4.8% 3.8%	0.5%	1.0%	1.9%			
						2.6%	3.6%	
Short Municipals	0.8%	1.3%	-0.3%	0.7%	0.9%	1.1%	1.4%	
Short High Yield Municipal	2.6%	2.8%	0.8%	2.5%	2.8%	3.1%	3.5%	
Municipal	1.4%	2.1%	-0.2%	1.3%	1.5%	1.7%	2.0%	
High Yield Municipal	3.3%	4.9%	-0.2%	3.2%	3.7%	4.0%	4.5%	
Global Aggregate	1.5%	3.8%	-0.5%	0.7%	1.5%	2.3%	3.4%	
Global Govt	0.8%	5.4%	-2.1%	-0.3%	0.8%	1.9%	3.7%	
Global ex-U.S.	1.2%	7.5%	-2.5%	-0.3%	1.1%	2.7%	5.0%	
91 Day T-Bills	0.2%	1.0%	-1.1%	-0.4%	0.1%	0.8%	1.8%	
Commercial Paper	0.7%	0.7%	-0.2%	0.3%	0.6%	1.1%	1.7%	
Preferred Stock	3.4%	3.9%	2.1%	3.0%	3.4%	3.9%	4.5%	
Bank Loans	5.1%	6.3%	2.2%	3.9%	5.1%	6.4%	8.0%	
Opportunistic Credit	5.6%	6.4%	2.3%	4.2%	5.6%	7.0%	8.9%	
Emerging Market Debt	4.9%	12.5%	-1.7%	1.9%	4.9%	7.8%	11.5%	
Broad U.S. Equity (All Cap Core)	7.2%	17.8%	-1.9%	2.9%	7.5%	11.1%	16.9%	
U.S. Large-Cap Core	7.0%	18.4%	-2.6%	2.4%	7.3%	11.0%	17.1%	
U.S. Large-Cap Value	6.8%	22.2%	-4.3%	1.3%	7.2%	11.6%	19.0%	
U.S. Large-Cap Growth	6.9%	21.9%	-4.0%	1.5%	7.3%	11.6%	18.9%	
U.S. Mid-Cap Core	7.2%	19.2%	-3.0%	2.7%	7.5%	11.4%	17.7%	
U.S. Mid-Cap Value	7.2%	22.6%	-4.3%	2.1%	7.5%	12.1%	19.1%	
U.S. Mid-Cap Growth	7.3%	20.9%	-3.8%	2.4%	7.1%	11.7%	18.6%	
U.S. Small-Cap Core	8.0%	18.5%	-1.9%	3.6%	8.0%	12.3%	18.6%	
U.S. Small-Cap Value	8.1%	20.6%	-2.7%	3.3%	8.0%	12.7%	19.6%	
U.S. Small-Cap Growth	7.9%	19.8%	-2.7%	3.2%	7.5%	12.4%	19.4%	
U.S. Micro-Cap	7.6%	26.5%	-6.6%	1.6%	7.9%	13.5%	22.5%	
U.S. Low Volatility	6.8%	10.1%	1.4%	4.5%	6.8%	9.1%	12.2%	
Global Equity	7.4%	21.2%	-3.2%	2.7%	7.0%	11.9%	19.2%	
Global Low Volatility	6.7%	13.0%	0.0%	3.7%	6.5%	9.4%	14.0%	



	Average	10 Year		10 Year	Annualized R	Returns	
Asset Class	Annualized Return	Annualized Volatility	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile
Broad Non-U.S. Equity	7.4%	24.0%	-4.5%	2.2%	7.5%	12.4%	20.3%
Developed Large-Cap	7.4%	22.8%	-4.4%	2.5%	7.2%	12.2%	20.1%
Developed Large-Cap Value	7.1%	26.0%	-5.8%	1.3%	7.1%	12.3%	21.5%
Developed Large-Cap Growth	7.2%	25.8%	-5.6%	1.9%	7.4%	12.4%	22.1%
Non-U.S. Small-Cap	7.5%	29.2%	-7.1%	1.1%	6.7%	13.5%	23.5%
Emerging Market	7.4%	34.2%	-9.2%	-0.1%	7.8%	14.8%	26.0%
Emerging Market Small-Cap	7.5%	37.9%	-10.7%	-0.7%	7.9%	14.9%	28.3%
Defensive Equity	6.1%	10.3%	-0.1%	3.4%	5.9%	8.6%	12.9%
Hedge Fund - FOF	5.1%	7.4%	-0.6%	2.6%	5.0%	7.5%	12.0%
Hedge Fund - Distressed	4.9%	8.2%	-0.3%	2.7%	4.8%	7.2%	10.5%
Hedge Fund - Hedged Equity	4.6%	9.3%	-3.2%	0.9%	5.0%	7.9%	14.2%
Hedge Fund - Global Macro	4.8%	8.1%	-1.0%	2.2%	4.1%	7.3%	11.3%
Hedge Fund - Market Neutral	5.1%	4.6%	2.1%	3.7%	4.2%	6.4%	8.6%
Hedge Fund - Event Driven	5.8%	6.0%	1.2%	3.8%	5.5%	8.0%	11.4%
Hedge Fund - Convertible Arb	6.0%	12.8%	-1.3%	3.0%	5.8%	8.9%	13.3%
Hedge Fund - Merger Arb	5.0%	6.3%	0.9%	3.1%	4.8%	6.7%	10.0%
Hedge Fund - Relative Value	6.0%	9.9%	0.1%	3.7%	6.0%	8.4%	11.9%
Real Estate - Core	6.5%	5.2%	2.8%	5.0%	6.4%	7.9%	10.1%
Public REITs	5.6%	15.5%	-2.7%	2.2%	5.4%	9.0%	13.9%
Commodities	5.0%	22.1%	-5.6%	-0.1%	4.7%	9.5%	16.5%
Subordinated Real Estate Debt	8.9%	12.5%	2.0%	6.0%	9.0%	11.6%	16.4%
Opportunistic Real Estate	11.1%	12.3%	4.6%	8.4%	10.8%	13.6%	18.2%
Timber	5.9%	5.6%	3.1%	4.8%	5.9%	7.0%	8.9%
Farmland	6.3%	7.6%	2.2%	4.7%	6.3%	7.8%	10.4%
MLPs	7.1%	16.0%	-1.1%	3.5%	6.8%	10.6%	16.3%
Global Infrastructure	7.0%	8.7%	2.2%	5.1%	6.9%	9.0%	12.1%
Private Debt (Levered)	9.6%	8.2%	5.3%	7.9%	9.6%	11.3%	13.8%
Private Equity - Fund of Funds	11.0%	12.7%	4.3%	8.2%	11.0%	13.6%	18.0%
Private Equity LBO	11.9%	15.2%	4.5%	8.7%	11.8%	15.1%	19.9%
Private Equity Venture Capital	13.5%	19.8%	3.5%	9.0%	13.2%	17.9%	24.3%
Private Equity Mezzanine	9.2%	11.9%	2.8%	6.5%	9.3%	11.8%	15.5%

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