

MWRA EMPLOYEES' RETIREMENT BOARD MEETING

AGENDA

Thursday, August 27, 2020 10:00 a.m.

MWRA, 2 Griffin Way

Via Remote Participation

Item 1 10:00 a.m. Meeting called to order

OLD BUSINESS

- Item 2
- i. Standing Committee Reports
 - ii. By-Laws Committee: Member Kevin McKenna
 - iii. Human Resources Committee: Member Thomas J. Durkin, Member Frank Zecha
 - iv. Special Committee, Stipend: Chair James M. Fleming, Member Kevin McKenna
 - v. Job Review Committee: Member James M. Fleming; Member Thomas J. Durkin

NEW BUSINESS

- Item 3 Approval of July 30, 2020 Minutes – VOTE
- Item 4 Approval of Warrants – VOTE
- a) Warrant 8-2020
 - b) Warrant 8-2020A – Payroll
- Item 5 Approval of Monthly Transfers 8-2020 – VOTE
- Item 6 Acknowledgement of retirement applications under G.L. c 32 §5 – VOTE
- a) Russell Murray DOR 7/25/2020
 - b) Brian Linnane DOR 7/28/2020
 - c) Donald Taylor, Jr. DOR 7/30/2020
 - d) Francis Coleman DOR 7/31/2020
 - e) Paul Berry DOR 8/1/2020
 - f) Richard Milewski DOR 8/1/2020
 - g) Mark Niederberger DOR 8/1/2020
 - h) Mark Johnson DOR 8/15/2020
 - i) Donald Martel DOR 8/15/2020
- Item 7 Acceptance of Section 7 Retirement re. Sandra Simmler – VOTE
- Item 8 Accounting Services RF: - 3 responses were received by the deadline – CliftonLarsonAllen LLP, KPMG, and Marcum LLP
- Item 9 International Growth Equity Manager Presentations via telephone
- 10:30 a.m. a) Ballie Gifford
 - 11:00 a.m. b) JO Hambro
 - 11:30 a.m. c) Schroders (and Due Diligence)
- Item 10 NEPC
- a) Flash Report as of 7/31/2020
 - b) Investment Performance Report 3/31/2020
 - c) PE Quarterly Performance Report 3/31/2020
 - d) RE Quarterly Performance Report 3/31/2020
 - e) Preliminary Investment Performance Report 6/30/2020

Item 11

Legal

- a) Board Policy on Liability and Indemnification of Retirement Board Members – VOTE
- b) DALA Decision regarding Richard Capozzi

.....**FOR YOUR INFORMATION and REVIEW**

- Item 99-1 Cerberus Letter Regarding Unexpected Death of Ron Rawald
- Item 99-2 Important Update Regarding StepStone Group
- Item 99-3 MACRS Legal Panel Presentation
- Item 99-4 TerraCap Partners V August 2020

Date of next scheduled Retirement Board meeting is Thursday, September 24, 2020, 10:00 a.m., Chelsea

**MASSACHUSETTS WATER RESOURCES
AUTHORITY EMPLOYEES' RETIREMENT
BOARD MEETING
JULY 30, 2020**

A meeting of the MWRA Employees' Retirement Board was held via conference call on Thursday, July 30, 2020, due to safety concerns regarding the Coronavirus. The toll-free number for the call was included on the public meeting notice posted on the MWRA Employees' Retirement System and Secretary of State's websites. Participating in the meeting by conference call were James M. Fleming, Thomas J. Durkin, Kevin McKenna, Andrew Pappastergion and Frank Zecha, Carolyn Russo, Julie McManus, and Sebastian Grzejka. Also participating remotely were Finance Department interns Matthew Corrieri and Mayo Amorello. A member of the public who declined to self-identify on the platform, but who later identified himself by email as Gar Chung, was in attendance. Chairman Fleming called the meeting to order at 10:10 a.m.

- 1) Call the meeting to order
- 2) Committee Reports
By-Laws Committee: No Report
Human Resources Committee: No Report
Special Committee, Stipend: No Report
Job Review Committee: No Report
- 3) Approval of June 25, 2020 Minutes – VOTE

On motion by Mr. Durkin and seconded by Mr. Pappastergion:

VOTED

to approve the minutes of the June 25, 2020 meeting as presented. 5 -0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

- 4) Approval of Warrants – VOTE
 - a) 7-2020
 - b) 7-2020A-Retiree Payroll

On an omnibus motion by Mr. McKenna and seconded by Mr. Pappastergion:

VOTED

to approve Warrant 7-2020, and Warrant 7-2020A – Retiree Payroll as

presented. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

5) Approval of Monthly Transfers 7/2020 – VOTE

On motion by Mr. Zecha and seconded by Mr. Pappastergion:

VOTED

to approve Monthly Transfers 7/2020 as presented. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

6) Acknowledgement of retirement applications under G.L. c 32 §5 – VOTE

- | | | |
|----|--------------------|---------------|
| a) | Larry Thomas | DOR 7/11/2020 |
| b) | Nicholas DeMatteo | DOR 7/11/2020 |
| c) | Christopher McGurl | DOR 7/18/2020 |

Mr. McKenna questioned whether the members had been counseled, and the Executive Director responded that since there are still restrictions on visitors coming into the facility that the Retirement Coordinator has been meeting with retirement applicants outside at the picnic tables, while cautioning them that we cannot guarantee their privacy as we would normally be able to do.

On an omnibus motion by Mr. McKenna and seconded by Mr. Durkin:

VOTED

to approve the above-listed July 2020 retirements. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

7) Annual review of Executive Session Minutes. The Executive Director reported that Staff had reviewed the Executive Session minutes and none have been determined to be eligible for release, as the reason for the Executive Sessions (primarily protection of medical information) still exists.

8) Draft Actuarial Services RFP submitted by the Executive Director – VOTE

Mr. Durkin asked why the RFP requires the responses to be submitted by mail, and stated that he preferred that they be submitted by email. The Executive Director noted that although that approach would be more expedient, given the email size restrictions imposed by MWRA's IT, she did not want to risk having valid responses from prospective vendors blocked. The Executive Director noted that she did include as a requirement that all respondents have electronic forms of the submission

ready should they be selected for further consideration.

On motion by Mr. Durkin and seconded by Mr. Pappastergion:

VOTED

to approve the draft RFP for Actuarial Services as submitted by the Executive Director. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

- 9) Draft Audit and Accounting Services RFP submitted by the Executive Director – VOTE

The Executive Director noted that although s. 23B does not require an RFP for Audit Services, it does for Accounting Services, and the additional work required for the production of the annual CAFR may constitute accounting rather than audit services. In addition, given that only three retirement systems in the state currently create an annual CAFR, qualified responses may be limited, and therefore adherence to c. 23B requirements is advisable. Mr. McKenna asked whether a change in vendor would have an impact on the CAFR capabilities, and Mr. Durkin responded that he would not expect any.

On motion by Mr. Pappastergion and seconded by Mr. McKenna:

VOTED

to approve the draft RFP for Audit and Accounting Services as submitted by the Executive Director. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

- 10) Manager Due Diligence Call-In Presentations
- a) Constitution
 - b) Ascent
 - c) Park Square
 - d) Alcentra

The following managers underwent an annual investment manager review pursuant to 840 CMR 16.07. The managers presented performance and investment reports detailing the manager's activities which the Board reviewed.

Constitution
Ascent
Park Square
Alcentra

Each manager was cautioned that since the Board is not able to fully guarantee the security of the meeting platform, the participants may wish to refrain from discussing information which may be considered proprietary, and noted that there was currently an unidentified participant not associated with the Board in attendance. The Board reviewed and compared each manager's performance with the Retirement System's investment goals and policies. The Board ensured that comprehensive written quarterly reports were filed with the Board and with PERAC and that these reports included a review of investment performance and relative performance, a review of the System's investments, and a report on each investment manager's current investment outlook or forecast as well as strategy for the future and key personnel staffing changes.

Constitution reported that they had just closed the Ironsides Opportunities Fund in which the plan is invested, and is in the process of raising capital for an Annex Fund as well as a subsequent fund, since Covid-19 is presenting opportunities for discounted secured debt purchases in recession-resistant areas with solid fundamentals. Mr. Fleming asked Mr. Grzejka whether MWRAERS may invest in a subsequent fund or whether an RFP would be needed. Mr. Grzejka stated that he would defer to Board Counsel on that point, so the Chair deferred the matter to later in the meeting during the legal update. Constitution noted that the MWRAERS' early investment in the prior fund prior to the first close resulted in lower fees, and stated that due to the fact that later investors have to pay earlier investors, MWRAERS has had no out of pocket fees on the Ironsides Opportunities Fund. Mr. McKenna asked if there has been debt payment compliance through the most recent reporting period, and Constitution stated that so far everyone is still paying. Mr. McKenna then asked about Impact Fitness (Planet Fitness) specifically, and Constitution responded that because the monthly fees are so low (\$10 per month) not a lot of members are quitting at the present time, and that they expect Planet Fitness to be OK. Mr. McKenna asked whether the Flash report reflects the IRR as reported by the manager. Mr. Grzejka stated that it does not, because NEPC uses a time-weighted return, but that the two are expected to converge over time.

Ascent reported a name change to Pulse Investments. However, due to the severity of the economic downturn and due to the departures of key personnel that they have paused fundraising for fund VII, which was intended to be the first fund under the Pulse name. Mr. Grzejka repeated the warning about sharing proprietary information. The Chair concurred, and again requested that the member from the public identify themselves, but the caller declined to do so. Ascent reported that the public health crisis had affected Ascent as well as the underlying investments, and that they have instituted salary reductions, furloughs, and other expense-cutting measures. Mr. Fleming asked whether cuts affected executive compensation at Ascent and across the companies and Mr. Scanlon responded in the affirmative. Mr. Dick commented that Ascent had employed PPP funds combined with a restructuring of the firm. One of the

Finance Interns in attendance remarked that PPP funds are intended to support salaries of employees earning less than \$100,000 per year, and Mr. Scanlon explained that particular restriction affects the overall dollar amount of the PPP funds for which the firm may apply. Mr. Scanlon continued that fund IV is nearing a close with one investment remaining, and assured the Board that Mr. Oblek is under contract to continue to oversee the System's existing investments in funds V and VI, and will remain on the companies' boards on which Ascent has a seat.

Park Square reported that they are navigating the market dislocation well in both the primary and secondary markets due to strong due diligence processes, and investment in lower-risk, more stable companies in non-cyclical industries. They are seeing a trend toward nationalism, with more banks focusing on investment within their own markets. Park Square has deployed \$200m thus far during the recent dislocation, and because banks are retreating, has been able to negotiate advantageous terms. They also announced the launch of fund IV, given the extensive current market opportunities. Park Square stated that Fund IV will be comprised of large companies and constructed with a disciplined approach by an experienced team with a transparency focus.

Alcentra reported having lost some team members due to both economic conditions and attrition, but if things improve the firm plans to reassess the team's size. Alcentra stated that Covid-19 has reinforced the direct lending strategy, and that the fund had minimal exposure to the travel, retail and restaurant industries. Alcentra reported that although better risk/return is available, that deal flow has been affected by the current aversion to risk, and that deal execution processes have slowed down as well. However, he stated that Alcentra continues to find deals through use of local experts in each country with contacts at underlying companies who review approximately 600 deals per year before selecting 20-30 for investment. Mr. Durkin asked if Alcentra is concerned about co-lenders, and Alcentra responded that they know their competition and that while some may refuse certain deals, they know there are others who will accept, so they really are not concerned. Mr. Fleming asked if MWRAERS' investment is being affected by the value of the dollar. Alcentra responded that the impact is less because MWRAERS is in a currency pool, while the impact on the Euro and Sterling is greater, but that they will perform a follow-up analysis.

The Board determined each manager continues to operate in a manner represented when retained and outlined in the agreement between the Board and the manager.

- 11) NEPC Presentation
 - a) Flash Report as of 6/30/2020
 - b) Rebalance Recommendation – VOTE

NEPC recommended that upon receipt of the estimated final redemption from PIMCO of \$10,086,000, making the following allocations: \$2,000,000 to Octagon and \$8,086,000 to cash. Mr. Fleming asked how much we have in cash at the present. The Executive Director reported that we have about \$2.9 million, the payroll is \$2.2m, the A/P warrant comes to \$300,000, and there are calls of \$420,000 and \$40,000 due Monday 8/3/2020 to CarVal and PRIT PE respectively, so the current balance will be depleted by Monday. She stated the allocation from PIMCO to cash represents roughly 1.5% of the portfolio and should cover the next three months of payroll and bills, provided there aren't any large capital calls. Mr. Grezka stated that the additional allocation to Octagon is being recommended because Octagon is intended to complement Loomis, to which the Board allocated an additional \$2m in June.

On motion by Mr. Pappastergion and seconded by Mr. Durkin:

VOTED

adopt NEPC's proposed rebalance recommendations per the attachment as follows:

PIMCO (Est. Final redemption)	(\$11,096,463)
Octagon	\$2,000,000
Coho	\$500,000
Robeco	\$500,000
Cash	\$8,096,463

5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

Mr. Fleming asked about the total value of the portfolio at its peak, at its low due to the health and economic crisis, and currently. Mr. Grzejka answered that as of December 31, 2019 the fund was at approximately \$579m, at its low in March was at \$515m and currently is at \$550m. He stated that the Board's conviction in the System's conservative positioning worked as intended to protect the System's assets over this very volatile period.

- c) International Growth Equity Manager RFP-selection of firms for further review – VOTE

Mr. Grzejka reviewed the additional research done on the 19 remaining firms' responses NEPC received to the Board's RFP for the International Growth Equity mandate. NEPC rated the firms as to strategy, size, performance, and fees. Other factors such as risk/return, portfolio overlap, and limits on Emerging Market exposure were also considered. Based on the above criteria, Mr. Fleming suggested that Schroders and J.O. Hambro be included in the interview process, and Mr. Durkin requested Baillie Gifford. Mr. Grzejka asked if the Board wished

to include a low-turnover product such as Walter Scott or Polen. Mr. McKenna noted that although Polen Focused Growth continues to perform very well for the fund, the proposed product does not meet the 5-year track record RFP requirement.

On motion made by Mr. Durkin and seconded by Mr. McKenna:

VOTED

to select as finalists in the International Growth Equity search Schroders, Baillie Gifford, and J.O. Hambro, and to schedule the managers' presentations for the August 2020 meeting. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

- 12) Legal Update – Board Counsel reported that DALA has issued an order to show cause in regard to the Floyd appeal and that he expects to receive a dismissal from DALA. He stated that he is in the process of reviewing the Notice of Lien sent to the Retirement Office in regard to the Worker's Compensation claim of a staff member. He has reviewed the Class Action in regard to USA Technologies, and People's United will be filing a claim on the System's behalf.

At the request of the Executive Director, Board Counsel brought the various Qualified Immunity bills to the Board's attention, but reported that in reviewing the Qualified Immunity matter other areas of concern have arisen. Although the House bill limits revocation of qualified immunity to decertified police officers, the Senate bill revokes qualified immunity for all public officials. Counsel suggested that the Board should consider an additional liability stand-alone policy, as the Middlesex Regional, Boston, Brockton, and Cambridge Systems have put in place, because he does not believe the MACRS umbrella policy is sufficient. Counsel explained that s. 20A provides indemnification of the SRB and MTRS Board members, and by local option of City and Town Retirement Board members, but that he is not sure that s. 20A may be passed by an Authority, and does not believe that point has been tested in the Courts. Counsel therefore submitted a draft indemnification policy for the Board's consideration at the August meeting. He further suggested that the Board consider purchasing a stand-alone Cyber Liability policy. While acknowledging that stand-alone policies are costly, he cautioned that using System assets for indemnification may ultimately draw more assets from the fund.

Attorney Gibson stated that Mr. Parsons recently completed his first year as Executive Director at PERAC, and stated that although the Commission praised Mr. Parsons for his performance, declined to give him a raise, attributing it to "optics" given the current economic situation and unemployment levels. Counsel reported that Mr. Joseph Martin has retired and was not replaced. Attorney Patrick Charles has been appointed by PERAC to serve on CRAB. PERAC has entered into preliminary discussions with A&F in regard to a possible Early

Retirement Incentive, as well as a possible funding schedule extension beyond 2040 for local communities.

Counsel reminded the Board to stay on top of their educational credit requirements noting that in-person PERAC seminars including the annual forum at Holy Cross have been canceled. He encouraged the Board members to take advantage of the on-line course offerings. The Chair directed the Executive Director to go into PROSPER and to report to each Board member the status of their credits. Attorney Gibson stated that he believes that the MA House and senate will remain in Session until a Police reform bill is passed, and that veterans bills and various Covid-19 presumption bills remain under consideration as well.

Regarding the Board's previous discussion about Constitution, Mr. Fleming asked Board Counsel if we may add funds to an existing manager without separate approval and RFP process, and Counsel answered that the Board may allocate additional money to an existing account without an RFP, but may not make an allocation to a different fund with the same manager without one.

Mr. Durkin requested that the monthly meeting package be broken up into public and non-public documents and that the documents be posted on line prior to the meeting so that the public can access them. The Executive Director responded that if this is in reference to Gar Chung, that she sends him hundreds of pages of documents in response to records requests after every meeting, and asked if it was Mr. Durkin's intention that he be able to access them without filing a public records request. Mr. Durkin denied that it was in regard to Mr. Chung, and stated that it was rather intended to help his co-workers who want to follow along with the meeting. Mr. Fleming asked Board Counsel whether we may file a bill to protect proprietary information from disclosure, similar to the language used to exempt PRIT's proprietary information. Board Counsel answered yes, although he stated it would be more likely to pass if submitted by a coalition of Retirement Systems, such as through MACRS. The Chair directed the Retirement Coordinator to put the public information on the MWRA Retirement site, and stated that the Chair and the Executive Director/Records Access Officer will decide if there is a question as to whether an item is subject to release.

The Chair inquired if the items in the Board package from CliftonLarsonAllen required a vote, and the Executive Director stated that they do not, that the Audit Findings Letter and Management Letter were provided to advise the Board that the Audit of the Retirement System and its 2019 Financial Statements is complete, the CAFR has been posted, and there were no significant findings or material misstatements of net position as of year-end.

The Retirement Board was presented with the following informational documents in the meeting package:

CliftonLarsonAllen LLP 12/31/2019 Financial Statement Audit Findings Letter
 CliftonLarsonAllen LLP 12/31/2019 Internal Control Letter
 Constitution Due Diligence Presentation
 Ascent Due Diligence Presentation
 Park Square Due Diligence Presentation
 Alcentra Partners Due Diligence Presentation
 NEPC Preliminary Flash Report as of 6/30/2020
 NEPC Rebalance Recommendation
 NEPC International Growth Equity Manager RFP Response Summary
 PERAC Investment Report 2019
 PERAC Memo #23/2020 re. Tobacco Company List
 PERAC Memo #24/2020 re. PROSPER Security Update
 PERAC Memo #25/2020 re. Mandatory Retirement Board Member Training 3rd Quarter 2020
 PERAC Memo #26/2020 re. Reinstatement to Service under G.L. c. 32 § 105
PERAC Pension News July 2020
 HarbourVest Organizational Announcement

On motion by Mr. Pappastergion and seconded by Mr. McKenna:

VOTED

to adjourn the meeting by conference call. Call was terminated at 2:38 p.m. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, and Mr. Zecha voting yes

The next regularly scheduled meeting of the MWRA Employees' Retirement Board will be held Thursday, August 27, 2020 at Massachusetts Water Resources Authority, 2 Griffin Way, Chelsea, Conference Room 2C, 10:00 a.m., if permissible, otherwise, will be held by publicly advertised conference call.

James M. Fleming, Elected Member

Kevin McKenna, Elected Member

Andrew Pappastergion, Ex Officio

Thomas J. Durkin, Appointed Member

Frank Zecha, Fifth Member

MASSACHUSETTS WATER RESOURCES AUTHORITY EMPLOYEES' RETIREMENT SYSTEM

BAILLIE GIFFORD INTERNATIONAL GROWTH FUND



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As with all mutual funds, the value of an investment in the Fund could decline, so you could lose money. International investing involves special risks, which include changes in currency rates, foreign taxation and differences in auditing standards and securities regulations, political uncertainty and greater volatility. These risks are even greater when investing in emerging markets. Security prices in emerging markets can be significantly more volatile than in the more developed nations of the world, reflecting the greater uncertainties of investing in less established markets and economies. Currency risk includes the risk that the foreign currencies in which a Fund's investments are traded, in which a Fund receives income, or in which a Fund has taken a position, will decline in value relative to the U.S. dollar. Hedging

against a decline in the value of currency does not eliminate fluctuations in the prices of portfolio securities or prevent losses if the prices of such securities decline. In addition, hedging a foreign currency can have a negative effect on performance if the U.S. dollar declines in value relative to that currency, or if the currency hedging is otherwise ineffective.

The most significant risks of an investment in Baillie Gifford International Growth Fund are *Investment Style Risk, Growth Stock Risk, Long-Term Investment Strategy Risk, Geographic Focus Risk, Asia Risk, China Risk, Conflicts of Interest Risk, Currency Risk, Emerging Markets Risk, Equity Securities Risk, Focused Investment Risk, Information Technology Risk, IPO Risk, Japan Risk, Large Capitalization Securities Risk, Liquidity Risk, Market Disruption and Geopolitical Risk, Market Risk, Non-U.S. Investment Risk, Service Provider Risk, Settlement Risk, Small-and Medium-Capitalization Securities Risk and Valuation Risk*. For more information about these and other risks of an investment in the Fund, see "Principal Investment Risks" and "Additional Investment Strategies" in the prospectus.

Baillie Gifford International Growth Fund seeks capital appreciation. There can be no assurance, however, that the Fund will achieve its investment objectives.

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Presenters



Ryan Fitzpatrick

Ryan joined Baillie Gifford as a Director in 2017 and is responsible for the Institutional business. He is based in the New York office and holds FINRA series 7 & 63 licenses and carries the CAIA designation. Ryan has 20 years' experience in the financial industry and prior to joining Baillie Gifford he served as Director, Institutional Marketing at The Boston Company. Ryan graduated BA in Economics from Bucknell University in 1996 and MA in Finance from Boston College.



Nick Thomas

Nick joined Baillie Gifford in 1998 and is a Director in the Clients Department with responsibility for North American Clients. He became a Partner of the firm in 2010. Nick joined the International Growth Portfolio Construction Group in 2003 and gained his CFA Charter in the same year. He previously spent a number of years in our European and Developed Asia Equity Teams. Nick graduated BA in Classics from the University of Cambridge in 1998.

Our Key Features

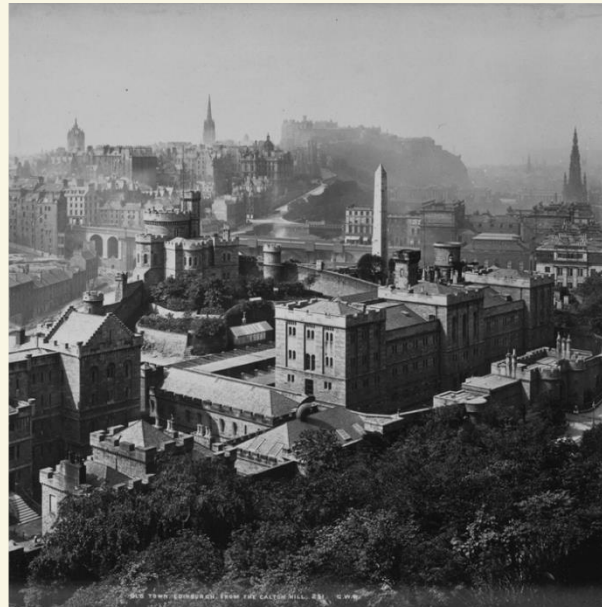
Independent thinking

- Active fundamental investment management is all we do
- Headquartered away from financial centres helps us to focus on long term and screen out market noise



Partnership defines us

- Stability and continuity
- Owned by 46 partners who all work within the firm
- Global equity investing since 1908



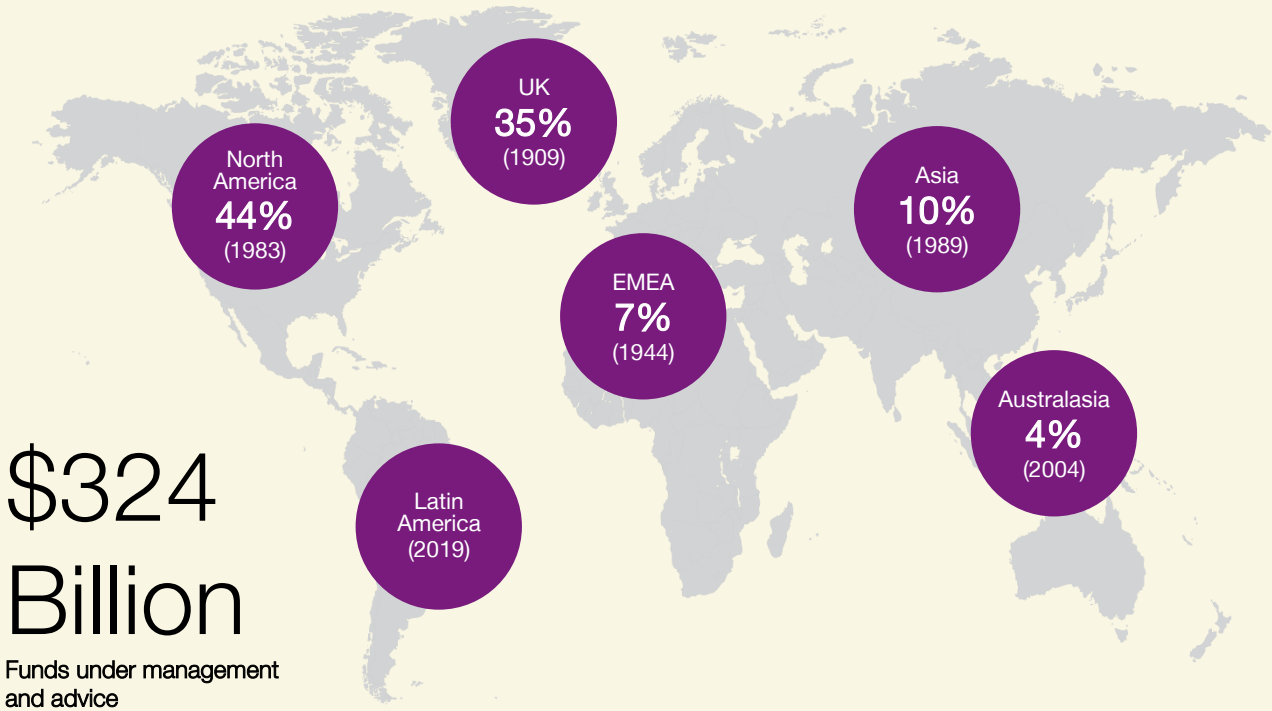
Alignment of interest

- Firm succeeds only if clients succeed
- No distractions, no conflicts



A High Service Culture

Global Client Base



Relationship Longevity



As of June 30, 2020. US dollars. Funds under management and advice by region (year of first client). Figures may not sum due to rounding.

Investment Capabilities



Retention



70% investment staff start at Baillie Gifford
 4.9% investor turnover annually*
 Investors remunerated on 5-year rolling performance

Diversity



c.60 degree disciplines
 26 nationalities

Experience



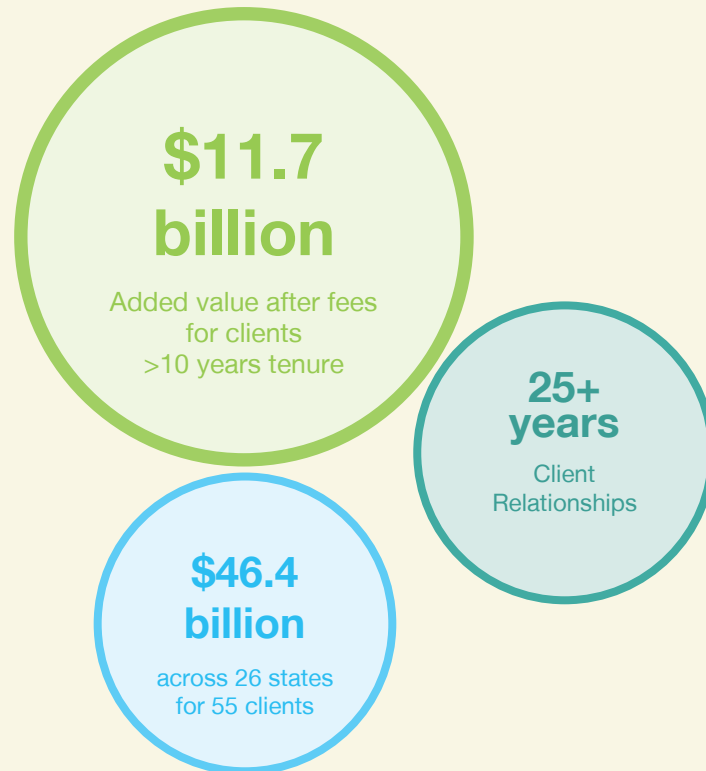
Average investment experience of Head of Teams

As of June 30, 2020. US dollars.

*Average based on 5 year annual turnover. As of December 31, 2019.

US Public Plan Clients

First US public plan client in 1993



Representative Client List

Arkansas Public Employees Retirement System
California Public Employees' Retirement System
California State Teachers
Colorado Public Employees' Retirement Association
Indiana Public Retirement System
Kansas Public Employees Retirement System
Maryland State Retirement Agency
Massachusetts Pension Reserves Investment Management Board
New York City Deferred Compensation Plan
Oklahoma Public Employees Retirement System
Pennsylvania Public School Employees' Retirement System
State Board of Administration of Florida
The Public Employees' Retirement System of Mississippi
Virginia Retirement System

Industry Memberships

National Association of State Retirement Administrators
National Council on Teacher Retirement
National Institute on Retirement Security
National Conference on Public Employee Retirement Systems
The Council of Institutional Investors
United Nations Principles for Responsible Investment

As of June 30, 2020. US dollars.

The clients identified in the above list were selected based on a variety of factors, including name recognition, industry, geographic region and investment mandate. The selection of clients for the list is not based on performance criteria. It is not known whether the listed clients approve or disapprove of Baillie Gifford or services provided.

An important and valued part of our business

Our Edge as Actual Investors

Active

- Conviction led, freedom to explore curiosities

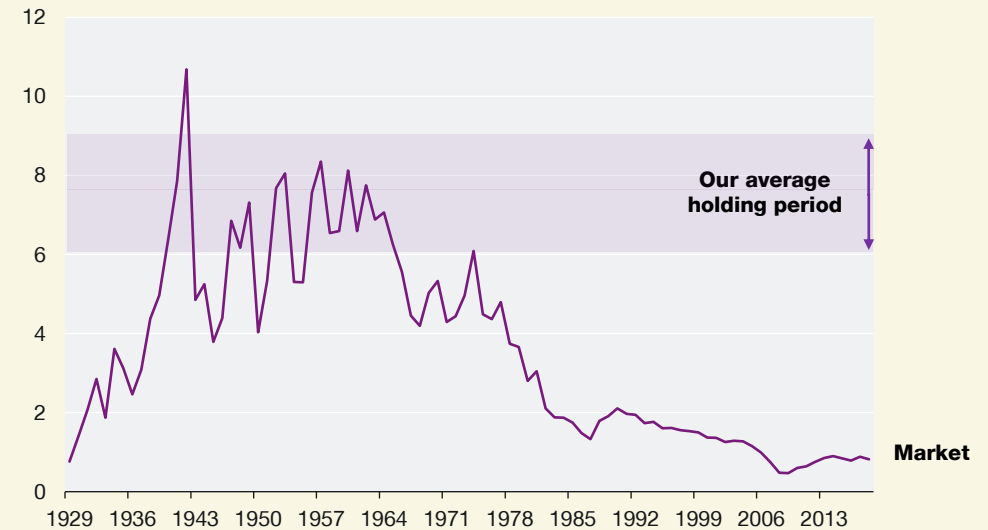
Growth

- Take advantage of long-term compound growth

Long-Term

- Turn time and volatility to your advantage; five year+ time horizon

Holding Period of NYSE Stocks (In Years)



Data provided by: Ned Davis Research Group, 2019. Yearly data from 1929 to 2018. Source: Barron's Newspaper, IDC and New York Stock Exchange. Our average holding period is based on representative Baillie Gifford strategies.

Team and Investment Philosophy

Portfolio Construction Group

Tom Coutts



Chairman*
21 years' experience

Lawrence Burns



Deputy Chairman*
11 years' experience

Julia Angeles



Investment Manager
12 years' experience

James Anderson



Investment Manager*
37 years' experience

Brian Lum



Investment Manager
14 years' experience

Nick Thomas



Client Service Director*
22 years' experience

David Salter



Client Service Director*
23 years' experience

*Partner

Philosophy

- Investment not speculation: We are owners rather than renters of shares
- Growth investing: Interested in rapid growth and durable growth companies
- Exceptional companies: Equity market returns are driven by a small handful of companies that offer extreme returns

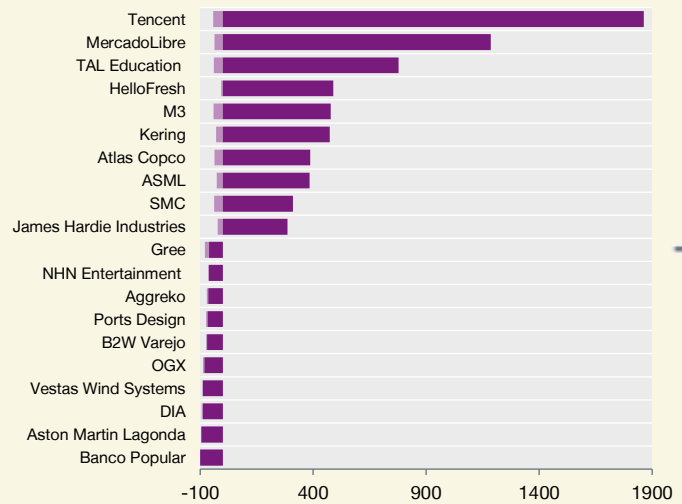
Investment Philosophy – Extreme Returns

A SMALL NUMBER OF BIG WINNERS HAS DRIVEN RETURNS

BROADER EQUITY MARKETS ARE ALSO DRIVEN BY A FEW POSITIVE OUTLIERS

MOST COMPANIES JUST DON'T MATTER

**Baillie Gifford International Growth Fund
Asymmetric Returns**



■ Maximum drawdown during holding period
■ Holding period return of Baillie Gifford International Growth Fund stocks (top 10 and bottom 10 return in \$)

Total Wealth Created by All Listed International Stocks (1990 - 2018)



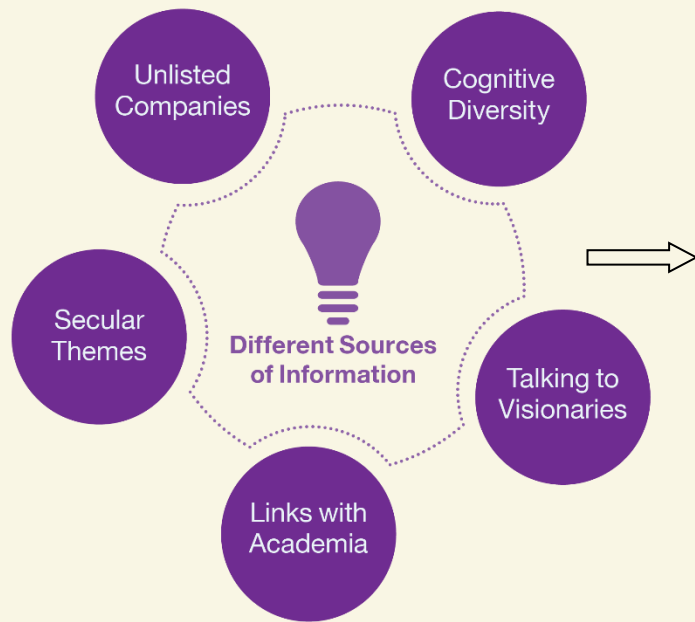
The best way to justify active management is to focus on owning those companies capable of delivering extreme returns

Source: StatPro, MSCI.
Baillie Gifford International Growth Fund. US dollars.
June 30, 2010 to June 30, 2020
Some stocks were only held for part of the period.

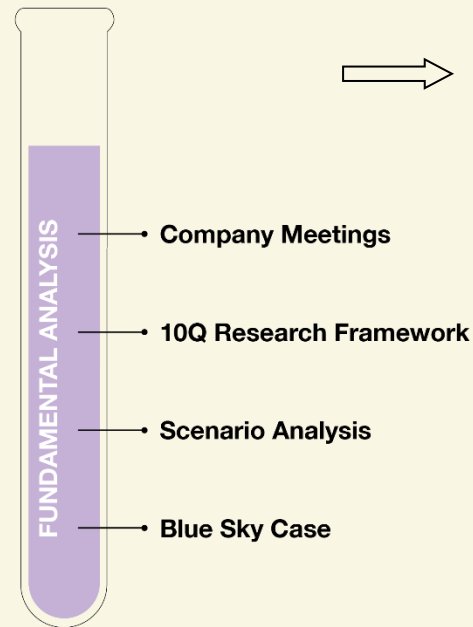
Source: Bessembinder, H., Cheng, TF., Choi G. and John Wei, K.C. Do Global Stocks Outperform Treasury Bills? (July, 2019). The first author acknowledges financial support from Baillie Gifford & Co. The data is an international subset of the global data set used in the above paper and includes 44,035 CRSP common stocks from January 1990 to December 2018. In cases where stocks list or delist within a calendar period the return is computed for the portion of the period where data is available. Due to dual share classes; dollar wealth is assessed at the company level. Beyond the best-performing 259 firms, an additional 16,141 firms (36.7%) of stocks created positive wealth over their lifetimes. The wealth creation of these stocks was just offset by the wealth destruction of the remaining 27,635 (62.8% of total) firms, so that the top 259 firms created the same wealth as the overall market.

Investment Process

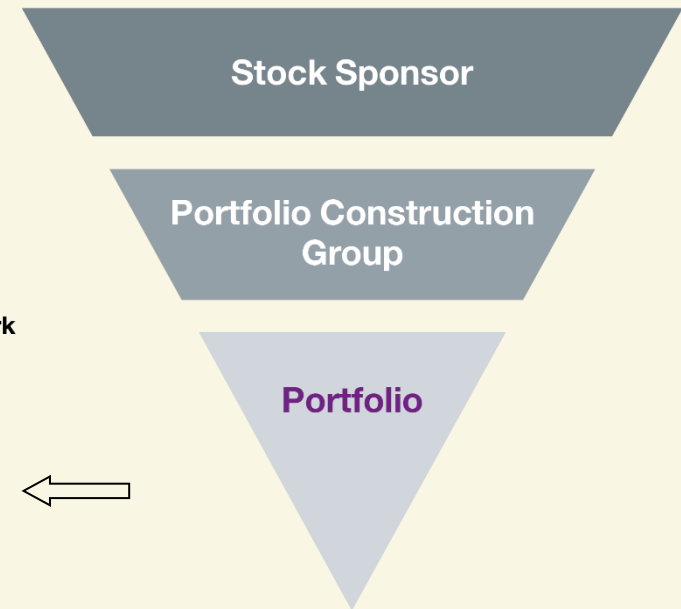
IDEA GENERATION



TESTING



DECISION



Investment Process - Idea Generation

In our industry people tend to use similar information and often reach similar conclusions. **Our edge** comes from having access to people with different perspectives and from thinking creatively about the future.



Different Sources of Information

Cognitive Diversity

Different academic backgrounds and thought processes.

Talking to Visionaries

Insights from visionary business leaders.

Links with Academia

Relationships with universities around the world.

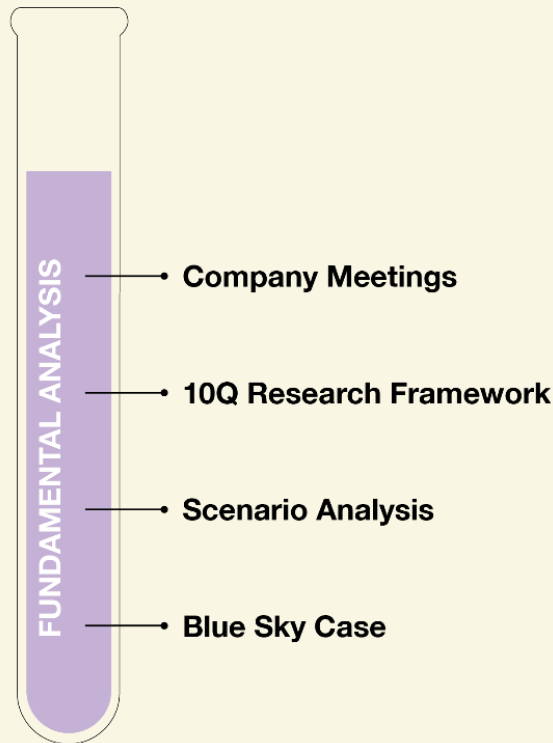
Secular Themes

Paying attention to long duration trends.

Unlisted Companies

Learning from the next generation of disrupters.

Investment Process – Testing



10Q Research Framework

Growth, Competitive Advantage, Management

- Q1 What are the company's growth prospects over the next five years?
- Q2 What happens over ten years and beyond?
- Q3 How should we think about the likely profile of margins and returns?
- Q4 How do the management team improve the company's chances of long-term success?

Customers and Other Stakeholders

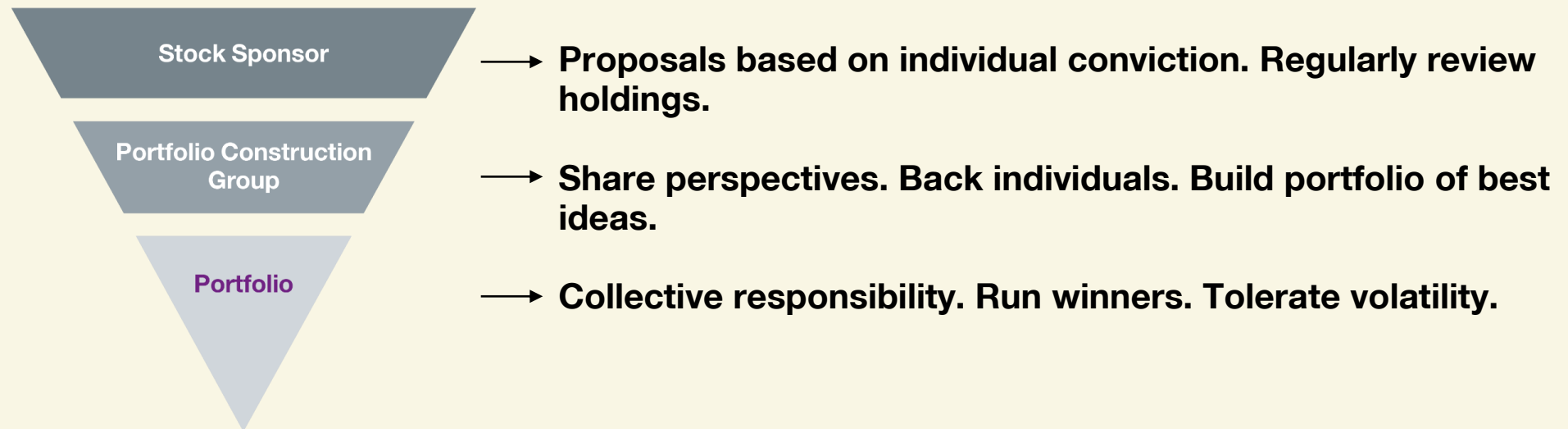
- Q5 Why do your customers like you?
- Q6 What are the views of other relevant stakeholders?
- Q7 Does the company make the world a better place?

Upside, Probabilities and Scaling

- Q8 Outline some scenarios for the next five years
- Q9 What is an appropriate holding size?
- Q10 Why doesn't the market realise this?

Investment Process - Decision

Only a few stocks matter for long term portfolio performance. **Our edge** comes from our ability to embrace this fact, by seeking out blue sky investment cases and then running our winners.



The Portfolio

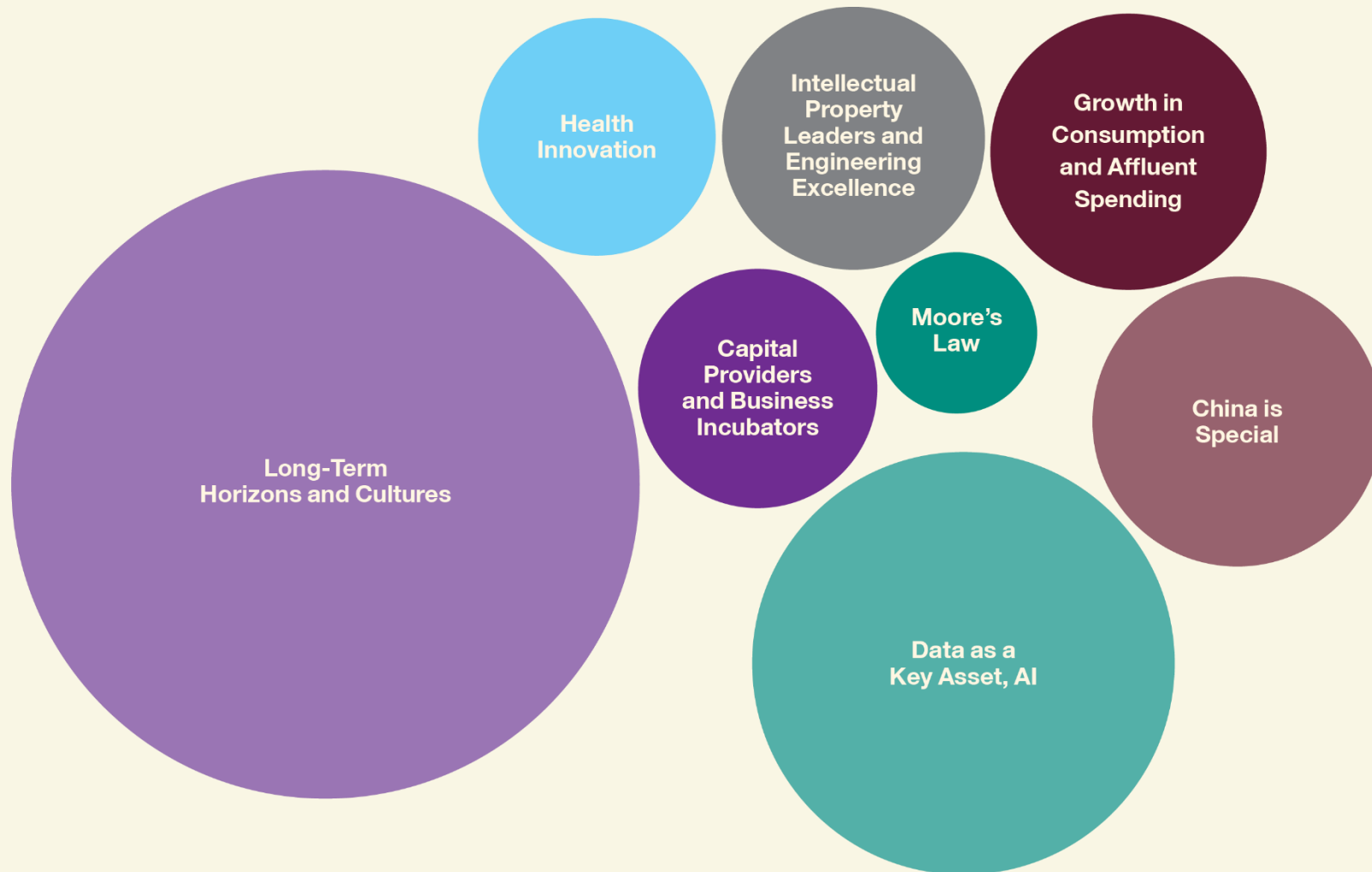
21.66%		38.94%		22.39%		15.84%	
>10 YEARS		5-10 YEARS		2-5 YEARS		<2 YEARS	
Holding	%	Holding	%	Holding	%	Holding	%
Tencent	6.66	ASML	6.98	Ferrari	4.02	Meituan Dianping	4.36
Kering	3.68	Alibaba	5.18	Spotify	3.79	Adyen	2.32
Inditex	2.18	MercadoLibre	5.14	Genmab	3.04	HelloFresh	1.95
L'Oréal	2.07	M3	4.64	TAL Education	2.68	Ping An Insurance	1.55
SMC	1.95	Zalando	3.52	Delivery Hero	2.26	Temenos	1.12
Atlas Copco	1.80	AIA	2.12	Wix.com	1.97	Argenx	0.99
Baidu.com	0.95	SoftBank	2.10	Umicore	1.76	EXOR	0.84
Hong Kong Exchanges & Clearing	0.84	Ocado	1.93	Nidec Corporation	1.26	GMO Payment Gateway	0.83
Novozymes	0.63	Pan Pacific International	1.11	Sartorius Group	1.11	Ambu	0.74
Rolls-Royce	0.59	Kinnevik	1.02	Pigeon	0.51	NIO	0.47
EssilorLuxottica	0.31	Chr Hansen	0.88			CyberAgent	0.36
		Fiat Chrysler Automobiles	0.65			Adevinta	0.19
		BASF	0.63			MakeMyTrip	0.13
		SBI Holdings	0.58				
		Morphosys	0.55				
		Rocket Internet	0.42				
		Elekta	0.40				
		HDFC	0.39				
		Aixtron	0.37				
		Schibsted	0.35				

The Baillie Gifford International Growth Fund, as of June 30, 2020. Totals may not sum due to rounding. Cash = 1.2%.

It should not be assumed that recommendations/transactions made in the future will be profitable or will equal performance of the securities monitored. Holdings are subject to change.

Portfolio Positioning

Themes in the Portfolio



Based on The Baillie Gifford International Growth Fund.
As of June 30, 2020. Excludes cash.

Our portfolio insights diagram was born out of recognition that a critical mass of investment ideas might become too reliant on one factor. So we have thought carefully about the different growth drivers for the portfolio and have grouped similar holdings into themes. The size of each circle/theme is directly proportional to the percentage of the portfolio that they represent. We use this to monitor the degree of balance and the diversification of exposure in the portfolio and continue to see this as more insightful than traditional index classifications.

Governance and Sustainability

ESG issues are critically important, but tick box approaches are not the answer

Companies will only succeed if they are run well and treat stakeholders fairly

Some companies succeed because they are solving social or environmental problems

Firm-wide Engagement Principles

-  Long-term focused remuneration with stretching targets
-  Fair treatment of stakeholders
-  A constructive and purposeful board
-  Prioritization of long-term value creation
-  Sustainable business practices

Governance and Sustainability Team



Thoughtfully Managing Risk

Principles

- We must take risk to generate returns
- Risk is permanent loss of capital, not volatility

Controls

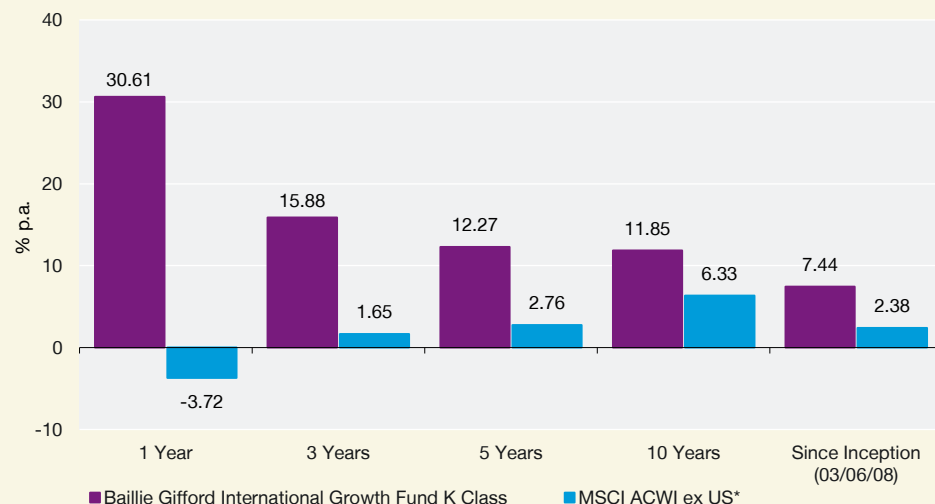
- Experienced team conducting in depth, fundamental analysis
- Pragmatic diversification guidelines
- Independent oversight and challenge from investment risk team

Diversification Guidelines

	Guidelines
Number of holdings	≥50
Minimum Countries	6, with min 5%
Minimum Sectors	6, with min 5%
Maximum Position	8% absolute

Performance

K Class Fund Performance – NAV Returns



Gross Expense Ratio	
Share Class – K	0.60%
Share Class - Institutional	0.65%
Net Expense Ratio	
Share Class – K	0.60%
Share Class - Institutional	0.65%

Source: Bank of New York Mellon and MSCI. Share Class launch date: April 28, 2017. NAV returns in US dollars. As of June 30, 2020.

*MSCI EAFE prior to November 22, 2019.

The performance data quoted represents past performance and is no guarantee of future results. Investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. For the most recent month-end performance please visit the Fund's website at www.bailliegifford.com/institutional-investor/usa/funds.

The Baillie Gifford Fund's performance shown assumes reinvestment of dividend and capital gain distributions and is net of management fees and expenses. Returns for periods less than one year are not annualized. From time to time, certain fees and/or expenses have been voluntarily or contractually waived or reimbursed, which has resulted in higher returns. Without these waivers or reimbursements, the returns would have been lower. Voluntary waivers or reimbursements may be applied or discontinued at any time without notice. Only the Board of Trustees may modify or terminate contractual fee waivers or expense reimbursements. All fees are described in the Fund's prospectus.

Returns are based on the K share class from April 28, 2017. Prior to that date returns are calculated based on the oldest share class of the Fund adjusted to reflect the K share class fees where these fees are higher. Since inception returns above show the Fund's returns from March 6, 2008.

Expense Ratios: All mutual funds have expense ratios which represent what shareholders pay for operating expenses and management fees. Expense ratios are expressed as an annualized percentage of a fund's average net assets paid out in expenses. Expense ratio information is as of the Fund's current prospectus, as revised and supplemented from time to time.

The MSCI EAFE Index is a free float-adjusted market capitalization weighted index that is designed to measure equity market performance in the global developed and emerging markets, excluding the United States. This unmanaged index does not reflect fees and expenses and is not available for direct investment. Baillie Gifford International Growth Fund is more concentrated than the MSCI EAFE Index.

Conclusion

Baillie Gifford

- Independent partnership
- 100+ years of investing experience
- Put clients' interests first

International Growth

- A long-term investment approach
- Interested in rapid growth and durable growth companies
- Searching for exceptional companies and extreme returns

1900



1913

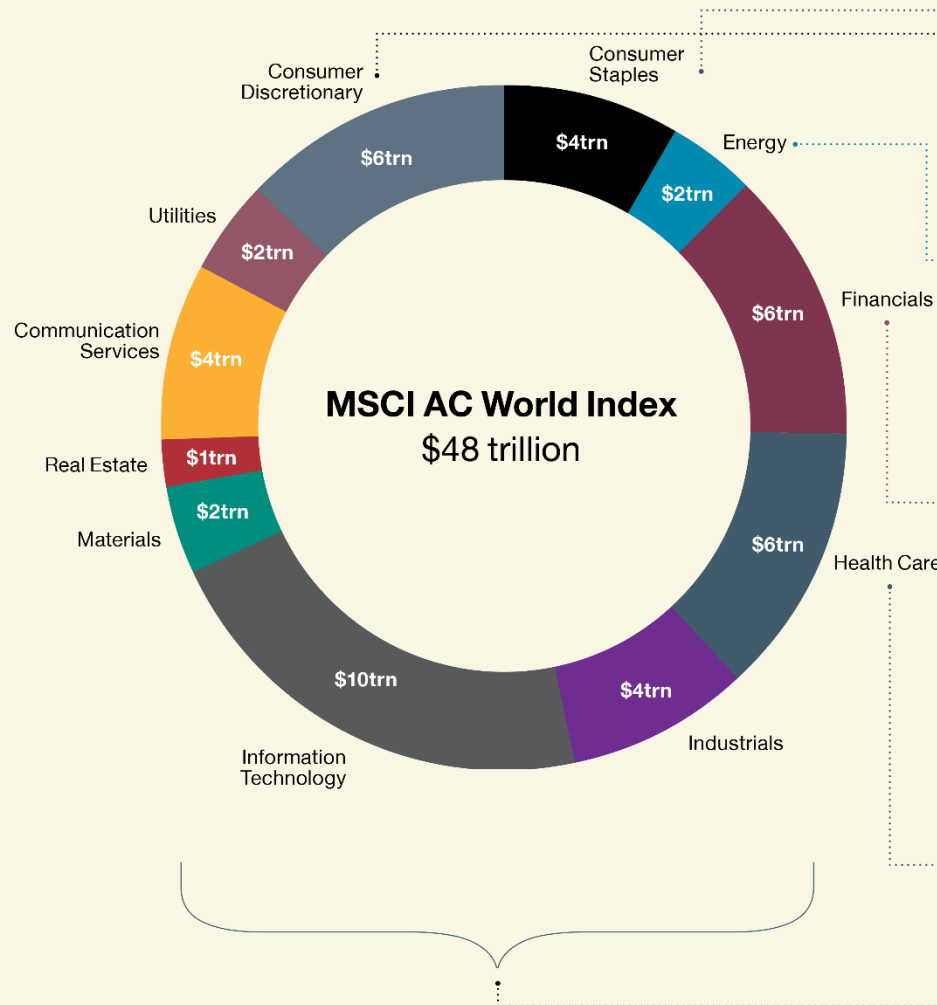


APPENDICES



The Index Is Ripe For Creative Destruction

MUCH OF THE INDEX IS AT RISK FROM DISRUPTIVE TECHNOLOGY



DISRUPTION

DISRUPTERS

\$4trn Retail		Only 16% of retail globally is online (2020 forecast)	Alibaba Amazon.com MercadoLibre Rocket Internet Zalando
\$1trn Food		How we consume food is changing. Meituan delivers c.30m restaurant meals a day	Ocado Meituan Dianping Delivery Hero
\$0.9trn Automotive		Automobiles will become electric, autonomous and increasingly like a computer on wheels in the decades ahead	Baidu.com SoftBank Tesla Inc Nidec
\$2trn Energy		The cost of solar panels fell nearly 90% between 2010 and 2020	Tesla Inc Umicore
\$6trn Financials		Consumers in China are forecast to send \$45 trillion through mobile payment platforms in 2020	Alibaba Amazon.com MercadoLibre Ping An Tencent
\$6trn Healthcare		In the last decade the cost of sequencing a genome has fallen from \$100,000 to \$600	Genmab M3 Illumina
\$48trn Artificial Intelligence		Artificial Intelligence has the potential to impact every industry	Baidu.com Amazon.com SoftBank

Source: Factset and MSCI, as of June 30, 2020. US dollars.
Totals may not sum due to rounding.

Sell Discipline – What We Look For

**DETERIORATION
IN FINANCIAL
METRICS**



**LOSS OF FAITH IN
MANAGEMENT**



VALUATION



**BETTER IDEAS
ELSEWHERE**



How?

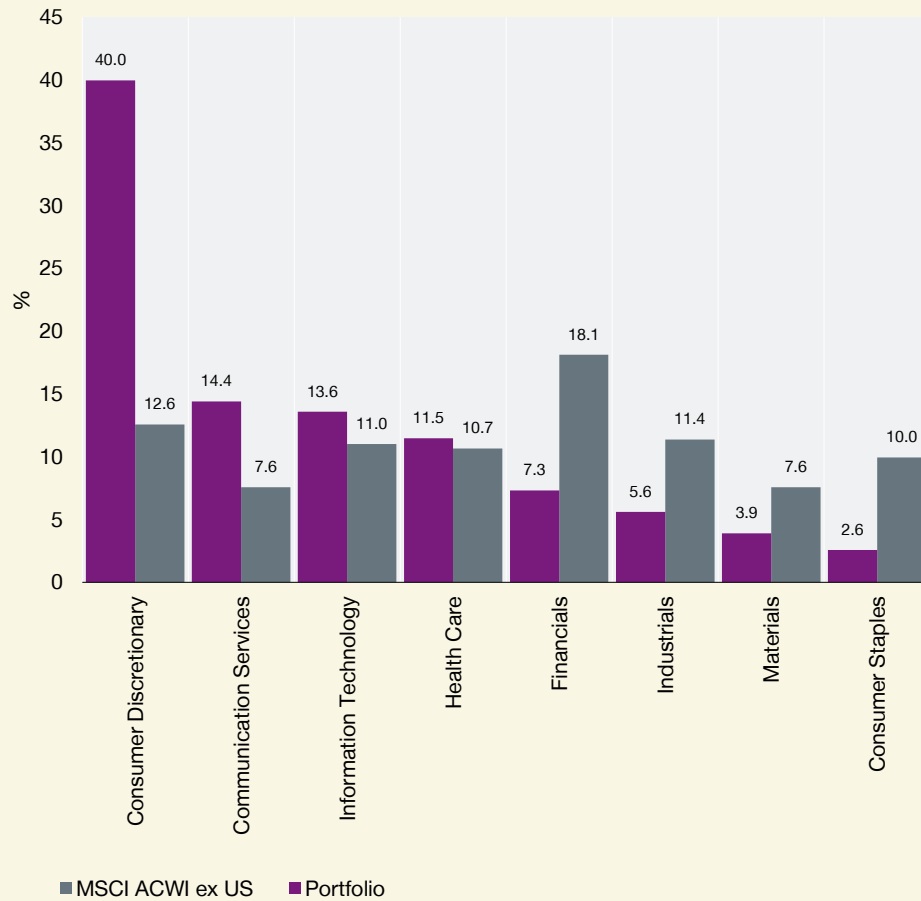
- Ongoing team discussion
- Differentiate noise from signal
- Regular reassessment of fundamentals

Why?

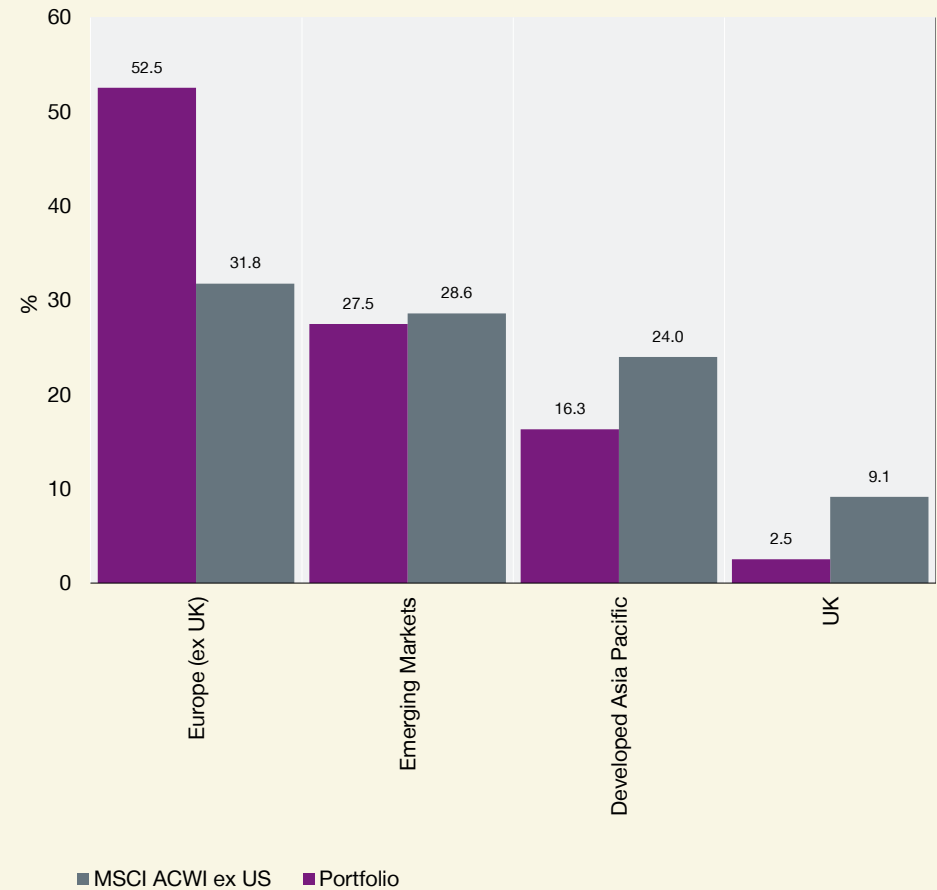
- Deterioration in financial metrics
- Loss of faith in management
- Valuation
- Better ideas elsewhere

Sector and Regional Weights

Sector

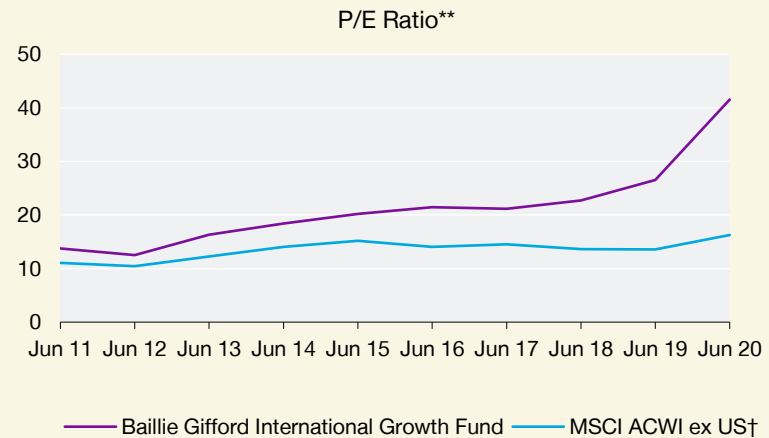
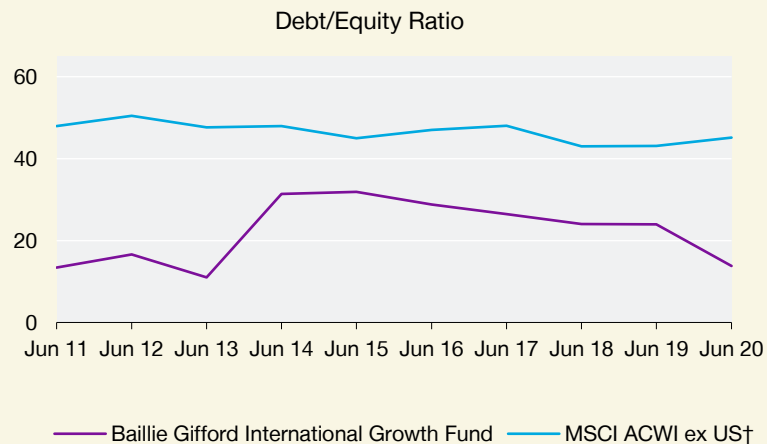
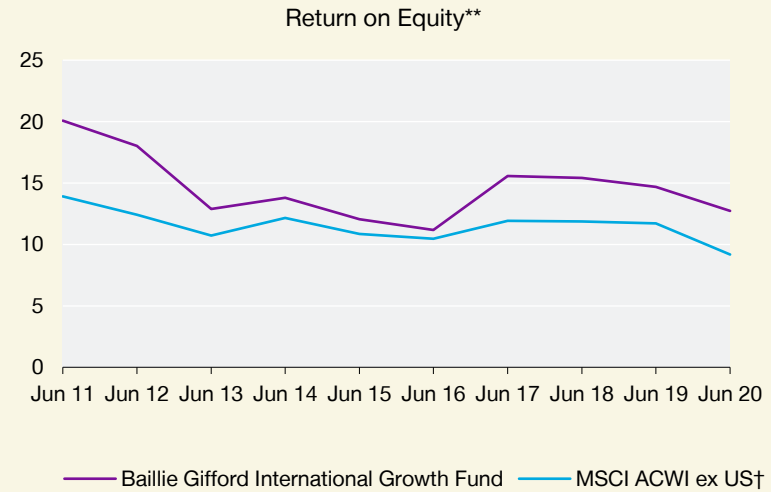
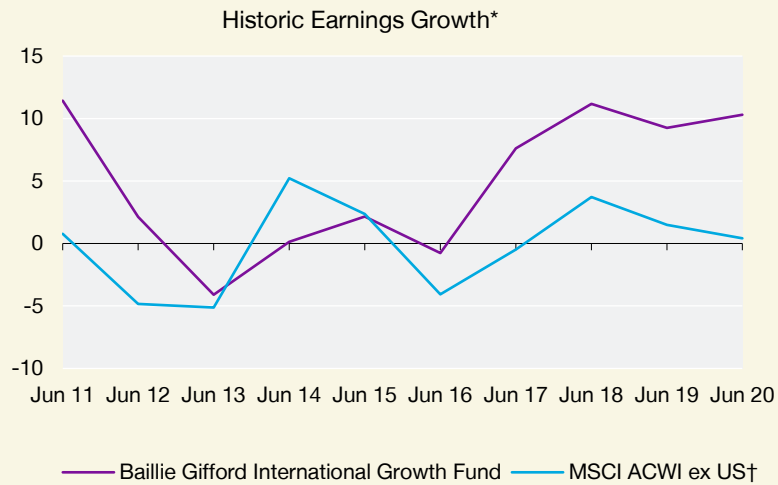


Region



Source: Baillie Gifford & Co, MSCI. Based on The Baillie Gifford International Growth Fund.
As of June 30, 2020.
Totals may not sum due to rounding. Excludes cash.

Outputs of Our Approach



Source: UBS, Baillie Gifford & Co and MSCI. US dollars.

*5 years historic.

**12 month forward estimate.

†MSCI EAFE prior to November 22, 2019.

Performance Attribution – Five Years

Top Ten Relative Stock Contributors Five Years to June 30, 2020

Name	Fund (Average Weight %)	Index* (Average Weight %)	Contribution %
ASML	4.8	0.5	6.6
Tencent	5.0	0.2	5.4
Ferrari	3.9	0.1	4.8
MercadoLibre	1.8	0.0	4.4
M3	3.1	0.1	4.2
Alibaba	4.2	0.2	3.7
TAL Education	1.4	0.0	3.1
Kering	3.0	0.2	3.0
Meituan Dianping	0.5	0.0	2.3
Zalando	3.2	0.0	2.1

Bottom Ten Relative Contributors Five Years to June 30, 2020

Name	Fund (Average Weight %)	Index* (Average Weight %)	Contribution %
Banco Popular	0.5	0.0	-2.4
Rolls-Royce	2.6	0.1	-2.3
Rakuten	1.2	0.1	-1.8
Baidu.com	3.6	0.0	-1.7
Aston Martin Lagonda	0.1	0.0	-0.8
Svenska Handelsbanken	2.1	0.1	-0.8
Nestlé	0.0	1.9	-0.8
Aggreko	0.4	0.0	-0.7
Novo Nordisk	0.6	0.7	-0.7
Inditex	4.1	0.3	-0.6

Source: StatPro, MSCI.

Baillie Gifford International Growth Fund relative to MSCI ACWI ex US.

The performance data quoted represents past performance and it should not be assumed that transactions made in the future will be profitable or will equal the performance of the securities mentioned. For the most recent month-end performance please visit our website at www.bailliegifford.com/usmutualfund/internationalgrowthfund. A full list of holdings is available on request. The composition of the Fund's holdings is subject to change.

*MSCI EAFE prior to November 22, 2019.

Biographies

Tom Coutts



Chairman

21 years' experience

Tom has been a member of the International Growth Portfolio Construction Group since March 2008 and took over as Chair in July 2019. He became a Partner in 2014 and our Chief of Investment Staff in 2018. Tom joined Baillie Gifford in 1999 and spent a number of years in our UK and European Equity Teams before joining the dedicated International Growth research group full time in 2017. He graduated BA in Modern Languages in 1994.

Lawrence Burns



Deputy Chairman

11 years' experience

Lawrence is an Investment Manager in our International Growth Research Team. He has been a member of the International Growth Portfolio Construction Group since October 2012 and took over as Deputy Chair in July 2019. Lawrence is also a co-manager of the International Concentrated Growth Strategy. He joined Baillie Gifford in 2009, spent time working in both the Emerging Markets and UK Equity Departments and became a partner in 2020. Lawrence graduated BA in Geography from the University of Cambridge in 2009.

Julia Angeles



Investment Manager

12 years' experience

Julia is a member of the International Growth, Positive Change and Health Innovation Portfolio Construction Groups. She joined Baillie Gifford in 2008 and has been part of different global and regional teams. Julia previously worked as a Management Consultant at McKinsey & Company advising firms in Denmark, Russia and Hungary. She obtained a PhD in Economics from the University of Aarhus, Denmark, and speaks fluent Russian and Danish.

James Anderson



Investment Manager

37 years' experience

James has been the Manager and then Joint Manager of Scottish Mortgage Investment Trust since 2000 and is a co-manager of the International Concentrated Growth Strategy. He Chaired the International Growth Portfolio Group from its inception in 2003 until July 2019 and remains co-manager of Vanguard International Growth. In 2003, James also co-founded our Long Term Global Growth Strategy. Prior to this, he headed our European Equity Team. James has served as a member of the Advisory Board of the government sponsored Kay Review and as Chair of the subsequent industry working group that set up the UK Investor Forum. He joined Baillie Gifford in 1983 and became a Partner in 1987. James graduated BA in History from the University of Oxford and after postgraduate study in Italy and Canada he gained an MA in International Affairs in 1982. He is a Trustee of the Johns Hopkins University

Biographies

Brian Lum



Investment Manager

14 years' experience

Brian is an Investment Manager in our International Growth Research Team and became a member of the International Growth Portfolio Construction Group in May 2015. He also Chairs our International Smaller Companies Portfolio Construction Group. Brian joined Baillie Gifford in 2006 and initially worked in the North American and Emerging Markets departments, before spending a number of years focused on investment in smaller companies. He is a CFA Charterholder. Brian graduated MSci and BA (Hons) in Physics from the University of Cambridge in 2006.

Nick Thomas



Client Service Director

22 years' experience

Nick joined Baillie Gifford in 1998 and is a Director in the Clients Department with responsibility for North American Clients. He became a Partner of the firm in 2010. Nick joined the International Growth Portfolio Construction Group in 2003 and gained his CFA Charter in the same year. He previously spent a number of years in our European and Developed Asia Equity Teams. Nick graduated BA in Classics from the University of Cambridge in 1998.

David Salter



Client Service Director

23 years' experience

David is a Director in the Clients Department with responsibility for servicing North American clients. He has been a member of the International Growth Portfolio Construction group since 2007 and is a member of the Specialist Client Team responsible for the International Concentrated Growth Strategy. David joined Baillie Gifford in 2001, with four years' investment and finance experience, and became a Partner in 2011. He graduated BA (Hons) in Commerce from Edinburgh Napier University in 1997.

Legal Notices

All information is current and sourced from Baillie Gifford & Co unless otherwise stated.

MSCI

Source: MSCI. The MSCI information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for or a component of any financial instruments or products or indices. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an “as is” basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each other person involved in or related to compiling, computing or creating any MSCI information (collectively, the “MSCI Parties”) expressly disclaims all warranties (including, without limitation, any warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including, without limitation, lost profits) or any other damages. (www.msci.com)



Placement Agent Statement For Investment Managers

Please print or type all entries in blue or black ink.

PERAC Guidelines require investment managers to submit information to the retirement board regarding relationships with placement agents. For purposes of this process, the following definitions apply:

“Manager”, investment partners with whom retirement boards do business, including, but not limited to, general partners, investment managers, sponsors of hedge funds, private equity funds, real estate funds, infrastructure funds and any entity which a retirement board delegates discretionary investment authority.

“Placement agent”, any person or entity hired, employed, engaged, retained by or acting on behalf of or otherwise receiving remuneration from a manager or another placement agent as a finder, solicitor, marketer, consultant, broker or other intermediary in relation to the investment of assets of Massachusetts public pension systems, including any person or entity which provides proactive consultant services concerning the changing political and policy environment in New England and nationally as it relates to retirement plans, notwithstanding the description of such services as informational consulting services only not involving the referral of investment advisory services, provided, however, this policy shall not apply with respect to in house employees of investment managers.

Name of Retirement Board: The Massachusetts Water Resource Authority Retirement System

Name of Investment Manager: Baillie Gifford Overseas Limited

Reason for Submission:

- Responding to an RFP or solicitation
- Amendment to an existing agreement
- Discussion other than informal, general discussion that could lead to a response to an RFP or amendment to an existing agreement

PENALTIES

PERAC shall withhold regulatory approvals and acknowledgments if:

- a. The placement agent and/or entity acting as a placement agent information disclosure or other information reveals that the placement agent and/or entity acting as a placement agent that the manager has used is not registered with the Securities and Exchange Commission or the Financial Industry Regulatory Authority or, if appropriate, the Commodity Futures Trading Commission; and,
- b. The placement agent and/or entity acting as a placement agent information disclosure or other information reveals that the placement agent does not possess three years experience in the investment field.

PERAC shall prohibit any manager or placement agent from soliciting new investments from any board for a period to be determined by the Commission after the manager or placement agent has committed a material violation of this regulation.

In addition, under the mandatory provisions of contracts the following remedies are available to the retirement board if “the manager knew or should have known of any material inaccuracy or omission in the placement agent information disclosure or any other violation” of the Placement Agent Policy:

- a. The reimbursement of any management or advisory fees paid by the board for the prior two years or an amount equal to the amounts paid or promised to be paid to the placement agent as a result of the board investment whichever is greater.
- b. The authority to immediately terminate the investment management contract or other agreement with the manager without penalty, to withdraw without penalty from a limited partnership, limited liability company or other investment vehicle, or to cease making further capital contributions (and paying any fees on these recalled commitments) to the limited partnership, limited liability company or other investment vehicle without penalty.



9191034

COMPENSATION

(1) Has the Investment Manager or any, employee, agent or affiliate compensated or agreed to compensate, directly or indirectly any person or entity to act as a placement agent in connection with investment by the Massachusetts public pension systems?

No Yes

(2) If **yes**, please provide (below or in an attachment) a description of any and all compensation of any kind provided or agreed to be provided to a placement agent and/or entity acting as a placement agent in connection with investment by Massachusetts' public pension systems, including the nature, timing and value thereof.

Additional Pages Attached: No Yes

(3) If **yes**, please provide a statement (below or in an attachment) that the placement agent has a minimum of three years experience in the investment field.

Additional Pages Attached: No Yes

(4) If **yes**, please provide a statement (below or in an attachment) that the placement agent and/or entity acting as a placement agent is registered with the Securities and Exchange Commission or the Financial Industry Regulatory Authority, or, if appropriate, the Commodity Futures Trading Commission and the details of such registration.

Additional Pages Attached: No Yes

(5) If **yes**, please attach a resume for each placement agent detailing the person's education, professional designations, regulatory licenses and investment and work experience. If any such person is a current or former member of a retirement board, employee or consultant or immediate family of such a person that fact should be specifically noted.

Additional Pages Attached: No Yes



9191034

(6) If **yes**, please provide a description of the services (below or in an attachment) to be performed by the placement agent and/or entity acting as a placement agent and a statement as to whether the placement agent is used by the manager with all prospective clients or only a subset of clients or only Massachusetts public pension fund clients.

Additional Pages Attached: No Yes

(7) If **yes**, please attach a written copy of any and all agreements between the manager and the placement agent and/or entity acting as a placement agent in connection with investment by Massachusetts' public pension systems.

Additional Pages Attached: No Yes

(8) If **yes**, in the event that any current or former Massachusetts public pension system board members, employees, consultants or other service providers have suggested the retention of the placement agent, the names of any current or former Massachusetts public pension system board members, employees, consultants or other service providers who suggested the retention of the placement agent (below or in an attachment).

I attest under the penalties of perjury that the above statements and statements provided in attachments, if any, are true.

Name of Authorized Individual: First: Last: Suffix:

Title of Authorized Individual:

Signature of Authorized Individual:

DocuSigned by:
Kathrin Hamilton
637C50538CB8449...

Date Signed:



Vendor Certification

In all circumstances Massachusetts Law (Chapter 32, Section 23B) requires service providers to complete this form and submit it to the retirement board. The board must file the completed form with PERAC. In the case of investment managers upon acknowledgement from PERAC that this and other filings have been received, the board may retain the service provider.

Please print or type all entries in blue or black ink.

1. Retirement Board

Retirement Board to which proposal is being submitted:

2. Service Provider

Business Name:

Address:

City:

State:

Zip:

Services Being Proposed:

Dates of Services (MM/DD/YYYY)

From:

To:

3. Individual Submitting Proposal

Name, First:

Last:

Suffix:

Title:

The undersigned certifies that this proposal has been made and submitted in good faith and without collusion or fraud with any person. As used in this certification, the word "person" shall mean a natural person, business, partnership, corporation, union, committee, club or other organization, entity or group of individuals.

Signature:
637C50538CB8449...

Date:



Vendor Contact Information

Please print or type all entries in blue or black ink.

Fund Name:

Name of Retirement Board:

1. Company/Entity Information:

Company/Entity Name:

CRD# (If Applicable):

Address:

City:

State:

Zip:

Country:

Phone:

Fax:

URL:

2. Contact Information:

Name, First:

Last:

Suffix:

Title:

Department:

Phone:

Fax:

Email:

3. Contact Address:

Same as Company Address? No Yes

Address:

City:

State:

Zip:

Country:



Vendor Disclosures (as required by G.L. c. 32 §23 & 23B)

Please submit completed form and any attachments to PERAC and the retirement board on or before March 1st. Failure to do so may subject the Fund/Entity to sanctions pursuant to Chapter 32, Section 21A. Please attach additional sheets if necessary.

Please print or type all entries in blue or black ink.

1. Vendor/Board Information

Name of Company/Entity: Baillie Gifford Overseas Limited

Name of Fund: Baillie Gifford International Growth Fund

Retirement Board: The Massachusetts Water Resource Authority Retirement System

2. Compensation PAID: No Yes

Recipient of Compensation	Form of Compensation	Value of Compensation

Additional Pages Attached: No Yes

3. Compensation RECEIVED: No Yes

Source of Compensation	Form of Compensation	Value of Compensation

Additional Pages Attached: No Yes

4. Conflict of Interest? No Yes

If yes, please advise:

Additional Pages Attached: No Yes

5. Declaration and Signature

I make this disclosure pursuant to G.L. c.32, §23 and/or 23B in order to comply with the requirement that an entity providing investment services to a retirement board disclose to the Commission and the retirement board compensation, in whatever form, paid, or expected to be paid, and received, or expected to be received, directly or indirectly by the entity or a related person to others in connection with the entities services to the retirement board or any other client to whom the same service is provided. In addition, I make this disclosure of any conflict of interest that may have or could reasonably be expected to impair the ability to render unbiased and objective advice to the retirement board.

Name, First: Kathrin

Last: Hamilton

Suffix: Ms

Title: Director - Baillie Gifford Overseas Limited

DocuSigned by:

Signature:

Date: June 19, 2020

International Select

MWRA Retirement System

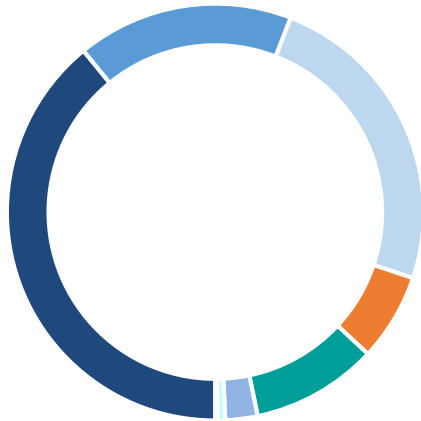
August 27, 2020



JOHCM organizational overview

- Founded in London in 1993
- Offices in London, Boston, New York, Singapore and Prague
- 165 employees worldwide
- Structured as a boutique of boutiques

\$33.3bn AUM



- International (\$13bn)
- UK (\$5.6bn)
- Global (\$8.1bn)
- Europe (\$2.3bn)
- Emerging Markets (\$3.3bn)
- Asia ex Japan (\$0.8bn)
- Japan (\$0.2bn)
- Sharia (\$0.05bn)

Global Presence





Christopher Lees, CFA

Senior Fund Manager

Joined JOHCM September 2008

- 30 years of investment management experience, 19 years at Barings, 11 years at JOHCM
- Lead Global/International manager at Baring Asset Management up until joining JOHCM
- Lead manager Barings USA equities (Boston), then Head of Global Sector Teams (London)
- Lived and worked in Asia, Europe and US
- BSc Honours, CFA charterholder



Nudgem Richyal, CFA

Senior Fund Manager

Joined JOHCM June 2008

- 20 years industry experience, 1 year at HSAM, 8 years at Barings, 11 years at JOHCM
- 18 years of investment partnership with Christopher
- Managed one of the largest Latin American strategies in London
- Expertise in soft commodities and global sector strategies
- First Class BSc Honours, CFA charterholder

Key person risk? Not really, we are major shareholders in JOHCM which is “a destination shop”

We want to beat the crowd, not be the crowd



Equity markets are not normally distributed, they have positive skew and two fat tails



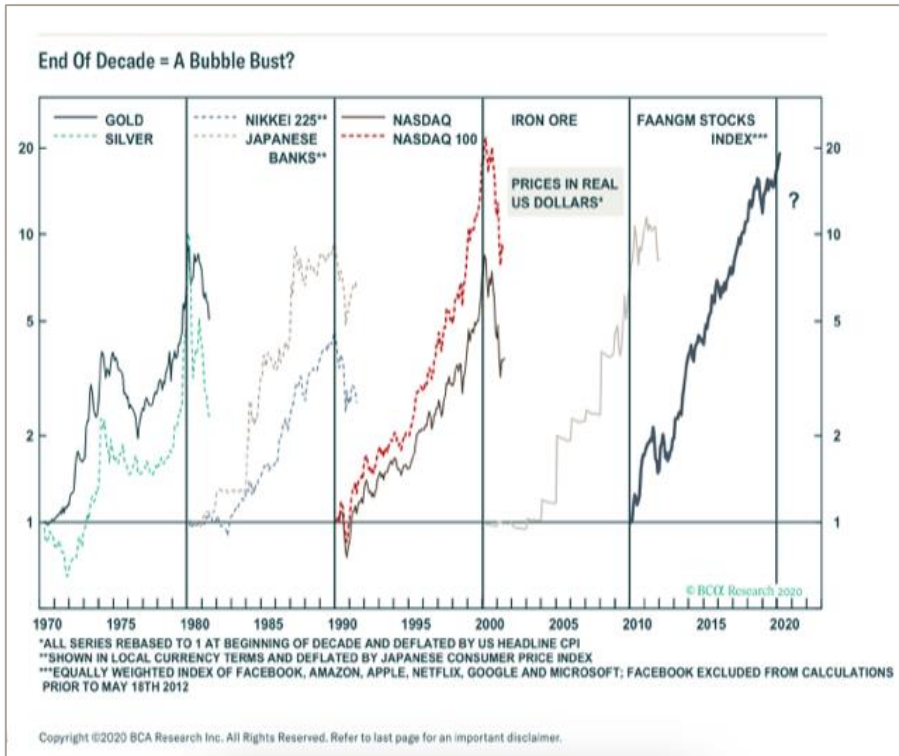
- Which means the average stock underperforms
- Fat tail losers tend to be value traps, growth traps, or frauds
- Fat tail winners tend to be compounders, early stage growth, transformations, and distressed restructuring/recovery

Hunting in the tails for less correlated clusters is less risky than hiding in the crowd

Every decade has a bubble, then a change of leadership



Some bubbles last for two decades – e.g. the current Fixed Income bubble



Coronavirus 2.0

- “Second wave” prolongs Fixed Income & FAANGM bubbles
- Therefore don’t transition to new leadership too early
- But recognise we probably just passed “peak stay at home”

Cold War 2.0

- Only just started, assume it gets much worse
- “China plus 1” global supply chain diversification accelerates
- USA versus Chinese 5G, IoT, AI, Autonomous Cars, etc

Euro 2.0

- More flexible fiscal & monetary solutions are very bullish
- Brexit economic shock won’t be as bad as COVID-19 shock
- Ahead of the curve on “Decarbonization” versus USA or Asia

We have an evidence based, probability adjusted process that learns/evolves and embraces change

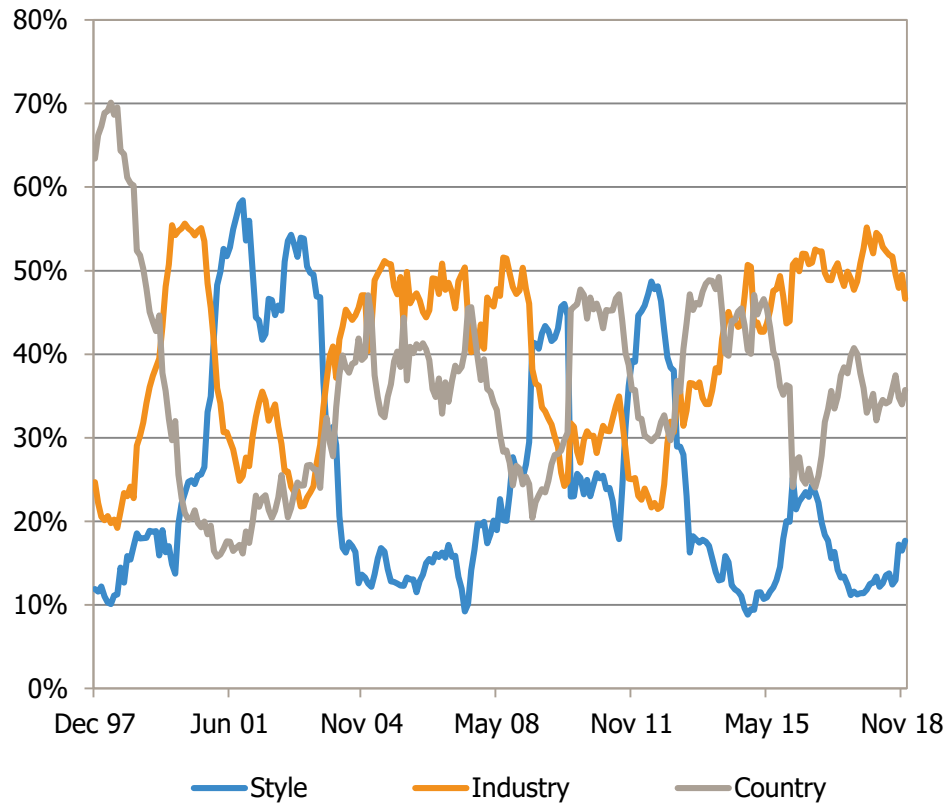
Managing money the way the world actually is, not how it should be



Country effect on stock picking is highest in emerging markets

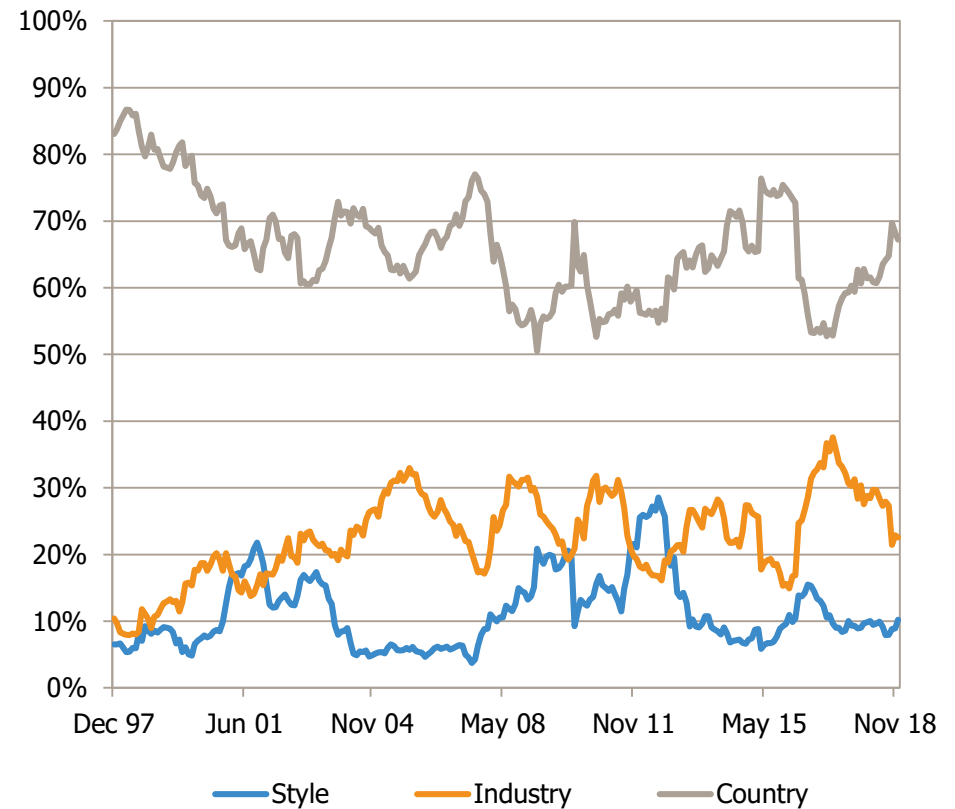
Developed markets

Cross sectional volatility, 12 month moving average



Emerging markets

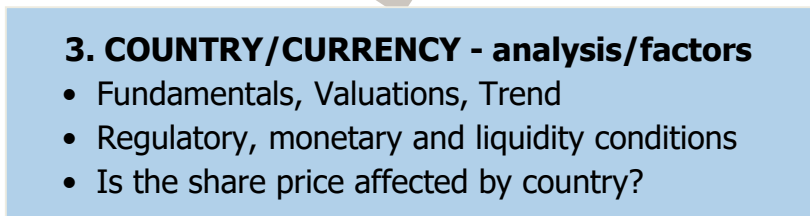
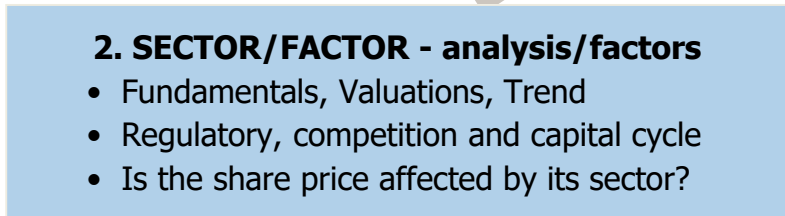
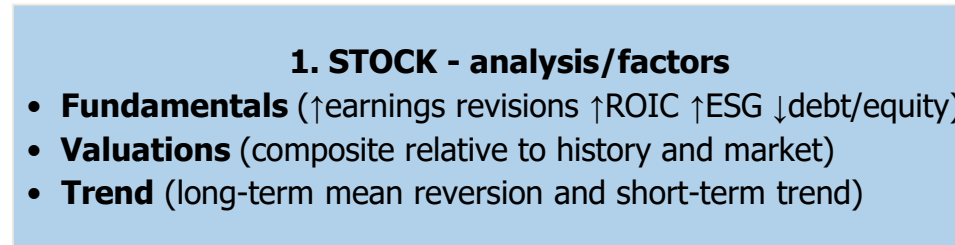
Cross sectional volatility, 12 month moving average



Source: MSCI Barra. Data from December 1997 to December 31, 2018.



Stock, sector, country factors and how they change over time



4th dimension; recognising changes in these relationships over time



Monthly scorecard = process that recognises the good the bad & the changes

Sector		Fundamentals* -1 to +1	+	Valuation** -1 to +1	+	Trend*** -1 to +1	=	Total score**** -3 to +3
Commodities	Energy	-1		0		-1		-2
	Materials	0		0		-1		-1
Rate Cyclical	Financials	0		1		-1		0
	Consumer Discretionary	-1		0		0		-1
Capex Cyclical	Industrials	0		0		-1		-1
	Technology	1		0		1		2
Defensive growth	Healthcare	1		-1		1		1
	Consumer Staples	0		0		0		0
Bond proxies	Real Estate	0		0		-1		-1
	Communication Services	0		0		0		0
	Utilities	0		0		0		0

Region		Fundamentals* -1 to +1	+	Valuation** -1 to +1	+	Trend*** -1 to +1	=	Overall Score -3 to +3
Developed Markets	North America	0		-1		1		0
	Europe ex UK	0		0		0		0
	UK	-1		0		-1		-2
	Japan	0		1		0		1
	Developed Pacific ex Japan	0		0		-1		-1
Emerging Markets	Emerging Asia	1		0		0		1
	EMEA	0		0		-1		-1
	Emerging Latin America	0		0		-1		-1

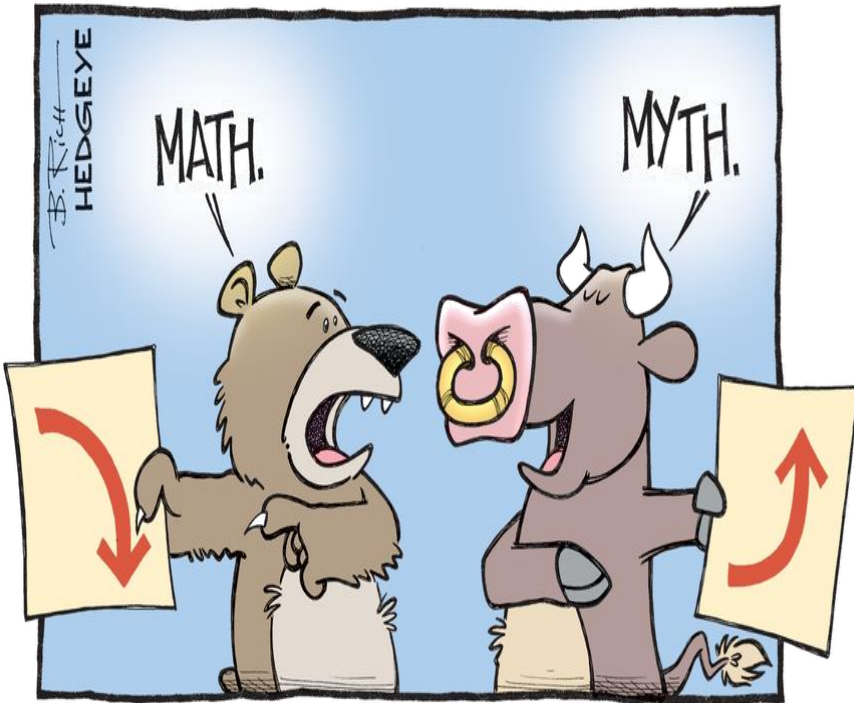
Europe ex UK improved to average from significantly below average (like Japan 2015)

Source: JOHCM and Bloomberg as at 3rd August 2020.

*Fundamentals = Earnings growth and revisions and balance sheet leverage (relative to history and market). **Valuation = PE and DY (relative to history and market). ***Trend = momentum and mean reversion (relative to history and market). ****Total scores of 1, 0, -1 are not significant



Currently the portfolio is 70% bullish and 30% bearish



Scenario 1 (still 50%)

- Equity market rally with the same leadership
- i.e. growth, quality, momentum stocks (currently happening, and fears of "second wave" probably prolongs current trends)

Scenario 2 (risen from 10% to 20%)

- Equity market rally with new leadership
- i.e. cyclicals and small/mid cap stocks (starting to happen as we pass "peak stay at home" but not necessarily sustainable)

Scenario 3 (fallen from 40% to 30%)

- Equity markets fall until the LTCM/Lehman type bankruptcies
- We hope this does not happen, but hope is not an investment strategy so we have a portfolio plan for this potential outcome

The Bayesian probability of these 3 scenarios are always changing, so we adjust portfolios accordingly

International select portfolio holdings and sector/regional positions



	America	%	UK & Europe	%	Japan	%	Asia	%	Emerging	%	Total	Benchmark	Difference
Energy											0.00	3.39	-3.39
Materials			DSM	2.62			Newcrest Mining	2.66			5.28	7.20	-1.92
Industrials			IHS Markit Vestas Wind Systems Siemens Gamesa	2.65 2.75 2.67	Recruit	2.43					10.50	14.39	-3.89
Consumer Discretionary			Prosus Aptiv	2.67 2.52	Rakuten Sekisui House	2.54 2.35					10.08	11.40	-1.32
Health Care			Lonza Icon Roche Medtronic	2.87 2.65 2.33 2.11	Teruma Takeda Pharmaceutical Peptidream	2.55 2.45 2.35					17.31	14.33	2.98
Consumer Staples			L'Oreal Ahold Delhaize	2.70 2.60	KAO	2.43	A2 Milk	2.67			10.39	11.87	-1.47
Communication Services					Cyberagent Z Holdings	2.69 2.37					5.06	5.42	-0.36
Utilities			Orsted	2.76							2.76	4.02	-1.27
Financials			Deutsche Boerse Finecobank	2.88 2.62	SBI Japan Exchange ORIX	2.71 2.65 2.20	HKEX	2.83			15.90	16.32	-0.42
Real Estate											0.00	3.19	-3.19
Information Technology			Accenture SAP ASML	2.69 2.64 2.60	Adventest Fujitsu	2.76 2.54	Atlassian	2.62	Mediatek SK Hynix	2.80 2.41	21.05	8.42	12.63
Cash											1.67		
Total	-		47.33		35.02		10.77		5.21				
Benchmark	-		62.51		25.00		12.24		0.25				
Difference	-		-15.19		10.02		-1.46		4.96				

Source: JOHCM/MSCI Barra/Bloomberg as of June 30, 2020. All data is shown against the MSCI EAFE Index (net dividends reinvested). Data may not add to 100.0% due to rounding.



Rethinking conventional wisdom & implementing Sir Dave Brailsford's Marginal Gains



“Life is like riding a bicycle. To keep your balance you must keep moving.”

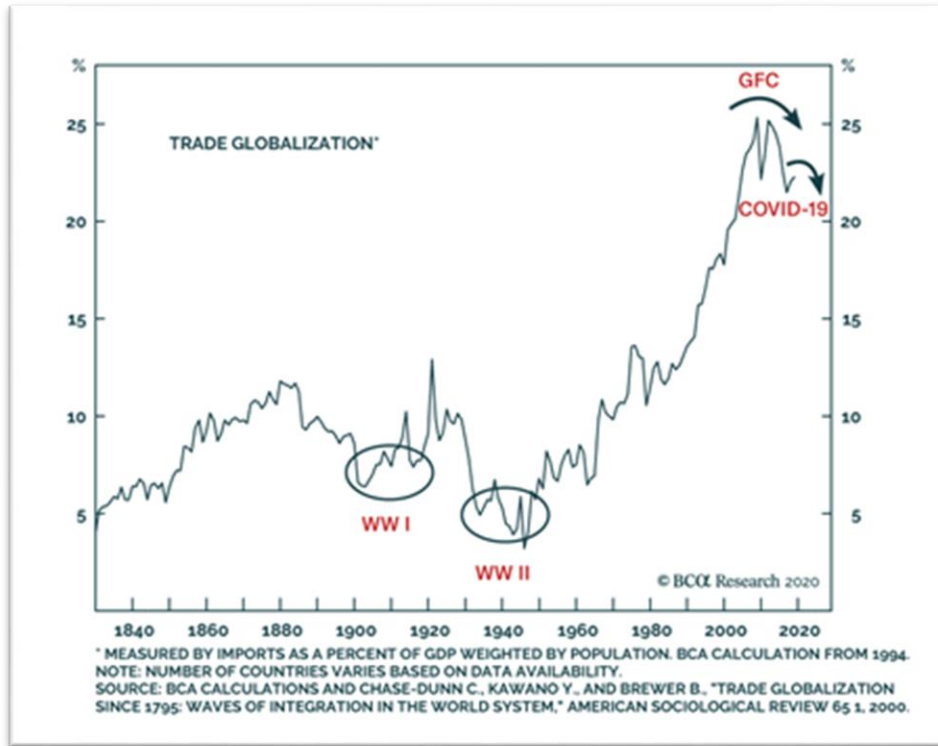
Albert Einstein

- Rethinking Globalisation & EM
- Rethinking ESG as Risk & Reward
- Rethinking Risk Control & Diversification

Investment edge is temporary – keep learning & evolving because most things get arbitrated away



More Deglobalization, Digitization and Decarbonization post COVID-19?



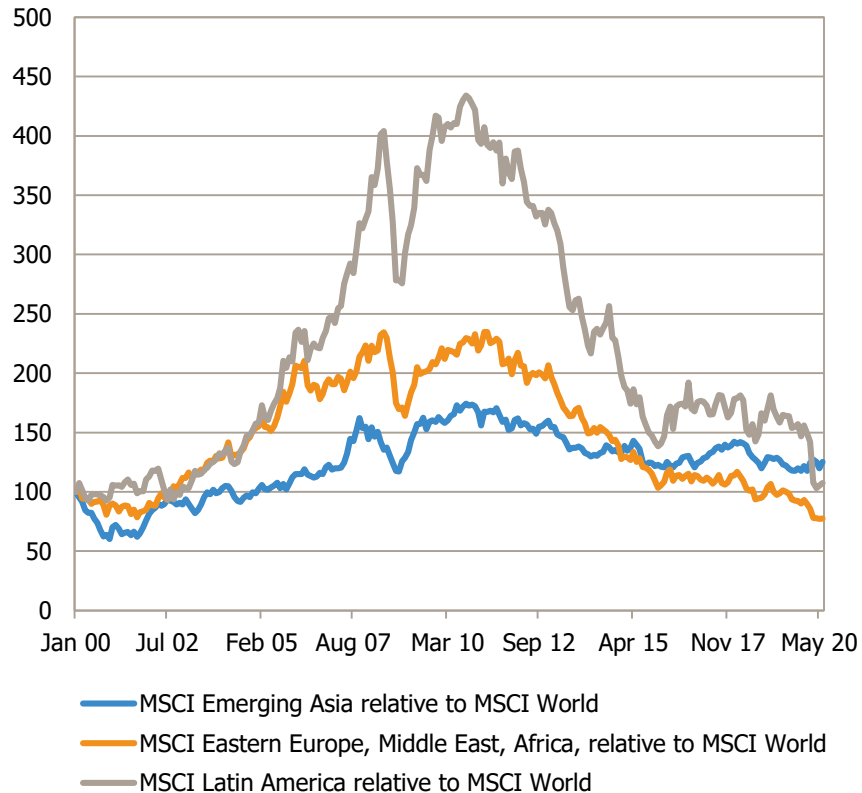
- **Deglobalization** = localisation winners and losers from disruption to more resilient/diversified but less optimised supply chains (inflationary?)
- **Digitization** = leading companies get even more profitable, WFH becomes WFA for knowledge based workers (deflationary?)
- **Decarbonization** = possibly the biggest driver for the next decade with some huge winners and losers at the company level (there is no planet B)

From Hegemony to Multipolar – USA, Europe, China, 3 spheres of influence/conflict/technology

Rethinking EM = looking for secular trends within a cyclical asset class



EM is more cyclical than structural, middle income trap means few have emerged



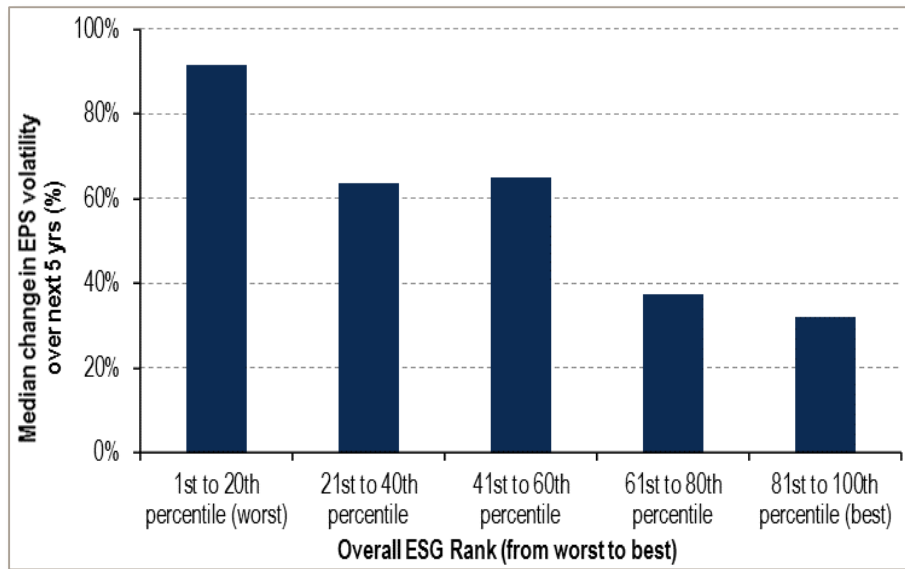
- **New Cold War** will benefit EM countries that can do a "Switzerland" between China and the USA, but most will be forced to choose between one or the other
- **Chinese ADRs** moving from New York to Hong Kong Exchange. Will MSCI move Hong Kong to Emerging Markets or China to Developed markets?
- **New structural positives** = EM Technology (17% of index) now higher than Japan (12%) and Europe (9%) with leadership in 5G, Fintech, Big Data/AI meets Healthcare
- **New structural negatives** = Demographic dividend becomes liability, Factory automation (robots don't buy consumer products), EM index dominated by China (42%)

Our process went negative EM in 2013, but is now positive on Emerging Asia

Rethinking ESG = it reduces Risk



BofA ML study* shows that ESG is a good predictor of earnings risk



- “Our analysis shows that ESG is the best signal of earnings risk we have found so far.” – *ML Quant Panorama, September 9, 2019.*
- The chart shows that the worst ESG ranked stocks had the highest earnings risk (volatility) while the best ESG ranked stocks had the lowest earnings risk over the next 5 years
- Most other studies show that ESG scores tends to be correlated with Quality scores, credit spreads and bankruptcies

We first integrated ESG because most of the data/evidence showed that it reduces risk

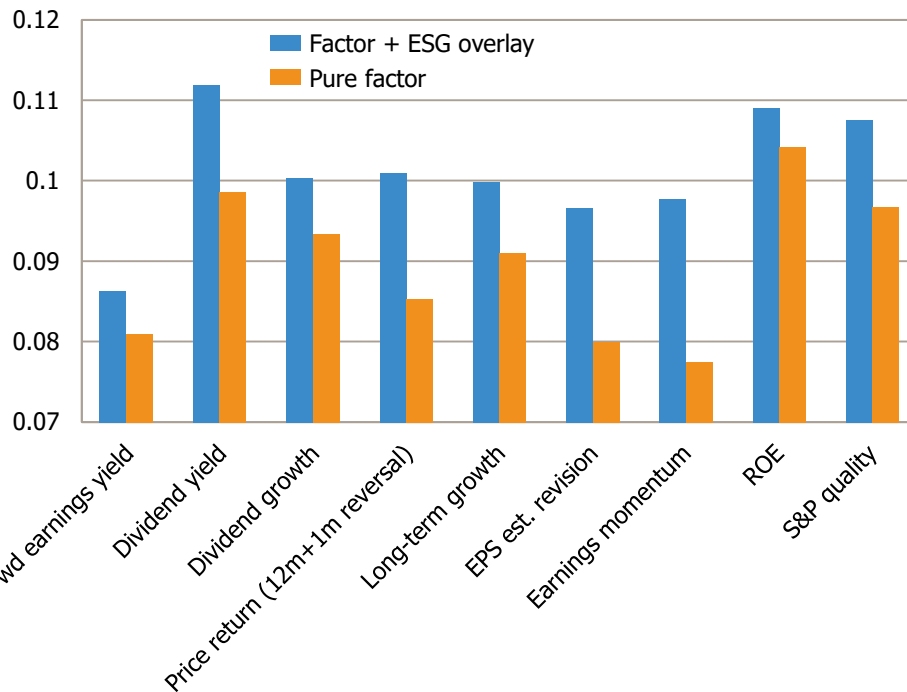
Source: *BofA Merrill Lynch Quant Panorama as of September 9, 2019. BofA Merrill Lynch US Equity & Quant Strategy based Thompson Reuters data. Data is based on the S&P 500 stock universe for the period December 2005 to June 2019.

Rethinking ESG = it improves Reward



BofA ML study* shows that ESG improved returns for certain factors

Annualised total returns of top quintile stocks by each factor vs. ESG-blend factor (Dec 2005 – June 2019)



- The blue bars are higher than the gold bars – adding an ESG overlay added value to traditional quant factors
- We use ESG to “put economic interests ahead of non-pecuniary goals” (DoL’s proposed updated ERISA regulations)
- ESG is a relatively new and often misunderstood financial factor that has not been arbitrated away, yet...

Yes we can improve our client’s returns (first) and improve the world around us (second)

Source: *BofA Merrill Lynch Quant Panorama as of September 9, 2019. BofA Merrill Lynch US Equity & Quant Strategy based Thompson Reuters data. Data is based on the S&P 500 stock universe for the period December 2005 to June 2019. Back tested performance is hypothetical in nature and reflects application of the screen prior to its introduction and is not intended to be indicative of future performance. **Represents top performing stocks by factor in the S&P 500 index during the time period shown.



Would you get in a boat that was only 95% seaworthy?

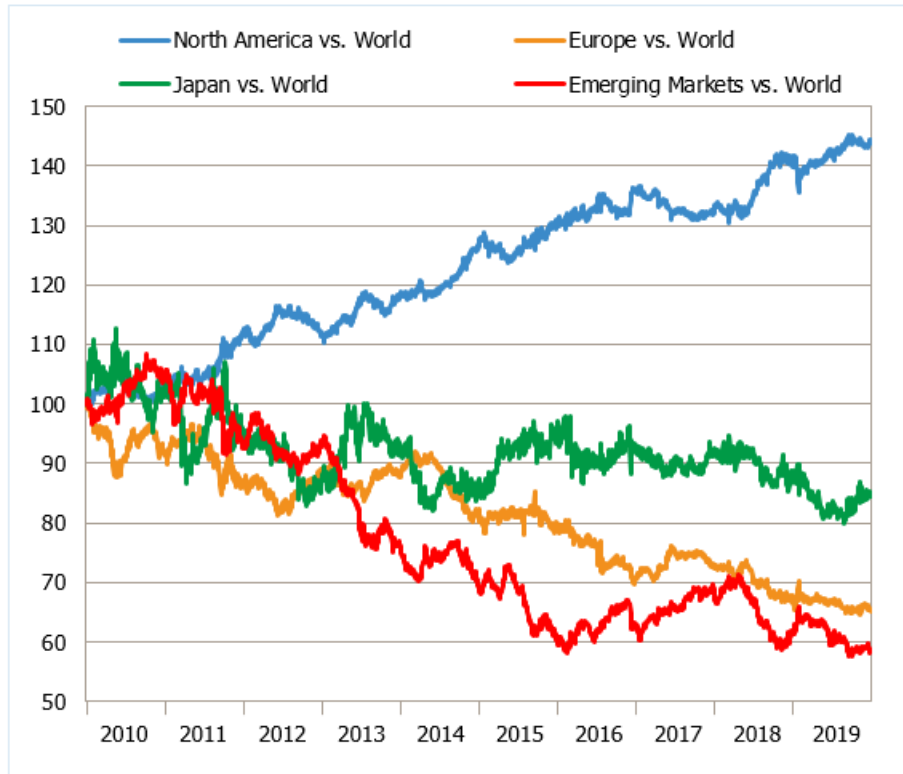


- Modern Portfolio Theory (MPT) based risk control only works about 95% of the time
- Traditional Sector/Geography/Factor diversification no longer really works
- Government Bonds will probably NOT do their traditional defensive job after this recession
- Potential solutions include:
 - Idiosyncratic stocks not factor driven stocks
 - Correlation clusters not sector/country labels
 - Equal weighted portfolios
 - Gold proxies instead of bond proxies
 - Nassim Taleb's concept of Anti-fragile assets

Modern Portfolio Theory is not that modern and actually stops working when you most need it



Newton's 3 laws of physics are very relevant to investing



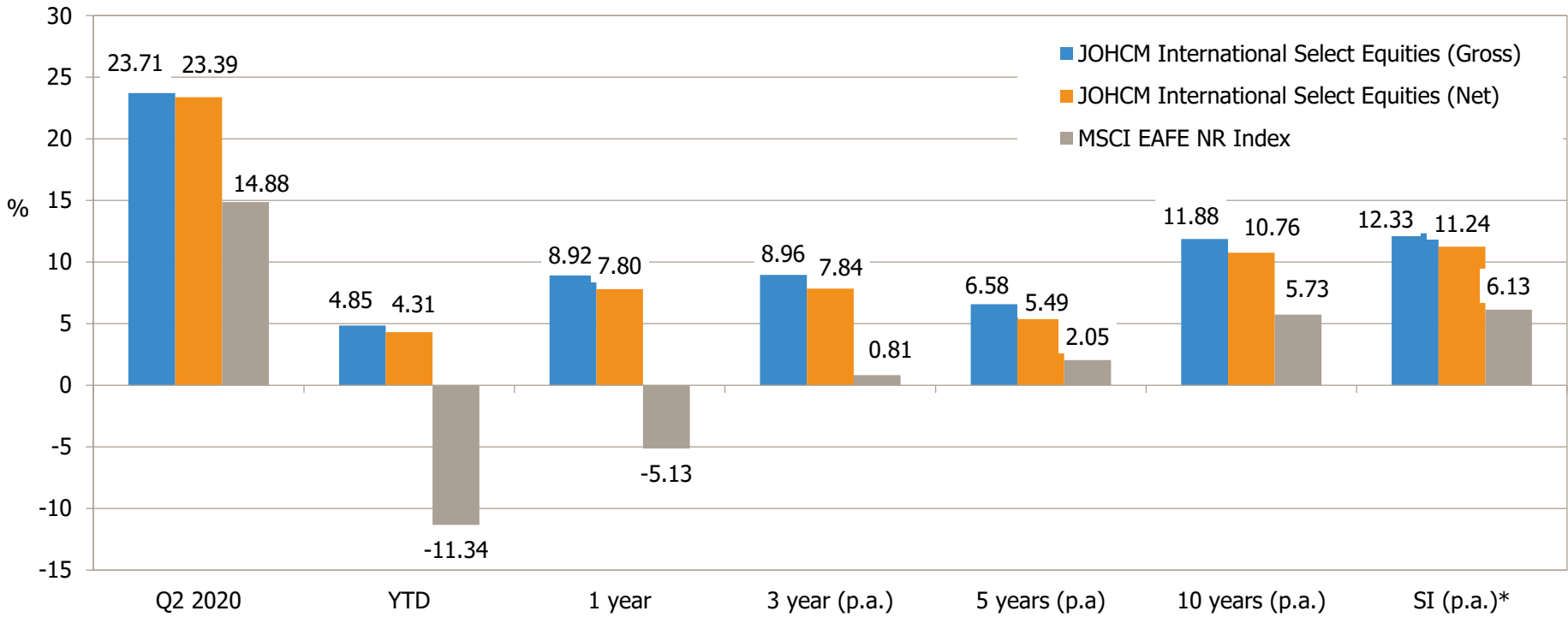
1. Objects in motion/stationary tend to stay in motion/stationary unless acted upon by an unbalanced force (momentum investing)
2. Force equals mass times acceleration (rate of change is just as important as level when investing)
3. For every action there is an equal and opposite reaction (mean reversion investing)

“Winning the next decade” = thinking about a new market regime after the COVID-19 “new normal”

JOHCM International Select performance



Composite performance in USD as of June 30, 2020

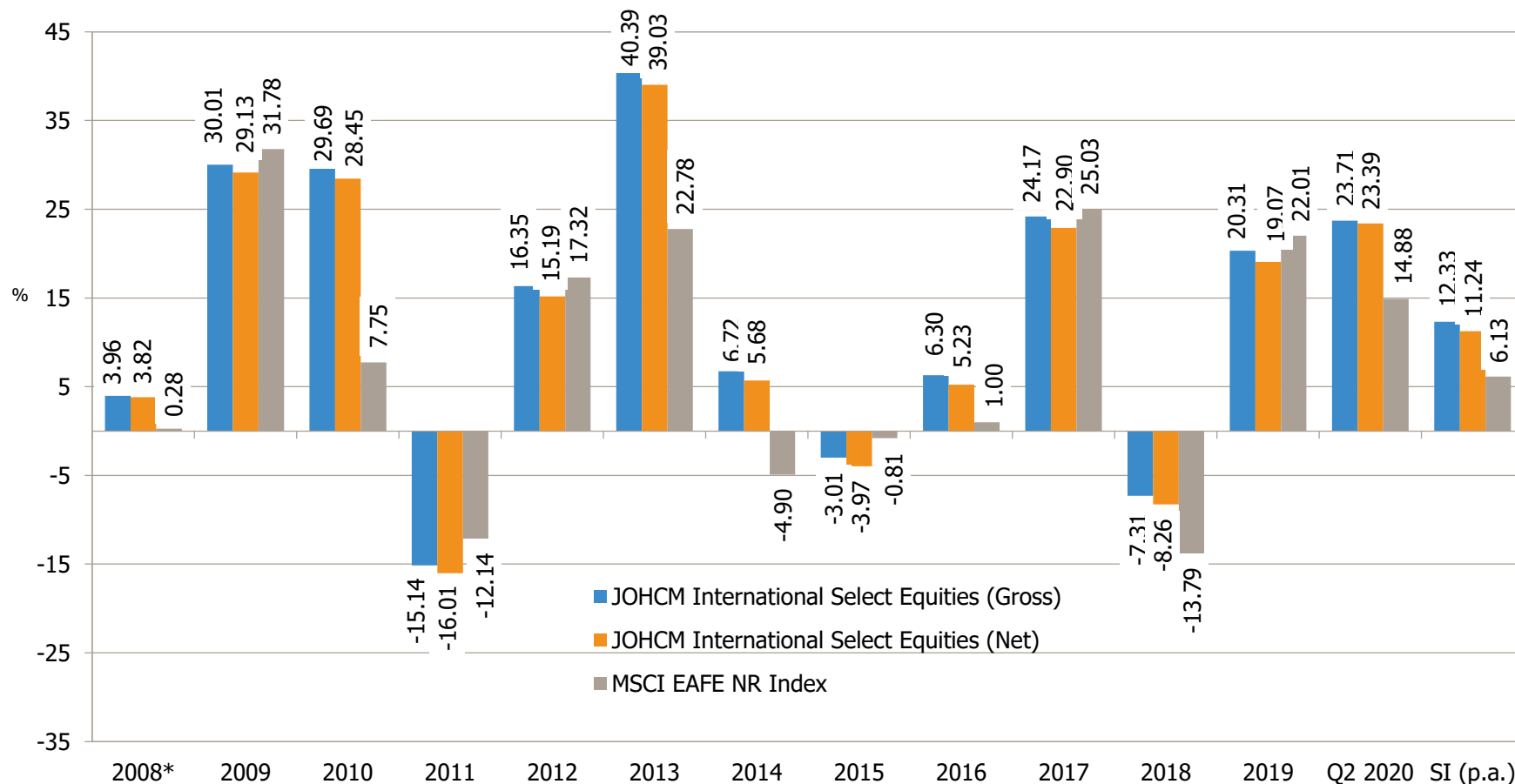


Past performance is not necessarily a guide to future performance

Source: JOHCM/Statpro. Composite performance in USD as of June 30, 2020. All performance is shown against the MSCI EAFE NR Index. Please refer to slides 20-22 for the GIPS® net/gross composite reports and disclosures. *Inception date: 1 November 2008.



Composite returns in USD as of June 30, 2020



Past performance is not necessarily a guide to future performance

International Select Equities Composite



Performance as of June 30, 2020

Composite Performance Results

Composite : **International Select Equities**
 Benchmark : **MSCI EAFE NR Index**
 Currency : **USD**
 Report Start Date: **11/1/2008**
 Report End Date: **6/30/2020**
 Composite Creation Date: **9/30/2009**

Composite			3yr Std.	3yr Std.	Dispersion	No.	Market Value at	% Firm	Total Firm Assets
	Gross	Net	Deviation (ann.)	Deviation (ann.)					
YTD 2020	4.85	4.31	-11.34	13.94	-	2	10,094,840,634	30.38	33,232,435,358.60
2019	20.31	19.07	22.01	10.03	-	2	9,846,335,999	25.54	38,553,837,183.36
2018	-7.31	-8.26	-13.79	9.60	-	2	7,855,920,528	22.35	35,151,822,085.66
2017	24.17	22.90	25.03	11.15	-	2	7,592,295,618	18.02	42,121,385,337.82
2016	6.30	5.23	1.00	11.88	-	2	4,751,891,960	15.09	31,481,290,964.74
2015	-3.01	-3.97	-0.81	12.98	-	3	3,571,396,433	12.55	28,455,976,752.99
2014	6.72	5.68	-4.90	12.85	-	3	2,006,713,388	7.94	25,281,482,996.12
2013	40.39	39.03	22.78	17.24	-	2	1,126,379,831	5.15	21,857,472,625.83
2012	16.35	15.19	17.32	21.30	-	2	394,546,640	2.81	14,040,168,114.92
2011	-15.14	-16.01	-12.14	22.67	-	1	94,348,586	0.90	10,425,500,733.56
2010	29.69	28.45	7.75	-	-	3	119,065,960	1.47	8,094,698,530.56
2009	30.01	29.13	31.78	-	-	3	56,607,788	1.22	4,631,831,363.74
November - December 2008	3.96	3.82	0.28	-	-	1	7,771,926	0.36	2,160,546,569.87

Past performance is not necessarily a guide to future performance



Disclosures

J O Hambro Capital Management Ltd claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. J O Hambro Capital Management Ltd has been independently verified for the periods 1st December 2001 to 31st December 2019. The verification reports are available upon request.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

For the purposes of compliance with GIPS®, the Firm is defined as all open-ended and segregated assets managed since November 2001 by J O Hambro Capital Management Ltd ("JOHCM"), a UK investment management firm.

In October 2011, Pandal Group - formerly known as BT Investment Management ("BTIM") - a leading Australian fund manager listed on the Australian Stock Exchange, acquired 100% of JOHCM's core investment management business, comprising its OEIC funds and segregated mandates. Following completion of the transaction, JOHCM operates as a stand-alone boutique in the BTIM group, remaining under the existing management team.

All portfolio returns are calculated on a total return basis, including realized and unrealized gains plus income. All total return calculations include returns for any cash balances held within the portfolio.

Gross and net performance is calculated after the deduction of trading expenses.

All dividends and income are calculated gross of recoverable but net of irrecoverable taxes.

For open-ended portfolios, net performance is calculated net of all costs including custody and management fees. Net performance for segregated portfolios is calculated net of all management fees (including actual annual management charges and performance fees).

For open-ended portfolios based in the UK or Dublin on which we receive a NAV, from 1st January 2016 onwards, reporting on net performance switched from the B share class to the corresponding A share class. This is as a result of RDR share reporting requirements, which requires net performance to be reported on the lowest fee-paying share class. Dublin and UK open-ended portfolios launched after 31st March 2014 have historically reported on the A share class, so there was no change to reporting.

For funds that launched prior to 2003, the gross performance of open-ended portfolios is calculated by adding back one twelfth of the annual management fee to the monthly net return for all periods before September 2003. For those funds that launched in 2003 onwards (and from September 2003 in the case of the above), gross performance is calculated by adding back one twelfth of the annual total expense ratio (provided quarterly) of the portfolio, on a monthly basis, to the net return.



Disclosures (cont'd)

As at 1st February 2011, the Firm employed a policy to exclude portfolio performance from composites in months where the portfolio has experienced a cash flow greater than 30% of assets at the time of cash flow. This policy has been employed for all composites, with exception of single account composites. If after a period of time a composite which has previously included more than one account becomes a single account composite, it will at this point cease to be included in this procedure.

Portfolios in this composite may participate in a stock lending programme at fund manager's discretion. Any income from stock lending is included in performance.

Additional information on the methodologies used for the valuation of portfolios, the calculation and reporting of returns and the preparation of GIPS compliant presentations is available upon request.

The management fee to invest in this mandate for Class I investors is 0.89% per annum.

Timing and sourcing of exchange rates may differ between funds in the composite and the benchmark due to the use of differing third party administrators to produce portfolio valuations.

All composites are compared to indices priced at close of business. Where the composite contains open-ended portfolios, market fluctuations between the intra-day pricing of the fund and close of day will have an impact on relative performance.

Dispersion is measured by the standard deviation across asset-weighted portfolio returns represented within the composite for the full year. Periods with less than 5 accounts are not deemed statistically representative and dispersion is not presented.

The 3 year annualised ex-post standard deviation of the composite and benchmark is displayed as of each year end. The standard deviation is not presented if there is less than 36 months of performance history available.

The benchmark for this composite is the MSCI EAFE NR Index.

All MSCI indices are calculated net dividends reinvested. The dividend is reinvested after deduction of withholding tax, applying the rate to non-resident individuals who do not benefit from double taxation treaties. MSCI uses withholding tax rates applicable to Luxembourg holding companies, as Luxembourg applies the highest rates.

Past performance is no guarantee of future performance. The value of investments and the income from them may go down as well as up.

Portfolios in this composite aim to achieve long-term total return from investing in a concentrated portfolio of MSCI EAFE universe securities (Europe, Australasia & Far East), as well as off-benchmark allocations to Global Emerging Markets, on an unconstrained basis.

The composite was created in September 2009.

A complete list and description of all the firm's composites is available upon request.



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Investments fluctuate in value and may fall as well as rise and that investors may not get back the value of their original investment. Past performance is not necessarily a guide to future performance.

Investors should note that there may be no recognised market for investments selected by the Investment Manager and it may, therefore, be difficult to deal in the investments or to obtain reliable information about their value or the extent of the risks to which they are exposed.



The Investment Manager may undertake investments on behalf of the Fund in countries other than the investors' own domicile. Investors should also note that changes in rates of exchange may cause the value of investments to go up or down.

Sources for all data: JOHCM (unless otherwise stated).

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Information on how JOHCM handles personal data which it receives can be found in the JOHCM Privacy Statement on its website: www.johcm.com



Placement Agent Statement For Investment Managers

Please print or type all entries in blue or black ink.

PERAC Guidelines require investment managers to submit information to the retirement board regarding relationships with placement agents. For purposes of this process, the following definitions apply:

“Manager”, investment partners with whom retirement boards do business, including, but not limited to, general partners, investment managers, sponsors of hedge funds, private equity funds, real estate funds, infrastructure funds and any entity which a retirement board delegates discretionary investment authority.

“Placement agent”, any person or entity hired, employed, engaged, retained by or acting on behalf of or otherwise receiving remuneration from a manager or another placement agent as a finder, solicitor, marketer, consultant, broker or other intermediary in relation to the investment of assets of Massachusetts public pension systems, including any person or entity which provides proactive consultant services concerning the changing political and policy environment in New England and nationally as it relates to retirement plans, notwithstanding the description of such services as informational consulting services only not involving the referral of investment advisory services, provided, however, this policy shall not apply with respect to in house employees of investment managers.

Name of Retirement Board: Massachusetts Water Resources Authority Retirement System

Name of Investment Manager: J O Hambro Capital Management Limited

Reason for Submission:

- Responding to an RFP or solicitation
- Amendment to an existing agreement
- Discussion other than informal, general discussion that could lead to a response to an RFP or amendment to an existing agreement

PENALTIES

PERAC shall withhold regulatory approvals and acknowledgments if:

- a. The placement agent and/or entity acting as a placement agent information disclosure or other information reveals that the placement agent and/or entity acting as a placement agent that the manager has used is not registered with the Securities and Exchange Commission or the Financial Industry Regulatory Authority or, if appropriate, the Commodity Futures Trading Commission; and,
- b. The placement agent and/or entity acting as a placement agent information disclosure or other information reveals that the placement agent does not possess three years experience in the investment field.

PERAC shall prohibit any manager or placement agent from soliciting new investments from any board for a period to be determined by the Commission after the manager or placement agent has committed a material violation of this regulation.

In addition, under the mandatory provisions of contracts the following remedies are available to the retirement board if “the manager knew or should have known of any material inaccuracy or omission in the placement agent information disclosure or any other violation” of the Placement Agent Policy:

- a. The reimbursement of any management or advisory fees paid by the board for the prior two years or an amount equal to the amounts paid or promised to be paid to the placement agent as a result of the board investment whichever is greater.
- b. The authority to immediately terminate the investment management contract or other agreement with the manager without penalty, to withdraw without penalty from a limited partnership, limited liability company or other investment vehicle, or to cease making further capital contributions (and paying any fees on these recalled commitments) to the limited partnership, limited liability company or other investment vehicle without penalty.

COMPENSATION



9191034

(1) Has the Investment Manager or any, employee, agent or affiliate compensated or agreed to compensate, directly or indirectly any person or entity to act as a placement agent in connection with investment by the Massachusetts public pension systems?

No Yes

(2) If **yes**, please provide (below or in an attachment) a description of any and all compensation of any kind provided or agreed to be provided to a placement agent and/or entity acting as a placement agent in connection with investment by Massachusetts' public pension systems, including the nature, timing and value thereof.

Additional Pages Attached: No Yes

(3) If **yes**, please provide a statement (below or in an attachment) that the placement agent has a minimum of three years experience in the investment field.

Additional Pages Attached: No Yes

(4) If **yes**, please provide a statement (below or in an attachment) that the placement agent and/or entity acting as a placement agent is registered with the Securities and Exchange Commission or the Financial Industry Regulatory Authority, or, if appropriate, the Commodity Futures Trading Commission and the details of such registration.

Additional Pages Attached: No Yes

(5) If **yes**, please attach a resume for each placement agent detailing the person's education, professional designations, regulatory licenses and investment and work experience. If any such person is a current or former member of a retirement board, employee or consultant or immediate family of such a person that fact should be specifically noted.

Additional Pages Attached: No Yes



(6) If **yes**, please provide a description of the services (below or in an attachment) to be performed by the placement agent and/or entity acting as a placement agent and a statement as to whether the placement agent is used by the manager with all prospective clients or only a subset of clients or only Massachusetts public pension fund clients.

Additional Pages Attached: No Yes

(7) If **yes**, please attach a written copy of any and all agreements between the manager and the placement agent and/or entity acting as a placement agent in connection with investment by Massachusetts' public pension systems.

Additional Pages Attached: No Yes

(8) If **yes**, in the event that any current or former Massachusetts public pension system board members, employees, consultants or other service providers have suggested the retention of the placement agent, the names of any current or former Massachusetts public pension system board members, employees, consultants or other service providers who suggested the retention of the placement agent (below or in an attachment).

I attest under the penalties of perjury that the above statements and statements provided in attachments, if any, are true.

Name of Authorized Individual: First: Last: Suffix:

Title of Authorized Individual:

Signature of Authorized Individual:

Greg Mulready



Date Signed:

June 18, 2020

Signature Certificate

Document Ref.: QODUM-OCWC3-MA87W-Q5Y90

Document signed by:

	<p>Greg Mulready Verified E-mail: gmulready@johcm.com</p>	<p><i>Greg Mulready</i></p>
<p>IP: 98.11.25.73</p>	<p>Date: 18 Jun 2020 19:43:51 UTC</p>	

Document completed by all parties on:
18 Jun 2020 19:43:51 UTC

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Vendor Certification

In all circumstances Massachusetts Law (Chapter 32, Section 23B) requires service providers to complete this form and submit it to the retirement board. The board must file the completed form with PERAC. In the case of investment managers upon acknowledgement from PERAC that this and other filings have been received, the board may retain the service provider.

Please print or type all entries in blue or black ink.

1. Retirement Board

Retirement Board to which proposal is being submitted:

2. Service Provider

Business Name:

Address:

City:

State:

Zip:

Services Being Proposed:

Dates of Services (MM/DD/YYYY)

From:

To:

3. Individual Submitting Proposal

Name, First:

Last:

Suffix:

Title:

The undersigned certifies that this proposal has been made and submitted in good faith and without collusion or fraud with any person. As used in this certification, the word "person" shall mean a natural person, business, partnership, corporation, union, committee, club or other organization, entity or group of individuals.

Signature: _____

Greg Mulready



Date: _____

June 18, 2020

Signature Certificate

Document Ref.: QYCWO-EZ4NT-Z8W9M-JELNA

Document signed by:

	<p>Greg Mulready Verified E-mail: gmulready@johcm.com</p> <p>IP: 98.11.25.73 Date: 18 Jun 2020 19:45:12 UTC</p>	<p><i>Greg Mulready</i></p> 
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Document completed by all parties on:
18 Jun 2020 19:45:12 UTC

Page 1 of 1



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Vendor Contact Information

Please print or type all entries in blue or black ink.

Fund Name:

Name of Retirement Board:

1. Company/Entity Information:

Company/Entity Name:

CRD# (If Applicable):

Address:

City:

State:

Zip:

Country:

Phone:

Fax:

URL:

2. Contact Information:

Name, First:

Last:

Suffix:

Title:

Department:

Phone:

Fax:

Email:

3. Contact Address:

Same as Company Address? No Yes

Address:

City:

State:

Zip:

Country:



Vendor Disclosures (as required by G.L. c. 32 §23 & 23B)

Please submit completed form and any attachments to PERAC and the retirement board on or before March 1st. Failure to do so may subject the Fund/Entity to sanctions pursuant to Chapter 32, Section 21A. Please attach additional sheets if necessary.

Please print or type all entries in blue or black ink.

1. Vendor/Board Information

Name of Company/Entity:	J O Hambro Capital Management Limited
Name of Fund:	JOHCM International Select
Retirement Board:	Massachusetts Water Resources Authority Retirement System

2. Compensation PAID: No Yes

Recipient of Compensation	Form of Compensation	Value of Compensation

Additional Pages Attached: No Yes

3. Compensation RECEIVED: No Yes

Source of Compensation	Form of Compensation	Value of Compensation

Additional Pages Attached: No Yes

4. Conflict of Interest? No Yes

If yes, please advise:

Additional Pages Attached: No Yes

5. Declaration and Signature


I make this disclosure pursuant to G.L. c.32, §23 and/or 23B in order to comply with the requirement that an entity providing investment services to a retirement board disclose to the Commission and the retirement board compensation, in whatever form, paid, or expected to be paid, and received, or expected to be received, directly or indirectly by the entity or a related person to others in connection with the entities services to the retirement board or any other client to whom the same service is provided. In addition, I make this disclosure of any conflict of interest that may have or could reasonably be expected to impair the ability to render unbiased and objective advice to the retirement board.

Name, First:	Greg	Last:	Mulready	Suffix:	
Title:	Managing Director - North American Institutional JOHCM (USA) Inc				
Signature:	<i>Greg Mulready</i>		Date:	June 18, 2020	

Signature Certificate

Document Ref.: 3GINK-STSF8-TSDOG-T6ACN

Document signed by:

	<p>Greg Mulready Verified E-mail: gmulready@johcm.com</p> <p>IP: 98.11.25.73 Date: 18 Jun 2020 19:45:43 UTC</p>	<p><i>Greg Mulready</i></p> 
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Document completed by all parties on:
18 Jun 2020 19:45:43 UTC

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NEPC, LLC

Firm: Schroder Investment Management North America Inc.
Strategy/Product: International Alpha
Client: MWRA Employees Retirement Board

NEPC Manager Due Diligence Questionnaire - Update

Instructions

In support of our upcoming meeting we ask that you please complete this due diligence questionnaire. Please provide your responses in the form of brief descriptions, lists or tables added directly to this Word document.

Thank you for taking the time to complete this questionnaire. Please note that your response will be part of the NEPC Research Database.

Firm/Organization

1. Have there been any changes in ownership or management in the past year?

There have been no material changes in Firm ownership. However, please note the following senior management changes to the Firm in the past year ending June 30, 2020:

1Q2020

- In January 2020, Philippe Lespinard became Head of Fixed Income globally.
- In January 2020, Marc Brookman became CEO of North America.
- In January 2020, Lieven Debruyne, who has been leading our business strategy in Asia Pacific over the past 14 years became Global Head of Distribution.
- In March 2020, the following new members to the GMC were announced: Marc Brookman, Chris Durack, James Rainbow, Susan Soh and Karine Szenberg.
- Carolyn Sims, Chief Financial Officer for Wealth Management, left in May 2020 to pursue a new route in her career. Carolyn will be staying with us until the end of May to ensure a seamless handover, including in her membership of the GMC and role as Chair of SIM Europe, pending regulatory approval of her successor.

4Q2019

- In December 2019, John Troiano retired from the Company.
- In December 2019, Karl Dasher, CEO North America and Co-Head of Fixed Income, left the Company to pursue other opportunities outside of the Group.
- In November 2019, Phil Middleton became Head of Institutional Distribution for North America. He was Head of UK Intermediary Business, based in London, and has over 27 years of tenure with Schrodgers.
- In October 2019, Carolina Minio-Paluello joined Schrodgers as Global Head of Product, Solutions & Quant. Carolina became a member of the GMC in December 2019.

2. List firm AUM, net flows and accounts gained/lost for the past 5 years.

Please see below for firm AUM, net flows and accounts gained/lost for the past 5 years.



Total AUM & Net Flows		YTD 06/2020	2019	2018	2017	2016	2015
Total	AUM US \$millions	649,643	662,630	518,672	589,470	476,976	462,113
Total	No of Clients	3,987	3,839	3,444	3,557	3,198	3,259
Net Flows	AUM US \$millions	47,069	59,026	-13,749	11,846	-1,971	7,015

Clients Gained & Lost		YTD 06/2020	2019	2018	2017	2016	2015
Gained	AUM US \$millions	64,763	53,677	17,322	14,961	15,498	23,905
Gained	No of Clients	255	532	267	565	322	329
Lost	AUM US \$millions	8,104	19,441	30,392	24,235	12,827	10,012
Lost	No of Clients	143	366	338	264	287	260

3. Have there been any new or discontinued products in the past year?

The following vehicles that were available to North American clients were closed during the past year ending June 30, 2020:

Product Name	Effective Date	Vehicle	Comments
Schroder Multi-Cap Emerging Market Portfolio LP	August 21, 2019	3C-7 LP	LP clients moving into new Schroder QEP Emerging Markets Multi-Cap Equity Trust.
Schroder MyRetirement Funds 2015 through 2060	December 27, 2019	Canadian Trust	Liquidated
Schroder Canadian Multi-Asset Growth Fund	December 27, 2019	Canadian Trust	Liquidated
Schroder Canadian Risk Managed	December 27, 2019	Canadian Trust	Liquidated
Schroder Canadian Target Date Transition Fund	December 27, 2019	Canadian Trust	Liquidated
Schroder Emerging Markets Small Cap	December 27, 2019	US 1940 Act Mutual Fund	Liquidated
Schroder Short Duration Bond	December 27, 2019	US 1940 Act Mutual Fund	Liquidated

4. Are any products capacity constrained?

Yes. Schroders has a Group Capacity Committee. The purpose of the Committee is to provide oversight on the management of capacity issues. It will seek to identify up-coming capacity pinch-points and agree how these will be managed.

Given the breadth of our product range, we monitor the capacity of our individual products closely so that we do not take on more assets than can be managed without negatively impacting performance. We actively monitor potential capacity constraints and mitigate this by closing products to new investment in certain circumstances.

We believe that the key to a successful investment partnership with our customers is prioritising their interests and safeguarding their trust in us. With this in mind, we take capacity management extremely seriously.



The primary objective of capacity management is ensuring that our investment processes can continue to deliver the performance potential for our clients without compromise. Therefore, we take a conservative approach to monitoring and managing capacity.

The management of capacity is jointly determined by our independent Risk & Performance Analytics Team, fund managers and investment directors.

The Equity Risk and Performance Analytics Team assist the fund managers and investment directors with the quantitative analysis of stock or bond ownership and liquidity on a quarterly basis. Ownership analysis involves looking at share or bond holdings at both the aggregate product level and the total Schroder level by examining the impact of increased levels of funds under management. Liquidity data encompasses all trading venues, on and off exchange, including venues such as dark pools. Liquidity analysis involves reviewing average daily trading volumes and calculating how long it would take to accumulate/liquidate a given position at increasing levels of funds under management.

Capacity is also reviewed in our quarterly Asset Class Risk and Performance Committees and centrally at the Capacity Committee, which is chaired by the Global Head of Product.

We would not hesitate to soft close or hard close strategies in order to protect performance, even at levels that are significantly lower than our industry peers and have done so on various products across Schrodgers in the past.

5. Describe any current or pending regulatory, compliance or litigation issues and the expected business impact.

There are no current or pending regulatory, compliance, or litigation issues that we expect to have an impact on our business.

However, please note that on April 22, 2020, the NFA began a routine examination of Schroder Investment Management North America Inc. (SIMNA Inc.) and Schroder Investment Management North America Ltd. (SIMNA Ltd.). The NFA provided SIMNA Inc. with pre-examination questionnaires and also requested various documents to be provided in advance of the examination. SIMNA Inc. has responded to a number of follow up questions and additional document requests from the NFA. The NFA has also been conducting interviews with certain SIMNA Inc. employees to review our internal controls environment.

Portfolio Management Team

1. Have there been any changes in the portfolio management team in the past year?

There have been no changes to the portfolio management team in the past year.

2. Are there any expected changes to the team in the future (planned additions or departures)?

There are no expected team changes in the future.



Process

1. Have there been significant changes in any of the areas below in the past year?

- Identification of investment ideas
- Process for exploring and vetting ideas
- Portfolio trading practices including buy/sell rules
- Approach to portfolio monitoring and risk management

There have been no significant changes in any of the areas listed above in the past year.

Philosophy

1. Describe recent changes in investment philosophy, if any.

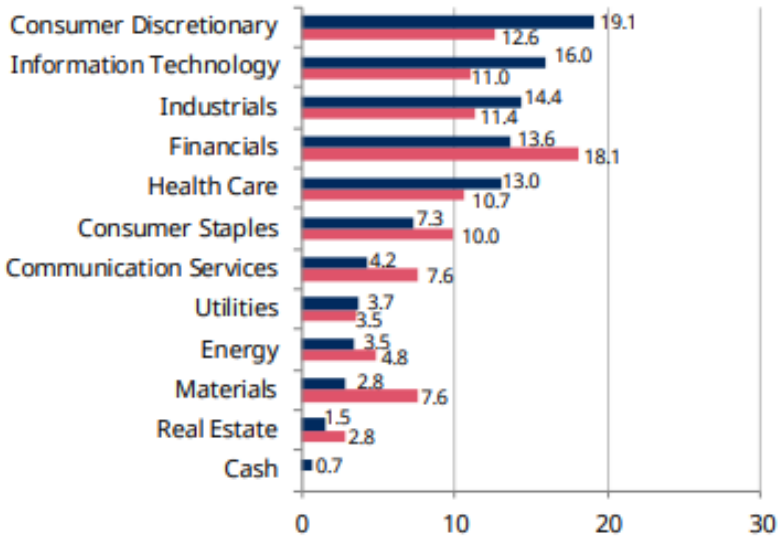
There have been no changes to the investment philosophy.

Portfolio

1. If not included in your meeting presentation, provide portfolio holdings, sector exposure, geographic exposure and common characteristics (yield, duration, market cap, P/E, etc.).

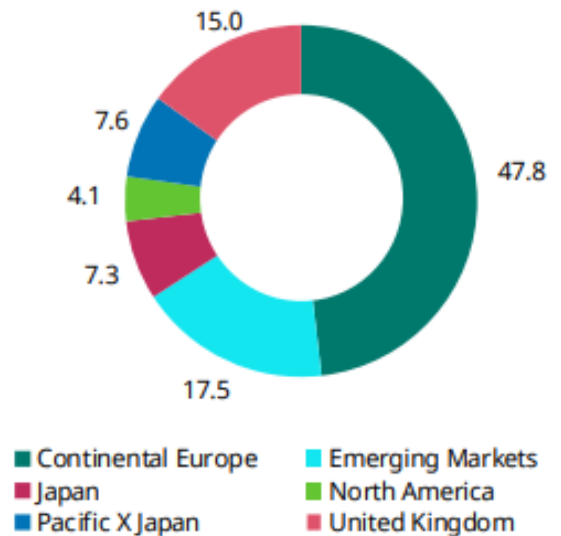
Below please find strategy weights and characteristics as of June 30, 2020.

Sector breakdown (%)



■ Schroder International Equity Alpha ■ MSCI ACWI ex USA Index

Regional breakdown (%)



■ Continental Europe ■ Emerging Markets
 ■ Japan ■ North America
 ■ Pacific X Japan ■ United Kingdom



Top ten holdings

	Sector	Country	% of Total Market Value
Tencent Holdings Ltd.	Communication Services	China	4.25
Taiwan Semiconductor Manufacturing Co., Ltd. Sponsored ADR	Information Technology	Taiwan	3.61
Alibaba Group Holding Ltd. Sponsored ADR	Consumer Discretionary	China	3.46
Roche Holding AG	Health Care	Switzerland	3.45
Samsung Electronics Co., Ltd.	Information Technology	Korea	3.32
Nestle S.A.	Consumer Staples	Switzerland	3.23
ASML Holding NV	Information Technology	Netherlands	2.97
MercadoLibre, Inc.	Information Technology	United States	2.64
AIA Group Limited	Financials	Hong Kong	2.64
Schneider Electric SE	Industrials	France	2.43
		Total	32.00

Portfolio and risk statistics

	Schroder International Equity Alpha	MSCI ACWI ex USA Index
Wtd avg market cap (\$ billions) ¹	124.36	77.77
EPS Growth (estimated 3-5 years) ²	6.35	7.00
P/E ratio (trailing 12 months) ³	20.25	15.85
P/E ratio (forward 12 months) ⁴	20.32	15.73
P/B ratio (trailing 12 months) ⁵	2.29	1.57
Tracking error* (5 years) ⁶	3.08	—
Beta* (5 years) ⁷	1.00	—

2. List strategy AUM, net flows and accounts gained/lost for the past 5 years.

As of June 30, 2020, the AUM of International Alpha was 4,091.43 million.

Calendar Year	2016	2017	2018	2019	YTD (June 30, 2020)
Gross Inflows (millions)	71	46	81	262	1,306
Gross Outflows (millions)	22	97	18	5	25
Net Flows (millions)	+49	-51	+63	+257	+1,281
Total Strategy AUM (millions)	1,343	1,736	1,567	2,517	4,091



3. Describe investor concentration for the strategy and note the percent of AUM attributable to the top five investors.

Please see below for AUM of the top five investors in the International Alpha strategy. The top five investors account for 80% of strategy AUM.

Rank	Aggregate Account Size	Account Type
1	1,108.19	Sub-Advised
2	996.36	Public Fund
3	649.64	Other
4	255.81	Public Fund
5	251.43	Corporate

Source: Schroders, as of June 30, 2020.

Performance / Market Outlook

1. If not included in your meeting presentation, provide trailing returns as of the most recent quarter-end and calendar year returns for the past 10 years, both relative to benchmark.

Please see attached performance.

2. Briefly discuss recent performance trends and identify environments in which the strategy is likely to be in or out of favor.

Relative performance has been strong over the short, medium and long term, outperforming the benchmark YTD and over the 3-year and 5-year periods to end June 2020.

As is consistent with our approach, the overwhelming majority of the strategy's alpha has been driven by stock selection across different time periods on both a region and sector basis. Another important characteristic of our outperformance is the breadth of positive returns across sectors and regions for various time periods. Over both 3- and 5-year periods, we have delivered positive stock selection in every region, demonstrating the depth and breadth of our research capabilities and most importantly, the repeatability of our approach. We believe that if we maximize our idiosyncratic risk, we can generate the most consistent performance for our clients.

Indeed, with an investment style that focuses on stock selection and portfolio construction based on long-term fundamentals, we have an approach that has proved effective at outperforming in a variety of up and down markets which broadly track fundamental developments. However, because we are disciplined in the way in which we identify and place a value on company growth, we are unlikely to participate fully in extreme market movements that are driven principally by momentum (due to excessive investor greed, fear or hubris, for example) and thus become detached from the underlying fundamentals.

A disconnect between earnings fundamentals and share price performance will represent the most significant risk for our approach. This will normally be observed during extremes in investor sentiment or during phases where there is a significant re-adjustment in



market expectations. During times of depressed market sentiment or heightened risk aversion, markets tend to react indiscriminately to macro events and in so doing, extrapolate changing expectations across stocks without sufficient attention to specific implications for individual companies. In these types of environments, the relationship between share price performance and company fundamentals breaks down as the market seeks to re-position quickly to reflect a structural change in the overarching investment regime. These market characteristics were evidenced throughout CY 2016 where the strategy underperformed the benchmark. Stock fundamentals are often largely unimportant during the initial period of market adjustment and the market tends to be characterized by high intra-stock correlations, low dispersion of returns within global sectors and polarized style returns. However, over the long term we believe that extreme market movements end up reverting and that patient investors focusing on company fundamentals and identifying positive growth gaps will outperform. Once through the initial re-positioning of the market, portfolio company fundamentals, and earnings fundamentals more specifically, re-exert. This represents immediate and ongoing opportunity for disciplined stock pickers.

3. Describe your market outlook and how strategy positioning is impacted by your views.

Looking forward, we believe the global growth trough is likely behind us, but optimism is running ahead of reality. Economic activity indicators continue to suggest a clear recovery but little to suggest a V-shaped recovery as of yet. Quality has remained a dominant factor and is likely to remain so as companies with high operating and financial leverage remain exposed to higher risks. Broadly we remain focused on balance sheet strength across the companies in our portfolio to ensure we are well positioned in companies prepared to absorb a revenue shock.

While challenging in the short term, sharp changes in market direction and polarized stock returns are to be anticipated over the coming months as markets continue to assess the strength of the recovery. With significant revisions to consensus earnings estimates and many companies reluctant to provide guidance amidst persistent uncertainty, continued volatility should be expected.

The quantum of the response to the crisis by central banks globally has been very significant and sparked a sharp rebound. The rally, however, belies the fact that the economic impact of Covid-19, and efforts to mitigate it, will be severe and will not be easily remedied by the action of central banks in the short-term.

We continue to see tentative signs of stabilization and gradual normalization in a number of markets as countries gradually emerge from lockdown. Shrinking demand has had severe implications for employment, confidence, investment and consumption and there are real risks of a negative feedback loop affecting sales, profitability and for some, solvency. Governments across the globe remain responsive with aggressive monetary and fiscal stimulus.

It remains to be seen how quickly the fiscal measures will feed through into economic activity: further measures seem likely to be required. Covid-19 has led to significant business risk as revenue shortfalls have pressured margins and cash flow. There is likely



to be substantial financial stress in many parts of the economy in a number of countries, even at a time of continued low interest rates. The rising political tensions between the US and China also remain a headwind and are clearly creating additional risks for many companies that investors need to be mindful of.

As gloomy as the short-term economic picture clearly is, we are keen not to lose sight of the fact that Covid-19 will eventually pass, and that business and consumer confidence will eventually recover, bolstered by unprecedented levels of monetary and fiscal support. Economic recovery may be slow and gradual, but markets are likely to discount the recovery much sooner. In areas which have been particularly hard hit there may well be a significant rebound in investor sentiment quite quickly as lockdowns start to be lifted: for example, in parts of the consumer space (such as leisure and restaurants), or in the industrial sector.

We are mindful that, after a pro-longed period of under-performance by the more cyclical parts of the market (compared to growth and quality), expectations for many companies in that space are now very low. It will not take much improvement in economic fundamentals to generate significant operating leverage – and share price appreciation – going forward. However, many of these companies operate in heavily challenged industries and the risks are also acutely higher. As always though, selectivity will be important, since not all cyclical businesses will recover from their lows.

It is also worth mentioning that the impact of the virus in some cases may be lasting. The many unexpected outcomes of lock-down, social distancing, and remote working may hasten the demise of established businesses in some areas (for example in travel, business interaction, retailing etc.). It may also strengthen new business models in others, such as video communications, data centers & cloud service, e-commerce, and sports as we adjust to a new way of living and working. We remain focused on watching for potential market dislocations and carefully weighing the trade-offs between risk and reward as we assess opportunities for unanticipated growth.

4. Could you please include a slide in your presentation that sows the MWRA's account history, initial contribution, cumulative subsequent contributions, cumulative subsequent distributions, gain/loss and current value.

Please see attached.

MWRA Transactions

As at 31 July 2020

	Date	Amount (US\$)
Initial Contribution	02/02/2012	17,354,622
Follow-on Contributions	02/07/2012	900,000
	07/05/2012	1,100,000
	07/27/2012	500,000
	10/05/2012	2,000,000
	02/01/2013	1,250,000
	12/22/2014	2,000,000
	02/17/2015	1,500,000
	08/04/2015	1,000,000
	11/28/2016	2,000,000
	12/27/2017	345,246
	06/05/2019	4,000,000
Subsequent Withdrawals	11/14/2013	(4,000,000)
	07/19/2017	(6,000,000)
	12/05/2017	(3,000,000)
Full Redemption (MF)	11/15/2019	(32,139,612)
	Date	Amount (US\$)
Initial Contribution (CIT)	11/19/2019	32,139,612
Follow-on Contribution (CIT)	05/06/2020	1,000,000
Market Value as at 31 July 2020		35,760,187.30

Source: Schroders, as at 31 July 2020.



MWRA – Annual Board Review

John Chisholm, CFA – Investment Director

Vivian Quaye – Institutional Director

August 2020

Introduction to Schroders

A worldwide team dedicated to asset management



Asset management is our core business and our goals are completely aligned with those of our clients – the creation of **long-term value** to assist them in meeting their future financial requirements. We manage on behalf of institutional and retail investors, financial institutions and high net worth clients from around the world, invested across **equities, fixed income, multi-asset, alternatives** and **real estate**.



Rated 'Highest Standards' by Fitch Ratings¹

Source: Schroders, as of 30 June 2020. Group assets under management and administration comprise assets managed or advised on behalf of clients (Assets Under Management) and assets where Schroders solely provides administrative support through the Benchmark Capital business (Assets Under Administration). ¹Fitch Ratings, as of August 22, 2018.

Schroder International Equities: A distinctive approach

Active managers add value through three primary ways...

The Schroders difference

Research



Breadth of research coverage
Over 100+ analysts based around the world distilling ideas that are style neutral with a quality bias

Global perspective
Global Sector Specialists marrying local research with global analysis

Innovative use of data analytics
Industry-leading capability to improve fundamental research efforts

Integration of ESG
Assessing the materiality of non-financial factors and their impact on the durability of a company's earnings



Portfolio construction



Consistent application of philosophy
Portfolio construction driven by bottom-up stock picking

Risk-based construction
Ensuring consistent alignment between portfolio risk and manager conviction

Controlled factor risk
Alignment of risk and stock selection to drive enhanced performance consistency

Fundamental risk framework
Proprietary forward looking risk system designed to enhance portfolio downside protection



Engagement



Active ownership
Regular dialogue with companies promoting improvement of long term returns

Dedicated engagement resources
Impressive record of positive response to change from hundreds of companies.

Source: Schroders, as at 31 March 2020. The views and opinions contained herein are those of the Global and International Equity team and are subject to change.

International Alpha

Value creation evidenced

Efficiency of alpha

- Proprietary risk framework helping to drive consistently strong risk adjusted returns

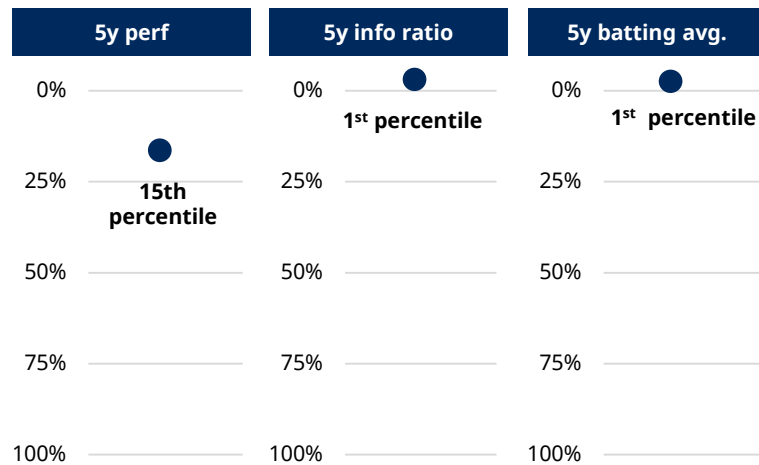
Persistency of alpha

- Success rates across market environments demonstrate low factor dependency to drive relative performance

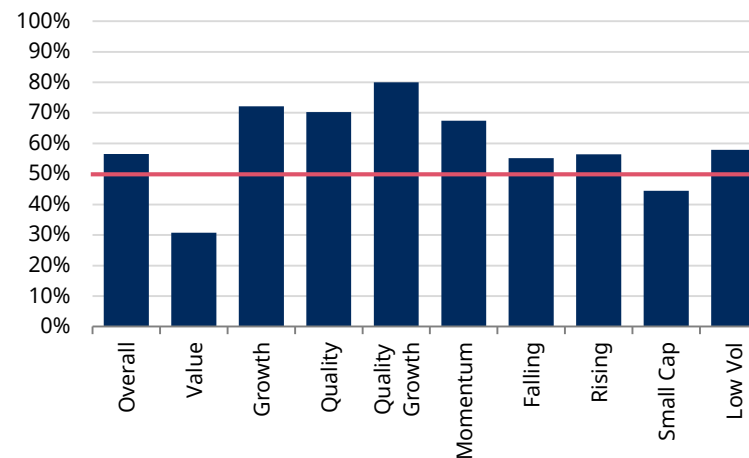
Consistency of alpha

- Consistency from breadth of research and our focus on delivering alpha through idiosyncratic stock picking

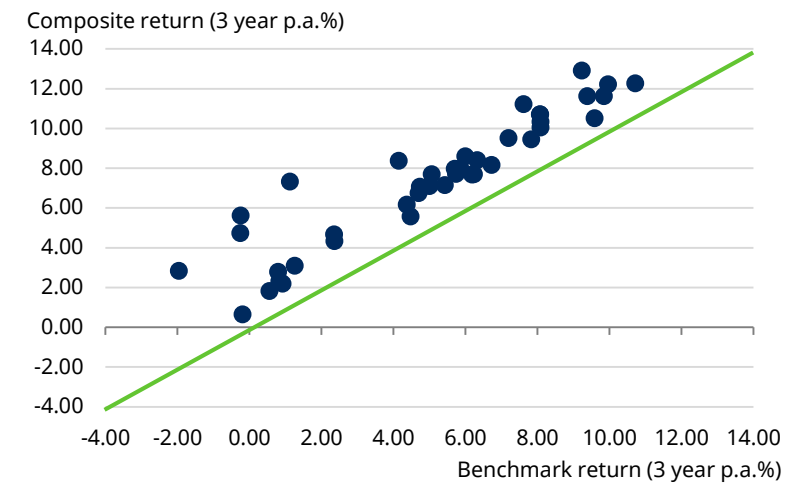
International Alpha: concentrated by names, diversified by risk



Vs eVestment Non-US Diversified Large Cap Equity (app. 300 strategies)



Batting average based on monthly returns across market environments



Rolling 3y excess returns since inception of PM team in January 2014

Performance shown is past performance. Past performance is not a guide to future performance. The value of investment can go down as well as up and is not guaranteed.

Source: Schroders, eVestment. Peer group data as of 30 June 2020. Performance is based on monthly returns for the strategy composite gross of fees in USD versus the MSCI ACWI ex-US (NR) Index. Batting average refers to the comparison of the fund's monthly returns to those of the MSCI All Country World Index ex USA NDR Index, as a percentage of fund outperformance over the stated time period. Market environments based on the index, as follows: 'overall' refers to the standard ACWI ex USA cap weighted index monthly returns. 'Rising' months are when the index return is greater than 0, and 'falling' months when the index return is less than 0. 'Value' reflects months when value stocks outperform growth stocks, and 'growth' reflects months when growth stocks outperform value stocks. 'large' reflects months when large-cap stocks outperform small/mid-cap stocks, and 'SMID' reflects months when small/mid-cap stocks outperform large-cap stocks. Growth stocks are generally those with higher price-to-book ratios and forecasted growth values, and value stocks are generally those with lower price-to-book ratios and forecasted growth values. Large-cap stocks are generally those with market caps of \$10bn or higher, and small-cap stocks are generally those with market caps of \$2bn or lower. Market environments (value, growth, falling, rising, momentum, large and small/mid) defined using MSCI indices and are as of 31 March 2020. Rolling 3-year performance is based on rolling 3-year returns for the International Alpha strategy composite gross of fees in USD vs. the MSCI ACWI ex-US from January 2014.

Global Equities Team

Portfolio Management Team

Global Equities

Alex Tedder
Head of Global Equities (30)

Frank Thormann, CFA
Portfolio Manager (21)

International Equities

Simon Webber, CFA
Portfolio Manager (20)

James Gautrey, CFA
Portfolio Manager (18)

Global Specialist Equities

Katherine Davidson, CFA
Portfolio Manager (11)
GSS – Consumer Discretionary

Charles Somers, CFA
Portfolio Manager (21)
GSS – Consumer Staples and Discretionary

Global Sector Specialists (GSS)

Dan McFetrich, CFA
Head of Research (19)
GSS - Industrials

John Bowler
GSS - Healthcare (25)

Ines Duarte Da Silva
GSS - Healthcare (9)

Isabella Hervey-Bathurst, CFA
GSS – Utilities (7)

Andre Reichel, CFA
GSS – Financials (8)

George Ullstein, CFA
GSS – Communication Services (9)

Alex Blofield, CFA
GSS – Technology (4)

Patrick Flood, CFA
GSS – Technology (4)

Marine Jacquemoud
GSS – Energy & Materials (9)



Investment Directors
Gavin Marriott, CFA (36)
John Chisholm, CFA (25)



Local Research
Team of 100+ analysts
across 11 countries



Data Insights
Ben Wicks – Data Insights
Team of 25 Data Scientists and
Analysts



Sustainable Investment
Team of 22 dedicated
Sustainable Investment
analysts and professionals

Source: Schroders, as of 30 June 2020. GSS stands for Global Sector Specialist. Industry experience shown in parentheses.



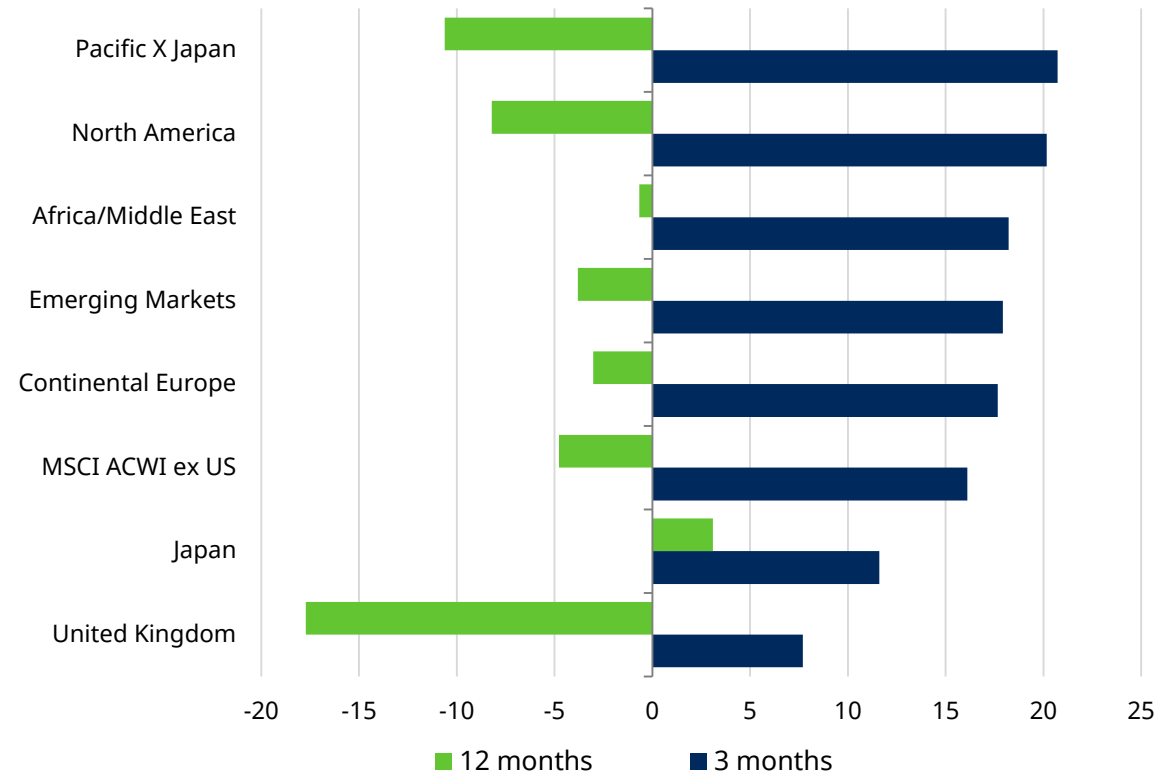
International Equities

Portfolio performance and positioning

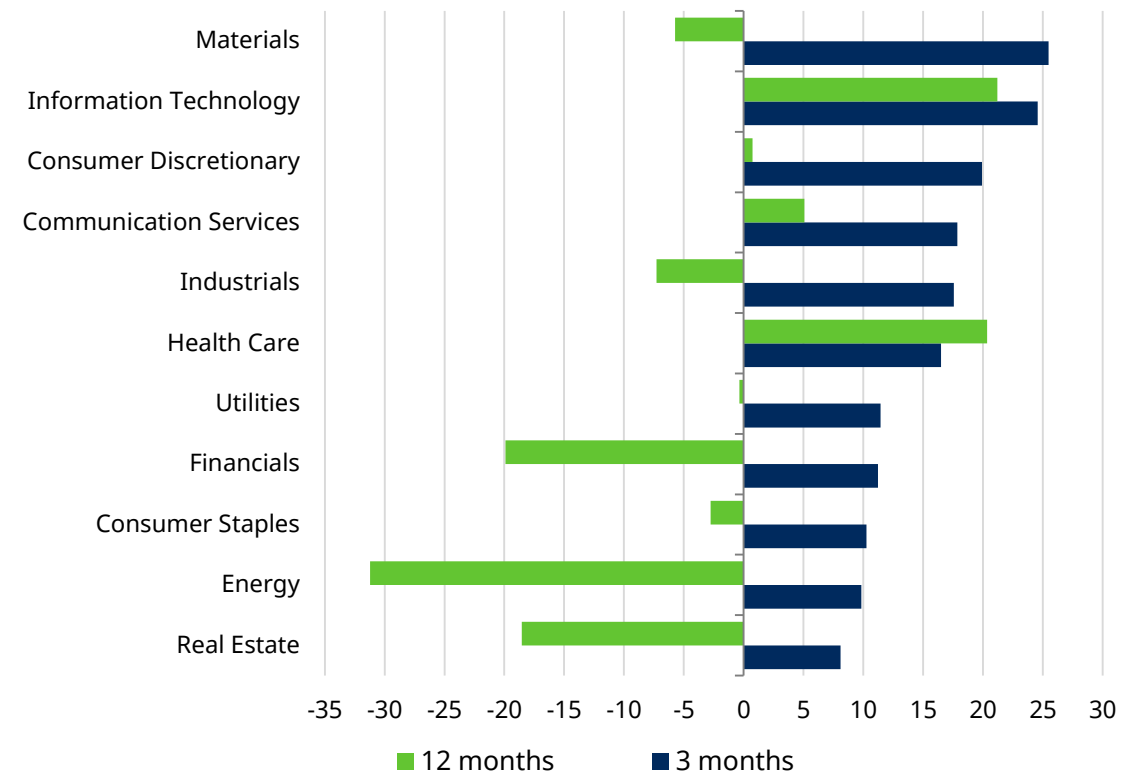
Market background

As at 30 June 2020

Region returns¹ (USD %)



Sector returns¹ (USD %)



Past Performance is not a guide to future performance and may not be repeated.

Source: FactSet, MSCI. ¹Based on MSCI AC World ex US. The regions and sectors shown above are for illustrative purposes only and are not to be considered a recommendation to buy or sell.

Performance

Schroders International Alpha

Performance to 31 July 2020 (% Gross returns in USD)

	3 Months	YTD	12 Months	3 years p.a.	5 years p.a.	Since Inception p.a.
Schroders Intl Alpha (gross)*	+20.2	+2.9	+13.8	+7.6	+7.1	+8.0
Schroders Intl Alpha (net)*	+20.0	+2.6	+13.2	+7.0	+6.5	+7.4
MSCI AC World ex US	+12.8	-7.0	+0.7	+1.0	+2.4	+5.2
Relative performance vs gross returns	+7.4	+9.9	+13.1	+6.6	+4.7	+2.2

Past performance is not a guide to future performance and may not be repeated. The value of investment can go down as well as up and is not guaranteed. The return may increase or decrease as a result of currency fluctuations. Please refer to the important information on the effect of fees at the end of the presentation for further details

Source: Schroders. Gross of fees. p.a. represents annualised performance. *Inception date of MWRA is February 2, 2012. Returns has been chain linked using the Hartford International Stock Fund up to the 19 November 2019 and then to the Schroder International Alpha CIT

Schroders International Alpha – Performance

As at 31 July 2020

3Y performance characteristics

Excess return (%)	Information ratio	Upmarket Capture (%)	Downmarket Capture (%)	Batting Average (%)
+6.6	1.9	125.4	93.7	78.8

5Y performance characteristics

Excess return (%)	Information ratio	Upmarket Capture (%)	Downmarket Capture (%)	Batting Average (%)
+4.7	1.5	117.0	93.9	71.7

Past performance is not a guide to future performance and may not be repeated. The value of investments and the income from them may go down as well as up and investors may not get back the amounts originally invested.

Source: Schroders. Performance shown is past performance. Past performance is not a guide to future performance. The value of investment can go down as well as up and is not guaranteed. Please refer to the Important Information slide showing the effect of fees and the Composite Disclosure Statement at the end of the presentation for further details. Returns has been chain linked using the Hartford International Stock Fund up to the 19 November 2019 and then to the Schroder International Alpha CIT

Schroders International Alpha – risk factors

- Past performance is not a guide to future performance and may not be repeated. The value of investments and the income from them may go down as well as up and investors may not get back the amounts originally invested.
- CIT Schroders International Alpha – Risk Factors:
- Liquidity risk: In difficult market conditions, the fund may not be able to sell a security for full value or at all. This could affect performance and could cause the fund to defer or suspend redemptions of its shares.
- Operational risk: Operational processes, including those related to the safekeeping of assets, may fail. This may result in losses to the fund.
- Currency risk: The fund may lose value as a result of movements in foreign exchange rates.
- Derivatives risk – Efficient Portfolio Management and Investment Purposes: Derivatives may be used to manage the portfolio efficiently. A derivative may not perform as expected, may create losses greater than the cost of the derivative and may result in losses to the fund. The fund may also materially invest in derivatives including using short selling and leverage techniques with the aim of making a return. When the value of an asset changes, the value of a derivative based on that asset may change to a much greater extent. This may result in greater losses than investing in the underlying asset.
- Emerging Markets & Frontier risk: Emerging markets, and especially frontier markets, generally carry greater political, legal, counterparty, operational and liquidity risk than developed markets.
- Counterparty risk: The fund may have contractual agreements with counterparties. If a counterparty is unable to fulfil their obligations, the sum that they owe to the fund may be lost in part or in whole.
- Performance risk: Investment objectives express an intended result but there is no guarantee that such a result will be achieved. Depending on market conditions and the macro economic environment, investment objectives may become more difficult to achieve.
- IBOR: The transition of the financial markets away from the use of interbank offered rates (IBORs) to alternative reference rates may impact the valuation of certain holdings and disrupt liquidity in certain instruments. This may impact the investment performance of the fund.

Source: Schroders.

Attribution – sector

Schroders International Alpha

12 Months to 31 July 2020

(%)	Portfolio weight	Benchmark ¹ weight	Portfolio return	Benchmark ¹ return	Allocation	Selection	Total effect
Communication Services	3.7	7.6	40.0	9.4	-0.3	1.0	0.7
Consumer Discretionary	18.9	12.7	8.5	6.7	0.6	0.5	1.1
Consumer Staples	7.5	10.0	0.5	1.2	0.0	-0.1	-0.1
Energy	3.1	4.6	-7.7	-28.5	1.3	-0.5	0.9
Financials	12.4	17.6	-14.4	-16.6	0.9	0.3	1.2
Health Care	12.5	10.5	24.7	23.4	0.8	0.1	1.0
Industrials	15.1	11.1	29.7	-3.2	-0.1	4.7	4.6
Information Technology	17.2	11.7	49.2	33.4	1.5	2.1	3.6
Materials	3.0	7.9	-7.3	5.9	-0.4	-0.5	-0.9
Real Estate	1.8	2.7	26.2	-16.1	0.3	0.8	1.1
Utilities	3.7	3.5	22.2	5.3	-0.2	0.4	0.2
[Cash]	1.2	—	0.4		-0.3		-0.3
Total	100	100	13.8	0.7	4.1	9.0	13.1

Performance shown is past performance. Past performance is not a guide to future performance and may not be repeated. The value of investment can go down as well as up and is not guaranteed. The return may increase or decrease as a result of currency fluctuations. The value of investment can go down as well as up and is not guaranteed. Countries mentioned are shown for illustrative purposes only and should not be viewed as a recommendation to buy/sell.

Source: Schroders, USD, Gross, ¹MSCI ACWI Ex USA.

Attribution – region

Schroders International Alpha

12 Months to 31 July 2020

(%)	Portfolio weight	Benchmark ¹ weight	Portfolio return	Benchmark ¹ return	Allocation	Selection	Total effect
Africa/Middle East	0.0	0.5	0.0	3.1	-0.1	0.0	-0.1
Continental Europe	48.5	31.5	12.8	3.4	0.8	4.3	5.1
Emerging Markets	18.4	29.2	30.4	6.2	-0.7	3.9	3.2
Japan	7.0	15.5	18.1	1.3	0.0	1.7	1.7
North America	5.7	6.6	15.4	-2.2	0.1	1.2	1.3
Pacific X Japan	6.0	7.9	9.9	-7.7	-0.0	1.5	1.4
United Kingdom	13.3	8.8	-7.8	-15.1	-0.6	1.3	0.6
[Cash]	1.2	0.0	0.4		-0.4		-0.4
Total	100	100	13.8	0.7	-0.7	13.8	13.1

Past performance is not a guide to future performance and may not be repeated. The value of investment can go down as well as up and is not guaranteed. The return may increase or decrease as a result of currency fluctuations. Regions mentioned are shown for illustrative purposes only and should not be viewed as a recommendation to buy/sell.

Source: FactSet, USD, Gross. ¹MSCI AC World ex US

Attribution – stock

Schroders International Alpha

12 Months to 31 July 2020

Top 10 contributors	Portfolio weight	Benchmark ¹ weight	Portfolio return	Benchmark ¹ return	Total effect
MercadoLibre, Inc.	2.7	0.0	128.6	0.0	1.8
TSMC	4.5	0.0	50.3	0.0	1.6
Lonza Group AG	2.2	0.2	82.3	82.3	1.2
GEA Group Aktiengesellschaft	2.3	0.0	46.6	46.6	1.0
ASML Holding NV	2.7	0.7	58.2	58.2	1.0
Roche Holding AG	3.1	1.2	31.5	31.5	1.0
Ocado Group PLC	1.0	0.1	76.7	76.7	0.9
Vestas Wind Systems A/S	2.1	0.1	57.4	57.4	0.8
SMC Corporation	1.9	0.1	42.9	42.9	0.8
Tencent Holdings Ltd.	3.7	1.9	46.9	46.9	0.8

Top 10 detractors	Portfolio weight	Benchmark ¹ weight	Portfolio return	Benchmark return	Total effect
Whitbread PLC	1.2	0.0	-37.8	-37.8	-0.8
Erste Group Bank	1.1	0.0	-38.1	-38.1	-0.7
Zee Entertainment Enterprises	0.0	0.0	-18.7	-64.7	-0.7
Banco Bilbao Vizcaya Argentaria, S.A.	1.1	0.1	-35.3	-35.3	-0.7
Compagnie Financiere Richemont SA	1.4	0.2	-26.7	-26.7	-0.6
Burberry Group	1.0	0.0	-34.3	-40.3	-0.5
HDFC Bank Limited	1.4	0.0	-24.3	0.0	-0.4
Norsk Hydro ASA	0.0	0.0	-38.3	-19.2	-0.4
Shopify, Inc. Class A	0.0	0.5	0.0	220.2	-0.4
Oversea-Chinese Banking	0.0	0.1	-22.0	-21.7	-0.4

Past performance is not a guide to future performance and may not be repeated. The value of investment can go down as well as up and is not guaranteed. The return may increase or decrease as a result of currency fluctuations. Stocks mentioned are shown for illustrative purposes only and should not be viewed as a recommendation to buy/sell.

Source: FactSet, USD, Gross. ¹MSCI AC World ex US

Recent stock transactions

Significant new buys and sells since 31 December 2019 to 31 July 2020

Buys		Weight (%) 07/31/2020
Iberdrola	Utilities	2.4
Canadian National Railway	Industrials	1.7
Alcon	Health Care	1.6
Royal Dutch Shell	Energy	1.6
Allianz SE	Financials	1.6
Equinor ASA	Energy	1.4
National Grid plc	Utilities	1.3
Lindt & Spruengli	Consumer Staples	1.2
Intesa Sanpaolo	Financials	1.1
Sika AG	Materials	1.1

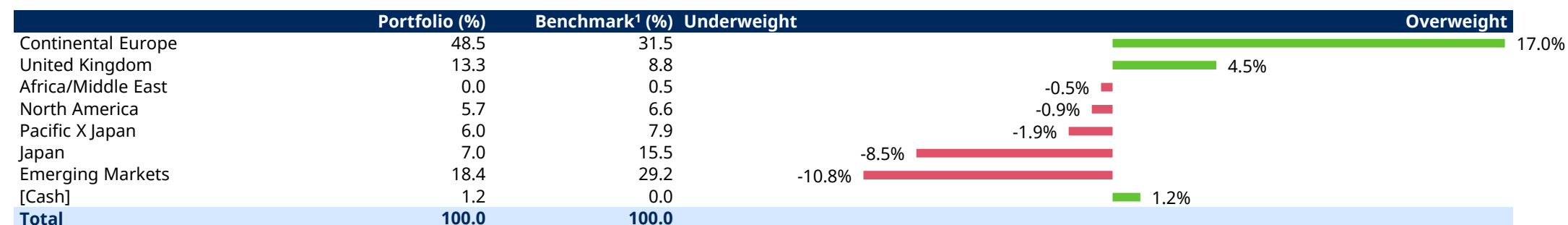
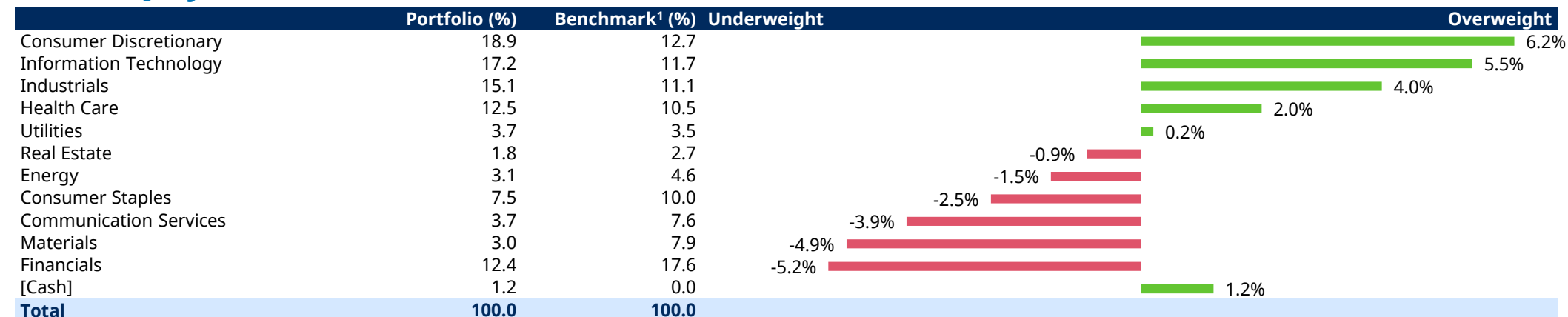
Sells		Weight (%) 31/12/2019
Total SE	Energy	3.0
Nintendo Co Ltd	Communication Services	1.8
Oversea-Chinese Bk	Financials	1.7
Lloyds Banking	Financials	1.7
Schindler Holding	Industrials	1.6
EssilorLuxottica	Consumer Discretionary	1.6
Bridgestone	Consumer Discretionary	1.5
Norsk Hydro ASA	Materials	1.4
B3 SA	Financials	1.3
China Pacific Insurance	Financials	1.2

Securities mentioned are shown for illustrative purposes only and should not be viewed as a recommendation to buy/sell. The value of an investment can go down as well as up and is not guaranteed. Information is subject to change at any time and does not necessarily represent current portfolio construction. No offer for sale of a security is intended by this illustration.

Sector and region positions

Schroders International Alpha

As at 31 July 2020



Source: Schroders, FactSet. ¹MSCI All Country World Ex-United States

The accounting data used by FactSet is un-audited, therefore any subsequent cleaning of data will not be reflected in FactSet.

The sectors, securities, regions and countries shown above are for illustrative purposes only and are not to be considered a recommendation to buy or sell.

Top 10 holdings by absolute weight

Schroders International Alpha

As at 31 July 2020

Stock	Region	Sector	Portfolio weight (%)	Benchmark ¹ weight (%)	Active weight (%)
TSMC	Emerging Markets	Information Technology	4.5	1.7	+2.8
Alibaba Group	Emerging Markets	Consumer Discretionary	4.2	2.2	+2.0
Tencent	Emerging Markets	Communication Services	3.7	1.9	+1.8
SAP	Continental Europe	Information Technology	3.2	0.8	+2.4
Roche	Continental Europe	Health Care	3.1	1.2	+1.9
Samsung Electronics	Emerging Markets	Information Technology	3.0	1.3	+1.8
Nestle	Continental Europe	Consumer Staples	3.0	1.7	+1.3
Mercadolibre Inc	North America	Consumer Discretionary	2.7	0.0	+2.7
ASML	Continental Europe	Information Technology	2.7	0.7	+2.0
Iberdrola Sa	Continental Europe	Utilities	2.4	0.4	+2.0
Total			32.4	11.8	

Source: Schroders, FactSet. ¹MSCI All Country World Ex-United States.

The accounting data used by FactSet is un-audited, therefore any subsequent cleaning of data will not be reflected in FactSet.

The sectors, securities, regions and countries shown above are for illustrative purposes only and are not to be considered a recommendation to buy or sell

Schroders International Alpha

As at 31 July 2020

Consumer										
Discretionary	Consumer Staples	Energy	Financials	Health Care	Industrials	IT	Materials	Com Services	Real Estate	Utilities
Adidas	Lindt & Spruengli	Equinor	AIA Group	Alcon	Bunzl	ASML	BHP Group	Tencent Holdings	Deutsche Wohnen	Iberdrola
Alibaba	Diageo	Royal Dutch Shell	Allianz	GlaxoSmithKline	Canadian National Railway	Infineon Tech	Sika			National Grid
BMW	Nestle		BBVA	Philips	GEA Group	MercadoLibre				
Booking Holdings	Raia Drogasil		DNB	Lonza Group	Knorr-Bremse	Samsung				
Burberry			Erste Group Bank	Roche Holding	Recruit	SAP				
Richemont SA			HDFC Bank	Takeda Pharma	Schneider Electric	TSMC				
Continental			HK Exchanges		SMC Corp	Xero				
Ocado			Intesa Sanpaolo		Vestas Wind Systems					
Sony Corp										
Whitbread										

Orange text indicates a Core holding, Blue an Opportunistic holding.

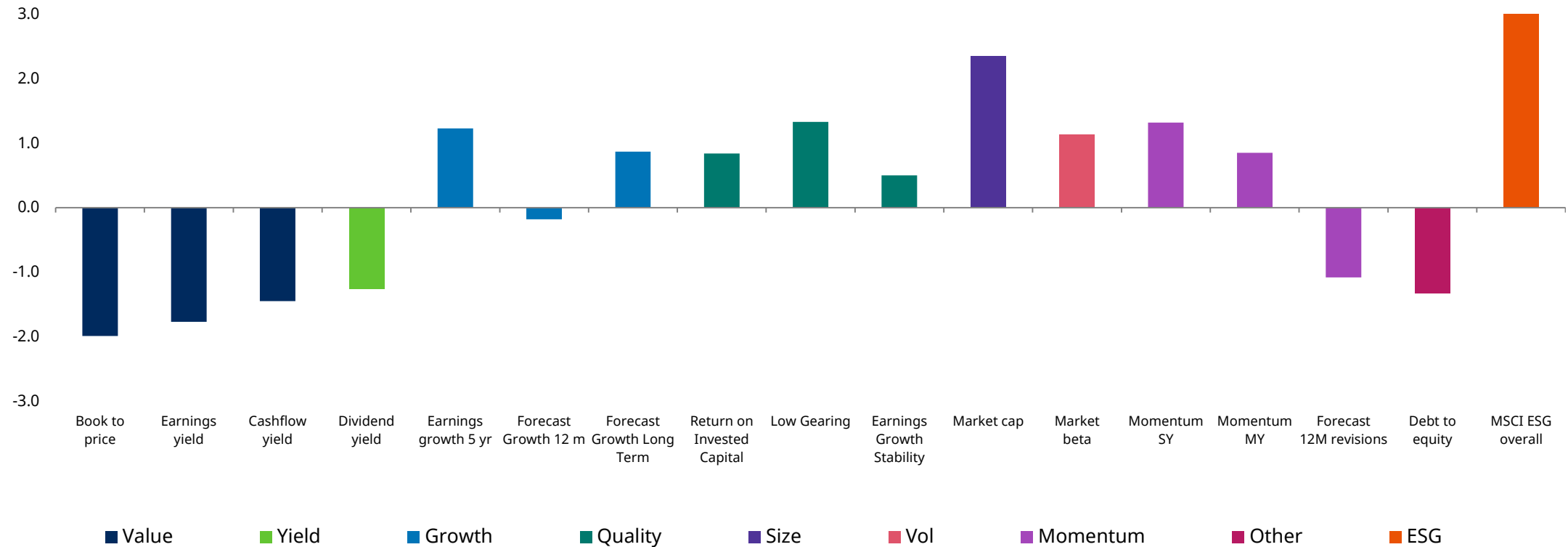
Source: Schroders. Securities shown are for illustrative purposes only and should not be viewed as a recommendation to buy or sell.

Schroders International Alpha

Positive tilt to quality growth

Portfolio style skyline – CIT Schroders Intl Alpha

Style Tilt™



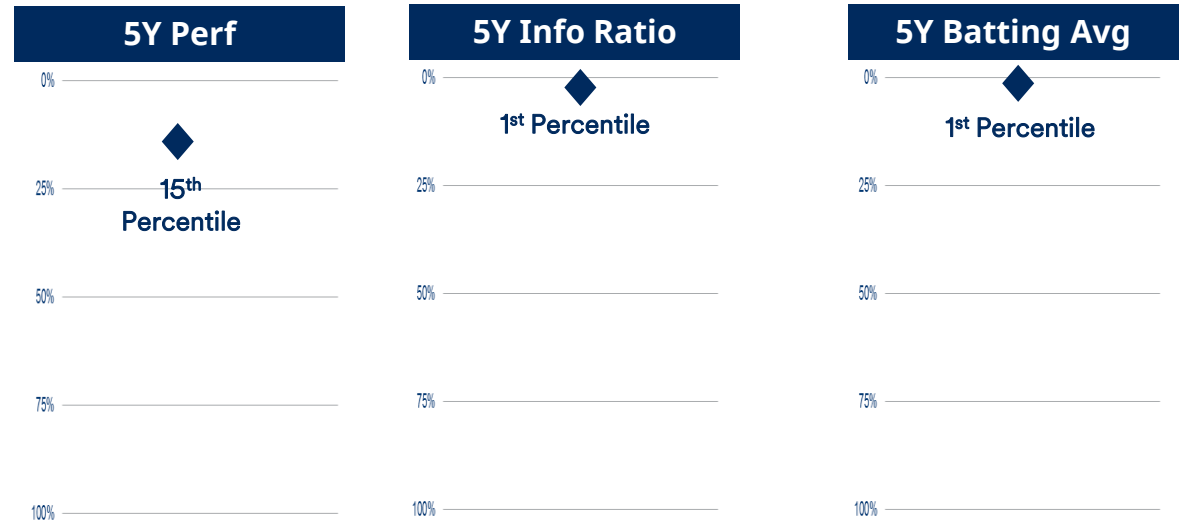
Past Performance is not a guide to future performance and may not be repeated.

Source: Style Research, Schroders, Skyline represents style factor exposures for a representative International Alpha portfolio versus MSCI AC World ex US as of 30 June 2020.

Performance rankings

Strong risk-adjusted returns and consistency

International Alpha (ACWI ex-US) strategy



Vs eVestment Non-US Diversified Large Cap Equity	5Y Perf	5Y Info Ratio	5Y Batting Average
25 th percentile	5.0	0.7	0.6
Median	3.0	0.2	0.5
75 th percentile	1.3	-0.2	0.5
International Alpha (ACWI ex US)	6.7	1.4	0.7
Number of strategies	294		

Performance shown is past performance. Past performance is not a guide to future performance. The value of investment can go down as well as up and is not guaranteed.

Source: Schroders, eVestment. As of June 30, 2020. Performance is based on monthly returns for the strategy composite gross of fees in USD versus the MSCI ACWI ex-US (NR) Index.

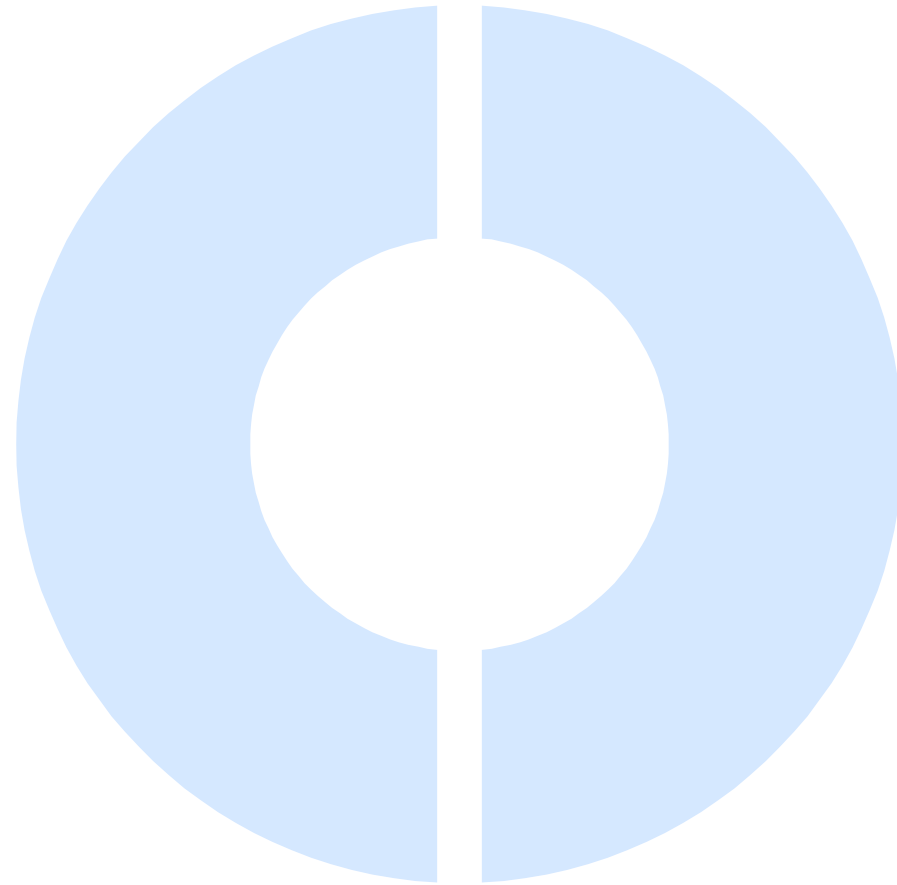
MWRA Transactions

As at 31 July 2020

	Date	Amount (US\$)
Initial Contribution	02/02/2012	17,354,622
Follow-on Contributions	02/07/2012	900,000
	07/05/2012	1,100,000
	07/27/2012	500,000
	10/05/2012	2,000,000
	02/01/2013	1,250,000
	12/22/2014	2,000,000
	02/17/2015	1,500,000
	08/04/2015	1,000,000
	11/28/2016	2,000,000
	12/27/2017	345,246
	05/06/2019	4,000,000
Subsequent Withdrawals	11/14/2013	(4,000,000)
	07/19/2017	(6,000,000)
	12/05/2017	(3,000,000)
Full Redemption (MF)	15/11/2019	(32,139,612)
	Date	Amount (US\$)
Initial Contribution (CIT)	19/11/2019	32,139,612
Follow-on Contributions (CIT)	06/05/2020	1,000,000
Market Value as at 31 July 2020		35,760,187

Source: Schroders, as at 31 July 2020.

Schroders

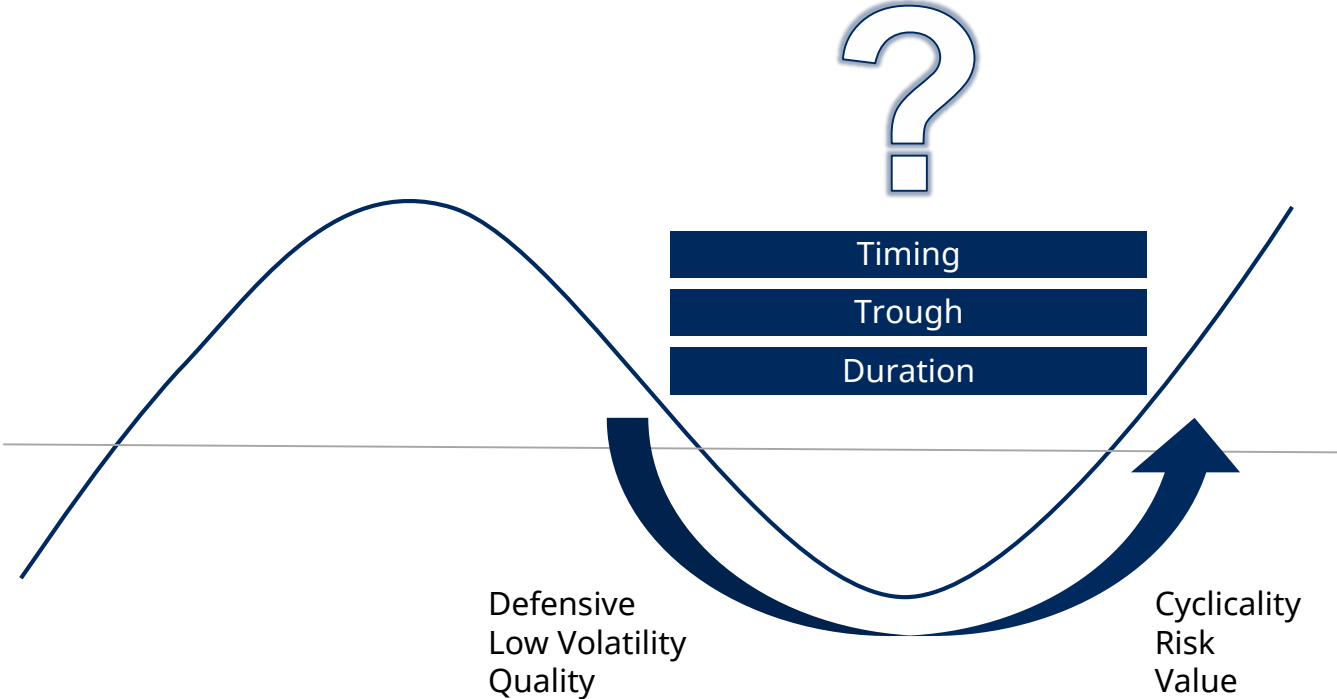


Market Outlook

Market's dilemma

The shape of the recovery

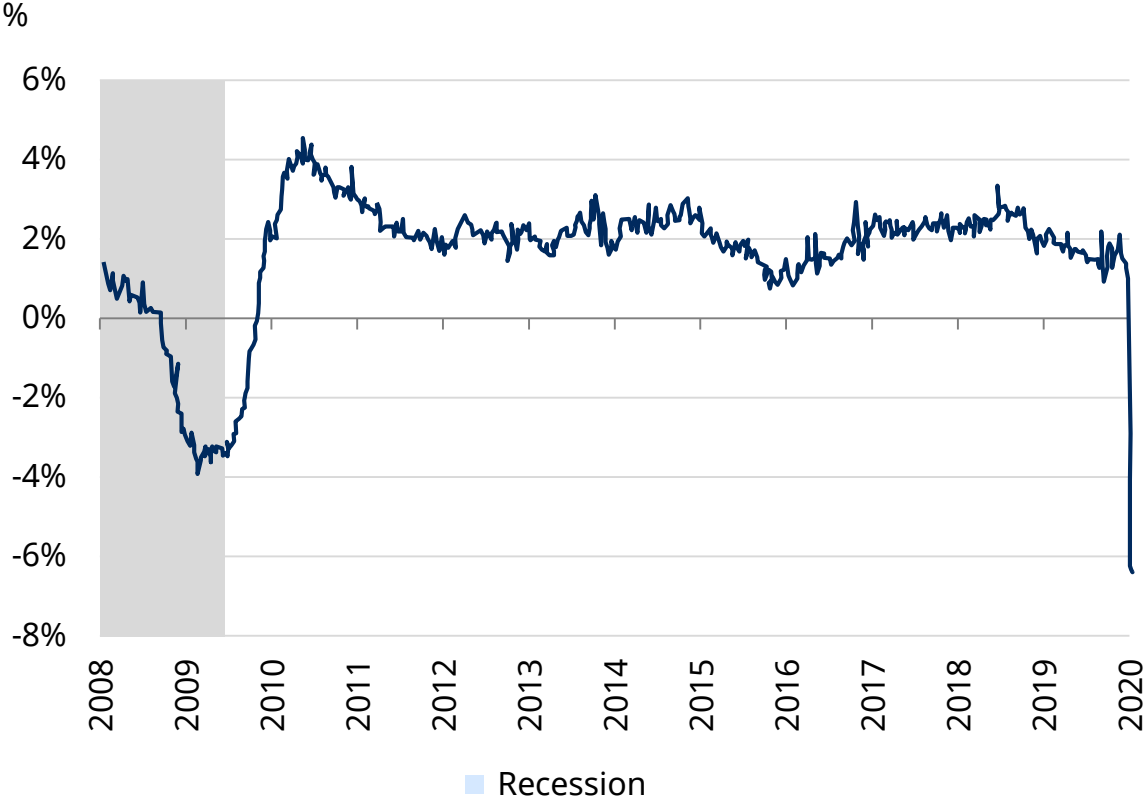
Market's dilemma – the earnings cycle



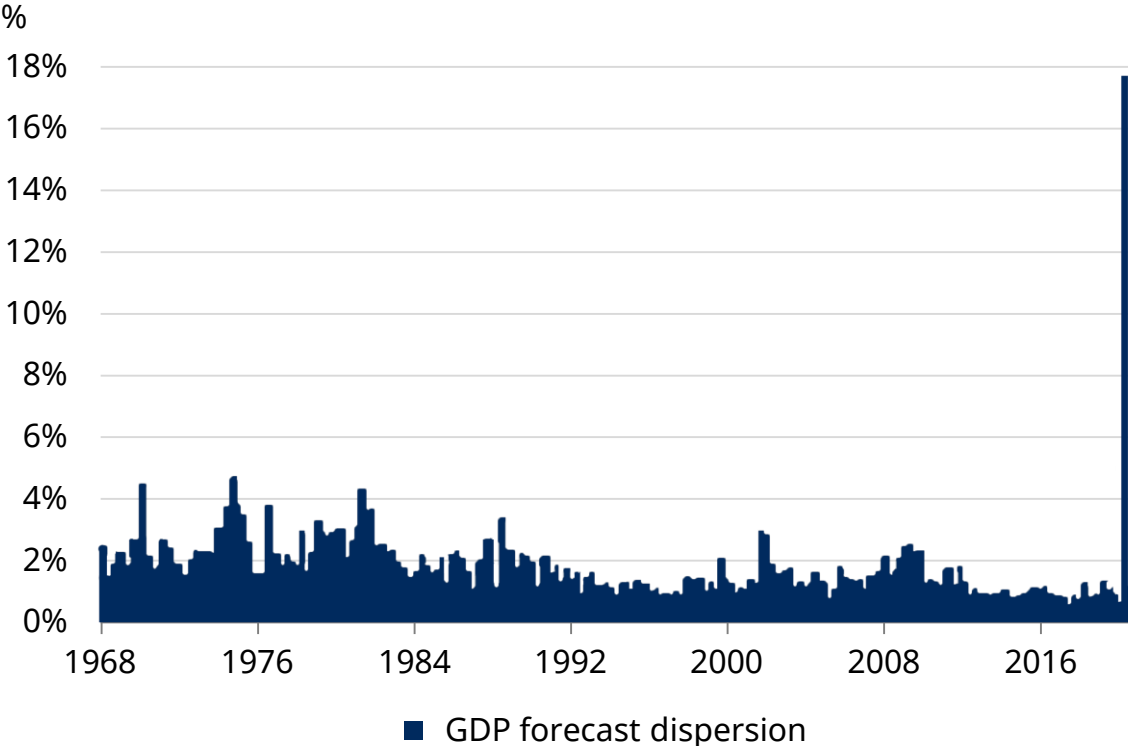
Source: Schroders. The views and forecasts contained herein are those of the Global and International Equity team and are subject to change.

Unprecedented times

Weekly real economic activity¹



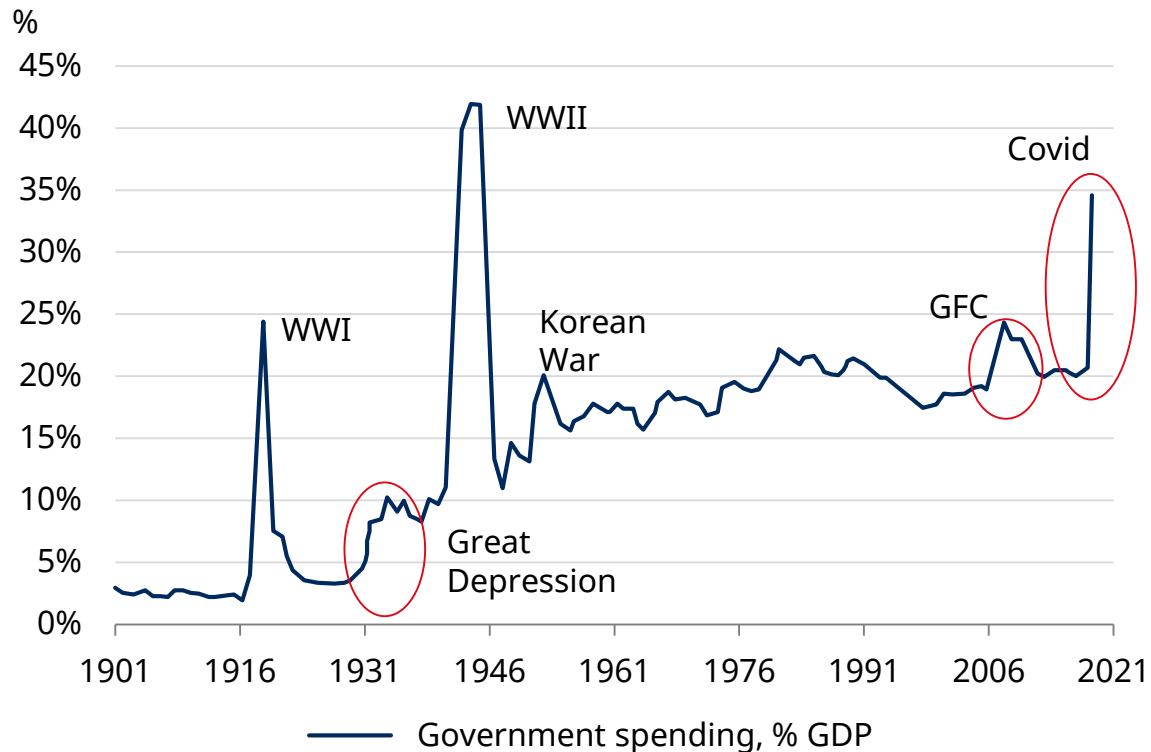
Macroeconomic uncertainty – the highest in modern history²



Source: ¹Daniel Lewis, Karl Mertens and Jim Stock 2020' Monitoring Real Activity in Real Time: The Weekly Economic Index. Federal Reserve Bank of New York Liberty Street Economics 30 March 2020, National Bureau of Economic Research. Empirical Research. ²BofA Research Investment Committee, Philadelphia Federal Reserve, Bloomberg, April 2020.

Unprecedented fiscal response

Fiscal support has been the largest and fastest in peacetime¹



Key fiscal announcements amount to over 5% of Global GDP²

	Announced fiscal stimulus	% 2019 GDP	Weight in global GDP	Contribution to global fiscal stimulus, % GDP
US ¹	\$2.0tn	9.3%	24.8%	2.31%
China	CNY1.3tn	1.4%	16.3%	0.23%
Japan	¥102.7tn	18.4%	6.0%	1.10%
Germany ¹	€650bn	18.9%	4.5%	0.84%
UK	£90bn	4.0%	3.2%	0.13%
France	€45bn	1.9%	3.1%	0.06%
Italy	€25bn	1.4%	2.3%	0.03%
Canada	C\$30bn	3.6%	2.0%	0.07%
Korea	KRW100tn	2.6%	1.9%	0.05%
Spain	€17bn	1.4%	1.6%	0.02%
Sweden	SEK300bn	6.1%	0.5%	0.03%
Norway	NOK100bn	3.4%	0.4%	0.01%
Australia	AUD17.6bn	0.8%	1.6%	0.01%
New Zealand	NZ\$12bn	4.7%	0.2%	0.01%
India	INR1.7tn	1.2%	2.3%	0.03%
Indonesia	IDR260tn	2.5%	1.3%	0.03%
Taiwan	NT\$50-55bn	0.3%	0.7%	0.00%
Thailand	THB400bn	0.2%	0.6%	0.00%
Hong Kong	HK\$120bn	3.5%	0.4%	0.02%
Malaysia	M\$20bn	2.7%	0.4%	0.01%
Vietnam	VND80tn	1.3%	0.2%	0.00%
Singapore	S\$4bn	13.0%	0.4%	0.05%
Total			74.6%	5.04%

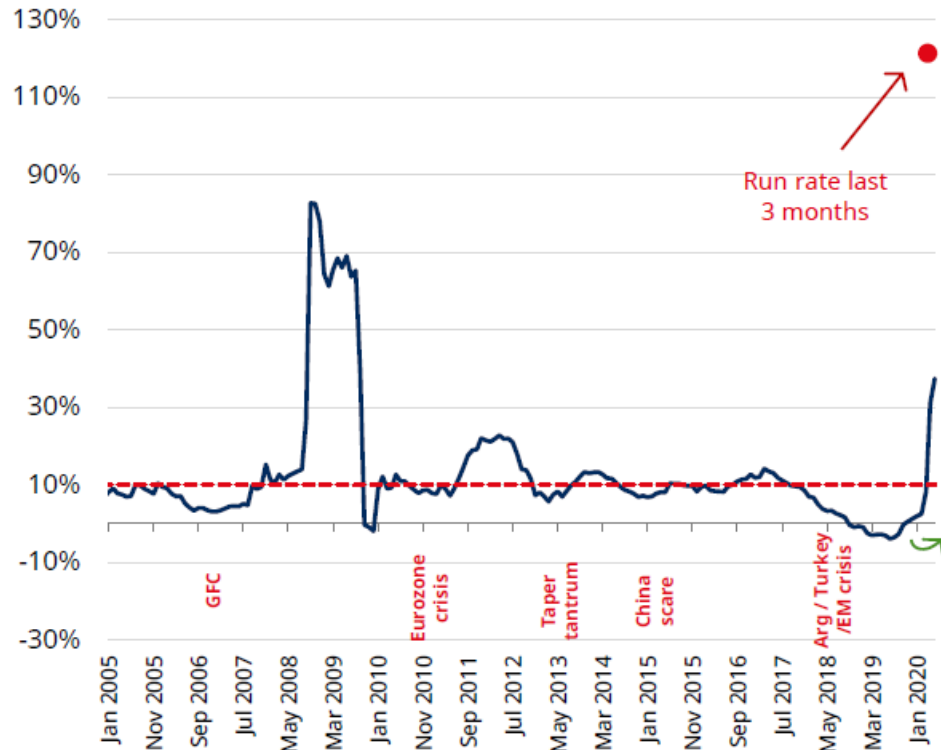
Source: ¹BofA Research Investment Committee, Global Financial Data, April 2020. Source: J.P. Morgan. ²Includes approved and under consideration amount April 2020. There is no guarantee historical trends will continue.

Central bank backstop

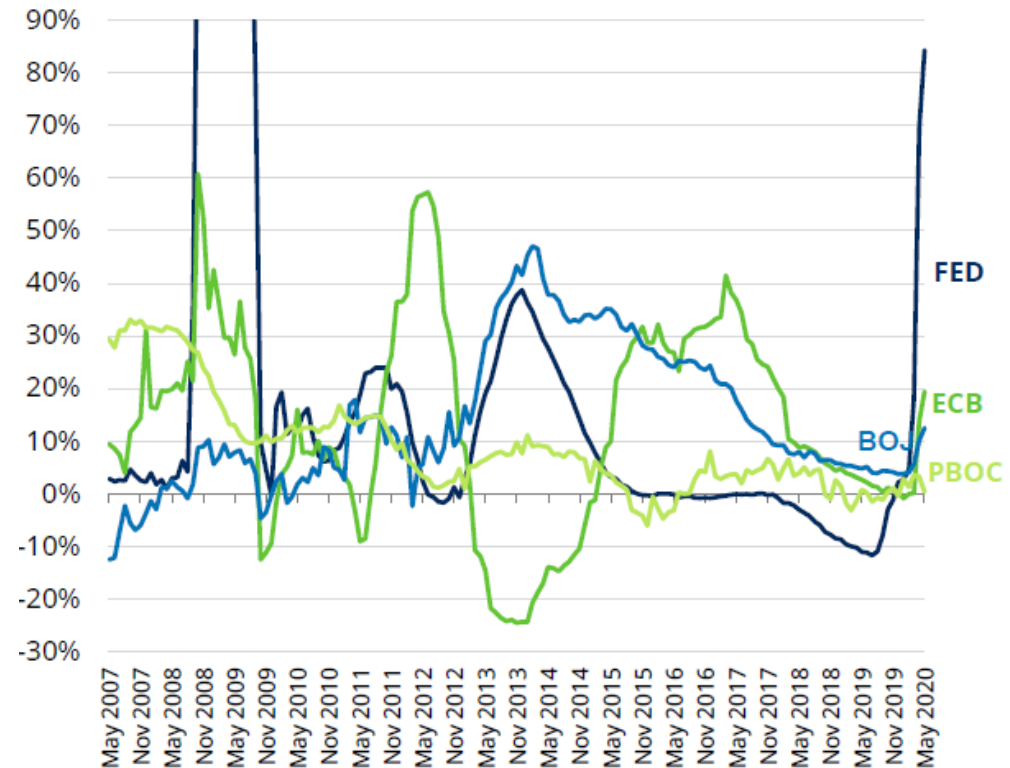
Monetary expansion and unprecedented purchase of riskier assets

Global central banks balance sheets

Annual growth (GDP weighted)



Expected 12M growth - key central banks

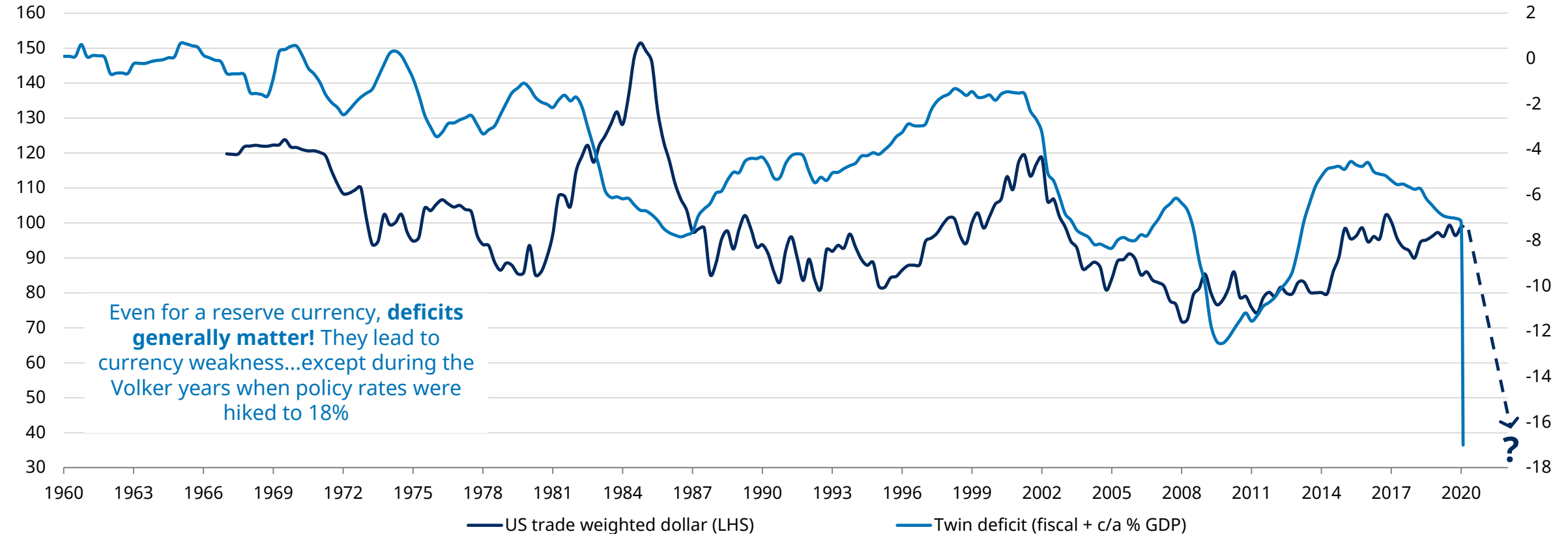


Source: Bloomberg, DataStream; Schroders - May 2020. There is no guarantee historical trends will continue or that forecast will be realized.

Tailwinds for international equities?

The US Dollar is likely to depreciate in the coming years

US dollar vs twin deficits



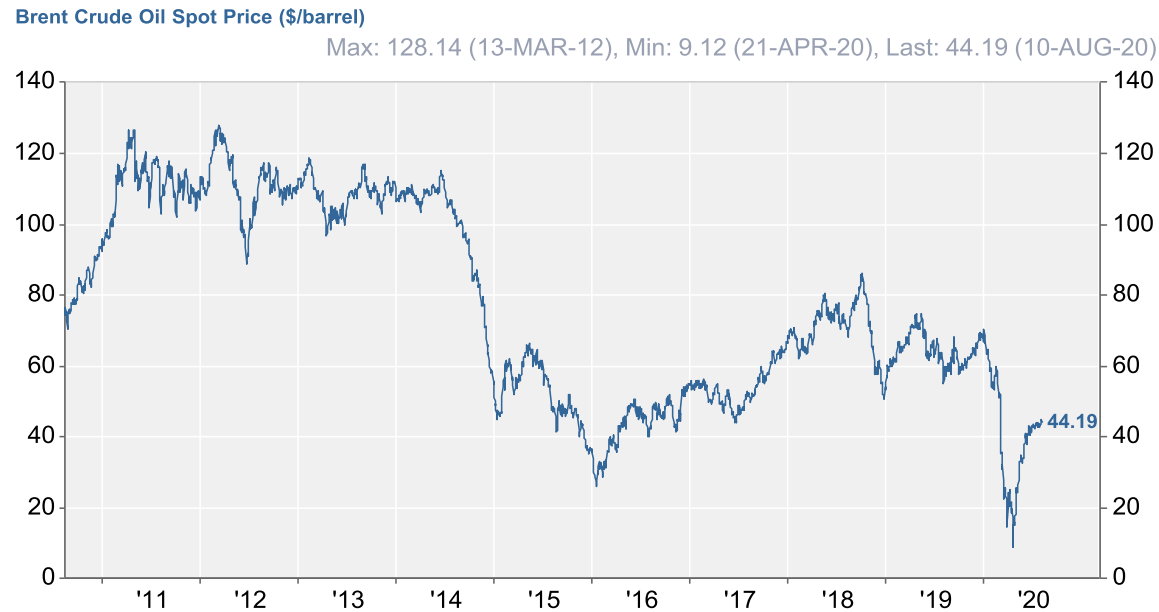
Source: Schroders, Bloomberg – 30 April 2020.

Oil price shock

No part of the oil industry works at \$30/bl

Brent Crude Oil Spot Price¹

(\$/barrel)



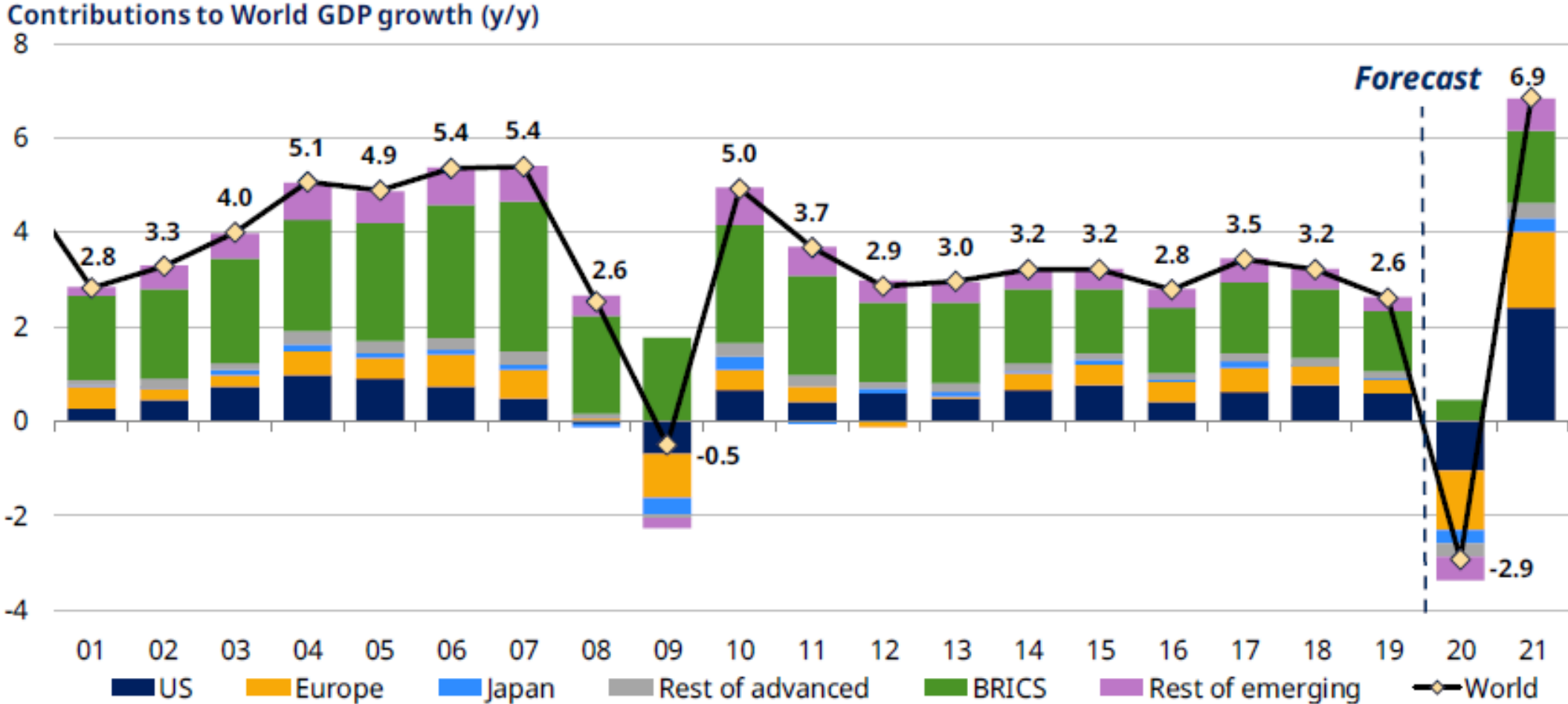
Estimated breakeven by method of production²

	Breakeven (Brent \$/bl)		
	Low	High	Median
North America LTO	30	60	39
OPEC Onshore Conventional	20	85	44
Non-OPEC Onshore Conventional	38	100	68
Bitumen/ EHO	60	90	68
Deepwater	50	130	85
OPEC Offshore	70	115	89
Arctic	70	115	89
Non-OPEC Offshore	70	140	100

Removal of supply at current prices will likely lead to significant tightening and higher prices

Source: ¹Schroders, FactSet (as of March 2020). ²Schroders estimates – July 2020.

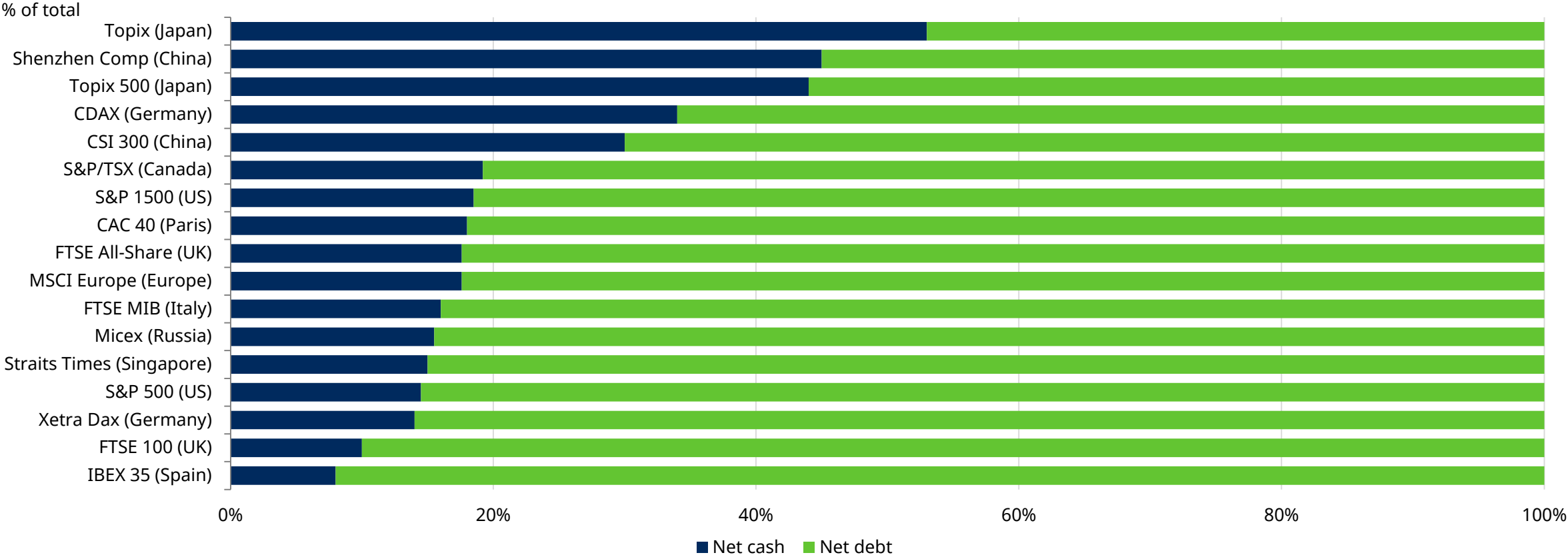
Contributions to global growth (baseline)



Source: Schroders Economic Group. As at 31 March 2020

Balance sheet strength

Asian companies well-placed relative to US and Europe



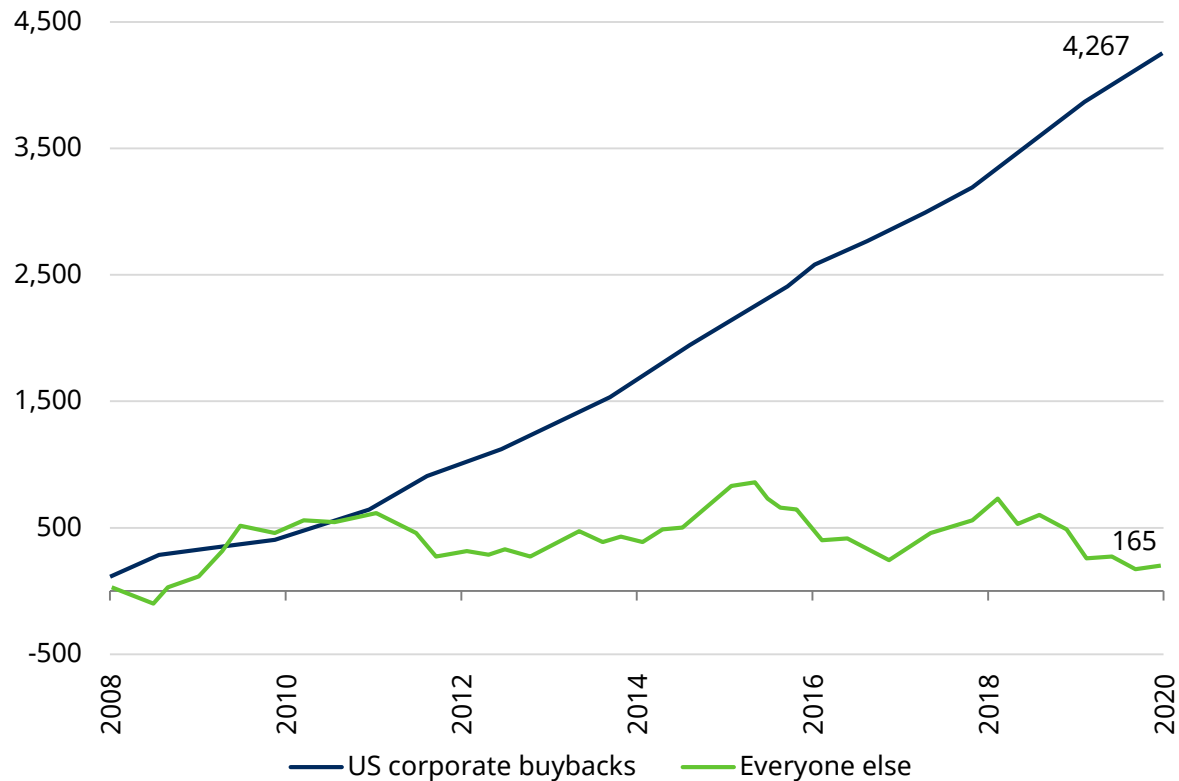
Source: FT, CLSA, FactSet.

A change in capital allocation policies

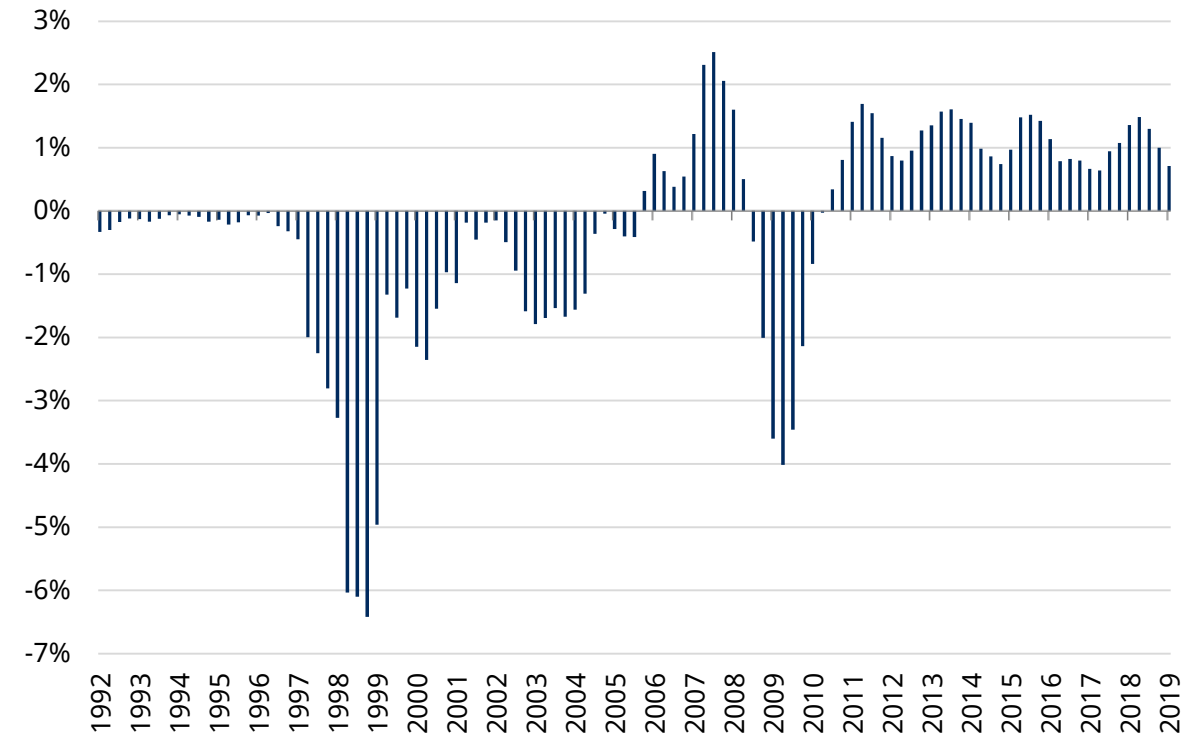
Buybacks

The end of the buyback era or just a pause?¹

US equity purchases (cumulative \$bn)



Buybacks have contributed 1–2ppt/yr to S&P EPS growth²

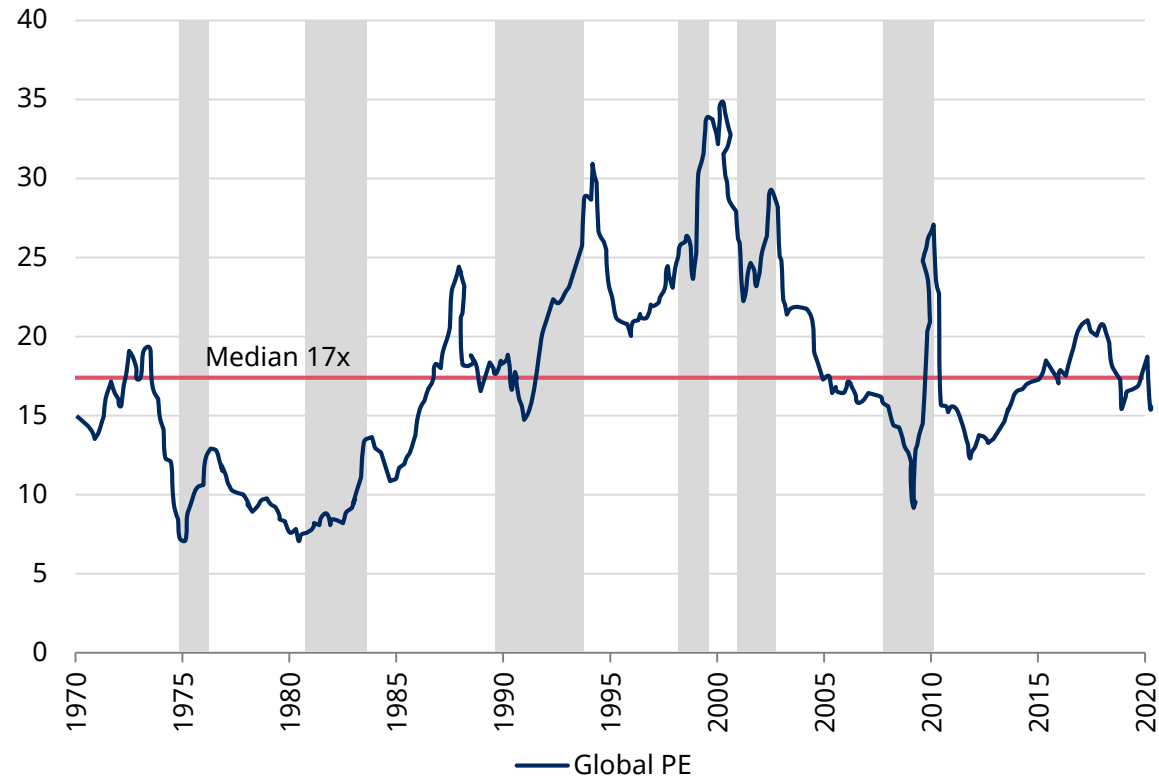


Source: ¹BofA Research Investment Committee, Haver, Federal Reserve; 'everyone else' includes households, pensions and institutions, and foreign sources, April 2020. ²FactSet, BofA US Equity & Quant Strategy, April 2020.

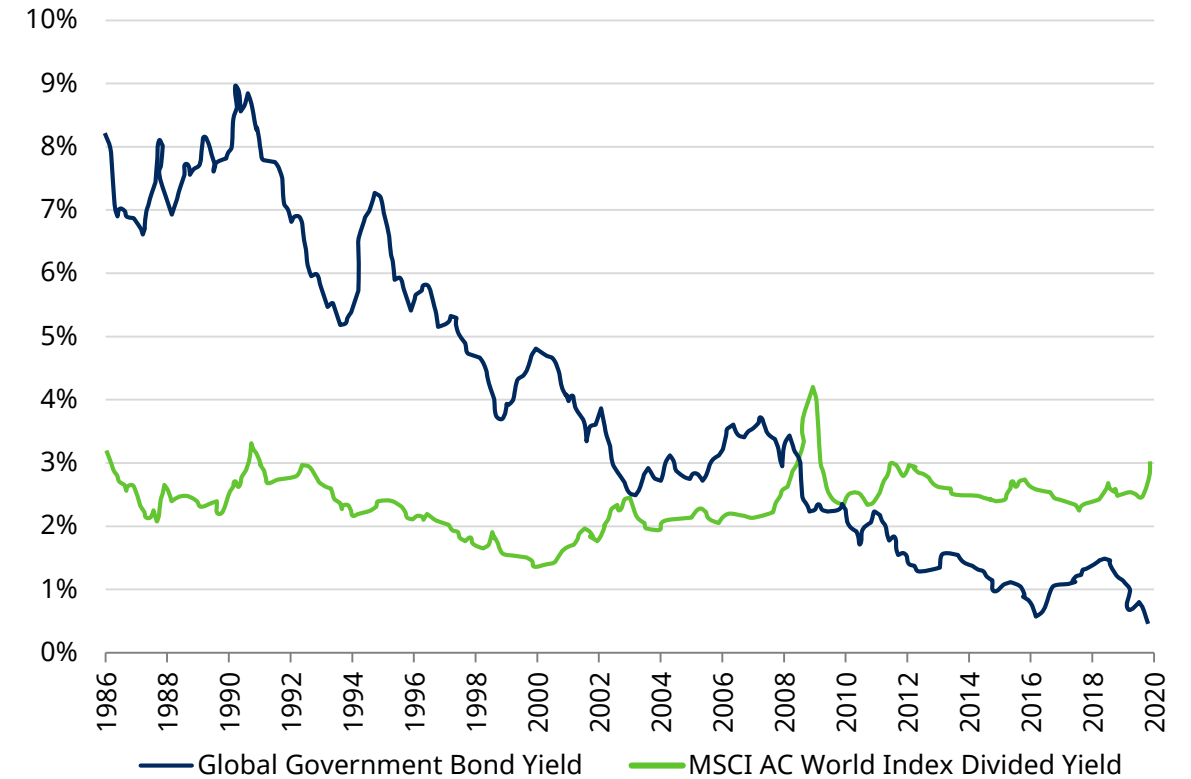
Valuations

Largely supportive

MSCI ACWI trailing PE has de-rated by 20% to 15x but likely to surge as earnings collapse



Global dividend yield well above bond yield



Source: Citi Research, DataStream, MSCI.

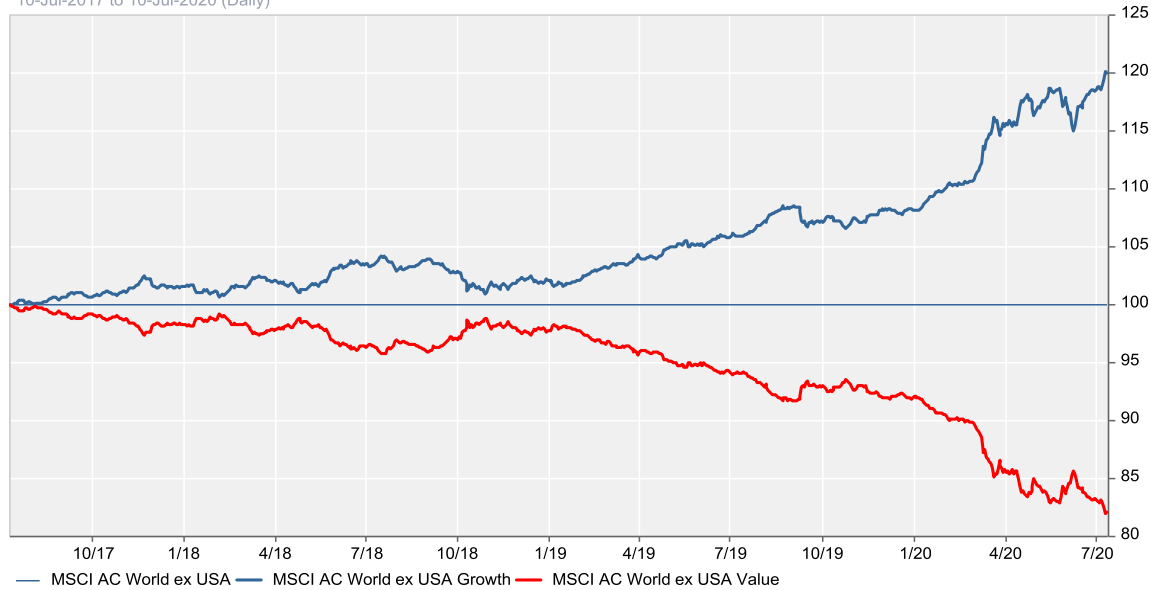
Style

Growth v Value

ACWI ex US Growth v Value – Past 3 years

Relative Strength vs. MSCI AC World ex USA

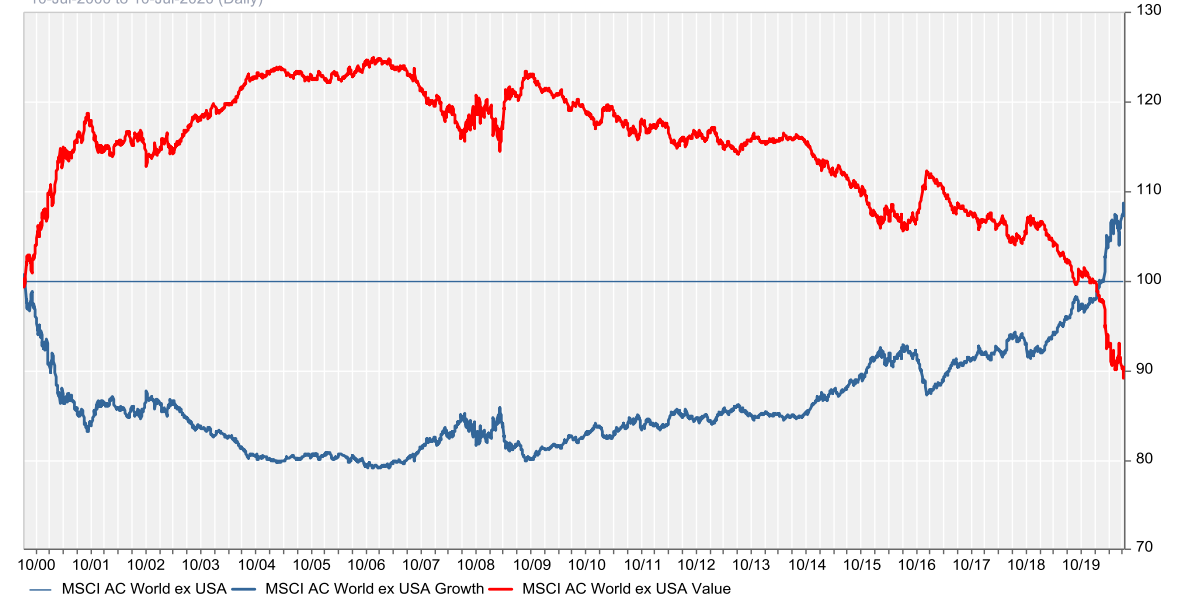
10-Jul-2017 to 10-Jul-2020 (Daily)



ACWI ex US Growth v Value – Past 20 years

Relative Strength vs. MSCI AC World ex USA

10-Jul-2000 to 10-Jul-2020 (Daily)



Performance shown is past performance. Past performance is not a guide to future performance. The value of investment can go down as well as up and is not guaranteed.

Source: Schroders, Factset as at July 10, 2020

Identifying long term investment opportunities

A wealth of powerful themes



Manufacturing



Consumption



Disruption



Sustainability



Energy transition



Healthcare



Climate change



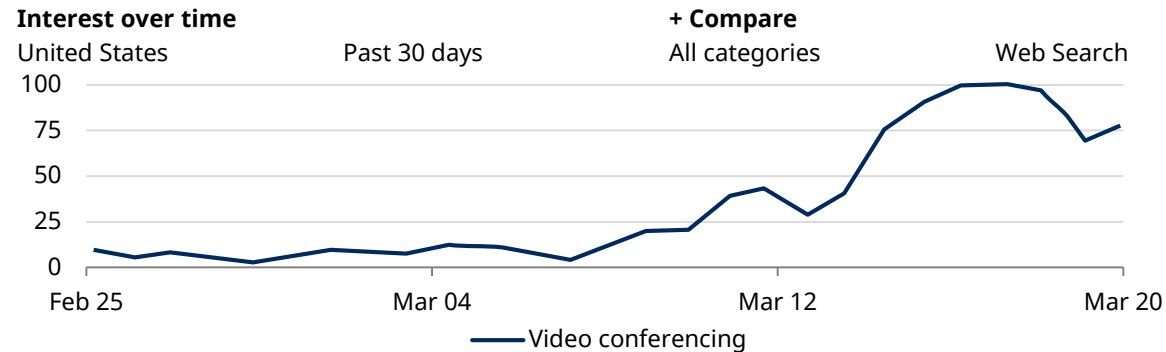
Urbanisation

Source: Schroders, as at 31 December 2019.

Social distancing

Strengthening adoption of new business models?

Google search trends for video conferencing

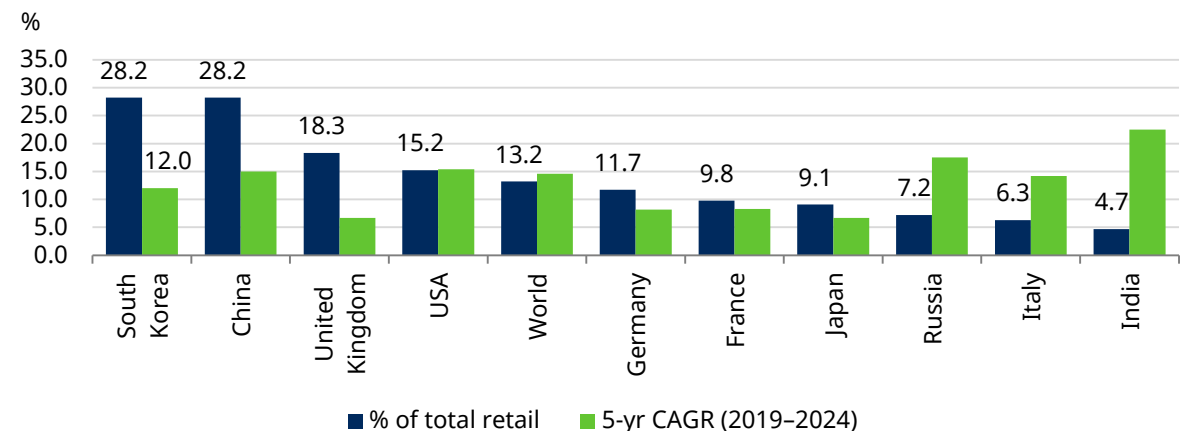


Source: Schroders, Google, CLSA, Euromonitor.

Surge in eCommerce, digital payments and cloud computing



Percentage of total retail now online by country and expected growth rate

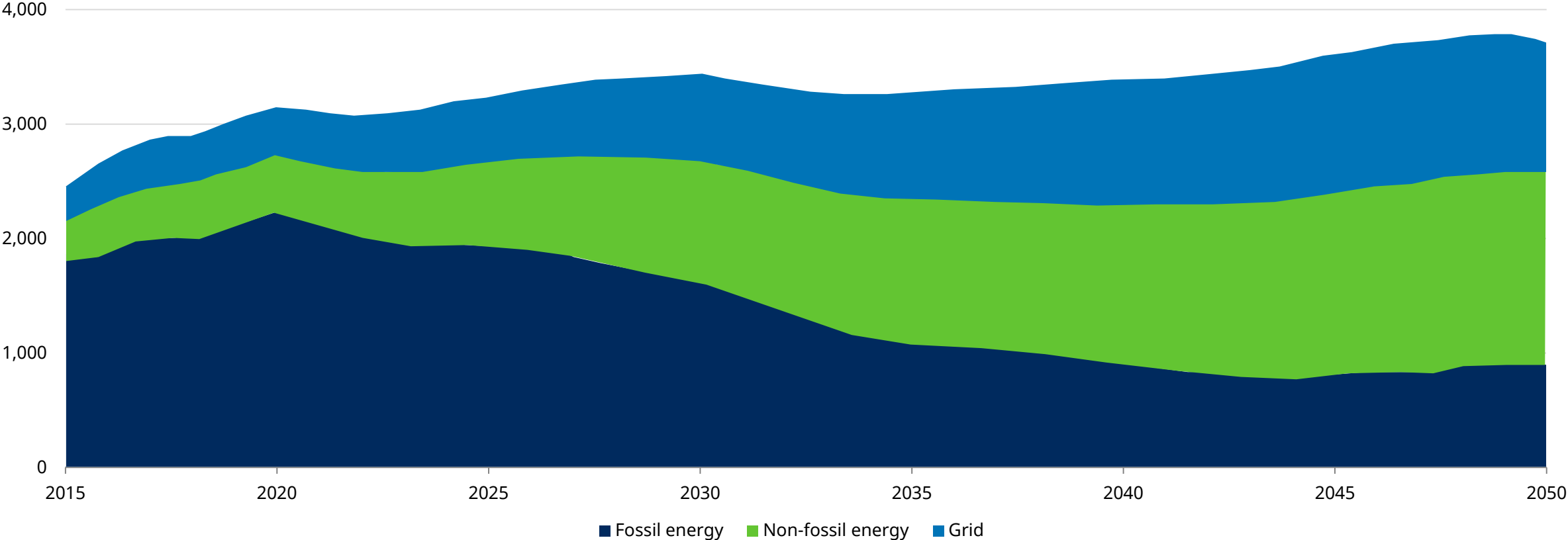


Energy transition remains intact

European green deal driving massive infrastructure spending

Shift CAPEX to renewables and grids

Units: bn\$/yr (2005 USD)



Source: UBS.



Investment philosophy and process

Investment philosophy

Focus on Un-anticipated Growth

- We seek to exploit **3 persistent inefficiencies**
 - ① Markets over-react to short term news flow
 - ② Markets extrapolate historic growth and fail to correctly interpret catalysts that change the trajectory of growth
 - ③ Markets fail to look far enough ahead when appraising the earnings power of companies
- Market inefficiencies often drive material differences between underlying company fundamentals and market estimates (the '**Growth Gap**')
- Disciplined investment in stocks which deliver positive earnings surprise can deliver consistent outperformance over time

Source: Schroders, as at 31 March 2020. For illustrative purposes only. The views and opinions contained herein are those of the Global and International Equity team and are subject to change.

The stocks we look for

Forward earnings growth not yet identified by the market – the growth gap

Core growth

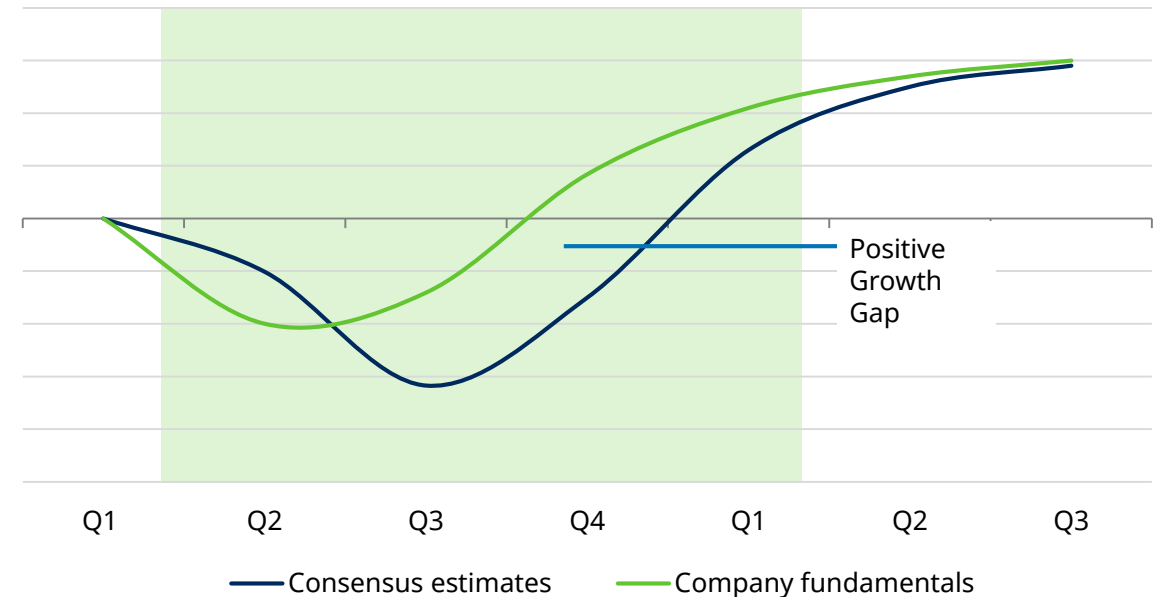
Markets often fail to look far enough ahead



- **Structural**
- **Sustainable competitive advantage**
- **Innovation**

Opportunistic growth

Consensus often fails to anticipate inflection



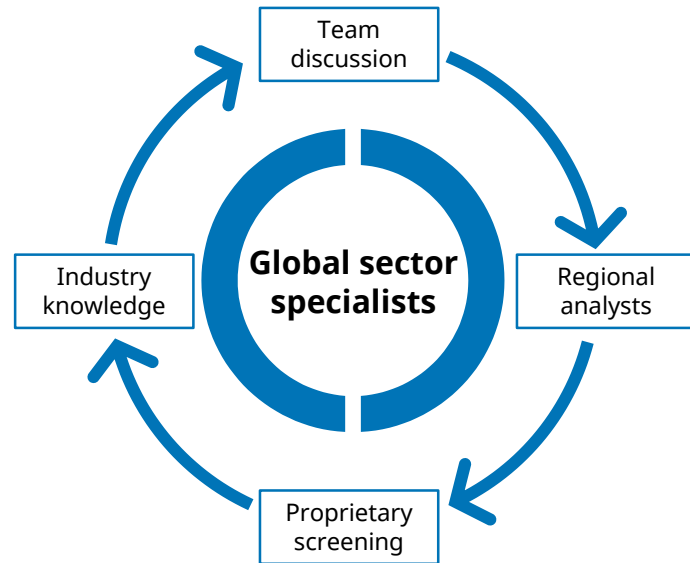
- **Cyclical**
- **Transitional growth**
- **Turnarounds/restructuring**

The 'company earnings' line in the graph represents our forecast (as opposed to the consensus estimates). The opinions stated in this presentation include some forecasted views. We believe that we are basing our expectations and beliefs on reasonable assumptions within the bounds of what we currently know. However, there is no guarantee that any forecasts or opinions will be realised. For illustrative purposes only. Past Performance is not a guide to future performance and may not be repeated.

Investment process

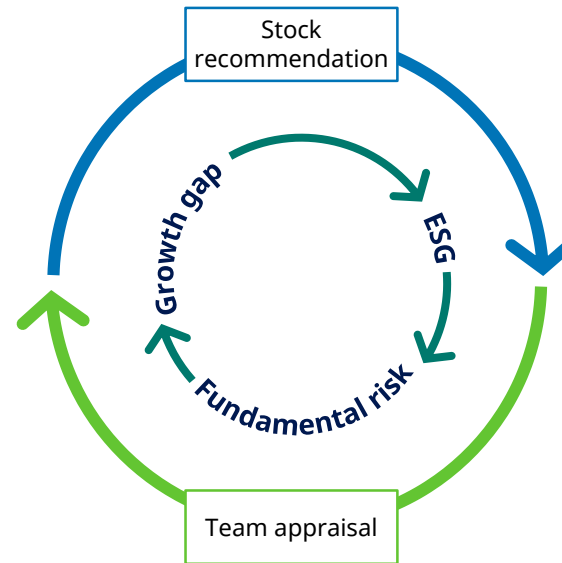
Filtering the universe to identify best ideas

Idea generation



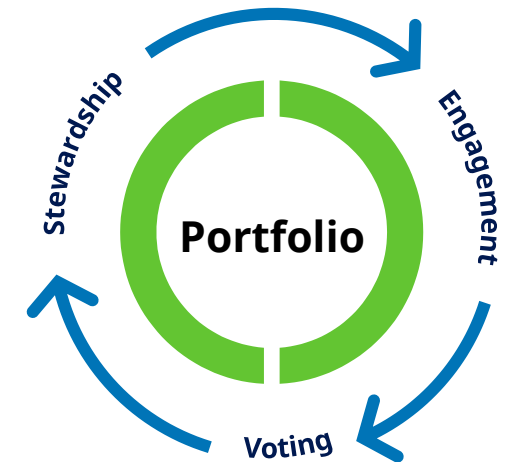
- GSS – primary source for idea generation
- Regional analysts provide local perspective
- GSS recalibrate analysis to reflect the team philosophy and approach

Stock selection



- An independent investment view
- GSS recommendation
- Team-based appraisal

Portfolio construction and risk control



- Risk adjusted return expectation
- Proprietary risk framework

Source: Schroders, as at 31 March 2020. ESG = Environmental, Social And Governance and GSS = Global Sector Specialists.

Sustainable investment

Three primary layers of ESG integration

ESG at Schroders

- Long history of responsible investment imbedded in our culture and investment process
- Supported by a well resourced team of 17 dedicated ESG Analysts
- ESG Specialists work alongside analysts and investors to identify and understand key ESG issues
- Active engagement with companies to improve their performance
 - We have achieved an impressive record of positive response to change from hundreds of companies

How ESG is integrated in the investment process



- Thematic and bespoke research
- Training for analysts and ESG research audit
- 10 proprietary tools and dashboard (Context, SustainEX, etc)
- Thorough analysis of risks and opportunities



- Fundamental risk score is a key input in determining position sizes
- ESG, management quality and transparency are primary factors for assessing quality and sustainability risk scores



- Company meetings with analysts and ESG specialists
- Requests for change and disclosure
- Partnering with other investors and interest groups to exert greater influence

An integral part of our efforts to manage and enhance our clients' investments

Source: Schroders, as at 31 March 2020. For illustrative purposes only.

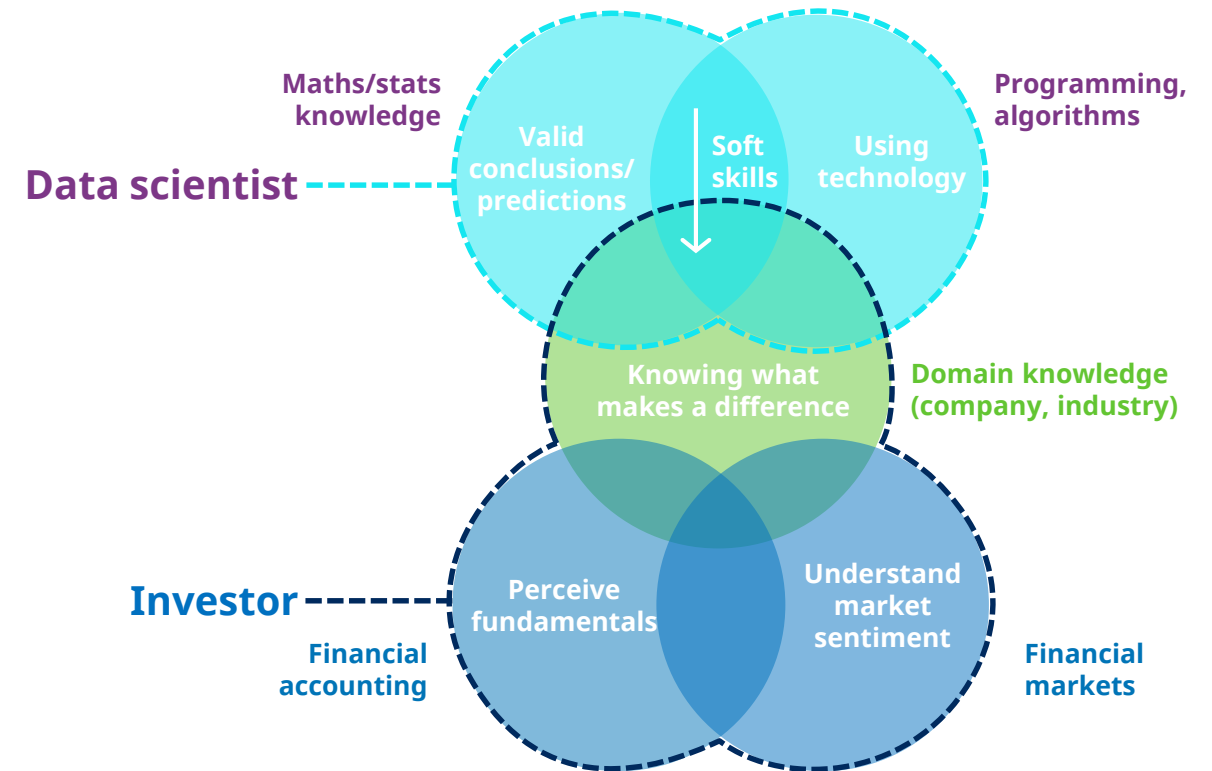
Data Insights Unit

Enabling better investment decisions

To enable analysts and PMs to make better investment decisions

- Equipping them with timely, relevant, industry-leading and usable **data**
- Servicing investors with quality **data science**, statistical rigour and engaging visualisations
- Supporting **investment process and tools**, using our position as technologists within Investment
 - Putting investment ontology + systems at heart of processes
 - Intelligent and relevant **newsflow** to investors
- **Forging connections** between investors of all asset classes and data scientists across Schroders group

Marrying skills of investors and data scientists to build the perfect team



Gain and maintain an information edge

Source: Schroders, as at 31 March 2020. The opinions stated are those of the Schroder Data Insights Unit and are subject to change.

DIU in practice: Bridgestone – sell decision

Tire price tracker to gauge industry pricing discipline

Bridgestone claims of aggressive pricing by competitors not visible in the data

Year-on-Year Price Changes

The chart below shows the average* year-on-year change in the price of tires offered by different manufacturers across different time periods. The controls on the right allow you to:

- Choose the country
- Choose the aggregation period and the date range
- Choose the size of the tires and which makes to display
- Pivot the bar chart to either group by the make or the time period

*Our average is the trimmed mean (we remove the largest 25% and smallest 25%) of the year-on-year price changes for all the individual tires that were in stock in the period of the year shown and the same period the previous year. Consequently this chart is insensitive to changes in the sample size.

Country

- China
- Continental EU
- France
- Germany
- UK
- US

Aggregation Period

- Week
- Month
- Quarter

Date Range

All values

Sizes

- All (13" - 22")
- Standard (14" - 17")
- Large (18" - 22")
- Legacy Popular
- 13"
- 14"
- 15"
- 16"
- 17"
- 18"

Makes

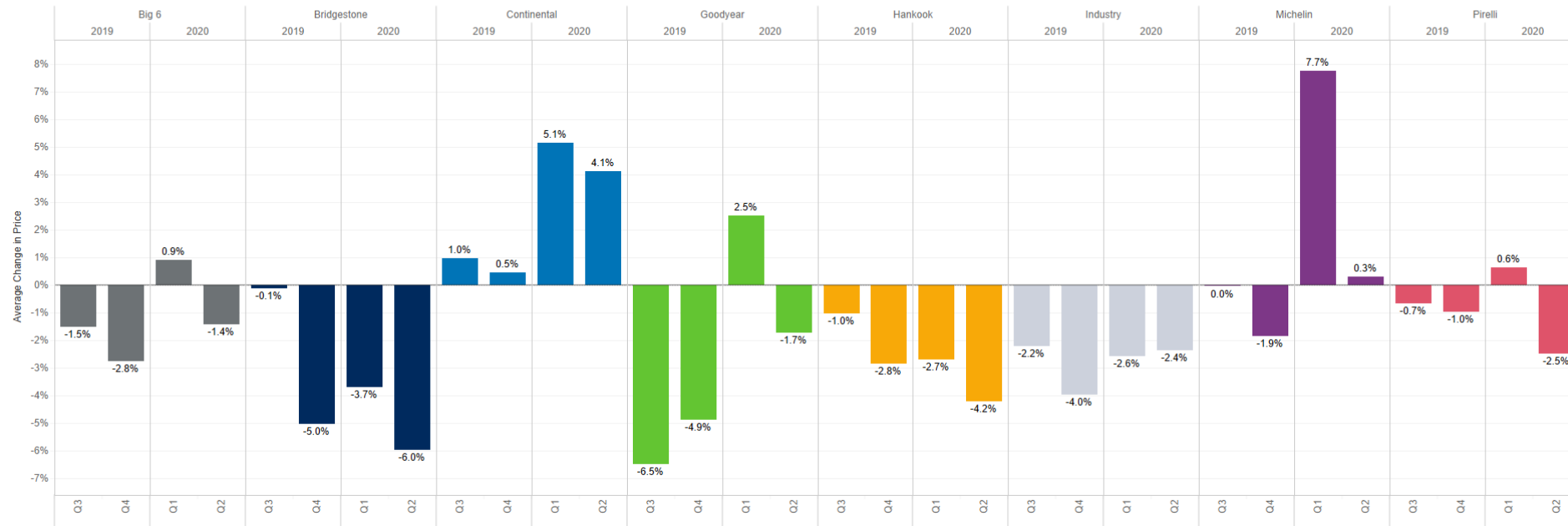
- Bridgestone
- Continental
- Goodyear
- Hankook
- Michelin
- Nokian
- Pirelli
- Big 6
- Industry

Group By (pivot)

- Make
- Period

Makes

- Bridgestone
- Continental
- Goodyear
- Hankook
- Michelin
- Pirelli
- Big 6
- Industry



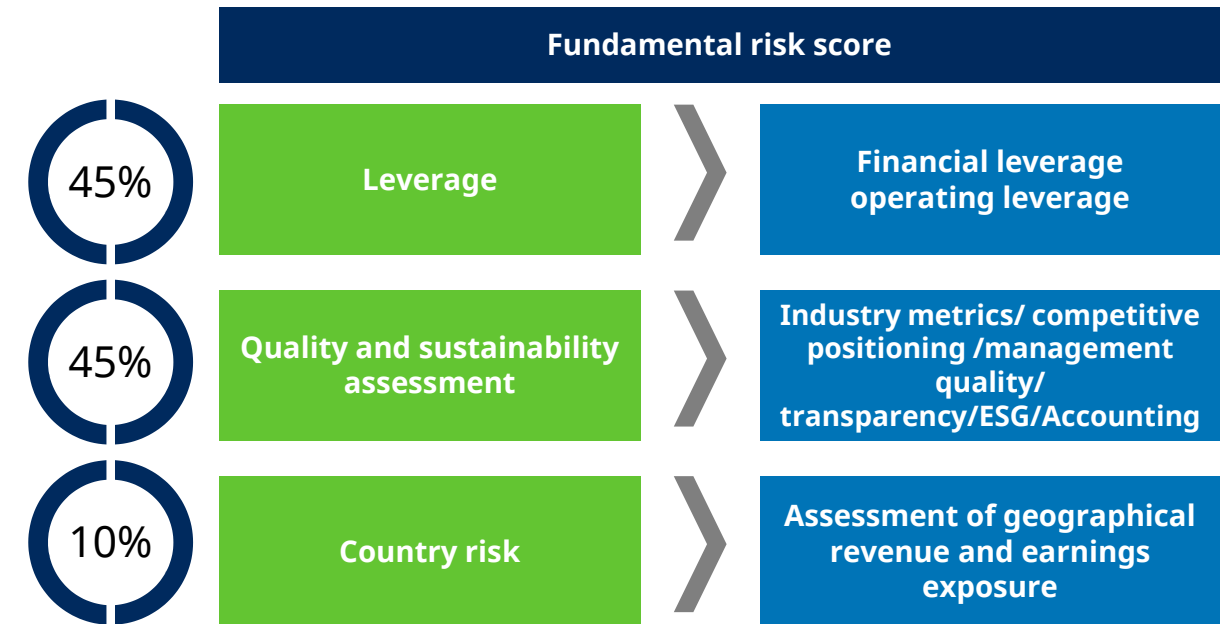
Source: Schroders Data Insights Unit June 2020. Securities shown are for illustrative purposes only and should not be viewed as a recommendation to buy or sell.

Fundamental risk

An innovative and dynamic risk framework

- A proprietary, **forward-looking** and dynamic view of risk based on GSS' assessment of company fundamentals
- All companies are scored across the same fundamental risk categories
 - Increasing consistency of risk assessment
- Risk scores provide team with:
 - A transparent and debatable view of risk
 - A useful position-sizing tool to ensure portfolio risk consistently reflects conviction

A robust risk calibration tool designed to enhance downside protection

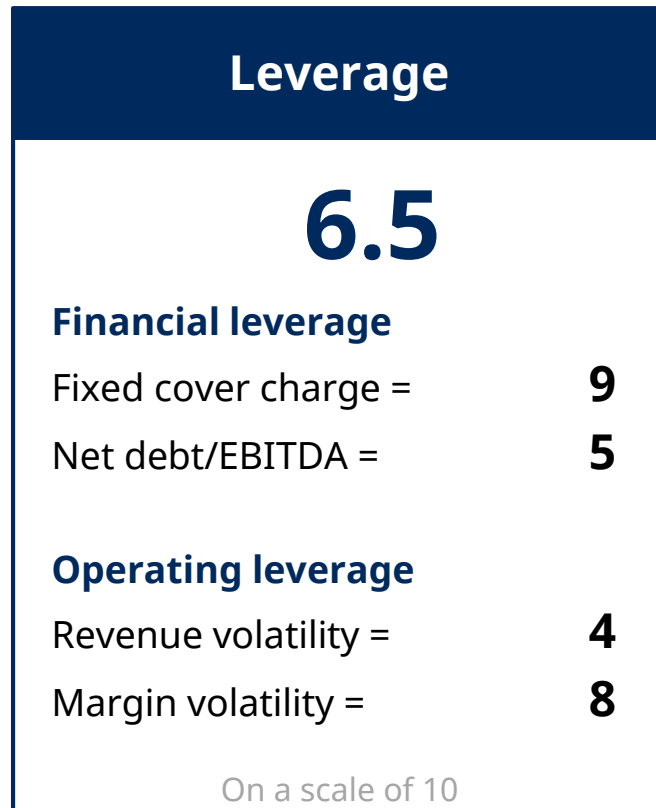


Strengthening decision making through more robust and dynamic information

Source: Schroders, as at 31 March 2020. For illustrative purposes only.

Fundamental Risk Score

Example: Ocado



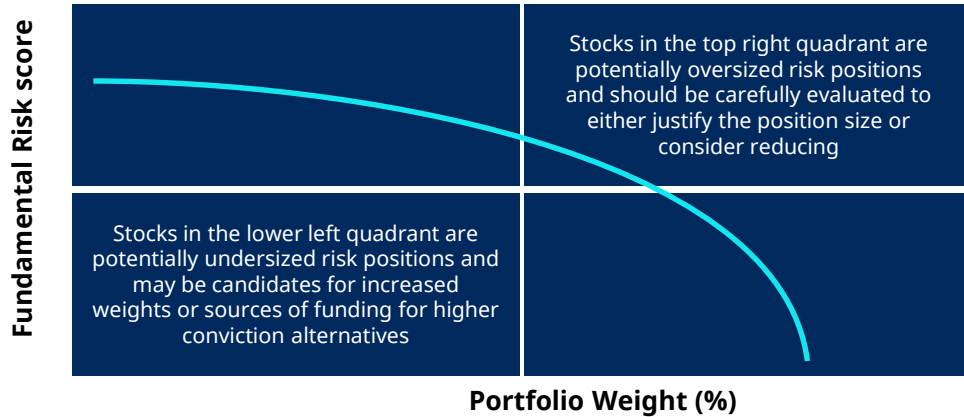
Fundamental Risk Score = 6.25 On a scale of 10

Source: Schroders, as of 31 March 2020. Fundamental Risk Score is calculated by weighted risk. Quality and Sustainability and Country risk scores are graded by the GSS on a scale of 1 to 5 and then grossed up for aggregate scoring which ranges from 0-10. The range of country risk factors are scored and then ranked by country, with the country risk score corresponding with the quintile ranking and then calculated based on the revenue and earnings mix of the company. Risk categories that receive the maximum risk score have their weight doubled to better reflect the increased tail risk. The securities shown above are for illustrative purposes only and are not to be considered a recommendation to buy/sell

Fundamental risk

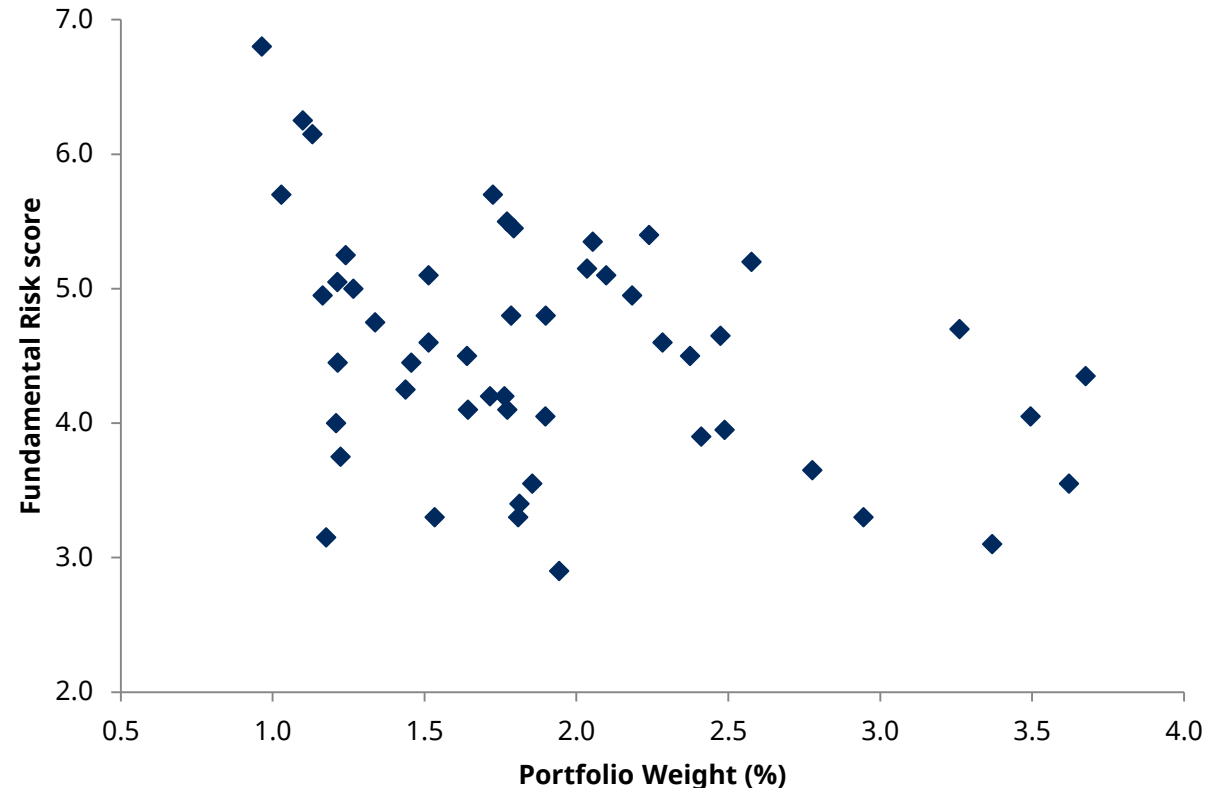
Example: International Alpha

A systematic framework to drive consistent debate



Top 10 Fundamental Risk Scores	Absolute Weight (%)	Fundamental Risk Score
Samsung SDI Co., Ltd	1.0	6.8
Ocado Group PLC	1.1	6.3
Banco Bilbao Vizcaya Argentaria, S.A.	1.1	6.2
Erste Group Bank AG	1.0	5.7
Equinor ASA	1.7	5.7
Infineon Technologies AG	1.8	5.5
BHP Group Plc	1.8	5.5
Takeda Pharmaceutical Co. Ltd.	2.2	5.4
Recruit Holdings Co., Ltd.	2.1	5.4
Whitbread PLC	1.2	5.3

Portfolio scatter plot



Source: Schroders, FactSet. As at 30 June 2020, based on a representative International Equity portfolio. For illustrative purposes only and not a recommendation to buy or sell shares. A full list of holdings will be provided upon request.

Portfolio construction

Driven by bottom-up assessment

Weights reflect risk-adjusted return expectations

Lower active weight

Lower relative upside
Higher fundamental risk
Lower liquidity

Higher active weight

High relative upside
Low fundamental risk
High liquidity

Decision-making

Co-portfolio manager structure with distinct lead focus

International Equity – Simon Webber (lead)
International Alpha – James Gautrey (lead)

Core/opportunistic holdings

Core names: 'long-term winners'

Anticipated holding period: >3 years
Expected turnover: 30%
Typical portfolio weight: 60–70%

Opportunistic names: 'tactical opportunities'

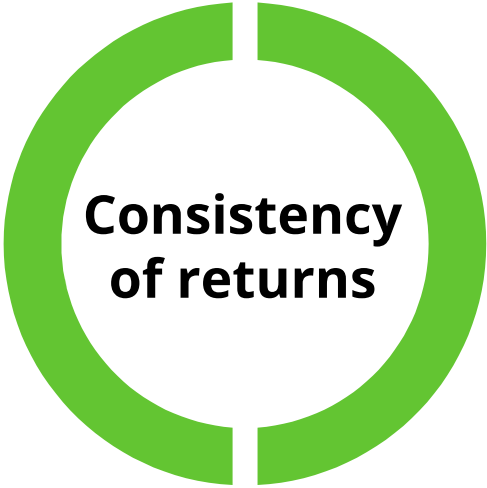
Anticipated holding period: <1 year
Expected turnover: 80–120%
Typical portfolio weight: 30–40%

Portfolio risk management

A robust multi-layered approach

Portfolio risk management

Structural	Position sizing	Factor monitoring	Performance analysis
<ul style="list-style-type: none"> - Investment objectives - Client guidelines 	<ul style="list-style-type: none"> - Volatility - Contribution to Risk 	<ul style="list-style-type: none"> - Style, industry, country, currency, characteristics 	<ul style="list-style-type: none"> - Attribution - Risk decomposition
Oversight			
<ul style="list-style-type: none"> - Independent Risk Team - Global Head of Equities 	<ul style="list-style-type: none"> - Portfolio Managers - Product Managers 		



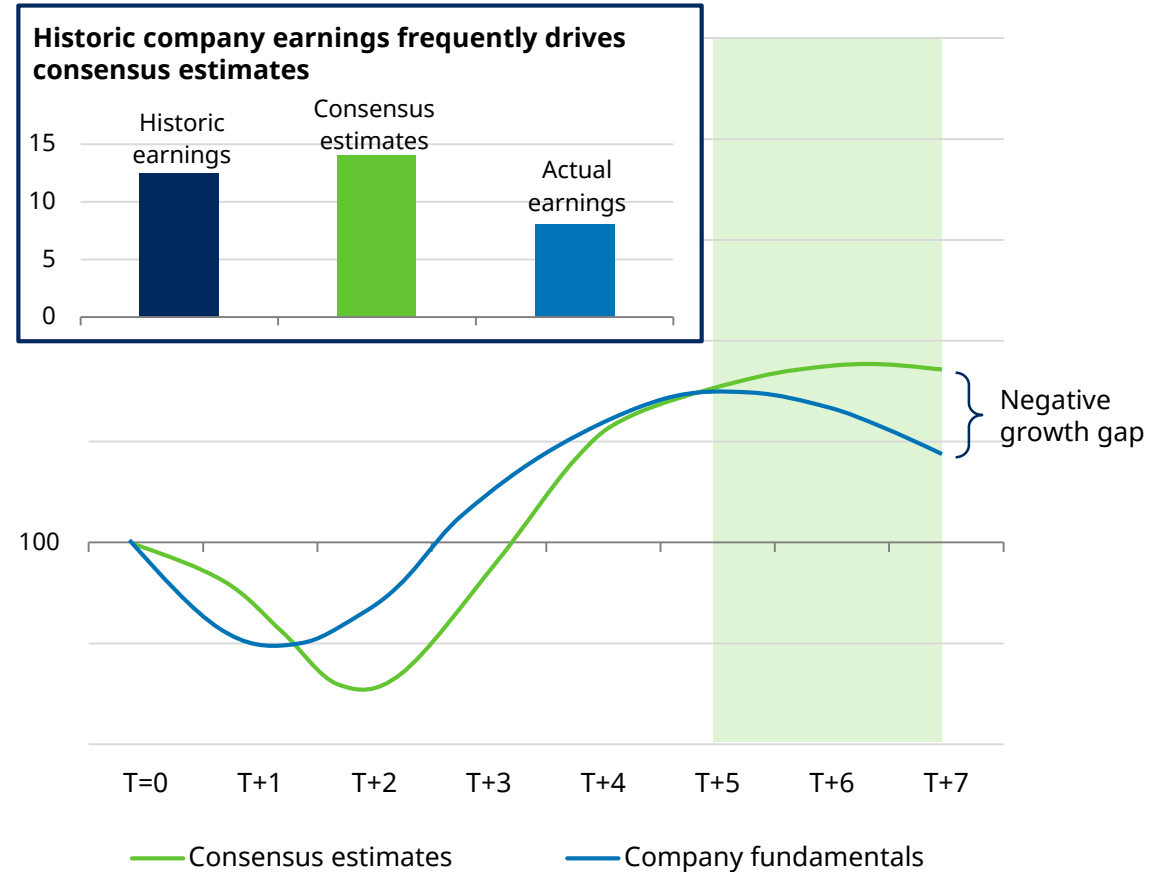
- Our understanding of portfolio drivers and risk factors is designed to drive our consistency of returns
- We utilise a pragmatic approach within a disciplined framework of continual review

Source: Schroders, as at 31 March 2020. For illustrative purposes only.

Sell discipline

The growth gap turns negative

Markets extrapolate recent growth



A holding is sold when...

- The growth gap turns 'negative'
- We identify a stock offering better risk adjusted returns
- We lose conviction in our investment thesis
- Material ESG deterioration and/or lack of engagement progress
- Valuation no longer compelling

Source: SG Equity Research, Growth: Past, expected and actual (US1985-2007). Data for Core/Growth stocks.

Schroders' proposition

A differentiated approach

- Well-resourced, highly experienced team with global perspective
- Distinctive philosophy focused on unanticipated growth
- Integration of principles of sustainability
- Innovative approach research and risk management
- A focus on seeking to enhancing consistency and downside protection through portfolio construction

The views and opinions stated in this document are those of the Schroder Global and International team and are subject to change.

Schroders



Appendix

Global Equities

Strategy assets under management

	Global (US\$m)	International (Global ex US) (US\$m)	Total (US\$m)
Equity	6,525	18,157	24,682
Alpha	3,602	4,092	7,694
US Large Cap	2,090	-	2,090
Thematic¹	3,549	-	3,549
Total	15,766	22,249	38,015

Source: Schroders, as at 30 June 2020. ¹Theme strategies are Global Climate Change, Global Sustainable Growth, Global Healthcare, Global Healthcare Innovation, Global Disruption, Changing Lifestyle and Smart Manufacturing.

Attribution – sector

Schroders International Alpha

5 years p.a. to 31 July 2020

(%)	Portfolio weight	Benchmark ¹ weight	Portfolio return	Benchmark ¹ return	Allocation	Selection	Total effect
Communication Services	3.7	7.6	8.5	2.3	-0.1	0.3	0.2
Consumer Discretionary	18.9	12.7	6.1	4.4	0.1	0.4	0.5
Consumer Staples	7.5	10.0	9.4	3.8	-0.1	0.4	0.3
Energy	3.1	4.6	3.4	-1.6	0.2	--	0.2
Financials	12.4	17.6	-1.1	-2.5	0.2	0.2	0.4
Health Care	12.5	10.5	8.6	4.0	-0.2	0.6	0.4
Industrials	15.1	11.1	11.8	3.7	0.0	1.0	1.0
Information Technology	17.2	11.7	17.2	15.5	0.6	0.2	0.8
Materials	3.0	7.9	0.2	6.7	-0.2	-0.2	-0.4
Real Estate	1.8	2.7	26.2	-0.2	0.2	0.7	0.9
Utilities	3.7	3.5	22.2	3.9	0.0	0.4	0.4
[Cash]	1.2	—	2.3		-0.2		-0.2
Total	100	100	7.1	2.4	0.7	4.0	4.7

Performance shown is past performance. Past performance is not a guide to future performance and may not be repeated. The value of investment can go down as well as up and is not guaranteed. The return may increase or decrease as a result of currency fluctuations. The value of investment can go down as well as up and is not guaranteed. Countries mentioned are shown for illustrative purposes only and should not be viewed as a recommendation to buy/sell.

Source: Schroders, USD, Gross, ¹MSCI ACWI Ex USA.

Attribution – region

Schroders International Alpha

5 years p.a. to 31 July 2020

(%)	Portfolio weight	Benchmark ¹ weight	Portfolio return	Benchmark ¹ return	Allocation	Selection	Total effect
Africa/Middle East	0.0	0.5	3.6	-6.6	-0.8	0.9	0.1
Continental Europe	48.5	31.5	5.0	2.9	0.2	1.0	1.2
Emerging Markets	18.4	29.2	16.2	6.1	-0.5	1.6	1.1
Japan	7.0	15.5	11.3	3.0	0.1	1.2	1.3
North America	5.7	6.6	11.0	3.6	-0.1	0.4	0.3
Pacific X Japan	6.0	7.9	10.0	4.1	-0.0	0.5	0.5
United Kingdom	13.3	8.8	0.6	-2.5	-0.3	0.4	0.1
[Cash]	1.2	0.0	2.3		-0.2		-0.2
Total	100	100	7.1	2.4	-1.3	6.0	4.7

Past performance is not a guide to future performance and may not be repeated. The value of investment can go down as well as up and is not guaranteed. The return may increase or decrease as a result of currency fluctuations. Regions mentioned are shown for illustrative purposes only and should not be viewed as a recommendation to buy/sell.

Source: FactSet, USD, Gross. ¹MSCI AC World ex US

Attribution – stock

Schroders International Alpha

5 years p.a. to 31 July 2020

Top 10 contributors	Portfolio weight	Benchmark ¹ weight	Portfolio return	Benchmark ¹ return	Total effect
Lonza Group AG	2.2	0.2	37.4	37.4	3.2
MercadoLibre, Inc.	2.7	0.0	128.6	0.0	1.8
ASML Holding NV	2.7	0.7	50.5	29.9	1.7
TSMC	4.5	0.0	50.3	0.0	1.6
SMC Corporation	1.9	0.1	16.3	16.3	1.5
Recruit Holdings Co., Ltd.	1.2	0.2	24.7	25.2	1.5
Alibaba Group Holding Ltd. Sponsored ADR	4.2	2.2	26.2	26.4	1.4
Ocado Group PLC	1.0	0.1	65.0	39.3	1.4
iQIYI, Inc. Sponsored ADR Class A	--	0.0	18.4	-16.3	1.3
Xero Limited	1.8	0.0	63.6	0.0	1.2

Top 10 detractors	Portfolio weight	Benchmark ¹ weight	Portfolio return	Benchmark return	Total effect
Banco Bilbao Vizcaya Argentaria, S.A.	1.1	0.1	-17.4	-17.4	-1.6
Capita plc	0.0	0.0	-53.5	-50.7	-1.5
Lloyds Banking Group plc	0.0	0.1	-22.7	-20.0	-1.2
Continental AG	1.1	0.1	-15.8	-13.8	-1.1
Erste Group Bank AG	1.1	0.0	-27.3	-3.4	-1.1
Vodafone Idea Ltd	0.0	0.0	-40.2	-49.1	-1.0
Zee Entertainment Enterprises Limited	0.0	0.0	-27.3	-21.1	-1.0
Samsung Electronics Co., Ltd.	0.0	1.1	-2.8	21.5	-0.9
Vodafone Group Plc	0.0	0.2	-20.7	-11.7	-0.8
Norsk Hydro ASA	0.0	0.0	-16.5	-3.8	-0.8

Past performance is not a guide to future performance and may not be repeated. The value of investment can go down as well as up and is not guaranteed. The return may increase or decrease as a result of currency fluctuations. Stocks mentioned are shown for illustrative purposes only and should not be viewed as a recommendation to buy/sell.

Source: FactSet, USD, Gross. ¹MSCI AC World ex US

Biographies



Simon Webber
Portfolio Manager

Simon joined Schroders in 1999, initially as a research analyst in the Global Technology Team. In 2001 he became a portfolio manager on the US Desk, specialising in technology and industrials. In 2002 he assumed analytical responsibilities for the US telecoms, media and software sectors. In 2004 he joined the Global and International Equities Team as a Global Sector Specialist and has covered multiple sectors including utilities, autos, telecoms and consumer discretionary. He became a portfolio manager for EAFE mandates in 2009 and has managed the Global Climate Change strategy since its launch in 2007. Simon is a CFA charterholder.



James Gautrey
Portfolio Manager

James joined the graduate programme at Schroders in 2001 working with senior management and client directors. From 2002 he worked as a Pan European research analyst covering technology, telecoms and support services. In 2006 he moved to the Global and International Equities team becoming a Global Sector Specialist for the technology sector, having previously also covered telecoms and autos. In 2014 James assumed Portfolio Management responsibilities for a number of the team's International Equity portfolios. James is a CFA charterholder.

Biographies



Alex Tedder

Head of Global Equities

Alex re-joined Schrodgers in July 2014 as Head of Global Equities, having commenced his investment career at Schrodgers in 1990 with responsibility for promoting European Equity mandates alongside Schrodgers' Private Equity operation. In 1994 he moved to Deutsche Asset Management Ltd, where he worked in various capacities including Managing Director and Head of International Equities/Portfolio Manager. He was lead manager of the Deutsche International Select Equity Fund (MGINX) from inception in May 1995. He also previously served as co-manager of DWS International Fund, DWS Worldwide 2004 Fund, Deutsche Global Select Equity Fund and Dean Witter European Growth Fund. Alex re-joins Schrodgers from American Century Investments in New York, where he worked from 2006 as Senior Vice President and Senior Portfolio Manager (Global and Non-US Large Cap Strategies). He was lead manager of the American Century International Growth Fund (TWIEX) from July 2006 to March 2014. A dual citizen of UK and Switzerland, Alex was educated at Winchester College (UK) and University of Freiburg/Fribourg, Switzerland, where he obtained a Masters' Degree in Economics and Business Administration.

Biographies



Frank Thormann

Portfolio Manager

Frank joined is a Portfolio Manager for Global and US Large Cap Equity portfolios. He joined in 2017 from Frankfurt-based Union Investment where he was a global portfolio manager. Having initially focused on the North American component of Union's Concentrated Global Equity portfolios, he assumed overall portfolio management responsibility for the UniFavorit Concentrated Global Equity Fund in early 2010. The fund achieved a five-star rating from Morningstar during his tenure. Before joining Union Investment in 2008, Frank worked at American Century Investments in Kansas City, USA where he was a multi-industry analyst for the American Century Ultra Fund, as well as for the AC Select Equity Fund. Frank earned his Bachelor Degree in Finance and Mathematics at Loras College, USA. He gained a Masters in Finance and International Business at the University of Missouri. Frank is a CFA Charterholder.



Charles Somers

Portfolio Manager/Global Sector Specialist

Charles is a Portfolio Manager for the Global Alpha Plus strategy, Global Sustainable Growth strategy and number of specialist institutional global equity portfolios. He also has global sector responsibility for consumer staples as one of the team's Global Sector Specialists. Charles initially joined Schroders in 1998 as a research analyst on the US desk in London. In 2001 he was seconded to Schroders' New York office, where he covered healthcare and financial stocks. He returned to London in 2002 to join the Pan European research team, taking responsibility for the consumer staples sector. In 2006 Charles left Schroders to take a position as a portfolio manager at Intrinsic Value Investors, a long-only fund management company focused on European equities. He returned to Schroders in 2008 to take the position of Global Sector Specialist for consumer discretionary and consumer staples. Charles is a CFA charterholder.



Katherine Davidson

Portfolio Manager/Global Sector Specialist

Katherine joined Schroders as a graduate on the Global and International Equities team in 2008. She is a Portfolio Manager for the team's sustainability strategies and separately has global sector responsibility for the autos and telecoms sectors as one of the team's Global Sector Specialists. Katherine is lead portfolio manager for the team's Global Sustainable Growth strategy that evolved from the Global Demographic Opportunities strategy, launched in 2010. Katherine was instrumental in the conception, launch and management of both strategies. Katherine is a CFA Charterholder.

Biographies



John Bowler

Global Sector Specialist

John joined Schroders in 2003 as the Global Sector Specialist covering the healthcare sector. He is also Portfolio Manager for the Schroder Global Healthcare Fund and has primary research responsibility for Pan-European Pharmaceuticals. His investment career commenced in 1994 when he joined Hill Samuel Asset Management in 1994 as a graduate trainee, later becoming a junior portfolio manager for UK equities. From 1997 he worked at State Street Research and Management as a portfolio manager/analyst. He joined Schroders from AXA Investment Managers, where he worked from 1998 in a global healthcare research role. He was voted top buy-side analyst for the pharmaceutical and healthcare sector in the Institutional Investor Pan European Equity survey in 2002.



Dan McFetrich

Global Sector Specialist

Dan joined the Global and International Equities team as the Global Sector Specialist for the industrials sector in April 2015. He joined us from Fidelity Worldwide Investment where he worked from 2008 as a senior industrials analyst covering both industrials and chemicals stocks. Prior to this, he worked at Dresdner Kleinwort where he covered the food retail sector from 2004. From 2001 he worked at Nomura Asset Management as a research analyst covering European consumer goods. His career commenced in 1996 when he joined Arthur Anderson as a corporate tax consultant. Dan is a CFA charterholder and a chartered accountant (ACA). He also holds an M.A. in Economics from Cambridge University.



Andre Reichel

Global Sector Specialist

Andre joined Schroders in 2011 as a graduate on the Global and International Equities team. He is a Global sector Specialist covering the financials sector, whilst also covering utilities and real estate. He joined the team as an equity analyst covering emerging markets and selected developed market companies within the financials sector, including Asian, Latin American and European banks, insurance firms, real estate companies and diversified financials. Prior to joining Schroders, he worked as a strategy consultant at Meritco in Shanghai. In this role, he engaged in commercial due diligence for investors, conducting financial modelling and analysis of the competitive landscape for projects in the pharmaceutical, chemical, construction and retail industries. Andre is a CFA charterholder.



Alex Blofield

Global Sector Specialist

Alex is Global Sector Specialist for the Technology sector. He joined Schroders in August 2015 as part of the graduate programme and started out covering Industrial and Technology companies. Before joining Schroders, Alex obtained an MPhil Finance from Cambridge University, graduating with Distinction. He also has a First Class degree in Economics from Newcastle University and during his time at university, Alex completed internships at the Reserve Bank of India and N+1 Singer. Since joining Schroders, he has completed all 3 levels of the CFA.

Biographies



Isabella Hervey-Bathurst
Global Sector Specialist

Isabella is Global Sector Specialist for the Utilities sector and Climate Change. Isabella joined Schroders in 2014 as a graduate on the Global and International Equities team. She provides research support for the Global Climate Change strategy. Prior to joining Schroders, she worked as an investment associate at Ruffer. In this role, she worked closely with a senior fund manager looking after pension fund and charity client portfolios. Isabella has a M.A. from Cambridge and an MSc in International Political Economy from The London School of Economics. She has completed the IMC and is a CFA charterholder.



George Ullstein
Global Sector Specialist

George joined the Global and International Equities team as the Global Sector Specialist for the consumer discretionary sector (excluding autos) in September 2015. He joined us from Sarasin & Partners where he worked from 2013 as an equity analyst covering a range of sectors and geographies. Prior to this, he worked at Putnam Investments where he covered the global consumer and industrial sectors from 2010. From 2008 he worked at Jupiter Asset Management in the Private Client and Charities team as a portfolio assistant. Earlier, George worked at Bestinvest in Private Client Investment Management as an assistant investment manager. His career commenced in 2006 when he joined Citigate Dewe Rogerson as a senior account executive. George is a CFA Charterholder.



Patrick Flood
Global Sector Specialist

Patrick joined Schroders in 2019 as a Global Sector Specialist for IT. Investment career commenced in 2015. Patrick joined Schroders from Aberdeen Standard Investments, where he had worked since 2015 and had been Investment analyst, European Equities. Patrick has a degree from the University of Bath in Economics. He has completed the IMC and is a CFA charterholder.



Ines Duarte Da Silva
Global Sector Specialist

Joined Schroders in 2018. Investment career commenced in 2011. Currently Research Analyst covering the healthcare sector, based in London. Ines joined Schroders from Bank of America Merrill Lynch, where she had worked since 2015 and had been responsible for European Medtech & Healthcare Services research. Before this, Ines worked at Espirito Santo Investment Bank in Lisbon from 2011 as an equity research analyst, leading the Iberian Mid-Cap team. Earlier, Ines gained experience as a financial analyst in 2011 at the NOVA School of Business and Economics, after completing her Master in Finance. Master in Finance, NOVA School of Business and Economics. Degree in Mathematics Applied to Economics & Management, ISEG School of Economics and Management

Biographies



Marine Jacquemoud

Global Sector Specialist

Marine joined the Global and International Equities team as the Global Sector Specialist for the energy and materials in January 2020. She joined us from Universities Superannuation Scheme where she worked from 2015 as an portfolio Manager covering a range of sectors including industrials and energy. Prior to this, she worked at Lombard Odier Asset Management where she was a Convertible Bond Analyst and From 2011 as an Energy Equity Analyst. Marine career commenced in 2010 when she joined BNP Paribas. Marina is a CFA Charterholder.



Ben Wicks

Head of Data Insights and Research Innovation, Investment

Ben originally joined Schroders in 1999 as a graduate, before becoming an equity analyst in the Pan-European team covering construction, basic materials and oil and gas sectors. He later became a global basic materials sector specialist before working as an EAFE portfolio manager. In 2005 he left to work for the UK Government as a senior analyst conducting geopolitical risk analysis. Ben re-joined Schroders in March 2013 as an equity analyst supporting the research effort in the Global Climate Change and Global Resources strategies. He then assumed the role of Global Sector Specialist – Energy from September 2013 to June 2015, and additionally became Global Climate Change Portfolio Manager in October 2014. Ben also provides strategic input to the firm in the field of research innovation.



Gavin Marriott

Investment Director – Global and International Equities

Gavin joined Schroders in 2007 and is an investment director for Global and International Equities. Prior to 2008, he managed Pan Pacific and Japanese Equity products. His investment career commenced in 1984 with Scottish Equitable, where he held a number of marketing and sales-related positions. From 1996 he worked for M&G Investment Management, where he had responsibility for product development and marketing. In 1998 he became a director at Merrill Lynch Investment Managers (MLIM) with product management responsibility for high performance institutional and retail UK Equity portfolios. Gavin is a CFA charterholder.



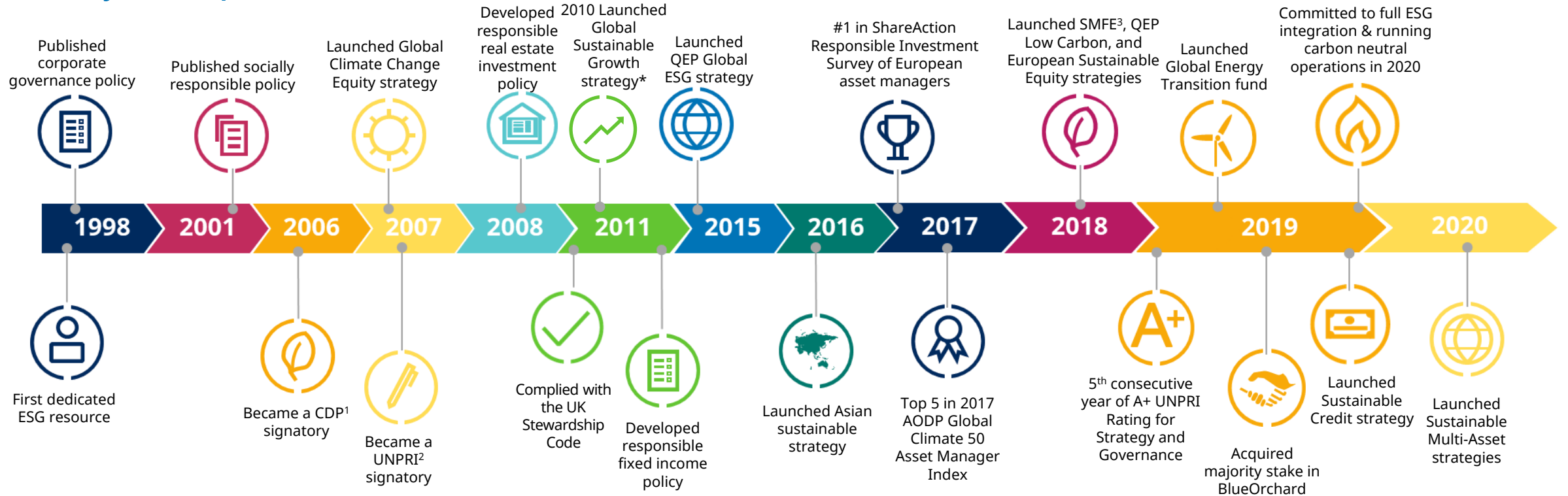
John Chisholm

Investment Director – Global and International Equities

John joined Schroders in 2014 and is an investment director for Global and International Equities. Prior to joining Schroders, he was a founding principal and institutional portfolio manager at Hermes Global Equities Advisors. From 2005 to 2009 he worked at Fortis Investments, first as an investment specialist for global and emerging market equities, then as head of equity investment specialists. His career commenced in 1994 when he joined The Boston Company as a custody specialist before joining Chase Manhattan Bank in 1996 as a senior fund accountant. In 1998 he joined MFS Investment Management where he worked in both fund administration and institutional marketing. John is a CFA Charterholder.

Sustainability at Schroders

The journey to be a market leader



'Issues such as climate change, resource scarcity, population growth and corporate failure have put responsible investment at the forefront of investors' minds. We believe that companies with a strong environmental, social and governance ethos tend to deliver better results for our clients.'

Peter Harrison, Group Chief Executive, Schroders plc

Source: Schroders, January 2020. A+ based on PRI Assessment. Not all strategies are available to US investors.

*Global Sustainable Growth was originally launched in 2010 as the Global Demographics strategy and was evolved fully into Global Sustainable Growth in 2017.

¹Carbon Disclosure Project. ²UN Principles for Responsible Investing. ³Sustainable Multi-Factor Equity.

Sustainability at Schroders

Our approach



ESG integration

We seek to integrate ESG factors into our research and investment decisions across asset classes, using proprietary tools

22

Dedicated ESG specialists

>160 years

Combined investment experience¹

A+

UN PRI Assessment²

10

Proprietary tools



Engagement

We actively engage with companies on material ESG issues to enhance our analysis or to seek improvements in performance

2,200+

Engagements

Across

52

countries globally



Voting

We assess resolutions and apply our voting policy and guidelines as outlined in our ESG policy

5,227

company meetings voted

48%

Meetings voted against management³

99%

valid resolutions voted



Screening

We work with clients to develop ethical screens that reflect their values

\$60.0bn

ethically screened mandates
(11.2% of total AUM)

Source: Schroders, as at 30 June 2020 unless otherwise stated. ¹As at 30 June 2019. ²PRI, 2015, 2016, 2017, 2018 and 2019 Assessment Reports.

Sustainable Investment Team

A well-resourced team



Andrew Howard

Global Head of Sustainable Investment

Thought Leadership, integration, stewardship

22yrs experience

Daniel Veazey

Head of Corporate Governance Analysts
18yrs experience

Yousif Ebeed

Corporate Governance Analyst
Asia governance
3yrs experience

Seema Suchak

Head of Sector Research
Metals and mining
15yrs experience

Elly Irving

Head of Engagement
Consumer discretionary
12yrs experience

Stephanie Chang

Head of Integration
15yrs experience

Dominic Tonge

Data Analyst
4yrs experience

Pippa O'Riley

Corporate Governance Analyst
Europe governance
4yrs experience

Lamin Tarawally

Corporate Governance Administrator
2020 Trainee

Catherine Macaulay

Sustainable Investment Analyst
Autos, tech & healthcare
2yrs experience

Ovidiu Patrascu

Sustainable Investment Analyst
Industrials
8yrs experience

Holly Turner

Sustainable Investment Analyst
Energy, chemicals & paper
1yr experience

Sarah Bratton

Head of Sustainability, North America
12yrs experience

Belinda Gan

Investment Director
15yrs experience

Louise Wihlborn

Sustainable Investment Analyst
Consumer staples;
2yrs experience

Dan Chi Wong

Sustainable Investment Analyst
Asian ESG Specialist
10yrs experience

Caren Chang

Sustainable Investment Analyst
Integration support

Hannah Simons

Head of Sustainability Strategy
20 yrs experience

Claire Herbert

Product Executive
4yrs experience

Megan Theobald

Product Executive
1yr experience

Carol Storey

Sustainable Investment Analyst
Financials, utilities, comms
9yrs experience

Maurizio Carulli

Sustainable investment Analyst
Utilities

Source: Schroders, 30 June 2020.

ESG integration

Embedded in our culture and investment process

THEMATIC RESEARCH

- Examines key sustainability trends and challenges current thinking
- Focused on investment impacts



ESG ANALYSIS

- ESG specialists work with research analysts to understand key ESG issues and evaluate impact on the investment case
- ESG analysis included in research notes
- ESG specialists periodically review to highlight best practice and suggest improvements



PROPRIETARY ESG TOOLS

- ESG guidance document covering 170+ GICS sub-sectors
- Investment-driven ESG tool, CONTEXT
- SustainEX



TRAINING

- ESG training for new joiners and existing analysts
- Sector specific training
- Investment desk training



COMMUNICATION

- ESG specialists sit amongst investment teams to facilitate regular dialogue
- Research and engagements shared on global research platform
- Monthly Sustainability Investor Group meeting to discuss research insights and upcoming agenda



MONITORING

- Ongoing monitoring of companies to identify emerging issues and candidates for engagement
- Collaboration with Data Insights team to track sustainability trends and negative events
- Quarterly screening of desk portfolios to identify holdings with poor ESG ratings



Source: Schroders, as at 30 June 2020.

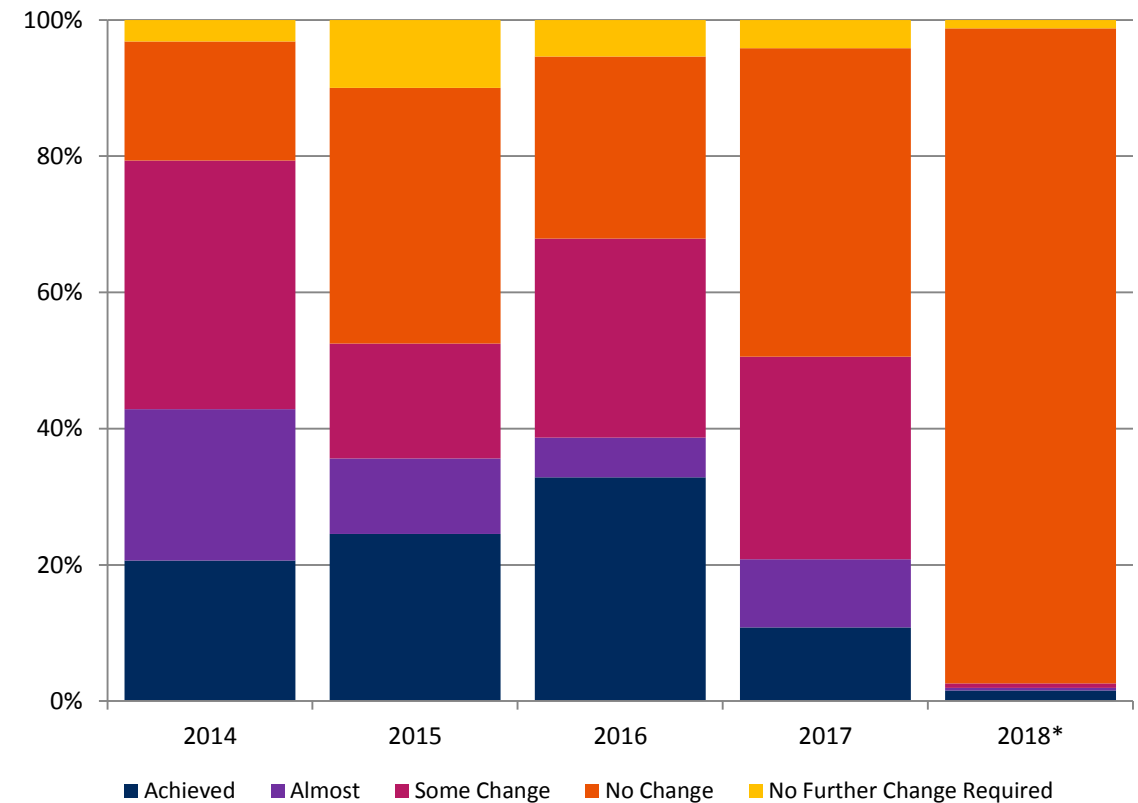
Active ownership and transparency

Engaging with companies on material ESG issues

2018 engagement topics

Environmental	Social	Governance
Biodiversity	Customers	Accounting practices
Climate change	Data security	Auditors
Environmental policy/strategy	Health and safety	Board committees
Environmental products and services	Human capital management	Board structure
Environmental supply chain	Human rights	Business integrity
Forests	Labour standards	Corporate strategy
Pollution	Nutrition and obesity	ESG governance and sustainability strategy
Waste management	Product safety	Governance oversight
Water management	Social policy/ strategy	Remuneration
	Supply chain management	Shareholder rights
		Succession planning
		Transparency and disclosure
		Voting

Effectiveness of requests for change (by company engaged)



Source: Schroders, as at 31 December 2018. Top ten topics we engaged with companies are shown in pink. *In our experience it takes an average of 2 years for companies to effect the change requested.

ESG Tools: CONTEXT and SustainEx

Balancing empirical evidence and analyst insight



What does CONTEXT enable us to do?



Focus our attention on companies with best in sector or misunderstood sustainability profiles.



Go beyond traditional hard revenue exclusions. Are companies doing enough?



Effect positive change by enabling targeted engagement with “improving companies”.



What does SustainEx enable us to do?



Detailed analysis of a company's and portfolio's net impact on society.

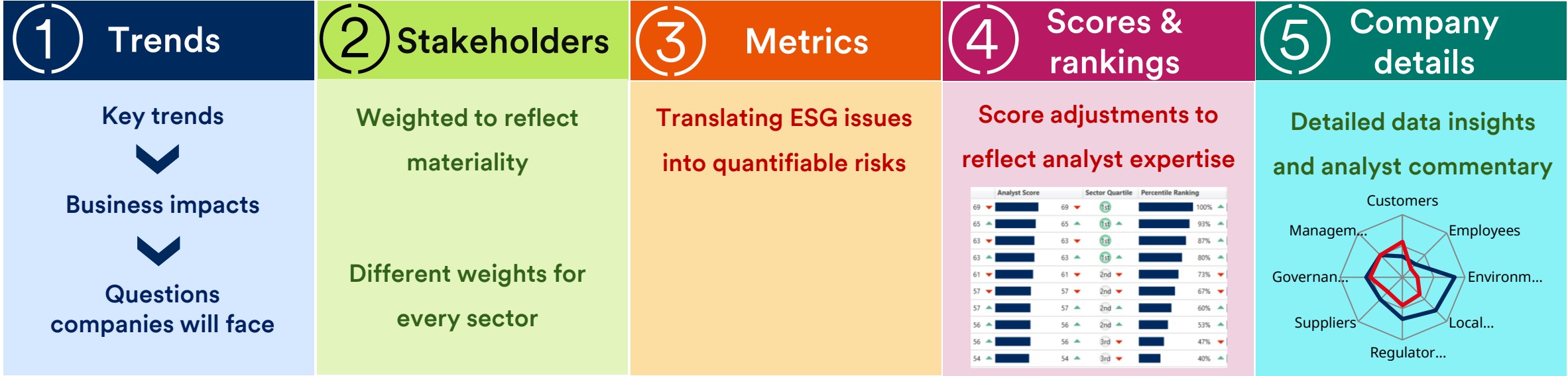


Help analysts gauge companies' credit or deficit with society and the financial risks they face as social externalities crystallise as financial costs or benefits.

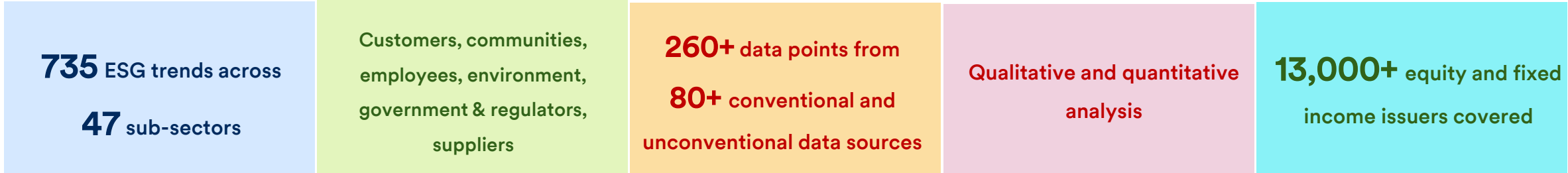
Much more than a blunt score

ESG Research Tools - CONTEXT

A structured approach to stakeholder analysis



A proprietary tool underpinned by....

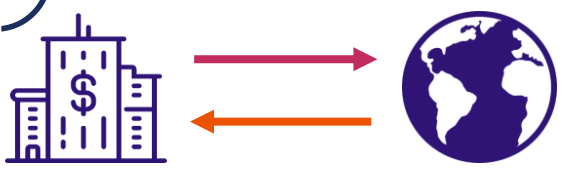


Source: Schroders, July 2020

ESG Research Tools - SustainEx

Translating social impacts into financial costs

1


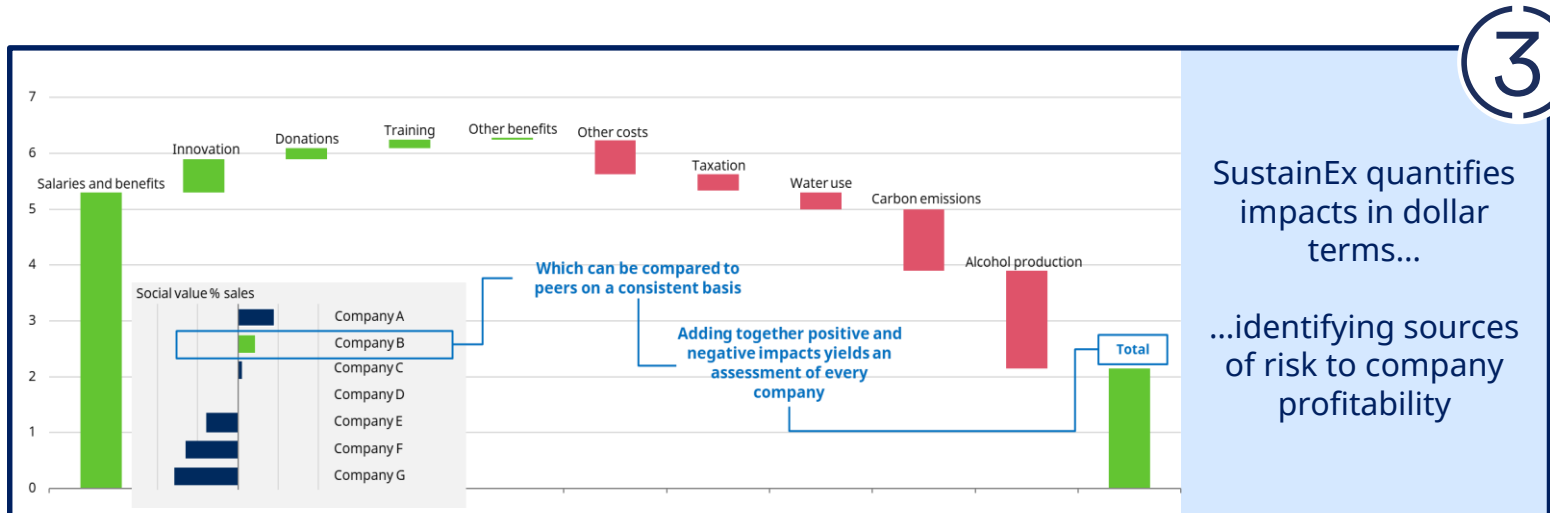


Companies generate impacts on society

Regulation is increasingly making companies pay for those impacts

2

We mapped a wide range of possible impacts (positive and negative)

A proprietary tool built on...

Over **400** academic and industry studies of social impacts and externalities

Over **70** data points for each company, estimated where not disclosed

Over **9,000** global companies examined

Data Insights Unit

Co-Heads of Data Insights Unit

Mark Ainsworth and Ben Wicks

Research Consulting

Samir Thakrar	Head of Data Science Research Consulting
James Blake	Lead Geospatial Data Scientist
Mark Chisholm	Lead Data Scientist
Graham Taylor	Lead Data Science Consultant

Insight Operations

Debbie Abban-Mensah	Insight Analyst
Suneet Kooner	Trainee
Deena Parmar	Insights Analyst

Co-heads of Research & Development

Kamil Bartocha & Parimal Patel, PhD

Oliver Barter, PhD	Graduate Trainee
Michael Clarke	Data Science Engineer
Frederica Caira	Graduate Trainee
James Ellison	Lead Data Scientist
Tim Gordon	Data Scientist
Chris Hamer	Data Scientist
Lucy Jackson	Graduate Trainee
Jonathan Yow	Lead Data Scientist

Product & Communications

Francesca Guinane	Business & Communications Executive
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Impact Management Team

Ignacio Benitez	Impact Manager
Yves Berthelon	Impact Manager
Konstantinos Mokkas	Impact Manager

Embedded Data Science Professionals

Steven Sellers, PhD	UK/European Equities
Dominic Tonge	ESG
Michal Ziembinski	Emerging Market Equities



1 Data Scout



7 Data Systems Engineers



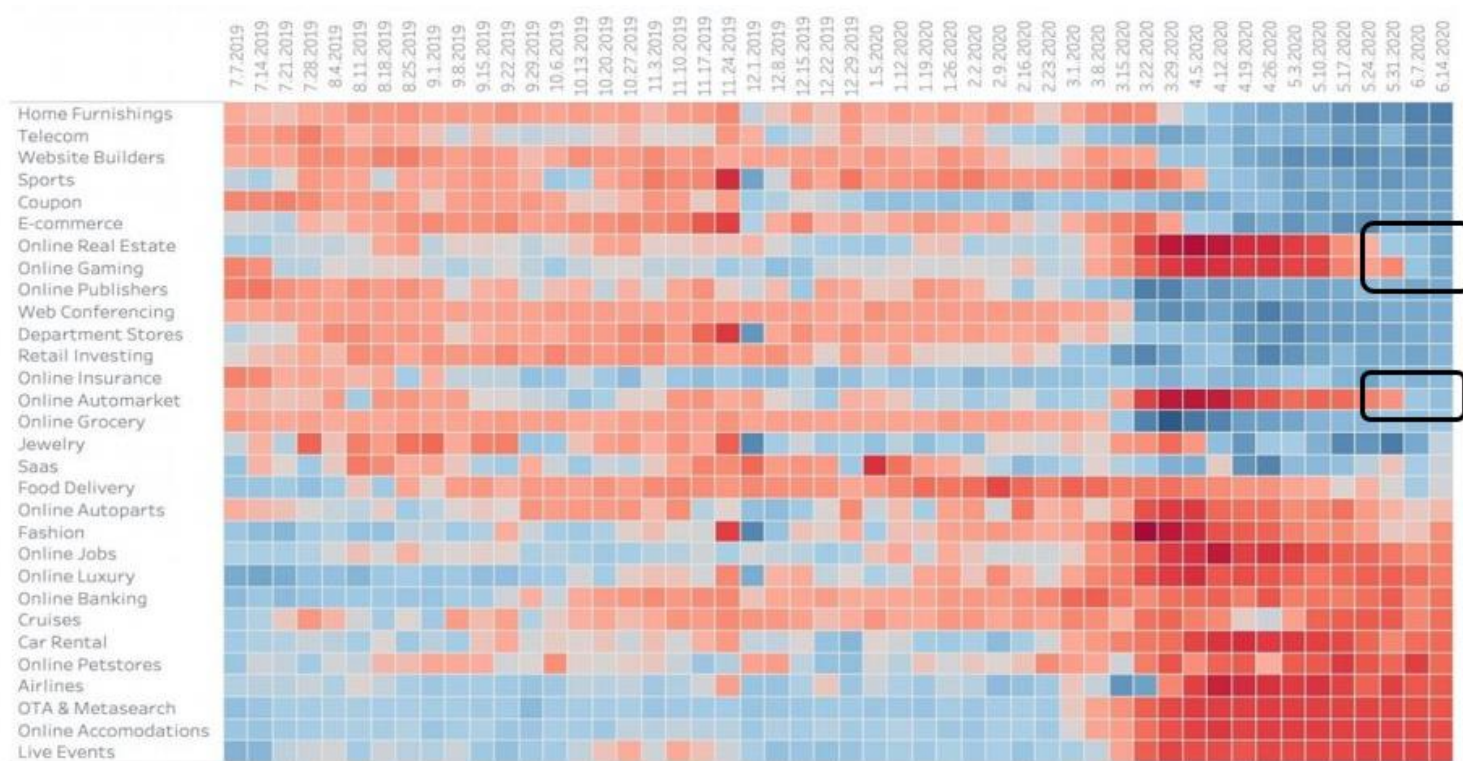
3 Embedded Data Science Professionals

Source: Schroders, as at 31 March 2020

DIU in practice: Tracking the COVID19 recovery

UK web traffic – showing inflection in some online services

SimilarWeb Country Intelligence Heatmap: UK



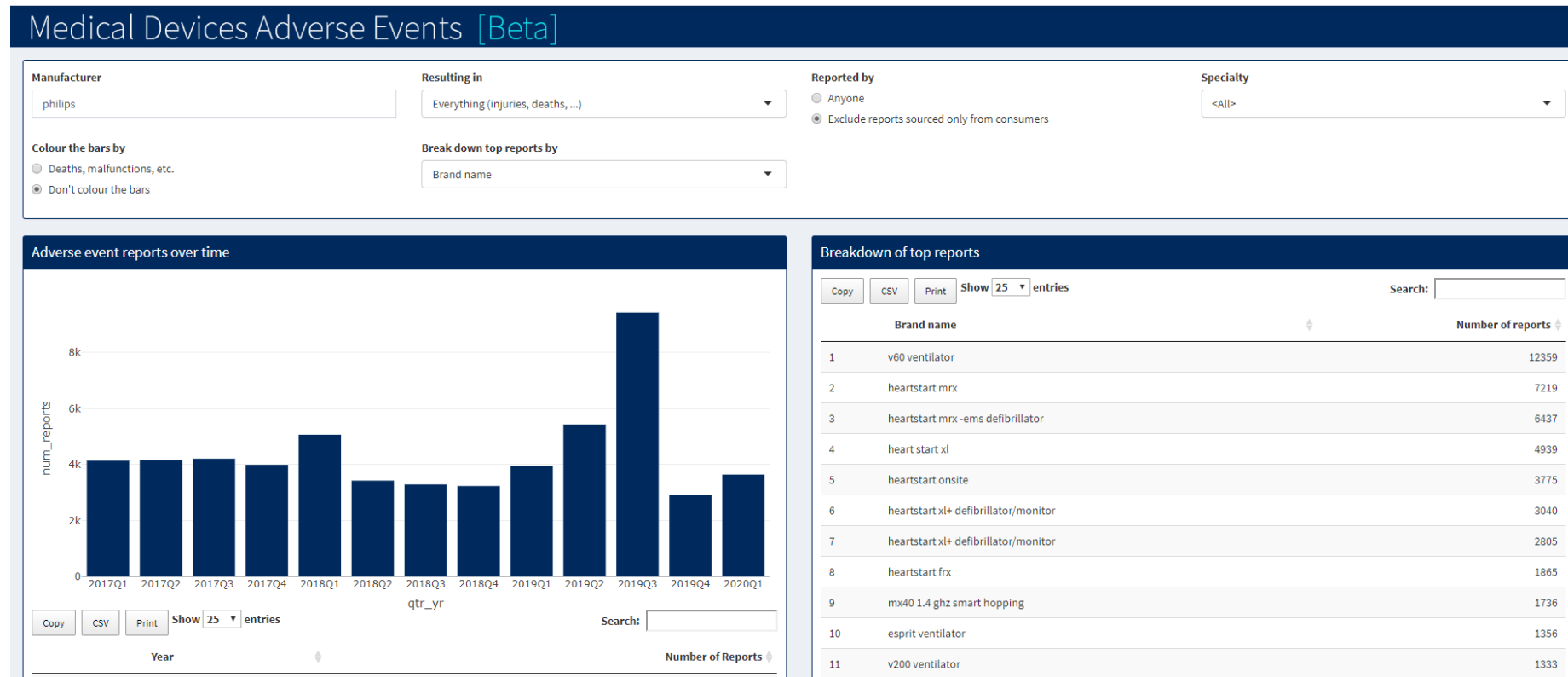
Online real estate,
gaming and autos sales
showing positive
inflections

Source: Schroders Data Insights Unit June 2020. SimilarWeb Desktop and Mobile-web data Weekly Visitors. Note: indices were constructed using the Facto modelling approach of principal component analysis (PCA). Blue represents an above average YOY change across websites in an industry while red represents an above average decline.

DIU in practice: Philips

Tracking adverse events with medical devices and automatic alerts

Issues with V60 ventilator led to engagement on how the company tracks and measures the success of their newly formed quality committee



Source: Schroders Data Insights Unit, FDA June 2020. Securities shown are for illustrative purposes only and should not be viewed as a recommendation to buy or sell.

Important information

The returns are presented as gross returns, including cash, reinvestment of dividends, interest and other income earned in the period and are calculated on a trade date basis after transaction charges (brokerage commissions), but before taxes and management and custody fees. Performance would have been reduced by such fees and the effect of these fees on performance compounds over time.

As an illustration see the chart below. The value of a \$5,000,000 account would be reduced by the following amounts due to the compound effect of the management fees. (This has been calculated assuming an assumed constant return of 10% per annum¹ and a hypothetical management fee of 0.75% per annum, which has been applied on a simple average of opening and closing annual fund values).

	Gross value	Net value	Compound effect
1 Year	\$5,500,000	\$5,460,625	\$39,375
3 Years	6,655,000	6,513,090	141,910
5 Years	8,052,550	7,768,403	284,147
10 Years	12,968,712	12,069,617	899,095

¹The assumed 10% return is hypothetical and should not be considered a representation of past or future returns. The actual effect of fees on the value of an account over time will vary with future returns, which cannot be predicted and may be more or less than the amount assumed in this illustration. Actual fees may differ from the assumed rate presented above. Please consult the Firm's Advisory Brochure (ADV Part 2) for a description of the fees.

Important information

Risks associated with Schroder Global and International Equities: All investments, domestic and foreign, involve risks including the risk of possible loss of principal. The market value of the portfolio may decline as a result of a number of factors, including adverse economic and market conditions, prospects of stocks in the portfolio, changing interest rates, and real or perceived adverse competitive industry conditions. Investing overseas involves special risks including among others, risks related to political or economic instability, foreign currency (such as exchange, valuation and fluctuation) risk, market entry or exit restrictions, illiquidity and taxation. These risks exist to a greater extent in emerging markets than in developed markets.

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The views and forecasts contained herein are those of the Global and International Equity team and are subject to change. The information and opinions contained in this document have been obtained from sources we consider to be reliable. No responsibility can be accepted for errors of facts obtained from third parties. Reliance should not be placed on the views and information in the document when taking individual investment and/or strategic decisions. Schroders has expressed its own views and opinions in this document and these may change.

The opinions stated in this presentation include some forecasted views. We believe that we are basing our expectations and beliefs on reasonable assumptions within the bounds of what we currently know. However, there is no guarantee that any forecasts or opinions will be realized.

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Schroder Investment Management North America Inc.
7 Bryant Park, New York, NY 10018-3706
(212) 641-3800
www.schroders.com/us



Placement Agent Statement For Investment Managers

Please print or type all entries in blue or black ink.

PERAC Guidelines require investment managers to submit information to the retirement board regarding relationships with placement agents. For purposes of this process, the following definitions apply:

“Manager”, investment partners with whom retirement boards do business, including, but not limited to, general partners, investment managers, sponsors of hedge funds, private equity funds, real estate funds, infrastructure funds and any entity which a retirement board delegates discretionary investment authority.

“Placement agent”, any person or entity hired, employed, engaged, retained by or acting on behalf of or otherwise receiving remuneration from a manager or another placement agent as a finder, solicitor, marketer, consultant, broker or other intermediary in relation to the investment of assets of Massachusetts public pension systems, including any person or entity which provides proactive consultant services concerning the changing political and policy environment in New England and nationally as it relates to retirement plans, notwithstanding the description of such services as informational consulting services only not involving the referral of investment advisory services, provided, however, this policy shall not apply with respect to in house employees of investment managers.

Name of Retirement Board:

Name of Investment Manager:

Reason for Submission:

- Responding to an RFP or solicitation
- Amendment to an existing agreement
- Discussion other than informal, general discussion that could lead to a response to an RFP or amendment to an existing agreement

PENALTIES

PERAC shall withhold regulatory approvals and acknowledgments if:

- a. The placement agent and/or entity acting as a placement agent information disclosure or other information reveals that the placement agent and/or entity acting as a placement agent that the manager has used is not registered with the Securities and Exchange Commission or the Financial Industry Regulatory Authority or, if appropriate, the Commodity Futures Trading Commission; and,
- b. The placement agent and/or entity acting as a placement agent information disclosure or other information reveals that the placement agent does not possess three years experience in the investment field.

PERAC shall prohibit any manager or placement agent from soliciting new investments from any board for a period to be determined by the Commission after the manager or placement agent has committed a material violation of this regulation.

In addition, under the mandatory provisions of contracts the following remedies are available to the retirement board if “the manager knew or should have known of any material inaccuracy or omission in the placement agent information disclosure or any other violation” of the Placement Agent Policy:

- a. The reimbursement of any management or advisory fees paid by the board for the prior two years or an amount equal to the amounts paid or promised to be paid to the placement agent as a result of the board investment whichever is greater.
- b. The authority to immediately terminate the investment management contract or other agreement with the manager without penalty, to withdraw without penalty from a limited partnership, limited liability company or other investment vehicle, or to cease making further capital contributions (and paying any fees on these recalled commitments) to the limited partnership, limited liability company or other investment vehicle without penalty.



COMPENSATION

(1) Has the Investment Manager or any, employee, agent or affiliate compensated or agreed to compensate, directly or indirectly any person or entity to act as a placement agent in connection with investment by the Massachusetts public pension systems? No Yes

(2) If **yes**, please provide (below or in an attachment) a description of any and all compensation of any kind provided or agreed to be provided to a placement agent and/or entity acting as a placement agent in connection with investment by Massachusetts' public pension systems, including the nature, timing and value thereof.

Additional Pages Attached: No Yes

(3) If **yes**, please provide a statement (below or in an attachment) that the placement agent has a minimum of three years experience in the investment field.

Additional Pages Attached: No Yes

(4) If **yes**, please provide a statement (below or in an attachment) that the placement agent and/or entity acting as a placement agent is registered with the Securities and Exchange Commission or the Financial Industry Regulatory Authority, or, if appropriate, the Commodity Futures Trading Commission and the details of such registration.

Additional Pages Attached: No Yes

(5) If **yes**, please attach a resume for each placement agent detailing the person's education, professional designations, regulatory licenses and investment and work experience. If any such person is a current or former member of a retirement board, employee or consultant or immediate family of such a person that fact should be specifically noted.

Additional Pages Attached: No Yes



(6) If **yes**, please provide a description of the services (below or in an attachment) to be performed by the placement agent and/or entity acting as a placement agent and a statement as to whether the placement agent is used by the manager with all prospective clients or only a subset of clients or only Massachusetts public pension fund clients.

Additional Pages Attached: No Yes

(7) If **yes**, please attach a written copy of any and all agreements between the manager and the placement agent and/or entity acting as a placement agent in connection with investment by Massachusetts' public pension systems.

Additional Pages Attached: No Yes

(8) If **yes**, in the event that any current or former Massachusetts public pension system board members, employees, consultants or other service providers have suggested the retention of the placement agent, the names of any current or former Massachusetts public pension system board members, employees, consultants or other service providers who suggested the retention of the placement agent (below or in an attachment).

I attest under the penalties of perjury that the above statements and statements provided in attachments, if any, are true.

Name of Authorized Individual: First: Last: Suffix:

Title of Authorized Individual:

Signature of Authorized Individual: 

Date Signed:



Vendor Certification

In all circumstances Massachusetts Law (Chapter 32, Section 23B) requires service providers to complete this form and submit it to the retirement board. The board must file the completed form with PERAC. In the case of investment managers upon acknowledgement from PERAC that this and other filings have been received, the board may retain the service provider.

Please print or type all entries in blue or black ink.

1. Retirement Board

Retirement Board to which proposal is being submitted:

2. Service Provider

Business Name:

Address:

City:

State:

Zip:

Services Being Proposed:

Dates of Services (MM/DD/YYYY)

From:

To:

3. Individual Submitting Proposal

Name, First:

Last:

Suffix:

Title:

The undersigned certifies that this proposal has been made and submitted in good faith and without collusion or fraud with any person. As used in this certification, the word "person" shall mean a natural person, business, partnership, corporation, union, committee, club or other organization, entity or group of individuals.

Signature:

Rmusc

Date:



Vendor Contact Information

Please print or type all entries in blue or black ink.

Fund Name:

Name of Retirement Board:

1. Company/Entity Information:

Company/Entity Name:

CRD# (If Applicable):

Address:

City:

State:

Zip:

Country:

Phone:

Fax:

URL:

2. Contact Information:

Name, First:

Last:

Suffix:

Title:

Department:

Phone:

Fax:

Email:

3. Contact Address:

Same as Company Address? No Yes

Address:

City:

State:

Zip:

Country:



Vendor Disclosures (as required by G.L. c. 32 §23 & 23B)

Please submit completed form and any attachments to PERAC and the retirement board on or before March 1st. Failure to do so may subject the Fund/Entity to sanctions pursuant to Chapter 32, Section 21A. Please attach additional sheets if necessary.

Please print or type all entries in blue or black ink.

1. Vendor/Board Information

Name of Company/Entity:

Name of Fund:

Retirement Board:

2. Compensation PAID: No Yes

Recipient of Compensation	Form of Compensation	Value of Compensation

Additional Pages Attached: No Yes

3. Compensation RECEIVED: No Yes

Source of Compensation	Form of Compensation	Value of Compensation

Additional Pages Attached: No Yes

4. Conflict of Interest? No Yes

If yes, please advise:

Additional Pages Attached: No Yes

5. Declaration and Signature

I make this disclosure pursuant to G.L. c.32, §23 and/or 23B in order to comply with the requirement that an entity providing investment services to a retirement board disclose to the Commission and the retirement board compensation, in whatever form, paid, or expected to be paid, and received, or expected to be received, directly or indirectly by the entity or a related person to others in connection with the entities services to the retirement board or any other client to whom the same service is provided. In addition, I make this disclosure of any conflict of interest that may have or could reasonably be expected to impair the ability to render unbiased and objective advice to the retirement board.

Name, First: Last: Suffix:

Title:

Signature: *Rmusc* Date:

**DISCLOSURE MEMORANDUM
APPENDIX A-1
SEI TRUST COMPANY**

**SCHRODER COLLECTIVE INVESTMENT TRUST
SCHEDULE OF FEES**

EFFECTIVE MAY 15, 2020

Fees

Each class of Fund Units in each Fund (“Class”) shall be subject to an annual fee, accrued daily and paid monthly, for the trustee, management, and administrative services provided by the Trustee, based on the net asset value of Fund Units in each Class (the “Management Fee”), at the rates set forth below:

Schroder Diversified Growth Trust	Management Fee
Class 1 [†]	55 basis points
Class 2	65 basis points
Class 3 – Available to Participating Plans investing \$200 million - \$400 million	55 basis points
Class 4 – Available to Participating Plans investing more than \$400 million	51 basis points
Class 5 ¹	60 basis points

Schroder Global Multi-Cap Quality Trust	Management Fee
Class 1 ²	65 basis points
Class 2 ³	70 basis points
Class 3 ³ – Available to Participating Plan investing more than \$250 million	65 basis points

Schroder International Multi-Cap Equity Trust	Management Fee
Class 1 [†]	55 basis points
Class 2	70 basis points
Class 3 – Available to Participating Plans investing more than \$250 million	65 basis points

Schroder International Multi-Cap Equity Trust	Share Class Assets⁵	Management Fee
Class M ⁴	Up to \$500 million in total share class assets	50 basis points
	Once total share class assets exceed \$500 million	45 basis points

Schroder International Risk-Managed Equity Trust I	Management Fee
Class 1 ²	25 basis points
Class 2 ³	45 basis points
Class 3 ³ – Available to Participating Plans investing more than \$100 million	40 basis points

Schroder Risk-Managed U.S. Equity Trust	Management Fee
Class 1	45 basis points

Schroder U.S. Risk-Managed Equity Trust I	Management Fee
Class 1 ²	25 basis points
Class 2 ³	40 basis points
Class 3 ³ – Available to Participating Plans investing more than \$100 million	35 basis points

Schroder U.S. Small Cap Equity Trust	Management Fee
Class 1	85 basis points

Schroder Global Sustainable Growth Trust	Management Fee
Class 1 ²	60 basis points
Class 2 ³	70 basis points

Schroder International Alpha Trust	Management Fee
Class 1 ²	55 basis points
Class 2 ³	70 basis points
Class 3 ³ - Available to Participating Plans investing more than \$200 million	60 basis points

Schroder Value Long Duration Trust	Management Fee
Class 1 ⁶	26 basis points
Class 2 ⁷	28 basis points
Class 3 - Available to Participating Plans investing more than \$100 million	25 basis points
Class 4 ¹	23 basis points

Schroder U.S. Small and Mid Cap Equity Trust	Management Fee
Class 1 ⁶	75 basis points
Class 2 ⁷	80 basis points
Class 3	75 basis points

Schroder QEP Emerging Markets Multi-Cap Equity Trust	Management Fee
Class 1 ²	74 basis points
Class 2 ³	89 basis points
Class W ⁸	66.5 basis points

Schroder China A Equity Trust	Management Fee
Class 1 ⁹	85 basis points
Class 2 ⁹	95 basis points

Schroder International Equity Trust	Management Fee
Class 1 ²	45 basis points
Class 2 ³	60 basis points
Class 3 ³ – Available to Participating Plans investing more than \$200 million	50 basis points

Schroder Global Strategic Bond Trust	Management Fee
Class 1 ²	50 basis points
Class 2 ³	70 basis points
Class W ⁸	50 basis points

Schroder Sustainable Dynamic Balanced Trust	Management Fee
Schroder Sustainable Dynamic Balanced Trust - Class 1 ²	55 basis points
Schroder Sustainable Dynamic Balanced Trust - Class 2 ¹⁰	65 basis points
Schroder Sustainable Dynamic Balanced Trust - Class 3 ¹⁰	55 basis points
Schroder Sustainable Dynamic Balanced Trust - Class 4 ¹⁰	51 basis points

The Trustee may waive the applicable minimum investment with respect to any applicable Fund in its discretion.

[†] Class 1 of the Schroder Diversified Growth Trust and the Schroder International Multi-Cap Equity Trust closed to new investors on September 30, 2018 and July 15, 2018 respectively. Effective May 1, 2019, Class 1 of the Schroder International Multi-Cap Equity Trust will reopen to Participating Plans who are a current client of a specific benefit consulting service provider who is performing certain agreed upon client services related to investments in the Fund, as reasonably determined by the Trustee in its sole discretion. In addition, effective May 1, 2019, the Management Fee for Class 1 of the Schroder International Multi-Cap Equity Trust will be reduced from 60 bps to 55 bps. For the avoidance of doubt, to the extent a Participating Plan's initial investment was into Class 1 of the Schroder International Multi-Cap Equity Trust prior to the original close date, all subsequent investments by such Participating Plan shall be into the same share class.

¹ Class 5 of the Schroder Diversified Growth Trust, Class 4 of the Schroder Value Long Duration Trust and Class 3 of the Schroder U.S. Small and Mid Cap Equity Trust will be available for investment only to a Participating Plan who is a current client of a specific benefit consulting service provider who is performing certain agreed upon client services related to investments in the Fund, as reasonably determined by the Trustee in its sole discretion. For more information, please contact the Trustee.

² Class 1 of the Schroder Global Multi-Cap Quality Trust, Schroder U.S. Risk-Managed Equity Trust I, Schroder International Risk-Managed Equity Trust I, Schroder Global Sustainable Growth Trust, Schroder International Alpha Trust, Schroder QEP Emerging Markets Multi-Cap Equity Trust, Schroder International Equity Trust, Schroder Global Strategic Bond Trust and Schroder Sustainable Dynamic Balanced Trust will be open to each Participating Plan making its initial investment in the Fund on or before December 31, 2020.

³ Class 2 and Class 3 of the Schroder Global Multi-Cap Quality Trust, Schroder U.S. Risk-Managed Equity Trust I, Schroder International Risk-Managed Equity Trust I, Schroder International Alpha Trust and Schroder International Equity Trust will be open to each Participating Plan making its initial investment in the Fund on or after January 1, 2021. Class 2 of the Schroder Global Sustainable Growth Trust, Schroder QEP Emerging Markets Multi-Cap Equity Trust and Schroder Global Strategic Bond Trust will be open to each Participating Plan making its initial investment in the Fund on or after January 1, 2021.

⁴ Schroder International Multi-Cap Equity Trust, Class M will be available for investment only to Participating Plans who are a current client of Mercer (and its affiliates) to whom the Participating Plan has delegated investment responsibility to Mercer, or otherwise hired Mercer as an Outsourced Chief Investment Officer ("OCIO"), as reasonably determined by the Trustee in its sole discretion.

⁵ Investors in Class M of the Schroder International Multi-Cap Equity Trust shall be charged a Management Fee based on total share class assets as noted above. After crossing the \$500 million breakpoint in share class assets, the Management Fee will only increase back to the original 50 basis points if total share class assets fall below \$425 million. The Trustee or its agent shall monitor share class assets on a monthly basis, and shall modify the fee prospectively, based on the prior month's average net assets and upon notice to the Participating Plans.

⁶ Class 1 of the Schroder Value Long Duration Trust (except for any Plan that would otherwise qualify for Class 3 or Class 4 for the Schroder Value Long Duration Trust) and the Schroder U.S. Small and Mid Cap Equity Trust will be open to each Participating Plan making its initial investment in the Fund before December 31, 2020.

⁷ Class 2 of the Schroder Value Long Duration Trust will be open to each Participating Plan making its initial investment in the Fund on or after January 1, 2021. Class 2 of the Schroder U.S. Small and Mid Cap Equity Trust will be open to each Participating Plan making its initial investment in the Fund on or after January 1, 2021.

⁸ Schroder QEP Emerging Markets Multi-Cap Equity Trust, Class W and the Schroder Global Strategic Bond Trust, Class W will be available for investment only to Participating Plans who are a current client of Willis Towers Watson (and its affiliates), as reasonably determined by the Trustee in its sole discretion.

⁹ Class 1 of the Schroder China A Equity Trust will be open for the first 6 (six) months of operations after the initial funding date. At that time, Class 1 will close to new investors. Class 2 will be available once Class 1 closes.

¹⁰ Class 2, of the Schroder Sustainable Dynamic Balanced Trust will be open to each Participating Plan investing less than \$200 million on or after January 1, 2021. Class 3 of the Schroder Sustainable Dynamic Balanced Trust will be open to each Participating Plan investing between \$200 million and \$400 million on or after January 1, 2021. Class 4 of the Schroder Sustainable Dynamic Balanced Trust will be open to each Participating Plan investing in excess of \$400 million on or after January 1, 2021.

Solely for purposes of determining eligibility for any share class, the Trustee shall apply the same fee for one Participating Plan based on the fee charged to another Participating Plan invested in the Trust to the extent that the plans are sponsored by entities that form part of a common/controlled group of corporations, as that term is defined in Section 414 of the Internal Revenue Code of 1986, as amended (the "Code"). The Trustee shall require the Participating Plans to provide evidence of controlled group status, as the Trustee may reasonably determine in its sole discretion.

Additionally, the Trustee will perform an annual review of each Participating Plan's Invested Plan Asset levels based on the Fund's respective fiscal year-end, and any Participating Plan that has crossed from one share class to another share class based on FYE balances will be notified by the Trustee of a move to the appropriate share class and the date such move will occur. Any Participating Plan invested in a particular Share Class may, upon reaching the applicable minimum investment requirement, request an exchange of the Participating Plan's Fund Units for Fund Units of the next Share Class for which the Participating Plan meets the applicable requirement. Such requests will be accommodated within a reasonable amount of time after receipt of written notice from the Participating Plan of the desired exchange. No exchanges described herein will be accepted or accommodated between September 30th and December 31st each year.

The Management Fee will cover (i) the normal operating fees and expenses of the Fund (as described under "Operating Costs" below); (ii) compensation to the Trustee for the fiduciary services provided by the Trustee; and (iii) compensation to the Adviser for the investment advisory and administrative services provided by the Adviser and its affiliate, Schroder Investment Management North America Limited, (the "Sub-Adviser"), also an investment adviser registered with the SEC and the Advisers' Act, which as authorized by the Trustee, has been appointed to act as sub-adviser with respect to the Fund.

Pursuant to Article IV of the Declaration of Trust, the Trustee may incur certain additional expenses that are to be paid/reimbursed directly by the Fund, rather than out of the Management Fee, such as reasonable attorneys' fees and litigation costs, brokerage fees, commissions and other transaction expenses, interest expenses and other costs of borrowing money, securities lending expenses and extraordinary expenses.

Operating Costs

The Trustee will pay the normal operating fees and expenses (the "Operating Costs") of the Fund from the Management Fee. Such Operating Costs shall include, but not be limited to, the following:

- custody fees
- fees relating to the filing of class action proofs of claim
- annual audit-related expenses
- tax filing fees
- NSCC fees for Trust transactions via the NSCC systems
- security pricing fees
- transfer agency out-of-pocket fees
- platform fees
- expenses related to the preparation of the Trust's Annual 5500 report
- rating agency fees
- website hosting fees

Re: **Schroder Collective Investment Trust (the “Trust”)**
Service Provider Fee Disclosure Required Pursuant to Section 408(b)(2) of
the Employee Retirement Income Security Act of 1974, as amended
(“ERISA”) and its implementing regulations

SEI Trust Company, as the trustee of the Trust (the “Trustee”)
Schroder Investment Management North America Inc., as investment
advisor of the Trust (the “Adviser”)

Dear Participating Plan:

On February 3, 2012, the Department of Labor adopted the final regulations implementing Section 408(b)(2) of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”). These final regulations require certain service providers to certain covered ERISA plans to disclose information about the service providers’ compensation and potential conflicts of interest.

This letter serves to provide you with a summary of where all necessary information can be found with respect to a Participating Plan’s investment in the Trust.

Please be advised that if you have additional relationships with the Trustee, the Adviser or any of their respective affiliates outside of your plan’s investment in the Trust, you may receive a separate letter or disclosure for each of those relationships.

If you have any comments or questions with respect to this letter, or any of the disclosures, please contact the Trustee’s Collective Investment Trust Administrative Services Team at 610-676-2369 (not a toll free number) or at CITTrade@seic.com.

Sincerely,

SEI Trust Company

Disclaimer: nothing in this correspondence is intended to constitute tax or legal advice. If you have any tax and/or legal questions, please contact your qualified tax and/or legal advisor.

SEI Trust Company
Schroder Investment Management North America Inc.
Guide to Services and Compensation
Prepared for Participating Plan Invested in the Schroder Collective Investment Trust

The following is a guide to important information that you should consider in connection with the services to be provided by the Trustee and Schroder Investment Management North America Inc. (the “Trust Parties”) to all Participating Plans invested in the Schroder Collective Investment Trust. All references below refer to the offering documents of the Trust as dated May 15, 2020, a copy of which can be provided to your Plan upon request.

Should you have any questions concerning this guide or the information provided to you concerning our services or compensation, please do not hesitate to contact the SEI Trust Company Collective Investment Trust Administrative Services Team at 610-676-2369 (not a toll free number) or at CITTrade@seic.com.

Required Information	Location(s)
Description of the services that the Trust Parties will provide to your Plan.	Declaration of Trust Article 4 – Powers of the Trustee
A statement concerning the services that Trust Parties will provide as an ERISA fiduciary and/or a registered investment adviser.	Trustee: Declaration of Trust Section 4.10 -and- Application –Section VII(1) (Appointment as “investment manager”) Adviser: Disclosure Memorandum Section 10(B)
Compensation Trust Parties will receive from your Plan (“direct” compensation).	None
Compensation Trust Parties will receive from other parties that are not related to Trust Parties (“indirect” compensation).	Schedule of Fees -and- Declaration of Trust Section 4.02(f) The Adviser, consistent with the safe harbor provisions of Section 28(e) under the Securities Exchange Act of 1934, may cause the Fund, and therefore the Participating Plans, to pay a higher amount of commission than other brokers would charge if the Adviser determines in good faith that the amount of the commission is reasonable in relation to the value of the services provided. The Adviser also may

	receive brokerage and research services from broker-dealers that are provided at no charge in recognition of the volume of trades directed to the broker.
Compensation that will be paid among Trust Parties and related parties.	Schedule of Fees
Compensation Trust Parties will receive if you terminate this service agreement.	Declaration of Trust Section 3.03 – Withdrawal (See section discussing redemption fees) ¹
The cost to your Plan of recordkeeping services.	Not Applicable
Fees and Expenses relating to a Participating Plan’s investment in the Trust. *Total Annual Operating Expenses	Schedule of Fees -and- Declaration of Trust Section 4.02(f)

¹ Please note that any redemption fee assessed pursuant to this section shall be remitted to the Trust for the benefit of the remaining Participating Plans, and shall not be retained by the Trustee or the Adviser as part of its compensation.

6/16/2020

Massachusetts Water Resource Authority Retirement System

Re: Attachment to Annual Disclosure of Compensation Paid As Required by G.L. c.32 §23 and §23B submitted by SEI Trust Company, in its capacity as the Trustee of the Schroder Collective Investment Trust Dated 6/16/20 (“Compensation Disclosure”)

Dear Mr. \Madam Chairman and Members of the Board:

As a supplement to the above referenced Form, SEI Trust Company (“STC”), in its capacity as the Trustee of the Schroder Collective Investment Trust (the “Trust”), discloses the following:

- (1) STC pays Schroder Investment Management North America Inc. (“Schroder”), in its capacity as the investment advisor to the Trust, Schroder International Alpha Trust (the “Fund”), in its capacity as the sub-advisor to the Trust, a maximum of 55 basis points on assets invested in the Fund, less certain expenses of the Trust which are reimbursable by Schroder.
- (2) STC pays Brown Brothers Harriman (“BBH”), in its capacity as sub-custodian of the Trust, an amount which is estimated to be 4 basis points on the assets of the Fund (the exact fee information is considered confidential and proprietary information of both BBH and STC, therefore STC is providing an estimate of the compensation amount for informational purposes only).
- (3) SEI Trust Company pays Hogan Taylor in its capacity as a third party tax return preparer for the Trust, less than \$1,000 for the Form 5500 prepared and filed by the Trustee on behalf of the Trust (the exact fee information is considered confidential and proprietary information of both Hogan Taylor and STC, therefore STC is providing an estimate of the compensation amount for informational purposes only).

Very truly yours,



Robert G. Muse
Executive Vice President
SEI Trust Company

cc: Schroder

PERFORMANCE REPORT

MWRA EMPLOYEES' RETIREMENT SYSTEM



August, 2020

Sebastian Grzejka, CAIA, Senior Consultant

Lebo McCallum, Analyst



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

GOALS & OBJECTIVES

Investment Return Objective

“Its primary goal is to provide promised benefits to participants and beneficiaries of the MWRA Employees’ Retirement system. Plan assets should be equal to or greater than the present value of the projected benefit obligations (“fully funded”). When Plan assets are less than the present value of projected benefit obligations, a schedule will be established and a plan will be in place to meet a fully funded status. When achieving return objectives required to fully fund the system, the Board is intent on controlling risk. Consistency of returns and risk of loss are primary considerations. The Board has also determined that the annual performance of plan assets should not vary substantially from returns achieved by other public pension funds with similar goals and objectives.”

Return Expectations

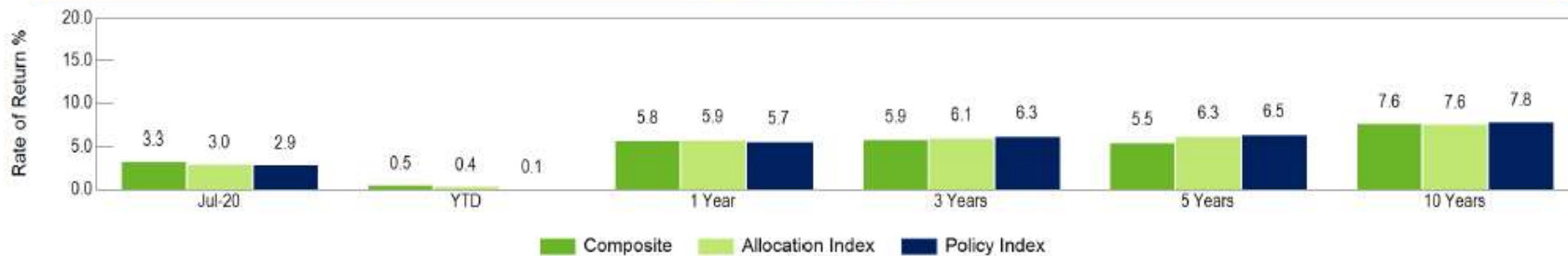
The investment growth should be maintained in such a manner that the minimum nominal rate of return does not cause a negative real rate of return over a full market cycle:

- **Time Horizon:** Return assumptions will be based on a ten year time horizon with a detailed review and analysis to be made at least annually to monitor allocations and assumptions. Should a manager deviate from proscribed mandate or expected risk and return profile by a consequential degree, that manager may be reevaluated at any time.
- **Liquidity Needs:** Presently contributions exceed plan withdrawals to provide benefits, payouts, and/or plan expenses. Portfolio liquidity will be managed based on the cash flow needs of the System.
- **Regulatory Considerations:** Assets of this Fund shall be invested in a manner consistent with the fiduciary standards established under Code of Massachusetts Regulations 840 (“840 CMR”). The Board shall also use as precedent the Employee Retirement Income Security Act (ERISA).

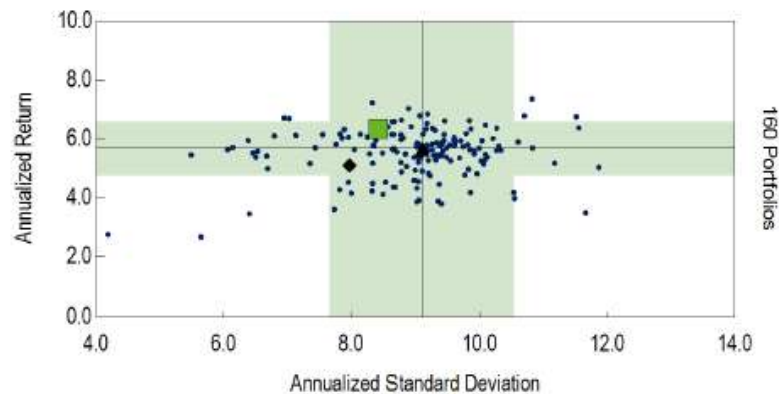


EXECUTIVE SUMMARY

Net Return Summary Ending July 31, 2020



20 Years Ending June 30, 2020



Performance

- The Composite returned 3.3% for the month outperforming the Allocation Index and Policy Index which returned 3.0% and 2.9% respectively.
- Risk assets enjoyed another strong month as optimism around a COVID-19 vaccine, hopes of additional stimulus, and better-than-expected quarterly corporate earnings in the US bolstered investor sentiment. The S&P 500 increased 5.6% in July; the gains pushed the index into positive territory with a year-to-date return of 2.4%. Non-US equities also benefitted from the risk-on sentiment and the continued weakness in the dollar in July. The MSCI EAFE Index gained 2.3% for the month. The portfolio's domestic equity composite returned 4.9%(net), underperforming their non US counter-parts, which returned 5.8% (net) for the month.
- In fixed income, global rates moved lower, reflecting the bond market's concerns over the economy. The Fixed Income Composite returned 2.2% (net) for the month, while the BC Agg and BC US HY returned 1.5% and 4.7%, respectively.
- This brings the overall performance on a trailing one year period return to 5.8%, while the allocation and policy index returned 5.9% and 5.7%, respectively for the same period.

Statistics Summary

	Anlzd Ret	Anlzd Std Dev	Rank
Composite	6.3%	8.4%	14
Allocation Index	5.1%	8.0%	78
Policy Index	5.6%	8.5%	56
InvMetrics Public DB Gross Median	5.7%	9.1%	--

20 years Risk/Return is as of 06/30/2020. Chart reflects universe data on quarter end months only.

Returns for 20 years Risk/Return and Statistics Summary are gross of fees.

Since inception return is 8.4% gross of fees. Prior to 1999, performance history does not capture separate net and gross returns.



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Composite	574,771,087	100.0	100.0	3.3	0.5	5.8	5.9	5.5	7.6	6.8	Jan-86
Allocation Index				3.0	0.4	5.9	6.1	6.3	7.6	--	Jan-86
Policy Index				2.9	0.1	5.7	6.3	6.5	7.8	--	Jan-86
Total Balanced	4,053,586	0.7	0.0	3.2	-1.7	1.7	2.1	3.1	--	3.6	Dec-10
PRIT Core Fund	4,053,586	0.7		3.1	-0.7	4.9	6.2	6.8	8.3	6.6	Apr-99
60% S&P 500 / 40% BBgBarc Aggregate				4.0	5.0	11.8	9.8	8.9	10.0	6.2	Apr-99
Total Domestic Equity	160,020,452	27.8	26.0	4.9	1.3	10.2	11.8	9.9	13.2	7.2	May-99
Russell 3000				5.7	2.0	10.9	11.4	10.9	13.6	6.7	May-99
Large Cap	121,199,105	21.1	20.0	4.7	4.7	15.2	14.1	11.4	--	13.3	Dec-10
Rhumblin Advisors S&P 500 Index Fund	52,752,346	9.2	8.0	5.6	2.4	11.9	11.9	11.4	13.7	8.6	Apr-97
S&P 500				5.6	2.4	12.0	12.0	11.5	13.8	8.5	Apr-97
Coho Relative Value Equity	33,589,492	5.8	6.0	3.4	-2.0	9.6	9.6	--	--	10.5	Mar-16
Russell 1000 Value				4.0	-12.9	-6.0	2.7	5.4	10.1	8.3	Mar-16
Polen Focused Growth	34,857,267	6.1	6.0	4.4	15.5	26.7	22.1	--	--	20.3	Feb-16
Russell 1000 Growth				7.7	18.3	29.8	20.9	16.8	17.3	20.9	Feb-16
Small Cap	38,821,347	6.8	6.0	5.6	-9.2	-4.5	5.3	6.1	--	10.6	Dec-10
Boston Partners Small Cap Value	18,994,666	3.3	3.0	4.4	-22.8	-16.9	-3.8	1.2	7.7	9.2	Feb-97
Russell 2000 Value				2.1	-21.9	-15.9	-3.9	2.2	7.3	7.6	Feb-97
Loomis Sayles Small Cap Growth	19,826,681	3.4	3.0	6.7	5.8	8.8	14.5	10.6	15.3	6.8	Jan-97
Russell 2000 Growth				3.4	0.3	6.0	8.8	7.5	12.6	6.9	Jan-97
Total Non-US Equity	124,283,165	21.6	21.0	5.8	-4.7	3.5	2.5	3.9	4.2	4.2	Mar-99
International Equity	98,967,413	17.2	15.0	5.2	-4.0	4.5	3.7	4.1	5.0	3.6	Sep-05
SEG Baxter Street	35,261,192	6.1	5.0	6.2	0.0	5.9	7.3	--	--	10.4	May-16
MSCI ACWI ex USA				4.5	-7.0	0.7	1.4	3.2	4.5	5.6	May-16
LMCG Small Cap International	27,946,033	4.9	5.0	2.3	-15.8	-6.1	-3.1	--	--	-3.1	Aug-17
MSCI EAFE Small Cap				3.4	-10.2	0.4	0.4	4.3	7.5	0.4	Aug-17
Schroder International Alpha Trust Class 1	35,760,187	6.2	5.0	6.7	2.4	11.1	6.0	5.8	--	6.4	Mar-12
MSCI ACWI ex USA				4.5	-7.0	0.7	1.4	3.2	4.5	4.0	Mar-12
Emerging Markets Equity	25,315,753	4.4	6.0	8.1	-7.4	0.0	-1.4	2.9	--	0.6	Nov-13
MSCI Emerging Markets				8.9	-1.7	6.5	2.8	6.1	3.3	3.1	Nov-13
LMCG Emerging Markets	25,315,753	4.4	6.0	8.1	-7.4	0.0	-1.4	2.9	--	0.7	Dec-13
MSCI Emerging Markets				8.9	-1.7	6.5	2.8	6.1	3.3	3.3	Dec-13

Since inception return is 8.4% gross of fees. Prior to 1999, performance history does not capture separate net and gross returns.

In November 2019, Loomis Sayles and Schroders transitioned from a mutual fund to a CIT structure. Performance prior to transitioning to the CIT investment vehicle is linked to mutual fund performance history.



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fixed Income	154,769,299	26.9	27.0	2.2	8.4	10.6	5.7	5.3	5.5	6.8	Mar-99
Loomis Sayles Multisector Full Discretion Trust	48,089,340	8.4	8.0	3.3	10.8	13.3	6.6	6.6	6.6	8.1	Mar-99
<i>BBgBarc US Aggregate TR</i>				1.5	7.7	10.1	5.7	4.5	3.9	5.1	Mar-99
<i>BBgBarc US High Yield TR</i>				4.7	0.7	4.1	4.5	5.9	6.8	6.8	Mar-99
Rhumbline TIPS	28,128,317	4.9	5.0	2.3	8.3	10.2	5.7	--	--	4.4	Jun-16
<i>BBgBarc US TIPS TR</i>				2.3	8.4	10.4	5.7	4.2	3.7	4.5	Jun-16
Lord Abbett Core Fixed Income	23,472,605	4.1	4.0	2.1	7.8	10.0	--	--	--	7.5	Apr-18
<i>BBgBarc US Aggregate TR</i>				1.5	7.7	10.1	5.7	4.5	3.9	7.7	Apr-18
Garcia Hamilton Fixed Income Aggregate	45,740,677	8.0	8.0	1.3	7.7	9.8	--	--	--	7.0	Apr-18
<i>BBgBarc US Aggregate TR</i>				1.5	7.7	10.1	5.7	4.5	3.9	7.7	Apr-18
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	9,144,955	1.6	2.0	2.0	-0.9	1.1	--	--	--	1.1	Aug-19
<i>Credit Suisse Leveraged Loan</i>				1.9	-3.0	-1.2	2.5	3.3	4.4	-1.2	Aug-19
Invesco Mortgage Recovery Loans Feeder Fund	193,404	0.0		0.0	-0.4	-4.7	4.1	3.2	8.7	12.5	Apr-10
<i>BBgBarc US Aggregate TR</i>				1.5	7.7	10.1	5.7	4.5	3.9	4.2	Apr-10
Total Hedge Fund	35,127,369	6.1	6.0	1.6	-1.0	0.1	2.1	1.2	3.4	2.9	Oct-06
PRIM Portfolio Completion Strategies	13,024,432	2.3		1.1	-5.9	-5.0	1.2	1.4	3.8	3.3	Oct-06
Corbin Pinehurst Partners	10,621,462	1.8		2.1	1.4	2.6	--	--	--	4.6	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				2.4	0.8	2.6	2.7	1.9	3.0	3.9	Nov-18
UBS Neutral Alpha Strategies	10,740,970	1.9		1.8	3.5	5.5	--	--	--	4.8	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				2.4	0.8	2.6	2.7	1.9	3.0	3.9	Nov-18
Entrust Peru Wind Down	740,505	0.1		-0.2	-2.1	-7.3	--	--	--	-5.4	Dec-17
<i>HFRI Fund of Funds Composite Index</i>				2.4	0.8	2.6	2.7	1.9	3.0	2.1	Dec-17
Other	686,565	0.1	0.0	0.0	0.6	1.9	1.9	1.3	--	0.7	Dec-10
Cash Account	686,565	0.1		0.0	0.6	1.9	1.9	1.3	0.7	1.9	Feb-00
<i>91 Day T-Bills</i>				0.0	0.4	1.1	1.6	1.1	0.6	1.6	Feb-00

Importantly, all returns in this report, including those of the private real estate managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.

Corbin Pinehurst Partners and Entrust Peru Wind Down are preliminary as of 07/31/2020, and subject to change when finalized.



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Real Estate	49,874,909	8.7	10.0	0.0	-0.4	4.1	6.7	7.9	10.4	7.7	Apr-99
<i>NCREIF Property Index</i>				0.0	-0.3	2.7	5.4	6.8	9.7	8.6	Apr-99
Morgan Stanley Prime Property (\$2.8m commitment in '95)	19,647,060	3.4		0.0	-1.3	1.6	5.7	7.5	11.4	8.4	Sep-95
TA Realty Core Property Fund, LP (\$15m commitment in '19)	20,115,797	3.5		0.0	1.1	5.6	--	--	--	4.8	Jun-19
Invesco Mortgage Recovery II (\$3M commitment in '15)	911,451	0.2		0.0	1.4	1.4	12.6	--	--	11.9	Oct-15
Landmark VI (\$2m commitment in '11)	114,790	0.0		0.0	-0.3	-11.6	-7.7	-3.9	--	5.0	Jul-11
Landmark VIII (\$4m commitment in '17)	1,291,746	0.2		0.0	-1.1	6.5	--	--	--	16.8	Nov-17
Courtland/Mesirow MFire (\$2m commitment in '11)	659,011	0.1		0.0	-5.4	-10.2	-1.0	3.4	--	2.7	May-12
Cerberus (\$1.5m commitment in '12)	645,184	0.1		0.0	0.8	8.2	8.6	7.8	--	11.9	May-13
TA Realty Fund X LP (\$3.5m commitment in '12)	393,431	0.1		0.0	-6.6	-4.2	10.3	9.2	--	9.7	May-13
TerraCap Partners III, LP (\$2.6m commitment in '15)	1,769,682	0.3		0.0	0.3	4.1	6.2	11.2	--	11.0	Jul-15
TerraCap Partners IV, LP (\$4m commitment in '17)	4,326,758	0.8		0.0	-1.5	12.3	--	--	--	9.3	Nov-17
Total Private Equity	45,955,742	8.0	10.0	0.1	-8.7	-6.7	5.9	2.5	11.2	8.5	Apr-99
<i>CJA US All PE</i>				0.0	-10.1	-5.5	7.4	8.3	11.9	11.5	Apr-99
<i>NASDAQ W/O Income</i>				6.8	19.8	31.4	19.2	15.9	16.9	7.2	Apr-99
PRIM Vintage Year 2008 (\$3m commitment in '08)	850,241	0.1		0.3	-16.6	-12.6	6.8	12.4	16.3	6.7	Jun-08
PRIM Vintage Year 2009 (\$1m commitment in '09)	128,253	0.0		0.1	-10.2	1.1	15.1	16.5	14.4	7.1	Nov-09
PRIM Vintage Year 2010 (\$1m commitment in '10)	442,043	0.1		0.1	1.2	-6.9	10.8	12.9	7.5	7.1	Jun-10
PRIM Vintage Year 2011 (\$1.5m commitment in '11)	920,469	0.2		0.1	-2.7	-1.2	12.0	16.5	--	2.8	May-11
PRIM Vintage Year 2012 (\$1m commitment in '12)	605,652	0.1		2.2	4.8	10.6	13.0	12.9	--	-15.7	Jun-12
PRIM Vintage Year 2014 (\$2m commitment in '14)	1,630,175	0.3		0.0	-3.8	5.5	18.0	15.6	--	0.2	Jun-14
PRIM Vintage Year 2017 (\$2m commitment in '17)	992,931	0.2		1.2	-7.9	0.2	3.8	--	--	3.5	May-17
PRIM Vintage Year 2020 (\$5m commitment in '20)	128,682	0.0		-0.5	--	--	--	--	--	-6.5	Mar-20
Alcentra European DLF (\$5m commitment in '14)	1,107,545	0.2		0.0	-7.1	-3.0	-0.3	2.4	--	3.8	Jan-15
Ascent Fund IV (\$2m commitment in '04)	31,175	0.0		0.0	-0.8	-2.5	-54.2	-47.8	-32.5	-21.8	Jul-04
Ascent Fund IV-B (\$1m commitment in '16)	159,229	0.0		0.0	-27.4	-42.5	-21.3	--	--	-14.4	Jul-16
Ascent Fund V (\$2m commitment in '08)	1,591,658	0.3		0.0	-12.4	-10.3	-5.7	-1.1	6.1	4.0	Oct-08
Ascent VI (\$3m commitment in '15)	2,681,422	0.5		0.0	-8.8	-9.5	3.2	--	--	-0.1	Dec-15
Castile Ventures III, L.P. (\$3m commitment in '07)	13,978	0.0		0.0	-20.7	-88.9	-65.5	-52.2	-34.3	-30.3	Jan-08
CVI Credit Value Fund IV A LP (\$6m commitment in '17)	5,298,477	0.9		0.0	-9.6	-6.9	--	--	--	0.9	Dec-17

Importantly, all returns in this report, including those of the private markets managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.

Market values for Morgan Stanley Prime Property, TA Realty Core Property Fund, Cerberus, and TA Realty Fund X are stated as of 6/30/2020 and adjusted for cash flow. All other Real Estate managers are as of 3/30/2020 and are adjusted for cash flows.

All other Private Equity managers are valued as of 6/30/2020 and are adjusted for cash flows.



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Invesco Fund IV (\$3m commitment in '03)	13,621	0.0		0.0	-3.1	-28.5	-14.8	-8.1	--	--	Feb-04
Invesco Fund VI (\$5m commitment in '13)	5,979,079	1.0		0.0	-5.1	-3.9	8.5	8.1	--	11.3	Jul-13
Kayne Energy Fund VII (\$5m commitment in '15)	1,128,249	0.2		0.0	-71.4	-78.0	-38.2	--	--	-21.2	Jan-16
Foundry 2007 (\$3m commitment in '07)	199,273	0.0		0.0	-14.6	-34.5	-21.2	-27.2	5.2	15.1	Dec-07
Foundry 2010 (\$3m commitment in '10)	3,180,760	0.6		0.0	-2.0	-9.8	10.7	2.6	--	7.5	Jan-11
Foundry 2010 Annex (\$0.4m commitment in '15)	198,885	0.0		0.0	2.3	-8.9	31.1	--	--	14.1	Sep-15
Pinebridge PEP V (\$6m commitment in '07)	554,843	0.1		0.0	-15.9	-19.1	-6.5	-1.2	--	--	Mar-08
Landmark XV (\$3m commitment in '13)	1,220,233	0.2		0.0	-0.9	9.5	10.6	9.0	--	12.6	Nov-13
JFL Equity Investors IV, L.P. (\$6m commitment in '16)	6,433,212	1.1		0.0	-1.1	34.2	41.1	--	--	32.7	Jan-17
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)	3,679,243	0.6		0.0	6.2	8.5	16.0	--	--	14.8	Feb-17
Park Square Credit Opportunities III (\$3m commitment in '17)	2,496,962	0.4		0.0	2.0	6.5	--	--	--	5.6	Feb-18
Ironsides Constitution Opportunities (\$3m commitment in '18)	2,020,564	0.4		0.0	-2.6	3.4	--	--	--	5.4	Sep-18
HarbourVest Dover Street X (\$9m commitment in '20)	906,202	0.2		0.0	--	--	--	--	--	0.0	Jun-20
Hamilton Lane Secondary Fund V LP (\$9m commitment in '20)	1,362,686	0.2		0.0	--	--	--	--	--	0.0	Jul-20

Importantly, all returns in this report, including those of the private markets managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.

Invesco Fund IV, Invesco Fund VI, Pinebridge PEP V, Landmark XV, JFL Equity Investors IV, Private Advisors Small Co. Coinvestment Fund, Park Square Credit Opportunities III, Ironsides Constitution Opportunities, HarbourVest Dover Street X, and Hamilton Lane Secondary Fund V are valued as of 3/31/2020 and adjusted for cashflows.

All other Private Equity managers are valued as of 6/30/2020 and are adjusted for cash flows.



MWRA Employees' Retirement System

NOTES

- 1 - Results for periods longer than one year are annualized.
- 2 - Total Balances, Large Cap, Small Cap, and Other Composite performance starts 12/1/2010.
- 3 - Preliminary Total Composite net of fee since inception return is 6.8% for the current month.
- 4 - Preliminary Total Composite gross of fee since inception return is 8.4% for the current month.
- 5 - Targets, Allocation Index, and Policy Index have been updated to reflect new allocation of 06/01/2020.
- 6 - Policy Index changed from Nasdaq to Cambridge All PE to reflect as of 5/1/2012.
- 7 - Policy Index Consists of: 20% S&P 500, 6% Russell 2000, 10% MSCI EAFE, 5% MSCI ACWI IMI , 6% MSCI Emerging Markets, 12% BBgBarc US Aggregate TR, 5% BBgBarc US TIPS TR, 8% BBgBarc US Universal TR, 10% NCREIF Property Index, 10% C|A US All PE , 6% HFRI Fund of Funds Composite Index, 2% Credit Suisse Leveraged Loan.
- 8 - Allocation index consists of: Weighted index of underlying managers to their respective benchmark.



MWRA Employees' Retirement System

ESTIMATED FEE SCHEDULE

Account	Fee Schedule	Market Value As of 7/31/2020	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
PRIT Core Fund	0.49% of Assets	\$4,053,586	0.7%	\$19,863	0.49%
Rhumblin Advisors S&P 500 Index Fund	0.05% of Assets	\$52,752,346	9.2%	\$26,376	0.05%
Coho Relative Value Equity	0.50% of First 75.0 Mil, 0.40% of Next 75.0 Mil, 0.35% Thereafter	\$33,589,492	5.8%	\$167,947	0.50%
Polen Focused Growth	0.65% of Assets	\$34,857,267	6.1%	\$226,572	0.65%
Boston Partners Small Cap Value	1.00% of Assets	\$18,994,666	3.3%	\$189,947	1.00%
Loomis Sayles Small Cap Growth	0.45% of Assets	\$19,826,681	3.4%	\$89,220	0.45%
SEG Baxter Street	1.00% of Assets	\$35,261,192	6.1%	\$352,612	1.00%
LMCG Small Cap International	0.85% of Assets	\$27,946,033	4.9%	\$237,541	0.85%
Schroder International Alpha Trust Class 1	0.55% of Assets	\$35,760,187	6.2%	\$196,681	0.55%
LMCG Emerging Markets	0.64% of Assets	\$25,315,753	4.4%	\$162,021	0.64%
Loomis Sayles Multisector Full Discretion Trust	0.50% of First 20.0 Mil, 0.40% of Next 20.0 Mil, 0.30% Thereafter	\$48,089,340	8.4%	\$204,268	0.42%
Rhumblin TIPS	0.05% of First 50.0 Mil, 0.04% Thereafter	\$28,128,317	4.9%	\$14,064	0.05%
Lord Abbett Core Fixed Income	0.19% of Assets	\$23,472,605	4.1%	\$44,598	0.19%
Garcia Hamilton Fixed Income Aggregate	0.25% of First 25.0 Mil, 0.20% Thereafter	\$45,740,677	8.0%	\$103,981	0.23%
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	0.40% of Assets	\$9,144,955	1.6%	\$36,580	0.40%
Invesco Mortgage Recovery Loans Feeder Fund	No Fee	\$193,404	0.0%	--	--
PRIM Portfolio Completion Strategies	No Fee	\$13,024,432	2.3%	--	--
Corbin Pinehurst Partners	0.85% of Assets	\$10,621,462	1.8%	\$90,282	0.85%
UBS Neutral Alpha Strategies	0.90% of Assets	\$10,740,970	1.9%	\$96,669	0.90%
Entrust Peru Wind Down	0.50% of Assets	\$740,505	0.1%	\$3,703	0.50%
Cash Account	No Fee	\$686,565	0.1%	--	--
Morgan Stanley Prime Property (\$2.8m commitment in '95)	No Fee	\$19,647,060	3.4%	--	--
TA Realty Core Property Fund, LP (\$15m commitment in '19)	No Fee	\$20,115,797	3.5%	--	--
Invesco Mortgage Recovery II (\$3M commitment in '15)	No Fee	\$911,451	0.2%	--	--



MWRA Employees' Retirement System

ESTIMATED FEE SCHEDULE

Account	Fee Schedule	Market Value As of 7/31/2020	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Landmark VI (\$2m commitment in '11)	No Fee	\$114,790	0.0%	--	--
Landmark VIII (\$4m commitment in '17)	No Fee	\$1,291,746	0.2%	--	--
Courtland/Mesirow MFire (\$2m commitment in '11)	No Fee	\$659,011	0.1%	--	--
Cerberus (\$1.5m commitment in '12)	No Fee	\$645,184	0.1%	--	--
TA Realty Fund X LP (\$3.5m commitment in '12)	No Fee	\$393,431	0.1%	--	--
TerraCap Partners III, LP (\$2.6m commitment in '15)	No Fee	\$1,769,682	0.3%	--	--
TerraCap Partners IV, LP (\$4m commitment in '17)	No Fee	\$4,326,758	0.8%	--	--
PRIM Vintage Year 2008 (\$3m commitment in '08)	No Fee	\$850,241	0.1%	--	--
PRIM Vintage Year 2009 (\$1m commitment in '09)	No Fee	\$128,253	0.0%	--	--
PRIM Vintage Year 2010 (\$1m commitment in '10)	No Fee	\$442,043	0.1%	--	--
PRIM Vintage Year 2011 (\$1.5m commitment in '11)	No Fee	\$920,469	0.2%	--	--
PRIM Vintage Year 2012 (\$1m commitment in '12)	No Fee	\$605,652	0.1%	--	--
PRIM Vintage Year 2014 (\$2m commitment in '14)	No Fee	\$1,630,175	0.3%	--	--
PRIM Vintage Year 2017 (\$2m commitment in '17)	No Fee	\$992,931	0.2%	--	--
PRIM Vintage Year 2020 (\$5m commitment in '20)	No Fee	\$128,682	0.0%	--	--
Alcentra European DLF (\$5m commitment in '14)	No Fee	\$1,107,545	0.2%	--	--
Ascent Fund IV (\$2m commitment in '04)	No Fee	\$31,175	0.0%	--	--
Ascent Fund IV-B (\$1m commitment in '16)	No Fee	\$159,229	0.0%	--	--
Ascent Fund V (\$2m commitment in '08)	No Fee	\$1,591,658	0.3%	--	--
Ascent VI (\$3m commitment in '15)	No Fee	\$2,681,422	0.5%	--	--
Castile Ventures III, L.P. (\$3m commitment in '07)	No Fee	\$13,978	0.0%	--	--
CVI Credit Value Fund IV A LP (\$6m commitment in '17)	No Fee	\$5,298,477	0.9%	--	--
Invesco Partnership Fund IV (\$3m commitment in '03)	No Fee	\$13,621	0.0%	--	--
Invesco International Partnership Fund IV LP (\$3m commitment in '03)	No Fee	\$0	0.0%	--	--
Invesco US Buyout Partnership Fund IV LP (\$3m commitment in '03)	No Fee	\$0	0.0%	--	--
Invesco Venture Partnership Fund IV LP (\$3m commitment in '03)	No Fee	\$0	0.0%	--	--
Invesco Fund VI (\$5m commitment in '13)	No Fee	\$5,979,079	1.0%	--	--
Kayne Energy Fund VII (\$5m commitment in '15)	No Fee	\$1,128,249	0.2%	--	--
Foundry 2007 (\$3m commitment in '07)	No Fee	\$199,273	0.0%	--	--



MWRA Employees' Retirement System

ESTIMATED FEE SCHEDULE

Account	Fee Schedule	Market Value As of 7/31/2020	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Foundry 2010 (\$3m commitment in '10)	No Fee	\$3,180,760	0.6%	--	--
Foundry 2010 Annex (\$0.4m commitment in '15)	No Fee	\$198,885	0.0%	--	--
Pinebridge (AIG) PEP V Asia (\$6m commitment in '07)	No Fee	\$52,834	0.0%	--	--
Pinebridge (AIG) PEP V Co-Investment (\$6m commitment in '07)	No Fee	\$55,408	0.0%	--	--
Pinebridge (AIG) PEP V Europe (\$6m commitment in '07)	No Fee	\$587	0.0%	--	--
Pinebridge (AIG) PEP V Large Market US Buyout (\$6m commitment in '07)	No Fee	\$69,096	0.0%	--	--
Pinebridge (AIG) PEP V Preferred Participation Fund (\$6m commitment in '07)	No Fee	\$197,851	0.0%	--	--
Pinebridge (AIG) PEP V Secondary (\$6m commitment in '07)	No Fee	\$35,772	0.0%	--	--
Pinebridge (AIG) PEP V Small-Mid Market US Buyout (\$6m commitment in '07)	No Fee	\$58,238	0.0%	--	--
Pinebridge (AIG) PEP V US Venture (\$6m commitment in '07)	No Fee	\$85,057	0.0%	--	--
Landmark XV (\$3m commitment in '13)	No Fee	\$1,220,233	0.2%	--	--
JFL Equity Investors IV, L.P. (\$6m commitment in '16)	No Fee	\$6,433,212	1.1%	--	--
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)	No Fee	\$3,679,243	0.6%	--	--
Park Square Credit Opportunities III (\$3m commitment in '17)	No Fee	\$2,496,962	0.4%	--	--
Ironsides Constitution Opportunities (\$3m commitment in '18)	No Fee	\$2,020,564	0.4%	--	--
HarbourVest Dover Street X (\$9m commitment in '20)	No Fee	\$906,202	0.2%	--	--
Hamilton Lane Secondary Fund V LP (\$9m commitment in '20)	No Fee	\$1,362,686	0.2%	--	--
Investment Management Fee		\$574,771,087	100.0%	\$2,262,925	0.39%

Note:

Estimate fee for privates are ~\$997,801 annually, which brings the total expense ratio for privates to ~17 bps. This brings the total estimated expense ratio for MWRA to ~57 bps.



Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
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- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.



QUARTERLY PERFORMANCE REPORT

MWRA Employees' Retirement System

March 31, 2020

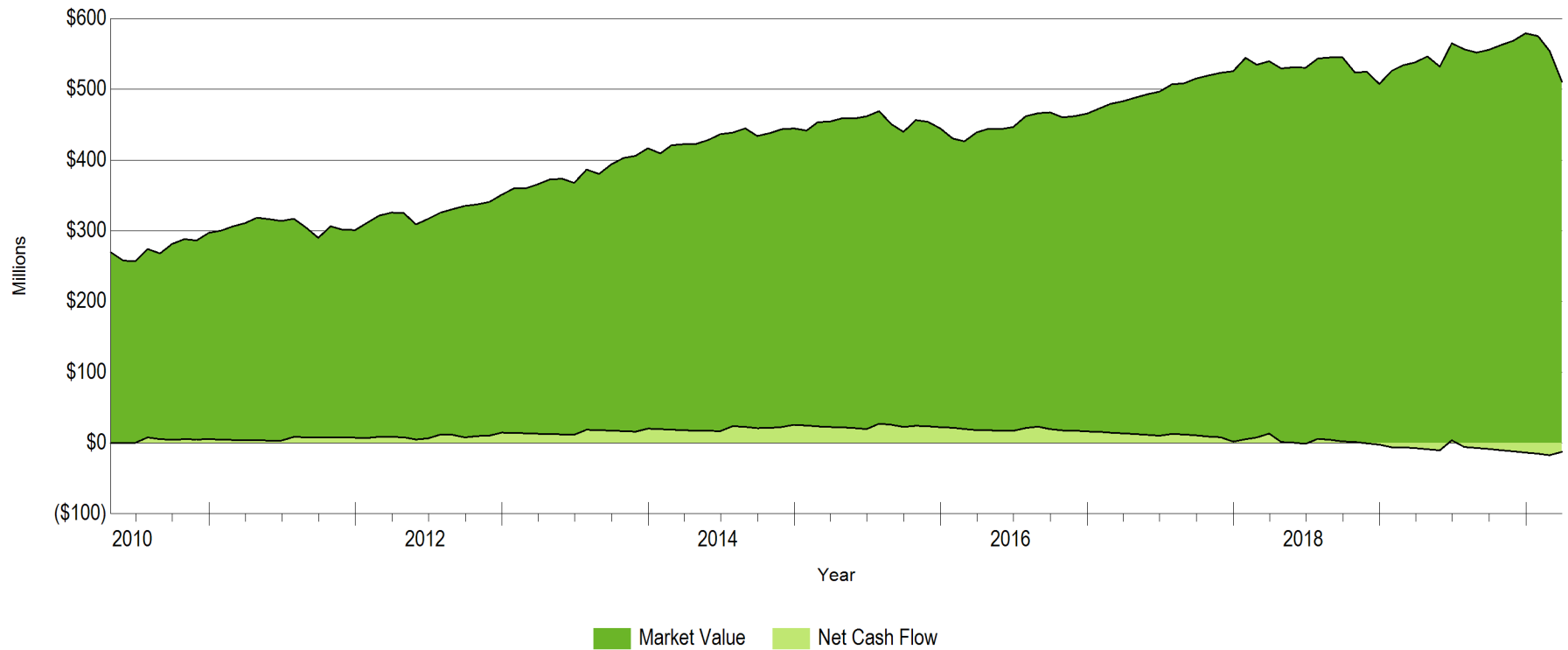


BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

MWRA Employees' Retirement System

TOTAL FUND ASSET GROWTH SUMMARY

10 Years Ending March 31, 2020



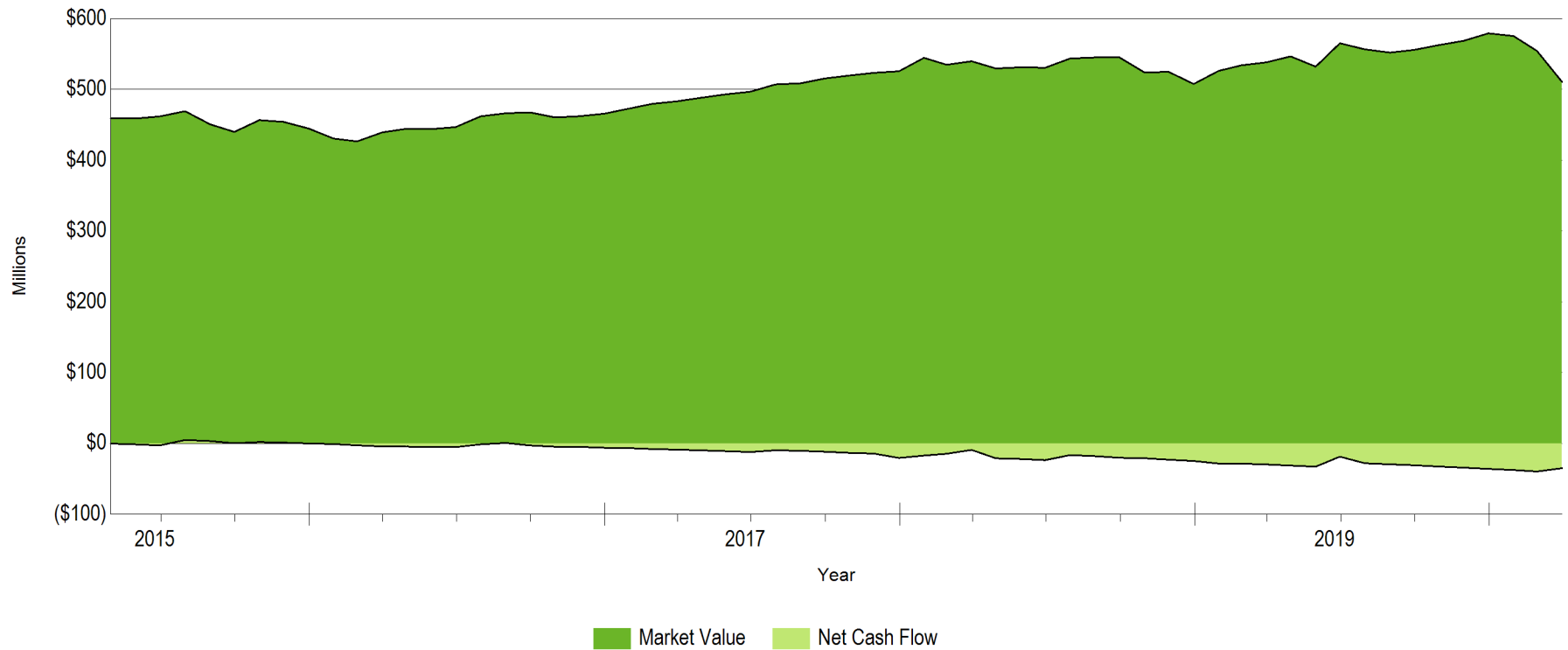
	Last Three Months	One Year	Three Years	Five Years	Seven Years	Ten Years
Beginning Market Value	\$579,228,207	\$538,228,861	\$483,168,760	\$454,642,860	\$365,802,040	\$266,165,508
Net Cash Flow	\$1,015,216	-\$5,278,941	-\$26,195,658	-\$35,145,043	-\$25,578,960	-\$12,449,498
Net Investment Change	-\$69,521,448	-\$22,227,945	\$53,748,873	\$91,224,157	\$170,498,894	\$257,005,964
Ending Market Value	\$510,721,975	\$510,721,975	\$510,721,975	\$510,721,975	\$510,721,975	\$510,721,975



MWRA Employees' Retirement System

TOTAL ASSET GROWTH SUMMARY-CALENDAR YEAR

5 Years Ending March 31, 2020

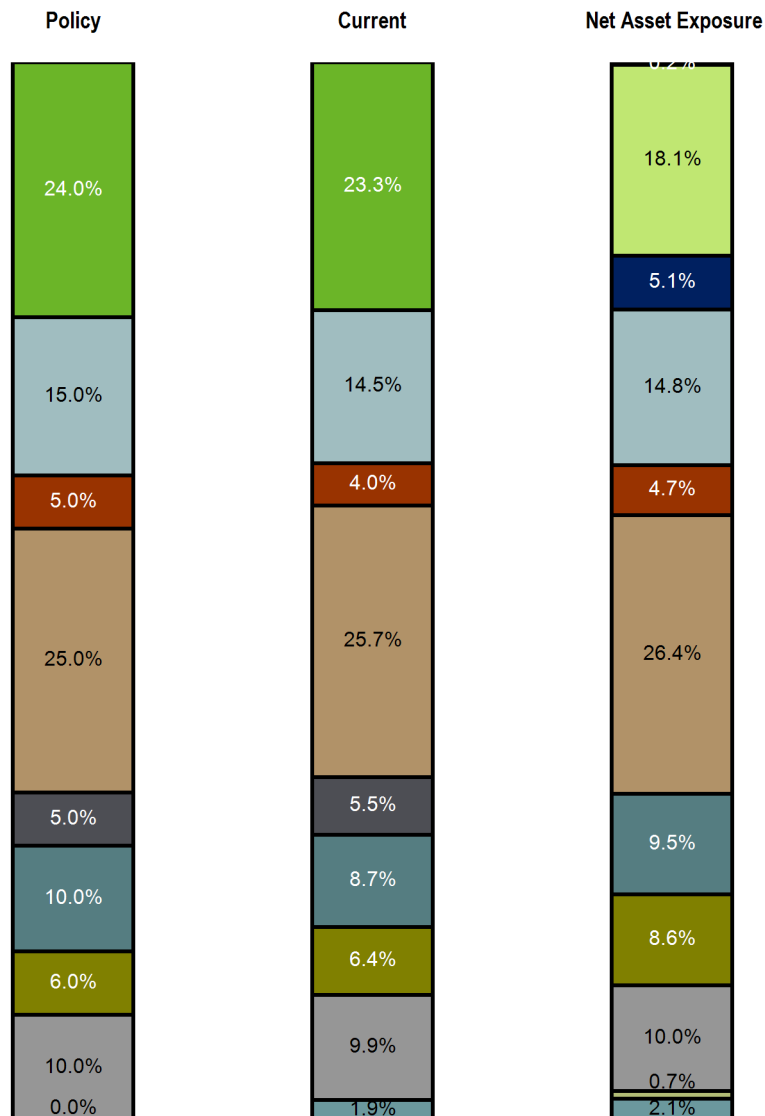


	2015	2016	2017	2018	2019
Beginning Market Value	\$444,742,451	\$444,744,803	\$465,451,611	\$525,597,128	\$507,653,878
Net Cash Flow	-\$3,382,998	-\$6,027,819	-\$14,389,228	-\$4,272,726	-\$11,188,556
Net Investment Change	\$3,385,350	\$26,946,982	\$74,534,744	-\$13,670,523	\$82,762,885
Ending Market Value	\$444,744,803	\$465,663,966	\$525,597,128	\$507,653,878	\$579,228,207



MWRA Employees' Retirement System

TOTAL FUND ASSET ALLOCATION vs. POLICY



Asset Allocation vs. Target			
	Policy	Current	Net Asset Exposure
Equity - Domestic	24.0%	23.3%	0.2%
Large Cap Equity	--	--	18.1%
Small Cap Equity	--	--	5.1%
Equity - International	15.0%	14.5%	14.8%
Emerging Equity	5.0%	4.0%	4.7%
Fixed Income	25.0%	25.7%	26.4%
Balanced	5.0%	5.5%	--
Private Equity	10.0%	8.7%	9.5%
Hedge Funds	6.0%	6.4%	8.6%
Real Estate	10.0%	9.9%	10.0%
Real Assets	--	--	0.7%
Cash	0.0%	1.9%	2.1%
Total	100.0%	100.0%	100.0%

Asset class weights may not add up to 100% due to rounding.

Real Assets include Commodities, Real Estate, and TIPS.

Cash includes Other.

PIMCO All Asset reported on 1 Qtr. lag.

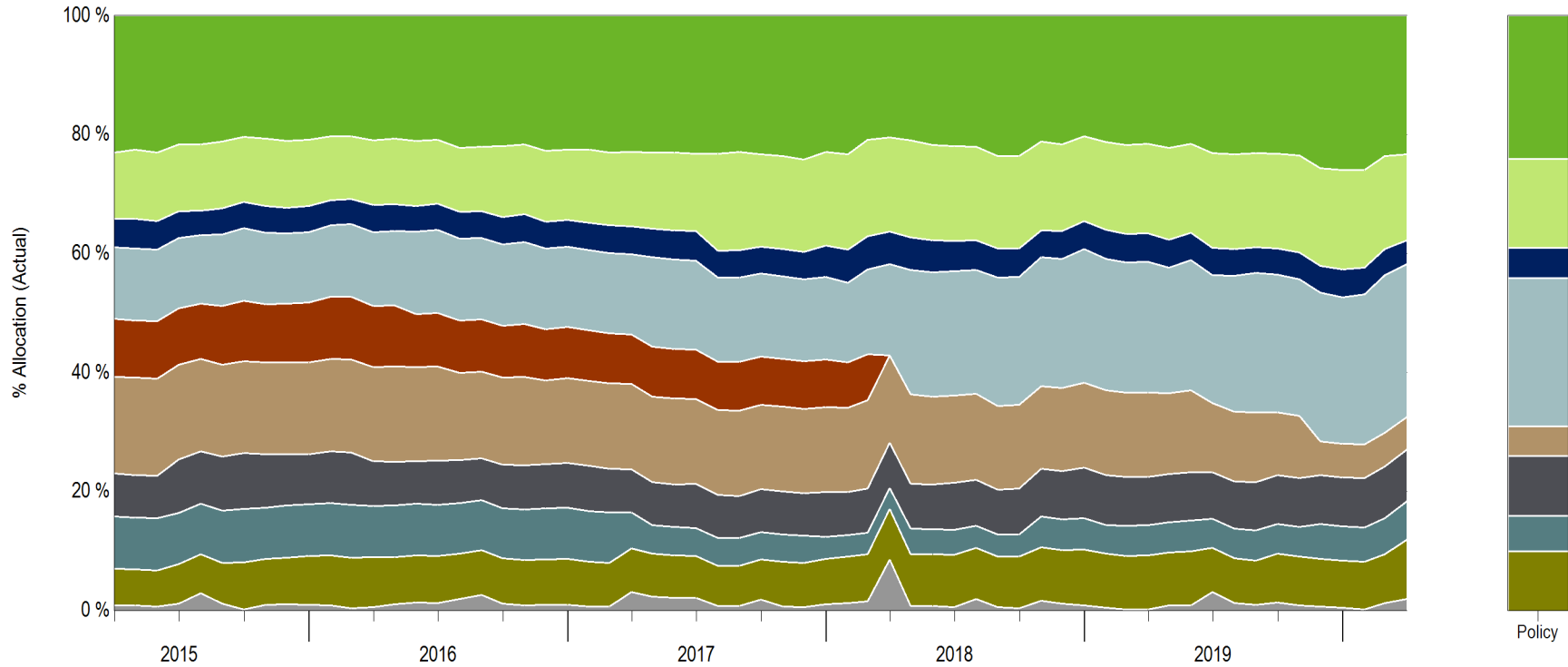
Policy Index Consists of: 18% S&P 500, 6% Russell 2000, 10% MSCI EAFE, 5% MSCI ACWI IMI, 5% MSCI Emerging Markets, 12% BBgBarc US Aggregate TR, 5% BBgBarc US TIPS TR, 8% BBgBarc US Universal TR, 10% NCREIF Property Index, 10% CJA US All PE, 6% HFRI Fund of Funds Composite Index, 5% 60% MSCI ACWI/40% CITI FTSE WGBI.



MWRA Employees' Retirement System

TOTAL FUND ASSET ALLOCATION HISTORY

Asset Allocation History



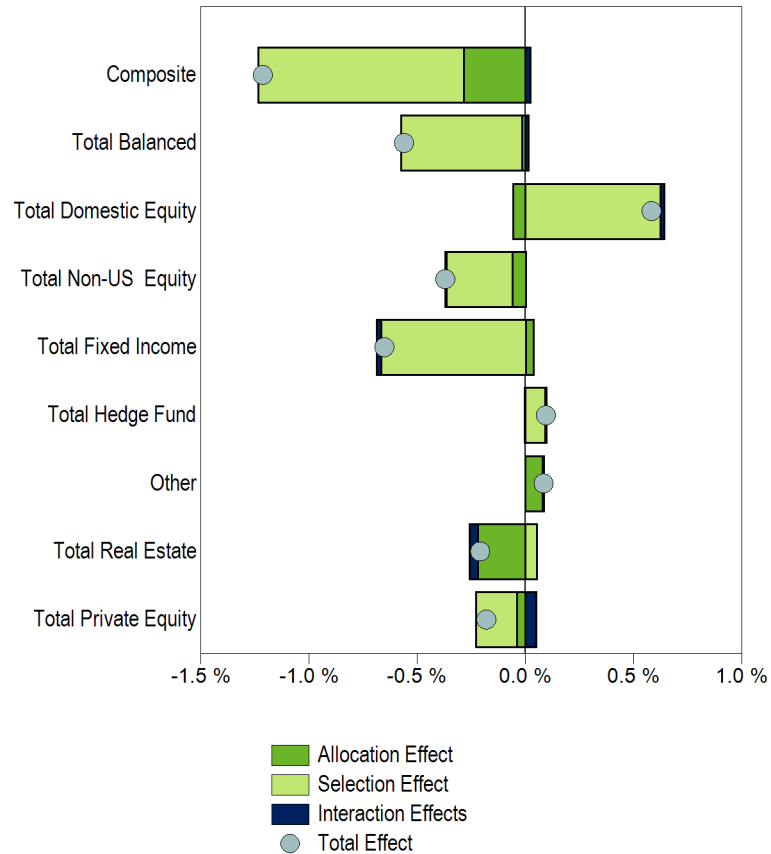
- Equity - Domestic
- Equity - International
- Emerging Equity
- Fixed Income
- Fixed Income - Domestic
- Balanced
- Private Equity
- Hedge Funds
- Real Estate
- Cash



MWRA Employees' Retirement System

TOTAL FUND ATTRIBUTION

Attribution Effects
1 Year Ending March 31, 2020



Attribution Summary
1 Year Ending March 31, 2020

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Balanced	-10.6%	-4.1%	-6.5%	-0.6%	0.0%	0.0%	-0.6%
Total Domestic Equity	-8.8%	-11.5%	2.8%	0.6%	-0.1%	0.0%	0.6%
Total Non-US Equity	-16.2%	-14.8%	-1.5%	-0.3%	-0.1%	0.0%	-0.4%
Total Fixed Income	4.8%	7.9%	-3.1%	-0.7%	0.0%	0.0%	-0.7%
Total Hedge Fund	-3.7%	-5.5%	1.8%	0.1%	0.0%	0.0%	0.1%
Other	2.5%	1.9%	0.6%	0.0%	0.1%	0.0%	0.1%
Total Real Estate	5.8%	5.3%	0.5%	0.0%	-0.2%	0.0%	-0.2%
Total Private Equity	-3.8%	-2.3%	-1.5%	-0.2%	0.0%	0.0%	-0.2%
Total	-5.1%	-3.9%	-1.2%	-0.9%	-0.3%	0.0%	-1.2%

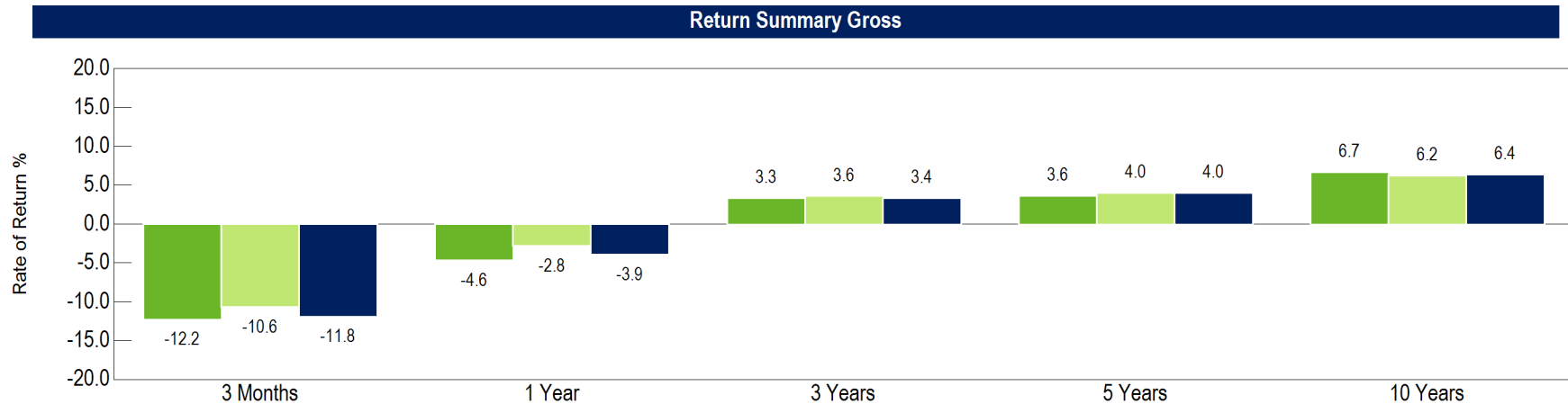
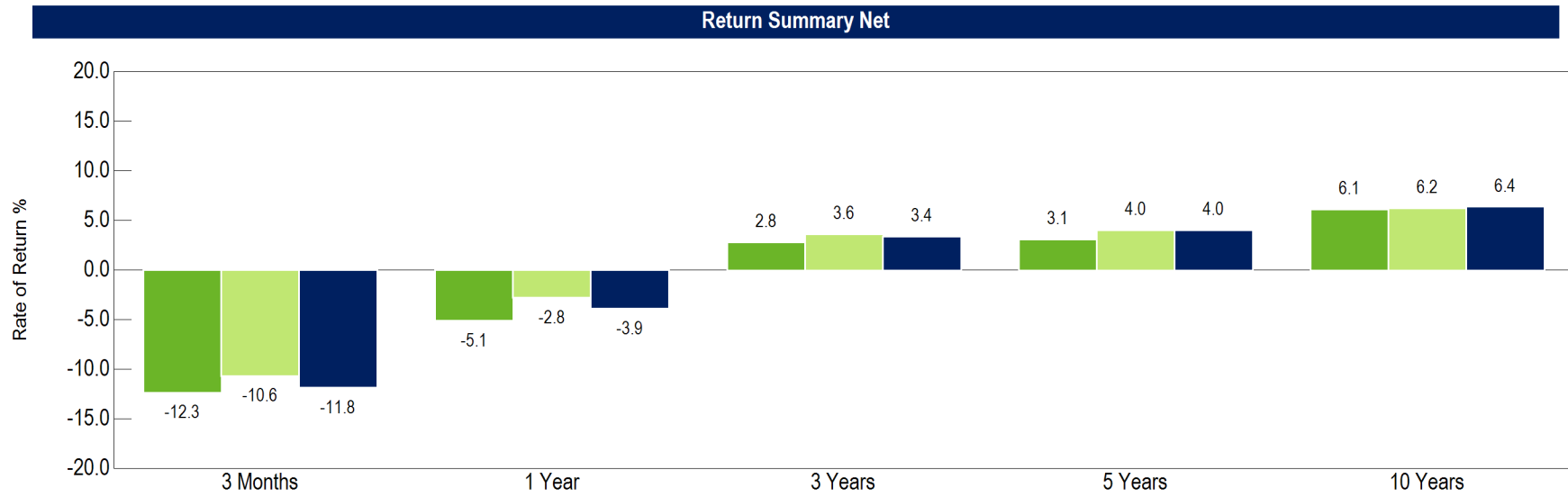
Note: Policy weights reflect the beginning of the period target weights.

Note: Plan attribution is a static, return based calculation and the results reflect the composites shown. As a result, the total returns shown may vary from the calculated returns shown on the performance summary.



MWRA Employees' Retirement System

TOTAL FUND RETURN SUMMARY



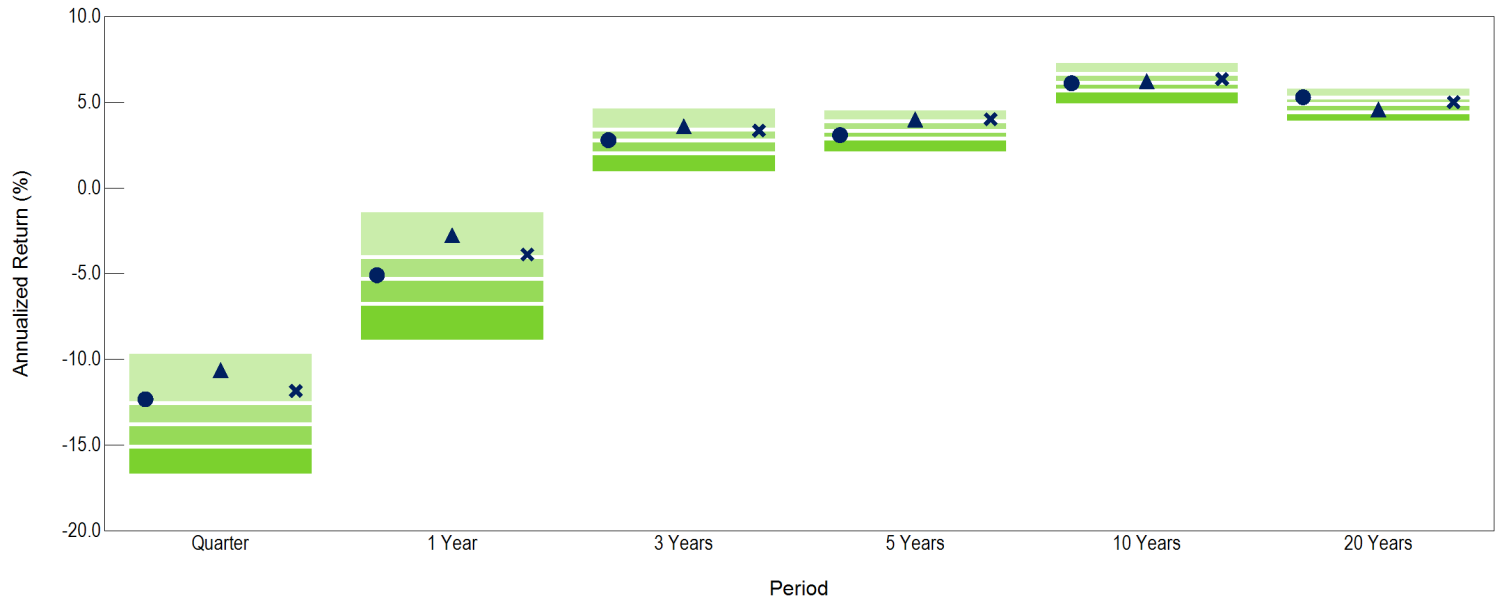
■ Composite
 ■ Allocation Index
 ■ Policy Index



MWRA Employees' Retirement System

TOTAL FUND RETURN SUMMARY vs. PEER UNIVERSE

Composite vs. InvMetrics Public DB Net



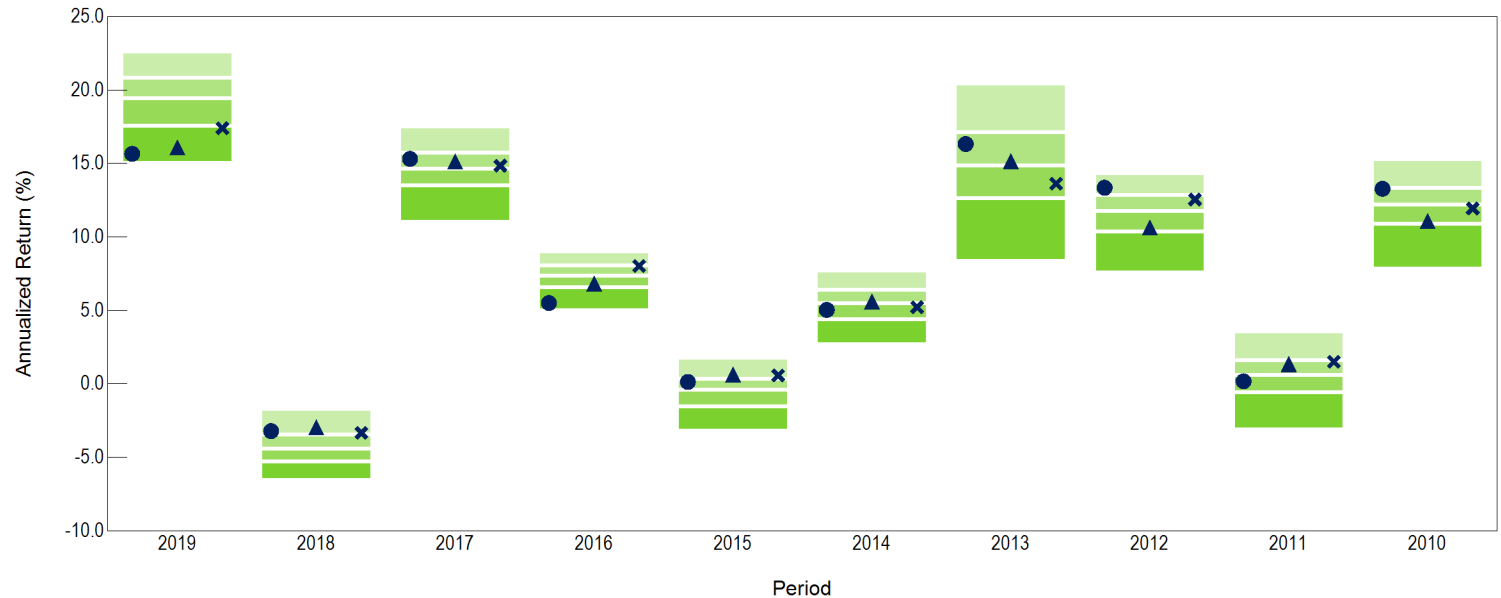
	Return (Rank)											
5th Percentile	-9.6		-1.3		4.7		4.6		7.4		5.9	
25th Percentile	-12.5		-4.0		3.4		3.9		6.7		5.3	
Median	-13.8		-5.3		2.8		3.3		6.2		4.9	
75th Percentile	-15.1		-6.7		2.0		2.9		5.7		4.5	
95th Percentile	-16.7		-9.0		0.9		2.0		4.9		3.8	
# of Portfolios	546		545		528		488		411		176	
● Composite	-12.3	(23)	-5.1	(47)	2.8	(50)	3.1	(66)	6.1	(53)	5.3	(25)
▲ Allocation Index	-10.6	(8)	-2.8	(12)	3.6	(21)	4.0	(21)	6.2	(47)	4.6	(69)
× Policy Index	-11.8	(16)	-3.9	(22)	3.4	(30)	4.0	(21)	6.4	(41)	5.0	(46)



MWRA Employees' Retirement System

TOTAL RETURN SUMMARY vs. PEER UNIVERSE - CALENDAR YEAR

Composite vs. InvMetrics Public DB Net



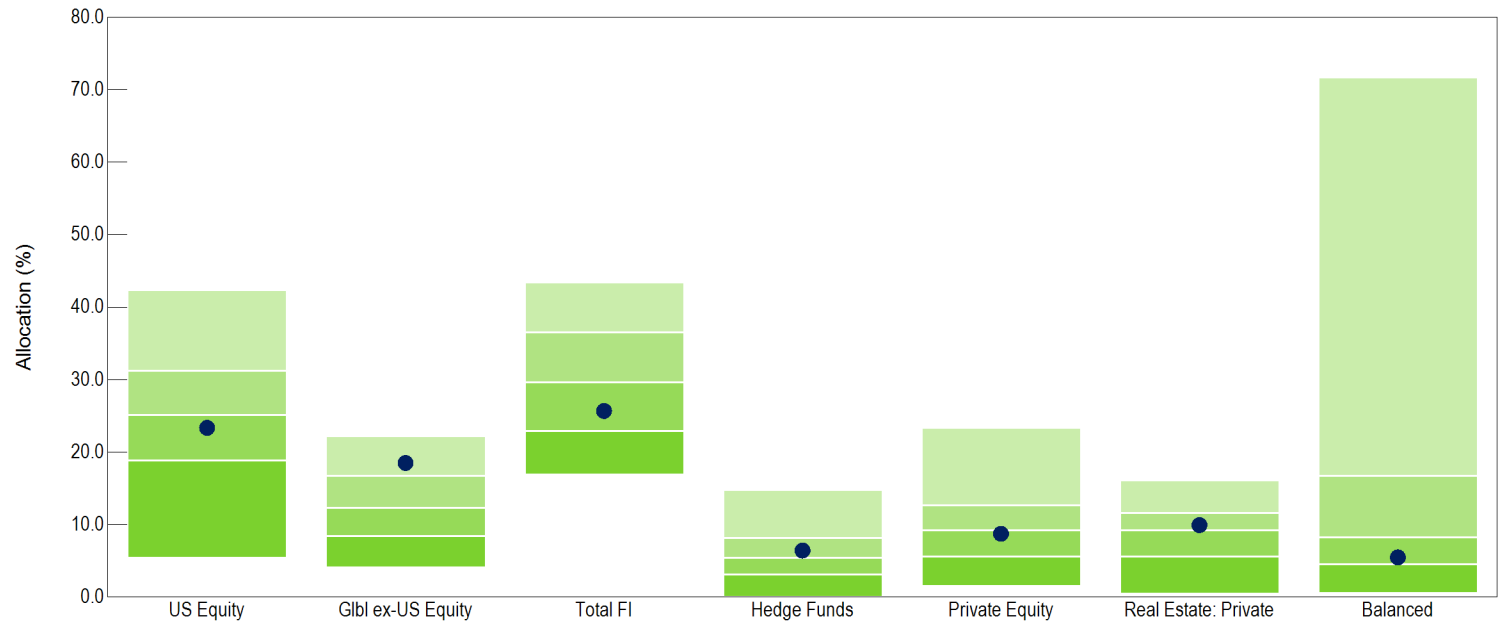
	Return (Rank)															
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010						
5th Percentile	22.6	-1.7	17.5	9.0	1.7	7.7	20.4	14.3	3.6	15.3						
25th Percentile	20.8	-3.4	15.8	8.1	0.4	6.4	17.2	12.9	1.6	13.4						
Median	19.5	-4.4	14.7	7.4	-0.4	5.5	14.9	11.8	0.6	12.2						
75th Percentile	17.6	-5.2	13.6	6.6	-1.5	4.4	12.7	10.4	-0.5	10.9						
95th Percentile	15.1	-6.5	11.1	5.0	-3.2	2.7	8.4	7.6	-3.1	7.9						
# of Portfolios	550	496	269	269	262	210	191	159	137	131						
● Composite	15.7 (93)	-3.2 (21)	15.3 (36)	5.5 (92)	0.1 (31)	5.0 (62)	16.3 (36)	13.4 (16)	0.2 (63)	13.3 (27)						
▲ Allocation Index	16.1 (91)	-3.0 (16)	15.1 (40)	6.8 (68)	0.6 (19)	5.6 (47)	15.2 (46)	10.6 (72)	1.3 (31)	11.1 (73)						
× Policy Index	17.4 (77)	-3.3 (24)	14.8 (46)	8.0 (28)	0.6 (20)	5.2 (59)	13.6 (66)	12.6 (36)	1.5 (28)	11.9 (56)						



MWRA Employees' Retirement System

TOTAL FUND ALLOCATIONS vs. PEER UNIVERSE

Total Plan Allocation vs. InvMetrics Public DB Net



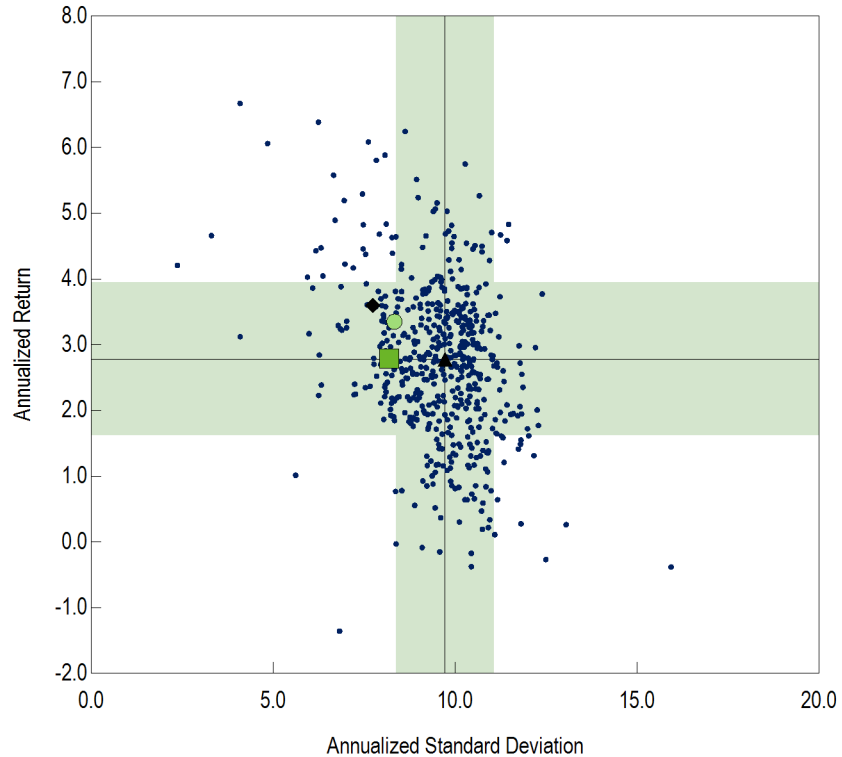
	US Equity		Gbl ex-US Equity		Total FI		Hedge Funds		Private Equity		Real Estate: Private		Balanced	
Allocation (Rank)	42.3	22.2	43.4	14.7	23.3	16.1	71.7	17.0	3.2	5.7	9.3	11.7	16.8	
5th Percentile	5.5	4.2	17.0	0.1	1.6	0.6	0.7	0.1	3.2	5.7	9.3	11.7	16.8	
25th Percentile	18.9	8.6	23.0	3.2	5.7	5.7	4.6	3.2	5.7	9.3	9.3	9.3	8.3	
Median	25.2	12.4	29.7	5.5	9.3	9.3	8.3	5.5	9.3	9.3	9.3	9.3	8.3	
75th Percentile	31.3	16.9	36.6	8.3	12.8	11.7	16.8	8.3	12.8	12.8	11.7	11.7	16.8	
95th Percentile	42.3	22.2	43.4	14.7	23.3	16.1	71.7	14.7	23.3	23.3	16.1	16.1	16.8	
# of Portfolios	150	201	238	82	118	145	19	82	118	145	145	145	19	
• Composite	23.3 (61)	18.5 (18)	25.7 (67)	6.4 (37)	8.7 (56)	9.9 (42)	5.5 (67)	6.4 (37)	8.7 (56)	9.9 (42)	9.9 (42)	9.9 (42)	5.5 (67)	



MWRA Employees' Retirement System

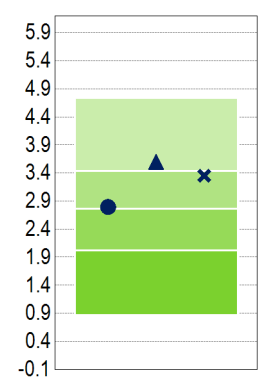
TOTAL FUND RISK/RETURN - 3 YEARS

3 Years Ending March 31, 2020



- Composite
- ◆ Allocation Index
- Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB Net

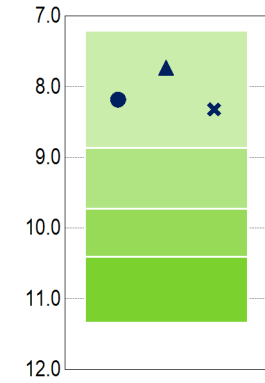
Annualized Return



● Composite	Value	2.79
	Rank	50
▲ Allocation Index	Value	3.60
	Rank	21
× Policy Index	Value	3.35
	Rank	30

Universe	5th %tile	4.74
	25th %tile	3.44
	Median	2.78
	75th %tile	2.03
	95th %tile	0.88

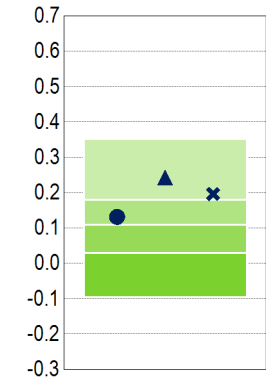
Annualized Standard Deviation



● Composite	Value	8.19
	Rank	14
▲ Allocation Index	Value	7.73
	Rank	8
× Policy Index	Value	8.32
	Rank	16

Universe	5th %tile	7.21
	25th %tile	8.86
	Median	9.72
	75th %tile	10.40
	95th %tile	11.34

Sharpe Ratio



● Composite	Value	0.13
	Rank	42
▲ Allocation Index	Value	0.24
	Rank	13
× Policy Index	Value	0.20
	Rank	24

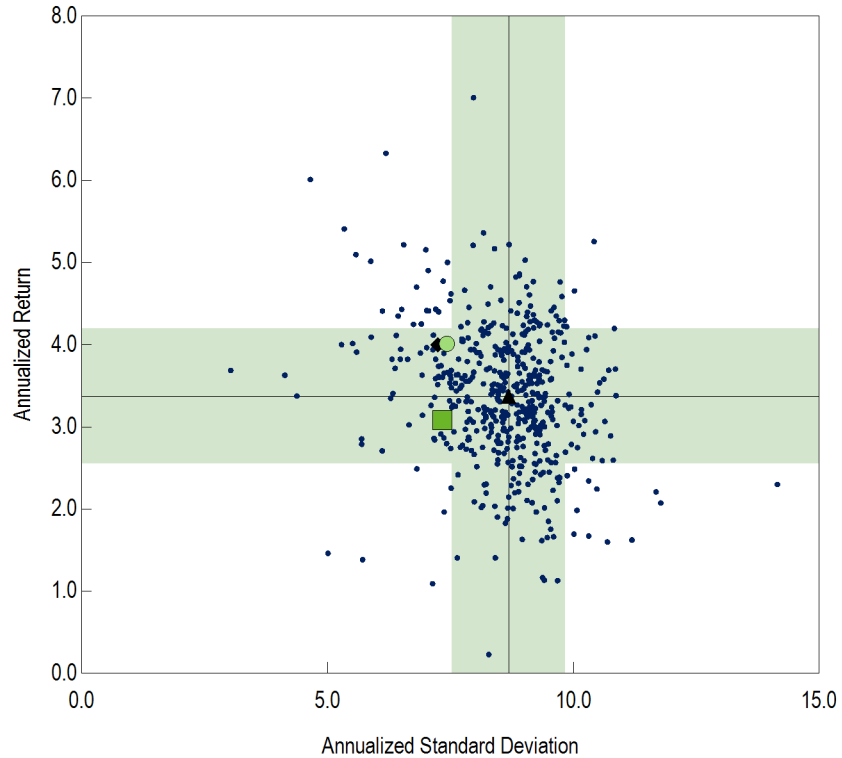
Universe	5th %tile	0.35
	25th %tile	0.18
	Median	0.11
	75th %tile	0.03
	95th %tile	-0.09



MWRA Employees' Retirement System

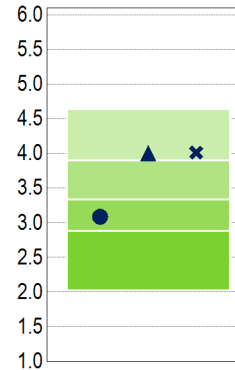
TOTAL FUND RISK/RETURN - 5 YEARS

5 Years Ending March 31, 2020



- Composite
- ◆ Allocation Index
- Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB Net

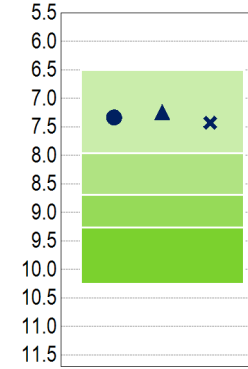
Annualized Return



● Composite	Value	3.08
	Rank	66
▲ Allocation Index	Value	4.00
	Rank	21
× Policy Index	Value	4.01
	Rank	21

Universe	5th %tile	4.64
	25th %tile	3.90
	Median	3.34
	75th %tile	2.89
	95th %tile	2.03

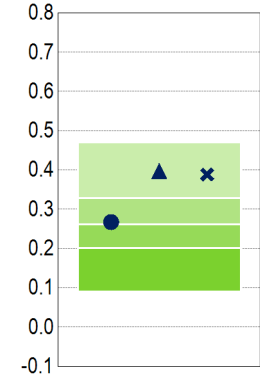
Annualized Standard Deviation



● Composite	Value	7.34
	Rank	13
▲ Allocation Index	Value	7.24
	Rank	11
× Policy Index	Value	7.43
	Rank	14

Universe	5th %tile	6.50
	25th %tile	7.95
	Median	8.68
	75th %tile	9.25
	95th %tile	10.24

Sharpe Ratio



● Composite	Value	0.27
	Rank	48
▲ Allocation Index	Value	0.40
	Rank	11
× Policy Index	Value	0.39
	Rank	12

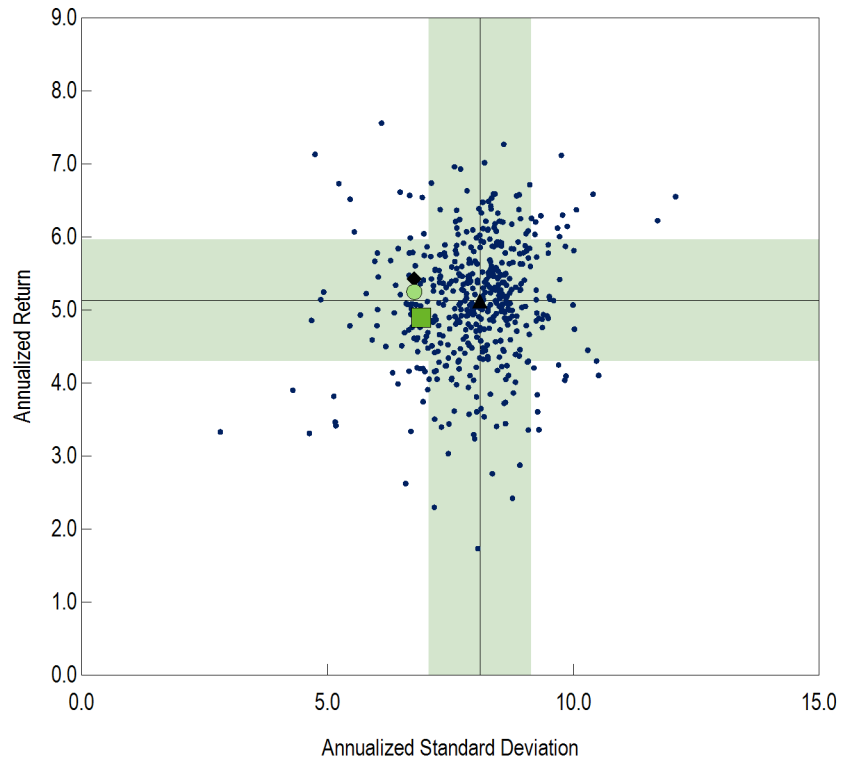
Universe	5th %tile	0.47
	25th %tile	0.33
	Median	0.26
	75th %tile	0.20
	95th %tile	0.09



MWRA Employees' Retirement System

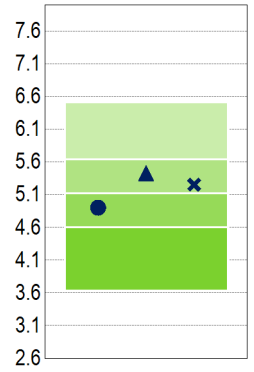
TOTAL FUND RISK/RETURN - 7 YEARS

7 Years Ending March 31, 2020



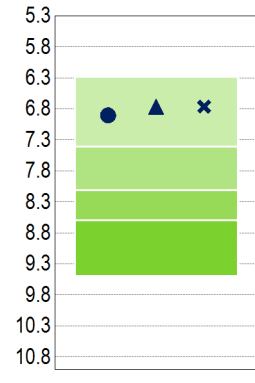
- Composite
- ◆ Allocation Index
- Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB Net

Annualized Return



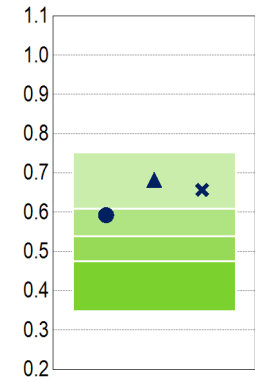
● Composite	Value	4.90
	Rank	64
▲ Allocation Index	Value	5.43
	Rank	35
× Policy Index	Value	5.25
	Rank	45
Universe	5th %tile	6.51
	25th %tile	5.65
	Median	5.13
	75th %tile	4.62
	95th %tile	3.64

Annualized Standard Deviation



● Composite	Value	6.90
	Rank	13
▲ Allocation Index	Value	6.76
	Rank	11
× Policy Index	Value	6.76
	Rank	11
Universe	5th %tile	6.29
	25th %tile	7.39
	Median	8.10
	75th %tile	8.59
	95th %tile	9.49

Sharpe Ratio



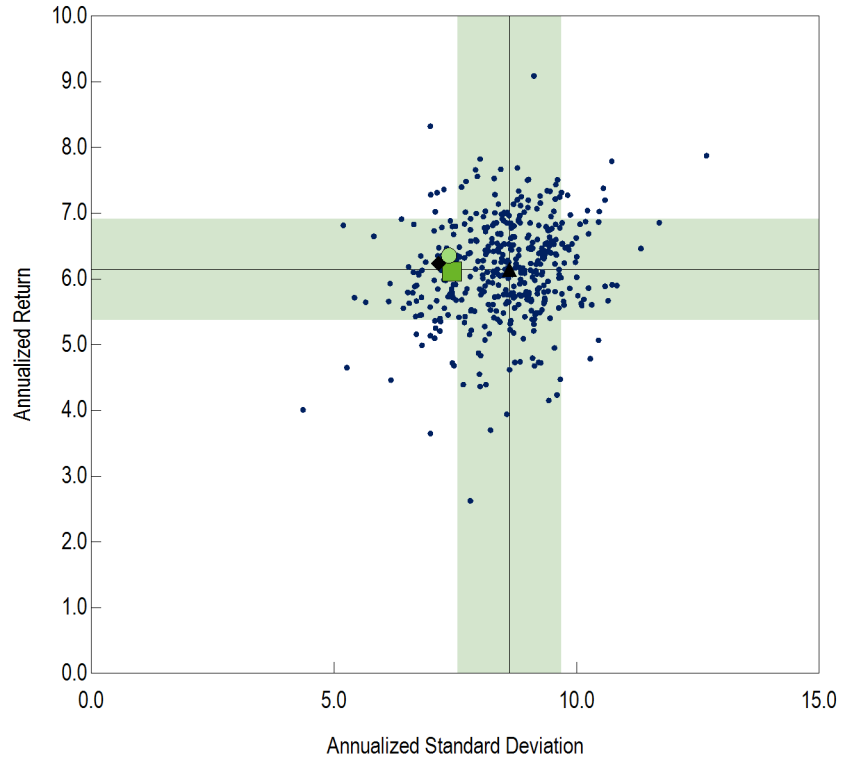
● Composite	Value	0.59
	Rank	31
▲ Allocation Index	Value	0.68
	Rank	11
× Policy Index	Value	0.66
	Rank	15
Universe	5th %tile	0.75
	25th %tile	0.61
	Median	0.54
	75th %tile	0.48
	95th %tile	0.35



MWRA Employees' Retirement System

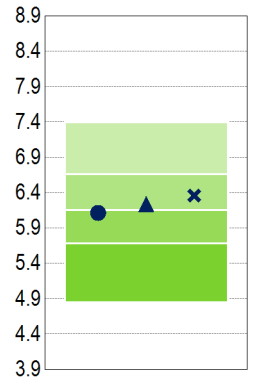
TOTAL FUND RISK/RETURN - 10 YEARS

10 Years Ending March 31, 2020



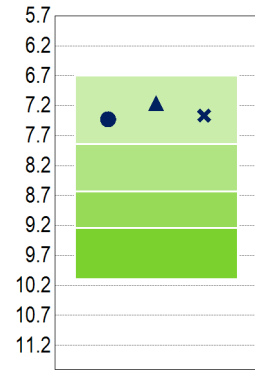
- Composite
- ◆ Allocation Index
- Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB Net

Annualized Return



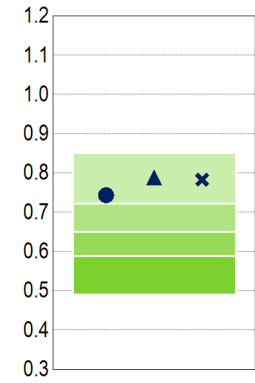
● Composite	Value	6.11
	Rank	53
▲ Allocation Index	Value	6.24
	Rank	47
× Policy Index	Value	6.36
	Rank	41
Universe	5th %tile	7.39
	25th %tile	6.67
	Median	6.17
	75th %tile	5.69
	95th %tile	4.86

Annualized Standard Deviation



● Composite	Value	7.43
	Rank	17
▲ Allocation Index	Value	7.16
	Rank	12
× Policy Index	Value	7.37
	Rank	15
Universe	5th %tile	6.70
	25th %tile	7.83
	Median	8.62
	75th %tile	9.23
	95th %tile	10.09

Sharpe Ratio



● Composite	Value	0.74
	Rank	22
▲ Allocation Index	Value	0.79
	Rank	12
× Policy Index	Value	0.78
	Rank	13
Universe	5th %tile	0.85
	25th %tile	0.72
	Median	0.65
	75th %tile	0.59
	95th %tile	0.49



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Composite	510,721,975	100.0	100.0	-12.3	23	-5.1	47	2.8	50	3.1	66	6.1	53	5.3	25	6.4	Jan-86
Allocation Index				-10.6	8	-2.8	12	3.6	21	4.0	21	6.2	47	4.6	69	--	Jan-86
Policy Index				-11.8	16	-3.9	22	3.4	30	4.0	21	6.4	41	5.0	46	--	Jan-86
InvMetrics Public DB Net Median				-13.8		-5.3		2.8		3.3		6.2		4.9		7.7	Jan-86
Total Balanced	27,961,838	5.5	5.0	-15.3	--	-10.6	--	-1.6	--	-0.1	--	--	--	--	--	2.1	Dec-10
PRIT Core Fund	3,668,557	0.7		-10.1	9	-1.7	8	4.5	2	4.8	1	7.1	1	5.4	1	6.2	Apr-99
PIMCO All Asset	24,293,281	4.8	5.0	-16.0		-10.6		-1.0		1.1		3.4		--		6.0	Dec-08
PIMCO All Asset Index				-2.9	4	3.3	1	3.5	13	3.4	7	4.5	30	5.5	45	6.0	Dec-08
eV Global TAA Net Median				-12.8		-6.6		0.2		0.6		3.7		5.1		6.1	Dec-08
Total Domestic Equity	119,211,689	23.3	24.0	-20.8	34	-8.8	29	5.0	26	5.1	31	9.9	31	4.8	83	6.0	May-99
Russell 3000				-20.9	35	-9.1	30	4.0	32	5.8	25	10.1	28	4.9	82	5.5	May-99
eV All US Equity Net Median				-24.5		-15.4		0.2		2.6		8.3		6.6		7.3	May-99
Large Cap	93,181,197	18.2	18.0	-17.3	18	-4.0	15	7.6	17	6.6	19	--	--	--	--	11.0	Dec-10
eV All US Equity Net Median				-24.5		-15.4		0.2		2.6		8.3		6.6		8.3	Dec-10
Rhumbline Advisors S&P 500 Index Fund	41,446,861	8.1	10.0	-19.5	40	-7.0	32	5.0	24	6.6	15	10.4	14	4.8	85	7.5	Apr-97
S&P 500				-19.6	40	-7.0	33	5.1	24	6.7	13	10.5	11	4.8	85	7.5	Apr-97
eV US Large Cap Core Equity Net Median				-20.1		-8.7		3.4		5.0		9.6		5.8		8.0	Apr-97
Coho Relative Value Equity	25,599,728	5.0	4.0	-17.8	3	-6.0	5	4.7	3	--	--	--	--	--	--	6.7	Mar-16
Russell 1000 Value				-26.7	55	-17.2	53	-2.2	58	1.9	51	7.7	44	5.4	76	4.5	Mar-16
eV US Large Cap Value Equity Net Median				-26.4		-16.8		-1.5		2.0		7.4		6.2		4.5	Mar-16
Polen Focused Growth	26,134,608	5.1	4.0	-13.2	40	2.4	17	14.7	10	--	--	--	--	--	--	14.0	Feb-16
Russell 1000 Growth				-14.1	51	0.9	34	11.3	39	10.4	26	13.0	17	4.0	88	13.6	Feb-16
eV US Large Cap Growth Equity Net Median				-14.0		-1.0		10.2		8.7		11.8		5.2		12.2	Feb-16
Small Cap	26,030,493	5.1	6.0	-31.5	78	-22.5	72	-2.6	64	0.8	65	--	--	--	--	7.7	Dec-10
eV All US Equity Net Median				-24.5		-15.4		0.2		2.6		8.3		6.6		8.3	Dec-10
Boston Partners Small Cap Value	12,704,262	2.5	3.0	-38.8	81	-29.1	51	-10.0	56	-3.6	66	4.5	70	8.0	45	8.2	Feb-97
Russell 2000 Value				-35.7	58	-29.6	55	-9.5	46	-2.4	38	4.8	64	6.8	82	6.9	Feb-97
eV US Small Cap Value Equity Net Median				-35.1		-29.1		-9.7		-2.9		5.2		7.8		8.0	Feb-97
Loomis Sayles Small Cap Growth	13,326,230	2.6	3.0	-24.0	57	-16.1	53	4.7	42	4.9	39	11.3	21	2.4	92	5.4	Jan-97
Russell 2000 Growth				-25.8	72	-18.6	65	0.1	73	1.7	77	8.9	69	3.5	79	5.7	Jan-97
eV US Small Cap Growth Equity Net Median				-23.4		-15.8		3.6		4.1		10.0		5.9		8.4	Jan-97



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Total Non-US Equity	94,467,780	18.5	20.0	-23.9	55	-16.2	60	-1.5	55	-0.9	69	1.2	91	1.8	93	3.2	Mar-99
<i>eV All ACWI ex-US Equity Net Median</i>				-23.1		-13.6		-0.9		0.3		3.7		3.3		5.6	Mar-99
International Equity	74,037,524	14.5	15.0	-23.5	44	-14.8	39	-0.5	27	-0.1	43	1.9	86	--	--	2.1	Sep-05
<i>eV All EAFE Equity Net Median</i>				-24.3		-16.1		-2.4		-0.6		3.7		3.5		3.4	Sep-05
SEG Baxter Street	26,938,741	5.3	5.0	-21.2	34	-12.2	41	2.8	17	--	--	--	--	--	--	4.8	May-16
<i>MSCI ACWI ex USA</i>				-23.4	53	-15.6	59	-2.0	60	-0.6	65	2.1	81	2.4	88	1.0	May-16
<i>eV All ACWI ex-US Equity Net Median</i>				-23.1		-13.6		-0.9		0.3		3.7		3.3		1.5	May-16
LMCG Small Cap International	20,415,811	4.0	5.0	-29.3	90	-21.6	86	--	--	--	--	--	--	--	--	-9.6	Aug-17
<i>MSCI EAFE Small Cap</i>				-27.5	80	-18.1	73	-2.9	69	1.0	39	4.8	32	5.6	5	-7.3	Aug-17
<i>eV All ACWI ex-US Equity Net Median</i>				-23.1		-13.6		-0.9		0.3		3.7		3.3		-5.2	Aug-17
Schroder International Alpha Trust Class 1	26,682,972	5.2	5.0	-20.8	33	-12.7	44	0.4	38	0.7	43	--	--	--	--	3.3	Mar-12
<i>MSCI ACWI ex USA</i>				-23.4	53	-15.6	59	-2.0	60	-0.6	65	2.1	81	2.4	88	1.7	Mar-12
<i>eV All ACWI ex-US Equity Net Median</i>				-23.1		-13.6		-0.9		0.3		3.7		3.3		3.3	Mar-12
Emerging Markets Equity	20,430,257	4.0	5.0	-25.2	51	-20.8	66	-4.6	69	-3.4	86	--	--	--	--	-2.6	Nov-13
<i>MSCI Emerging Markets</i>				-23.6	35	-17.7	40	-1.6	32	-0.4	41	0.7	64	5.2	78	-0.7	Nov-13
<i>eV Emg Mkts Equity Net Median</i>				-25.1		-19.1		-2.7		-0.9		1.3		6.1		-0.8	Nov-13
LMCG Emerging Markets	20,430,257	4.0	5.0	-25.2	51	-20.8	66	-4.6	69	-3.4	86	--	--	--	--	-2.7	Dec-13
<i>MSCI Emerging Markets</i>				-23.6	35	-17.7	40	-1.6	32	-0.4	41	0.7	64	5.2	78	-0.5	Dec-13
<i>eV Emg Mkts Equity Net Median</i>				-25.1		-19.1		-2.7		-0.9		1.3		6.1		-0.6	Dec-13



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Total Fixed Income	131,092,050	25.7	25.0	-0.2	47	4.8	36	3.6	35	3.2	26	5.1	21	6.6	7	6.4	Mar-99
<i>eV All US Fixed Inc Net Median</i>				-0.5		3.2		2.9		2.5		3.7		4.9		4.7	Mar-99
Loomis Sayles Multisector Full Discretion Trust	37,707,032	7.4	8.0	-2.6	97	2.8	98	3.4	91	3.5	22	5.5	1	7.5	1	7.5	Mar-99
<i>BBgBarc US Aggregate TR</i>				3.1	15	8.9	13	4.8	15	3.4	30	3.9	56	5.1	58	4.9	Mar-99
<i>BBgBarc US High Yield TR</i>				-12.7	99	-6.9	99	0.8	99	2.8	83	5.6	1	6.5	1	6.2	Mar-99
<i>eV US Core Fixed Inc Net Median</i>				1.7		7.3		4.4		3.2		3.9		5.1		5.0	Mar-99
Rhumbline TIPS	26,386,445	5.2	5.0	1.6	26	6.8	20	3.5	16	--	--	--	--	--	--	3.1	Jun-16
<i>BBgBarc US TIPS TR</i>				1.7	23	6.9	19	3.5	15	2.7	25	3.5	17	5.4	62	3.2	Jun-16
<i>eV US TIPS / Inflation Fixed Inc Net Median</i>				0.5		5.1		2.9		2.2		3.0		5.5		2.9	Jun-16
Lord Abbett Core Fixed Income	20,174,649	4.0	6.0	1.5	58	7.0	59	--	--	--	--	--	--	--	--	5.5	Apr-18
<i>BBgBarc US Aggregate TR</i>				3.1	15	8.9	13	4.8	15	3.4	30	3.9	56	5.1	58	6.7	Apr-18
<i>eV US Core Fixed Inc Net Median</i>				1.7		7.3		4.4		3.2		3.9		5.1		5.9	Apr-18
Garcia Hamilton Fixed Income Aggregate	40,195,204	7.9	6.0	1.4	59	6.0	83	--	--	--	--	--	--	--	--	5.0	Apr-18
<i>BBgBarc US Aggregate TR</i>				3.1	15	8.9	13	4.8	15	3.4	30	3.9	56	5.1	58	6.7	Apr-18
<i>eV US Core Fixed Inc Net Median</i>				1.7		7.3		4.4		3.2		3.9		5.1		5.9	Apr-18
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	6,435,315	1.3		-10.1	99	--	--	--	--	--	--	--	--	--	--	-8.3	Aug-19
<i>Credit Suisse Leveraged Loan</i>				-13.2	99	-9.5	99	-0.7	99	1.2	99	3.3	96	4.0	99	-11.6	Aug-19
<i>eV US Core Fixed Inc Net Median</i>				1.7		7.3		4.4		3.2		3.9		5.1		3.8	Aug-19
Invesco Mortgage Recovery Loans Feeder Fund	193,404	0.0		-0.4	49	-5.0	99	4.3	28	4.1	3	13.0	1	--	--	13.0	Apr-10
<i>BBgBarc US Aggregate TR</i>				3.1	5	8.9	5	4.8	9	3.4	24	3.9	83	5.1	83	3.9	Apr-10
<i>eV US Core Plus Fixed Inc Net Median</i>				-0.6		5.5		3.9		3.1		4.3		5.5		4.3	Apr-10
Total Hedge Fund	32,798,003	6.4	6.0	-7.6	--	-3.7	--	0.3	--	-0.3	--	2.6	--	--	--	2.5	Oct-06
PRIM Portfolio Completion Strategies	12,625,603	2.5		-8.8	--	-4.7	--	0.8	--	0.8	--	3.4	--	--	--	3.1	Oct-06
Corbin Pinehurst Partners	9,352,379	1.8		-10.7	--	-6.7	--	--	--	--	--	--	--	--	--	-3.4	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				-8.8	--	-5.5	--	0.0	--	0.0	--	1.7	--	2.6	--	-2.3	Nov-18
UBS Neutral Alpha Strategies	10,068,944	2.0		-3.0	--	1.4	--	--	--	--	--	--	--	--	--	1.2	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				-8.8	--	-5.5	--	0.0	--	0.0	--	1.7	--	2.6	--	-2.3	Nov-18
Entrust Peru Wind Down	751,077	0.1		-0.7	--	-6.5	--	--	--	--	--	--	--	--	--	-5.5	Dec-17
<i>HFRI Fund of Funds Composite Index</i>				-8.8	--	-5.5	--	0.0	--	0.0	--	1.7	--	2.6	--	-1.8	Dec-17
Other	9,890,676	1.9	0.0	0.4	--	2.5	--	2.0	--	1.2	--	--	--	--	--	0.7	Dec-10
Cash Account	9,890,676	1.9		0.4	38	2.5	5	2.0	8	1.2	57	0.7	47	1.9	22	1.9	Feb-00
<i>91 Day T-Bills</i>				0.4	53	1.9	75	1.7	63	1.1	71	0.6	69	1.6	76	1.6	Feb-00
<i>eV US Cash Management Net Median</i>				0.4		2.0		1.8		1.3		0.7		1.8		1.8	Feb-00



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Total Real Estate	50,699,111	9.9	10.0	0.5	--	5.8	--	7.8	--	8.8	--	11.0	--	7.8	--	7.9	Apr-99
<i>NCREIF Property Index</i>				0.7	--	5.3	--	6.4	--	7.6	--	10.2	--	8.6	--	8.8	Apr-99
Morgan Stanley Prime Property (\$2.8m commitment in '95)	20,018,385	3.9		0.6	--	5.3	--	7.1	--	8.8	--	12.0	--	8.2	--	8.6	Sep-95
TA Realty Core Property Fund, LP (\$15m commitment in '19)	20,411,463	4.0		1.5	--	--	--	--	--	--	--	--	--	--	--	6.1	Jun-19
Invesco Mortgage Recovery II (\$3M commitment in '15)	911,451	0.2		1.4	--	8.3	--	13.0	--	--	--	--	--	--	--	12.9	Oct-15
Landmark VI (\$2m commitment in '11)	114,790	0.0		-0.3	--	-13.7	--	-7.6	--	-3.6	--	--	--	--	--	5.2	Jul-11
Landmark VIII (\$4m commitment in '17)	1,326,469	0.3		-1.1	--	4.1	--	--	--	--	--	--	--	--	--	19.4	Nov-17
Courtland/Mesirov MFire (\$2m commitment in '11)	674,011	0.1		-5.4	--	-9.7	--	-0.3	--	4.3	--	--	--	--	--	2.8	May-12
Cerberus (\$1.5m commitment in '12)	749,959	0.1		0.5	--	9.1	--	6.5	--	8.9	--	--	--	--	--	12.4	May-13
TA Realty Fund X LP (\$3.5m commitment in '12)	396,143	0.1		-5.9	--	6.5	--	11.8	--	10.2	--	--	--	--	--	10.3	May-13
TerraCap Partners III, LP (\$2.6m commitment in '15)	1,769,682	0.3		0.3	--	2.5	--	6.5	--	--	--	--	--	--	--	11.8	Jul-15
TerraCap Partners IV, LP (\$4m commitment in '17)	4,326,758	0.8		-1.5	--	11.1	--	--	--	--	--	--	--	--	--	10.7	Nov-17
Total Private Equity	44,600,828	8.7	10.0	-7.5	--	-3.8	--	7.4	--	8.0	--	12.3	--	6.4	--	8.7	Apr-99
<i>CJA US All PE</i>				-10.1	--	-2.3	--	8.6	--	9.2	--	12.1	--	9.9	--	11.7	Apr-99
<i>NASDAQ W/O Income</i>				-14.2	--	-0.4	--	9.2	--	9.5	--	12.4	--	2.6	--	5.6	Apr-99
PRIM Vintage Year 2008 (\$3m commitment in '08)	1,105,695	0.2		2.4	--	12.6	--	18.5	--	18.5	--	18.7	--	--	--	8.7	Jun-08
PRIM Vintage Year 2009 (\$1m commitment in '09)	148,128	0.0		1.6	--	17.5	--	21.8	--	20.2	--	13.2	--	--	--	8.6	Nov-09
PRIM Vintage Year 2010 (\$1m commitment in '10)	505,365	0.1		5.0	--	4.3	--	14.1	--	14.3	--	--	--	--	--	7.7	Jun-10
PRIM Vintage Year 2011 (\$1.5m commitment in '11)	1,057,717	0.2		5.6	--	14.8	--	17.4	--	20.3	--	--	--	--	--	3.9	May-11
PRIM Vintage Year 2012 (\$1m commitment in '12)	683,159	0.1		11.3	--	25.5	--	19.4	--	16.4	--	--	--	--	--	-15.6	Jun-12
PRIM Vintage Year 2014 (\$2m commitment in '14)	1,913,659	0.4		7.7	--	26.0	--	24.6	--	17.9	--	--	--	--	--	2.2	Jun-14
PRIM Vintage Year 2017 (\$2m commitment in '17)	1,010,073	0.2		3.7	--	14.8	--	--	--	--	--	--	--	--	--	8.2	May-17
PRIM Vintage Year 2020 (\$5m commitment in '20)	40,527	0.0		--	--	--	--	--	--	--	--	--	--	--	--	1.4	Mar-20
Alcentra European DLF (\$5m commitment in '14)	1,107,545	0.2		-7.1	--	-3.8	--	0.5	--	2.8	--	--	--	--	--	4.0	Jan-15
Ascent Fund IV (\$2m commitment in '04)	31,155	0.0		-0.9	--	-3.0	--	-51.7	--	-48.3	--	-32.0	--	--	--	-22.2	Jul-04
Ascent Fund IV-B (\$1m commitment in '16)	198,950	0.0		-26.1	--	-41.9	--	-19.5	--	--	--	--	--	--	--	-15.2	Jul-16
Ascent Fund V (\$2m commitment in '08)	1,574,830	0.3		-11.1	--	-8.5	--	-5.4	--	-0.8	--	6.6	--	--	--	4.3	Oct-08
Ascent VI (\$3m commitment in '15)	2,726,314	0.5		-7.3	--	-8.6	--	3.8	--	--	--	--	--	--	--	0.3	Dec-15
Castile Ventures III, L.P. (\$3m commitment in '07)	26,619	0.0		-20.3	--	-89.4	--	-67.2	--	-53.8	--	-34.5	--	--	--	-31.0	Jan-08
CVI Credit Value Fund IV A LP (\$6m commitment in '17)	4,874,364	1.0		-16.8	--	-12.3	--	--	--	--	--	--	--	--	--	-2.5	Dec-17
Invesco Fund IV (\$3m commitment in '03)	13,621	0.0		-3.1	--	-28.5	--	-14.6	--	-7.7	--	--	--	--	--	--	Feb-04
Invesco Fund VI (\$5m commitment in '13)	6,304,315	1.2		-5.1	--	-1.0	--	10.0	--	9.1	--	--	--	--	--	11.9	Jul-13

Note:

1. Market values for Real Estate managers are as of 3/31/2020.
2. Market values for Private Equity managers are as of 3/31/2020.



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Kayne Energy Fund VII (\$5m commitment in '15)	1,078,712	0.2		-64.3	--	-75.6	--	-31.4	--	--	--	--	--	--	--	-18.5	Jan-16
Foundry 2007 (\$3m commitment in '07)	226,053	0.0		-3.1	--	-26.6	--	-17.9	--	-12.9	--	8.9	--	--	--	16.7	Dec-07
Foundry 2010 (\$3m commitment in '10)	3,202,527	0.6		-1.8	--	-4.3	--	9.9	--	3.6	--	--	--	--	--	7.9	Jan-11
Foundry 2010 Annex (\$0.4m commitment in '15)	202,641	0.0		2.4	--	28.1	--	29.3	--	--	--	--	--	--	--	15.2	Sep-15
Pinebridge PEP V (\$6m commitment in '07)	554,843	0.1		-15.9	--	-17.9	--	-6.1	--	1.4	--	--	--	--	--	--	Mar-08
Landmark XV (\$3m commitment in '13)	1,230,160	0.2		-0.9	--	14.1	--	12.2	--	10.3	--	--	--	--	--	13.2	Nov-13
JFL Equity Investors IV, L.P. (\$6m commitment in '16)	6,832,758	1.3		-1.1	--	36.5	--	41.1	--	--	--	--	--	--	--	36.6	Jan-17
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)	3,679,243	0.7		6.2	--	13.0	--	16.4	--	--	--	--	--	--	--	16.5	Feb-17
Park Square Credit Opportunities III (\$3m commitment in '17)	2,316,287	0.5		2.0	--	9.7	--	--	--	--	--	--	--	--	--	6.5	Feb-18
Ironsides Constitution Opportunities (\$3m commitment in '18)	1,955,568	0.4		-2.6	--	7.8	--	--	--	--	--	--	--	--	--	6.6	Sep-18

Note:

1. Market values for Private Equity managers are as of 3/31/2020.



MWRA Employees' Retirement System

NOTES

- 1 - Results for periods longer than one year are annualized.
- 2 - Total Balanced, Large Cap, Small Cap, and Other Composite performance starts 12/1/2010.
- 3 - Total Composite net of fee since inception return is 6.4% for the current month
- 4 - Total Composite gross of fee since inception return is 8.1% for the current month
- 5 - Targets, Allocation Index, and Policy Index have been updated to reflect new allocation of 11/01/2019.
- 6 - Policy Index changed from Nasdaq to Cambridge All PE to reflect as of 5/1/2012.
- 7 - Policy Index Consists of: 18% S&P 500, 6% Russell 2000, 10% MSCI EAFE, 5% MSCI ACWI IMI , 5% MSCI Emerging Markets, 12% BBgBarc US Aggregate TR, 5% BBgBarc US TIPS TR, 8% BBgBarc US Universal TR, 10% NCREIF Property Index, 10% C|A US All PE , 6% HFRI Fund of Funds Composite Index, 5% 60% MSCI ACWI/40% CITI FTSE WGBI.
- 8 - Allocation index consists of: Weighted index of underlying managers to their respective benchmark.



Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
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- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.



QUARTERLY PERFORMANCE REPORT

MWRA Employees' Retirement System

March 31, 2020

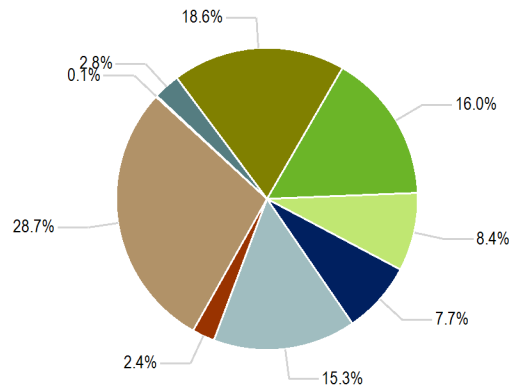


BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

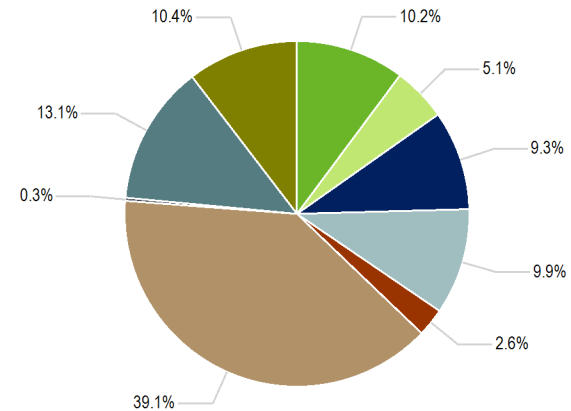
MWRA Employees' Retirement System

ANALYSIS BY STRATEGY

Private Markets Valuation by Strategy



Private Markets Fund Exposure by Strategy



■ Buyout
 ■ Direct Lending
 ■ Energy
 ■ Growth Equity
 ■ Venture Capital
■ Co-Investments
 ■ Distressed
 ■ Fund of Funds
 ■ Secondaries

■ Buyout
 ■ Direct Lending
 ■ Energy
 ■ Growth Equity
 ■ Venture Capital
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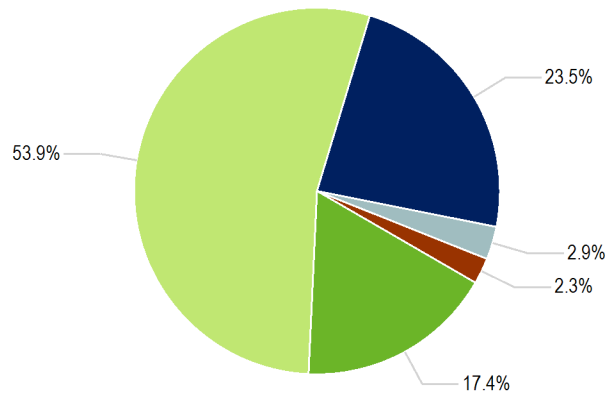
Investment Strategy	Commitments			Contributions & Distributions			Valuations				Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Fund Exposure	DPI	TVPI	IRR
Total Buyout	\$9,390,541	\$1,662,846	0.82	\$7,727,695	\$114,412	\$5,821,206	\$7,153,126	\$12,974,332	\$5,132,225	\$8,815,972	0.74	1.65	11.71%
Total Co-Investments	\$4,900,000	\$642,567	0.87	\$4,257,434	\$46,833	\$1,775,413	\$3,734,651	\$5,510,064	\$1,205,798	\$4,377,218	0.41	1.28	7.51%
Total Direct Lending	\$8,000,000	\$4,641,865	0.42	\$3,358,135	\$26,581	\$1,288,167	\$3,423,832	\$4,712,000	\$1,327,283	\$8,065,697	0.38	1.39	7.26%
Total Distressed	\$9,000,000	\$1,764,846	0.80	\$7,235,154	-\$19,059	\$13,173	\$6,829,932	\$6,843,105	-\$372,990	\$8,594,778	0.00	0.95	-5.30%
Total Energy	\$5,000,000	\$1,207,763	0.76	\$3,792,237	-\$40,917	\$984,075	\$1,078,712	\$2,062,787	-\$1,688,533	\$2,286,475	0.26	0.55	-24.38%
Total Fund of Funds	\$33,500,000	\$21,021,150	0.37	\$12,478,850	\$234,989	\$12,001,656	\$12,782,259	\$24,783,916	\$12,070,076	\$33,803,409	0.94	1.95	13.52%
Total Growth Equity	\$900,000	\$194,403	0.78	\$705,597	-\$9,254	\$1,235,115	\$58,238	\$1,293,353	\$597,010	\$252,641	1.77	1.86	9.40%
Total Secondaries	\$12,600,000	\$10,061,710	0.20	\$2,538,290	\$8,160	\$2,131,680	\$1,265,932	\$3,397,612	\$851,162	\$11,327,642	0.84	1.33	10.05%
Total Venture Capital	\$20,123,012	\$736,528	0.96	\$19,386,484	\$64,437	\$24,809,677	\$8,274,146	\$33,083,823	\$13,632,903	\$9,010,675	1.28	1.70	11.62%
Total	\$103,413,553	\$41,933,678	0.59	\$61,479,875	\$426,182	\$50,060,163	\$44,600,829	\$94,660,992	\$32,754,934	\$86,534,507	0.81	1.53	10.98%



MWRA Employees' Retirement System

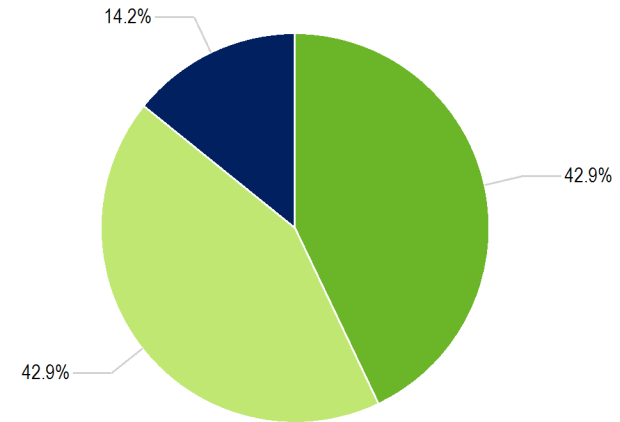
ANALYSIS BY LIFECYCLE

Commitment by Lifecycle



Fundraising Investing Harvesting Liquidating Completed

Unfunded Commitment by Lifecycle



Fundraising Investing Harvesting

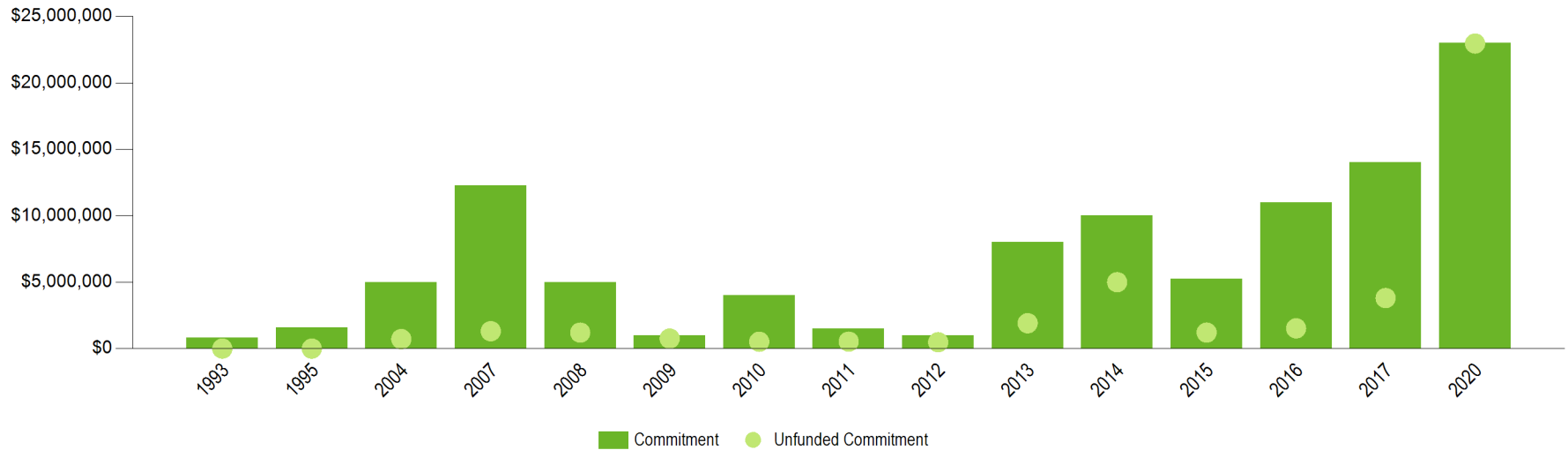
Lifecycle	Commitments			Contributions & Distributions			Valuations			Performance			
	Investments	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total Fundraising		\$18,000,000	\$18,000,000		\$0	\$0	\$0	\$0	\$0	\$0			
Total Investing		\$55,768,205	\$17,972,964	0.68	\$37,795,241	\$8,820	\$14,107,107	\$37,863,635	\$51,970,742	\$14,166,681	0.37	1.37	12.86%
Total Harvesting		\$24,270,541	\$5,960,714	0.75	\$18,309,827	\$365,867	\$30,799,239	\$6,710,574	\$37,509,813	\$18,834,120	1.65	2.01	12.08%
Total Liquidating		\$3,000,000	\$0	1.00	\$3,000,000	\$51,496	\$837,823	\$26,619	\$864,442	-\$2,187,054	0.27	0.28	-34.12%
Total Completed		\$2,374,807	\$0	1.00	\$2,374,807	\$0	\$4,315,995	\$0	\$4,315,995	\$1,941,188	1.82	1.82	11.99%
Total		\$103,413,553	\$41,933,678	0.59	\$61,479,875	\$426,182	\$50,060,163	\$44,600,829	\$94,660,992	\$32,754,934	0.81	1.53	10.98%



MWRA Employees' Retirement System

ANALYSIS BY VINTAGE YEAR

Commitments By Vintage Year



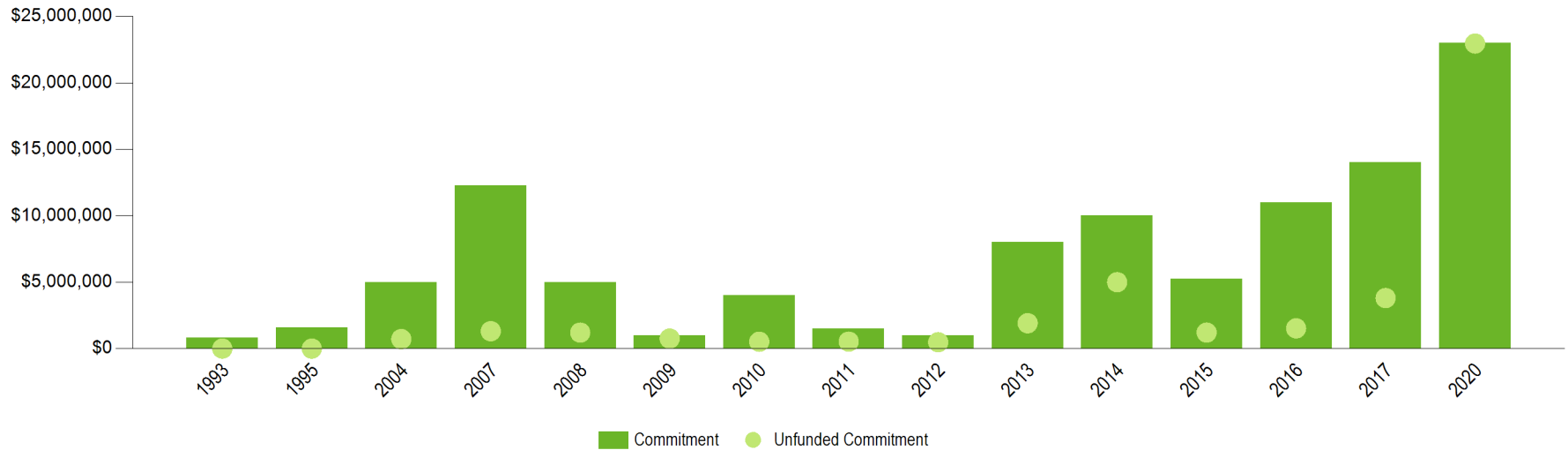
Vintage Year	Commitments			Contributions & Distributions			Valuations			Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total 1993	\$800,000	\$0	1.00	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
Total 1995	\$1,574,807	\$0	1.00	\$1,574,807	\$0	\$3,116,593	\$0	\$3,116,593	\$1,541,786	1.98	1.98	13.46%
Total 2004	\$5,000,000	\$717,234	0.86	\$4,282,766	\$232,198	\$5,144,361	\$44,776	\$5,189,137	\$674,173	1.14	1.15	2.15%
Total 2007	\$12,270,541	\$1,316,307	0.89	\$10,954,234	\$158,583	\$22,171,638	\$807,515	\$22,979,153	\$11,866,336	2.00	2.07	14.29%
Total 2008	\$5,000,000	\$1,206,681	0.76	\$3,793,319	\$2,212	\$4,566,632	\$2,680,525	\$7,247,157	\$3,451,625	1.20	1.91	12.22%
Total 2009	\$1,000,000	\$756,380	0.24	\$243,620	\$109	\$459,421	\$148,128	\$607,548	\$363,819	1.88	2.49	19.16%
Total 2010	\$4,000,000	\$518,822	0.87	\$3,481,178	\$180	\$2,503,211	\$3,707,892	\$6,211,104	\$2,729,746	0.72	1.78	10.12%
Total 2011	\$1,500,000	\$525,396	0.65	\$974,604	\$159	\$1,167,267	\$1,057,717	\$2,224,984	\$1,250,220	1.20	2.28	18.52%
Total 2012	\$1,000,000	\$483,523	0.52	\$516,477	\$44	\$374,551	\$683,159	\$1,057,710	\$541,189	0.73	2.05	17.68%
Total 2013	\$8,000,000	\$1,911,646	0.76	\$6,088,354	-\$9,117	\$2,227,256	\$7,534,475	\$9,761,731	\$3,682,494	0.37	1.61	11.70%
Total 2014	\$10,000,000	\$4,999,487	0.50	\$5,000,513	\$26,581	\$1,758,651	\$5,747,519	\$7,506,169	\$2,479,076	0.35	1.49	8.85%
Total 2015	\$5,268,205	\$1,207,763	0.77	\$4,060,442	-\$40,917	\$1,252,279	\$1,281,353	\$2,533,632	-\$1,485,893	0.31	0.63	-18.54%



MWRA Employees' Retirement System

ANALYSIS BY VINTAGE YEAR

Commitments By Vintage Year



Vintage Year	Commitments			Contributions & Distributions			Valuations			Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total 2016	\$11,000,000	\$1,524,245	0.86	\$9,475,755	\$75,121	\$4,101,359	\$10,710,951	\$14,812,310	\$5,261,435	0.43	1.55	23.92%
Total 2017	\$14,000,000	\$3,806,193	0.73	\$10,193,807	-\$19,033	\$17,542	\$10,156,292	\$10,173,834	-\$940	0.00	1.00	-0.01%
Total 2020	\$23,000,000	\$22,960,000	0.00	\$40,000	\$61	\$0	\$40,527	\$40,527	\$466	0.00	1.01	1.16%
Total	\$103,413,553	\$41,933,678	0.59	\$61,479,875	\$426,182	\$50,060,163	\$44,600,829	\$94,660,992	\$32,754,934	0.81	1.53	10.98%



APPENDIX

MWRA Employees' Retirement System

March 31, 2020



MWRA Employees' Retirement System

RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %							Public Market Equivalent (PME)		
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR	IRR PME	KS PME	Benchmark
AIG PEP V Asia, L.P.	2007	\$549,557	-24.03%	-24.03%	-32.45%	-15.03%	-7.72%	4.17%	1.46%	5.34%	0.81	MSCI ACWI
AIG PEP V Co-Investment, L.P.	2007	\$900,000	-6.76%	-6.76%	7.15%	-10.41%	-6.03%	5.92%	0.48%	6.94%	0.64	MSCI ACWI
AIG PEP V Europe, L.P.	2007	\$1,617,423	-9.29%	-9.29%	1.26%	18.44%	15.37%	10.95%	2.15%	5.42%	0.80	MSCI ACWI
AIG PEP V Large Market U.S. Buyout, L.P.	2007	\$720,000	-25.83%	-25.83%	-25.42%	8.17%	8.08%	14.83%	6.93%	2.59%	1.24	MSCI ACWI
AIG PEP V Preferred Participation Fund, L.P.	2007	\$503,561	-18.02%	-18.02%	-21.56%	-13.19%	21.97%	13.96%	10.58%	8.03%	1.17	MSCI ACWI
AIG PEP V Secondary, L.P.	2007	\$600,000	-6.76%	-6.76%	-17.54%	-9.62%	-4.24%	6.50%	6.84%	8.74%	0.91	MSCI ACWI
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	2007	\$900,000	-11.72%	-11.72%	1.69%	15.40%	12.79%	14.02%	9.40%	2.28%	1.40	MSCI ACWI
AIG PEP V US Venture, L.P.	2007	\$480,000	-10.72%	-10.72%	-22.85%	-2.76%	6.37%	14.89%	13.09%	2.23%	1.62	MSCI ACWI
Alcentra European Direct Lending Fund I, L.P.	2014	\$5,000,000	-7.08%	-7.08%	-3.56%	3.98%	6.08%		7.07%	5.18%	1.06	MSCI ACWI
Ascent Venture Partners II, L.P.	1995	\$774,807							26.71%			
Ascent Venture Partners IV(B), L.P.	2016	\$1,000,000	-23.64%	-23.64%	-39.33%	-18.13%			-0.60%	4.14%	0.85	MSCI ACWI
Ascent Venture Partners IV, L.P.	2004	\$2,000,000	-0.86%	-0.86%	-3.04%	-51.66%	-50.14%	-34.03%	-28.90%	4.87%	0.14	MSCI ACWI
Ascent Venture Partners V, L.P.	2008	\$2,000,000	-11.05%	-11.05%	-8.64%	-5.35%	1.72%	8.04%	6.88%	7.22%	0.98	MSCI ACWI
Ascent Venture Partners VI, L.P.	2014	\$3,000,000	-7.37%	-7.37%	-9.32%	1.75%			2.17%	0.01%	1.06	MSCI ACWI
Boston Capital Venture Fund III, L.P.	1993	\$800,000							8.87%			
Castile Ventures III, L.P.	2007	\$3,000,000	-20.25%	-20.25%	-89.29%	-67.13%	-53.69%	-35.77%	-34.12%	4.72%	0.28	MSCI ACWI
CVI Credit Value Fund A IV, L.P.	2017	\$6,000,000	-17.17%	-17.17%	-16.64%				-10.23%	-9.65%	0.99	MSCI ACWI
Dover Street X, L.P.	2020	\$9,000,000										
Foundry Venture Capital 2007, L.P.	2007	\$3,000,000	-3.12%	-3.12%	-26.52%	10.35%	23.81%	32.00%	42.78%	4.60%	3.65	MSCI ACWI
Foundry Venture Capital 2010 Annex, L.P.	2015	\$268,205	2.19%	2.19%	29.49%	35.45%			18.12%	8.23%	1.41	MSCI ACWI
Foundry Venture Capital 2010, L.P.	2010	\$3,000,000	-1.75%	-1.75%	-4.10%	11.11%	3.88%		8.88%	6.71%	1.14	MSCI ACWI
Hamilton Lane Secondary Fund V, L.P.	2020	\$9,000,000										
Invesco Fund IV, L.P.	2004	\$3,000,000	-3.13%	-3.13%	378.36%	-3.57%	2.19%	16.49%	10.33%			
Invesco Partnership Fund VI, L.P.	2013	\$5,000,000	-5.09%	-5.09%	-0.93%	10.23%	9.31%		11.56%	4.53%	1.37	MSCI ACWI
Ironsides Opportunities Fund, L.P.	2017	\$3,000,000	-1.97%	-1.97%	8.06%				8.07%	-11.77%	1.17	MSCI ACWI
JFL Equity Investors IV, L.P.	2016	\$6,000,000	-1.16%	-1.16%	35.86%	41.77%			34.46%	2.57%	1.73	MSCI ACWI
Kayne Anderson Energy Fund VII, L.P.	2015	\$5,000,000	-64.33%	-64.33%	-75.97%	-35.10%			-24.38%	4.68%	0.59	MSCI ACWI
Landmark Equity Partners XV, L.P.	2013	\$3,000,000	-0.91%	-0.91%	14.07%	12.86%	10.93%		12.33%	4.07%	1.18	MSCI ACWI
Mass PRIM AIVY 2008	2008	\$3,000,000	2.36%	2.36%	8.40%	16.34%	17.55%	19.24%	17.52%	10.16%	1.52	MSCI ACWI
Mass PRIM AIVY 2009	2009	\$1,000,000	1.59%	1.59%	8.50%	21.72%	19.74%	19.49%	19.16%	10.31%	1.67	MSCI ACWI



MWRA Employees' Retirement System

RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %							Public Market Equivalent (PME)		
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR	IRR PME	KS PME	Benchmark
Mass PRIM AIVY 2010	2010	\$1,000,000	4.78%	4.78%	0.95%	12.15%	13.39%		16.42%	8.65%	1.56	MSCI ACWI
Mass PRIM AIVY 2011	2011	\$1,500,000	5.41%	5.41%	14.31%	16.00%	20.33%		18.52%	7.75%	1.69	MSCI ACWI
Mass PRIM AIVY 2012	2012	\$1,000,000	11.14%	11.14%	22.01%	18.23%	16.75%		17.68%	5.27%	1.69	MSCI ACWI
Mass PRIM AIVY 2014	2014	\$2,000,000	7.74%	7.74%	25.72%	26.47%	24.83%		23.83%	3.76%	1.84	MSCI ACWI
Mass PRIM AIVY 2017	2017	\$2,000,000	4.01%	4.01%	15.93%				18.93%	-12.16%	1.37	MSCI ACWI
Mass PRIM AIVY 2020	2020	\$5,000,000							1.16%			
Park Square Capital Credit Opportunities III (USD), L.P.	2017	\$3,000,000	2.00%	2.00%	9.74%				8.87%	-8.46%	1.19	MSCI ACWI
Private Advisors Small Co Coinvestment Fund, L.P.	2016	\$4,000,000	6.50%	6.50%	14.76%	18.98%			18.90%	-1.79%	1.37	MSCI ACWI
Ticonderoga Concord Partners III, L.P.	1995	\$800,000							-8.06%			
Total		\$103,413,553	-7.53%	-7.53%	-4.12%	7.12%	8.23%	12.28%	10.98%			



MWRA Employees' Retirement System

ANALYSIS BY FUND

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
AIG PEP V Asia, L.P.	2007	\$549,557	\$122,805	\$426,752	\$11,622	\$425,655	\$52,834	\$478,489	\$40,115	0.97	1.09	1.46%
AIG PEP V Co-Investment, L.P.	2007	\$900,000	\$22,644	\$877,356	\$32,765	\$885,186	\$55,408	\$940,594	\$30,473	0.97	1.03	0.48%
AIG PEP V Europe, L.P.	2007	\$1,617,423	\$532,089	\$1,085,334	\$25,194	\$1,292,083	\$587	\$1,292,670	\$182,142	1.16	1.16	2.15%
AIG PEP V Large Market U.S. Buyout, L.P.	2007	\$720,000	\$131,894	\$588,106	-\$11,616	\$862,272	\$69,096	\$931,368	\$354,878	1.50	1.62	6.93%
AIG PEP V Preferred Participation Fund, L.P.	2007	\$503,561	\$3,899	\$499,662	\$28,158	\$778,653	\$197,851	\$976,504	\$448,684	1.48	1.85	10.58%
AIG PEP V Secondary, L.P.	2007	\$600,000	\$191,709	\$408,291	\$17,277	\$559,856	\$35,772	\$595,628	\$170,060	1.32	1.40	6.84%
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	2007	\$900,000	\$194,403	\$705,597	-\$9,254	\$1,235,115	\$58,238	\$1,293,353	\$597,010	1.77	1.86	9.40%
AIG PEP V US Venture, L.P.	2007	\$480,000	\$71,864	\$408,136	\$12,941	\$788,687	\$85,057	\$873,744	\$452,667	1.87	2.08	13.09%
Alcentra European Direct Lending Fund I, L.P.	2014	\$5,000,000	\$3,759,673	\$1,240,327	\$26,581	\$1,288,167	\$1,107,545	\$2,395,713	\$1,128,804	1.02	1.89	7.07%
Ascent Venture Partners II, L.P.	1995	\$774,807	\$0	\$774,807	\$0	\$2,571,916	\$0	\$2,571,916	\$1,797,109	3.32	3.32	26.71%
Ascent Venture Partners IV(B), L.P.	2016	\$1,000,000	\$32,164	\$967,836	\$0	\$748,589	\$198,950	\$947,539	-\$20,296	0.77	0.98	-0.60%
Ascent Venture Partners IV, L.P.	2004	\$2,000,000	\$0	\$2,000,000	\$0	\$311,176	\$31,155	\$342,331	-\$1,657,669	0.16	0.17	-28.90%
Ascent Venture Partners V, L.P.	2008	\$2,000,000	\$100,000	\$1,900,000	\$0	\$1,298,211	\$1,574,830	\$2,873,041	\$973,041	0.68	1.51	6.88%
Ascent Venture Partners VI, L.P.	2014	\$3,000,000	\$420,000	\$2,580,000	\$0	\$0	\$2,726,314	\$2,726,314	\$146,314	0.00	1.06	2.17%
Boston Capital Venture Fund III, L.P.	1993	\$800,000	\$0	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
Castile Ventures III, L.P.	2007	\$3,000,000	\$0	\$3,000,000	\$51,496	\$837,823	\$26,619	\$864,442	-\$2,187,054	0.27	0.28	-34.12%
CVI Credit Value Fund A IV, L.P.	2017	\$6,000,000	\$600,000	\$5,400,000	-\$1,229	\$0	\$4,874,364	\$4,874,364	-\$524,407	0.00	0.90	-10.23%
Dover Street X, L.P.	2020	\$9,000,000	\$9,000,000	\$0	\$0	\$0	\$0	\$0	\$0			
Foundry Venture Capital 2007, L.P.	2007	\$3,000,000	\$45,000	\$2,955,000	\$0	\$14,506,308	\$226,053	\$14,732,361	\$11,777,361	4.91	4.99	42.78%
Foundry Venture Capital 2010 Annex, L.P.	2015	\$268,205	\$0	\$268,205	\$0	\$268,204	\$202,641	\$470,845	\$202,640	1.00	1.76	18.12%
Foundry Venture Capital 2010, L.P.	2010	\$3,000,000	\$67,500	\$2,932,500	\$0	\$1,734,684	\$3,202,527	\$4,937,211	\$2,004,711	0.59	1.68	8.88%
Hamilton Lane Secondary Fund V, L.P.	2020	\$9,000,000	\$9,000,000	\$0	\$0	\$0	\$0	\$0	\$0			
Invesco Fund IV, L.P.	2004	\$3,000,000	\$717,234	\$2,282,766	\$232,198	\$4,833,185	\$13,621	\$4,846,806	\$2,331,842	1.92	1.93	10.33%
Invesco Partnership Fund VI, L.P.	2013	\$5,000,000	\$1,041,645	\$3,958,355	\$0	\$655,432	\$6,304,315	\$6,959,747	\$3,001,392	0.17	1.76	11.56%
Ironsides Opportunities Fund, L.P.	2017	\$3,000,000	\$1,164,846	\$1,835,154	-\$17,829	\$13,173	\$1,955,568	\$1,968,741	\$151,416	0.01	1.08	8.07%
JFL Equity Investors IV, L.P.	2016	\$6,000,000	\$872,159	\$5,127,841	\$61,053	\$2,462,543	\$6,832,758	\$9,295,301	\$4,106,406	0.47	1.79	34.46%
Kayne Anderson Energy Fund VII, L.P.	2015	\$5,000,000	\$1,207,763	\$3,792,237	-\$40,917	\$984,075	\$1,078,712	\$2,062,787	-\$1,688,533	0.26	0.55	-24.38%
Landmark Equity Partners XV, L.P.	2013	\$3,000,000	\$870,001	\$2,129,999	-\$9,117	\$1,571,824	\$1,230,160	\$2,801,984	\$681,102	0.74	1.32	12.33%
Mass PRIM AIVY 2008	2008	\$3,000,000	\$1,106,681	\$1,893,319	\$2,212	\$3,268,421	\$1,105,695	\$4,374,116	\$2,478,584	1.72	2.31	17.52%
Mass PRIM AIVY 2009	2009	\$1,000,000	\$756,380	\$243,620	\$109	\$459,421	\$148,128	\$607,548	\$363,819	1.88	2.49	19.16%



MWRA Employees' Retirement System

ANALYSIS BY FUND

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Mass PRIM AIVY 2010	2010	\$1,000,000	\$451,322	\$548,678	\$180	\$768,528	\$505,365	\$1,273,893	\$725,035	1.40	2.32	16.42%
Mass PRIM AIVY 2011	2011	\$1,500,000	\$525,396	\$974,604	\$159	\$1,167,267	\$1,057,717	\$2,224,984	\$1,250,220	1.20	2.28	18.52%
Mass PRIM AIVY 2012	2012	\$1,000,000	\$483,523	\$516,477	\$44	\$374,551	\$683,159	\$1,057,710	\$541,189	0.73	2.05	17.68%
Mass PRIM AIVY 2014	2014	\$2,000,000	\$819,814	\$1,180,186	\$0	\$470,484	\$1,913,659	\$2,384,143	\$1,203,957	0.40	2.02	23.83%
Mass PRIM AIVY 2017	2017	\$2,000,000	\$1,159,156	\$840,844	\$26	\$4,369	\$1,010,073	\$1,014,442	\$173,571	0.01	1.21	18.93%
Mass PRIM AIVY 2020	2020	\$5,000,000	\$4,960,000	\$40,000	\$61	\$0	\$40,527	\$40,527	\$466	0.00	1.01	1.16%
Park Square Capital Credit Opportunities III (USD), L.P.	2017	\$3,000,000	\$882,192	\$2,117,808	\$0	\$0	\$2,316,287	\$2,316,287	\$198,479	0.00	1.09	8.87%
Private Advisors Small Co Coinvestment Fund, L.P.	2016	\$4,000,000	\$619,923	\$3,380,078	\$14,068	\$890,227	\$3,679,243	\$4,569,470	\$1,175,325	0.26	1.35	18.90%
Ticonderoga Concord Partners III, L.P.	1995	\$800,000	\$0	\$800,000	\$0	\$544,677	\$0	\$544,677	-\$255,323	0.68	0.68	-8.06%
Total		\$103,413,553	\$41,933,678	\$61,479,875	\$426,182	\$50,060,163	\$44,600,829	\$94,660,992	\$32,754,934	0.81	1.53	10.98%



MWRA Employees' Retirement System

ANALYSIS BY LIFECYCLE

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Fundraising												
Dover Street X, L.P.	2020	\$9,000,000	\$9,000,000	\$0	\$0	\$0	\$0	\$0	\$0			
Hamilton Lane Secondary Fund V, L.P.	2020	\$9,000,000	\$9,000,000	\$0	\$0	\$0	\$0	\$0	\$0			
Total Fundraising		\$18,000,000	\$18,000,000	\$0	\$0	\$0	\$0	\$0	\$0			
Investing												
Ascent Venture Partners IV(B), L.P.	2016	\$1,000,000	\$32,164	\$967,836	\$0	\$748,589	\$198,950	\$947,539	-\$20,296	0.77	0.98	-0.60%
Ascent Venture Partners VI, L.P.	2014	\$3,000,000	\$420,000	\$2,580,000	\$0	\$0	\$2,726,314	\$2,726,314	\$146,314	0.00	1.06	2.17%
CVI Credit Value Fund A IV, L.P.	2017	\$6,000,000	\$600,000	\$5,400,000	-\$1,229	\$0	\$4,874,364	\$4,874,364	-\$524,407	0.00	0.90	-10.23%
Foundry Venture Capital 2010 Annex, L.P.	2015	\$268,205	\$0	\$268,205	\$0	\$268,204	\$202,641	\$470,845	\$202,640	1.00	1.76	18.12%
Invesco Partnership Fund VI, L.P.	2013	\$5,000,000	\$1,041,645	\$3,958,355	\$0	\$655,432	\$6,304,315	\$6,959,747	\$3,001,392	0.17	1.76	11.56%
Ironsides Opportunities Fund, L.P.	2017	\$3,000,000	\$1,164,846	\$1,835,154	-\$17,829	\$13,173	\$1,955,568	\$1,968,741	\$151,416	0.01	1.08	8.07%
JFL Equity Investors IV, L.P.	2016	\$6,000,000	\$872,159	\$5,127,841	\$61,053	\$2,462,543	\$6,832,758	\$9,295,307	\$4,106,406	0.47	1.79	34.46%
Kayne Anderson Energy Fund VII, L.P.	2015	\$5,000,000	\$1,207,763	\$3,792,237	-\$40,917	\$984,075	\$1,078,712	\$2,062,787	-\$1,688,533	0.26	0.55	-24.38%
Landmark Equity Partners XV, L.P.	2013	\$3,000,000	\$870,001	\$2,129,999	-\$9,117	\$1,571,824	\$1,230,160	\$2,801,984	\$681,102	0.74	1.32	12.33%
Mass PRIM AIVY 2008	2008	\$3,000,000	\$1,106,681	\$1,893,319	\$2,212	\$3,268,421	\$1,105,695	\$4,374,116	\$2,478,584	1.72	2.31	17.52%
Mass PRIM AIVY 2009	2009	\$1,000,000	\$756,380	\$243,620	\$109	\$459,421	\$148,128	\$607,548	\$363,819	1.88	2.49	19.16%
Mass PRIM AIVY 2010	2010	\$1,000,000	\$451,322	\$548,678	\$180	\$768,528	\$505,365	\$1,273,893	\$725,035	1.40	2.32	16.42%
Mass PRIM AIVY 2011	2011	\$1,500,000	\$525,396	\$974,604	\$159	\$1,167,267	\$1,057,717	\$2,224,984	\$1,250,220	1.20	2.28	18.52%
Mass PRIM AIVY 2012	2012	\$1,000,000	\$483,523	\$516,477	\$44	\$374,551	\$683,159	\$1,057,710	\$541,189	0.73	2.05	17.68%
Mass PRIM AIVY 2014	2014	\$2,000,000	\$819,814	\$1,180,186	\$0	\$470,484	\$1,913,659	\$2,384,143	\$1,203,957	0.40	2.02	23.83%
Mass PRIM AIVY 2017	2017	\$2,000,000	\$1,159,156	\$840,844	\$26	\$4,369	\$1,010,073	\$1,014,442	\$173,571	0.01	1.21	18.93%
Mass PRIM AIVY 2020	2020	\$5,000,000	\$4,960,000	\$40,000	\$61	\$0	\$40,527	\$40,527	\$466	0.00	1.01	1.16%
Park Square Capital Credit Opportunities III (USD), L.P.	2017	\$3,000,000	\$882,192	\$2,117,808	\$0	\$0	\$2,316,287	\$2,316,287	\$198,479	0.00	1.09	8.87%
Private Advisors Small Co Coinvestment Fund, L.P.	2016	\$4,000,000	\$619,923	\$3,380,078	\$14,068	\$890,227	\$3,679,243	\$4,569,470	\$1,175,325	0.26	1.35	18.90%
Total Investing		\$55,768,205	\$17,972,964	\$37,795,241	\$8,820	\$14,107,107	\$37,863,635	\$51,970,742	\$14,166,681	0.37	1.37	12.86%
Harvesting												
AIG PEP V Asia, L.P.	2007	\$549,557	\$122,805	\$426,752	\$11,622	\$425,655	\$52,834	\$478,489	\$40,115	0.97	1.09	1.46%
AIG PEP V Co-Investment, L.P.	2007	\$900,000	\$22,644	\$877,356	\$32,765	\$885,186	\$55,408	\$940,594	\$30,473	0.97	1.03	0.48%
AIG PEP V Europe, L.P.	2007	\$1,617,423	\$532,089	\$1,085,334	\$25,194	\$1,292,083	\$587	\$1,292,670	\$182,142	1.16	1.16	2.15%
AIG PEP V Large Market U.S. Buyout, L.P.	2007	\$720,000	\$131,894	\$588,106	-\$11,616	\$862,272	\$69,096	\$931,368	\$354,878	1.50	1.62	6.93%
AIG PEP V Preferred Participation Fund, L.P.	2007	\$503,561	\$3,899	\$499,662	\$28,158	\$778,653	\$197,851	\$976,504	\$448,684	1.48	1.85	10.58%



MWRA Employees' Retirement System

ANALYSIS BY LIFECYCLE

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
AIG PEP V Secondary, L.P.	2007	\$600,000	\$191,709	\$408,291	\$17,277	\$559,856	\$35,772	\$595,628	\$170,060	1.32	1.40	6.84%
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	2007	\$900,000	\$194,403	\$705,597	-\$9,254	\$1,235,115	\$58,238	\$1,293,353	\$597,010	1.77	1.86	9.40%
AIG PEP V US Venture, L.P.	2007	\$480,000	\$71,864	\$408,136	\$12,941	\$788,687	\$85,057	\$873,744	\$452,667	1.87	2.08	13.09%
Alcentra European Direct Lending Fund I, L.P.	2014	\$5,000,000	\$3,759,673	\$1,240,327	\$26,581	\$1,288,167	\$1,107,545	\$2,395,713	\$1,128,804	1.02	1.89	7.07%
Ascent Venture Partners IV, L.P.	2004	\$2,000,000	\$0	\$2,000,000	\$0	\$311,176	\$31,155	\$342,331	-\$1,657,669	0.16	0.17	-28.90%
Ascent Venture Partners V, L.P.	2008	\$2,000,000	\$100,000	\$1,900,000	\$0	\$1,298,211	\$1,574,830	\$2,873,041	\$973,041	0.68	1.51	6.88%
Foundry Venture Capital 2007, L.P.	2007	\$3,000,000	\$45,000	\$2,955,000	\$0	\$14,506,308	\$226,053	\$14,732,361	\$11,777,361	4.91	4.99	42.78%
Foundry Venture Capital 2010, L.P.	2010	\$3,000,000	\$67,500	\$2,932,500	\$0	\$1,734,684	\$3,202,527	\$4,937,211	\$2,004,711	0.59	1.68	8.88%
Invesco Fund IV, L.P.	2004	\$3,000,000	\$717,234	\$2,282,766	\$232,198	\$4,833,185	\$13,621	\$4,846,806	\$2,331,842	1.92	1.93	10.33%
Total Harvesting		\$24,270,541	\$5,960,714	\$18,309,827	\$365,867	\$30,799,239	\$6,710,574	\$37,509,813	\$18,834,120	1.65	2.01	12.08%
Liquidating												
Castile Ventures III, L.P.	2007	\$3,000,000	\$0	\$3,000,000	\$51,496	\$837,823	\$26,619	\$864,442	-\$2,187,054	0.27	0.28	-34.12%
Total Liquidating		\$3,000,000	\$0	\$3,000,000	\$51,496	\$837,823	\$26,619	\$864,442	-\$2,187,054	0.27	0.28	-34.12%
Completed												
Ascent Venture Partners II, L.P.	1995	\$774,807	\$0	\$774,807	\$0	\$2,571,916	\$0	\$2,571,916	\$1,797,109	3.32	3.32	26.71%
Boston Capital Venture Fund III, L.P.	1993	\$800,000	\$0	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
Ticonderoga Concord Partners III, L.P.	1995	\$800,000	\$0	\$800,000	\$0	\$544,677	\$0	\$544,677	-\$255,323	0.68	0.68	-8.06%
Total Completed		\$2,374,807	\$0	\$2,374,807	\$0	\$4,315,995	\$0	\$4,315,995	\$1,941,188	1.82	1.82	11.99%
Total		\$103,413,553	\$41,933,678	\$61,479,875	\$426,182	\$50,060,163	\$44,600,829	\$94,660,992	\$32,754,934	0.81	1.53	10.98%



MWRA Employees' Retirement System

ANALYSIS BY VINTAGE YEAR

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
1993												
Boston Capital Venture Fund III, L.P.	1993	\$800,000	\$0	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
Total 1993		\$800,000	\$0	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
1995												
Ascent Venture Partners II, L.P.	1995	\$774,807	\$0	\$774,807	\$0	\$2,571,916	\$0	\$2,571,916	\$1,797,109	3.32	3.32	26.71%
Ticonderoga Concord Partners III, L.P.	1995	\$800,000	\$0	\$800,000	\$0	\$544,677	\$0	\$544,677	-\$255,323	0.68	0.68	-8.06%
Total 1995		\$1,574,807	\$0	\$1,574,807	\$0	\$3,116,593	\$0	\$3,116,593	\$1,541,786	1.98	1.98	13.46%
2004												
Ascent Venture Partners IV, L.P.	2004	\$2,000,000	\$0	\$2,000,000	\$0	\$311,176	\$31,155	\$342,331	-\$1,657,669	0.16	0.17	-28.90%
Invesco Fund IV, L.P.	2004	\$3,000,000	\$717,234	\$2,282,766	\$232,198	\$4,833,185	\$13,621	\$4,846,806	\$2,331,842	1.92	1.93	10.33%
Total 2004		\$5,000,000	\$717,234	\$4,282,766	\$232,198	\$5,144,361	\$44,776	\$5,189,137	\$674,173	1.14	1.15	2.15%
2007												
AIG PEP V Asia, L.P.	2007	\$549,557	\$122,805	\$426,752	\$11,622	\$425,655	\$52,834	\$478,489	\$40,115	0.97	1.09	1.46%
AIG PEP V Co-Investment, L.P.	2007	\$900,000	\$22,644	\$877,356	\$32,765	\$885,186	\$55,408	\$940,594	\$30,473	0.97	1.03	0.48%
AIG PEP V Europe, L.P.	2007	\$1,617,423	\$532,089	\$1,085,334	\$25,194	\$1,292,083	\$587	\$1,292,670	\$182,142	1.16	1.16	2.15%
AIG PEP V Large Market U.S. Buyout, L.P.	2007	\$720,000	\$131,894	\$588,106	-\$11,616	\$862,272	\$69,096	\$931,368	\$354,878	1.50	1.62	6.93%
AIG PEP V Preferred Participation Fund, L.P.	2007	\$503,561	\$3,899	\$499,662	\$28,158	\$778,653	\$197,851	\$976,504	\$448,684	1.48	1.85	10.58%
AIG PEP V Secondary, L.P.	2007	\$600,000	\$191,709	\$408,291	\$17,277	\$559,856	\$35,772	\$595,628	\$170,060	1.32	1.40	6.84%
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	2007	\$900,000	\$194,403	\$705,597	-\$9,254	\$1,235,115	\$58,238	\$1,293,353	\$597,010	1.77	1.86	9.40%
AIG PEP V US Venture, L.P.	2007	\$480,000	\$71,864	\$408,136	\$12,941	\$788,687	\$85,057	\$873,744	\$452,667	1.87	2.08	13.09%
Castile Ventures III, L.P.	2007	\$3,000,000	\$0	\$3,000,000	\$51,496	\$837,823	\$26,619	\$864,442	-\$2,187,054	0.27	0.28	-34.12%
Foundry Venture Capital 2007, L.P.	2007	\$3,000,000	\$45,000	\$2,955,000	\$0	\$14,506,308	\$226,053	\$14,732,361	\$11,777,361	4.91	4.99	42.78%
Total 2007		\$12,270,541	\$1,316,307	\$10,954,234	\$158,583	\$22,171,638	\$807,515	\$22,979,153	\$11,866,336	2.00	2.07	14.29%
2008												
Ascent Venture Partners V, L.P.	2008	\$2,000,000	\$100,000	\$1,900,000	\$0	\$1,298,211	\$1,574,830	\$2,873,041	\$973,041	0.68	1.51	6.88%
Mass PRIM AIVY 2008	2008	\$3,000,000	\$1,106,681	\$1,893,319	\$2,212	\$3,268,421	\$1,105,695	\$4,374,116	\$2,478,584	1.72	2.31	17.52%
Total 2008		\$5,000,000	\$1,206,681	\$3,793,319	\$2,212	\$4,566,632	\$2,680,525	\$7,247,157	\$3,451,625	1.20	1.91	12.22%
2009												
Mass PRIM AIVY 2009	2009	\$1,000,000	\$756,380	\$243,620	\$109	\$459,421	\$148,128	\$607,548	\$363,819	1.88	2.49	19.16%
Total 2009		\$1,000,000	\$756,380	\$243,620	\$109	\$459,421	\$148,128	\$607,548	\$363,819	1.88	2.49	19.16%



MWRA Employees' Retirement System

ANALYSIS BY VINTAGE YEAR

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
2010												
Foundry Venture Capital 2010, L.P.	2010	\$3,000,000	\$67,500	\$2,932,500	\$0	\$1,734,684	\$3,202,527	\$4,937,211	\$2,004,711	0.59	1.68	8.88%
Mass PRIM AIVY 2010	2010	\$1,000,000	\$451,322	\$548,678	\$180	\$768,528	\$505,365	\$1,273,893	\$725,035	1.40	2.32	16.42%
Total 2010		\$4,000,000	\$518,822	\$3,481,178	\$180	\$2,503,211	\$3,707,892	\$6,211,104	\$2,729,746	0.72	1.78	10.12%
2011												
Mass PRIM AIVY 2011	2011	\$1,500,000	\$525,396	\$974,604	\$159	\$1,167,267	\$1,057,717	\$2,224,984	\$1,250,220	1.20	2.28	18.52%
Total 2011		\$1,500,000	\$525,396	\$974,604	\$159	\$1,167,267	\$1,057,717	\$2,224,984	\$1,250,220	1.20	2.28	18.52%
2012												
Mass PRIM AIVY 2012	2012	\$1,000,000	\$483,523	\$516,477	\$44	\$374,551	\$683,159	\$1,057,710	\$541,189	0.73	2.05	17.68%
Total 2012		\$1,000,000	\$483,523	\$516,477	\$44	\$374,551	\$683,159	\$1,057,710	\$541,189	0.73	2.05	17.68%
2013												
Invesco Partnership Fund VI, L.P.	2013	\$5,000,000	\$1,041,645	\$3,958,355	\$0	\$655,432	\$6,304,315	\$6,959,747	\$3,001,392	0.17	1.76	11.56%
Landmark Equity Partners XV, L.P.	2013	\$3,000,000	\$870,001	\$2,129,999	-\$9,117	\$1,571,824	\$1,230,160	\$2,801,984	\$681,102	0.74	1.32	12.33%
Total 2013		\$8,000,000	\$1,911,646	\$6,088,354	-\$9,117	\$2,227,256	\$7,534,475	\$9,761,731	\$3,682,494	0.37	1.61	11.70%
2014												
Alcentra European Direct Lending Fund I, L.P.	2014	\$5,000,000	\$3,759,673	\$1,240,327	\$26,581	\$1,288,167	\$1,107,545	\$2,395,713	\$1,128,804	1.02	1.89	7.07%
Ascent Venture Partners VI, L.P.	2014	\$3,000,000	\$420,000	\$2,580,000	\$0	\$0	\$2,726,314	\$2,726,314	\$146,314	0.00	1.06	2.17%
Mass PRIM AIVY 2014	2014	\$2,000,000	\$819,814	\$1,180,186	\$0	\$470,484	\$1,913,659	\$2,384,143	\$1,203,957	0.40	2.02	23.83%
Total 2014		\$10,000,000	\$4,999,487	\$5,000,513	\$26,581	\$1,758,651	\$5,747,519	\$7,506,169	\$2,479,076	0.35	1.49	8.85%
2015												
Foundry Venture Capital 2010 Annex, L.P.	2015	\$268,205	\$0	\$268,205	\$0	\$268,204	\$202,641	\$470,845	\$202,640	1.00	1.76	18.12%
Kayne Anderson Energy Fund VII, L.P.	2015	\$5,000,000	\$1,207,763	\$3,792,237	-\$40,917	\$984,075	\$1,078,712	\$2,062,787	-\$1,688,533	0.26	0.55	-24.38%
Total 2015		\$5,268,205	\$1,207,763	\$4,060,442	-\$40,917	\$1,252,279	\$1,281,353	\$2,533,632	-\$1,485,893	0.31	0.63	-18.54%
2016												
Ascent Venture Partners IV(B), L.P.	2016	\$1,000,000	\$32,164	\$967,836	\$0	\$748,589	\$198,950	\$947,539	-\$20,296	0.77	0.98	-0.60%
JFL Equity Investors IV, L.P.	2016	\$6,000,000	\$872,159	\$5,127,841	\$61,053	\$2,462,543	\$6,832,758	\$9,295,301	\$4,106,406	0.47	1.79	34.46%
Private Advisors Small Co Coinvestment Fund, L.P.	2016	\$4,000,000	\$619,923	\$3,380,078	\$14,068	\$890,227	\$3,679,243	\$4,569,470	\$1,175,325	0.26	1.35	18.90%
Total 2016		\$11,000,000	\$1,524,245	\$9,475,755	\$75,121	\$4,101,359	\$10,710,951	\$14,812,310	\$5,261,435	0.43	1.55	23.92%



MWRA Employees' Retirement System

ANALYSIS BY VINTAGE YEAR

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
2017												
CVI Credit Value Fund A IV, L.P.	2017	\$6,000,000	\$600,000	\$5,400,000	-\$1,229	\$0	\$4,874,364	\$4,874,364	-\$524,407	0.00	0.90	-10.23%
Ironsides Opportunities Fund, L.P.	2017	\$3,000,000	\$1,164,846	\$1,835,154	-\$17,829	\$13,173	\$1,955,568	\$1,968,741	\$151,416	0.01	1.08	8.07%
Mass PRIM AIVY 2017	2017	\$2,000,000	\$1,159,156	\$840,844	\$26	\$4,369	\$1,010,073	\$1,014,442	\$173,571	0.01	1.21	18.93%
Park Square Capital Credit Opportunities III (USD), L.P.	2017	\$3,000,000	\$882,192	\$2,117,808	\$0	\$0	\$2,316,287	\$2,316,287	\$198,479	0.00	1.09	8.87%
Total 2017		\$14,000,000	\$3,806,193	\$10,193,807	-\$19,033	\$17,542	\$10,156,292	\$10,173,834	-\$940	0.00	1.00	-0.01%
2020												
Dover Street X, L.P.	2020	\$9,000,000	\$9,000,000	\$0	\$0	\$0	\$0	\$0	\$0			
Hamilton Lane Secondary Fund V, L.P.	2020	\$9,000,000	\$9,000,000	\$0	\$0	\$0	\$0	\$0	\$0			
Mass PRIM AIVY 2020	2020	\$5,000,000	\$4,960,000	\$40,000	\$61	\$0	\$40,527	\$40,527	\$466	0.00	1.01	1.16%
Total 2020		\$23,000,000	\$22,960,000	\$40,000	\$61	\$0	\$40,527	\$40,527	\$466	0.00	1.01	1.16%
Total		\$103,413,553	\$41,933,678	\$61,479,875	\$426,182	\$50,060,163	\$44,600,829	\$94,660,992	\$32,754,934	0.81	1.53	10.98%



MWRA Employees' Retirement System

ANALYSIS BY INVESTMENT STRATEGY

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Buyout												
AIG PEP V Asia, L.P.	2007	\$549,557	\$122,805	\$426,752	\$11,622	\$425,655	\$52,834	\$478,489	\$40,115	0.97	1.09	1.46%
AIG PEP V Europe, L.P.	2007	\$1,617,423	\$532,089	\$1,085,334	\$25,194	\$1,292,083	\$587	\$1,292,670	\$182,142	1.16	1.16	2.15%
AIG PEP V Large Market U.S. Buyout, L.P.	2007	\$720,000	\$131,894	\$588,106	-\$11,616	\$862,272	\$69,096	\$931,368	\$354,878	1.50	1.62	6.93%
AIG PEP V Preferred Participation Fund, L.P.	2007	\$503,561	\$3,899	\$499,662	\$28,158	\$778,653	\$197,851	\$976,504	\$448,684	1.48	1.85	10.58%
JFL Equity Investors IV, L.P.	2016	\$6,000,000	\$872,159	\$5,127,841	\$61,053	\$2,462,543	\$6,832,758	\$9,295,301	\$4,106,406	0.47	1.79	34.46%
Total Buyout		\$9,390,541	\$1,662,846	\$7,727,695	\$114,412	\$5,821,206	\$7,153,126	\$12,974,332	\$5,132,225	0.74	1.65	11.71%
Co-Investments												
AIG PEP V Co-Investment, L.P.	2007	\$900,000	\$22,644	\$877,356	\$32,765	\$885,186	\$55,408	\$940,594	\$30,473	0.97	1.03	0.48%
Private Advisors Small Co Coinvestment Fund, L.P.	2016	\$4,000,000	\$619,923	\$3,380,078	\$14,068	\$890,227	\$3,679,243	\$4,569,470	\$1,175,325	0.26	1.35	18.90%
Total Co-Investments		\$4,900,000	\$642,567	\$4,257,434	\$46,833	\$1,775,413	\$3,734,651	\$5,510,064	\$1,205,798	0.41	1.28	7.51%
Direct Lending												
Alcentra European Direct Lending Fund I, L.P.	2014	\$5,000,000	\$3,759,673	\$1,240,327	\$26,581	\$1,288,167	\$1,107,545	\$2,395,713	\$1,128,804	1.02	1.89	7.07%
Park Square Capital Credit Opportunities III (USD), L.P.	2017	\$3,000,000	\$882,192	\$2,117,808	\$0	\$0	\$2,316,287	\$2,316,287	\$198,479	0.00	1.09	8.87%
Total Direct Lending		\$8,000,000	\$4,641,865	\$3,358,135	\$26,581	\$1,288,167	\$3,423,832	\$4,712,000	\$1,327,283	0.38	1.39	7.26%
Distressed												
CVI Credit Value Fund A IV, L.P.	2017	\$6,000,000	\$600,000	\$5,400,000	-\$1,229	\$0	\$4,874,364	\$4,874,364	-\$524,407	0.00	0.90	-10.23%
Ironsides Opportunities Fund, L.P.	2017	\$3,000,000	\$1,164,846	\$1,835,154	-\$17,829	\$13,173	\$1,955,568	\$1,968,741	\$151,416	0.01	1.08	8.07%
Total Distressed		\$9,000,000	\$1,764,846	\$7,235,154	-\$19,059	\$13,173	\$6,829,932	\$6,843,105	-\$372,990	0.00	0.95	-5.30%
Energy												
Kayne Anderson Energy Fund VII, L.P.	2015	\$5,000,000	\$1,207,763	\$3,792,237	-\$40,917	\$984,075	\$1,078,712	\$2,062,787	-\$1,688,533	0.26	0.55	-24.38%
Total Energy		\$5,000,000	\$1,207,763	\$3,792,237	-\$40,917	\$984,075	\$1,078,712	\$2,062,787	-\$1,688,533	0.26	0.55	-24.38%
Fund of Funds												
Hamilton Lane Secondary Fund V, L.P.	2020	\$9,000,000	\$9,000,000	\$0	\$0	\$0	\$0	\$0	\$0			
Invesco Fund IV, L.P.	2004	\$3,000,000	\$717,234	\$2,282,766	\$232,198	\$4,833,185	\$13,621	\$4,846,806	\$2,331,842	1.92	1.93	10.33%
Invesco Partnership Fund VI, L.P.	2013	\$5,000,000	\$1,041,645	\$3,958,355	\$0	\$655,432	\$6,304,315	\$6,959,747	\$3,001,392	0.17	1.76	11.56%
Mass PRIM AIVY 2008	2008	\$3,000,000	\$1,106,681	\$1,893,319	\$2,212	\$3,268,421	\$1,105,695	\$4,374,116	\$2,478,584	1.72	2.31	17.52%
Mass PRIM AIVY 2009	2009	\$1,000,000	\$756,380	\$243,620	\$109	\$459,421	\$148,128	\$607,548	\$363,819	1.88	2.49	19.16%
Mass PRIM AIVY 2010	2010	\$1,000,000	\$451,322	\$548,678	\$180	\$768,528	\$505,365	\$1,273,893	\$725,035	1.40	2.32	16.42%
Mass PRIM AIVY 2011	2011	\$1,500,000	\$525,396	\$974,604	\$159	\$1,167,267	\$1,057,717	\$2,224,984	\$1,250,220	1.20	2.28	18.52%
Mass PRIM AIVY 2012	2012	\$1,000,000	\$483,523	\$516,477	\$44	\$374,551	\$683,159	\$1,057,710	\$541,189	0.73	2.05	17.68%



MWRA Employees' Retirement System

ANALYSIS BY INVESTMENT STRATEGY

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Mass PRIM AIVY 2014	2014	\$2,000,000	\$819,814	\$1,180,186	\$0	\$470,484	\$1,913,659	\$2,384,143	\$1,203,957	0.40	2.02	23.83%
Mass PRIM AIVY 2017	2017	\$2,000,000	\$1,159,156	\$840,844	\$26	\$4,369	\$1,010,073	\$1,014,442	\$173,571	0.01	1.21	18.93%
Mass PRIM AIVY 2020	2020	\$5,000,000	\$4,960,000	\$40,000	\$61	\$0	\$40,527	\$40,527	\$466	0.00	1.01	1.16%
Total Fund of Funds		\$33,500,000	\$21,021,150	\$12,478,850	\$234,989	\$12,001,656	\$12,782,259	\$24,783,916	\$12,070,076	0.94	1.95	13.52%
Growth Equity												
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	2007	\$900,000	\$194,403	\$705,597	-\$9,254	\$1,235,115	\$58,238	\$1,293,353	\$597,010	1.77	1.86	9.40%
Total Growth Equity		\$900,000	\$194,403	\$705,597	-\$9,254	\$1,235,115	\$58,238	\$1,293,353	\$597,010	1.77	1.86	9.40%
Secondaries												
AIG PEP V Secondary, L.P.	2007	\$600,000	\$191,709	\$408,291	\$17,277	\$559,856	\$35,772	\$595,628	\$170,060	1.32	1.40	6.84%
Dover Street X, L.P.	2020	\$9,000,000	\$9,000,000	\$0	\$0	\$0	\$0	\$0	\$0			
Landmark Equity Partners XV, L.P.	2013	\$3,000,000	\$870,001	\$2,129,999	-\$9,117	\$1,571,824	\$1,230,160	\$2,801,984	\$681,102	0.74	1.32	12.33%
Total Secondaries		\$12,600,000	\$10,061,710	\$2,538,290	\$8,160	\$2,131,680	\$1,265,932	\$3,397,612	\$851,162	0.84	1.33	10.05%
Venture Capital												
AIG PEP V US Venture, L.P.	2007	\$480,000	\$71,864	\$408,136	\$12,941	\$788,687	\$85,057	\$873,744	\$452,667	1.87	2.08	13.09%
Ascent Venture Partners II, L.P.	1995	\$774,807	\$0	\$774,807	\$0	\$2,571,916	\$0	\$2,571,916	\$1,797,109	3.32	3.32	26.71%
Ascent Venture Partners IV(B), L.P.	2016	\$1,000,000	\$32,164	\$967,836	\$0	\$748,589	\$198,950	\$947,539	-\$20,296	0.77	0.98	-0.60%
Ascent Venture Partners IV, L.P.	2004	\$2,000,000	\$0	\$2,000,000	\$0	\$311,176	\$31,155	\$342,331	-\$1,657,669	0.16	0.17	-28.90%
Ascent Venture Partners V, L.P.	2008	\$2,000,000	\$100,000	\$1,900,000	\$0	\$1,298,211	\$1,574,830	\$2,873,041	\$973,041	0.68	1.51	6.88%
Ascent Venture Partners VI, L.P.	2014	\$3,000,000	\$420,000	\$2,580,000	\$0	\$0	\$2,726,314	\$2,726,314	\$146,314	0.00	1.06	2.17%
Boston Capital Venture Fund III, L.P.	1993	\$800,000	\$0	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
Castile Ventures III, L.P.	2007	\$3,000,000	\$0	\$3,000,000	\$51,496	\$837,823	\$26,619	\$864,442	-\$2,187,054	0.27	0.28	-34.12%
Foundry Venture Capital 2007, L.P.	2007	\$3,000,000	\$45,000	\$2,955,000	\$0	\$14,506,308	\$226,053	\$14,732,361	\$11,777,361	4.91	4.99	42.78%
Foundry Venture Capital 2010 Annex, L.P.	2015	\$268,205	\$0	\$268,205	\$0	\$268,204	\$202,641	\$470,845	\$202,640	1.00	1.76	18.12%
Foundry Venture Capital 2010, L.P.	2010	\$3,000,000	\$67,500	\$2,932,500	\$0	\$1,734,684	\$3,202,527	\$4,937,211	\$2,004,711	0.59	1.68	8.88%
Ticonderoga Concord Partners III, L.P.	1995	\$800,000	\$0	\$800,000	\$0	\$544,677	\$0	\$544,677	-\$255,323	0.68	0.68	-8.06%
Total Venture Capital		\$20,123,012	\$736,528	\$19,386,484	\$64,437	\$24,809,677	\$8,274,146	\$33,083,823	\$13,632,903	1.28	1.70	11.62%
Total		\$103,413,553	\$41,933,678	\$61,479,875	\$426,182	\$50,060,163	\$44,600,829	\$94,660,992	\$32,754,934	0.81	1.53	10.98%



MWRA Employees' Retirement System

QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
AIG PEP V Asia, L.P.	1/31/2020	837			-5,702	-4,865
Total: AIG PEP V Asia, L.P.		837			-5,702	-4,865
AIG PEP V Co-Investment, L.P.	1/31/2020	725			-30,897	-30,172
Total: AIG PEP V Co-Investment, L.P.		725			-30,897	-30,172
AIG PEP V Europe, L.P.	2/29/2020	1,707	2,760		-151,483	-147,016
Total: AIG PEP V Europe, L.P.		1,707	2,760		-151,483	-147,016
AIG PEP V Large Market U.S. Buyout, L.P.	1/31/2020	559	2,115	-209	-8,632	-6,167
	2/29/2020	552	4	-17	-7,143	-6,604
Total: AIG PEP V Large Market U.S. Buyout, L.P.		1,111	2,119	-226	-15,775	-12,771
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	1/31/2020	876		-20	-29,351	-28,495
	2/29/2020	681	7		-12,144	-11,456
Total: AIG PEP V Small-Mid Market U.S. Buyout, L.P.		1,557	7	-20	-41,495	-39,951
Ascent Venture Partners IV(B), L.P.	3/31/2020				-672,879	-672,879
Total: Ascent Venture Partners IV(B), L.P.					-672,879	-672,879
Ascent Venture Partners VI, L.P.	1/31/2020	270,000				270,000
Total: Ascent Venture Partners VI, L.P.		270,000				270,000
CVI Credit Value Fund A IV, L.P.	3/31/2020	900,000				900,000
Total: CVI Credit Value Fund A IV, L.P.		900,000				900,000
Foundry Venture Capital 2010 Annex, L.P.	2/29/2020				-39,855	-39,855
Total: Foundry Venture Capital 2010 Annex, L.P.					-39,855	-39,855
Foundry Venture Capital 2010, L.P.	2/29/2020				-77,600	-77,600
Total: Foundry Venture Capital 2010, L.P.					-77,600	-77,600



MWRA Employees' Retirement System

QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
Ironsides Opportunities Fund, L.P.	2/29/2020	185,874	-14,531		2,256	173,599
Total: Ironsides Opportunities Fund, L.P.		185,874	-14,531		2,256	173,599
JFL Equity Investors IV, L.P.	1/31/2020	181,529			-38,302	143,227
	2/29/2020				-166,489	-166,489
Total: JFL Equity Investors IV, L.P.		181,529			-204,791	-23,262
Landmark Equity Partners XV, L.P.	1/31/2020	7,940				7,940
	2/29/2020	38,115			-9,790	28,325
	3/31/2020			-49,167	-25,867	-75,034
Total: Landmark Equity Partners XV, L.P.		46,055		-49,167	-35,657	-38,769
Mass PRIM AIVY 2008	1/31/2020				-6,971	-6,971
	2/29/2020				-6,790	-6,790
	3/31/2020				-19,417	-19,417
Total: Mass PRIM AIVY 2008					-33,178	-33,178
Mass PRIM AIVY 2009	1/31/2020				-2,641	-2,641
	2/29/2020	41				41
	3/31/2020				-1,260	-1,260
Total: Mass PRIM AIVY 2009		41			-3,901	-3,859
Mass PRIM AIVY 2010	1/31/2020				-1,199	-1,199
	2/29/2020				-12,018	-12,018
	3/31/2020				-23,821	-23,821
Total: Mass PRIM AIVY 2010					-37,038	-37,038
Mass PRIM AIVY 2011	1/31/2020				-13,014	-13,014
	2/29/2020				-17,920	-17,920
	3/31/2020				-29,248	-29,248
Total: Mass PRIM AIVY 2011					-60,182	-60,182



MWRA Employees' Retirement System

QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
Mass PRIM AIVY 2012	1/31/2020				-319	-319
	2/29/2020				-14,539	-14,539
	3/31/2020				-3,956	-3,956
Total: Mass PRIM AIVY 2012					-18,814	-18,814
Mass PRIM AIVY 2014	1/31/2020				-16,626	-16,626
	2/29/2020	14,029				14,029
	3/31/2020	216				216
Total: Mass PRIM AIVY 2014		14,245			-16,626	-2,381
Mass PRIM AIVY 2017	1/31/2020	175,515				175,515
	2/29/2020	50,083				50,083
	3/31/2020	7,185				7,185
Total: Mass PRIM AIVY 2017		232,783				232,783
Mass PRIM AIVY 2020	3/31/2020	40,000	61			40,061
Total: Mass PRIM AIVY 2020		40,000	61			40,061
Park Square Capital Credit Opportunities III (USD), L.P.	2/29/2020			-32,272		-32,272
	3/31/2020	289,080				289,080
Total: Park Square Capital Credit Opportunities III (USD), L.P.		289,080		-32,272		256,808
Private Advisors Small Co Coinvestment Fund, L.P.	2/29/2020	338,471			-6,561	331,910
Total: Private Advisors Small Co Coinvestment Fund, L.P.		338,471			-6,561	331,910
Grand Total		2,504,016	-9,584	-81,685	-1,450,177	962,570



GLOSSARY OF TERMS

- **Commitment Amount** – The amount an investor has committed to invest with the General Partner
- **Paid In Capital** – The amount an investor has contributed for investments and management fees
- **Capital to be Funded** – The remaining amount an investor contractually has left to fund its commitments
- **Additional Fees** – Fees that are outside the capital commitment, also includes interest paid/received due from subsequent closings of the fund
- **Cumulative Distributions** – The amount an investor has received from realized and partially realized investments
- **Valuation** – Sum of the fair market value of all investments plus cash
- **Call Ratio** – Calculated by dividing Amount Funded by Capital Committed
- **DPI Ratio** - Calculated by dividing Amount Distributed by Amount Funded
- **Market Exposure** – Calculated by adding Reported Value plus Unfunded Commitments
- **Total Value** – Calculated by adding Amount Distributed and Reported Value. Represents the total amount an investor should expect to receive from their investments
- **Net Benefit** – Calculated by subtracting Total Value by Capital to be Funded plus Additional Fees
- **Total Value to Paid In Capital Ratio** – Calculated by dividing Total Value by Amount Funded. Represents the multiple of the overall cash invested that an investor is expected to receive
- **IRR** - The calculation of the IRR (Internal Rate of Return) takes into consideration the timing of cash contributions and distributions to and from the partnerships, the length of time the investments have been held and the sum of the Reported Value
- **Index Comparison Method (ICM)** – represents the hypothetical IRR of a private investment program that is computed by assuming the fund flows were invested in and out of a publicly traded index. The resulting hypothetical market value of the program is then used with the program’s actual cash flows to compute a hypothetical IRR. This hypothetical IRR can be compared with the actual IRR to determine whether the private investment program outperformed the publicly traded index
- **Valuation ICM** – The valuation equivalent that ICM calculates for the public market is called valuation ICM
- **KS PME** – The Kaplan Schoar Public Markets Equivalent is a ratio of the future value of all distributions divided by the future value of all contributions using the index return as the discount rate. The ending valuation is treated as a distribution in this method
- **IRR ICM** – The IRR equivalent that ICM calculates for the public market is called IRR ICM



QUARTERLY PERFORMANCE REPORT

MWRA Employees' Retirement System

March 31, 2020

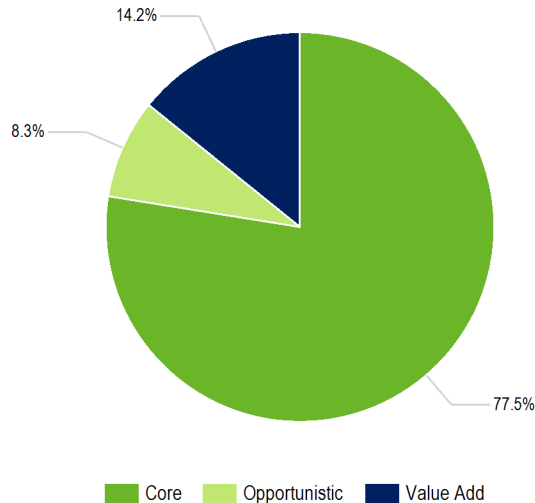


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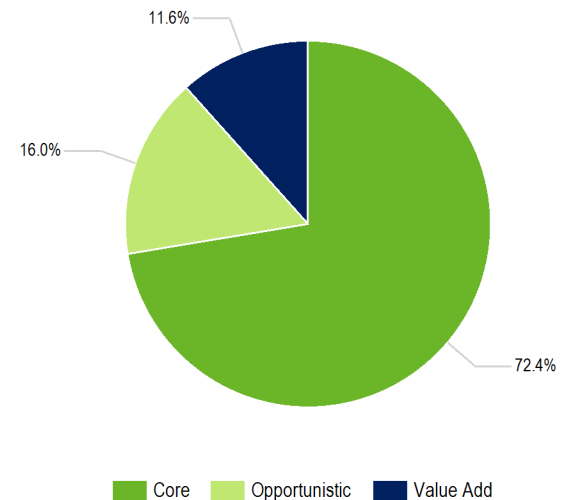
MWRA Employees' Retirement System

ANALYSIS BY STRATEGY

Private Markets Valuation by Strategy



Private Markets Fund Exposure by Strategy



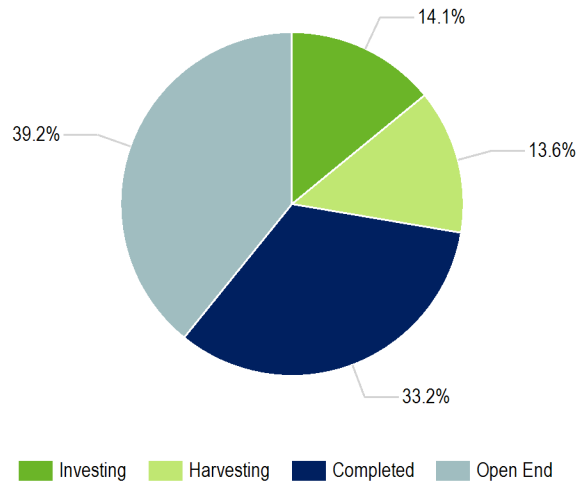
Investments	Commitments			Contributions & Distributions			Valuations				Performance		
	Investment Strategy	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Fund Exposure	DPI	TVPI
Total Core	\$52,587,180	\$5,000,000	0.90	\$47,587,180	\$0	\$34,756,992	\$35,429,848	\$70,186,840	\$22,599,660	\$40,429,848	0.73	1.47	10.51%
Total Opportunistic	\$14,500,000	\$5,150,126	0.64	\$9,349,874	\$4,898	\$8,249,994	\$3,776,680	\$12,026,674	\$2,671,902	\$8,926,806	0.88	1.29	5.34%
Total Value Add	\$14,610,264	\$0	1.00	\$14,610,264	-\$6,744	\$13,979,049	\$6,492,583	\$20,471,632	\$5,868,112	\$6,492,583	0.96	1.40	10.00%
Total	\$81,697,444	\$10,150,126	0.88	\$71,547,318	-\$1,846	\$56,986,035	\$45,699,111	\$102,685,146	\$31,139,674	\$55,849,237	0.80	1.44	9.62%



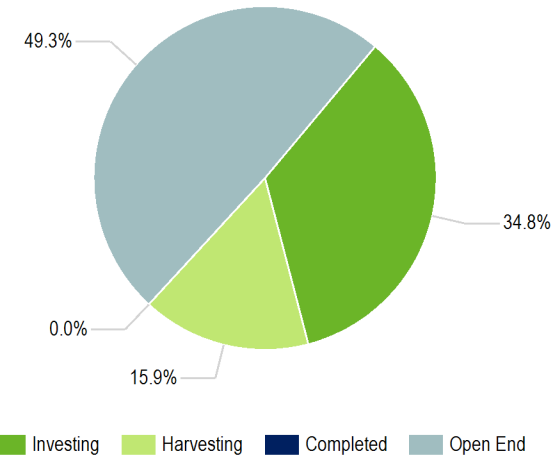
MWRA Employees' Retirement System

ANALYSIS BY LIFECYCLE

Commitment by Lifecycle



Unfunded Commitment by Lifecycle



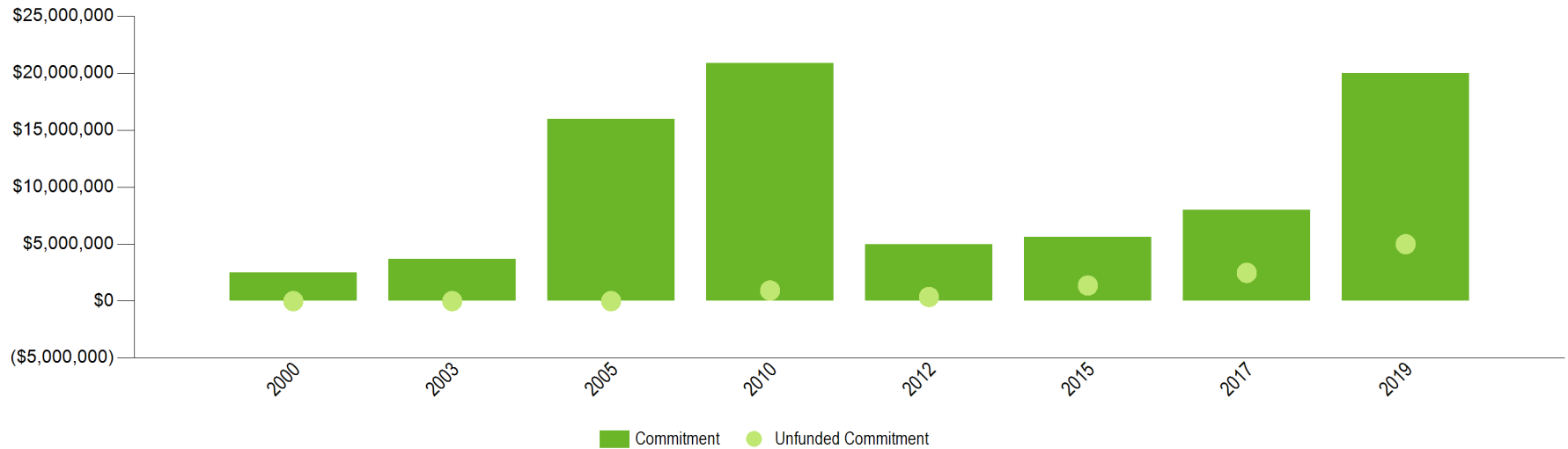
Investments	Commitments			Contributions & Distributions			Valuations			Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total Investing	\$11,500,000	\$3,534,666	0.69	\$7,965,334	\$20,487	\$3,367,004	\$7,077,197	\$10,444,201	\$2,458,380	0.42	1.31	9.42%
Total Harvesting	\$11,110,264	\$1,615,460	0.85	\$9,494,804	-\$22,333	\$11,605,245	\$3,192,066	\$14,797,311	\$5,324,840	1.23	1.56	13.48%
Total Completed	\$27,087,180	\$0	1.00	\$27,087,180	\$0	\$41,685,330	\$0	\$41,685,330	\$14,598,150	1.54	1.54	8.20%
Total Open End	\$32,000,000	\$5,000,000	0.84	\$27,000,000	\$0	\$328,456	\$35,429,848	\$35,758,304	\$8,758,304	0.01	1.32	12.80%
Total	\$81,697,444	\$10,150,126	0.88	\$71,547,318	-\$1,846	\$56,986,035	\$45,699,111	\$102,685,146	\$31,139,674	0.80	1.44	9.62%



MWRA Employees' Retirement System

ANALYSIS BY VINTAGE YEAR

Commitments By Vintage Year



Vintage Year	Commitments			Contributions & Distributions			Valuations			Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total 2000	\$2,500,000	\$0	1.00	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
Total 2003	\$3,687,180	\$0	1.00	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
Total 2005	\$16,000,000	\$0	1.00	\$16,000,000	\$0	\$2,442,038	\$20,018,385	\$22,460,423	\$6,460,423	0.15	1.40	6.43%
Total 2010	\$20,900,000	\$935,470	0.96	\$19,964,530	-\$1,167	\$31,105,615	\$788,801	\$31,894,416	\$11,931,053	1.56	1.60	10.29%
Total 2012	\$5,000,000	\$365,369	0.93	\$4,634,631	\$10,932	\$6,417,587	\$1,146,102	\$7,563,689	\$2,918,126	1.38	1.63	12.54%
Total 2015	\$5,610,264	\$1,369,990	0.76	\$4,240,274	-\$37,694	\$3,774,151	\$2,681,133	\$6,455,284	\$2,252,704	0.90	1.54	11.76%
Total 2017	\$8,000,000	\$2,479,297	0.69	\$5,520,703	\$26,083	\$1,045,228	\$5,653,227	\$6,698,455	\$1,151,669	0.19	1.21	9.80%
Total 2019	\$20,000,000	\$5,000,000	0.75	\$15,000,000	\$0	\$328,456	\$15,411,463	\$15,739,919	\$739,919	0.02	1.05	5.01%
Total	\$81,697,444	\$10,150,126	0.88	\$71,547,318	-\$1,846	\$56,986,035	\$45,699,111	\$102,685,146	\$31,139,674	0.80	1.44	9.62%



APPENDIX

MWRA Employees' Retirement System

March 31, 2020



MWRA Employees' Retirement System

RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %						
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR
BlackRock Apartment Value Fund II, L.P.	2000	\$2,500,000							16.26%
BlackRock Apartment Value Fund III, Inc.	2005	\$2,000,000							-9.85%
Cerberus Institutional Real Estate Partners III, L.P.	2012	\$1,500,000	0.46%	0.46%	8.83%	5.36%	9.59%		11.97%
Corporate Property Associates 15 Incorporated	2003	\$3,687,180							9.08%
Intercontinental Real Estate Investment Fund IV, L.P.	2005	\$2,000,000							-6.40%
Invesco Mortgage Recovery Fund II, L.P.	2015	\$3,000,000	1.45%	1.45%	12.24%	14.30%			12.87%
Landmark Real Estate Fund VI, L.P.	2010	\$2,000,000	-0.30%	-0.30%	-13.58%	-4.59%	0.81%		19.92%
Landmark Real Estate Partners VIII, L.P.	2017	\$4,000,000	-1.05%	-1.05%	4.75%				17.26%
Mass PRIM Real Estate 2010	2010	\$16,900,000							10.01%
Prime Property Fund, LLC	2005	\$12,000,000	0.61%	0.61%	5.10%	6.67%	8.27%	11.14%	13.42%
Real Estate Global Partnership Fund II, L.P.	2010	\$2,000,000	-5.38%	-5.38%	-9.18%	1.38%	5.68%		6.60%
TA Associates Realty Fund X, L.P.	2012	\$3,500,000	-5.25%	-5.25%	17.26%	14.43%	12.89%		12.78%
TA Realty Core Property Fund, L.P.	2019	\$20,000,000	0.51%	0.51%					5.01%
Terracap Partners III, L.P.	2015	\$2,610,264	0.34%	0.34%	2.33%	6.68%			11.10%
TerraCap Partners IV (Institutional), L.P.	2017	\$4,000,000	-1.49%	-1.49%	11.16%				8.68%
Total		\$81,697,444	0.16%	0.16%	5.42%	7.60%	8.72%	10.85%	9.62%



MWRA Employees' Retirement System

ANALYSIS BY FUND

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
BlackRock Apartment Value Fund II, L.P.	2000	\$2,500,000	\$0	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
BlackRock Apartment Value Fund III, Inc.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,236,567	\$0	\$1,236,567	-\$763,433	0.62	0.62	-9.85%
Cerberus Institutional Real Estate Partners III, L.P.	2012	\$1,500,000	\$365,369	\$1,134,631	\$0	\$1,205,101	\$749,959	\$1,955,060	\$820,429	1.06	1.72	11.97%
Corporate Property Associates 15 Incorporated	2003	\$3,687,180	\$0	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
Intercontinental Real Estate Investment Fund IV, L.P.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,205,471	\$0	\$1,205,471	-\$794,529	0.60	0.60	-6.40%
Invesco Mortgage Recovery Fund II, L.P.	2015	\$3,000,000	\$1,369,990	\$1,630,010	\$0	\$1,635,229	\$911,451	\$2,546,680	\$916,670	1.00	1.56	12.87%
Landmark Real Estate Fund VI, L.P.	2010	\$2,000,000	\$245,470	\$1,754,530	\$4,429	\$2,618,608	\$114,790	\$2,733,398	\$974,439	1.49	1.55	19.92%
Landmark Real Estate Partners VIII, L.P.	2017	\$4,000,000	\$2,479,297	\$1,520,703	\$6,065	\$468,910	\$1,326,469	\$1,795,379	\$268,611	0.31	1.18	17.26%
Mass PRIM Real Estate 2010	2010	\$16,900,000	\$0	\$16,900,000	\$0	\$27,370,332	\$0	\$27,370,332	\$10,470,332	1.62	1.62	10.01%
Prime Property Fund, LLC	2005	\$12,000,000	\$0	\$12,000,000	\$0	\$0	\$20,018,385	\$20,018,385	\$8,018,385	0.00	1.67	13.42%
Real Estate Global Partnership Fund II, L.P.	2010	\$2,000,000	\$690,000	\$1,310,000	-\$5,596	\$1,116,675	\$674,011	\$1,790,686	\$486,282	0.86	1.37	6.60%
TA Associates Realty Fund X, L.P.	2012	\$3,500,000	\$0	\$3,500,000	\$10,932	\$5,212,486	\$396,143	\$5,608,629	\$2,097,697	1.48	1.60	12.78%
TA Realty Core Property Fund, L.P.	2019	\$20,000,000	\$5,000,000	\$15,000,000	\$0	\$328,456	\$15,411,463	\$15,739,919	\$739,919	0.02	1.05	5.01%
Terracap Partners III, L.P.	2015	\$2,610,264	\$0	\$2,610,264	-\$37,694	\$2,138,922	\$1,769,682	\$3,908,604	\$1,336,034	0.83	1.52	11.10%
TerraCap Partners IV (Institutional), L.P.	2017	\$4,000,000	\$0	\$4,000,000	\$20,018	\$576,318	\$4,326,758	\$4,903,076	\$883,058	0.14	1.22	8.68%
Total		\$81,697,444	\$10,150,126	\$71,547,318	-\$1,846	\$56,986,035	\$45,699,111	\$102,685,146	\$31,139,674	0.80	1.44	9.62%



MWRA Employees' Retirement System

ANALYSIS BY LIFECYCLE

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Investing												
Cerberus Institutional Real Estate Partners III, L.P.	2012	\$1,500,000	\$365,369	\$1,134,631	\$0	\$1,205,101	\$749,959	\$1,955,060	\$820,429	1.06	1.72	11.97%
Landmark Real Estate Partners VIII, L.P.	2017	\$4,000,000	\$2,479,297	\$1,520,703	\$6,065	\$468,910	\$1,326,469	\$1,795,379	\$268,611	0.31	1.18	17.26%
Real Estate Global Partnership Fund II, L.P.	2010	\$2,000,000	\$690,000	\$1,310,000	-\$5,596	\$1,116,675	\$674,011	\$1,790,686	\$486,282	0.86	1.37	6.60%
TerraCap Partners IV (Institutional), L.P.	2017	\$4,000,000	\$0	\$4,000,000	\$20,018	\$576,318	\$4,326,758	\$4,903,076	\$883,058	0.14	1.22	8.68%
Total Investing		\$11,500,000	\$3,534,666	\$7,965,334	\$20,487	\$3,367,004	\$7,077,197	\$10,444,201	\$2,458,380	0.42	1.31	9.42%
Harvesting												
Invesco Mortgage Recovery Fund II, L.P.	2015	\$3,000,000	\$1,369,990	\$1,630,010	\$0	\$1,635,229	\$911,451	\$2,546,680	\$916,670	1.00	1.56	12.87%
Landmark Real Estate Fund VI, L.P.	2010	\$2,000,000	\$245,470	\$1,754,530	\$4,429	\$2,618,608	\$114,790	\$2,733,398	\$974,439	1.49	1.55	19.92%
TA Associates Realty Fund X, L.P.	2012	\$3,500,000	\$0	\$3,500,000	\$10,932	\$5,212,486	\$396,143	\$5,608,629	\$2,097,697	1.48	1.60	12.78%
Terracap Partners III, L.P.	2015	\$2,610,264	\$0	\$2,610,264	-\$37,694	\$2,138,922	\$1,769,682	\$3,908,604	\$1,336,034	0.83	1.52	11.10%
Total Harvesting		\$11,110,264	\$1,615,460	\$9,494,804	-\$22,333	\$11,605,245	\$3,192,066	\$14,797,311	\$5,324,840	1.23	1.56	13.48%
Completed												
BlackRock Apartment Value Fund II, L.P.	2000	\$2,500,000	\$0	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
BlackRock Apartment Value Fund III, Inc.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,236,567	\$0	\$1,236,567	-\$763,433	0.62	0.62	-9.85%
Corporate Property Associates 15 Incorporated	2003	\$3,687,180	\$0	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
Intercontinental Real Estate Investment Fund IV, L.P.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,205,471	\$0	\$1,205,471	-\$794,529	0.60	0.60	-6.40%
Mass PRIM Real Estate 2010	2010	\$16,900,000	\$0	\$16,900,000	\$0	\$27,370,332	\$0	\$27,370,332	\$10,470,332	1.62	1.62	10.01%
Total Completed		\$27,087,180	\$0	\$27,087,180	\$0	\$41,685,330	\$0	\$41,685,330	\$14,598,150	1.54	1.54	8.20%
Open End												
Prime Property Fund, LLC	2005	\$12,000,000	\$0	\$12,000,000	\$0	\$0	\$20,018,385	\$20,018,385	\$8,018,385	0.00	1.67	13.42%
TA Realty Core Property Fund, L.P.	2019	\$20,000,000	\$5,000,000	\$15,000,000	\$0	\$328,456	\$15,411,463	\$15,739,919	\$739,919	0.02	1.05	5.01%
Total Open End		\$32,000,000	\$5,000,000	\$27,000,000	\$0	\$328,456	\$35,429,848	\$35,758,304	\$8,758,304	0.01	1.32	12.80%
Total		\$81,697,444	\$10,150,126	\$71,547,318	-\$1,846	\$56,986,035	\$45,699,111	\$102,685,146	\$31,139,674	0.80	1.44	9.62%



MWRA Employees' Retirement System

ANALYSIS BY VINTAGE YEAR

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
2000												
BlackRock Apartment Value Fund II, L.P.	2000	\$2,500,000	\$0	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
Total 2000		\$2,500,000	\$0	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
2003												
Corporate Property Associates 15 Incorporated	2003	\$3,687,180	\$0	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
Total 2003		\$3,687,180	\$0	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
2005												
BlackRock Apartment Value Fund III, Inc.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,236,567	\$0	\$1,236,567	-\$763,433	0.62	0.62	-9.85%
Intercontinental Real Estate Investment Fund IV, L.P.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,205,471	\$0	\$1,205,471	-\$794,529	0.60	0.60	-6.40%
Prime Property Fund, LLC	2005	\$12,000,000	\$0	\$12,000,000	\$0	\$0	\$20,018,385	\$20,018,385	\$8,018,385	0.00	1.67	13.42%
Total 2005		\$16,000,000	\$0	\$16,000,000	\$0	\$2,442,038	\$20,018,385	\$22,460,423	\$6,460,423	0.15	1.40	6.43%
2010												
Landmark Real Estate Fund VI, L.P.	2010	\$2,000,000	\$245,470	\$1,754,530	\$4,429	\$2,618,608	\$114,790	\$2,733,398	\$974,439	1.49	1.55	19.92%
Mass PRIM Real Estate 2010	2010	\$16,900,000	\$0	\$16,900,000	\$0	\$27,370,332	\$0	\$27,370,332	\$10,470,332	1.62	1.62	10.01%
Real Estate Global Partnership Fund II, L.P.	2010	\$2,000,000	\$690,000	\$1,310,000	-\$5,596	\$1,116,675	\$674,011	\$1,790,686	\$486,282	0.86	1.37	6.60%
Total 2010		\$20,900,000	\$935,470	\$19,964,530	-\$1,167	\$31,105,615	\$788,801	\$31,894,416	\$11,931,053	1.56	1.60	10.29%
2012												
Cerberus Institutional Real Estate Partners III, L.P.	2012	\$1,500,000	\$365,369	\$1,134,631	\$0	\$1,205,101	\$749,959	\$1,955,060	\$820,429	1.06	1.72	11.97%
TA Associates Realty Fund X, L.P.	2012	\$3,500,000	\$0	\$3,500,000	\$10,932	\$5,212,486	\$396,143	\$5,608,629	\$2,097,697	1.48	1.60	12.78%
Total 2012		\$5,000,000	\$365,369	\$4,634,631	\$10,932	\$6,417,587	\$1,146,102	\$7,563,689	\$2,918,126	1.38	1.63	12.54%
2015												
Invesco Mortgage Recovery Fund II, L.P.	2015	\$3,000,000	\$1,369,990	\$1,630,010	\$0	\$1,635,229	\$911,451	\$2,546,680	\$916,670	1.00	1.56	12.87%
Terracap Partners III, L.P.	2015	\$2,610,264	\$0	\$2,610,264	-\$37,694	\$2,138,922	\$1,769,682	\$3,908,604	\$1,336,034	0.83	1.52	11.10%
Total 2015		\$5,610,264	\$1,369,990	\$4,240,274	-\$37,694	\$3,774,151	\$2,681,133	\$6,455,284	\$2,252,704	0.90	1.54	11.76%
2017												
Landmark Real Estate Partners VIII, L.P.	2017	\$4,000,000	\$2,479,297	\$1,520,703	\$6,065	\$468,910	\$1,326,469	\$1,795,379	\$268,611	0.31	1.18	17.26%
TerraCap Partners IV (Institutional), L.P.	2017	\$4,000,000	\$0	\$4,000,000	\$20,018	\$576,318	\$4,326,758	\$4,903,076	\$883,058	0.14	1.22	8.68%
Total 2017		\$8,000,000	\$2,479,297	\$5,520,703	\$26,083	\$1,045,228	\$5,653,227	\$6,698,455	\$1,151,669	0.19	1.21	9.80%
2019												
TA Realty Core Property Fund, L.P.	2019	\$20,000,000	\$5,000,000	\$15,000,000	\$0	\$328,456	\$15,411,463	\$15,739,919	\$739,919	0.02	1.05	5.01%
Total 2019		\$20,000,000	\$5,000,000	\$15,000,000	\$0	\$328,456	\$15,411,463	\$15,739,919	\$739,919	0.02	1.05	5.01%
Total		\$81,697,444	\$10,150,126	\$71,547,318	-\$1,846	\$56,986,035	\$45,699,111	\$102,685,146	\$31,139,674	0.80	1.44	9.62%



MWRA Employees' Retirement System

ANALYSIS BY INVESTMENT STRATEGY

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Core												
Corporate Property Associates 15 Incorporated	2003	\$3,687,180	\$0	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
Mass PRIM Real Estate 2010	2010	\$16,900,000	\$0	\$16,900,000	\$0	\$27,370,332	\$0	\$27,370,332	\$10,470,332	1.62	1.62	10.01%
Prime Property Fund, LLC	2005	\$12,000,000	\$0	\$12,000,000	\$0	\$0	\$20,018,385	\$20,018,385	\$8,018,385	0.00	1.67	13.42%
TA Realty Core Property Fund, L.P.	2019	\$20,000,000	\$5,000,000	\$15,000,000	\$0	\$328,456	\$15,411,463	\$15,739,919	\$739,919	0.02	1.05	5.01%
Total Core		\$52,587,180	\$5,000,000	\$47,587,180	\$0	\$34,756,992	\$35,429,848	\$70,186,840	\$22,599,660	0.73	1.47	10.51%
Opportunistic												
Cerberus Institutional Real Estate Partners III, L.P.	2012	\$1,500,000	\$365,369	\$1,134,631	\$0	\$1,205,101	\$749,959	\$1,955,060	\$820,429	1.06	1.72	11.97%
Intercontinental Real Estate Investment Fund IV, L.P.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,205,471	\$0	\$1,205,471	-\$794,529	0.60	0.60	-6.40%
Invesco Mortgage Recovery Fund II, L.P.	2015	\$3,000,000	\$1,369,990	\$1,630,010	\$0	\$1,635,229	\$911,451	\$2,546,680	\$916,670	1.00	1.56	12.87%
Landmark Real Estate Fund VI, L.P.	2010	\$2,000,000	\$245,470	\$1,754,530	\$4,429	\$2,618,608	\$114,790	\$2,733,398	\$974,439	1.49	1.55	19.92%
Landmark Real Estate Partners VIII, L.P.	2017	\$4,000,000	\$2,479,297	\$1,520,703	\$6,065	\$468,910	\$1,326,469	\$1,795,379	\$268,611	0.31	1.18	17.26%
Real Estate Global Partnership Fund II, L.P.	2010	\$2,000,000	\$690,000	\$1,310,000	-\$5,596	\$1,116,675	\$674,011	\$1,790,686	\$486,282	0.86	1.37	6.60%
Total Opportunistic		\$14,500,000	\$5,150,126	\$9,349,874	\$4,898	\$8,249,994	\$3,776,680	\$12,026,674	\$2,671,902	0.88	1.29	5.34%
Value Add												
BlackRock Apartment Value Fund II, L.P.	2000	\$2,500,000	\$0	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
BlackRock Apartment Value Fund III, Inc.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,236,567	\$0	\$1,236,567	-\$763,433	0.62	0.62	-9.85%
TA Associates Realty Fund X, L.P.	2012	\$3,500,000	\$0	\$3,500,000	\$10,932	\$5,212,486	\$396,143	\$5,608,629	\$2,097,697	1.48	1.60	12.78%
Terracap Partners III, L.P.	2015	\$2,610,264	\$0	\$2,610,264	-\$37,694	\$2,138,922	\$1,769,682	\$3,908,604	\$1,336,034	0.83	1.52	11.10%
TerraCap Partners IV (Institutional), L.P.	2017	\$4,000,000	\$0	\$4,000,000	\$20,018	\$576,318	\$4,326,758	\$4,903,076	\$883,058	0.14	1.22	8.68%
Total Value Add		\$14,610,264	\$0	\$14,610,264	-\$6,744	\$13,979,049	\$6,492,583	\$20,471,632	\$5,868,112	0.96	1.40	10.00%
Total		\$81,697,444	\$10,150,126	\$71,547,318	-\$1,846	\$56,986,035	\$45,699,111	\$102,685,146	\$31,139,674	0.80	1.44	9.62%



MWRA Employees' Retirement System

QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
Landmark Real Estate Fund VI, L.P.	1/31/2020				-13,090	-13,090
Total: Landmark Real Estate Fund VI, L.P.					-13,090	-13,090
Landmark Real Estate Partners VIII, L.P.	1/31/2020			-27,963		-27,963
	3/31/2020	62,362		-32,768	-17,122	12,472
Total: Landmark Real Estate Partners VIII, L.P.		62,362		-60,731	-17,122	-15,491
Real Estate Global Partnership Fund II, L.P.	3/31/2020				-40,000	-40,000
Total: Real Estate Global Partnership Fund II, L.P.					-40,000	-40,000
TA Associates Realty Fund X, L.P.	1/31/2020				-161,321	-161,321
	3/31/2020				-21,510	-21,510
Total: TA Associates Realty Fund X, L.P.					-182,831	-182,831
Terracap Partners III, L.P.	3/31/2020				-32,628	-32,628
Total: Terracap Partners III, L.P.					-32,628	-32,628
TerraCap Partners IV (Institutional), L.P.	1/31/2020				-260,773	-260,773
	2/29/2020				-21,222	-21,222
Total: TerraCap Partners IV (Institutional), L.P.					-281,995	-281,995
Grand Total		62,362		-60,731	-567,666	-566,035



GLOSSARY OF TERMS

- **Commitment Amount** – The amount an investor has committed to invest with the General Partner
- **Paid In Capital** – The amount an investor has contributed for investments and management fees
- **Capital to be Funded** – The remaining amount an investor contractually has left to fund its commitments
- **Additional Fees** – Fees that are outside the capital commitment, also includes interest paid/received due from subsequent closings of the fund
- **Cumulative Distributions** – The amount an investor has received from realized and partially realized investments
- **Valuation** – Sum of the fair market value of all investments plus cash
- **Call Ratio** – Calculated by dividing Amount Funded by Capital Committed
- **DPI Ratio** - Calculated by dividing Amount Distributed by Amount Funded
- **Market Exposure** – Calculated by adding Reported Value plus Unfunded Commitments
- **Total Value** – Calculated by adding Amount Distributed and Reported Value. Represents the total amount an investor should expect to receive from their investments
- **Net Benefit** – Calculated by subtracting Total Value by Capital to be Funded plus Additional Fees
- **Total Value to Paid In Capital Ratio** – Calculated by dividing Total Value by Amount Funded. Represents the multiple of the overall cash invested that an investor is expected to receive
- **IRR** - The calculation of the IRR (Internal Rate of Return) takes into consideration the timing of cash contributions and distributions to and from the partnerships, the length of time the investments have been held and the sum of the Reported Value



Q2 INVESTMENT PERFORMANCE REPORT

MWRA EMPLOYEES' RETIREMENT SYSTEM

August, 2020

Sebastian Grzejka, CAIA, Senior Consultant

Lebo McCallum, Analyst



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

2020 SECOND QUARTER HAPPENINGS AT NEPC

NEPC INSIGHTS

- Taking Stock: NEPC's 2020 First Quarter Pension Monitor
- Taking Stock: Operational Impact Survey in the Time of COVID-19
- Taking Stock: Oil and Gas Struggle as COVID-19 Crushes Demand
- Taking Stock: Endowments and Foundations Flash Poll
- Charting a Course Forward: NEPC's Updated 2020 Asset Allocation Letter
- Taking Stock: Does TALF Present an Investment Opportunity?
- 2020 First Quarter Market Thoughts
- Taking Stock: NEPC's April 2020 Pension Monitor
- Taking Stock: Are Bonds Still an Effective Portfolio Diversifier?
- NEPC Healthcare Flash Poll - Battling COVID-19: Impact and Actions
- Taking Stock: The Faceoff Between Value and Growth (Part 1): Sector Dynamics
- Taking Stock: What About the Denominator Effect from Private Markets?
- Taking Stock: NEPC's May 2020 Pension Monitor
- NEPC Statement on Diversity and Inclusion
- Healthcare Strategic Investing After COVID-19
- NEPC's CIO Conversations Recap: George Walker
- NEPC's CIO Conversations Recap: Recovering From The COVID-19 Crisis With J.P. Morgan's Michael Cembalest
- Taking Stock: NEPC's June 2020 Pension Monitor

To download NEPC's recent insights and webinar replays, visit: www.NEPC.com/insights



2020 SECOND QUARTER HAPPENINGS AT NEPC

WEBINAR REPLAYS

- 10th Annual Investment Manager Webinar Replay
- NEPC's Updated Outlook and Assumptions Webinar Replay
- NEPC's CIO Conversations: Market Impacts of COVID-19 with Jeffrey Gundlach
- NEPC's CIO Conversations: Market Impacts of COVID-19 with Bob Prince
- NEPC's CIO Conversations: Market Impacts of COVID-19 with Rajiv Jain
- NEPC's CIO Conversations: Market Impacts of COVID-19 with Rick Rieder
- NEPC's CIO Conversations: Market Impacts of COVID-19 with George Walker
- NEPC's CIO Conversations: Market Impacts of COVID-19 with Michael Cembalest
- NEPC's CIO Conversations: Market Impacts of COVID-19 with Cliff Asness
- NEPC's Taft Hartley Real Estate Webinar Replay
- NEPC Perspectives on the Current Defined Benefit Environment
- NEPC's Infrastructure Webinar Replay
- Healthcare Strategic Investing Post COVID-19: Webinar Replay

To stay up-to-date on our COVID-19 content, visit: <https://info.nepc.com/covid-19>



EXECUTIVE SUMMARY

NEPC, LLC

EXECUTIVE SUMMARY

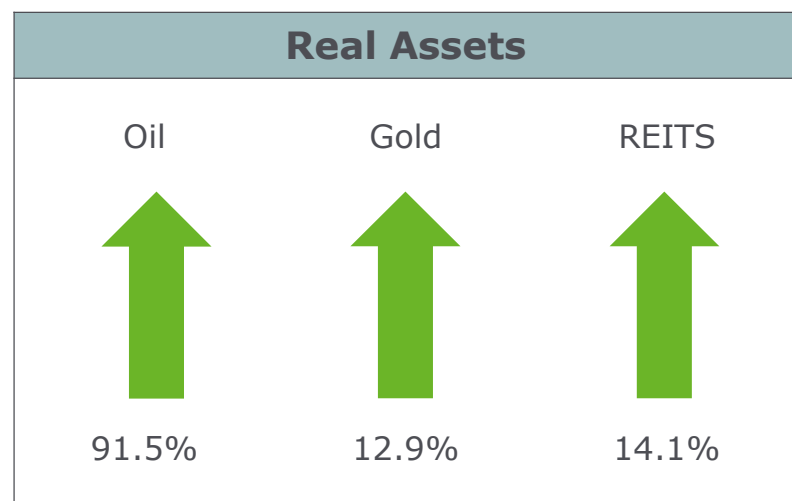
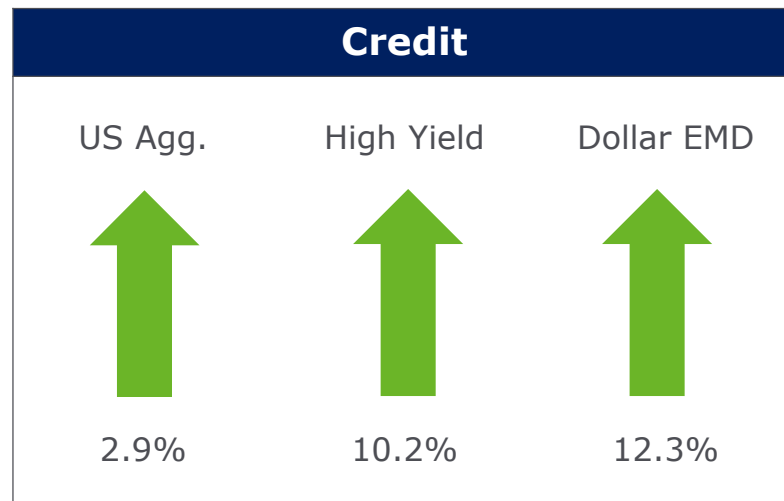
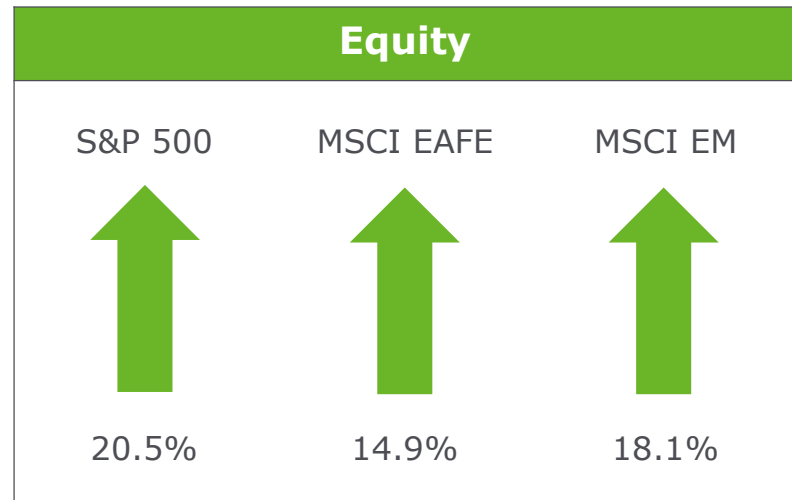
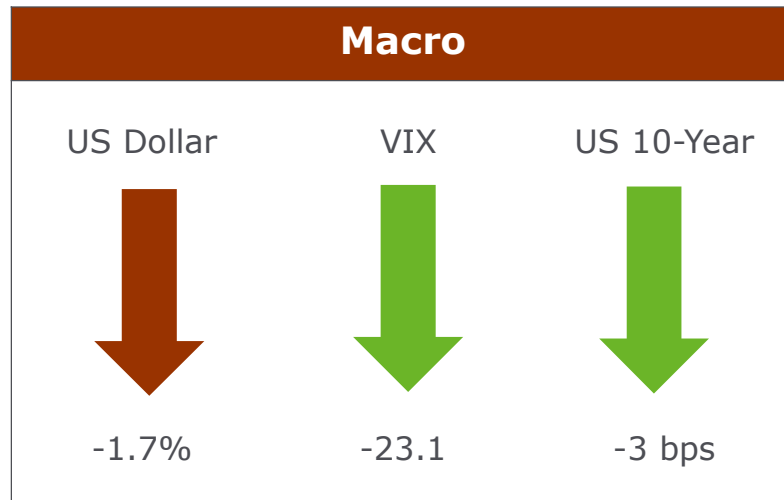
- **Following the sell off in Q1, capital markets have rebounded and the MWRA portfolio has participated in the gains**
 - The portfolio returned 11.0% during the second quarter, outperforming the allocation index (9.0%) and policy index (10.3%) over the same period. Strong equity results have continued into July and have had an additional positive impact on the portfolio
- **Public equities drove the portfolio's performance during the quarter**
 - The domestic equity allocation returned 22.0% in Q2, outperforming international and emerging market equities which returned 19.2% and 14.6%, respectively. A weakening dollar benefited the portfolios unhedged equity performance.
 - Performance was driven by active management, as a number of managers outperformed their benchmarks; the largest outperformance was from international equity namely Schrodgers (+21.2%) and SEG Baxter Street (+19.5%) vs the MSCI ACWI ex US (+16.1%) for the quarter
- **Fixed income delivered a more modest gain and benefitted from the risk on environment which boosted returns from credit-oriented investments**
 - The fixed income composite returned 6.3% for the quarter
- **Alternative assets and balanced strategies also generated gains in aggregate, however ,Q1 private equity valuations where a slight detractor from performance**
 - The balanced composite returned 12.5% for the quarter and hedge funds returned 5.4% for the quarter. PIMCO was up 6.2% in Q2 and benefitted from the rebound in credit and non-US assets; however, has been subsequently liquidated
 - Private Equity was down 1.4% for the quarter



MARKET UPDATE

NEPC, LLC

MARKET OVERVIEW



Market segment (index representation) as follows: US Dollar (DXY Index), VIX (CBOE Volatility Index), US 10-Year (US 10-Year Treasury Yield), S&P 500 (US Equity), MSCI EAFE Index (International Developed Equity), MSCI Emerging Markets (Emerging Markets Equity), US Agg (Barclays US Aggregate Bond Index), High Yield (Barclays US High Yield Index), Dollar EMD (JPM EMBI Global Diversified Index), Crude Oil (WTI Crude Oil Spot), Gold (Gold Price Spot), and REITs (NAREIT Composite Index). Source: FactSet



CALENDAR YEAR INDEX PERFORMANCE

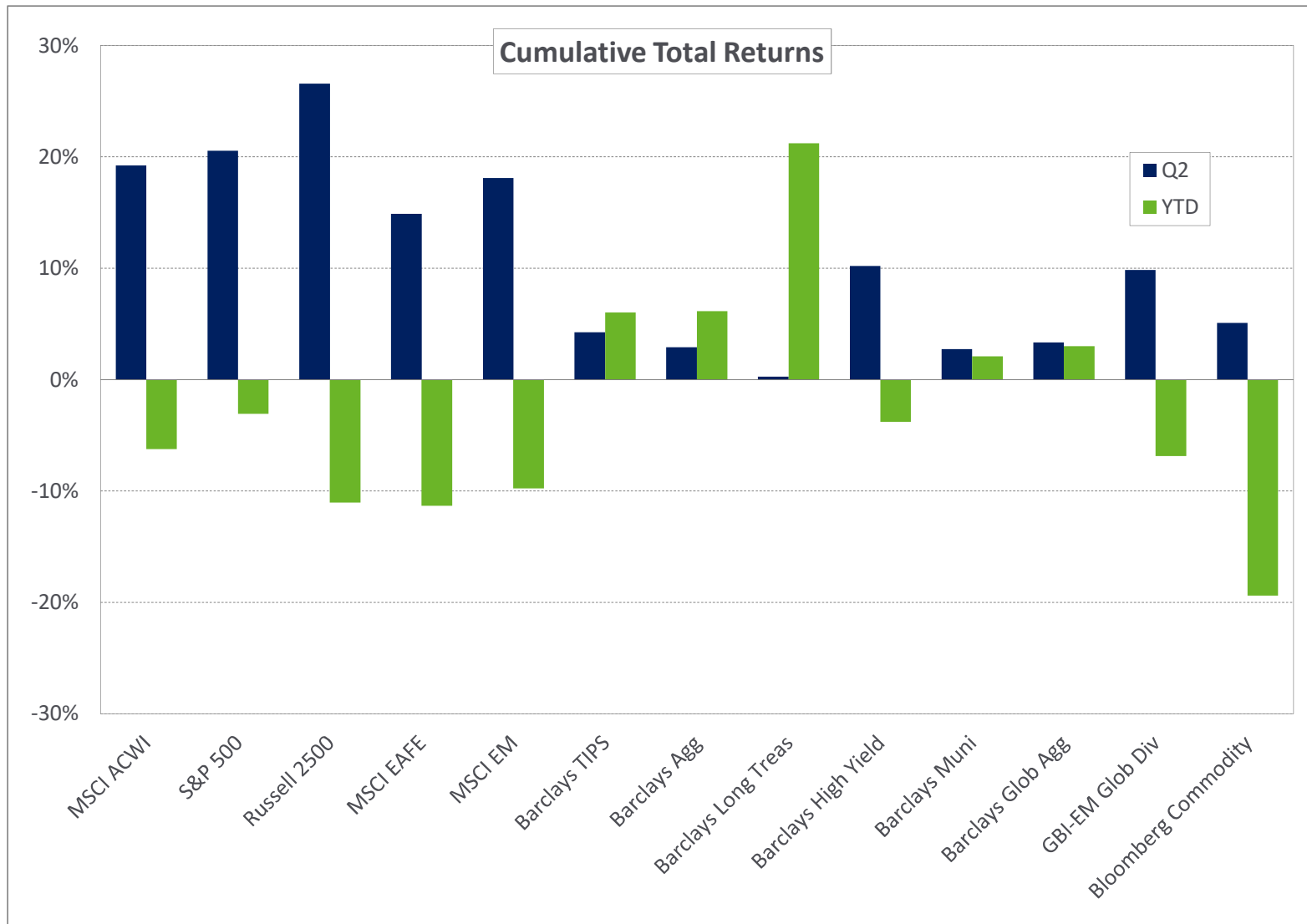
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Jun	YTD
S&P 500	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	2.0%	-3.1%
Russell 1000	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	2.2%	-2.8%
Russell 2000	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	3.5%	-13.0%
Russell 2500	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	2.9%	-11.1%
MSCI EAFE	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	3.4%	-11.3%
MSCI EM	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	7.4%	-9.8%
MSCI ACWI	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	3.2%	-6.3%
Private Equity	19.8%	9.5%	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	-	-
BC TIPS	6.3%	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	1.1%	6.0%
BC Municipal	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	0.8%	2.1%
BC Muni High Yield	7.8%	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.0%	-2.6%
BC US Corporate HY	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	1.0%	-3.8%
BC US Agg Bond	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	0.6%	6.1%
BC Global Agg	5.5%	5.6%	4.3%	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	0.9%	3.0%
BC Long Treasuries	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	0.1%	21.2%
BC US Long Credit	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	2.5%	5.9%
BC US STRIPS 20+ Yr	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	0.2%	28.7%
JPM GBI-EM Global Div	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	13.5%	0.5%	-6.9%
JPM EMBI Glob Div	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	3.5%	-2.8%
CS Hedge Fund	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	9.3%	-	-4.5%
BBG Commodity	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	2.3%	-19.4%
Alerian MLP	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	-6.5%	-12.4%	6.6%	-7.9%	-35.7%
FTSE NAREIT Equity REITs	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	3.1%	-18.7%

Source: FactSet, Barclays, Thomson One

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag



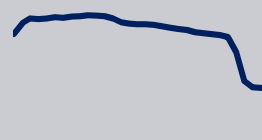


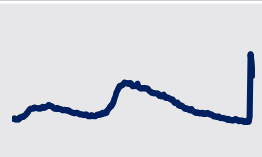

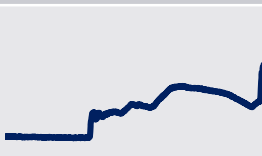
RISK ASSETS RALLIED SIGNIFICANTLY IN Q2



Source: S&P, Russell, MSCI, JPM, Bloomberg, FactSet



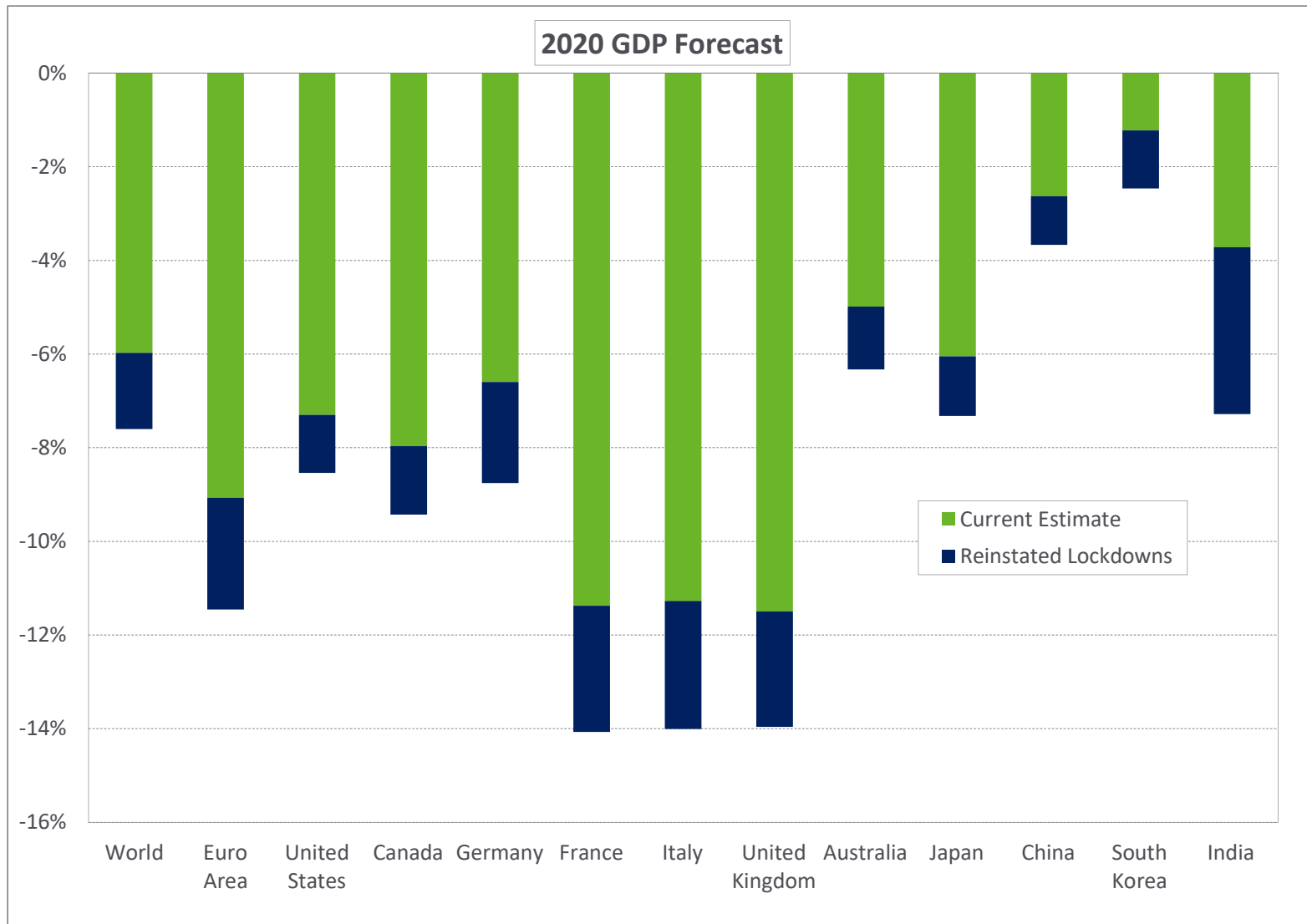
THE ECONOMIC BACKDROP IS CHALLENGED

Metric	12/31/19	03/31/20	06/30/20	Trend
S&P 500 CY 2020 Earnings Estimate	\$177.81	\$160.40	\$126.89	
US Real GDP (QoQ%)	2.1%	-5.0%	-33.4%*	
US CY 2020 Real GDP Growth Consensus	1.8%	-0.7%	-5.2%	
US Unemployment Rate	3.5%	4.4%	11.1%	
Continued Claims for Unemployment	1.7M	3.5M	19.1M	
Federal Reserve Balance Sheet as % of Nominal GDP	19.2%	24.4%	32.9%	

Source: US Bureau of Labor Statistics, Federal Reserve, FactSet, NEPC
 *The 06/30/20 real GDP figure represents the consensus estimate from FactSet



COVID WEIGHS ON GROWTH FORECASTS

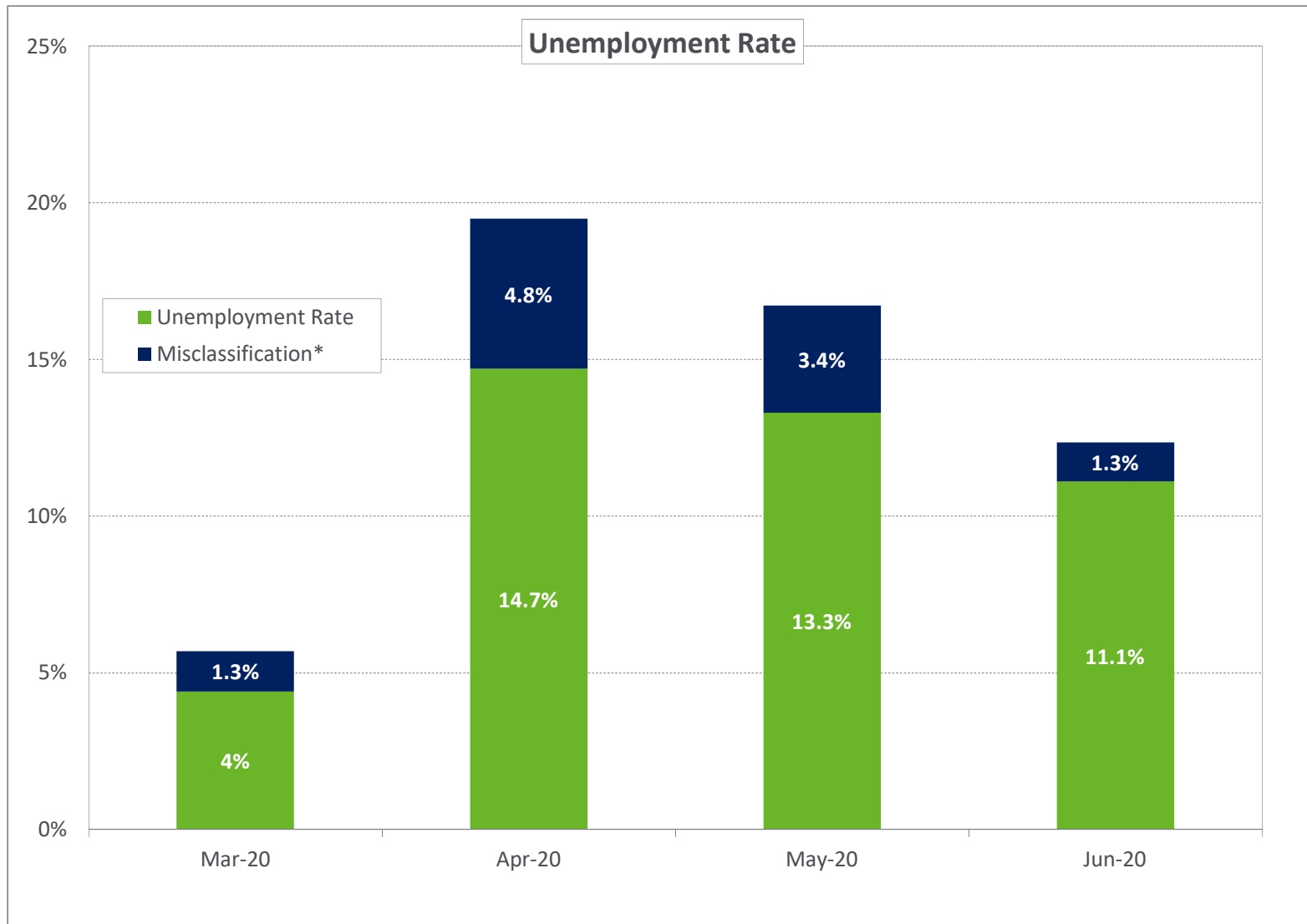


Source: OECD

The additional decline in economic growth from reinstated lockdowns represents a renewed outbreak of infections that forces economies to re-implement restrictions.



UNEMPLOYMENT MAY BE WORSE THAN REPORTED

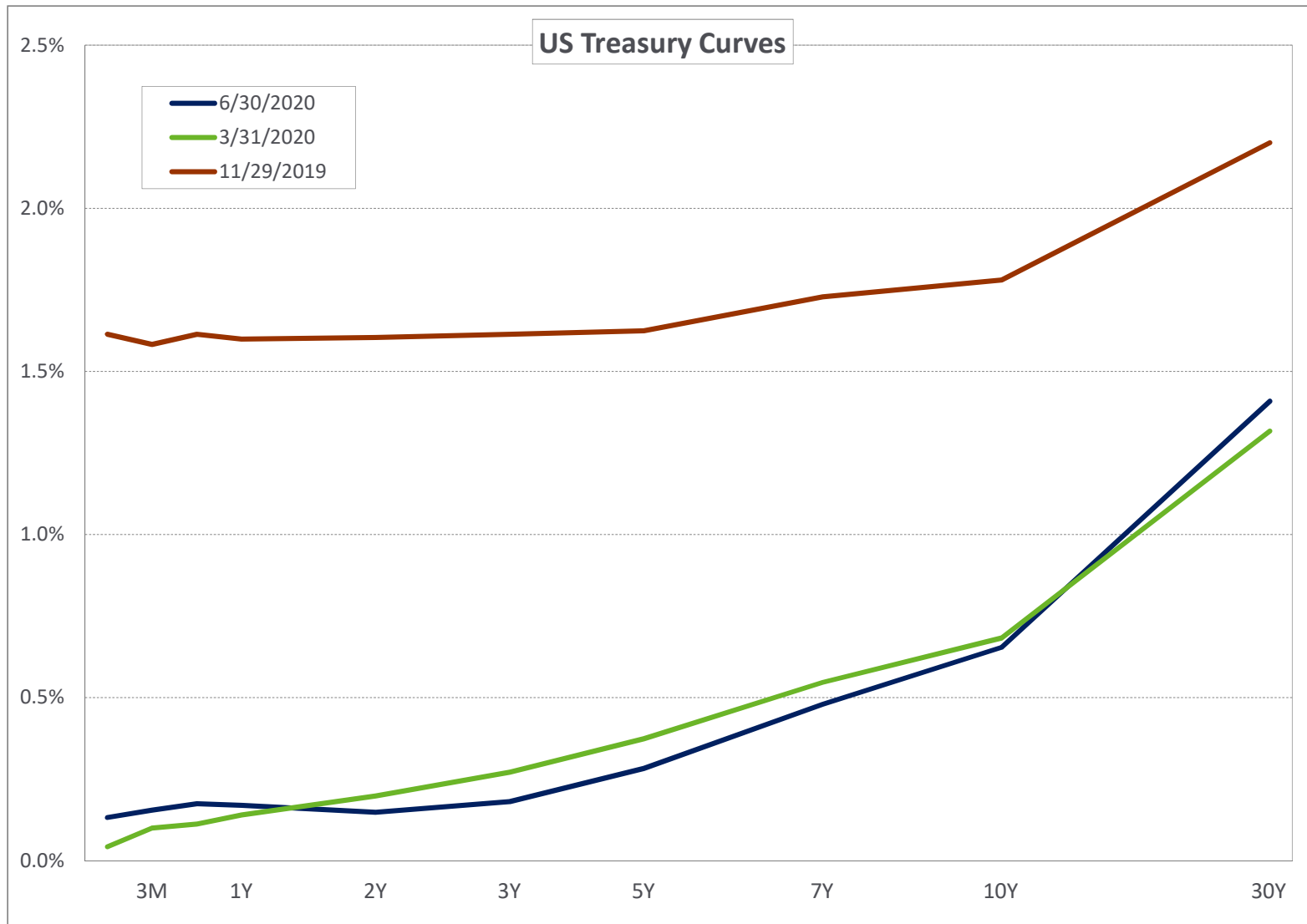


Source: Department of Labor

Misclassification* represents an estimate of "unemployed on temporary leave" mislabeled as "employed but absent from work"



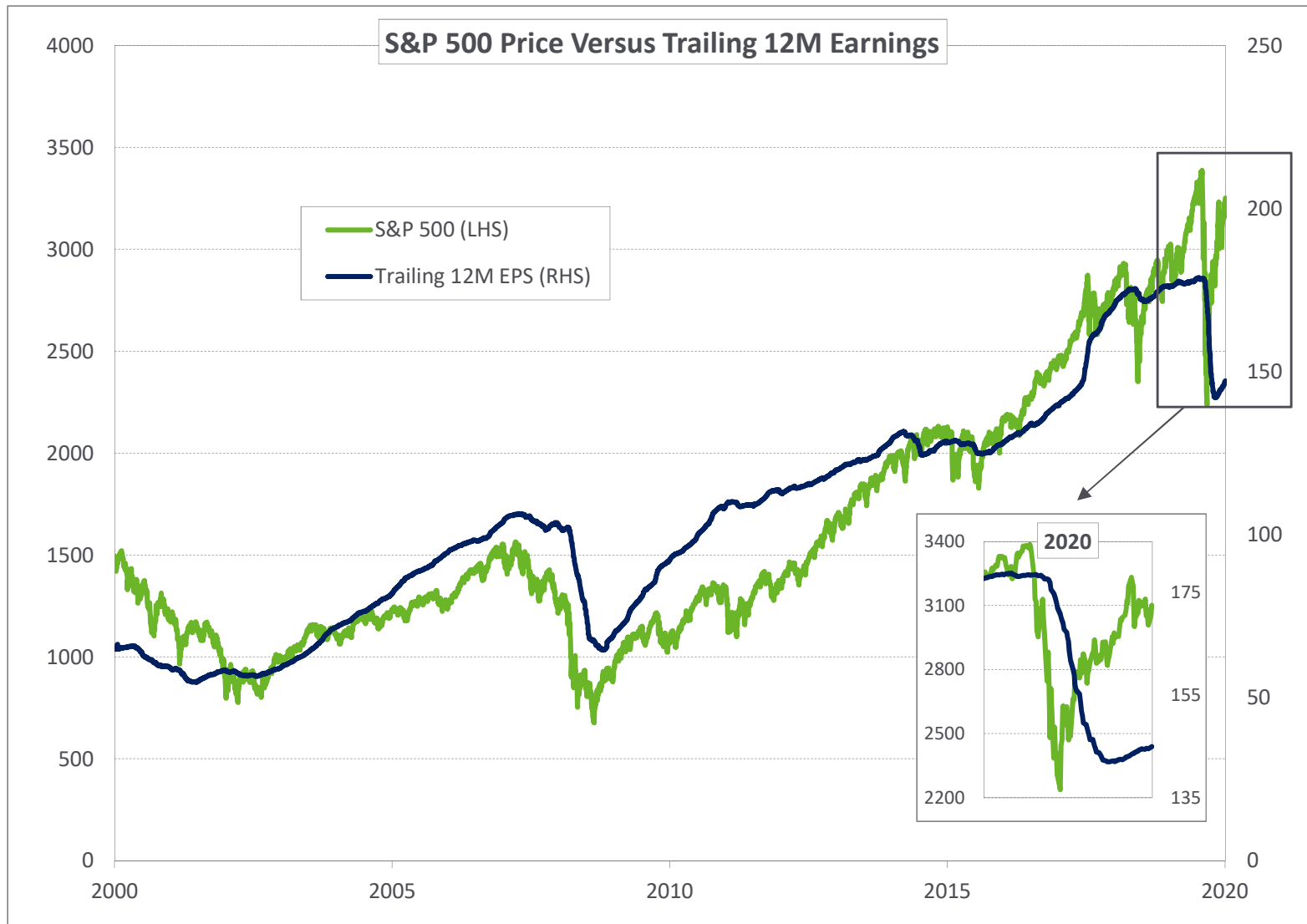
INTEREST RATES REFLECT ECONOMIC CONCERNS



Source: FactSet



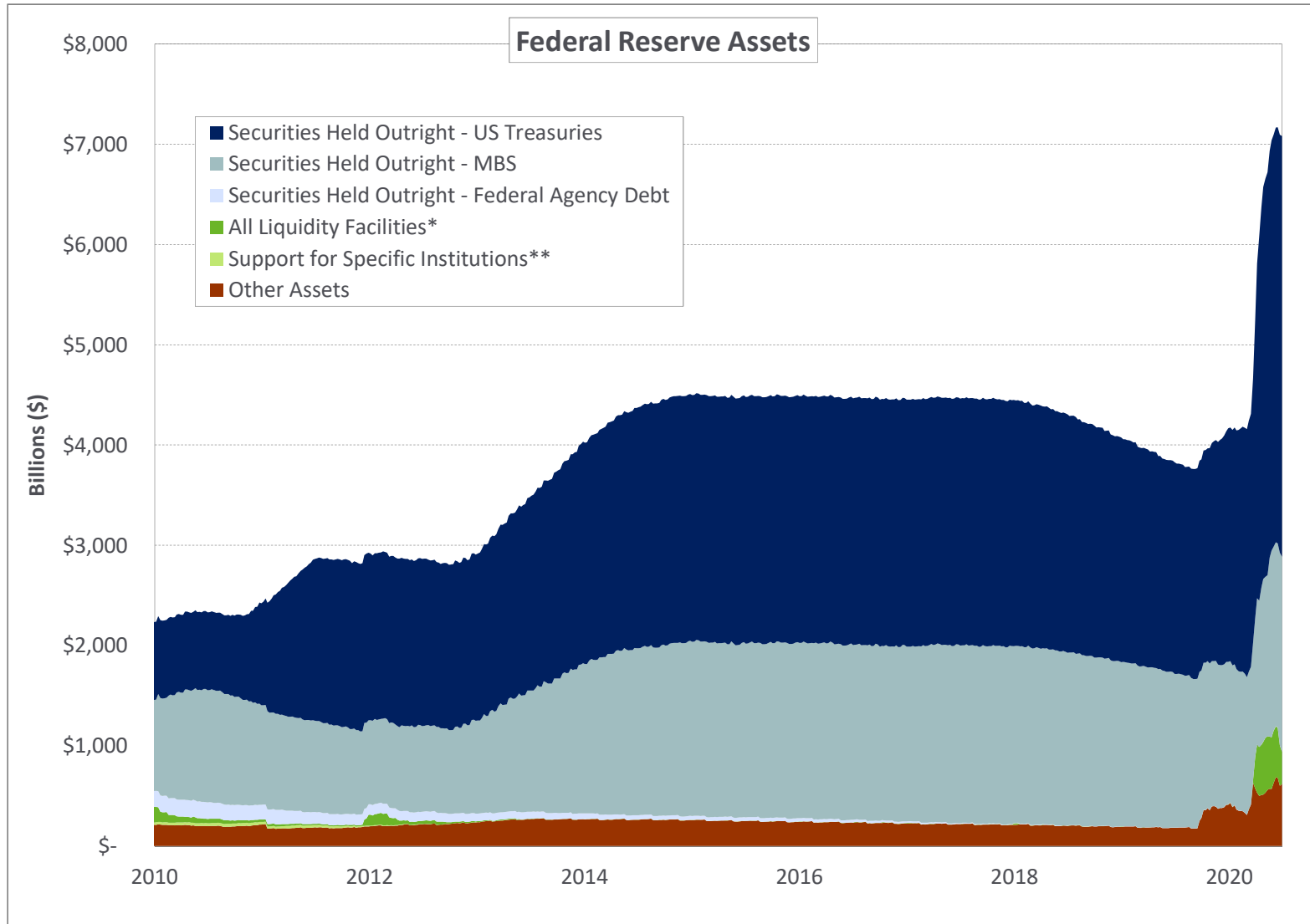
EQUITY PRICES DETACHED FROM FUNDAMENTALS



Source: S&P, FactSet
Data as of 7/20/2020



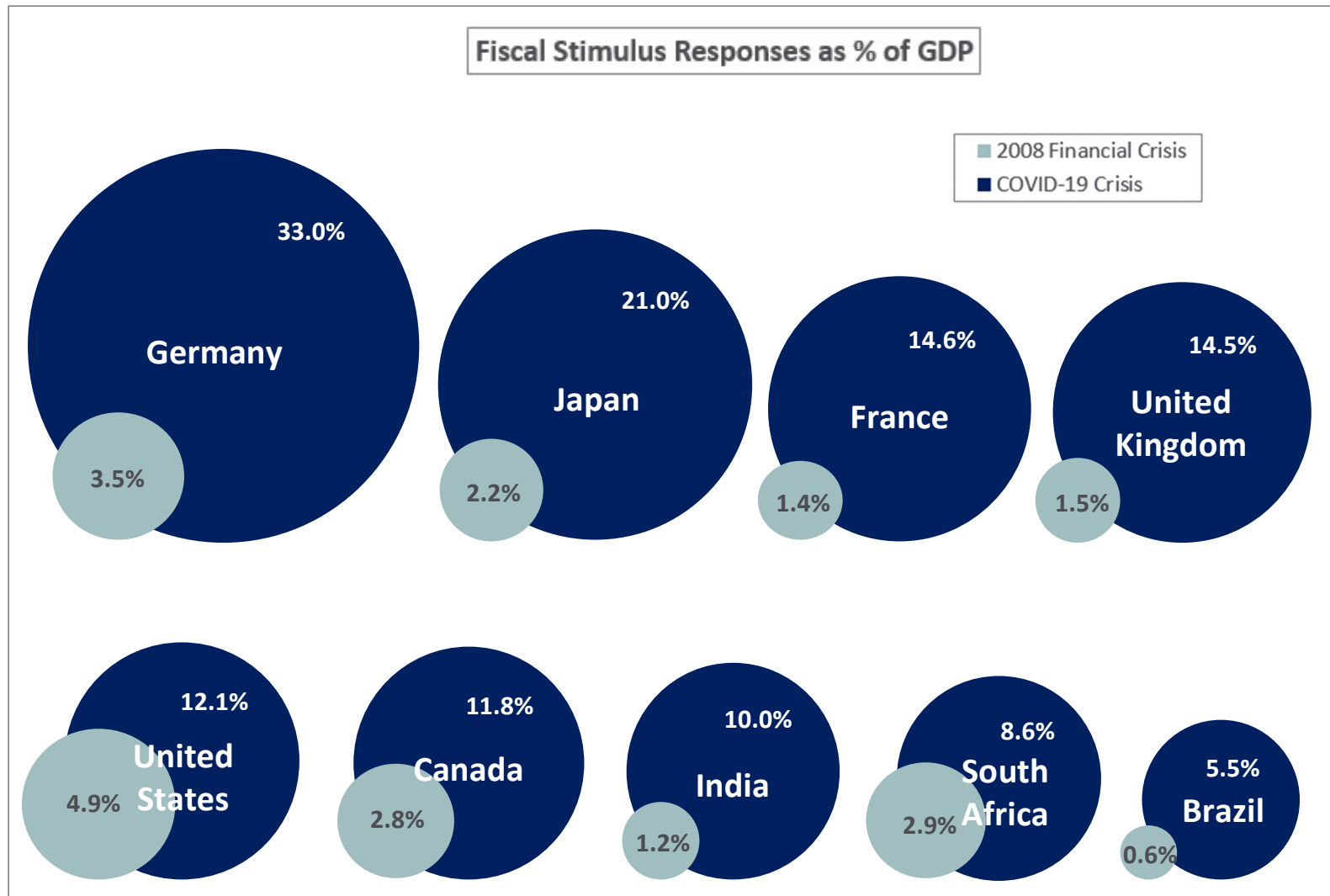
FED BALANCE SHEET GROWTH



Sources: Federal Reserve, FactSet, NEPC; *All Liquidity Facilities includes term auction credit, primary credit, secondary credit, seasonal credit, Primary Dealer Credit Facility, Asset-Backed Commercial Paper, Money Market Mutual Fund Liquidity Facility, and central bank liquidity swaps; **Support for Specific Institutions includes credit extended to AIG and Maiden Lane LLCs

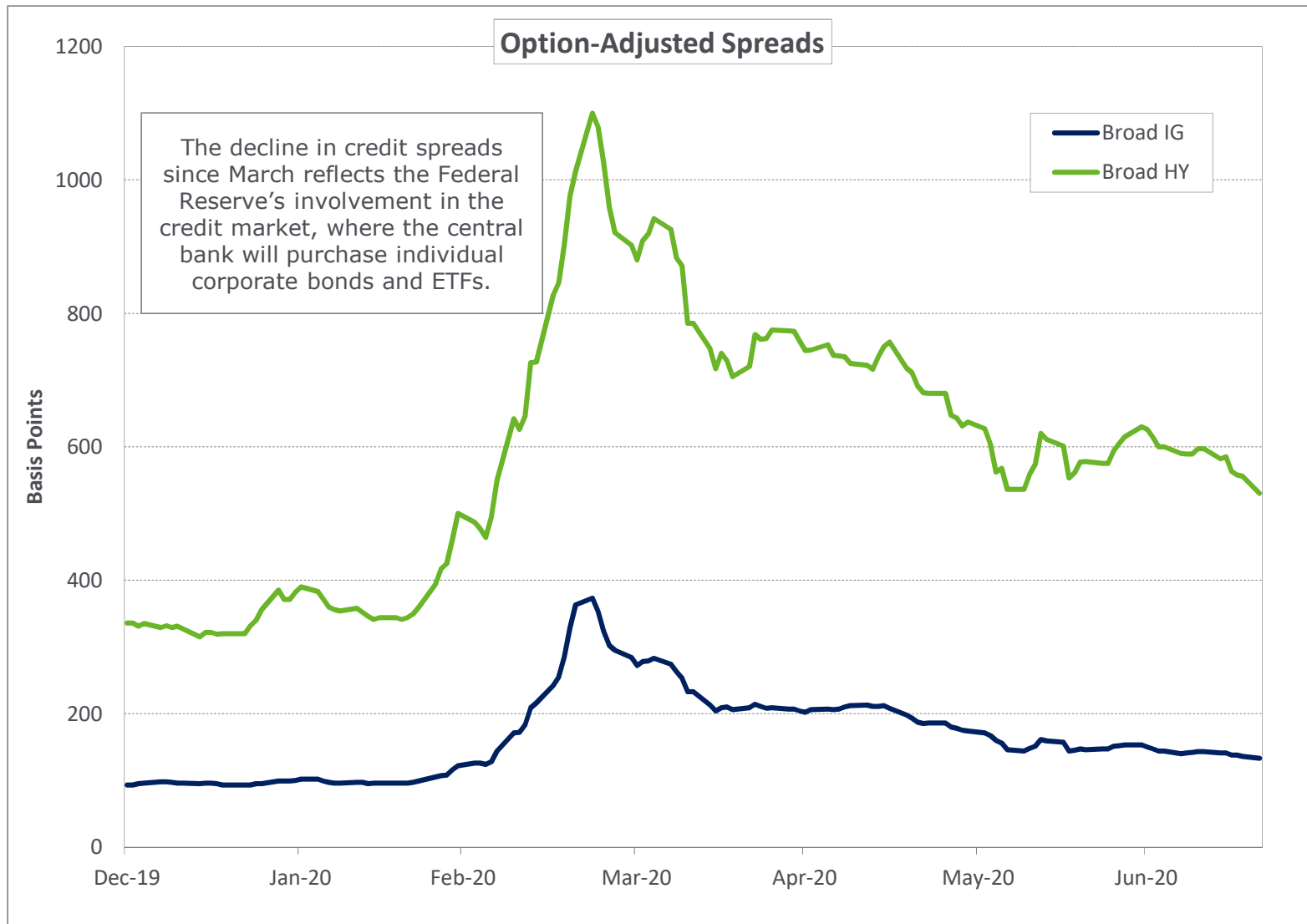


THE GLOBAL FISCAL STIMULUS PICTURE



Source: IMF, McKinsey – [The 10 Trillion Dollar Rescue: How Governments Can Deliver Impact](#)
 COVID-19 Crisis includes 2019 GDP for calculations; 2008 Financial Crisis incorporates data published by the IMF in March 2009 and includes discretionary measures announced for 2008-2010
 China announced 4.5% Fiscal Stimulus in May, less than countries in chart

CREDIT SPREADS HAVE FALLEN SINCE MARCH



Source: Bloomberg, FactSet
Data as of 7/20/2020



ASSESSING THE KEY MARKET THEMES

06/30/20 Assessment

	Virus Trajectory	Permanent Interventions	Globalization Backlash	China Transitions
Dominant	<p><u>Change in Status:</u> - Virus Trajectory is the dominant force driving market and economic outcomes. While the market is optimistic regarding a vaccine, economic reopening in some states have paused given recent upward trends in cases. We believe uncertainty remains high related to the path of the virus and the timing of a global economic recovery.</p>	<p><u>Change in Status:</u> - Globally, significant monetary and fiscal stimulus has been aimed at lessening the economic impact of COVID-19.</p> <p>The Federal Reserve created liquidity and lending facilities to support corporations along with state and local municipalities. Recent interventions have pushed credit spreads lower across IG and HY markets.</p>	<p><u>Change in Status:</u> - The influence of the theme will likely increase in coming quarters as countries digest lasting impacts from the pandemic. The world will likely be faced with an amplified wealth divide given economic and labor market disruptions. In addition, backlash may continue as countries reassess supply chains.</p>	<p><u>Change in Status:</u> - Tensions between the US and China intensified following China's approval of the Hong Kong national security law that effectively ends the "one country, two systems" relationship. The question of Hong Kong and other geopolitical tensions are likely to be at the forefront of political agendas in both the US and China.</p>
Emerging				
Neutral				
Fading				
Dormant				



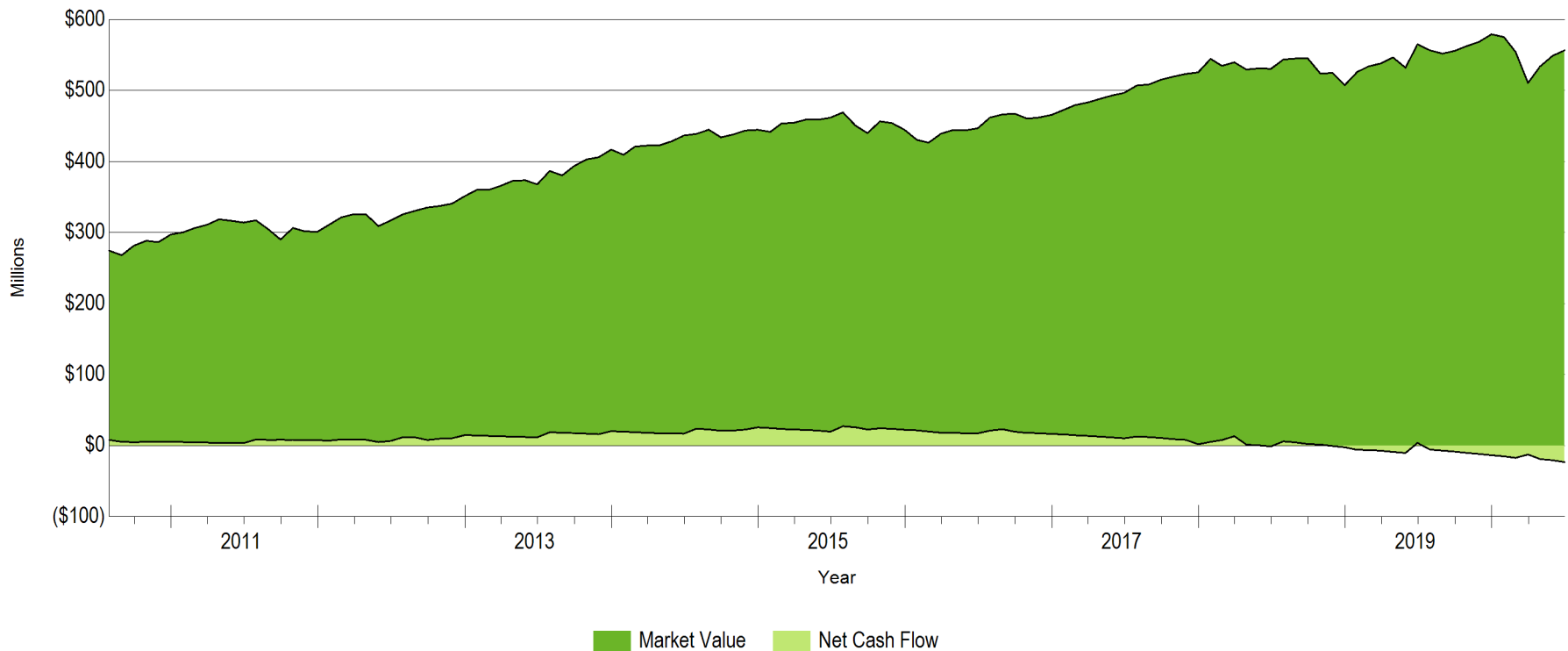
Q2 2020 PERFORMANCE

NEPC, LLC

MWRA Employees' Retirement System

TOTAL FUND ASSET GROWTH SUMMARY

10 Years Ending June 30, 2020



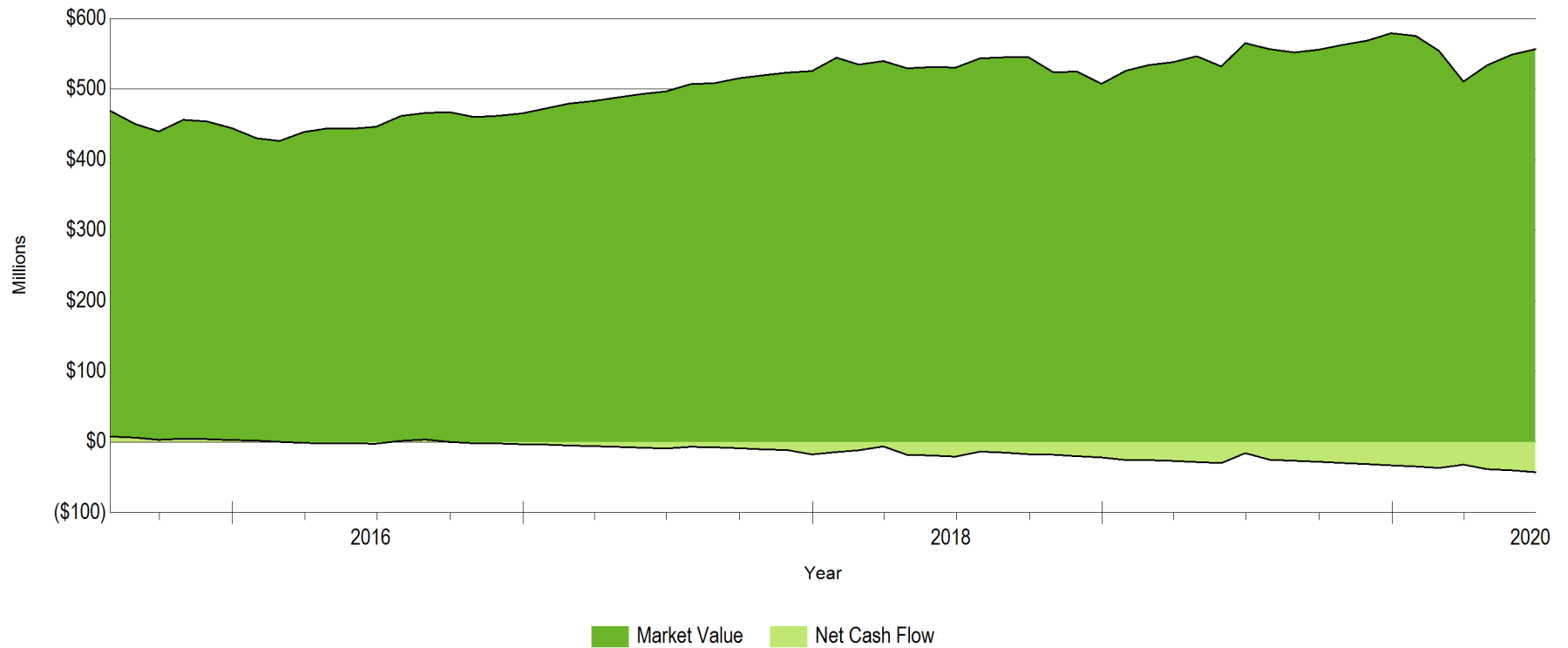
	Last Three Months	Year-To-Date	One Year	Three Years	Five Years	Seven Years	Ten Years
Beginning Market Value	\$510,721,975	\$579,228,207	\$565,192,276	\$496,730,156	\$461,903,952	\$367,797,405	\$256,972,786
Net Cash Flow	-\$10,712,826	-\$9,697,610	-\$27,014,399	-\$33,548,448	-\$42,895,002	-\$34,889,220	-\$23,457,412
Net Investment Change	\$56,659,453	-\$12,861,995	\$18,490,725	\$93,486,894	\$137,659,652	\$223,760,418	\$323,153,228
Ending Market Value	\$556,668,602	\$556,668,602	\$556,668,602	\$556,668,602	\$556,668,602	\$556,668,602	\$556,668,602



MWRA Employees' Retirement System

TOTAL ASSET GROWTH SUMMARY-CALENDAR YEAR

5 Years Ending June 30, 2020

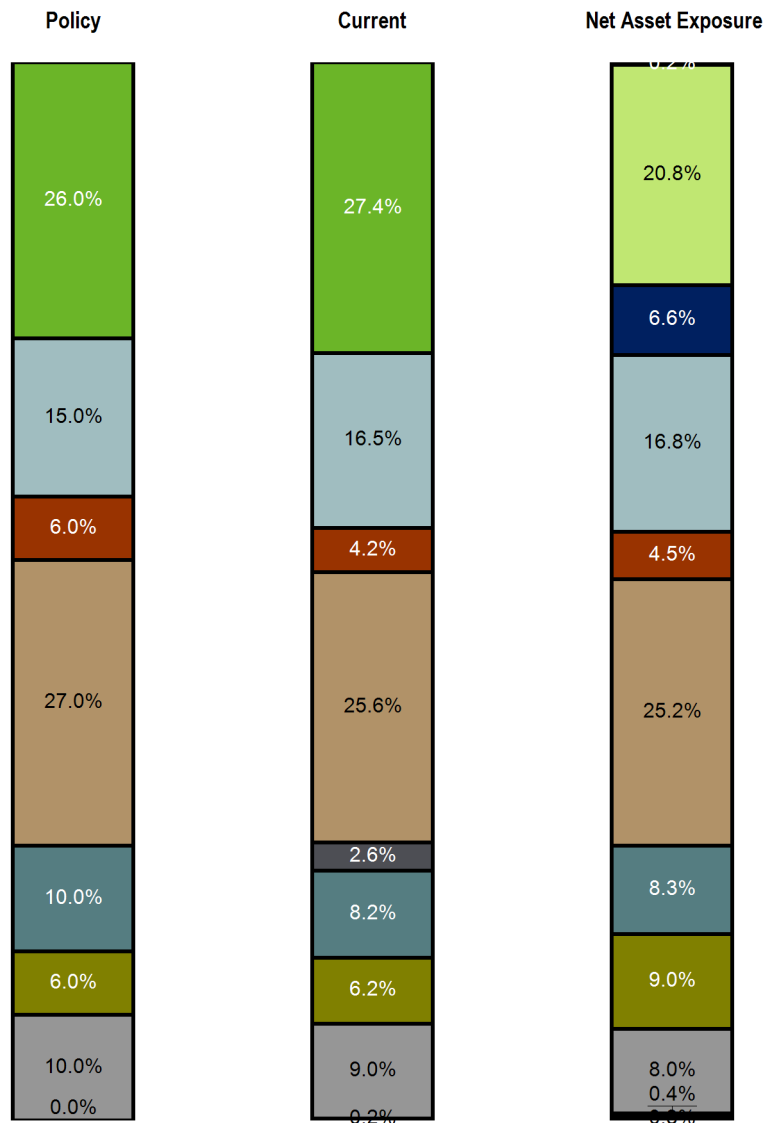


	2015	2016	2017	2018	2019
Beginning Market Value	\$444,742,451	\$444,744,803	\$465,451,611	\$525,597,128	\$507,653,878
Net Cash Flow	-\$3,382,998	-\$6,027,819	-\$14,389,228	-\$4,272,726	-\$11,188,556
Net Investment Change	\$3,385,350	\$26,946,982	\$74,534,744	-\$13,670,523	\$82,762,885
Ending Market Value	\$444,744,803	\$465,663,966	\$525,597,128	\$507,653,878	\$579,228,207



MWRA Employees' Retirement System

TOTAL FUND ASSET ALLOCATION vs. POLICY



Asset Allocation vs. Target			
	Policy	Current	Net Asset Exposure
Equity - Domestic	26.0%	27.4%	0.2%
Large Cap Equity	--	--	20.8%
Small Cap Equity	--	--	6.6%
Equity - International	15.0%	16.5%	16.8%
Emerging Equity	6.0%	4.2%	4.5%
Fixed Income	27.0%	25.6%	25.2%
Balanced	--	2.6%	--
Private Equity	10.0%	8.2%	8.3%
Hedge Funds	6.0%	6.2%	9.0%
Real Estate	10.0%	9.0%	8.0%
Real Assets	--	--	0.4%
Cash	0.0%	0.2%	0.3%
Total	100.0%	100.0%	100.0%

Asset class weights may not add up to 100% due to rounding.

Real Assets include Commodities, Real Estate, and TIPS.

Cash includes Other.

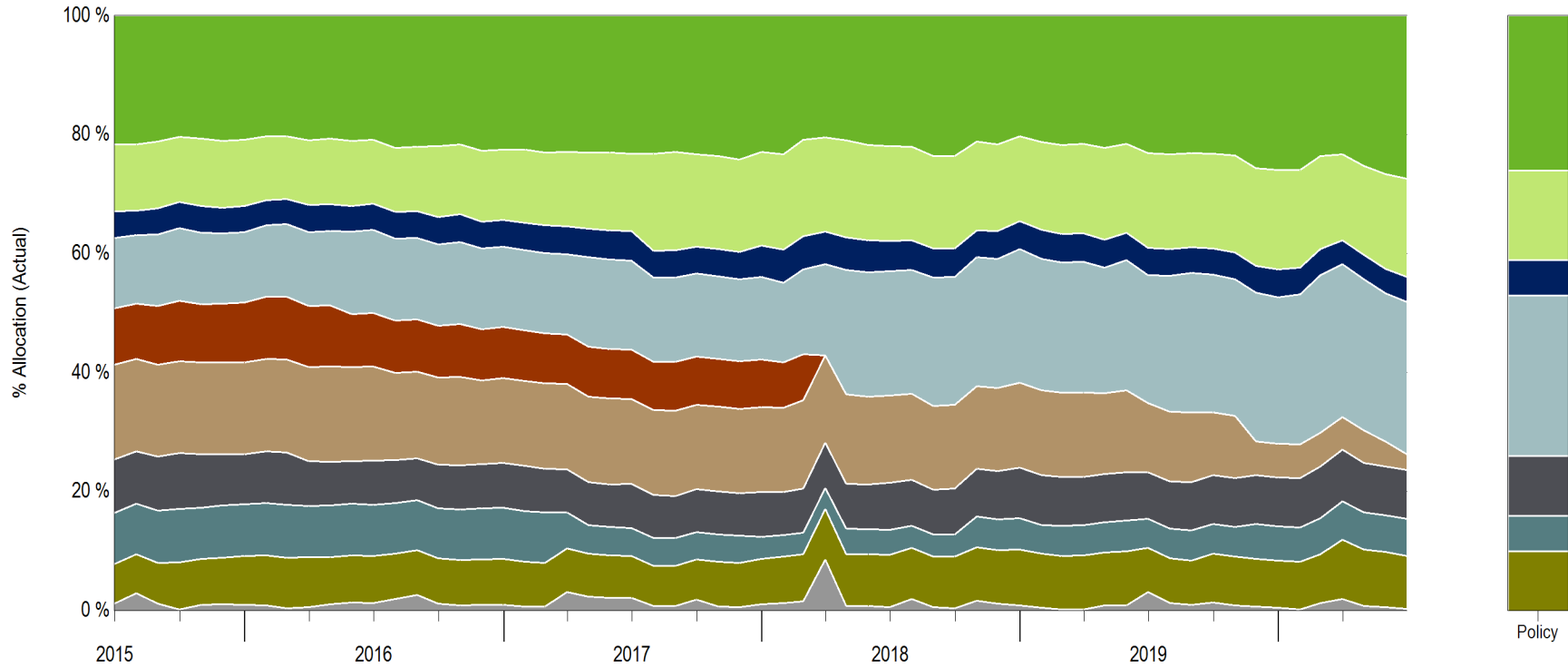
PIMCO All Asset reported on 1 Qtr. lag.

Policy Index Consists of: 20% S&P 500, 6% Russell 2000, 10% MSCI EAFE, 5% MSCI ACWI IMI, 6% MSCI Emerging Markets, 12% BBgBarc US Aggregate TR, 5% BBgBarc US TIPS TR, 8% BBgBarc US Universal TR, 10% NCREIF Property Index, 10% CJA US All PE, 6% HFRI Fund of Funds Composite Index, 2% Credit Suisse Leveraged Loan.



TOTAL FUND ASSET ALLOCATION HISTORY

Asset Allocation History



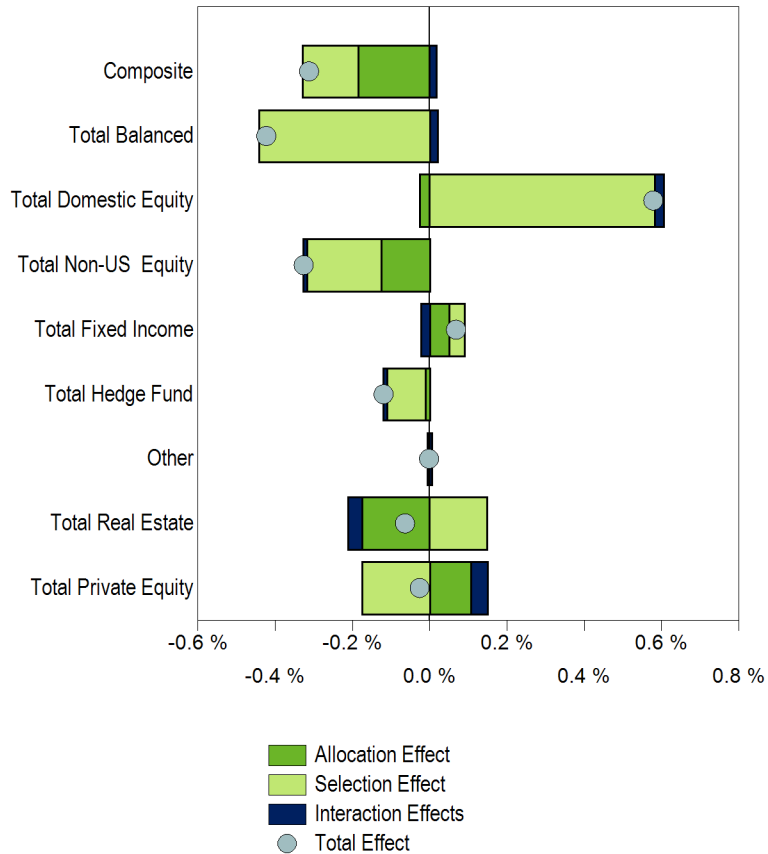
- Equity - Domestic
- Emerging Equity
- Fixed Income - Domestic
- Private Equity
- Real Estate
- Equity - International
- Fixed Income
- Balanced
- Hedge Funds
- Cash



MWRA Employees' Retirement System

TOTAL FUND ATTRIBUTION

Attribution Effects
1 Year Ending June 30, 2020



Attribution Summary
1 Year Ending June 30, 2020

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Balanced	-1.3%	3.7%	-5.0%	-0.4%	0.0%	0.0%	-0.4%
Total Domestic Equity	6.6%	3.8%	2.8%	0.6%	0.0%	0.0%	0.6%
Total Non-US Equity	-3.9%	-2.9%	-1.0%	-0.2%	-0.1%	0.0%	-0.3%
Total Fixed Income	8.4%	8.4%	0.1%	0.0%	0.1%	0.0%	0.1%
Total Hedge Fund	-1.0%	0.5%	-1.5%	-0.1%	0.0%	0.0%	-0.1%
Other	2.1%	1.3%	0.8%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	4.1%	2.7%	1.4%	0.1%	-0.2%	0.0%	-0.1%
Total Private Equity	-6.8%	-5.5%	-1.3%	-0.2%	0.1%	0.0%	0.0%
Total	2.5%	2.8%	-0.3%	-0.1%	-0.2%	0.0%	-0.3%

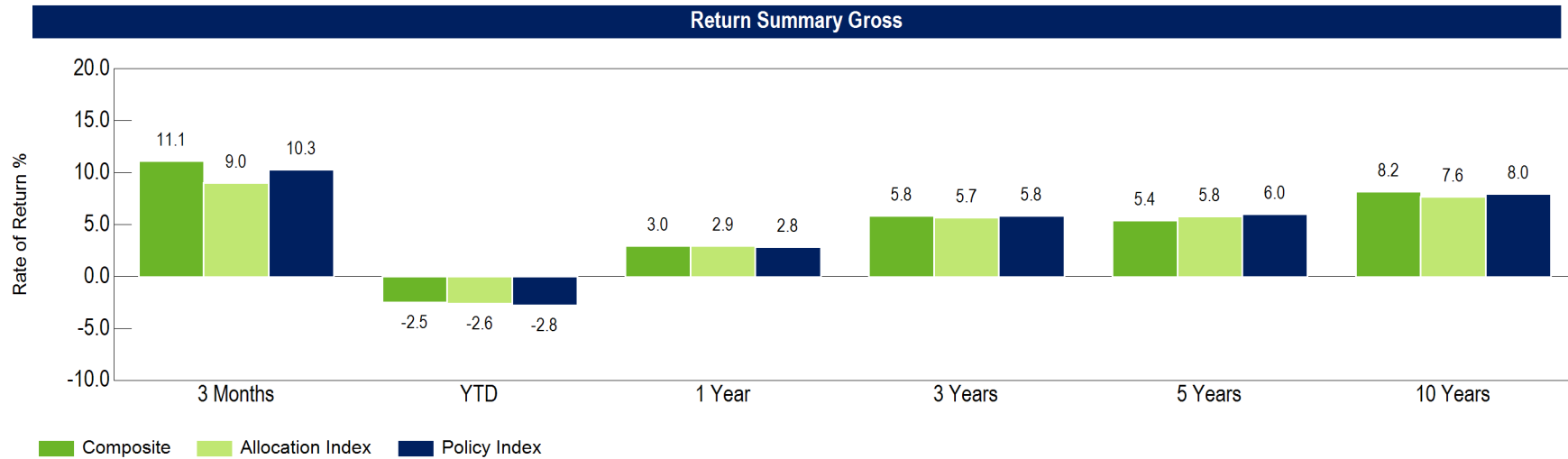
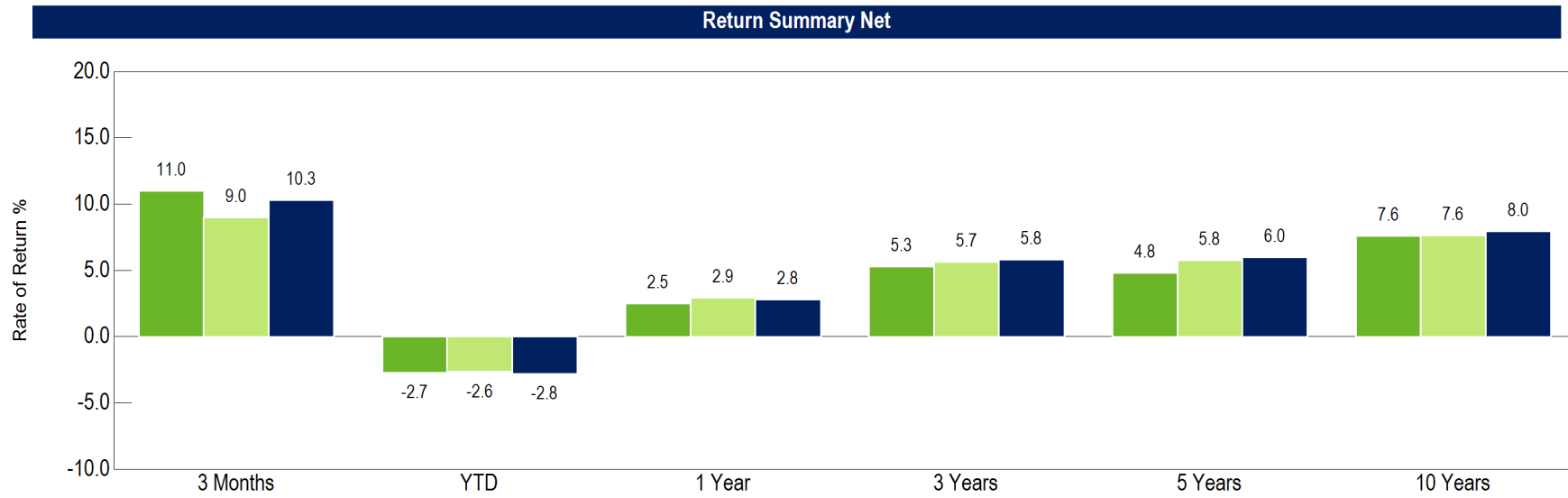
Note: Policy weights reflect the beginning of the period target weights.

Note: Plan attribution is a static, return based calculation and the results reflect the composites shown. As a result, the total returns shown may vary from the calculated returns shown on the performance summary.



MWRA Employees' Retirement System

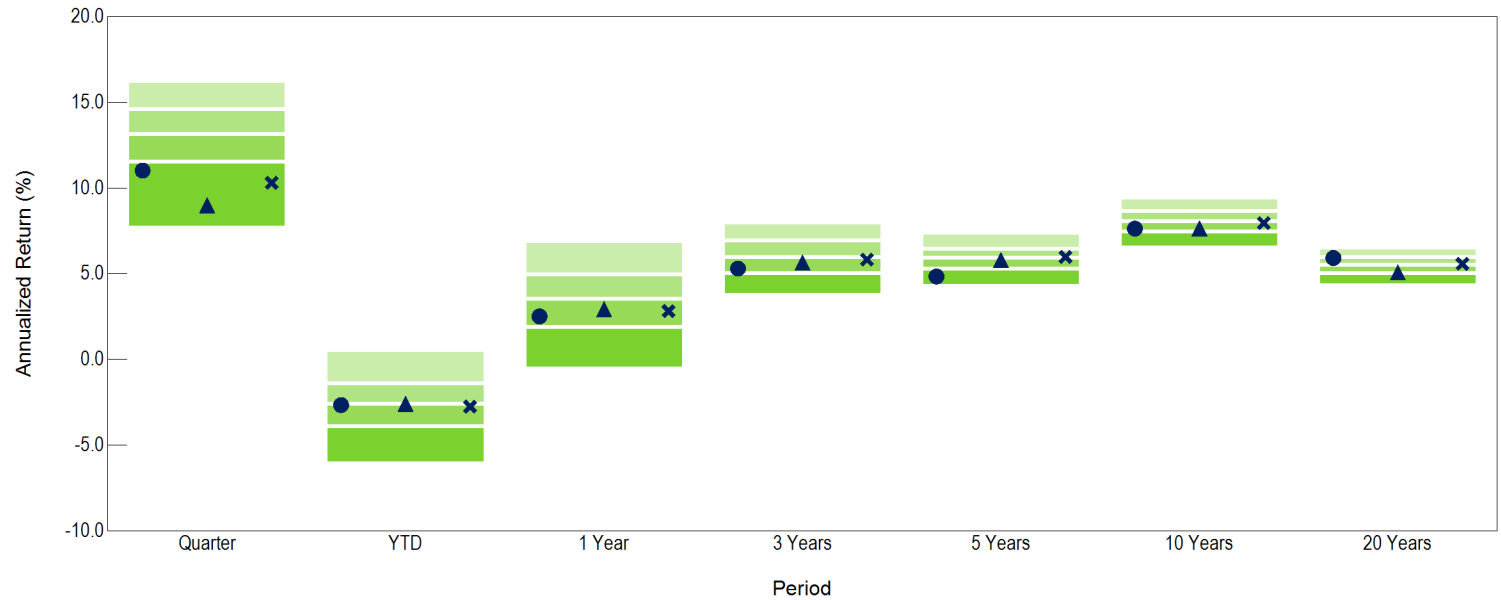
TOTAL FUND RETURN SUMMARY



MWRA Employees' Retirement System

TOTAL FUND RETURN SUMMARY vs. PEER UNIVERSE

Composite vs. InvMetrics Public DB Net



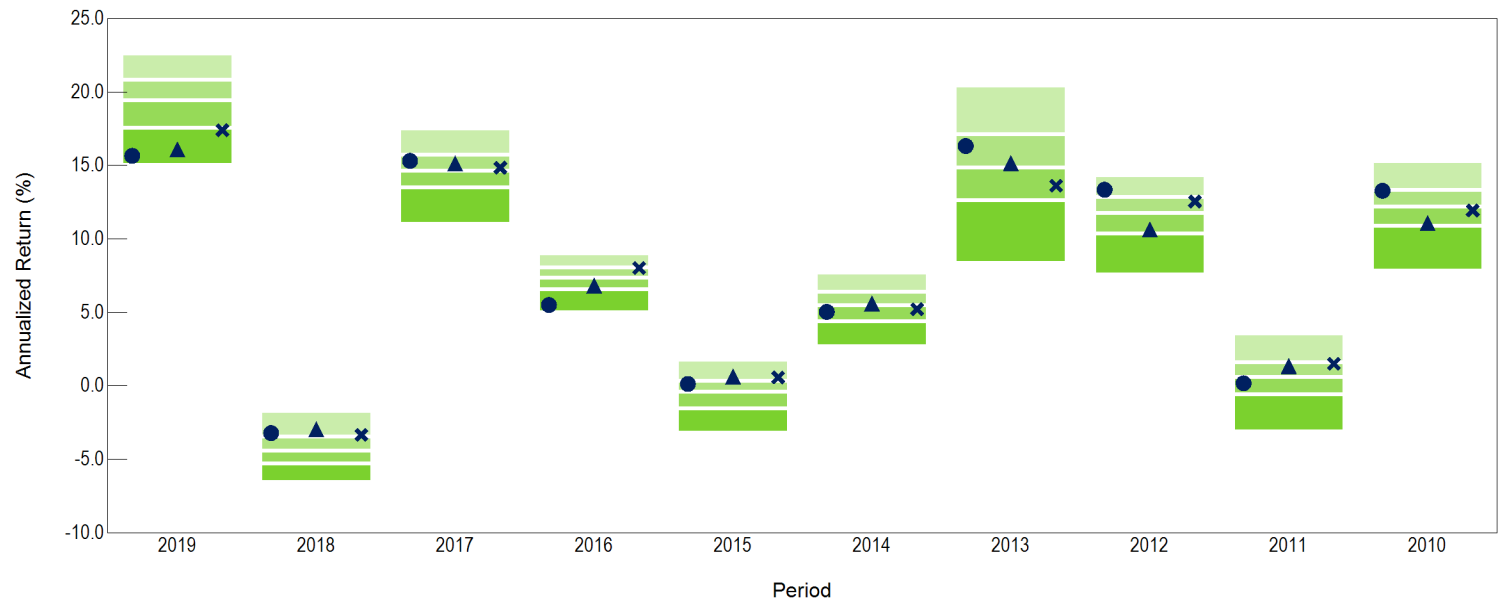
	Return (Rank)													
5th Percentile	16.2		0.5		6.9		8.0		7.4		9.4		6.5	
25th Percentile	14.6		-1.4		5.0		6.9		6.5		8.7		6.0	
Median	13.2		-2.6		3.6		6.0		5.9		8.1		5.5	
75th Percentile	11.6		-3.9		1.9		5.0		5.3		7.5		5.1	
95th Percentile	7.7		-6.1		-0.5		3.8		4.3		6.5		4.4	
# of Portfolios	580		579		574		554		516		429		182	
● Composite	11.0	(80)	-2.7	(53)	2.5	(66)	5.3	(68)	4.8	(89)	7.6	(69)	5.9	(27)
▲ Allocation Index	9.0	(93)	-2.6	(52)	2.9	(61)	5.7	(60)	5.8	(59)	7.6	(69)	5.1	(73)
× Policy Index	10.3	(86)	-2.8	(55)	2.8	(63)	5.8	(57)	6.0	(48)	8.0	(56)	5.6	(45)



MWRA Employees' Retirement System

TOTAL RETURN SUMMARY vs. PEER UNIVERSE - CALENDAR YEAR

Composite vs. InvMetrics Public DB Net

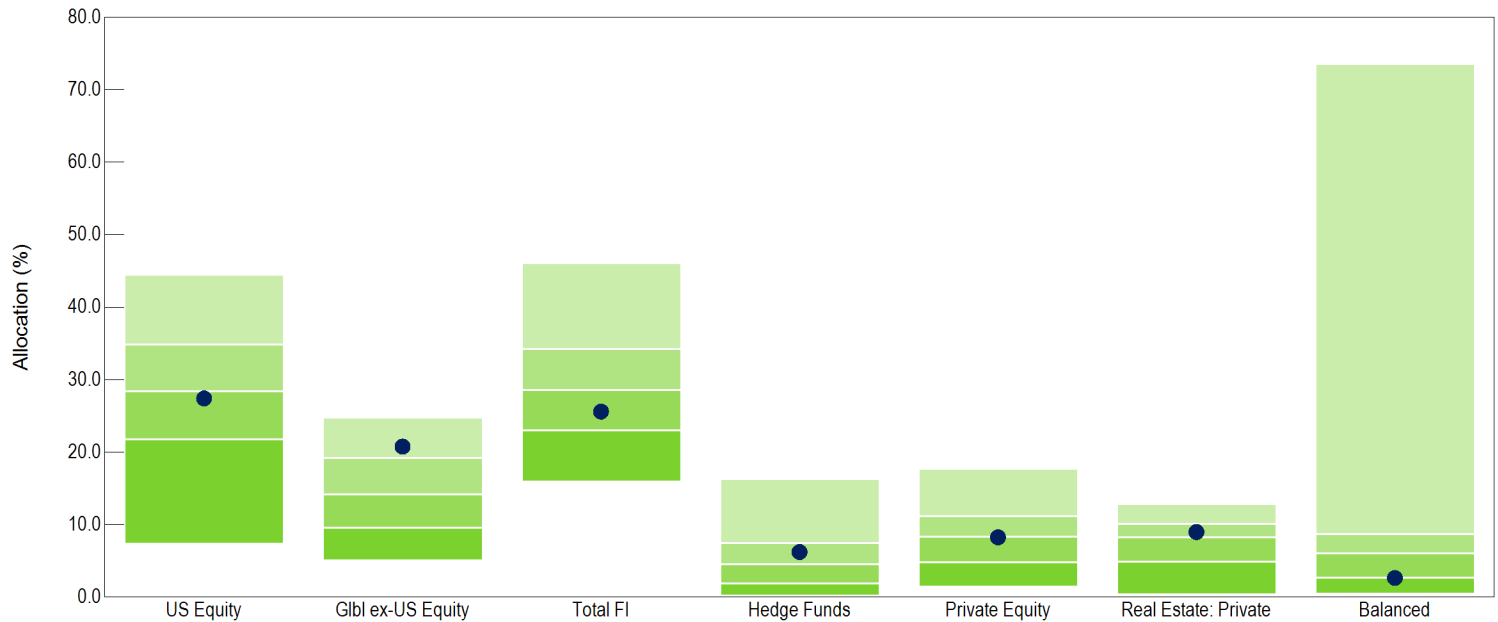


	Return (Rank)															
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010						
5th Percentile	22.6	-1.7	17.5	9.0	1.7	7.7	20.4	14.3	3.6	15.3						
25th Percentile	20.8	-3.4	15.8	8.1	0.4	6.4	17.2	12.9	1.6	13.4						
Median	19.5	-4.4	14.7	7.4	-0.4	5.5	14.9	11.8	0.6	12.2						
75th Percentile	17.6	-5.2	13.6	6.6	-1.5	4.4	12.7	10.4	-0.5	10.9						
95th Percentile	15.1	-6.5	11.1	5.0	-3.2	2.7	8.4	7.6	-3.1	7.9						
# of Portfolios	550	496	269	269	262	210	191	159	137	131						
● Composite	15.7 (93)	-3.2 (21)	15.3 (36)	5.5 (92)	0.1 (31)	5.0 (62)	16.3 (36)	13.4 (16)	0.2 (63)	13.3 (27)						
▲ Allocation Index	16.1 (91)	-3.0 (16)	15.1 (40)	6.8 (68)	0.6 (19)	5.6 (47)	15.2 (46)	10.6 (72)	1.3 (31)	11.1 (73)						
× Policy Index	17.4 (77)	-3.3 (24)	14.8 (46)	8.0 (28)	0.6 (20)	5.2 (59)	13.6 (66)	12.6 (36)	1.5 (28)	11.9 (56)						



TOTAL FUND ALLOCATIONS vs. PEER UNIVERSE

Total Plan Allocation vs. InvMetrics Public DB Net



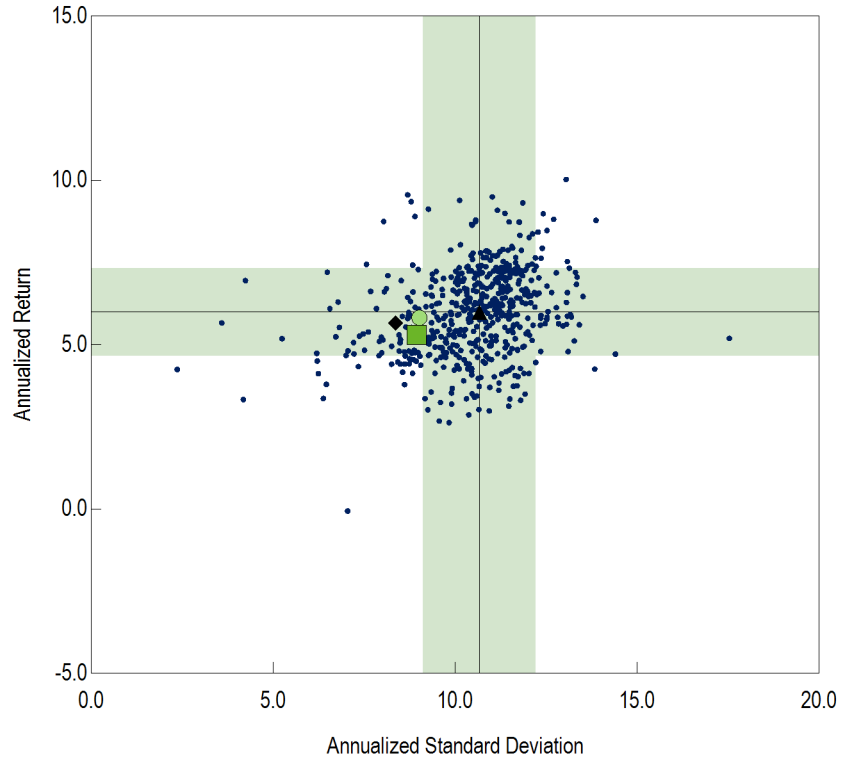
	Allocation (Rank)													
5th Percentile	44.5		24.8		46.1		16.3		17.7		12.8		73.5	
25th Percentile	34.9		19.3		34.3		7.6		11.3		10.2		8.8	
Median	28.5		14.2		28.6		4.6		8.4		8.3		6.1	
75th Percentile	21.8		9.6		23.1		2.0		4.9		4.9		2.7	
95th Percentile	7.4		5.1		16.0		0.3		1.5		0.5		0.6	
# of Portfolios	146		196		235		71		109		138		19	
● Composite	27.4	(54)	20.7	(18)	25.6	(62)	6.2	(35)	8.2	(53)	9.0	(41)	2.6	(77)



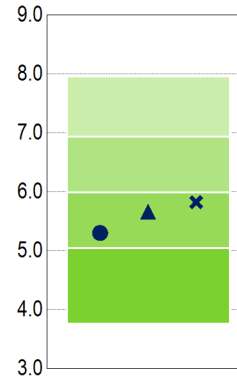
MWRA Employees' Retirement System

TOTAL FUND RISK/RETURN - 3 YEARS

3 Years Ending June 30, 2020



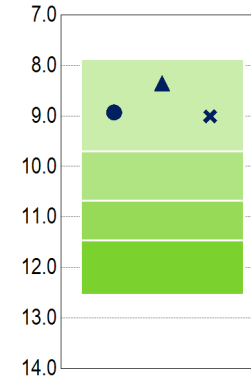
Analzd Return



● Composite	Value	5.30
	Rank	68
▲ Allocation Index	Value	5.66
	Rank	60
× Policy Index	Value	5.82
	Rank	57

Universe	5th %tile	7.95
	25th %tile	6.95
	Median	6.00
	75th %tile	5.05
	95th %tile	3.77

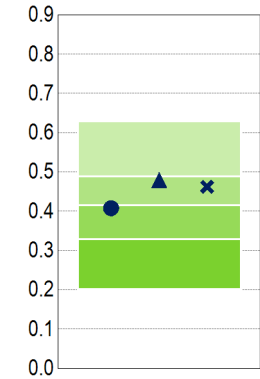
Analzd Standard Deviation



● Composite	Value	8.93
	Rank	15
▲ Allocation Index	Value	8.35
	Rank	7
× Policy Index	Value	9.01
	Rank	16

Universe	5th %tile	7.88
	25th %tile	9.69
	Median	10.66
	75th %tile	11.46
	95th %tile	12.53

Sharpe Ratio



● Composite	Value	0.41
	Rank	53
▲ Allocation Index	Value	0.48
	Rank	30
× Policy Index	Value	0.46
	Rank	36

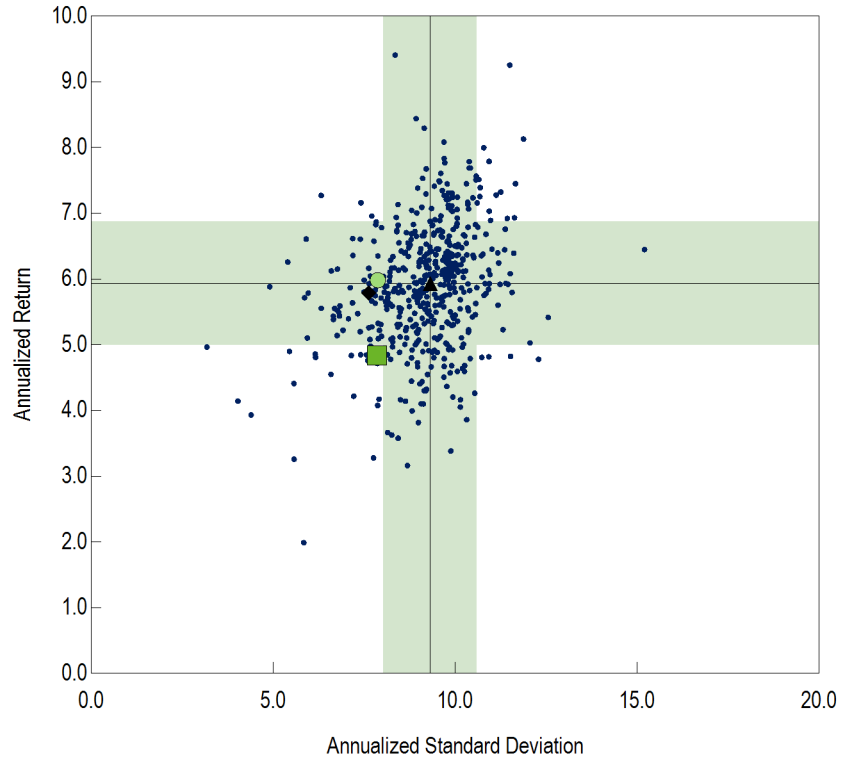
Universe	5th %tile	0.63
	25th %tile	0.49
	Median	0.42
	75th %tile	0.33
	95th %tile	0.20



MWRA Employees' Retirement System

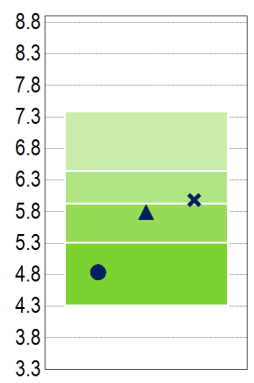
TOTAL FUND RISK/RETURN - 5 YEARS

5 Years Ending June 30, 2020



- Composite
- ◆ Allocation Index
- Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB Net

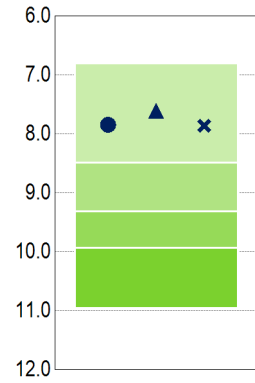
Annualized Return



● Composite	Value	4.84
	Rank	89
▲ Allocation Index	Value	5.79
	Rank	59
× Policy Index	Value	5.98
	Rank	48

Universe	5th %tile	7.39
	25th %tile	6.46
	Median	5.93
	75th %tile	5.32
	95th %tile	4.32

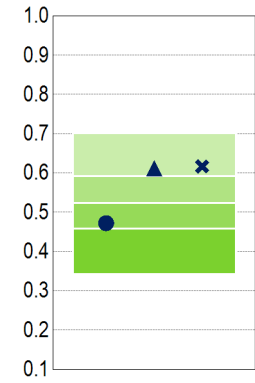
Annualized Standard Deviation



● Composite	Value	7.85
	Rank	13
▲ Allocation Index	Value	7.62
	Rank	9
× Policy Index	Value	7.87
	Rank	14

Universe	5th %tile	6.81
	25th %tile	8.48
	Median	9.31
	75th %tile	9.93
	95th %tile	10.95

Sharpe Ratio



● Composite	Value	0.47
	Rank	72
▲ Allocation Index	Value	0.61
	Rank	19
× Policy Index	Value	0.62
	Rank	18

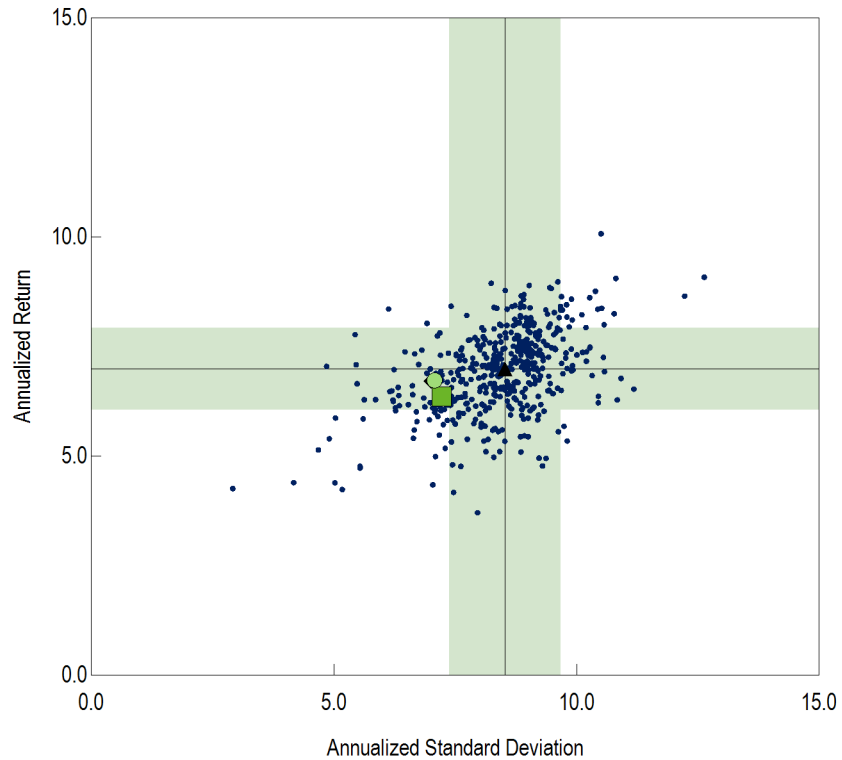
Universe	5th %tile	0.70
	25th %tile	0.59
	Median	0.52
	75th %tile	0.46
	95th %tile	0.34



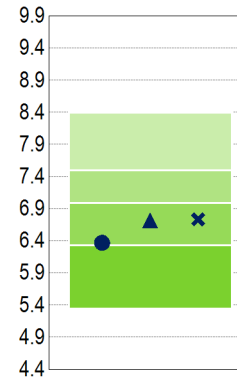
MWRA Employees' Retirement System

TOTAL FUND RISK/RETURN - 7 YEARS

7 Years Ending June 30, 2020



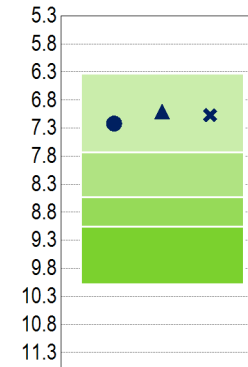
Annualized Return



● Composite	Value	6.37
	Rank	74
▲ Allocation Index	Value	6.72
	Rank	61
× Policy Index	Value	6.73
	Rank	60

Universe	5th %tile	8.40
	25th %tile	7.51
	Median	6.99
	75th %tile	6.34
	95th %tile	5.36

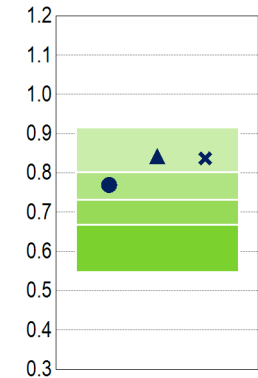
Annualized Standard Deviation



● Composite	Value	7.22
	Rank	14
▲ Allocation Index	Value	7.00
	Rank	10
× Policy Index	Value	7.07
	Rank	11

Universe	5th %tile	6.32
	25th %tile	7.73
	Median	8.52
	75th %tile	9.05
	95th %tile	10.08

Sharpe Ratio



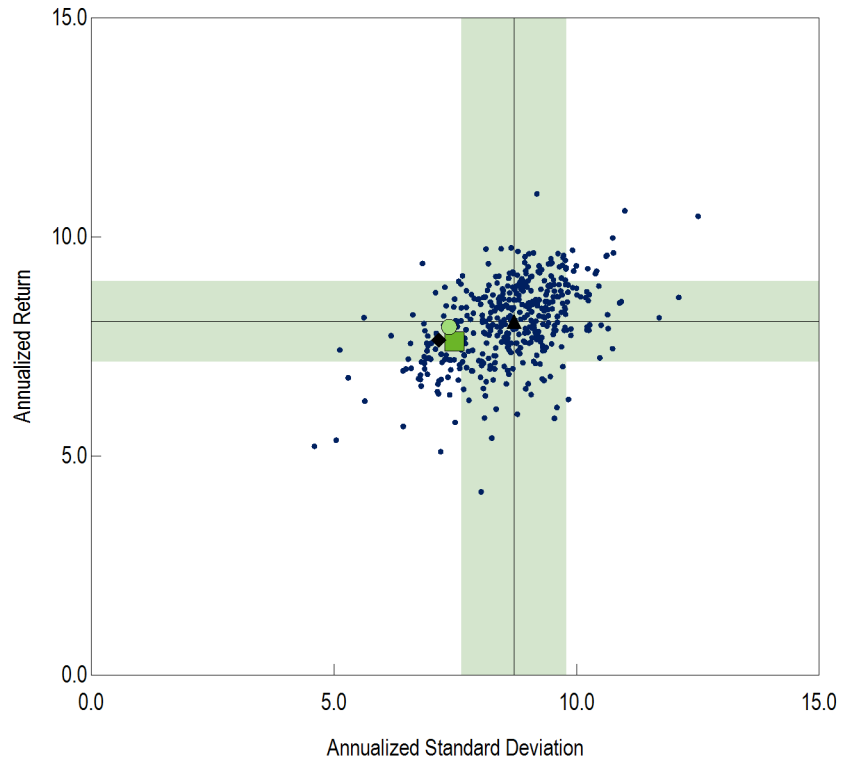
● Composite	Value	0.77
	Rank	36
▲ Allocation Index	Value	0.84
	Rank	16
× Policy Index	Value	0.84
	Rank	17

Universe	5th %tile	0.92
	25th %tile	0.80
	Median	0.73
	75th %tile	0.67
	95th %tile	0.55

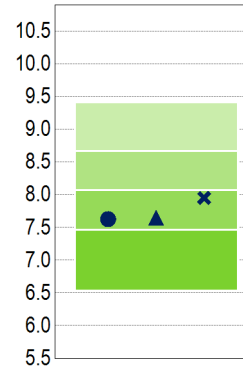


TOTAL FUND RISK/RETURN - 10 YEARS

10 Years Ending June 30, 2020



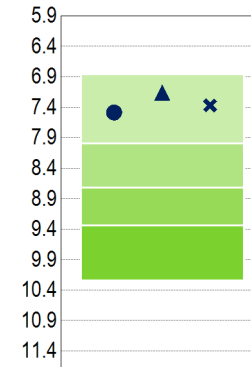
Annual Return



● Composite	Value	7.63
	Rank	69
▲ Allocation Index	Value	7.65
	Rank	69
× Policy Index	Value	7.95
	Rank	56

Universe	5th %tile	9.41
	25th %tile	8.68
	Median	8.08
	75th %tile	7.48
	95th %tile	6.54

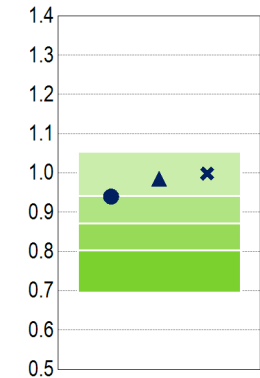
Annual Standard Deviation



● Composite	Value	7.49
	Rank	16
▲ Allocation Index	Value	7.16
	Rank	11
× Policy Index	Value	7.37
	Rank	14

Universe	5th %tile	6.86
	25th %tile	7.98
	Median	8.71
	75th %tile	9.33
	95th %tile	10.23

Sharpe Ratio



● Composite	Value	0.94
	Rank	27
▲ Allocation Index	Value	0.99
	Rank	15
× Policy Index	Value	1.00
	Rank	12

Universe	5th %tile	1.05
	25th %tile	0.94
	Median	0.87
	75th %tile	0.80
	95th %tile	0.70



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Composite	556,668,602	100.0	100.0	11.0	80	-2.7	53	2.5	66	5.3	68	4.8	89	7.6	69	5.9	27	6.7	Jan-86
Allocation Index				9.0	93	-2.6	52	2.9	61	5.7	60	5.8	59	7.6	69	5.1	73	--	Jan-86
Policy Index				10.3	86	-2.8	55	2.8	63	5.8	57	6.0	48	8.0	56	5.6	45	--	Jan-86
InvMetrics Public DB Net Median				13.2		-2.6		3.6		6.0		5.9		8.1		5.5		7.9	Jan-86
Total Balanced	14,684,983	2.6	0.0	12.5	--	-4.7	--	-1.3	--	1.5	--	2.3	--	--	--	--	--	3.3	Dec-10
PRIT Core Fund	3,932,596	0.7		7.2	80	-3.6	39	2.0	38	5.7	25	6.3	26	8.4	16	5.8	30	6.5	Apr-99
PIMCO All Asset	10,752,387	1.9	0.0	14.2		-4.1		-0.6		2.9		3.8		4.6		--		7.1	Dec-08
PIMCO All Asset Index				6.2	71	3.1	3	6.3	6	5.1	17	4.8	16	5.0	65	5.7	54	6.4	Dec-08
eV Global TAA Net Median				9.3		-5.1		-0.7		2.4		2.9		5.8		6.0		6.9	Dec-08
Total Domestic Equity	152,528,926	27.4	26.0	22.0	50	-3.4	35	6.6	32	10.8	29	9.2	32	13.3	33	6.1	84	7.0	May-99
Russell 3000				22.0	49	-3.5	35	6.5	32	10.0	32	10.0	27	13.7	28	6.1	82	6.4	May-99
eV All US Equity Net Median				21.9		-9.0		-1.1		5.7		6.6		11.6		7.7		8.3	May-99
Large Cap	115,782,993	20.8	20.0	20.9	57	0.0	27	11.7	21	13.3	22	10.9	22	--	--	--	--	12.9	Dec-10
eV All US Equity Net Median				21.9		-9.0		-1.1		5.7		6.6		11.6		7.7		10.3	Dec-10
Rhumbline Advisors S&P 500 Index Fund	49,936,094	9.0	8.0	20.5	39	-3.1	32	7.5	24	10.7	22	10.6	13	13.9	13	5.9	80	8.3	Apr-97
S&P 500				20.5	38	-3.1	32	7.5	23	10.7	21	10.7	12	14.0	12	5.9	81	8.3	Apr-97
eV US Large Cap Core Equity Net Median				19.6		-5.1		3.9		8.7		8.8		12.8		6.9		8.5	Apr-97
Coho Relative Value Equity	32,485,814	5.8	6.0	15.3	61	-5.3	6	7.3	5	9.1	6	--	--	--	--	--	--	9.9	Mar-16
Russell 1000 Value				14.3	75	-16.3	63	-8.8	65	1.8	58	4.6	53	10.4	47	6.3	73	7.5	Mar-16
eV US Large Cap Value Equity Net Median				16.4		-15.1		-7.3		2.6		4.9		10.3		7.1		7.7	Mar-16
Polen Focused Growth	33,361,086	6.0	6.0	27.4	45	10.6	40	23.2	28	21.7	17	--	--	--	--	--	--	19.5	Feb-16
Russell 1000 Growth				27.8	41	9.8	48	23.3	28	19.0	38	15.9	24	17.2	17	5.5	84	19.3	Feb-16
eV US Large Cap Growth Equity Net Median				26.8		9.0		20.0		17.4		14.0		15.9		6.6		17.6	Feb-16
Small Cap	36,745,934	6.6	6.0	25.5	33	-14.0	66	-8.0	68	3.7	58	5.0	61	--	--	--	--	10.1	Dec-10
eV All US Equity Net Median				21.9		-9.0		-1.1		5.7		6.6		11.6		7.7		10.3	Dec-10
Boston Partners Small Cap Value	18,174,786	3.3	3.0	20.8	49	-26.1	85	-18.8	71	-4.8	63	0.1	68	7.7	65	8.9	51	9.0	Feb-97
Russell 2000 Value				18.9	70	-23.5	65	-17.5	60	-4.3	55	1.3	40	7.8	64	7.7	81	7.6	Feb-97
eV US Small Cap Value Equity Net Median				20.6		-21.8		-16.2		-4.2		0.9		8.3		8.9		8.7	Feb-97
Loomis Sayles Small Cap Growth	18,571,147	3.3	3.0	30.4	69	-0.8	63	3.3	60	12.3	51	9.7	52	15.2	35	4.0	93	6.5	Jan-97
Russell 2000 Growth				30.6	68	-3.1	71	3.5	59	7.9	72	6.9	79	12.9	72	5.3	86	6.8	Jan-97
eV US Small Cap Growth Equity Net Median				33.7		2.8		8.3		12.5		9.9		14.2		8.0		9.9	Jan-97



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Total Non-US Equity	115,496,708	20.7	21.0	18.2	54	-10.0	57	-3.9	61	1.7	57	2.4	63	4.4	90	2.8	96	4.0	Mar-99
<i>eV All ACWI ex-US Equity Net Median</i>				18.5		-8.5		-0.9		2.8		3.7		6.8		4.8		6.4	Mar-99
International Equity	92,088,128	16.5	15.0	19.2	29	-8.8	30	-2.3	33	2.9	25	3.2	36	5.1	82	--	--	3.2	Sep-05
<i>eV All EAFE Equity Net Median</i>				16.6		-11.6		-5.0		0.7		2.2		6.6		4.4		4.5	Sep-05
SEG Baxter Street	33,202,629	6.0	5.0	19.5	42	-5.8	39	-1.1	51	6.2	27	--	--	--	--	--	--	9.0	May-16
<i>MSCI ACWI ex USA</i>				16.1	74	-11.0	62	-4.8	65	1.1	60	2.3	64	5.0	80	3.4	92	4.6	May-16
<i>eV All ACWI ex-US Equity Net Median</i>				18.5		-8.5		-0.9		2.8		3.7		6.8		4.8		5.9	May-16
LMCG Small Cap International	25,385,039	4.6	5.0	16.3	71	-17.7	87	-10.9	87	--	--	--	--	--	--	--	--	-4.0	Aug-17
<i>MSCI EAFE Small Cap</i>				19.9	41	-13.1	74	-3.5	61	0.5	65	3.8	49	8.0	33	6.5	1	-0.7	Aug-17
<i>eV All ACWI ex-US Equity Net Median</i>				18.5		-8.5		-0.9		2.8		3.7		6.8		4.8		1.7	Aug-17
Schroder International Alpha Trust Class 1	33,500,460	6.0	5.0	21.2	35	-4.0	32	2.6	36	4.8	36	4.6	41	--	--	--	--	5.6	Mar-12
<i>MSCI ACWI ex USA</i>				16.1	74	-11.0	62	-4.8	65	1.1	60	2.3	64	5.0	80	3.4	92	3.5	Mar-12
<i>eV All ACWI ex-US Equity Net Median</i>				18.5		-8.5		-0.9		2.8		3.7		6.8		4.8		5.6	Mar-12
Emerging Markets Equity	23,408,580	4.2	6.0	14.6	91	-14.3	81	-9.3	76	-2.4	84	-0.4	87	--	--	--	--	-0.5	Nov-13
<i>MSCI Emerging Markets</i>				18.1	68	-9.8	48	-3.4	48	1.9	41	2.9	49	3.3	61	6.6	72	1.8	Nov-13
<i>eV Emg Mkts Equity Net Median</i>				20.3		-10.1		-3.7		1.2		2.7		3.7		7.1		1.8	Nov-13
LMCG Emerging Markets	23,408,580	4.2	6.0	14.6	91	-14.3	81	-9.3	76	-2.4	84	-0.4	87	--	--	--	--	-0.5	Dec-13
<i>MSCI Emerging Markets</i>				18.1	68	-9.8	48	-3.4	48	1.9	41	2.9	49	3.3	61	6.6	72	2.0	Dec-13
<i>eV Emg Mkts Equity Net Median</i>				20.3		-10.1		-3.7		1.2		2.7		3.7		7.1		2.1	Dec-13



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Total Fixed Income	142,404,393	25.6	27.0	6.3	36	6.0	19	8.4	22	5.2	26	4.7	22	5.6	23	6.9	8	6.7	Mar-99
<i>eV All US Fixed Inc Net Median</i>				4.5		2.9		4.7		3.8		3.6		3.9		5.0		4.8	<i>Mar-99</i>
Loomis Sayles Multisector Full Discretion Trust	44,589,259	8.0	8.0	10.1	1	7.3	12	9.8	15	5.9	11	5.6	2	6.7	1	8.1	1	7.9	Mar-99
<i>BBgBarc US Aggregate TR</i>				2.9	93	6.1	47	8.7	45	5.3	50	4.3	60	3.8	72	5.1	69	5.0	<i>Mar-99</i>
<i>BBgBarc US High Yield TR</i>				10.2	1	-3.8	99	0.0	99	3.3	99	4.8	16	6.7	1	7.0	1	6.6	<i>Mar-99</i>
<i>eV US Core Fixed Inc Net Median</i>				4.4		6.1		8.6		5.3		4.4		4.1		5.3		5.2	<i>Mar-99</i>
Rhumbleline TIPS	27,498,255	4.9	5.0	4.2	67	5.9	35	8.2	31	5.0	40	--	--	--	--	--	--	3.9	Jun-16
<i>BBgBarc US TIPS TR</i>				4.2	64	6.0	32	8.3	28	5.0	38	3.7	24	3.5	21	5.5	72	4.0	<i>Jun-16</i>
<i>eV US TIPS / Inflation Fixed Inc Net Median</i>				4.7		5.1		7.5		4.9		3.6		3.3		5.6		3.9	<i>Jun-16</i>
Lord Abbett Core Fixed Income	20,998,478	3.8	4.0	4.1	60	5.6	65	8.2	64	--	--	--	--	--	--	--	--	6.8	Apr-18
<i>BBgBarc US Aggregate TR</i>				2.9	93	6.1	47	8.7	45	5.3	50	4.3	60	3.8	72	5.1	69	7.3	<i>Apr-18</i>
<i>eV US Core Fixed Inc Net Median</i>				4.4		6.1		8.6		5.3		4.4		4.1		5.3		7.2	<i>Apr-18</i>
Garcia Hamilton Fixed Income Aggregate	42,163,617	7.6	8.0	4.8	35	6.3	40	8.7	47	--	--	--	--	--	--	--	--	6.6	Apr-18
<i>BBgBarc US Aggregate TR</i>				2.9	93	6.1	47	8.7	45	5.3	50	4.3	60	3.8	72	5.1	69	7.3	<i>Apr-18</i>
<i>eV US Core Fixed Inc Net Median</i>				4.4		6.1		8.6		5.3		4.4		4.1		5.3		7.2	<i>Apr-18</i>
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	6,961,381	1.3	2.0	8.1	1	-2.9	99	--	--	--	--	--	--	--	--	--	--	-0.9	Aug-19
<i>Credit Suisse Leveraged Loan</i>				9.7	1	-4.8	99	-2.3	99	2.1	99	2.9	99	4.3	32	4.4	98	-3.0	<i>Aug-19</i>
<i>eV US Core Fixed Inc Net Median</i>				4.4		6.1		8.6		5.3		4.4		4.1		5.3		8.3	<i>Aug-19</i>
Invesco Mortgage Recovery Loans Feeder Fund	193,404	0.0		0.0	99	-0.4	99	-4.7	99	4.1	95	3.2	98	8.7	1	--	--	12.6	Apr-10
<i>BBgBarc US Aggregate TR</i>				2.9	98	6.1	21	8.7	26	5.3	39	4.3	70	3.8	97	5.1	90	4.1	<i>Apr-10</i>
<i>eV US Core Plus Fixed Inc Net Median</i>				5.9		5.0		8.0		5.2		4.5		4.6		5.7		4.8	<i>Apr-10</i>
Total Hedge Fund	34,576,768	6.2	6.0	5.4	--	-2.6	--	-1.0	--	1.6	--	1.0	--	3.3	--	--	--	2.8	Oct-06
PRIM Portfolio Completion Strategies	12,880,522	2.3		2.0	--	-7.0	--	-5.5	--	1.0	--	1.3	--	3.8	--	--	--	3.2	Oct-06
Corbin Pinehurst Partners	10,402,999	1.9		11.2	--	-0.7	--	0.9	--	--	--	--	--	--	--	--	--	3.5	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				7.9	--	-1.6	--	0.5	--	2.3	--	1.5	--	2.8	--	3.1	--	2.7	<i>Nov-18</i>
UBS Neutral Alpha Strategies	10,551,573	1.9		4.8	--	1.7	--	4.2	--	--	--	--	--	--	--	--	--	3.9	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				7.9	--	-1.6	--	0.5	--	2.3	--	1.5	--	2.8	--	3.1	--	2.7	<i>Nov-18</i>
Entrust Peru Wind Down	741,674	0.1		-1.3	--	-2.0	--	-7.3	--	--	--	--	--	--	--	--	--	-5.5	Dec-17
<i>HFRI Fund of Funds Composite Index</i>				7.9	--	-1.6	--	0.5	--	2.3	--	1.5	--	2.8	--	3.1	--	1.3	<i>Dec-17</i>
Other	1,146,168	0.2	0.0	0.2	--	0.6	--	2.1	--	2.0	--	1.3	--	--	--	--	--	0.7	Dec-10
Cash Account	1,146,168	0.2		0.2	55	0.6	46	2.1	25	2.0	29	1.3	60	0.7	56	1.8	23	1.9	Feb-00
<i>91 Day T-Bills</i>				0.0	89	0.4	78	1.3	89	1.7	71	1.1	75	0.6	69	1.5	75	1.6	<i>Feb-00</i>
<i>eV US Cash Management Net Median</i>				0.2		0.6		1.6		1.8		1.3		0.7		1.7		1.8	<i>Feb-00</i>



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Total Real Estate	49,947,892	9.0	10.0	-0.9	--	-0.4	--	4.1	--	6.8	--	8.0	--	10.4	--	7.5	--	7.8	Apr-99
<i>NGREIF Property Index</i>				-1.0	--	-0.3	--	2.7	--	5.4	--	6.8	--	9.7	--	8.4	--	8.6	Apr-99
Morgan Stanley Prime Property (\$2.8m commitment in '95)	19,647,060	3.5		-1.9	--	-1.3	--	1.6	--	5.7	--	7.5	--	11.4	--	8.0	--	8.5	Sep-95
TA Realty Core Property Fund, LP (\$15m commitment in '19)	20,115,797	3.6		-0.4	--	1.1	--	5.6	--	--	--	--	--	--	--	--	--	5.2	Jun-19
Invesco Mortgage Recovery II (\$3M commitment in '15)	911,451	0.2		0.0	--	1.4	--	1.4	--	12.6	--	--	--	--	--	--	--	12.1	Oct-15
Landmark VI (\$2m commitment in '11)	114,790	0.0		0.0	--	-0.3	--	-11.6	--	-7.7	--	-3.9	--	--	--	--	--	5.1	Jul-11
Landmark VIII (\$4m commitment in '17)	1,326,469	0.2		0.0	--	-1.1	--	6.5	--	--	--	--	--	--	--	--	--	17.4	Nov-17
Courtland/Mesirov MFire (\$2m commitment in '11)	659,011	0.1		0.0	--	-5.4	--	-10.2	--	-1.0	--	3.4	--	--	--	--	--	2.7	May-12
Cerberus (\$1.5m commitment in '12)	683,444	0.1		0.4	--	0.8	--	8.2	--	8.6	--	7.8	--	--	--	--	--	12.0	May-13
TA Realty Fund X LP (\$3.5m commitment in '12)	393,431	0.1		-0.7	--	-6.6	--	-4.2	--	10.3	--	9.2	--	--	--	--	--	9.8	May-13
TerraCap Partners III, LP (\$2.6m commitment in '15)	1,769,682	0.3		0.0	--	0.3	--	4.1	--	6.2	--	11.2	--	--	--	--	--	11.2	Jul-15
TerraCap Partners IV, LP (\$4m commitment in '17)	4,326,758	0.8		0.0	--	-1.5	--	12.3	--	--	--	--	--	--	--	--	--	9.6	Nov-17
Total Private Equity	45,882,763	8.2	10.0	-1.4	--	-8.8	--	-6.8	--	5.9	--	2.5	--	11.2	--	6.5	--	8.6	Apr-99
<i>CJA US All PE</i>				0.0	--	-10.1	--	-5.5	--	7.4	--	8.3	--	11.9	--	9.9	--	11.6	Apr-99
<i>NASDAQ W/O Income</i>				30.6	--	12.1	--	25.6	--	17.9	--	15.1	--	16.9	--	4.8	--	6.9	Apr-99
PRIM Vintage Year 2008 (\$3m commitment in '08)	862,598	0.2		-18.8	--	-16.9	--	-13.0	--	7.1	--	12.2	--	16.4	--	--	--	6.7	Jun-08
PRIM Vintage Year 2009 (\$1m commitment in '09)	129,193	0.0		-11.6	--	-10.2	--	0.8	--	15.2	--	16.2	--	13.4	--	--	--	7.1	Nov-09
PRIM Vintage Year 2010 (\$1m commitment in '10)	482,129	0.1		-3.7	--	1.1	--	-7.3	--	10.8	--	12.8	--	7.2	--	--	--	7.1	Jun-10
PRIM Vintage Year 2011 (\$1.5m commitment in '11)	943,182	0.2		-7.9	--	-2.8	--	-1.6	--	11.9	--	16.4	--	--	--	--	--	2.9	May-11
PRIM Vintage Year 2012 (\$1m commitment in '12)	607,363	0.1		-7.9	--	2.5	--	6.8	--	12.8	--	12.3	--	--	--	--	--	-16.0	Jun-12
PRIM Vintage Year 2014 (\$2m commitment in '14)	1,681,357	0.3		-10.7	--	-3.8	--	5.3	--	17.8	--	15.2	--	--	--	--	--	0.2	Jun-14
PRIM Vintage Year 2017 (\$2m commitment in '17)	973,103	0.2		-12.2	--	-9.0	--	-2.1	--	3.4	--	--	--	--	--	--	--	3.2	May-17
PRIM Vintage Year 2020 (\$5m commitment in '20)	129,243	0.0		-7.4	--	--	--	--	--	--	--	--	--	--	--	--	--	-6.1	Mar-20
Alcentra European DLF (\$5m commitment in '14)	1,107,545	0.2		0.0	--	-7.1	--	-3.0	--	-0.3	--	2.4	--	--	--	--	--	3.8	Jan-15
Ascent Fund IV (\$2m commitment in '04)	31,175	0.0		0.1	--	-0.8	--	-2.5	--	-54.2	--	-47.8	--	-32.5	--	--	--	-21.9	Jul-04
Ascent Fund IV-B (\$1m commitment in '16)	159,229	0.0		-1.7	--	-27.4	--	-42.5	--	-21.3	--	--	--	--	--	--	--	-14.7	Jul-16
Ascent Fund V (\$2m commitment in '08)	1,551,658	0.3		-1.5	--	-12.4	--	-10.3	--	-5.7	--	-1.1	--	6.1	--	--	--	4.1	Oct-08
Ascent VI (\$3m commitment in '15)	2,681,422	0.5		-1.6	--	-8.8	--	-9.5	--	3.2	--	--	--	--	--	--	--	-0.1	Dec-15
Castile Ventures III, L.P. (\$3m commitment in '07)	26,456	0.0		-0.6	--	-20.7	--	-88.9	--	-65.5	--	-52.2	--	-34.3	--	--	--	-30.5	Jan-08
CVI Credit Value Fund IV A LP (\$6m commitment in '17)	5,298,477	1.0		8.7	--	-9.6	--	-6.9	--	--	--	--	--	--	--	--	--	0.9	Dec-17
Invesco Fund IV (\$3m commitment in '03)	13,621	0.0		0.0	--	-3.1	--	-28.5	--	-14.8	--	-8.1	--	--	--	--	--	--	Feb-04
Invesco Fund VI (\$5m commitment in '13)	6,042,637	1.1		0.0	--	-5.1	--	-3.9	--	8.5	--	8.1	--	--	--	--	--	11.5	Jul-13

Note:

1. Market values for Morgan Stanley Prime Property, TA Realty Core Property Fund, Ceberus, and TA Realty Fund are as of 3/31/2020.
2. Market values for Invesco Fund IV, Invesco Fund VI are as of 3/31/2020. All other accounts are valued as of 06/30/2020.



MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Kayne Energy Fund VII (\$5m commitment in '15)	1,128,249	0.2		-19.9	--	-71.4	--	-78.0	--	-38.2	--	--	--	--	--	--	--	-21.6	Jan-16
Foundry 2007 (\$3m commitment in '07)	199,273	0.0		-11.8	--	-14.6	--	-34.5	--	-21.2	--	-27.2	--	5.2	--	--	--	15.2	Dec-07
Foundry 2010 (\$3m commitment in '10)	3,180,760	0.6		-0.3	--	-2.0	--	-9.8	--	10.7	--	2.6	--	--	--	--	--	7.6	Jan-11
Foundry 2010 Annex (\$0.4m commitment in '15)	198,885	0.0		-0.1	--	2.3	--	-8.9	--	31.1	--	--	--	--	--	--	--	14.4	Sep-15
Pinebridge PEP V (\$6m commitment in '07)	554,843	0.1		0.0	--	-15.9	--	-19.1	--	-6.5	--	-1.2	--	--	--	--	--	--	Mar-08
Landmark XV (\$3m commitment in '13)	1,247,166	0.2		0.0	--	-0.9	--	9.5	--	10.6	--	9.0	--	--	--	--	--	12.7	Nov-13
JFL Equity Investors IV, L.P. (\$6m commitment in '16)	6,433,212	1.2		0.0	--	-1.1	--	34.2	--	41.1	--	--	--	--	--	--	--	33.6	Jan-17
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)	3,679,243	0.7		0.0	--	6.2	--	8.5	--	16.0	--	--	--	--	--	--	--	15.2	Feb-17
Park Square Credit Opportunities III (\$3m commitment in '17)	2,316,287	0.4		0.0	--	2.0	--	6.5	--	--	--	--	--	--	--	--	--	5.8	Feb-18
Ironsides Constitution Opportunities (\$3m commitment in '18)	1,955,568	0.4		0.0	--	-2.6	--	3.4	--	--	--	--	--	--	--	--	--	5.7	Sep-18
HarbourVest Dover Street X (\$9m commitment in '20)	906,202	0.2		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0	Jun-20
Hamilton Lane Secondary Fund V LP (\$9m commitment in '20)	1,362,686	0.2		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Jul-20

Note:

1. Market value for Pinebridge PEP V, Landmark XV, JFL Equity Investors IV and Private Advisors Small Co. Coinvestment Fund, Park Square Credit Opportunities III and Ironsides Constitution Opportunities are as of 3/31/2020. All other accounts are valued as of 06/30/2020.

2. HarbourVest Dover Street X and Hamilton Lane Secondary Fund V funded 6/2020.



MWRA Employees' Retirement System

NOTES

- 1 - Results for periods longer than one year are annualized.
- 2 - Total Balanced, Large Cap, Small Cap, and Other Composite performance starts 12/1/2010.
- 3 - Preliminary Total Composite net of fee since inception return is 6.7% for the current month
- 4 - Preliminary Total Composite gross of fee since inception return is 8.3% for the current month
- 5 - Market values for Morgan Stanley Prime Property, TA Realty Core Property Fund, Ceberus, and TA Realty Fund are as of 3/31/2020. All other Real Estate managers are as of 6/30/2020 and are adjusted for cash flows.
- 6 - Market values for Invesco Fund IV, Invesco Fund VI, PEP V, Landmark XV, JFL Equity Investors IV and Private Advisors Small Co. Coinvestment Fund, Park Square Credit Opportunities III and Ironsides Constitution Opportunities are as of 3/31/2020. All other Private Equity managers are as of 6/30/2020 and are adjusted for cash flows.
- 7 - Targets, Allocation Index, and Policy Index have been updated to reflect new allocation of 06/01/2020.
- 8 - Policy Index changed from Nasdaq to Cambridge All PE to reflect as of 5/1/2012.
- 9 - Policy Index Consists of: 20% S&P 500, 6% Russell 2000, 10% MSCI EAFE, 5% MSCI ACWI IMI , 6% MSCI Emerging Markets, 12% BBgBarc US Aggregate TR, 5% BBgBarc US TIPS TR, 8% BBgBarc US Universal TR, 10% NCREIF Property Index, 10% C|A US All PE , 6% HFRI Fund of Funds Composite Index, 2% Credit Suisse Leveraged Loan.
- 10 - Allocation index consists of: Weighted index of underlying managers to their respective benchmark.



APPENDIX

NEPC, LLC

Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.



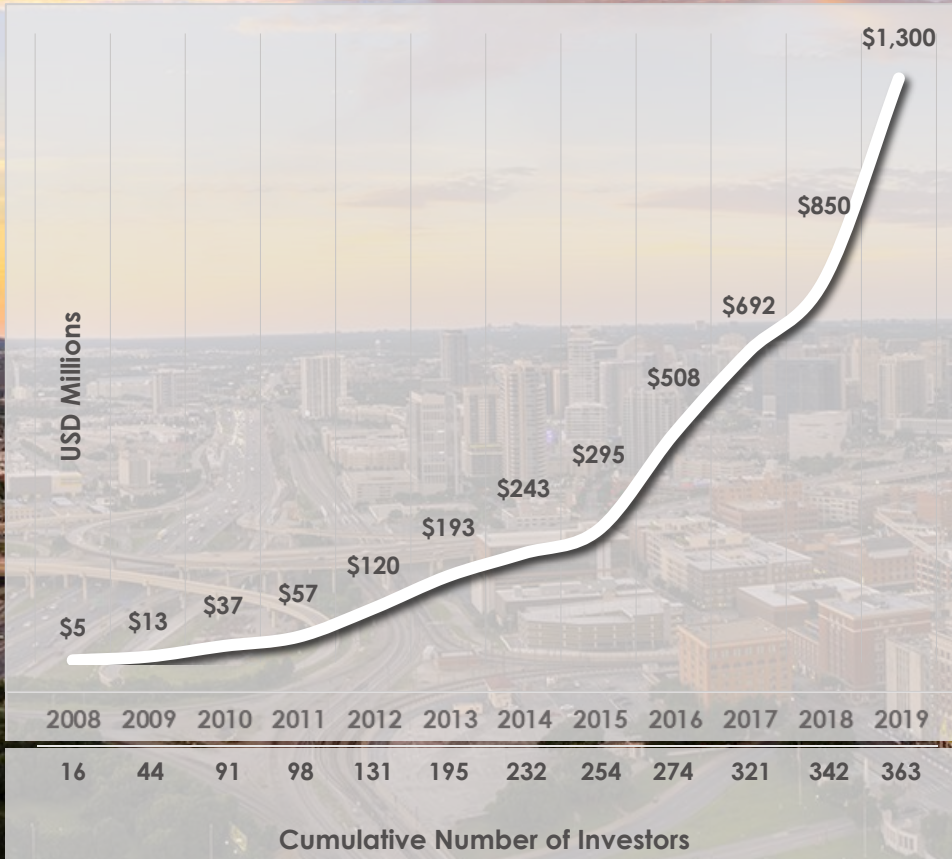


TERRACAP PARTNERS V

U.S. VALUE-ADD COMMERCIAL REAL ESTATE FUND
AUGUST 2020

Private & Confidential

TerraCap Management is a privately held real estate investment manager.



100%
Employee-Owned

10
Co-Investor Employee Partners

20 Years
Sr. Team Avg. Real Estate Experience

8
Investment Committee Members

4 Offices
Atlanta | Denver | Tampa | Estero, FL

80 Institutional Investors
473,000 Pensioners

\$1.3B
AUM

10MM SF
Total Managed

8MM SF
Currently Managed

Assets under management represent approximate gross market value of all assets and accounts managed by TerraCap Management based on values at stabilization, excluding partners' share of equity and partners' share of debt on partnership investments.

ACHIEVING YIELD & CAPITAL APPRECIATION TODAY

- TerraCap is a tactical, thematic, and event-oriented investment manager.
- Avoids investing in overpriced Primary Gateway Core markets.
- Invests defensively in high-demand Secondary growth markets only.
- Aims to create value during ownership as an Operator not an Allocator.
- Independent 3rd Party evaluation of performance
 - Public Market Equivalent (PME) Alpha
 - CapEx Efficiency – Return on Investment (ROI)
 - Ex-Ante Risk Adjusted Performance
- Hold weekly asset management and quarterly business plan meetings.
- Avoids new construction risk in a rising cost environment.
- Avoids industry, tenant, and single asset strategy concentration risk.
- Focuses on minimizing the J-curve and producing investor cashflow.
- Current portfolio resilient through recent times of crisis.



TERRACAP PARTNERS V LP - EXECUTIVE SUMMARY

Target Equity Raise:

\$400 Million

Target Returns:

16% Net IRR

TARGET MARKETS

- Geographically diversified throughout the U.S.
- Secondary Cities benefitting from corporate relocations and in-migration
- Affordability creates strong employment and population growth
- Limited future supply

TARGET ACQUISITION PRICES

- Between \$30 and \$80 million

DIVERSIFIED PROPERTY TYPES

- Office
- Multifamily
- Flex/Industrial
- Hospitality

TerraCap Management, LLC considers thematic factors such as business formation, employment growth and population growth on a market-by-market basis, as most metros and submarkets have different economic-based industries and therefore move through their economic cycles differently. The Investment Manager makes moderate strategic overweighting or underweighting to markets, depending on the specific economic drivers influencing supply and demand. The Investment Manager intends to invest the Fund's assets so that no economic industry base will be allowed to dominate any property or the portfolio's performance.*

*The specific terms of an investment in Fund V are subject to the Offering Documents. Such terms may change from the time you receive these materials and the time you receive the Offering Documents. Return targets or objectives, if any, are used for measurement or comparison purposes and only as a guideline for prospective investors to evaluate a particular investment program's investment strategies and accompanying information. Targeted returns reflect subjective determinations by TerraCap based on a variety of factors, including, among others, internal modeling, investment strategy, prior performance of similar products (if any), volatility measures, risk tolerance and market conditions. Performance may fluctuate, especially over short periods. Targeted returns should be evaluated over the time period indicated and not over shorter periods. Targeted returns are not intended to be actual performance and should not be relied upon as an indication of actual or future performance.

FUND INVESTMENT FOCUS

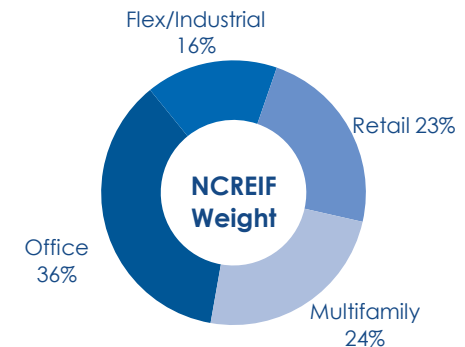
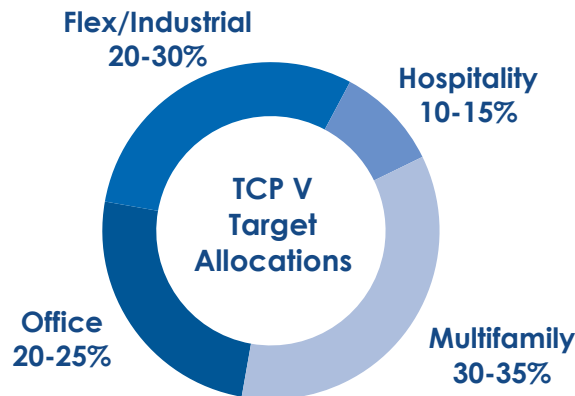
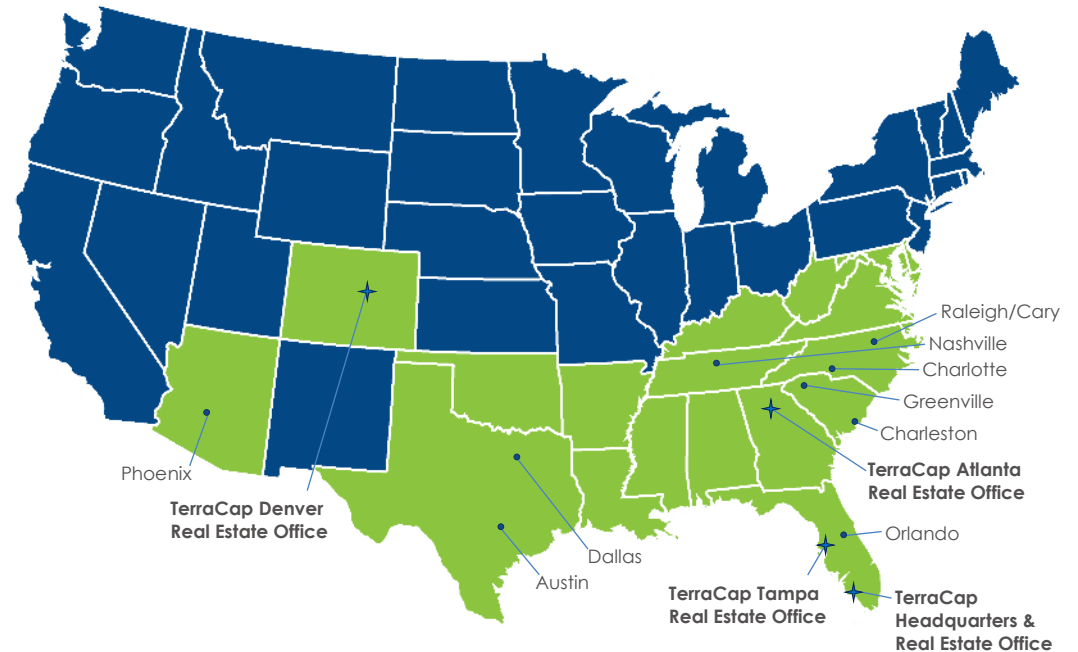
INVESTMENT SIZE

- Target Equity investments of \$10 - \$30 million; taking advantage of what TerraCap believes to be market inefficiencies in middle-market transactions; expect 30-35 investments

LEVERAGE

- TerraCap's historic leverage is less than 60%
- Fund level leverage limit of 70%
- If not fixed rate debt, interest rate caps will be utilized
- Non-recourse loans only
- No cross collateralization

REGION OF FOCUS



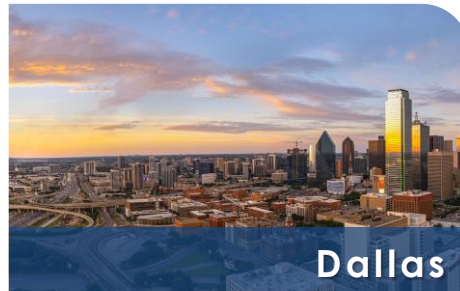
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DEMAND MARKETS CREATING VALUE



Atlanta

- #1 World's Busiest Airport
- 5.8 Million Residents
- #1 Moving Destination
- 1.8% Job Growth in 2020
- +545k Jobs Since 2010



Dallas

- #1 MSA in Pop. Gains
- #3 in Corp. Relocations
- #3 Moving Destination
- 2.0% Job Growth in 2020
- +845k Jobs Since 2010



Orlando

- #1 Global Tourism
- 2.5 Million Residents
- #4 Moving Destination
- 2.6% Job Growth in 2020
- +344k Jobs Since 2010



Denver

- 19% Pop. Growth - 2010
- #5 Moving Destination
- 2.2% Unemployment
- 1.7% Job Growth in 2020
- +320k Jobs Since 2010



Tampa

- 3 Million Residents
- #4 in Corp. Relocations
- #3 Moving Destination
- 1.9% Job Growth in 2020
- +266k Jobs Since 2010



Charlotte

- #3 Fastest Growing U.S. City
- #8 Moving Destination
- 2.0% Job Growth in 2020
- +272k Jobs Since 2010



Phoenix

- 4th most populous U.S. City by 2020
- #2 Moving Destination
- 2.3% Job Growth in 2020
- +464k Jobs Since 2010

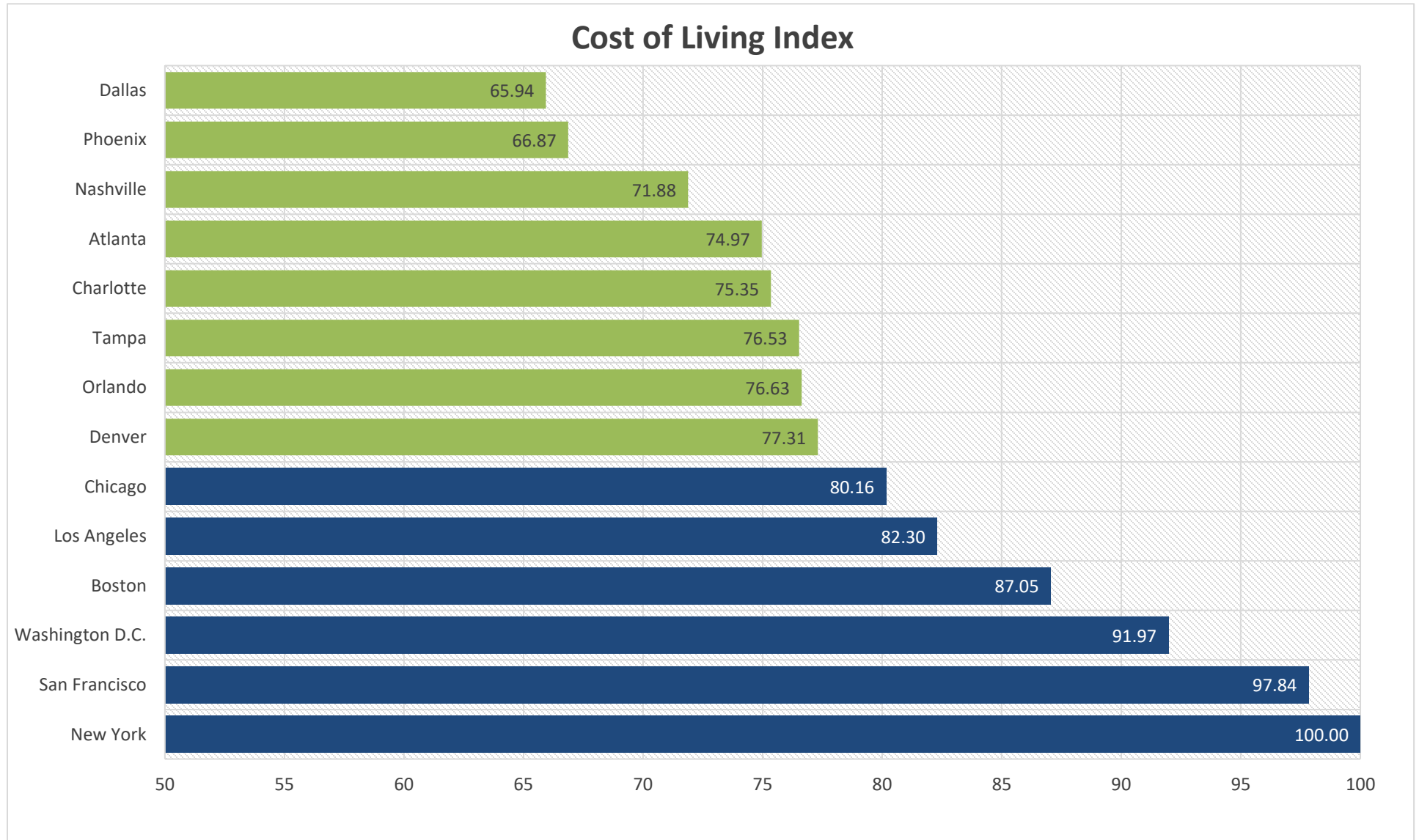
Sources: U.S. Census Bureau. Penske Truck Rental's list of Top Moving Destinations 2018. U.S. Department of Labor. Site Selector/Conway Projects Database. VisitOrlando.com. Atlanta Airport Source: Airports Council International. <https://realestate.usnews.com/places/rankings/best-places-to-live>, IHS Global Insight (USA) Inc., U.S. Metro Economies: GMP and Unemployment Report: 2018-2020 (2019), available at <https://www.usmayors.org/wp-content/uploads/2019/09/mer-2019-09.pdf>.

CONTINUED EMPLOYMENT GROWTH IN SECONDARY MARKETS

Metropolitan Statistical Area	% ch EMPL 2018	% ch EMPL 2019	% ch EMPL 2020	Total Employment (000's)	Job Gains 2010-2019 (000's)	% ch 2010- 2019
Orlando-Kissimmee-Sanford, FL	3.7	3.3	2.6	1,341.3	343.9	25.6%
Phoenix-Mesa-Scottsdale, AZ	3.4	2.9	2.3	2,168.8	464.1	21.4%
Charlotte-Concord-Gastonia, NC-SC	2.4	2.4	2.0	1,241.6	272.6	22.0%
Dallas-Fort Worth-Arlington, TX	2.4	2.6	2.0	3,813.2	845.2	22.2%
Tampa-St. Petersburg-Clearwater, FL	2.4	1.7	1.9	1,380.9	266.1	19.3%
Atlanta-Sandy Springs-Roswell, GA	2.2	1.9	1.8	2,845.7	545.3	19.2%
Nashville-Davidson--Murfreesboro--Franklin, TN	3.1	2.0	1.7	1,034.3	260.3	25.2%
Denver-Aurora-Lakewood, CO	2.5	1.3	1.7	1,525.2	320.3	21.0%
San Francisco-Oakland-Hayward, CA	2.3	2.5	1.5	2,507.8	563.5	22.5%
Washington-Arlington-Alexandria, DC-VA-MD-WV	1.1	1.1	1.4	3,338.8	327.3	9.8%
Boston-Cambridge-Newton, MA-NH	1.1	1.0	1.0	2,802.2	368.5	13.2%
National Average	1.3	1.2	0.9			
Los Angeles-Long Beach-Anaheim, CA	1.6	1.0	0.8	6,246.2	917.5	14.7%
Chicago-Naperville-Elgin, IL-IN-WI	1.0	1.1	0.7	4,809.2	530.8	11.0%
New York-Newark-Jersey City, NY-NJ-PA	1.3	1.3	0.7	9,945.6	1280.7	12.9%

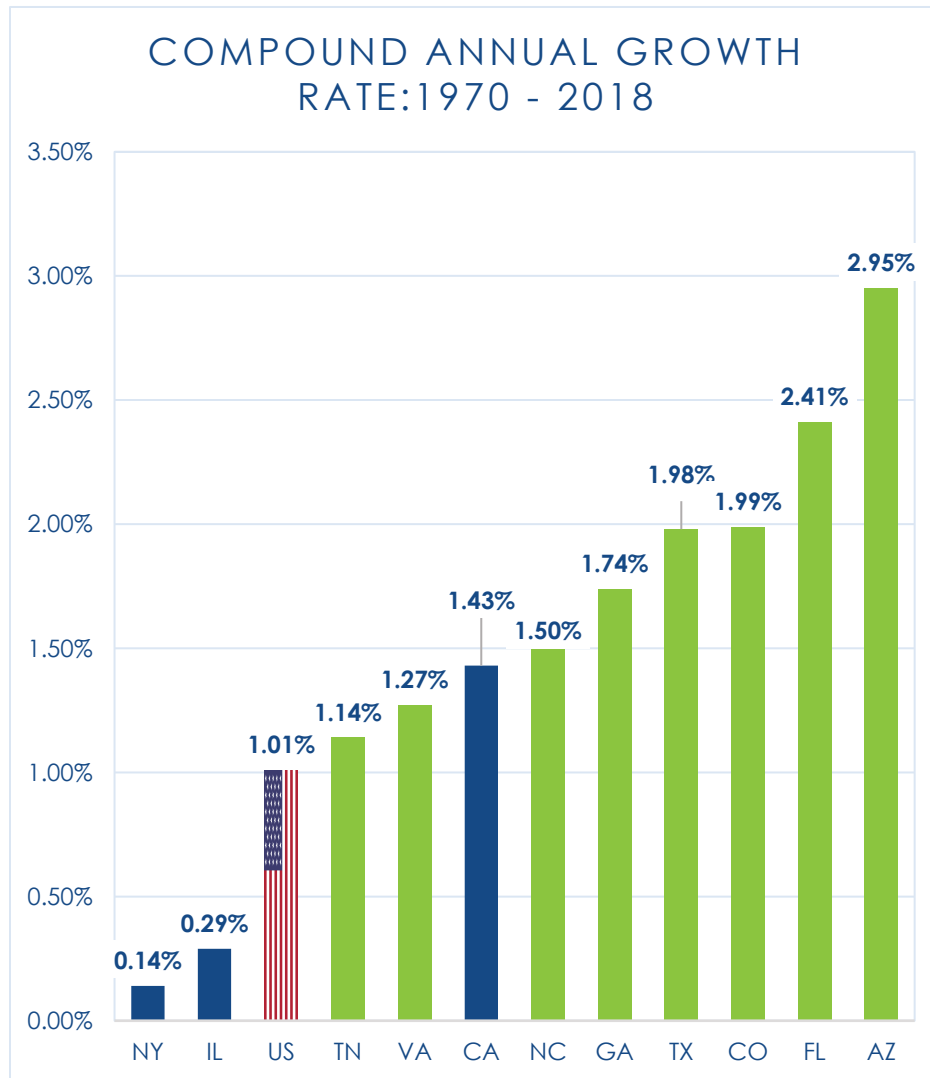
Sources: IHS Global Insight (USA) Inc., U.S. Metro Economies: GMP and Unemployment Report: 2018-2020 (2019), available at <https://www.usmayors.org/wp-content/uploads/2019/09/mer-2019-09.pdf>.

COST OF LIVING



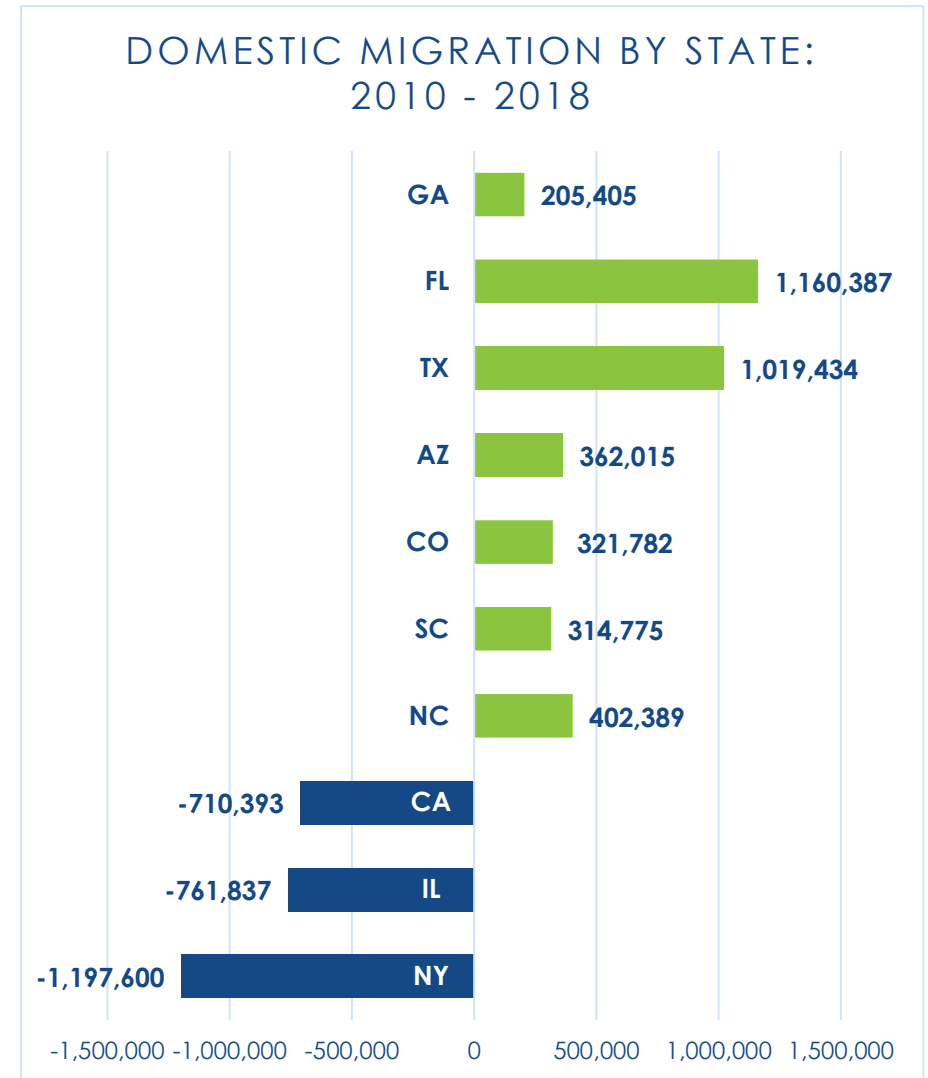
Sources: 2009-2019 Numbeo, https://www.numbeo.com/cost-of-living/region_rankings.jsp?title=2018®ion=021

POPULATION GROWTH RATES



Source: U.S. Census Bureau, 2018

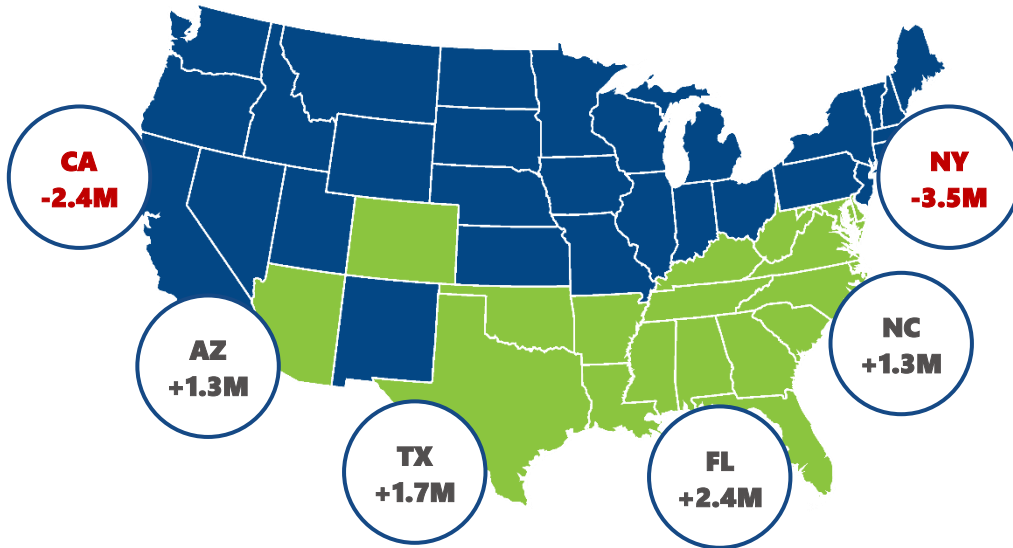
TerraCap Areas of Focus shown in green



Source: U.S. Census Bureau, Population Division, 2018

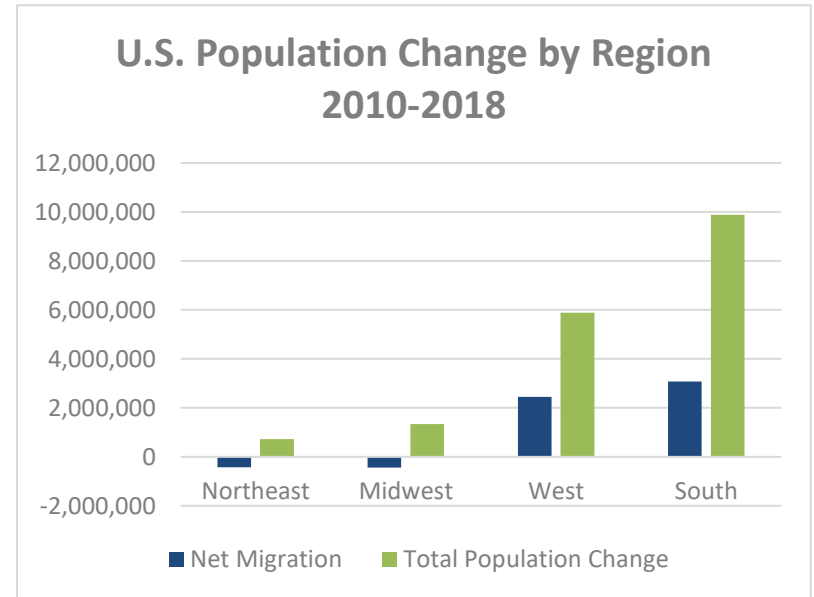
TerraCap Areas of Focus shown in green

DEMAND DRIVERS - POPULATION MIGRATION



Domestic Migration by State: 1995-2018

Source: U.S. Census Bureau, Dec. 2018 American Community Survey

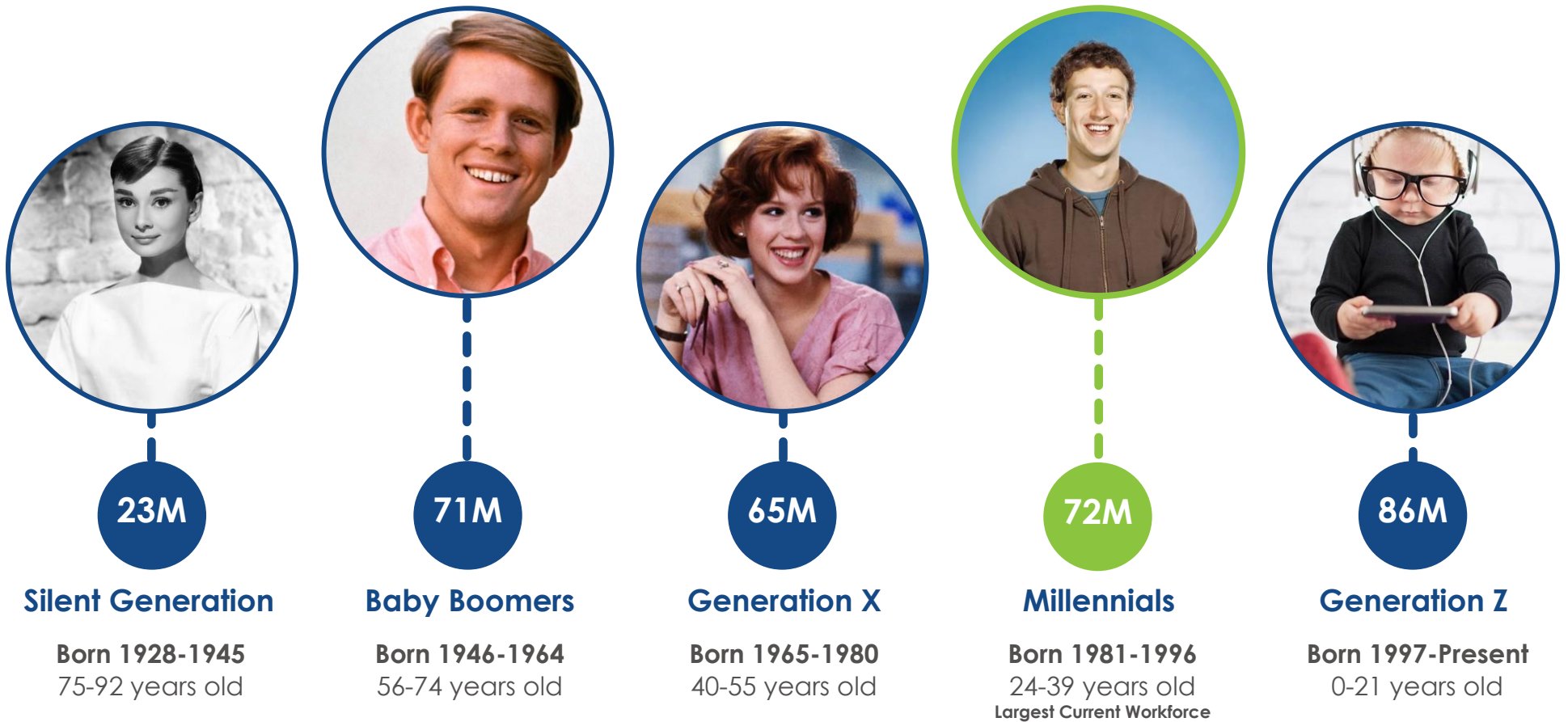


Source: U.S. Census Bureau, Population Division, Estimates of the Components of Resident Population Change: April 1, 2010 to July 1, 2018

	Texas	California	Arizona	Colorado	Georgia	North Carolina	Florida
Supply Vs. Demand							
2018 Population Est.	28,701,845	39,557,045	7,171,646	5,695,564	10,519,475	10,383,620	21,299,325
Area in Square Miles	261,231	155,779	113,594	104,485	57,513	48,617	53,624
People per Square Mile	110	254	63	55	183	214	397

*Source U.S. Census Bureau: State and County, 2018

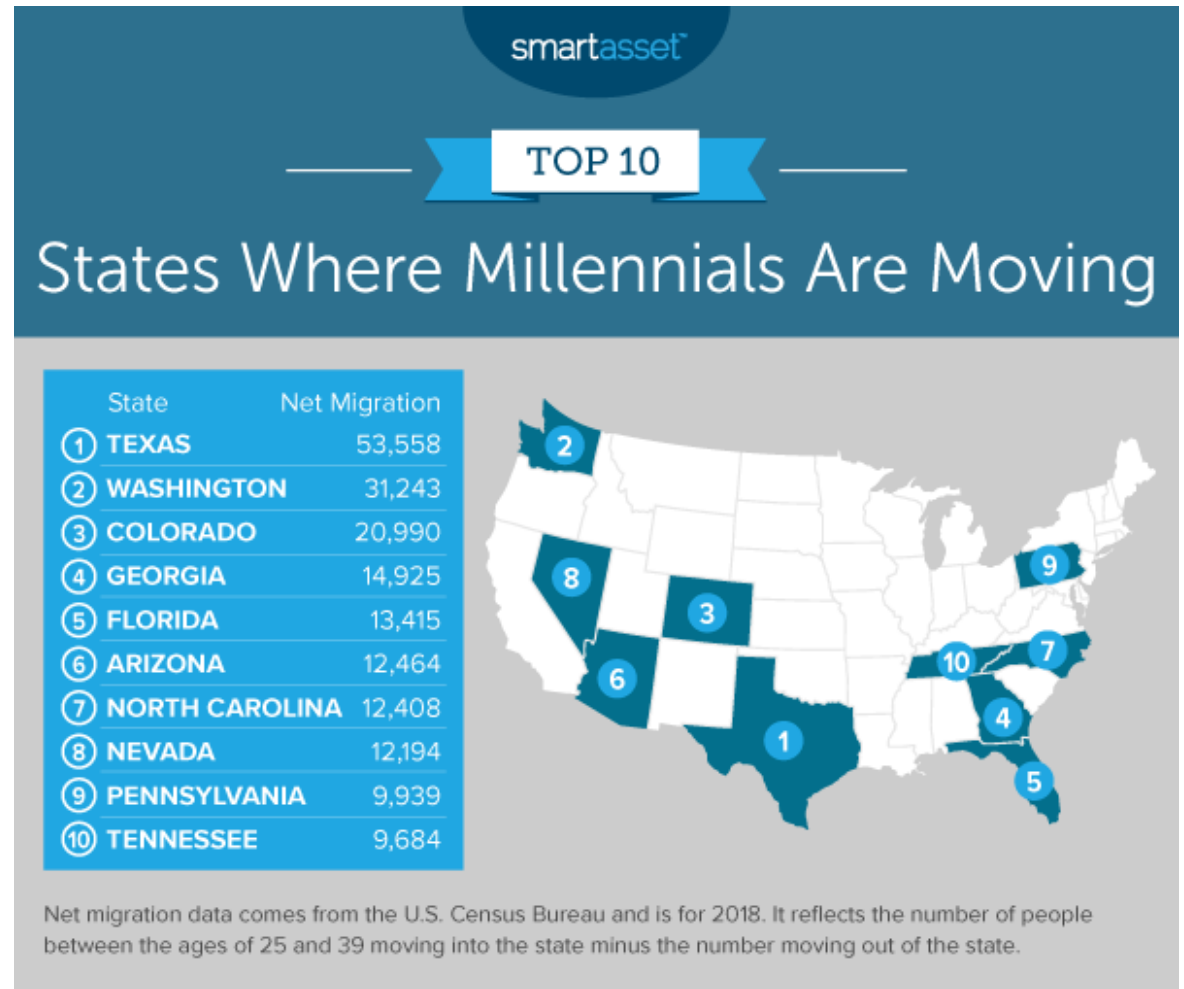
MILLENNIALS ARE NOW THE LARGEST WORKING AGED GENERATION IN THE US



Source: The Pew Research Group, <https://pewrsr.ch/2szqtJz>

AGING MILLENNIALS LEAVING URBAN CENTERS

CITIES MILLENNIALS ARE LEAVING		
Rank	City	2018 Millennial Net Migration
1	New York, NY	-50,445
2	Chicago, IL	-7,939
3	Washington, DC	-5,346
4	St. Louis, MO	-4,866
5	Miami, FL	-3,632
6	Boulder, CO	-3,282
7	Ann Arbor, MI	-3,135
8	San Diego, CA	-3,005
9	Provo, UT	-2,802
10	New Orleans, LA	-2,415



Source: <https://smartasset.com/mortgage/where-millennials-are-moving-2020QuickFacts>

STATES RECEIVING DOMESTIC MIGRATION ENJOY BENEFITS

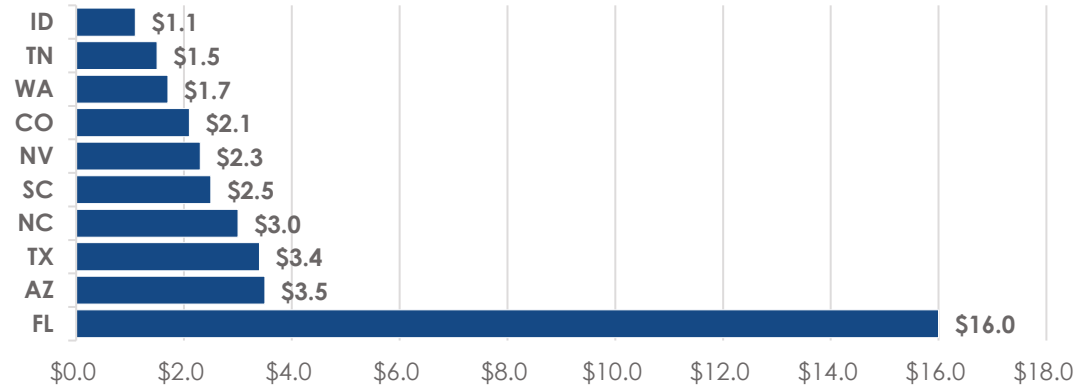
Progressive tax states lose people & income to flat and zero income tax states.

“The nation’s seventeen flat and no income tax states won a net 1.9 million residents and \$120 billion in Adjusted Gross Income (AGI) from progressive tax states during the 2000-2018 period.”

Zero Tax States	Flat Tax States
Florida	Colorado
Nevada	North Carolina
Washington	Utah
Tennessee	New Hampshire
Wyoming	Indiana
Texas	Michigan
South Dakota	Pennsylvania
Alaska	Massachusetts

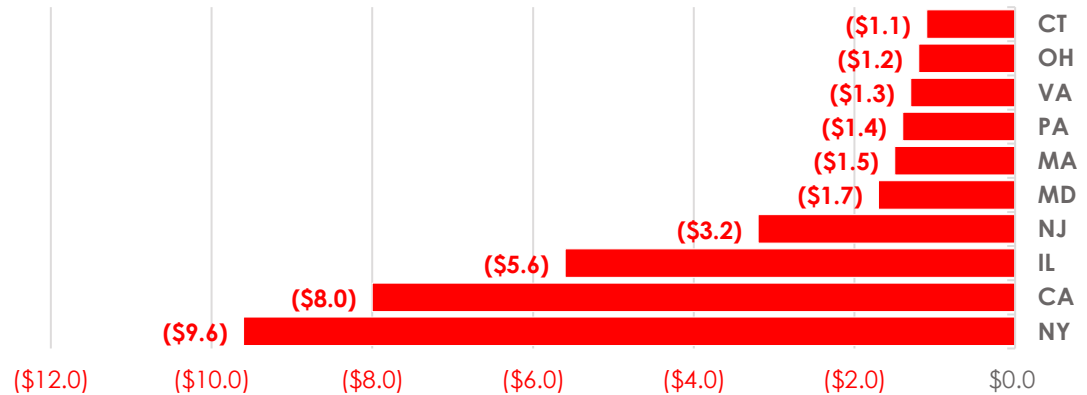
Source: <https://wirepoints.org/progressive-tax-states-lose-people-income-to-flat-and-no-income-tax-states-wirepoints/>

Ten States with Best Net Gain of Domestic Adjusted Gross Income 2018, (in billions)



Source: Internal Revenue Service – SOI migration data, <https://wirepoints.org/new-irs-data-reveals-winners-and-losers-of-wealth-migration-across-50-states-wirepoints-original/>

Ten States with Worst Net Gain of Domestic Adjusted Gross Income 2018, (in billions)



Source: Internal Revenue Service – SOI migration data, <https://wirepoints.org/new-irs-data-reveals-winners-and-losers-of-wealth-migration-across-50-states-wirepoints-original/>

WHY PHOENIX?

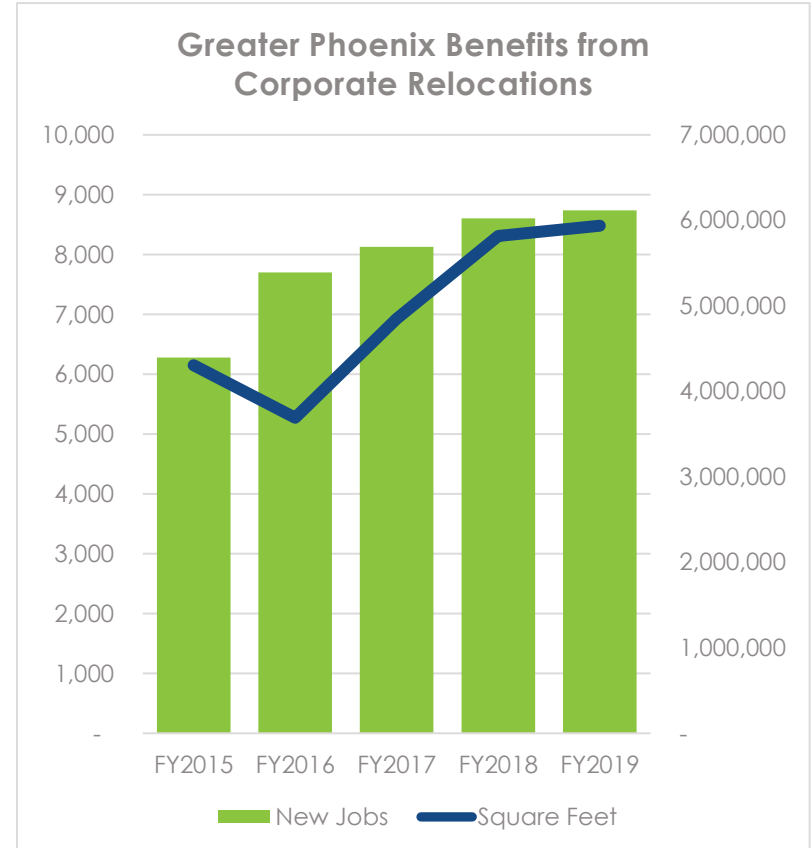
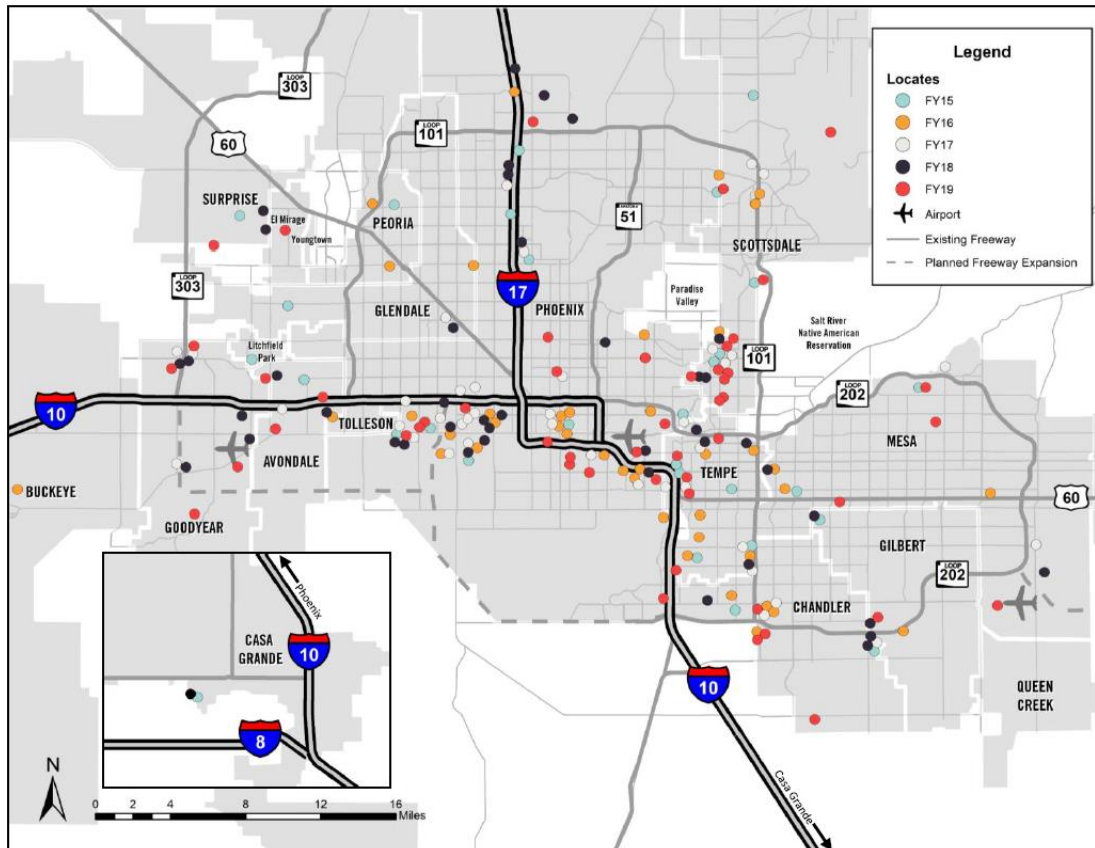
Greater Phoenix is one of the fastest-growing regions in the nation. The metro is home to more than 4.9 million people, where net migration fuels growth. Over the last two decades, Greater Phoenix has grown by 93,000 people each year on average. The region adds over 250 people each day, making Greater Phoenix the second fastest growing region.

Top 3 Population Feeders 2019

Los Angeles County, CA (3,441)
 Orange County, CA (2,603)
 San Diego County, CA (2,250)

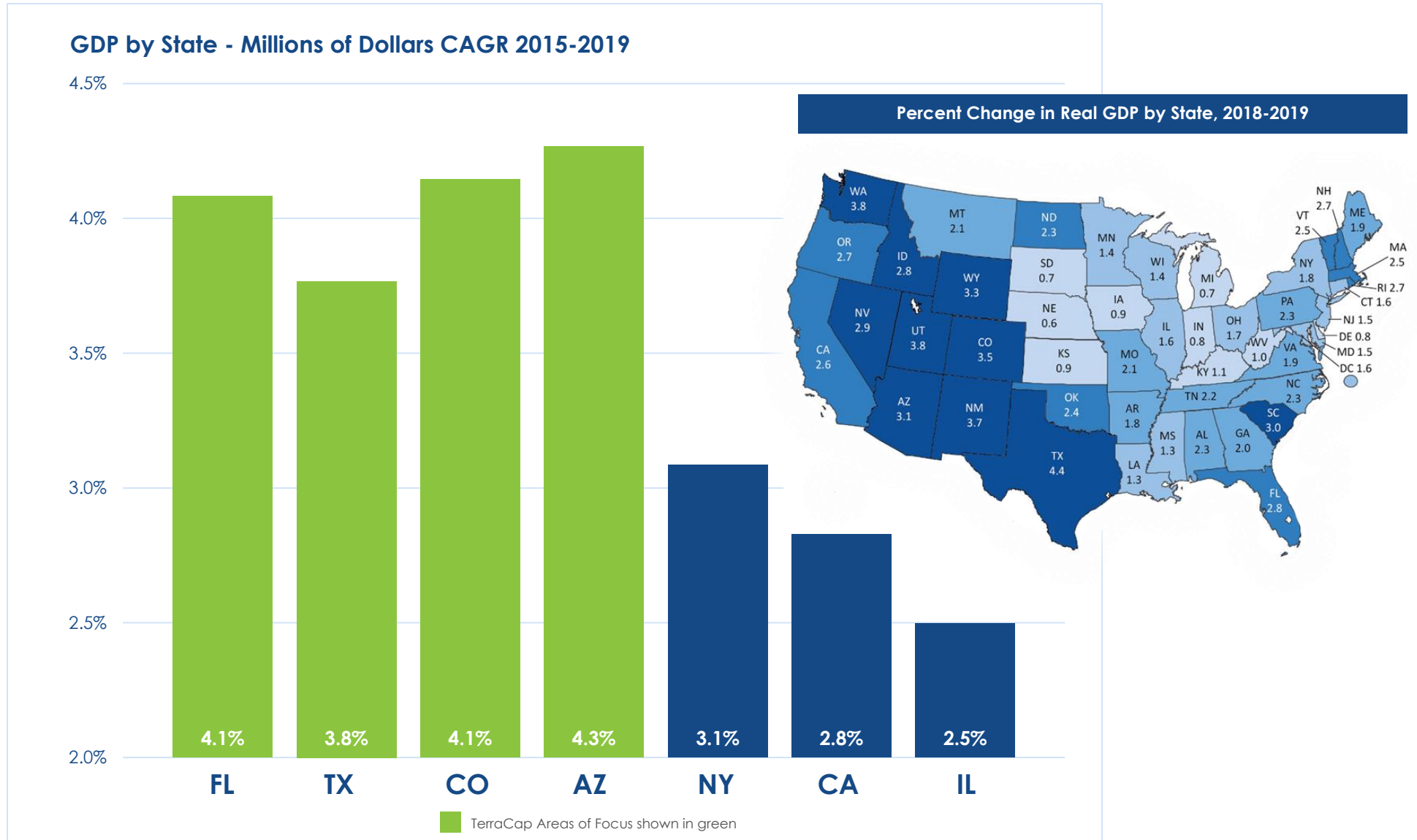
2015-2019 Relocations

39K New Jobs
 Avg. New Tenant 120K SF
 24.6M Total Square Feet



Source: Greater Phoenix Economic Council, FY15-FY19 Locates – October 2019

GROSS DOMESTIC PRODUCT BY STATE



Source: <https://www.bea.gov/news/2020/gross-domestic-product-state-1st-quarter-2020>, U.S. Bureau of Economic Analysis

TERRACAP PERFORMANCE VS. PUBLIC MARKET EQUIVALENTS¹

	TerraCap II 12.31.2011	TerraCap III 6.30.2014	TerraCap IV 4.21.2017
Fund Level Gross IRR (Since Inception as of 12/31/19)	15.62%	11.54%	18.52%
Fund Level Net IRR (Since Inception as of 12/31/19)	12.94%	10.37%	15.54%
Equity-Weighted Holding Period for Realized Investments (years)	3.2	3.5	N/M*
Russell 3000 PME Gross IRR (as of 12/31/19)	13.75%	13.72%	14.84%
TerraCap Gross IRR Direct Alpha	1.87%	0.00%	3.68%
NCREIF Property Index PME Net IRR (as of 12/31/19)	10.13%	9.20%	6.92%
TerraCap Net IRR Direct Alpha	2.81%	1.17%	8.62%
TerraCap NOI Compound Annual Growth Rate	27.9%	4.3%	N/M*
TerraCap CapEx Efficiency	64%	138%	N/M*
TerraCap Levered Net Ex-Ante Return Expectation = 8%	+4.94	+2.37	+7.54
	Russell 3000 PME	NCREIF Property Index PME	
TerraCap Aggregate Direct Alpha Weighted by Capital Call	2.51%	5.83%	
TerraCap Aggregate Direct Alpha Weighted by NAV Quarters	1.82%	4.09%	

*N/M is defined as "Not Material" since the Fund's final closing was less than a year ago. Once the Fund is fully invested and such metrics can be more accurately measured the returns will be included.

¹Information about indices is provided to allow for comparison of the performance of the Adviser to that of certain well-known and widely recognized indices. There is no representation that such index is an appropriate benchmark for such comparison. You cannot invest directly in indices and they are not actively managed. Therefore, they do not have transaction costs, management or performance fees or other operational expenses. The volatility of indices may be materially different from the performance of the Adviser. In addition, the Adviser's recommendations may differ significantly from the securities that comprise the indices. See Pages 34-36 for important disclosures. Past performance is not indicative of future results and there can be no assurance that Fund V or investments by Fund V, as the context requires, will achieve comparable results. References to past performance are not a guarantee, projection or prediction for Fund V, nor are they necessarily indicative of future results for Fund V.

TERRACAP PARTNERS II PORTFOLIO PERFORMANCE¹

Realized Properties	Property Type	Building Size	Acquisition Date	TerraCap's Equity Basis at Purchase	TerraCap's Equity Purchase Price	TerraCap Sales Date	TerraCap Sales Price	Realized Net IRR	Realized Net EM
Villa Sol Village	Land	n/a	8/1/13	\$1,481,261	\$1,368,422	8/7/2014	\$2,050,000	29.9%	1.29
Hampton Inn & Suites	Hospitality	80,000	10/29/12	\$4,610,728	\$4,350,000	10/2/2014	\$9,425,000	27.9%	1.53
Coconut Office Center	Office	11,000	8/8/12	\$799,514	\$800,000	1/13/2015	\$1,442,000	15.2%	1.37
Westlinks Gateway (1)	Flex	228,280	8/6/12	\$7,443,129	\$7,200,000	5/5/2015	\$17,689,000	31.7%	1.49
Gateway RSW International (1)	Flex	112,398	3/29/13	\$3,522,791	\$3,300,000	5/5/2015	\$8,730,000	31.7%	1.49
Eastlinks RSW International (1)	Flex	174,950	7/8/13	\$6,400,000	\$9,373,365	5/5/2015	\$13,581,000	31.7%	1.49
North Gateway Office Center	Flex	36,240	11/22/13	\$1,518,587	\$1,500,000	11/12/2015	\$3,500,000	21.7%	1.37
La Quinta Inn & Suites	Hospitality	60,000	3/30/12	\$2,873,527	\$2,852,000	12/3/2015	\$8,100,000	20.0%	1.65
Coral Cove Condos (2)	Residential	210,000	12/27/12	\$1,646,667	\$8,133,333	2/4/2016	\$14,550,000	22.2%	2.00
Sarasota Sun Center Lot	Land	n/a	5/20/14	\$1,468,702	\$1,442,000	3/30/2016	\$2,750,000	19.3%	1.38
Gulf Coast Office Center	Office	11,500	10/30/13	\$910,461	\$900,000	11/17/2016	\$1,326,045	-0.7%	0.98
Hancock Office Center	Office	10,000	12/6/12	\$164,108	\$435,000	11/18/2016	\$615,000	5.0%	1.21
Bradenton Office Center	Office	32,040	6/13/13	\$1,885,370	\$1,925,000	6/9/2017	\$1,601,250	-8.8%	0.69
Palms of Estero	Land	n/a	2/24/12	\$182,722	\$1,459,190	Multiple	\$2,533,431	11.8%	1.39
Tampa Int'l Business Center	Office	331,148	8/26/13	\$5,072,589	\$12,116,000	11/14/2017	\$45,050,000	16.8%	1.53
Capital Commerce Center	Office	274,440	12/2/13	\$3,417,339	\$3,200,000	1/19/2018	\$44,656,500	40.2%	2.32
Celebration IV	Office	125,974	2/20/14	\$7,152,564	\$17,877,000	3/16/2018	\$21,770,000	11.2%	1.33
Sarasota Sun Center	Office	95,000	2/14/14	\$4,335,199	\$11,500,000	5/1/2018	\$16,350,000	14.1%	1.79
Lakeview	Office	186,309	3/14/14	\$8,407,485	\$15,912,918	5/11/2018	\$21,750,000	11.9%	1.51
Colonial Corporate Center	Office	61,239	12/20/13	\$4,054,969	\$4,000,000	12/17/2018	\$5,900,000	-2.7%	0.90
Total Realized:		2,040,518		\$67,347,712	\$109,644,228		\$243,369,226	19.2%	1.62
Unrealized Properties	Property Type	Building Size	Acquisition Date	TerraCap Equity Basis at Purchase	TerraCap Equity Purchase Price				
Jones Loop Road Assemblage (2)	Land	n/a	03/21/12	\$2,408,643	\$11,750,000				
Eastpointe	Office	81,717	03/14/14	\$3,653,215	\$6,987,082				
Punta Gorda Reserve	Land	n/a	02/24/12	\$505,613	\$1,182,916				
Total Projected Unrealized:		81,717		\$6,567,471	\$19,919,998				
Total Portfolio:		2,122,235		\$73,915,183	\$129,564,226				

(1) Westlinks Gateway, Gateway RSW International, and Eastlinks RSW International were owned with a JV Partner. TerraCap's share was 57%.

(2) Coral Cove Condos was owned with a JV Partner. Jones Loop Road is owned with a JV Partner. TerraCap's share is 20%.

Properties highlighted in green are under contract to sell.

- Fund II closed in **December 2013** and has made **20** distributions in **6 years** from both yield and capital appreciation.
 - A total of **\$159.2MM** or **156%** of invested capital has been distributed in **6 years**.

1. See Important Disclosures, Certain Performance-Related Notes for disclosures regarding gross and unrealized performance.

TERRACAP PARTNERS III PORTFOLIO PERFORMANCE¹

Realized Properties	Property Type	Building Size	Acquisition Date	TerraCap's Equity Basis at Purchase		TerraCap's Equity Basis at Disposition		TerraCap Sales Date	TerraCap Sales Price	Realized Net IRR	Realized Net EM
				Purchase	Purchase Price	Purchase	Disposition				
Harbour Pointe Apartments	Multifamily	206,388	01/20/15	\$7,280,365	\$21,115,000	\$7,497,359	1/10/2017	\$27,600,000	31.4%	1.69	
Lake Destiny Center II	Office	23,106	12/18/15	\$1,521,657	\$1,524,000	\$1,257,579	2/3/2017	\$3,300,000	74.3%	1.76	
Keller Center	Office	159,860	10/07/14	\$9,131,543	\$9,304,400	\$10,231,599	6/1/2018	\$27,950,000	12.7%	1.50	
Royal Office Center	Office	137,602	9/19/16	\$5,448,644	\$14,010,000	\$5,533,547	6/5/2019	\$16,850,000	12.8%	1.33	
Sarasota Commerce Center	Office	247,530	5/7/15	\$12,337,515	\$37,129,000	\$10,419,995	9/3/2019	\$45,200,000	14.3%	1.64	
Kennesaw Commerce Center	Office	303,498	1/27/16	\$11,925,404	\$30,179,000	\$11,410,063	12/3/2019	\$46,100,000	13.4%	1.58	
Lake Destiny Center I	Office	57,320	12/18/15	\$3,546,103	\$3,556,000	\$3,508,014	12/20/2019	\$7,000,000	5.7%	1.17	
Total Realized:		1,135,304		\$51,191,231	\$116,817,400	\$49,858,155		\$174,000,000	15.4%	1.53	
Unrealized Properties	Property Type	Building Size	Acquisition Date	TerraCap's Equity Basis at Purchase		TerraCap's Current Equity Basis					
				Purchase	Purchase Price	Purchase	Current Equity Basis				
Barrett Commerce Center	Office	196,418	1/13/16	\$6,587,608	\$18,750,000	\$7,614,297					
Tampa Oaks Office Center	Office	104,080	3/23/16	\$4,555,530	\$12,944,000	\$3,680,651					
Cary Hospitality	Hotel	66,606	5/25/16	\$8,692,918	\$8,550,000	\$6,817,159					
Huntcrest Commerce Center	Office	394,247	6/1/16	\$22,129,437	\$61,421,320	\$20,769,947					
Sugarloaf Commerce Center	Office	161,183	8/9/16	\$8,447,136	\$25,370,000	\$8,498,001					
Forest Park II & III	Office	87,898	12/16/16	\$3,501,867	\$8,150,000	\$3,998,717					
Total Projected Unrealized:		1,010,432		\$53,914,496	\$135,185,320	\$51,378,771					
Total Portfolio:		2,145,736		\$105,105,727	\$252,002,720	\$101,236,926					

- Fund III closed in **July 2016** and has made **12** distributions in **4 years** from both yield and capital appreciation.
 - A total of **\$89.5MM** or **75%** of invested capital has been distributed in **4 years**.

1. See Important Disclosures, Certain Performance-Related Notes for disclosures regarding gross and unrealized performance.

TERRACAP FUND IV PORTFOLIO SUMMARY¹

Realized Properties	Property Type	Building Size	Acquisition Date	TerraCap's Equity Basis at Purchase	Purchase Price	TerraCap's Equity Basis at Disposition	TerraCap Sales Date	TerraCap Sales Price	Realized Net IRR	Realized Net EM
NAVA Arbors	Multifamily	127,400	9/29/17	\$4,925,480	\$12,250,000	\$4,948,994	12/18/2019	\$16,050,000	16.3%	1.40
Resource Square Office Center	Office	244,549	5/24/18	\$13,187,922	\$39,188,000	\$13,221,338	1/10/2020	\$50,400,000	30.2%	1.54
Total Unrealized:		371,949		\$18,113,402	\$51,438,000	\$18,170,331		\$66,450,000	24.8%	1.50
Unrealized Projected Properties	Property Type	Building Size (Net)	Acquisition Date	TerraCap's Equity Basis at Purchase	Purchase Price	TerraCap's Current Equity Basis				
Breckinridge Office Center	Office	253,307	5/25/17	\$7,461,505	\$19,020,000	\$9,144,167				
Deerfield Office Center	Office	204,690	6/2/17	\$10,470,538	\$28,686,964	\$10,645,395				
Windward Office Center	Office	132,096	6/2/17	\$6,767,525	\$18,513,036	\$6,592,252				
Madison Woods (1)	Multifamily	181,547	6/15/17	\$2,641,218	\$13,350,000	\$3,316,401				
Olde Battleground (1)	Multifamily	183,160	6/15/17	\$2,885,292	\$13,608,000	\$3,571,167				
Terrace Oaks (1)	Multifamily	114,208	6/15/17	\$2,582,587	\$9,240,000	\$3,193,988				
NAVA Knolls	Multifamily	311,064	9/29/17	\$14,453,615	\$36,894,000	\$14,490,162				
NAVA Holcomb	Multifamily	248,168	9/29/17	\$10,576,737	\$27,336,000	\$10,926,542				
NAVA Crossings	Multifamily	377,720	9/29/17	\$15,993,626	\$39,520,000	\$16,045,002				
Park Central (2)	Office	215,194	3/1/18	\$9,777,135	\$29,000,000	\$10,331,287				
23 Thirty Residences	Multifamily	216,600	8/17/18	\$10,655,010	\$27,715,000	\$10,873,072				
Addison Office Center	Office	213,583	8/30/18	\$13,193,948	\$38,409,000	\$13,203,491				
Peachtree Tech Office Center	Office/Flex	253,445	11/6/18	\$9,543,809	\$27,919,000	\$9,633,997				
Ashford Office Center	Office	159,154	1/8/19	\$8,249,998	\$24,620,000	\$8,600,385				
Trafalgar Office Center	Office	149,074	2/27/19	\$6,440,260	\$13,800,000	\$6,893,105				
Preston Park Office Center	Office	367,543	3/18/19	\$20,304,996	\$61,000,000	\$20,508,122				
Clairemont Office Center	Office	122,713	4/12/19	\$7,964,489	\$24,360,000	\$7,964,788				
Lake Point Commerce Center	Office/Flex	134,389	7/1/19	\$5,589,641	\$17,625,000	\$5,592,231				
CRS Office Center I, II, & V	Office	337,611	8/21/19	\$19,368,057	\$59,338,675	\$19,368,057				
Denver Corporate Center	Office	381,466	8/30/19	\$23,643,492	\$71,710,000	\$23,643,536				
Centerpoint Office Center	Office	373,724	10/30/19	\$25,495,540	\$77,517,500	\$25,527,100				
CRS Office Center IV	Office	152,308	11/1/19	\$13,199,367	\$24,766,000	\$13,199,367				
Cherry Creek Office Center	Office	335,059	3/10/20	\$17,451,500	\$54,590,500	\$17,451,500				
Cobb Commerce Center	Office/Flex	196,532	7/24/20	\$8,105,145	\$20,706,000	\$8,105,145				
Northwoods Office Center	Office/Flex	100,720	7/24/20	\$2,740,059	\$6,987,000	\$2,740,059				
Total Projected Unrealized:		5,715,075		\$275,555,090	\$786,231,675	\$281,560,319				
Total Portfolio:		6,087,024		\$293,668,492	\$837,669,675	\$299,730,651				

(1) Madison Woods, Olde Battleground and Terrace Oaks are owned with a JV Partner. TerraCap's share is 83.5%.

(2) Park Central is owned with a JV Partner. TerraCap's share is 95%.

Properties highlighted in green are being marketed for sale.

- Fund IV closed in **July 2019** and has made **5** distributions in its **first year** from both yield and capital appreciation.
 - A total of **\$39.75MM** or **13%** of invested capital has been distributed.

1. See Important Disclosures, Certain Performance-Related Notes for disclosures regarding gross and unrealized performance.



Summary

Strategy	Value Add
Acquisition Date	May 2018
Status	Realized
TerraCap Price	\$39,188,000
Total Equity at Exit	\$13,220,922
Sale Price (2019)	\$50,400,000
Net XIRR	30.8%
Net Equity Multiple	1.54

Below Market Rents



Ideal Location
In the Central
Florida



Basis Well Below
Reproduction
Cost



Upside Potential

Transaction Overview:

- ❖ Acquisition of two Class A office buildings totaling 244,772 SF in Orlando, Florida.
- ❖ Went under contract at 85% occupancy, closed at 94% occupancy, and sold asset at 100%.
- ❖ At acquisition rates were at \$25.00 PSF and were pushed to over \$29 PSF during hold period

Strategy-Value-Add:

- ❖ The existing tenants had a large gap between their current rents and market rents. As their leases expired, their rents were rolled to market rates. Over an 18-month period 9 leases were executed and there were virtually no vacates at expiration of leases.
- ❖ Anchor tenant General Dynamics occupied 44k SF at acquisition. While this tenant had term, there was some question as to their renewal certainty. With limited supply we felt this tenant would need to renew in place and were able to negotiate and early extension by 5 years and expand General Dynamics by 22k SF.

Status:

- ❖ Closed on 1/10/2020 with a Levered Net IRR of 30.8% and an EM of 1.54.

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Summary	
Strategy	Value Add
Acquisition Date	June, 2017
Status	Held for Sale
TerraCap Price	\$36,198,000
Total Equity Basis	\$12,085,859
Target Disposition Price (2020)	\$46,000,000
Price Difference	\$9,802,000

Transaction Overview:

- ❖ Off market acquisition of three apartment communities totaling 456 units in Greensboro, NC.
- ❖ Two communities needed value add renovations to push rates while one community had been renovated and we have been pushing rates organically.
- ❖ Hold for 4 years; value appreciation through property repositioning, tightening market cap rates as investors chase yield in secondary markets, and organic rate growth.

Strategy-Value-Add:

- ❖ At acquisition the assets were not managed well. We changed property management groups, implemented Lease Optimizing Software, implemented a plan for premium unit renovations, performed cap ex and deferred maintenance projects, and pushed existing tenant rates at renewal.

Status:

- ❖ In the past 12 months we have seen significant NOI increases through both base rate increases, management of expenses, and additional billbacks (valet trash service, washer/dryer rentals, bulk cable service, bulk fitness center membership).
- ❖ Due to numerous offers and inquiries in 2019 we have received 3 BOV's ranging from \$43.2M at the low end to a high of \$48.75M and engaged CW to market the portfolio for sale in 2020. Offers to date have exceeded \$50M.

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Transaction Overview:

- Acquisition of a 246,942 square foot Class A office park in Sarasota, Florida.
- Acquired off-market at 86% occupied from a reputable seller.
- \$12.33 PSF NNN rents at purchase vs. sub-market rents of \$15.00 PSF NNN.

Strategy-Value-Add:

- The existing tenants had a large gap between their current rents and market rents. As their leases have expired, we have rolled their rents to market rates.
- \$12.33 PSF NNN rents at purchase vs. today's in-place average rent of \$14.61 PSF NNN and the newest lease rate at \$16.50 PSF NNN.
- Average cash yields of 8.6% (\$2,611,686) from 2015-2017.
- As we near the end of our hold period, the following capital projects have begun: roof replacements, parking lot reseal/restripe, and RTU replacements.

Status:

- In August 2019, Fund III closed on the sale of the property for \$45,200,000.

Summary	
Strategy	Value Add
Acquisition Date	May 2015
Status	Realized
Realization Date	August 2019
TerraCap Price	\$37,129,000
Total Equity at Exit	\$13,488,716
Sale Price	\$45,200,000
Net XIRR	15.9%
Net Equity Multiple	1.69

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Previously
Mismanaged



Below Market
Occupancy and
Lease Rates



Basis Well Below
Replacement
Cost



Upside Potential

Transaction Overview:

- Acquisition of a 234-unit garden style apartment community in Bradenton, Florida.
- Acquired off-market from a seller under financial pressure.
- Secured financing that represented 65.5% leverage of purchase price.
- 91% occupancy at closing vs then market occupancy of 96%.

Strategy-Opportunistic:

- Implemented a unit renovation program to create high-quality spaces to increase rental rates.
- Hired a new property manager, who was instrumental in raising rents organically, supervising the unit renovation projects, and increasing operational efficiencies.
- Increased rental rates by 17% in years 1 – 2.
- Leased up to market occupancy averages of 96%.

Status:

- Successful disposition in January 2017, generating a Net IRR of 31.43% and a Net Equity Multiple of 1.69x.
- From the time of ownership to the exit, average rent per unit grew from \$829 to \$967.
- In January 2017, Fund III closed on the sale of the property for \$27,600,000 (\$117,949/unit). The price represented a 5.88% cap rate on then-current NOI.

Summary

Strategy	Value-Add
Acquisition Date	January 2015
Status	Realized
Realization Date	January 2017
TerraCap Price	\$21,115,000
Total Equity at Exit	\$8,845,960
Sale Price	\$27,600,000
Net XIRR	31.43%
Net Equity Multiple	1.69x

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Summary

Strategy	Value-Add
Acquisition Date	August 2013
Status	Realized
Realization Date	November 2017
Purchase Price	\$12,116,000
Total Equity at Exit	\$13,022,863
Sale Price	\$45,050,000
Net XIRR	16.76%
Net Equity Multiple	1.53x

Previously
Mismanaged
by Lender



Virtually Vacant
Physically
Distressed



Basis Well Below
Replacement
Cost



Upside Potential

Transaction Overview:

- Acquisition of a 331,138sf six-building business park in Tampa, Florida.
- Acquired via a distressed sale from Special Servicer.
- The Property is 98% leased to 12 tenants, with approximately 9.4 years of average term remaining, at closing vs 7% occupancy at acquisition.

Strategy-Opportunistic:

- The property required extensive capital improvements to make it leasable including new roofs, upgraded entrances, significant tenant improvements, mechanical system replacement, landscape upgrades, and site reconfiguration to increase parking from 4:1,000 to a 6:1,000 ratio.
- Financing was acquired after acquisition to pay for the renovation projects, tenant improvements, and leasing commissions.
- 75% of the occupancy came from back office support services for a Tampa based credit rated healthcare company due to continued growth.

Status:

- Successful disposition in November 2017, generating a Net IRR of 16.76% and a Net Equity Multiple of 1.53x.
- In November 2017, Fund II closed on the sale of the property for \$45,050,000 (\$136/sf). The price represented a 7.8% cap rate on year-1 NOI.

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Transaction Overview:

- Assemblage of three office-flex parks totaling 515,628 square feet and 15 buildings.
- Acquired first park (7 buildings) through a deed-in-lieu of foreclosure with previous owner and lender.
- Acquired second park (4 buildings) through a distressed sale from a Special Servicer.
- Acquired third park (4 buildings) through the creation of a joint venture with the original developer.
- Created a property assemblage with the ownership of 15 of the 22 buildings of the Gateway Office Park, next to JetBlue Park and International Airport in Ft. Myers.

Strategy-Opportunistic:

- Hired new management and leasing team to increase operational efficiencies and push rental rates.
- Through the assemblage strategy, we increased average gross rents from \$9.83 psf at acquisition to \$11.18 psf at exit, an increase of 6.9% per year.
 - Occupancy increased from 56% at acquisition to 75% at exit.
- Refinancing event in January 2014 allowed early distribution in the amount of \$13.5 million, which reduced basis to \$8.4 million – while reducing risk.
- In April 2015, Fund II closed on the sale of our interest in the property for \$40,000,000 (\$77.67/sf). This represented a 5.6% cap rate on trailing 12 NOI.

Status:

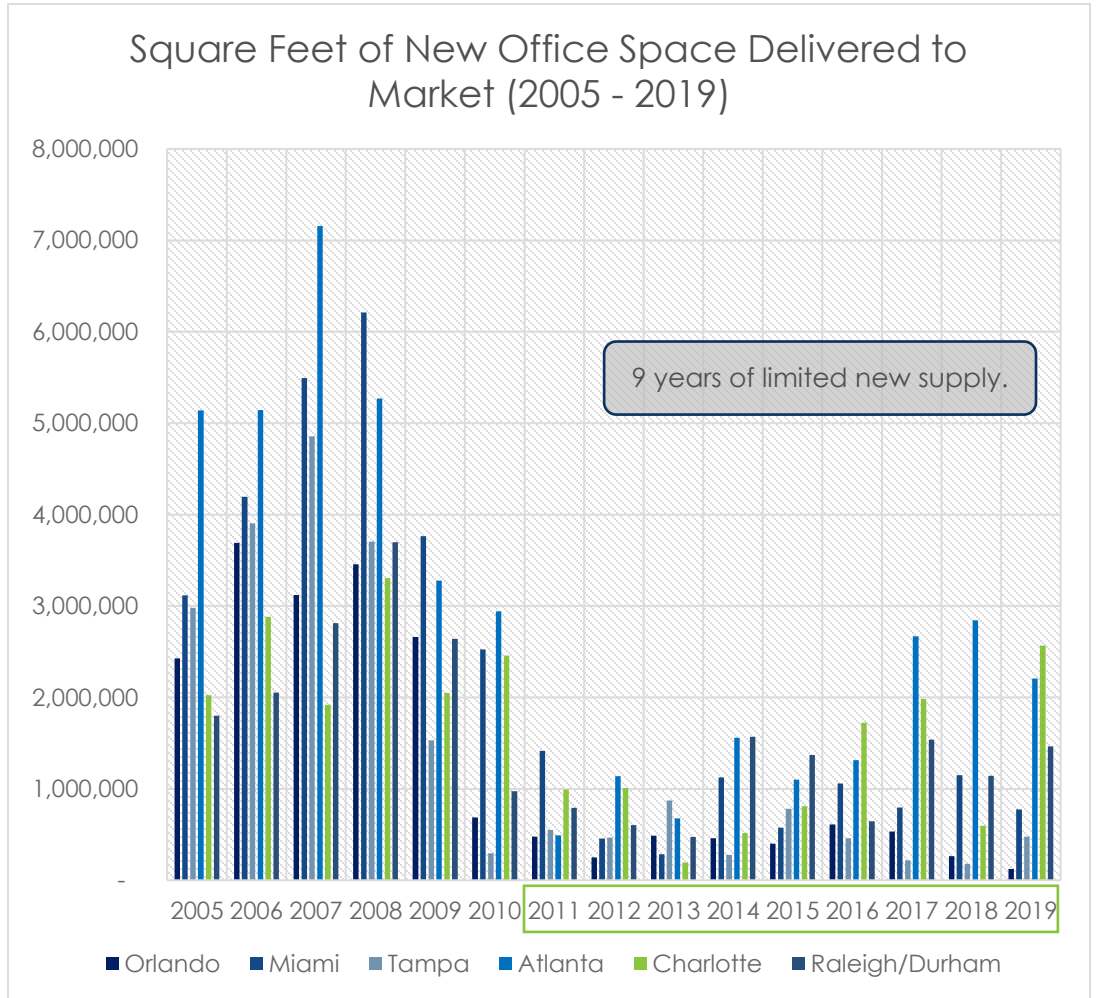
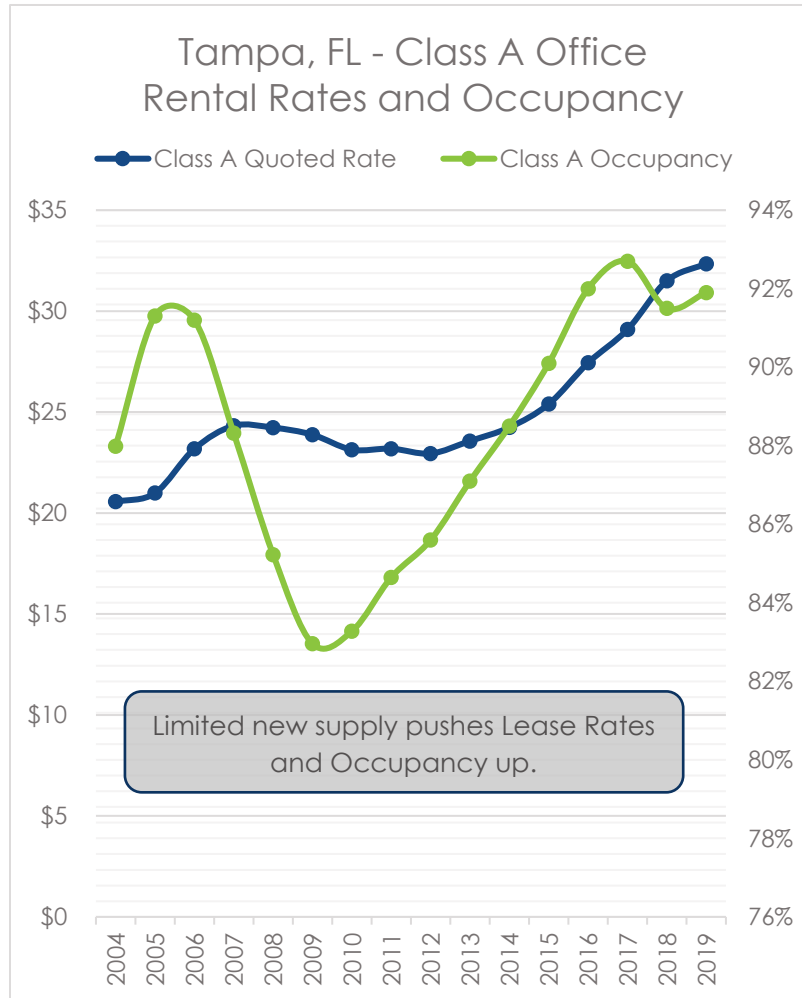
- Successful disposition in April 2015, generating a Net IRR of 31.70% and a Net Equity Multiple of 1.49x.

Summary

Strategy	Value-Add
Acquisition Dates (3 Separate Acq.)	August 2012-July 2013
Status	Realized
Realization Date	April 2015
TerraCap Price	\$20,919,998
Total Equity at Exit	\$8,428,486
Sale Price	\$40,000,000
Net XIRR	31.70%
Net Equity Multiple	1.49x

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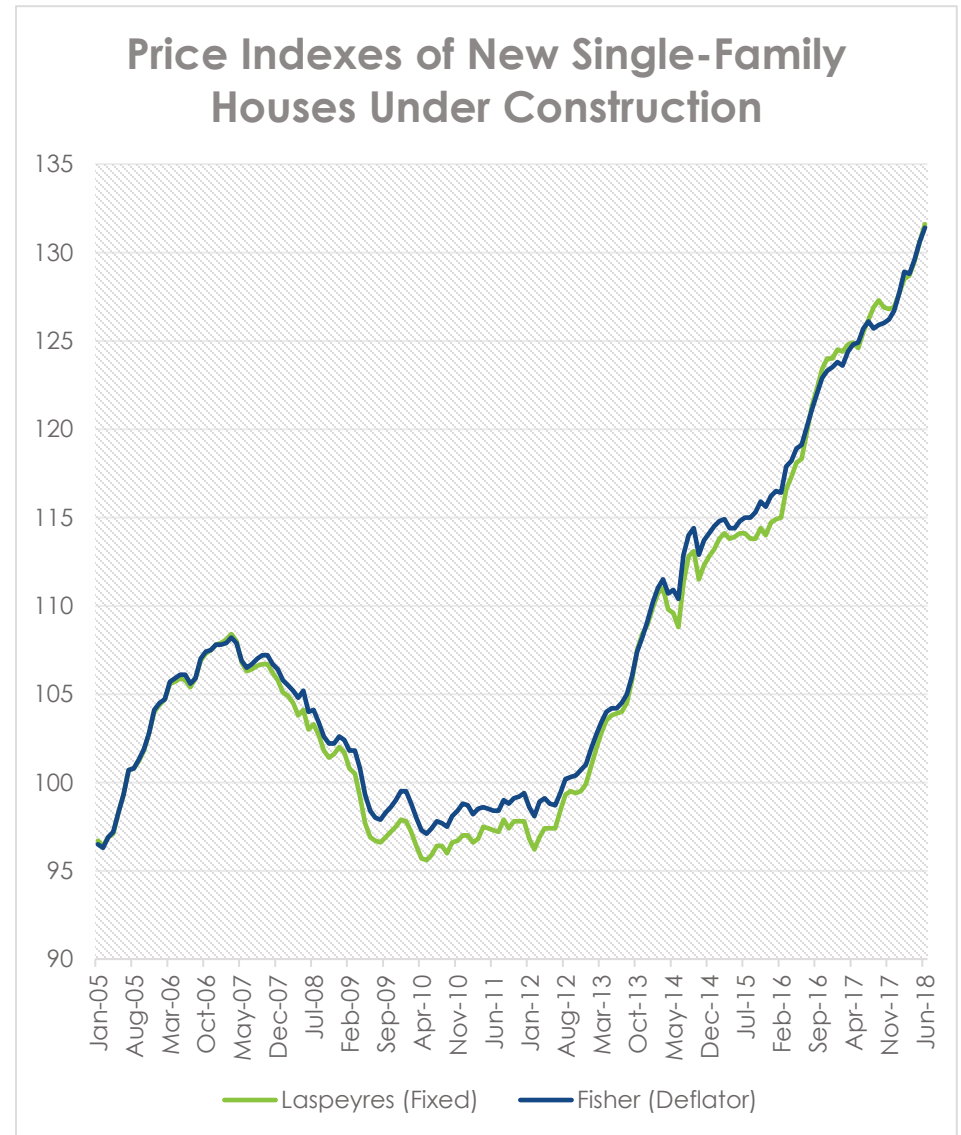
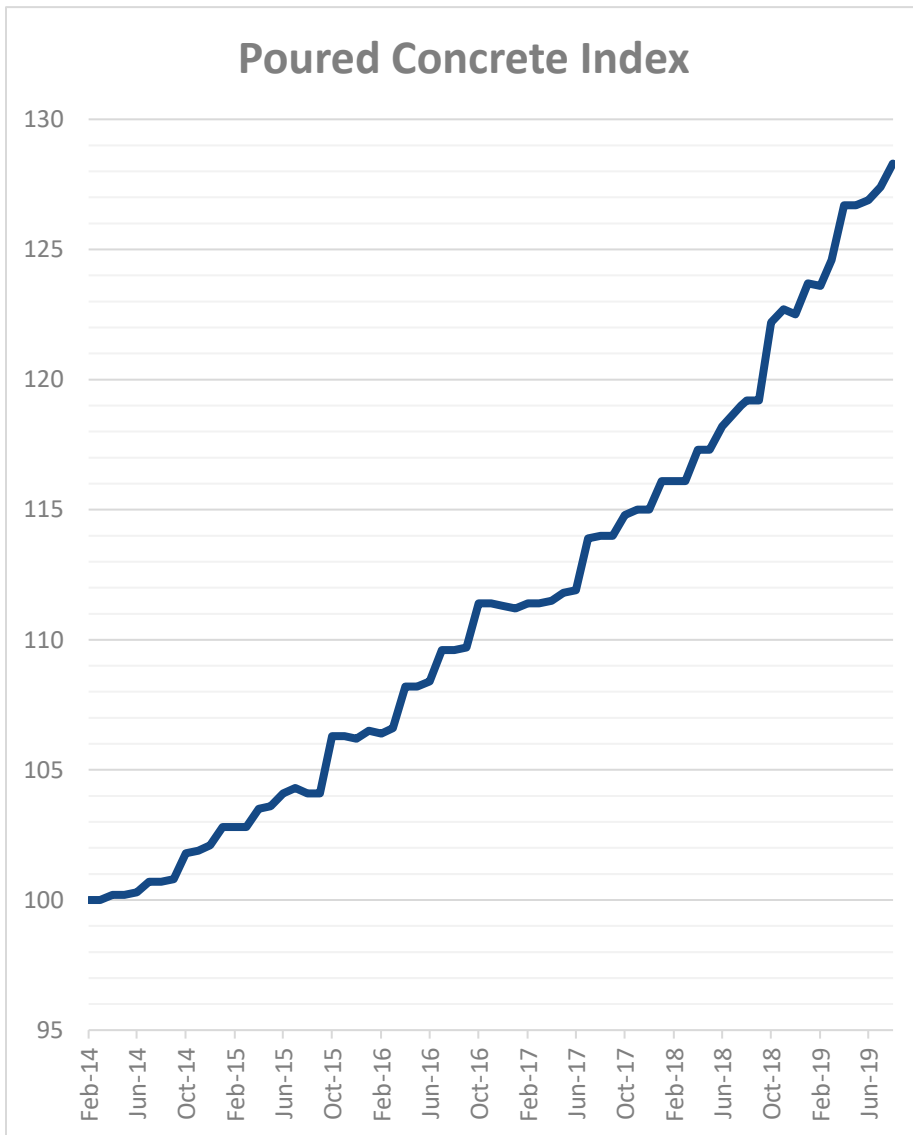
LIMITED SUPPLY IN HIGH DEMAND MARKETS DRIVES VALUE CREATION



Source: CoStar Property®, Year-End Report, 2019

Source: CoStar Property®, Year-End Report, 2019

RIISING COST OF CONSTRUCTION

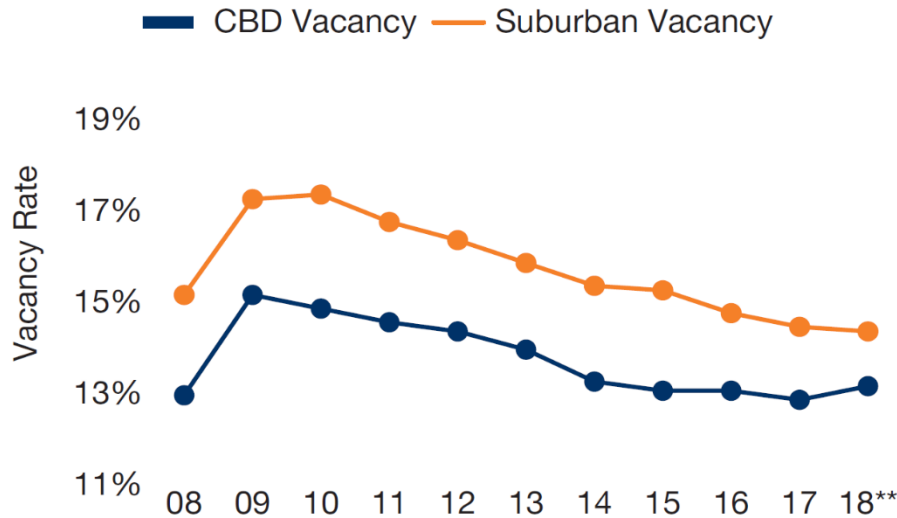


Source: U.S. Bureau of Labor Statistics, PPI - New nonresidential building construction, Poured concrete foundation and structure contractors, <https://data.bls.gov/timeseries/PCU236400236400224>

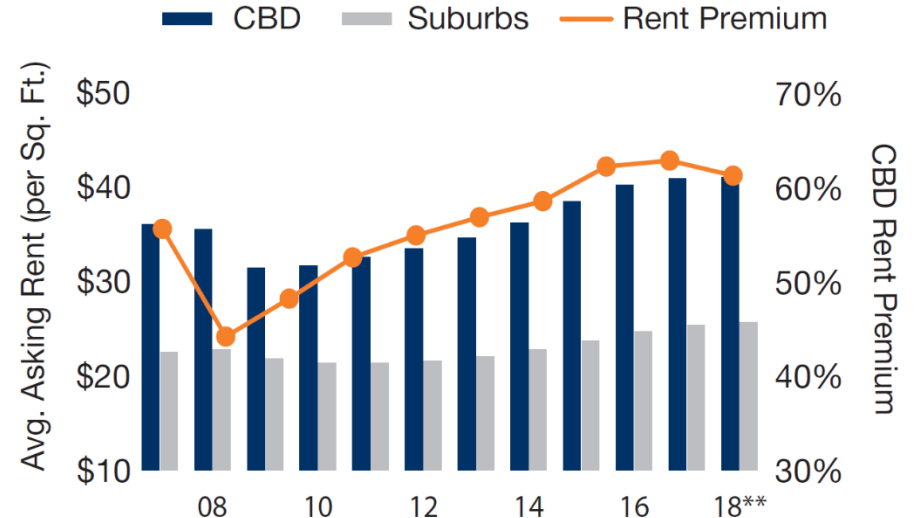
Source: Census Bureau, January 2005 – June 2018, <https://www.census.gov/construction/cpi/>

AGING MILLENNIALS SHIFT TO SUBURBS; CORPORATIONS LIKELY TO FOLLOW

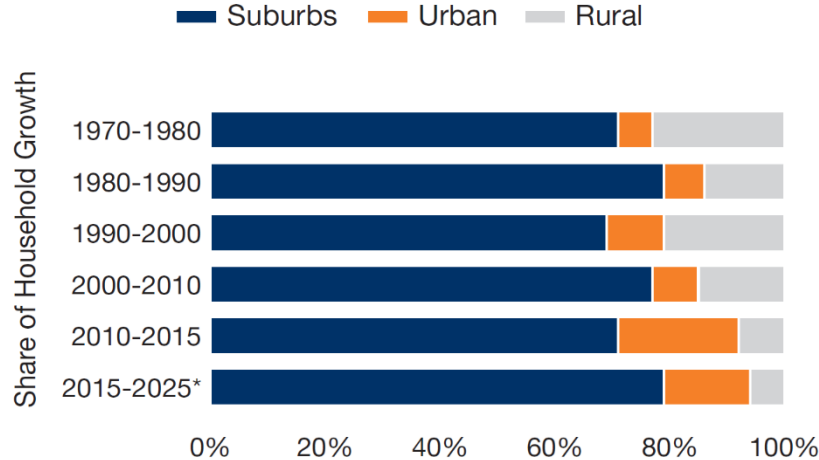
Vacancy by Location



Office Momentum Shifting to Suburbs



Households Expanding in Suburbs



Source: Marcus & Millichap, The Office Outlook, Midyear 2018

TERRACAP PARTNERS V LP – SUMMARY OF KEY TERMS

Targeted Fund Size	\$400 million
Targeted Returns	16% Net IRR
Targeted # of Investments	30-35 assets with invested equity ranging from \$10 million to \$30 million each
Investment Period	2 years from the Final Close Date
Term	8 years from the Final Closing Date, subject to two 1-year extensions
Management Fee	1.5% on Committed Capital until termination of the Investment Period; thereafter 1.5% on Invested Capital (0.75% first year for First Closing investors)
GP Commitment	1.5% of aggregate Capital Commitments
Distributions	100% return of invested capital, 8% compounded preferred return, 50/50 catch up thereafter, LP > \$30.1mm: 85/15 split - with side letter (also for all First Closing investors)

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APPENDICES

INVESTMENT STYLE

Diversification

Tactical investors efficiently able to move in and out of select geographies and property types to seek to capture attractive risk adjusted investment opportunities.

Downside Protection

Seek to create a margin of safety through conservative underwriting, buying below replacement cost, moderate leverage, and deal structuring.

Cash Flow Enhancement

Diversified investment strategy targeting assets that provide an opportunity to improve the physical quality of the property and the Net Operating Income.



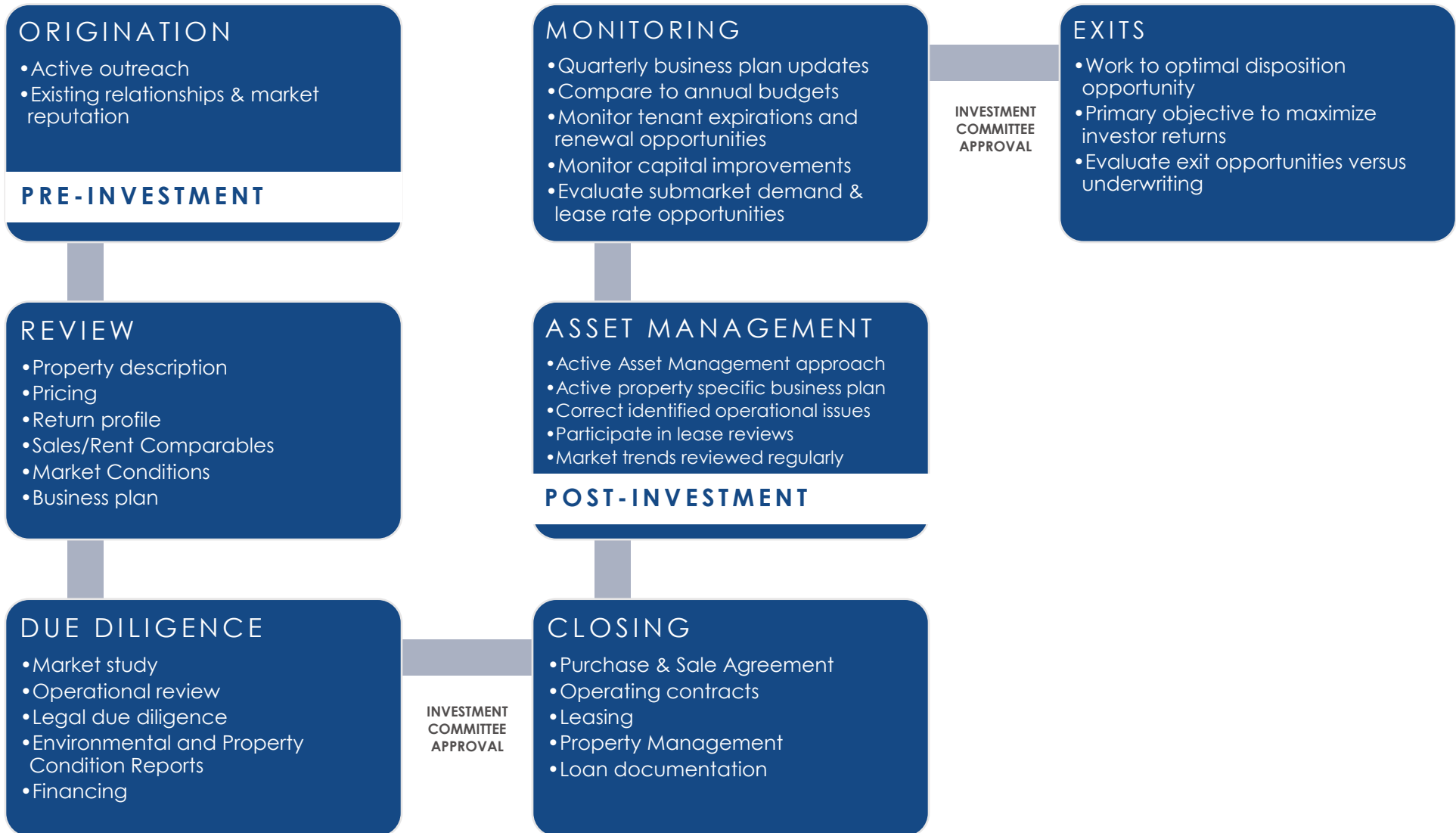
Asset Management

Seek to create Alpha at the property level through active asset management and savings realized through improved efficiencies and stronger leasing initiatives.

Exit Strategy

Seek to stabilize and reposition assets over an average of 2-4 years and sell to institutional and local real estate investors focused on steady cash yield.

INVESTMENT PROCESS



SENIOR MANAGEMENT – INVESTMENT COMMITTEE

W. Stephen Hagenbuckle – Founder and Managing Partner

Mr. Hagenbuckle is the founder and managing partner of TerraCap Management. He has been a successful developer, builder, and investor in commercial real estate since July 1996. Since that time, he has participated in over \$2 Billion of transactions across major commercial real estate property types. His transaction experience ranges from being a private principal investor to private equity multi-fund sponsor and investment manager covering major property types.

He was a founding shareholder of commercial bank Landmark Bank N.A. and Giantbank.com of Fort Lauderdale and was a Board Member and Secretary of the bank for 10 years (beginning in the summer of 2000 until 2010).

In the 1990s, he co-founded and sold multiple technology companies to both public and private entities. These companies include Techware Consulting, a technical consulting firm, from December 1995 to November 1997 (sold to CBR NYSE); Orus Information Services, a technical consulting firm, from January 1999 to February 2003; Collegiate Images, a sports media digitization, protection, policing and resale company, from August 2000 to October 2008 (sold to XOS); and LandmarkBank, N.A./GiantBank.com, a commercial banking – internet banking business, from 2000 to 2017 (sold to HOMB NASDAQ).

Mr. Hagenbuckle has been a guest on CNBC, Bloomberg TV and Fox where he has discussed real estate market trends and opportunities, along with US banking. He has lectured at multiple universities at the graduate and undergraduate levels. Mr. Hagenbuckle is a Florida native who grew up in the Naples, Florida area and is a graduate of the College of Business from the University of Florida.

Mr. Hagenbuckle has been a licensed Florida Real Estate Broker since July 2007, a member of the National Association of Realtors since January 2004, has been an active member of ICSC since 2012, and a member of ULI since 2006. He and TerraCap Management, LLC are two-time recipients (2015 and 2016) of the Gator 100 Award, for the fastest growing active companies founded by University of Florida Alumni. Mr. Hagenbuckle is on the University of Florida National Foundation Board as well as the Executive Board and Chairman's Circle at the Bergstrom Center for Real Estate Studies at the University of Florida.



Albert S. Livingston – National Director of Asset Management, Partner

Albert Livingston, Director of Asset Management, joined the Investment Manager in 2013 and is responsible for maximizing the value, through oversight of asset management, of TerraCap's portfolio. Mr. Livingston is responsible for establishing management operations in expansion markets and provides support to the acquisition team's efforts. Mr. Livingston has over 20 years' experience in acquisitions, financing, development, redevelopment, land entitlement, design, permitting, asset management, and dispositions of commercial real estate throughout the Southeast and Midwest. In this capacity, Mr. Livingston has managed in excess of \$1 billion in acquisitions and dispositions, and over 3 million square feet of ground up development and redevelopment. Mr. Livingston developed a foundation in real estate as a civil/environmental engineer and has worked for a variety of domestic and international private equity and institutional investment groups, including Daniel Corporation, Taurus Investment Holdings, and HDG Mansur. Mr. Livingston holds a Bachelor of Engineering in Civil Engineering from Vanderbilt University (May 1995) and a Master's in Real Estate Finance from the University of Florida (August 2000). Additionally, he is a Certified Commercial Investment Member (CCIM) designee (October 2002), a licensed professional engineer (May 2001), a Leadership in Energy and Environmental Design Accredited Professional (LEED AP) (August 2006), a licensed realtor in the State of Florida has taught several courses at the University of Central Florida and the University of Alabama as an adjunct professor, and is on the Editorial Review Board for the Commercial Investment Real Estate magazine.



Matt Stewart – Director of Asset Management, Partner

Matt Stewart, Director of Asset Management for Georgia, is currently responsible for a portfolio of 2.5 million square feet of office and 1.2 million square feet of multi-family assets for the Investment Manager. Mr. Stewart has 25 years of experience in accounting, asset management, underwriting, valuation, mortgage finance, acquisitions, and dispositions of all types of commercial real estate assets nationwide for institutional investors. Prior to joining the Investment Manager in 2017, Mr. Stewart spent 11 years at Trimont Real Estate Advisors managing large complex assets and leading teams of asset managers responsible for the management and resolution of over \$3 billion of commercial real estate assets. Mr. Stewart began his career with BDO Siedman, Ernst and Young, Cornerstone Properties REIT, Ginn Development Company, and Prudential learning the fundamentals of commercial real estate accounting, finance, valuation, land development, brokerage, acquisitions, asset management, and dispositions. Mr. Stewart earned a Master of Accounting and Bachelor of Science in Business Administration from The University of North Carolina at Chapel Hill and earned his CPA license in 1996.



Stephen E. Good – National Director of Acquisitions, Partner

In his role as Director of Acquisitions, Stephen Good is responsible for the sourcing, underwriting, financing, structuring, and closing of commercial acquisitions in accordance with the Investment Manager's overall investment criteria. Mr. Good is an experienced real estate professional with expertise in development, asset management, construction management, acquisition/disposition, debt financing, leasing strategies, financial reporting and operations and has overseen over six million square feet of assets during his career. Mr. Good has managed portfolios of retail, office, multi-family, hotel, land and self-storage asset types. He has also been involved in successful turn-around roles of distressed assets in foreclosure or receivership. Since joining TerraCap in 2012, Mr. Good has over \$1 billion dollars in transaction volume and has overseen management of 10 million square feet of assets. In addition, he has helped secure over \$700 million dollars in debt origination for acquisitions or refinancing.

Prior to joining the Investment Manager, Mr. Good was a Senior Vice President with NAI Hallmark Partners in Jacksonville, Florida, a commercial real estate management and development firm. His previous roles with publicly-traded real estate investment trusts have included serving the executive team as a Financial Analyst for U Store It (NYSE: CUBE) and Developers Diversified Realty (NYSE: DDR) as a Property Accountant from July 2004 to July 2007. Mr. Good graduated from Kent State University with a Bachelor of Science in Business Administration in June 2004 with a focus on Corporate Finance and is a licensed realtor in the State of Florida. Mr. Good is also a veteran of the United States Army (1995-1998), serving as an Infantry Rifleman for the historic 7th Cavalry Regiment, while attached to the 1st Cavalry Division.



Susana Alvarez Davis, CPA – Director of Finance, Partner

Susana Davis, CPA, Director of Finance/Investor Relations has been with the firm since 2011 and oversees the financial, accounting and regulatory reporting and operations for investors, lenders and regulatory agencies for all Funds as well as various proprietary entities. Ms. Davis has been responsible for coordinating the launch of three funds, investor relations, the acquisition, financing and disposition of over 80 commercial real estate assets, all treasury functions as well as implementation of new software. She has been responsible for the selection and transition of fund accounting to a fund administrator as well as the management of the firm's third-party accountants. Prior to joining TerraCap, Ms. Davis's career was in real estate accounting and sales, where she was the Controller for Maks Realty, Inc., a real estate brokerage and investment organization, from 2004 to 2011. As Controller, Ms. Davis was responsible for the accounting and finance. As a licensed real estate professional, she was awarded top sales honors on multiple occasions. She also managed multi-million-dollar accounts in her role as a Senior Accountant at 21st Century Oncology, a large progressive national oncology organization, where she was responsible for accounts payable, accounts receivable and bank reconciliations from February 2010 to June 2010. Ms. Davis earned a Master of Science in Accounting and Taxation in and Bachelor of Science in Accounting (cum laude) from Florida Gulf Coast University. Ms. Davis has been a registered CPA in Florida since 2012 as well as a member of the FICPA.



Michael R. Davis – Managing Director, Partner

Michael R. Davis, Managing Director joined the Investment Manager at inception in July 2008 and has been a partner with Mr. Hagenbuckle for 13 years. He is head of research for the Investment Manager. His responsibilities include: identifying future growth trends, overseeing the commercial property due diligence process, qualifying specific property characteristics, research and financial modeling. Mr. Davis works closely with county and city staff with regards to land use, zoning, entitlement and also participates in county planning activities regarding economic development and growth. He is also responsible for managing hospitality assets including property improvement plans, product selection, general contractor oversight, third party management oversight, as well as general operation oversight.

Mr. Davis started his career in real estate finance in June 2005 as a mortgage broker at Platinum Coast Mortgage, a Naples, Florida based mortgage brokerage company. After becoming a licensed real estate professional in the State of Florida in and a member of the National Association of Realtors in March, 2007, Mr. Davis has been a principal and facilitator in sourcing, evaluating, acquiring and disposing over \$2 billion in private real estate transactions. Originally from Leesburg, Georgia, Mr. Davis graduated from Southeastern University with a Bachelor of Science in June, 2004 and has attended ongoing education at the Wharton School of Business in March, 2013. Mr. Davis is a former member of the Teamsters Union, Local 728.

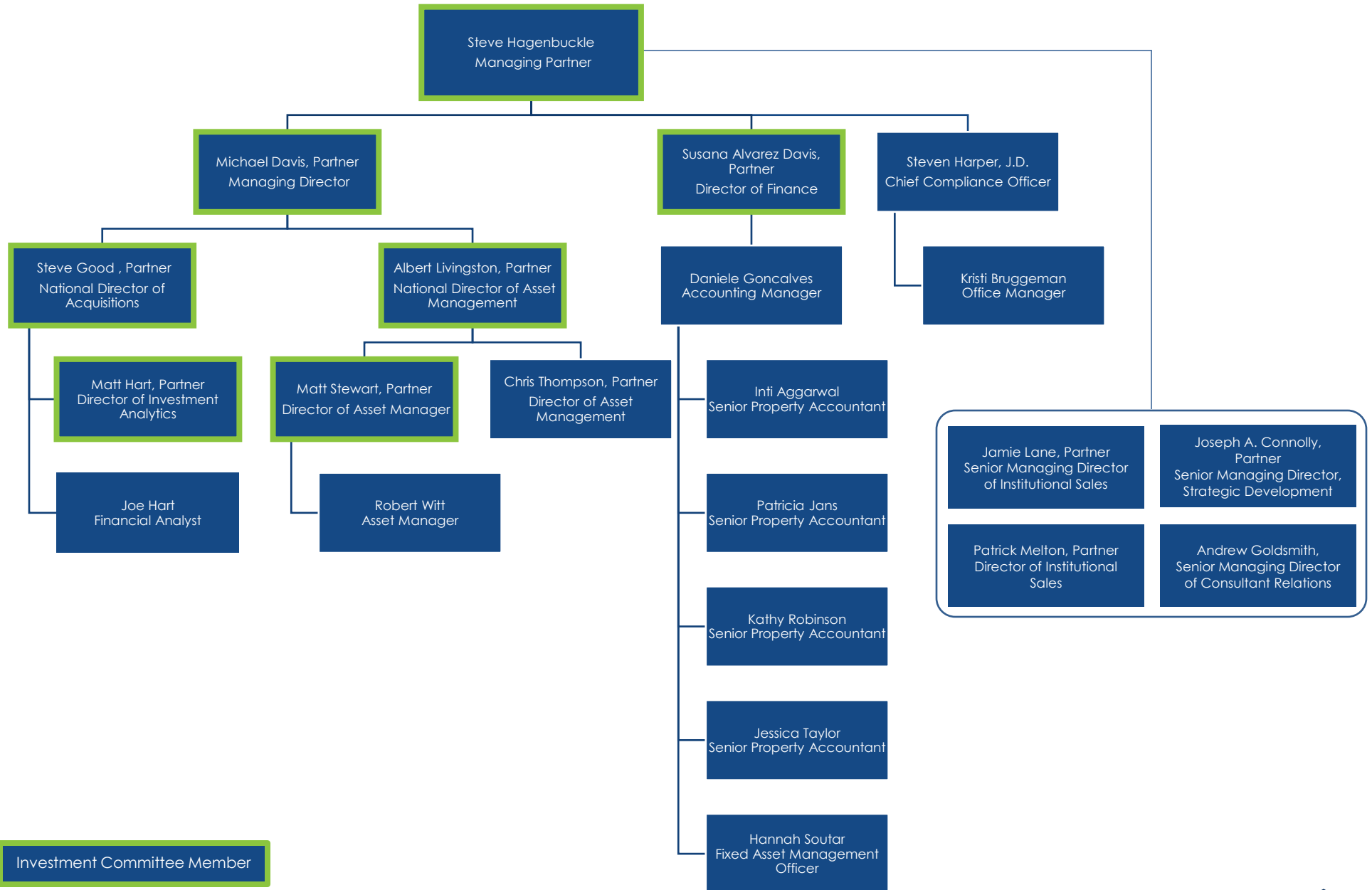


Matthew Hart, CFA® – Director of Investment Analytics, Partner

Matthew Hart, CFA®, Director of Investment Analytics, joined TerraCap in July 2014 as Financial Analyst after working as an Asset Management/Accounting Intern with TerraCap in the previous summer. He is responsible for the research and underwriting of potential assets, and coordinates with lenders to provide financing for purchases, assists with the closing of acquisitions and dispositions, tracks and maintains the data of owned properties, and supervises the creation of the quarterly business plans for each asset. Mr. Hart has supervised over \$900 million in acquisitions and dispositions of office, flex/industrial, hotel, and multifamily properties since joining the Investment Manager in 2014. He has also coordinated the closings of over \$500 million in debt financing for those acquisitions. Mr. Hart received his Bachelor of Science in Business Administration from the University of Florida with a concentration in Finance and a Minor in Accounting. The CFA designation is globally recognized and attests to a charterholder's success in a rigorous and comprehensive study program in the field of investment management and research analysis.



ORGANIZATION CHART



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Atlanta Office

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Brookhaven, GA 30329

Denver Office

3900 E. Mexico Ave., Suite 602
Denver, CO 80210

TerraCap is a member and supporter of the following state organizations:



IMPORTANT DISCLOSURES

This information is for illustration and discussion purposes only. It is not intended to be, nor should it be construed or used as investment, tax, or financial advice, any recommendation, or an offer to sell, or a solicitation of any offer to buy, an interest in any security, including an interest in TerraCap Partners V (HNW) LP and TerraCap Partners V (Institutional) LP collectively, ("Fund V") or in any other fund managed or advised by TerraCap Management, LLC or its affiliates ("TerraCap"). Any offer or solicitation of an investment may be made only by delivery of Fund V's confidential offering documents (collectively, the "Offering Documents") to qualified investors. The Offering Documents contain additional information, including information regarding certain risks of investing which are material to any decision to invest in Fund V. Prospective investors should review carefully and rely solely on the Offering Documents and should consult with their tax, legal, ERISA, and financial advisors before making any investment decision. An investment in Fund V is not suitable for all prospective investors.

Past performance of other funds managed by TerraCap or its affiliates is not indicative of future results. The performance reflected herein and the performance for any given investor may differ due to various factors including, without limitation, the timing of subscriptions and applicable management fees and performance-based compensation. No representation is made that Fund V will or is likely to achieve its objectives, that TerraCap's investment process or risk management will be successful, or that an investor in Fund V will or is likely to achieve results comparable to those shown or will make any profit or will not suffer losses or loss of principal. An investment in Fund V involves risks, as disclosed in the Offering Documents including the risk of complete loss. Fund V is an unregistered private investment fund that plans to invest in value-add real estate acquisitions in the South Atlantic, West Central South, and West Mountain regions of the United States, and is not subject to the same regulatory requirements as mutual funds, including requirements to provide certain periodic and standardized pricing and valuation information to investors.

Other Considerations:

As of the date of this Presentation, we continue to track the outbreak of the coronavirus ("COVID-19"), which the world health organization has declared to constitute a "public health emergency of international concern." The outbreak of COVID-19 has resulted in numerous deaths, adversely impacted global commercial activity and contributed to significant volatility in certain equity, debt, derivatives and commodities markets. For this reason, among others, as COVID-19 continues to spread, the potential impacts, including a global, regional or other economic recession, are increasingly uncertain and difficult to assess. In particular, recipients should note that the performance information presented herein should not be relied upon.

This document contains a preliminary summary of the purpose and principal business terms of Fund V; this summary does not purport to be complete and is qualified in its entirety by reference to the more detailed discussions to be contained in the Offering Documents. TerraCap has the ability in its sole discretion to change the strategies described herein.

The specific terms of an investment in Fund V are subject to the Offering Documents. Such terms may change from the time you receive these materials and the time you receive the Offering Documents.

No information is warranted by TerraCap or its affiliates or subsidiaries as to completeness or accuracy, express or implied, and is subject to change without notice. This document contains forward-looking statements, including observations about markets and industry and regulatory trends as of the original date of this document. Forward-looking statements may be identified by, among other things, the use of words such as "expects," "anticipates," "believes," or "estimates," or the negatives of these terms, and similar expressions. Forward-looking statements reflect TerraCap's views as of such date with respect to possible future events. Actual results could differ materially from those in the forward-looking statements as a result of factors beyond Fund V's control. Investors are cautioned not to place undue reliance on such statements. No party has an obligation to update any of the forward-looking statements in this document.

Charts, tables and graphs contained in this document are not intended to be used to assist the reader in determining which securities to buy or sell or when to buy or sell securities.

Investments are selected by, and will vary in the discretion of, TerraCap and are subject to availability and market conditions, among other factors. Portfolio information and characteristics of potential investments discussed may not be fully indicative of any future portfolios.

Return targets or objectives, if any, are used for measurement or comparison purposes and only as a guideline for prospective investors to evaluate a particular investment program's investment strategy and accompanying information. Targeted returns reflect subjective determinations by TerraCap based on a variety of factors, including, among others, internal modeling, investment strategy, prior performance of similar products (if any), volatility measures, risk tolerance and market conditions. Performance may fluctuate, especially over short periods. Targeted returns should be evaluated over the time period indicated and not over shorter periods. Inflationary trends, competition, and the supply of and demand for property investments in the target markets, interest rate levels, the availability of financing, potential environmental liability and other risks associated with the ownership, development and acquisition of property, including risks that tenants will not take or remain in occupancy or pay rent, changes in the legal or regulatory environment,

or that construction or management costs may be greater than anticipated. Targeted returns are not intended to be actual performance and should not be relied upon as an indication of actual or future performance.

Any statements regarding future events constitute only subjective views, are based upon expectations or beliefs, should not be relied on, are subject to change due to a variety of factors, including fluctuating market conditions, and involve inherent risks and uncertainties, both general and specific, many of which cannot be predicted or quantified and are beyond TerraCap's or Fund V's control. Future evidence and actual results could differ materially from those set forth in, contemplated by, or underlying these statements. In light of these risks and uncertainties, there can be no assurance that these statements are now or will prove to be accurate or complete in any way.

All performance results contained in this packet presentation are Net IRRs. See Part 2 of TerraCap's Form ADV for a complete description of the fees and expenses customarily charged by TerraCap. Please note that fees paid by Fund V to affiliates of TerraCap are not deducted from TerraCap's management fees.

This material is as of the date indicated, is not complete, is subject to change and does not contain material information regarding an investment in Fund V, including related risk disclosures. No representation is made with respect to the accuracy, completeness or timeliness of information and TerraCap assumes no obligation to update or revise such information. Certain information has been provided by and/or is based on third party sources and, although believed to be reliable, has not been independently verified and TerraCap is not responsible for third-party errors.

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Notes to Funds II, III and IV Related Portfolio Information. The portfolio detail and other information shown on pages [14-16] relates to TerraCap Partners II (TerraCap Partners II (Institutional) LP and TerraCap Partners II (HNW) LP, which invest pari passu) ("Fund II") as well as TerraCap Partners III (TerraCap Partners III (Institutional) LP and TerraCap Partners III (HNW) LP, which invest pari passu) ("Fund III") and TerraCap Partners IV (TerraCap Partners IV (Institutional) LP and TerraCap Partners IV (HNW) LP, which invest pari passu) ("Fund IV"), private funds advised by TerraCap that make value add investments in real estate and real estate-backed assets, primarily in the South Atlantic, West Central South, and West Mountain regions of the United States. The information shown about Funds II, III and IV are being provided for illustrative and information purposes only and should not be relied upon and do not represent and are not indicative of, Fund V's actual or future performance or the results that may be achieved by an investor in Fund V. There are material differences between Funds II, III and IV and Fund V, including with respect to their respective investment strategies and the material terms of the offering of their interests. A decision to invest in Fund V should not be based on the information presented regarding Funds II, III and IV. Past performance is not indicative of future results.

Information regarding related funds such as the information regarding Funds II, III and IV have inherent limitations, some of which are described below. One limitation is that the information shown does not reflect Fund V's actual portfolio and therefore does not reflect the impact that economic and market factors, including lack of liquidity or market disruptions, may have on investment decisions made for Fund V. There may be differences between Funds II, III and IV and the actual results that Fund V may achieve. There also may be a material difference between the amount of Fund V's assets at any time and the amount of assets managed in Funds II, III and IV, which difference may have an impact on the management of Fund V. No representation is made that Fund V would have built a similar portfolio as Funds II, III and IV had Fund V been in existence during such time, or that Fund V will maintain such investment strategy in the future; TerraCap will implement a strategy for Fund V that is materially different from Funds II, III and IV, and make different investments, or have Fund V invest in investments that it did not choose to have Funds II, III and IV invest in, or vice versa. To the extent of the material differences between TerraCap's management of Fund V and its management of Funds II, III and IV, the information shown herein is no longer as representative and its illustration value will decrease substantially.

Robert Gray, Non-Participating Owner. Robert Gray owns an interest in TerraCap and devotes a portion of his business time and attention to oversight of TerraCap's activities in respect of Fund II and Fund III. Mr. Gray will not devote any time or attention to Fund V, or to the oversight of TerraCap activities in respect of Fund V, and he otherwise will not be involved with Fund V. TerraCap believes that Mr. Gray's non-involvement with Fund V will not have a material negative impact on Fund V.

NCREIF PROPERTY INDEX - The NCREIF Property Index is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only. All properties in the NPI have been acquired, at least in part, on behalf of tax-exempt institutional investors - the great majority being pension funds. As such, all properties are held in a fiduciary environment.

RUSSELL 3000 INDEX - The Russell US Indexes, from mega cap to microcap, serve as leading benchmarks for institutional investors. The modular index construction allows investors to track current and historical market performance by specific market segment (large/mid/small/micro-cap) or investment style (growth/value/defensive/dynamic). All sub-indexes roll up to the Russell 3000® Index. The Russell US Indexes can be used as performance benchmarks, or as the basis for index-linked products including index tracking funds, derivatives, and Exchange Traded Funds (ETFs).

THE RETURN INFORMATION IN THIS INVESTMENT SUMMARY IS BASED IN PART ON CERTAIN ASSUMPTIONS, INCLUDING CASH FLOW PROJECTIONS THAT ARE SPECULATIVE IN NATURE, ARE UNAUDITED, MAY NOT REFLECT THE AMOUNTS THAT WILL ULTIMATELY BE RECEIVED BY INVESTORS, AND MAY DIFFER FROM CASH FLOW PROJECTIONS THAT WOULD HAVE RESULTED FROM AN INDEPENDENT EVALUATION OF THESE INVESTMENTS. PAST OR PROJECTED PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS AND AN INVESTMENT IN FUND IV MAY RESULT IN A PARTIAL OR TOTAL LOSS OF CAPITAL. CERTAIN INVESTMENTS ARE UNDERGOING OR HAVE PLANNED RENOVATIONS THE COSTS OF WHICH ARE NOT FINAL AND WHICH COSTS MAY CHANGE FROM THE AMOUNTS SUMMARIZED IN THIS SUPPLEMENT AND COULD ALTER PROJECTED INVESTMENT RETURNS AS SHOWN HERE OR OTHERWISE PRESENTED TO PROSPECTIVE INVESTORS. DETAILED PERFORMANCE INFORMATION IS ALSO AVAILABLE UPON REQUEST.

Certain Performance-Related Notes:

Fund I is excluded from this presentation as this fund was comprised solely of land investments, which differs from the Fund II, III, IV, and V strategy and as such is not reflective of the TerraCap platform going forward.

Net returns (IRRs and EMs) for Funds II, III and IV include a 100% return of capital. This includes the return of Capital Contributions with respect to asset-level Operating Expenses, Organizational Expenses, and Management Fees. Net returns project the impact of TerraCap's promote on an asset-by-asset basis and excludes fund-level expenses. IRRs are presented NET of carried interest fees.

Gross IRRs - With regards to gross returns presented under TerraCap Performance vs. Public Market Equivalents, gross Limited Partner returns are calculated by taking the aggregate of the Limited Partners' cash flows (including all contributions and distributions) and their current value, and then calculating an IRR based on those cash flows. The performance figures do not reflect the deduction of investment advisory fees; the client's return will be reduced by the advisory fees and any other expenses it may incur in the management of its investment advisory account, however, the management fee is returned before carried interest is distributed; the investment advisory fees are described in Part 2 of TerraCap's Form ADV.

Fund V target net returns reflect the waterfall schedule in the TerraCap Partners V LP – Summary of Key Terms in the Appendix.

Fund level IRR – takes into consideration the dates of all capital calls, all distributions, and the NAV of the fund as of the most recently audited financials. This provides returns as of a particular date for the entire fund.

Property level IRR table – this shows realized IRRs plus projected IRRs for properties that have not sold and takes the weighted average of the two. This provides projected property level returns.

Investor IRR – uses a specific investor's actual cash flows, and the NAV as of the most recently available audited financials. Each investor's cash flows may vary based on the date of their capital contributions to the fund. As an example, an investor that came into the fund earlier might have a lower IRR than one that came in later in the fund life. This shows returns as of a particular date for a particular investor.

Russell 3000 PME (Public Market Equivalent): utilizing the Russell 3,000 Index, an equity index that tracks the 3,000 largest U.S.-traded stocks, the PME represents if an investor made the same contributions and withdrawals into the Russell 3,000 during the same time period as they did into the respective TerraCap fund and what the resulting IRR is over that time period.

NCREIF Property Index PME (Public Market Equivalent): utilizing the NCREIF Property Index, a real estate market index that tracks the unlevered, U.S. property level returns of operating apartment, hotel, industrial, office, and retail properties, the PME represents if an investor made the same contributions and withdrawals into a portfolio that tracks the returns of the NCREIF Property Index during the same time period as they did into the respective TerraCap fund while utilizing the same leverage as that respective TerraCap fund and what the resulting levered IRR is over that time period.

CapEx Efficiency: represents for every \$1 spent on capital improvements, what percentage of that capital was added to the NOI of the fund. So, for every \$1,000,000 spent on capital improvements in TerraCap II, \$640,000 in NOI was created.

Direct Alpha Weighted by Capital Call: weighted average calculation of the IRR Direct Alpha weighted by the total capital called in each fund.

Direct Alpha Weighted by NAV: weighted average calculation of the IRR Direct Alpha weighted by the total quarterly Net Asset Value of each fund over the course of their respective fund life.