

MWRA EMPLOYEES' RETIREMENT BOARD MEETING

AGENDA

Thursday, August 25, 2022 10:00 a.m.
MWRA, 2 Griffin Way
Chelsea, MA 02150

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

OLD BUSINESS

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

NEW BUSINESS

- Item 3 Approval of Minutes – VOTE
- a) July 28, 2022 Minutes
 - b) July 28, 2022 Executive Session Minutes
- Item 4 Approval of Warrants – VOTE
- a) Warrant 8-2022
 - b) Warrant 8-2022A
 - c) Warrant 8-2022B – Payroll
- Item 5 Approval of Monthly Transfers 8-2022 – VOTE
- Item 6 Acknowledgement of retirement applications under G.L. c 32 §5 – VOTE
- a) Charles Blodget DOR 7/22/2022
 - b) George Norregaard DOR 7/23/2022
 - c) Anthony Balzano DOR 7/30/2022
 - d) Paul DiLuca DOR 8/3/2022
 - e) Paul Burr ridge DOR 8/6/2022
 - f) Raisa Goldin DOR 8/6/2022
 - g) Paul Halas DOR 8/12/2022
 - h) Thomas Doherty DOR 8/13/2022
- Item 7 Approval of 12(2)(d) Survivor Allowance for Brian McMahon spouse of Maria McMahon DOD 6/29/2022, 57 years of age with 12 years and 5 months creditable service – VOTE
- Item 8 Approval of Bank Reconciliations – VOTE
- a) June 2022
 - b) July 2022
- Item 9 Manager Due Diligence Presentations
- 10:30 a.m. a) Hamilton Lane
 - 10:50 a.m. b) Axiom
 - 11:10 a.m. c) ABS
 - 11:30 a.m. d) HarbourVest

**MWRA EMPLOYEES' RETIREMENT BOARD MEETING
JULY 28, 2022**

A meeting of the MWRA Employees' Retirement Board was conducted in-person on Thursday, July 28, 2022. Remote access was provided to the public via Zoom, with call-in information provided on the official Meeting Notice posted to mwraretirement.com and the MA Secretary of State's website. Participating in the in-person meeting were Board members James Fleming, Thomas Durkin, Kevin McKenna, Andrew Pappastergion, and staff members Carolyn Russo, Julie McManus, and Danielle DiRuzza. Mr. Zecha participated via remote access due to illness. Representatives from NEPC, Sebastian Grzejka and Kiley Fisher, Board Counsel, as well as members of the public attended. Mr. Fleming called the meeting to order at 10:02 a.m.

- 1) Call the meeting to order-roll call of members: Mr. Fleming, Mr. McKenna, Mr. Pappastergion, and Mr. Durkin present.
- 2) Standing Committee Reports
 - i. By-Laws Committee: No report
 - ii. Human Resources Committee: No report
 - iii. Special Committee, Stipend: No report
 - iv. Job Review Committee: No report
- 3) Approval of Minutes – VOTE
 - a) June 30, 2022

Mr. McKenna requested that on page 1919 under the vote that "CarVal" be replaced by "Polen."

On a motion made by Mr. Pappastergion and seconded by Mr. McKenna:
VOTED

to approve the Regular Session minutes of the June 30, 2022 meeting as submitted by the Retirement Coordinator, with the amendment to page 1919. 4-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, and Mr. Fleming voting yes.

- b) June 30, 2022 Executive Session Minutes

On a motion made by Mr. Pappastergion and seconded by Mr. Durkin:
VOTED

to approve the Executive Session minutes of the June 30, 2022 meeting as submitted by the Retirement Coordinator. 4-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, and Mr. Fleming voting yes.

4) Approval of Warrants – VOTE

a) Warrant 7-2022

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

VOTED

to approve Warrant 07-2022. 4-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, and Mr. Fleming voting yes.

b) Warrant 7-2022A – Payroll

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

VOTED

to approve Warrant 07-2022A. 4-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, and Mr. Fleming voting yes.

The Chair offered his thanks and acknowledgment to the Retirement Coordinator for implementing the COLA base increase within a week of the Board of Directors' approval.

5) Approval of Monthly Transfers 7-2022 – VOTE

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

VOTED

to approve the monthly transfers as presented and as recommended by NEPC. 4-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, and Mr. Fleming voting yes.

Mr. Zecha joined the meeting at 10:06 a.m.

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

a) Barry Homan DOR 07/08/2022

b) Laurence McInnis, Jr. DOR 7/9/2022

On an omnibus motion made by Mr. Pappastergion and seconded by Mr. Durkin:

VOTED

to acknowledge the two s. 5 retirements as detailed above. 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) Manager Due Diligence Presentations

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.

- a) Coho
- b) UBS
- c) Corbin
- d) Octagon

Wayne LeSage joined the call on behalf of Coho at 10:16 a.m. Mr. Grzejka cautioned Mr. LeSage that there are members of the public and/or media on the call, and to avoid discussion of any materials which may be considered proprietary. Mr. Fleming asked Mr. LeSage to provide an update as to the firm's personnel, philosophy, and performance. Mr. LeSage reported high client retention, and that the firm is now operating in an open office hybrid format. There have been no changes to the team or ownership. Mr. McKenna asked Mr. LeSage to explain the fact that more clients have been lost than gained. Mr. LeSage reported that the client relationship numbers have been steady, and stated that he would attribute the modest reductions to a general reduction to equity allocations due to market conditions. Coho's long-term client retention rate is 96%. Coho's relative value strategy is designed to protect capital. Over the long-term this thesis has held up, with 73.9 downside capture and 87.1 upside capture, as demonstrated on page 4. Being able to maintain that spread over a complete cycle should lead to greater return with lower risk. Page 6 shows the since-inception (2016) history of MWRAERS's investment, with an initial investment of \$19,337,412 and a current Market Value of \$45,478,203, including about \$18m in net gains and investment income, after additional investments and withdrawals. Page 7 demonstrates the since-inception outperformance of the fund as opposed to the Russell 1000 Value Index. Mr. McKenna asked if there was a similar chart showing Net-of-Fees performance, and Mr. LeSage stated that he would provide one to the Board. Mr. McKenna stated that the Standard Deviation Chart is very useful in demonstrating the importance of the role the Relative Value fund plays in the portfolio when growth has outperformed value over the last several years. Mr. LeSage stated that growth has taken the brunt of cyclical risk, and that Coho's portfolio is insulated from it. Inflation, and interest rate increases, most recently the 75bps increase yesterday, have adversely affected equities, and the question becomes what price you are willing to pay for earnings growth. Staples, healthcare and Utilities are "demand defensives." Coho is already positioned well for the higher-inflation, higher-rate environment and expects to make no drastic changes to the portfolio. Consumer cyclicals exposure has been modestly trimmed. Mr. Grzejka asked Coho about their ranking within their universe. Mr. LaSage shared a graphic on the screen demonstrating the risk/return among their peers. Mr. LeSage indicated that the outliers are assuming more risk, and Coho's objective is better

than market returns for lower risk. Mr. McKenna noted that relative to their peers Coho had been way down. Mr. McKenna then asked about the overlap in the Large Growth and Large Value portfolio. Mr. LeSage used Dollar General as an example of a security which was appropriate to both categorizations. Coho saw mismanagement and value pricing while the large growth manager focused on growth and expected revenue in an inflationary environment. Mr. LeSage stated that unlike during other financial crises, the Fed is poised to raise rates to whatever they want in order to slow inflation, without considering the market's response to the hikes. Mr. LeSage thanked the Board for their patience, and for its faith in Coho's long-term strategy and performance. Mr. LeSage signed off the call at 10:37 a.m.

Mr. Grzejka clarified that in the past there were two securities which were held in both the Polen and Coho portfolios, but that there are none at the present. He cited Dollar General as an example. It had a lower valuation, higher book, was demand-defensive, was somewhat insulated, and has growth expectations over the next 5-10 years. Mr. McKenna noted that Nestle and O'Reilly were crossover names in the past. Mr. McKenna asked if it would be advisable for the Board to consider moving away from the more concentrated portfolios to a more broad strategy with 200 names, for example. Mr. Grzejka stated that NEPC will address that in the upcoming RFP for large Cap managers.

At 10:41 a.m. Seth Toney and Brandon Melbye from UBS joined the call. Mr. Grzejka cautioned the participants that there are members of the public and/or media on the call, and to avoid discussion of any materials which may be considered proprietary. Mr. Toney reported that for the month of June, the UBS A&Q Neutral Alpha strategy was up 43bps, and is down .23% YTD, outperforming the index. Equity Hedged, Credit, and Relative Value proved to be drags on performance, but the S&P is down roughly 19% YTD while A&Q is flat over the same period. Relatively speaking, the portfolio has a lower beta. The Trading category is positive 1.9% YTD, and active management has benefitted the portfolio over the past year. Inflation is now more than a trend, and the fund has found opportunities in commodities and currency management. The strategy is an "all-weather" approach regardless of the micro or macro environment. Mr. McKenna asked if the return numbers are as of May, and Mr. Grzejka referred Mr. McKenna to page 4 of the UBS presentation. Mr. Toney stated that preliminary numbers for June suggest the fund will be .43% positive for the month of June. Mr. McKenna asked Mr. Toney to forward June performance once it becomes available. Mr. Grzejka reminded Mr. McKenna that A&Q is a neutral alpha, low-beta strategy so there may be headwinds, but is expected to outperform in volatile markets. Mr. Toney remarked that is a fair assessment and thanked Mr. Grzejka. UBS signed off the call at 10:54 a.m.

Mr. McKenna asked about the reporting lag stating by showing May numbers if June was an off month may present UBS in an artificially positive light. Mr. Grzejka stated that the Flash shows an estimated June return, and commented

that UBS has to wait for all of the underlying managers to report in before they can finalize return numbers.

At 10:57 a.m. Carrie Napoletano and Craig Bergstrom joined the call representing Corbin. Chairman Fleming asked that they review firm, philosophy and performance. Mr. Grzejka reminded the presenters that there are members of the public and/or media on the call, and to avoid discussion of any materials which may be considered proprietary. Ms. Napoletano stated that the firm has been hiring opportunistically, with new hires on the investment and analyst teams. Jeff Park departed earlier this year for an opportunity in the traditional asset space. AUM are slightly off peak. Mr. Bergstrom stated that performance has been disappointing, because although it has been positive, it is still underperformance relative to the benchmark. The last 8 months have been challenging, and he attributed the underperformance to the fact that the strategy is not a neutral strategy and therefore carries a .2 to .3 beta to equity. When the S&P is down nearly 20%, Corbin would expect to lose, just not this much, and Mr. Bergstrom believes the losses to be attributable to poor stock selection. Mr. Bergstrom indicated that nothing is fundamentally broken, the underlying managers have a tremendous long-term track record, and are well-positioned to recover over time. He expects that the fund will recover over the next 1-3 years. While frustrating, Corbin is confident in the long-term outlook. Most losses are mark-to-market and not realized losses. They are disappointed in the performance of the underlying managers, but they will be paying no incentive fees until the fund has recovered. Corbin has conviction in their positioning, and expects the month of July to be positive. Mr. Fleming asked about performance and Mr. Bergstrom referred the Board to page 6 of the presentation. Mr. Bergstrom noted that while the fund has outperformed the S&P, but has underperformed investment grade bonds. The goal is to produce high single-digit performance. Chairman Fleming thanked the presenters and the representatives from Corbin signed off the call at 11:17 a.m.

At 11:19 a.m. Paul Maloney, Doug McDermott and Mike Nechamkin joined the call representing Octagon. Mr. Grzejka reminded the presenters that there are members of the public and/or media on the call, and to avoid discussion of any materials which may be considered proprietary. Mr. Fleming asked the presenters to review the firm, philosophy, and performance. Mr. McDermott began by stating that at the time of MWRAERS's initial investment, the firm had \$25bn AUM, and now stands at \$32bn. The Senior Secured Credit Fund in which MWRAERS is invested has roughly \$1bn AUM. There has been continuity of personnel with 3 of the 4 investment committee members having served their entire careers. Mr. Nechamkin referred the Board to page 18, noting that this has been the most volatile period in years, and the worst first half year on record, driven by market volatility, large scale sell-offs, 2nd quarter fundamental concerns about the economy, and below investment grade debt. In July there has been a bit of a snap-back. The fund has been very actively seeking to upgrade credit quality and better position the fund to protect assets, take advantage of

dislocation opportunities and avoid losses and defaults. There have been a large number of underperforming home equity loans, and the fund has lagged the benchmark. Octagon has no intention to change their strategy because they believe the market conditions to be an aberration, but in the meantime are upgrading credit, reducing credit risk, are underweight CCC, and has increased exposure in some sectors. Octagon hopes to close the performance gap using active management. There have been few 12-month down periods which did not trade up in the following 12 months. Mr. McDermott thanked the Board and the presenters signed off the call at 11:33 a.m.

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.

8) NEPC
Flash Report as of 6/30/22

Mr. Grzejka stated that volatility has prevailed over the past 6-9 months. There was a large sell-off across the board in June, but the portfolio did provide some protection on the downside. Polen is underperforming, leading to the question as to whether a concentrated style is the right one. Prior large cap managers were 100+ holdings, but we've seen that style does not outperform the index, but rather provides index-like returns. In good markets, Polen will outperform less concentrated managers. Polen and Coho are coming up on the seven-year mark, so we will need to do a review of whether the risk profile is appropriate, then do an RFP, review all allocations and determine next steps. Mr. McKenna asked if we are doing an RFP if PERAC would allow the Board to change the criteria to focus on risk and standard deviation and tailor it to look at less concentrated managers, and Mr. Grzejka responded "probably not" but the Board may look at performance history, quantitative data, fundamentals, then choose a style. There is a question of month in, month out expectations moving forward, and the Board has to be cognizant of a periodic Growth/Value tilt of core managers. In international, currency exchange has been a headwind for US exports and risk assets. Garcia Hamilton has shifted position to longer duration. Rates have presented headwinds for the Fixed Income managers generally. Mr. McKenna stated that he has received fact sheets from another manager, they've never lost over the past 7 years, are up 6% per year, and asked if NEPC can vet other options. Mr. Grzejka responded that NEPC has looked at that fund in question and stated that it is not a traditional long-only, but rather a long/short diversified fixed income strategy which might be appropriate as a complement to a Core manager. Buying high is the worst time to get into a fund, and performance will revert to the mean. Mr. McKenna stated it may be high but he hasn't seen any negative numbers and we are now seeing them from Loomis. Mr. Grzejka stated that NEPC will need to analyze whether the strategy will continue to generate similar returns, and that even if they have not had a recent negative period, it is still possible. Mr. McKenna stated that PRIT is invested in

the product. Mr. Grzejka stated that Fixed Income could be moved up in the seven-year cycle if necessary. He continued that Real Estate has produced good returns for Q1 and that the PE portfolio has had a lot of sizeable calls this month. NEPC has made no rebalance recommendations for the month. Mr. McKenna asked about the appropriation receipts. Mr. Grzejka stated that NEPC does not believe we should rebalance to target at this time, that perhaps we are waiting for "the next shoe to drop," and advises a wait and see approach. We are in a technical recession, although there has been some positive news. For now NEPC is comfortable at a cash level of roughly 3% including the appropriation. Mr. Grzejka concluded his presentation at 11:52 a.m.

Chairman Fleming declared a recess, since the Board is ahead of schedule and the legal presentation is scheduled for 12:30 p.m.

Attorney Gibson joined the meeting and the meeting resumed at 12:30 p.m.

9) Legal

a) Sean Scott Section 7 Retirement Review

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

VOTED

to convene in Executive Session under purposes 1 and 7 regarding the application of Sean Scott for accidental disability retirement. 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.

The Board convened in Executive Session at 12:30 p.m.

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

VOTED

to return to open session. 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.

The Board returned to open session at 12:59 p.m.

Chairman Fleming announced the vote by the Board in Executive Session to seek clarification as to causation and to have Staff prepare an ordinary disability estimate for Mr. Scott.

b) Shift Differential Agreement re. Regular Compensation

Attorney Gibson reported that PERAC's legal unit is still working on a formal opinion in regard to the temporary shift differential issue. Attorney Hill had sent a response to the Executive Director stating that it would not be regular

compensation until it is made permanent, but Attorney Gibson intervened and went to PERAC to discuss the matter with Legal Unit Staff.

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

VOTED

to table the matter of the temporary shift differential pending receipt of PERAC's formal opinion. 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.

c) Response to PERAC Remand re. John Burke Section 7

Attorney Gibson submitted a draft response to PERAC's remand regarding Mr. John Burke. Mr. McKenna suggested a correction to the typographical error in the final paragraph.

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

VOTED

to submit to PERAC the response drafted by Board Counsel to the remand regarding John Burke, as amended. 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.

d) 91A Termination Hearing re. David Jackson

Mr. David Jackson, who was scheduled for a 91A hearing, was not on the call. Board Counsel questioned whether Mr. Jackson was duly notified. The Retirement Coordinator reported that the member was notified of termination and of the hearing by mail, and that she had made several unsuccessful attempts to contact Mr. Jackson by phone. The member is annually on PERAC's list of those not in compliance with the 91A reporting requirements, and Board Counsel stated that the Board has no discretion to terminate effective April 15th. The Executive Director asked whether the Board may continue to pay DOR. Attorney Gibson said we may not. The Executive Director asked about whether Section 19 would apply. Attorney Gibson stated it would have to be a lien, and the Executive Director responded that it is, for Child Support. She also questioned whether the health insurance premiums may continue, since there are dependents on it, and suspending payment could jeopardize their eligibility. Attorney Gibson stated he would check on that.

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

VOTED

to send Mr. Jackson another termination letter including meeting participation instructions, via Certified Mail, and to try to determine whether the Board may continue to pay the DOR Child support and insurance premiums. 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.

The Executive Director noted that because Mr. Jackson also has multiple uncashed checks over 180 days old, the Board has more than sufficient outstanding amounts to recover in full the balance to be withheld due to termination effective April 15th, even after continuation of DOR and insurance payments.

Attorney Gibson reported that the Governor signed the budget but returned several items, and Counsel does not yet know which ones were returned. There were several retirement-related items included initially, such as adding a public safety representative to the PRIM Board, a one-time 5% COLA, and a provision holding harmless retirees adversely affected by Vernava.

The pandemic-era Open Meeting Law waiver was extended to March 2023. Chairman Fleming stated that a regulation relative to electronic signatures was discussed at MACRS, as were buyback regulations. The Chair directed Counsel to create draft regulations for the Board's review. The Chair also asked about doing formal Findings of Facts for disability retirements, and Board Counsel responded that they are only required for Involuntary Retirements and Accidental Deaths. Mr. Zecha reported that the 5% COLA was one of the items returned on the basis that it did not include language to require the approval of the legislative body. Attorney Gibson signed off the meeting at 1:27 p.m.

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

VOTED

to adjourn the July 28, 2022 meeting of the MWRA Employees' Retirement Board. 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. The meeting was adjourned at 1:27 p.m.

The following communications were distributed to the Board for their review:
 PERAC MEMO #17/2022 – Mandatory Retirement Board Member Training – 3rd Quarter 2022
 PERAC MEMO #18/2022 – Expiration of Open Meeting Law Waiver
 PERAC MEMO #19/2022 – Extension of Open Meeting Law Waivers
 PERAC MEMO #20/2022 – Reinstatement to Service under G.L. c. 32 § 105

The Board reserves the right to consider items on the agenda out of order. The listing of items is those reasonably anticipated by the Chair to be discussed received at least forty-eight (48) hours prior to the meeting. Not all items listed may in fact be discussed and other items not listed may also be brought up for

discussion to the extent permitted by law. Items identified for discussion in Executive Session may be conducted in open session, in addition to, or in lieu of discussion in Executive Session.

Date of next scheduled Retirement Board meeting is Thursday August 25, 2022, 10:00 a.m., Chelsea

James M. Fleming, Elected member

Thomas Durkin, Appointed Member

Kevin McKenna, Elected Member

Andrew Pappastergion, Ex-Officio Member

Frank Zecha, Fifth Member



NEPC, LLC

Firm: Hamilton Lane

Strategy/Product: Hamilton Lane Secondary Fund V, L.P

Client: Massachusetts Water Resources Authority Retirement System

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 all materials submitted in relation to MWRA Retirement System may be subject to disclosure consistent with Massachusetts Public Record laws.

Firm/Organization

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

We are a publicly-traded independent firm. In 2003, Hamilton Lane began the process of transitioning the company from being a firm owned by a few to that of a firm with broad ownership across senior management. Prior to 2003, Hamilton Lane was majority owned by its founders, and over time transitioned to broader employee equity ownership. In early 2017, we conducted an initial public offering through our holding company, Hamilton Lane Incorporated (HLI), whose shares are listed on NASDAQ.

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

Our existing client accounts and information is confidential.

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

None of Hamilton Lane's products have been discontinued. Over the past year, we have launched Hamilton Lane Strategic Opportunities Fund VII, Hamilton Lane Secondary Fund VI, and Hamilton Lane Impact Fund II. In terms of funds that have closed, the Hamilton Lane Infrastructure Opportunities Fund, which seeks to build a diversified portfolio of infrastructure investments primarily through co-/direct investments and secondary investments, held its final close on June 30, 2022.

Since our firm's inception, we have launched more than 49 commingled products. Please see the following list of our broadly-marketed commingled funds currently in market:

Hamilton Lane Secondary Fund VI L.P. The fund is a diversified portfolio of secondary investments. The Fund is targeting total commitments of \$5.0 billion and will employ the well-established and proven strategy we have effectively executed over our 20 year-history of investing in secondaries.

Hamilton Lane Equity Opportunities Fund V is a diversified direct equity investment fund with a SMID focus. The 2020 vintage Fund came to market in 2020 and is a continuation of our prior co-/direct investment fund series.



Hamilton Lane Impact Fund II L.P. seeks to make investments with a dual objective of generating attractive risk-adjusted returns as well as a measurable social and environmental impact, as evaluated at the time of investment. The Fund is the continuation of our Impact series that closed our inaugural fund in 2020.

Hamilton Lane Strategic Opportunities Fund VII L.P. is a transactional fund aimed to create a portfolio biased toward shorter-duration exposures and downside protection, including a current pay component. We successfully launched and raised our seventh fund in the annual series in 2021 with it expecting to hold its final close in 2022.

Hamilton Lane Global Private Assets Fund* is an evergreen fund designed to give investors a unique opportunity to access the private markets through a single commitment, while offering quarterly defined liquidity. The Fund launched in 2019 and experienced significant growth throughout 2020 and 2021.

Hamilton Lane Private Assets Fund** is a closed-end tender offer evergreen fund designed to give U.S. qualified investors a unique opportunity to access the private markets through a single commitment, while it seeks to offer quarterly limited liquidity. The primary investment objective will be to generate capital appreciation over the medium- and long-term through investments in private assets globally. The Fund launched in December 2020. The opportunistic allocation allows us to participate in opportunities that: gain attractive asset exposure, leverage our relationships and advantages, in addition to fitting the structural needs of the Fund’s investors.

**The Global Private Assets Fund is not available to U.S. investors.*

*** The Private Assets Fund is available to U.S. investors.*

Furthermore, please find our anticipated schedule below for the following years.

Product Solutions In and Coming to Market ¹		2021	2022	2023
Direct Credit Funds	Strategic Opportunities Fund VII		Q4 2021 – Q2 2022	
	Strategic Opportunities Fund VIII			Q3 2022 – Q2 2023
Direct Equity Funds	Equity Opportunities Fund V	Q4 2020–Q3 2022		
Evergreen Funds	Global Private Assets Fund (GPA)		Open-ended Fund	
	Private Assets Fund (PAF)		Closed-ended Fund	
Impact Funds	Impact Fund II		Q2 2021–Q4 2022	
Infrastructure Funds	Infrastructure Opportunities Fund	Q3 2020–Q2 2022		
Secondary Funds	Secondary Fund VI		Q4 2021–Q1 2023	

¹ Estimated; actual fundraising timing will vary. Boxes represent the period the fund is in market.



4. Are any products capacity constrained?

No. Our aim is always to achieve the highest level of client service and to ensure that investment capacity keeps pace with the best investment opportunities. Our discretionary service line includes customized separate accounts, as well as dedicated commingled funds. We intend to further develop our solutions offerings to meet our clients' evolving needs and respond to changing market conditions. To achieve this, we evaluate prospective business relationships according to many factors, including managing access/allocation as well as firm coverage capabilities. Within our commingled fund offerings specifically, we offer a wide array of solutions so that investors can access the market. We are dedicated to continuing these service lines with current and future funds that are designed to the growing needs of clients and investors.

To support our efforts, our deal flow is at the core of our process. We have maintained a consistent and expansive level of deal flow across strategies. This ensures that we have the ability to not only access those deals that we feel are best in class, but also a diversified mix of opportunities.

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

There is no material business-related litigation or regulatory action against the firm, affiliates or employees at this time. Such matters would be found in our Form 10-K, Form 10-Q and/or subsequent filings that we submit to the U.S. Securities and Exchange Commission (SEC) as required by the SEC's disclosure rules. For ease of reference, please refer to: Hamilton Lane INC CIK#: 0001433642 (See: all company filings).

6. Describe your diversity, equity and inclusion efforts with regard to the firm and its employees.

Diversity, Equity and Inclusion has been at the core of Hamilton Lane's culture since our firm inception in 1991. Fulfilling our corporate mission of 'Enriching Lives and Safeguarding Futures' requires tapping into the collective sum of the individual and unique life experiences, knowledge, self-expression, capabilities and talent that each of our employees bring to their work every single day.

To that end, Hamilton Lane fosters, cultivates and preserves a culture of diversity, equity and inclusion where employees are able to do their best work because they are encouraged to bring their entire selves into the workplace.

We embrace our employees' differences across age, color, ethnicity, family or marital status, gender identity or expression, language, national origin, physical and mental ability, political affiliation, race, religion, sexual orientation, socio-economic status, veteran status, and other characteristics that make our employees – and, by extension, our firm – unique.

Our commitment to diversity, equity and inclusion extends from our workplace into the communities in which we live and the industry in which we operate. Guided by our corporate value of 'Do the Right Thing,' we have an obligation to work toward a more inclusive and equitable Private Markets asset class, and toward social justice across all the geographies we serve.

"The Hamilton Lane All" Policy ("HL All") sets out a comprehensive framework to intentionally embed diversity, equity and inclusion into our company values, culture and practices.



HL All is a five-pillar strategy that includes:

1. **Workforce Diversity:** Ensure that diversity, equity and inclusion is supported by Hamilton Lane's recruiting, hiring, development and retention practices.
2. **Training and Development:** Incorporate learning and awareness of cultural competency, implicit bias and inclusion into all employee lifecycle experiences.
3. **Workplace Inclusion:** Strive for a work environment in which all individuals are treated fairly and respectfully, have equal access to opportunities and resources, and can contribute fully to the organization's success.
4. **Culture and Accountability:** Foster a culture of inclusion and engagement by clearly setting expectations, and rewarding and recognizing actions that promote DE&I as indelible components of our employment and commercial brand.
5. **Supplier Diversity:** Build relationships with, and purchase goods and services from, certified diverse enterprises owned by minorities, women, veterans and LGBTQ+ that can help Hamilton Lane succeed and achieve our growth and strategic objectives.

All Hamilton Lane employees share a responsibility to promote workplace civility and treat others with dignity and respect at all times. All employees are expected to exhibit conduct that reflects inclusion during work, at work functions, events, and meetings on or off the work site, and at all other company-sponsored and participative events.

Any employee found to have exhibited any inappropriate conduct or behavior against others will be subject to disciplinary action, up to and including termination.

Employees who believe they have been subjected to any kind of discrimination or harassment that conflicts with Hamilton Lane's policies and initiatives should seek immediate assistance from a member of management or the HR team.

Additionally, Hamilton Lane Women's Exchange (HLWe) is a firm committee that creates experiences designed to connect Hamilton Lane women together to support their development and success. The team plans a variety of career development events throughout the year.



Firm Initiatives & Results



Council focused on driving D&I initiatives



Series provides outside perspectives on D&I issues



Event introducing undergraduate women to our industry



HL Women's Exchange is an Employee-led organization for peer-to-peer mentoring



Program dedicated to hiring recent college grads



Mentorship program open to all employees

We would be happy to provide a copy of our Diversity, Equity and Inclusion Policy upon request.

Portfolio Management Team

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

There have not been any departures at the Managing Director level nor any senior individuals managing the portfolio in the last year as of August 1, 2022.

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

There are no expected departures at this time. In terms of additions to the team, we generally seek to expand our team as needed and opportunistically throughout the various levels. Within the past year, we have expanded our global team by hiring several junior members to both the investment and legal teams focused on Secondaries.

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 in the past year ending July 30, 2022.

Philosophy

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

N/A

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.).**

Shown in presentation.

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

Hamilton Lane Fund Name	Status	Commitments (M)	Commitments (#)	Final Close Date
Hamilton Lane Secondary Fund I	Inactive	\$359.4	17	08/01/08
Hamilton Lane Secondary Fund II	Liquidating	\$584.8	47	08/05/09
Hamilton Lane Secondary Fund III	Realization Phase	\$900.0	71	09/03/13
Hamilton Lane Secondary Fund IV	Post-Investment Period	\$1,922.3	115	06/23/17
Hamilton Lane Secondary Fund V	Investment Period	\$3,929.2	153	02/15/21

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

Our existing client accounts and information is confidential.

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.**

Hamilton Lane has been an active participant in the secondary market since 2000, with a long and successful track record of evaluating and managing secondary



investments for our funds and clients. Hamilton Lane has an experienced and tenured team with a proven track record across market segments and has completed more than 320 secondary transactions.

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

In our view, it is evident that the secondary market remains stable and has a healthy supply/demand dynamic with more deals than available capital, which has been relatively consistent over the past five years.

Market Growth:

- Secondary volume for 1H 2022 was \$57B, surpassing the record \$48B in 1H 2021.
- LP deals accounted for 58% of deal volume for the first half, as LPs remain over allocated to private equity and are increasingly bringing deals to market.

Supply Demand:

- With broad market acceptance continuing to drive secondary supply growth, the secondary market has never been more undercapitalized than it is today.
- Currently, there is only around \$100-\$125 billion¹ of dry powder, which is less than 2021 transaction volume and still just a small fraction of the \$6+ trillion of NAV in the private markets.

Pricing:

- Pricing has declined across all strategies since the beginning of the year, most notably for venture funds, driven by economic uncertainty.
- It is expected that pricing declines will moderate in 2H 2022 as valuations become clearer.

We believe today's market conditions, characterized by the global growth of private markets and more active management of private market allocations, lend themselves to the strengths of Hamilton Lane's differentiated approach. Hamilton Lane believes that secondaries will continue to be a compelling portfolio mechanism for buyers and sellers alike and will remain an important component of private equity.

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



As we construct private markets portfolios for clients, we keep a keen eye on developments in the global economy, the state of liquid asset markets, as well as factors unique to specific private strategies and regions around the world.

While we continue to see a tremendous amount of deal flow in the secondary market, the deal completion rate slowed in Q2 2022 as the market paused to digest volatility and lower pricing. Pricing has declined across the board since the beginning of the year; however, we anticipate volumes increasing in the second half of the year as buyers and sellers gain visibility into second quarter valuations and performance. To the extent June valuations come down to account for the current environment, optimal discounts could be palatable, further supporting deal activity.

Deal flow is expected to remain strong, as seeking liquidity and capital via the secondary market will continue to be a priority for both LPs and GPs in the current environment.

With broad market acceptance continuing to drive secondary supply growth, the secondary market has never been more undercapitalized than it is today. Currently, there is only around \$100-\$125 billion¹ of dry powder, which is less than 2021 transaction volume and still just a small fraction of the \$6+ trillion of NAV in the private markets. There is a tremendous amount of potential secondary opportunity relative to the capital available to execute on those opportunities. This dynamic is creating an attractive opportunity from a buying perspective.

For LPs in particular, the challenge will be determining what price they are willing to accept in order to solve their increasing over-allocation issues. What was an opportunistic exercise in recent years is set to become more tactical and need-based. LPs are overallocated to private equity, driven by the decline across many asset classes aside from private equity, which did not move materially in Q1. This dynamic should support LP interest deal flow in the next several quarters as LPs rebalance their portfolios and maintain their private markets commitment pacing.

Similarly, GP-led/complex transactions show no signs of slowing. The benefits to GPs (providing liquidity to LPs, holding onto their best/most resilient assets, developing and strengthening strategically important relationships) are all magnified in the current market environment.

The Current Secondary Market Opportunity:

- More options for buyers coupled with attractive supply/demand dynamics
- The uncertainty and need for liquidity will bring a wave of opportunities to buy at lower prices/valuations
- Higher quality funds sold more frequently than ever as LPs need to manage their portfolios while being price sensitive



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

Please see the Experience slide in our presentation that shows the MWRA's account history.

¹ Source: Evercore 2021 YE Survey Results

**HAMILTON LANE
CONFIDENTIAL & PROPRIETARY INFORMATION**

Access and/or use of these materials ("Confidential Information") by you and/or your authorized representatives who have a need to know (together, "You"), is solely for the purpose of evaluating our investment solutions ("Review"). You shall keep the Confidential Information strictly confidential and shall not disclose, in whole or in part, or use, directly or indirectly, any of the Confidential Information in any other manner and/or for any other purpose. You shall be responsible for any breaches of this provision. Hamilton Lane provides investment management services through Hamilton Lane Advisors, LLC, an SEC-registered investment advisor.



Hamilton Lane®

Secondary Fund V Update

Presentation to: Massachusetts Water Resource Authority Retirement System

August 2022

Investing exclusively in the private markets for 30 years

\$901.1B*

Assets under management & supervision

900+

Clients and investors across 40+ countries

20

Global offices

~\$37B¹

Capital deployed in 2021

122,000+

Portfolio companies monitored

17,000+

Funds in database

OUR MISSION & VALUES

We enrich lives & safeguard futures



Do the right thing



Integrity, candor and collaboration



A spirit of competition that inspires innovation



Pursuit of excellence



Promoting equity and inclusion from within

As of 3/31/2022

*Inclusive of \$106.4B in assets under management and \$794.7B in assets under supervision as of March 31, 2022

¹The 2021 capital committed includes all primary commitments that closed during the year 2021 for which Hamilton Lane retains a level of discretion as well as nondiscretionary advisory client commitments for which Hamilton Lane performed due diligence and made an investment recommendation.

Secondaries Platform

We are a long-standing, successful secondary franchise that benefits from being attached to one of the world's leading private markets platform.

Our investment teams collaborate across our platform sharing meaningful communication and real-time information

✓ Experience

✓ Credibility

✓ Integrated & aligned investment teams

HAMILTON LANE HAS A 22 YEAR HISTORY INVESTING IN SECONDARIES

\$14.6B+

Secondary AUM*

310+

Secondary Transactions Completed

35

Team Members**

Global Presence¹



PLATFORM DRIVES DEAL FLOW

Secondary Deal Flow Since 2019²

\$605B

Reviewed

1,700+

Deal Reviewed

~1%

Selection Rate

We see the market, have the tools and expertise to execute and the flexibility to invest in all segments and geographies.

As of March 31, 2022 unless otherwise noted

*Total Secondary AUM = (discretionary and non-discretionary AUM + Unfunded).

**Includes Secondary Investment Committee Members

¹ Offices where Secondary Investment Team members are located

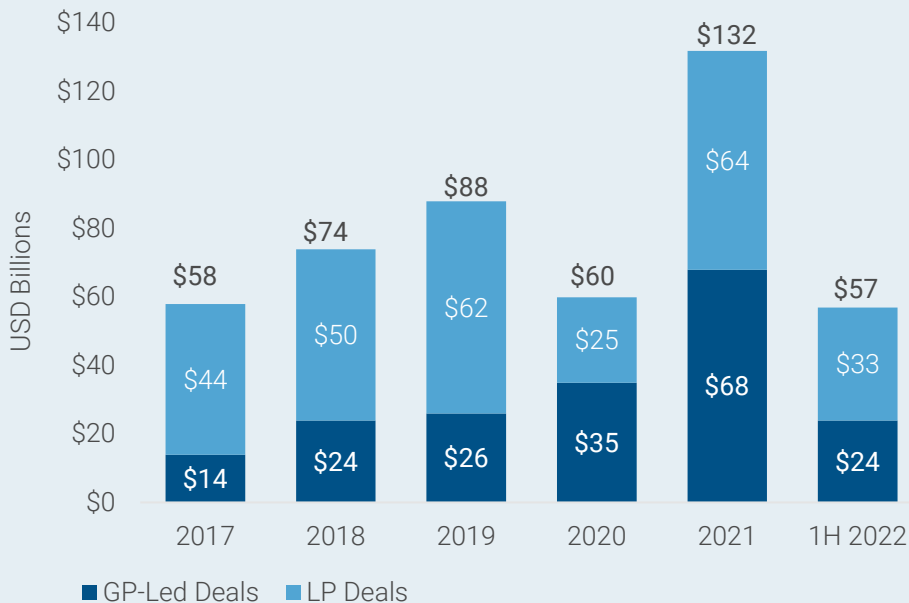
² January 1, 2019 – June 30, 2022

Secondary Market Update

Market Volume

- Secondary volume for 1H 2022 was \$57B, surpassing the record \$48B in 1H 2021.
- LP deals accounted for 58% of deal volume for the first half, as LPs remain over allocated to private equity and are increasingly bringing deals to market.

Secondary Market Volume



Source: Jefferies Global Secondary Market Review (July 2022)

Supply/Demand

- With broad market acceptance continuing to drive secondary supply growth, the secondary market has never been more undercapitalized than it is today.
- Currently, there is only around \$100-\$125 billion¹ of dry powder, which is less than 2021 transaction volume and still just a small fraction of the \$6+ trillion of NAV in the private markets.

Secondary Market Annual Capital Overhang

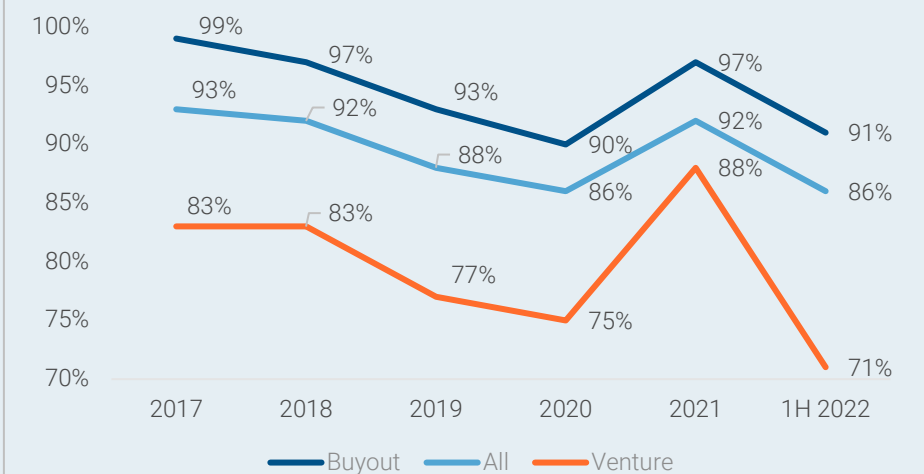


Source: Hamilton Lane Database (January 2022)

LP Interest Pricing

- Pricing has declined across all strategies since the beginning of the year, most notably for venture funds, driven by economic uncertainty.
- It is expected that pricing declines will moderate in 2H 2022 as valuations become clearer.

LP Portfolio Pricing (% of NAV)



Source: Jefferies Global Secondary Market Review (July 2022)

¹ Source: Evercore 2021 YE Survey Results

Secondary Fund V Update

Relationship Overview

MWRA Employees' Retirement System made a commitment to Hamilton Lane Secondary Fund V in 2020



Investor Experience

- Net IRR¹: 56.5%
- TVPI²: 1.5x
- DPI²: 0.14x
- Contributions²: \$5.5M | Percent Funded: 60%
- Distributions² \$0.8
- Net Asset Value¹: \$7.2M
- Total Value²: \$8.0M

Cash Flow Activity

- During Q2 2022, Fund V issued a distribution for \$0.2M
- In Q3 2022, Fund V called ~3% of commitments (\$0.3M).

¹ As of March 31, 2022
² As of August 1, 2022

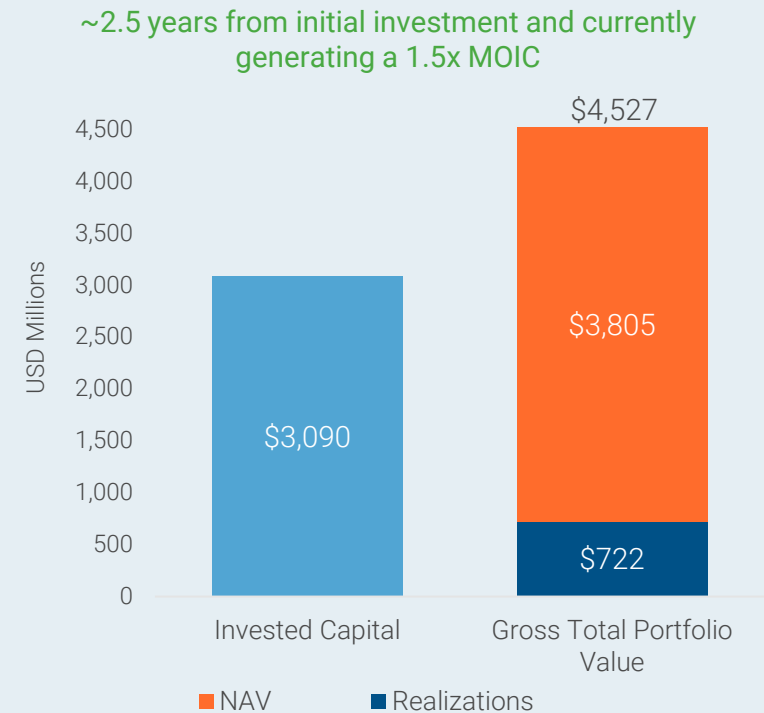
Secondary Fund V - Overview

HLSF V | 2019

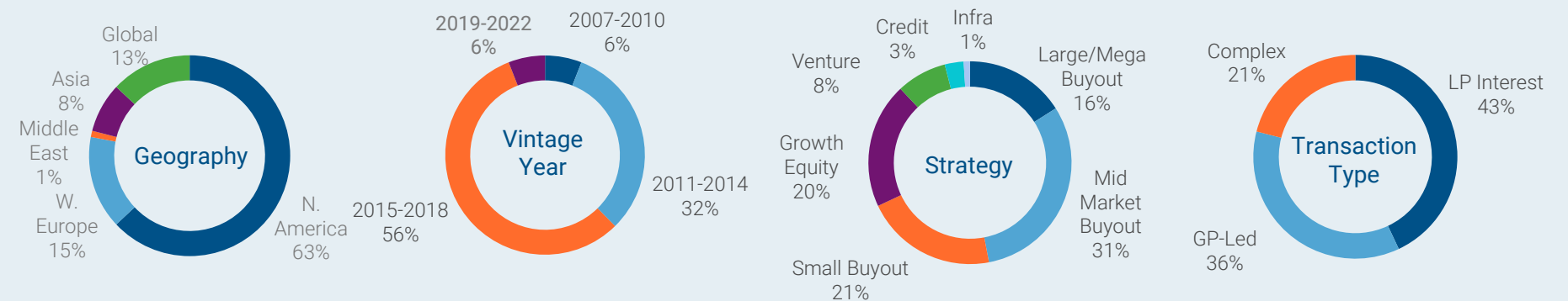
End of Investment Period

Performance Summary

Invested	\$3.1 billion
Realized	\$722 million
NAV	\$3.8 billion
Gross / Net DPI ¹	0.2x / 0.1x
Gross / Net TVPI ²	1.5x / 1.5x
Gross / Net IRR ³	49.3% / 56.5%
MSCI World PME (Net) ⁴	12.3%



<p>\$3.9B Fund Size</p>	<p>\$4.0B Committed*</p>
<p>18% Average Discount</p>	<p>75 Investments*</p>
<p>172+ Underlying Funds*</p>	<p>3,700+ Underlying Companies*</p>



As of March 31, 2022 unless otherwise noted.

*As of June 30, 2022

Diversification based on committed capital as of June 30, 2022. Due to rounding, diversification may not precisely reflect absolute figures.

Please refer to endnotes in the Appendix.

Endnotes

Page 7

1 Distributed Paid-In ("DPI") multiple represents total distributions from underlying investments to the fund divided by total contributed capital.

2 Total Value Paid-In ("TVPI") multiple represents total distributions from underlying investments to the fund plus the fund's market value divided by total contributed capital.

3 Internal Rate of Return ("IRR") is calculated on a pooled basis using daily cash flows. Gross IRR is presented net of management fees, carried interest and expenses charged by the general partners of the underlying investments, but does not include Hamilton Lane management fees, carried interest or expenses. Net IRR is presented net of management fees, carried interest and expenses charged by the general partners of the underlying investments as well as net of Hamilton Lane management fees, carried interest and expenses. IRR is calculated on a pooled basis using daily cash flows. It should be noted that the IRRs of Fund I, Fund II, Fund III, and Fund IV are initially impacted by the purchase discounts (or premiums) paid at the closing of a transaction, the impact of which will diminish over time as the IRRs reflect subsequent changes in the valuations of the underlying investments. Note that secondary portfolio IRRs can be initially impacted by purchase discounts (or premiums) paid at the closing of a transaction, the impact of which will diminish over time.

4 The index presented for comparison is the MSCI World, calculated on a Public Market Equivalent (PME) basis. The PME calculation methodology assumes that capital is being invested in, or withdrawn from, the index on the days the capital was called and distributed from the underlying fund managers. Contributions were scaled by a factor such that the ending portfolio balance would be equal to the private equity net asset value. The scaling factor is found by taking the sum of all shares sold (SS), the sum of all shares purchased (SP) and calculating the number of shares the ending value is worth (SEV). Dividing SEV + SS by SP solves for the PME scaling factor. The scaling of contributions prevents shorting of the public market equivalent portfolio in order to match the performance of an outperforming private equity portfolio. Realized and unrealized amounts were not scaled by this factor. The MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. The index is presented merely to show general trends in the markets for the relevant periods shown. The comparison between Hamilton Lane performance and the index is not intended to imply that a fund's or separate account's portfolio is benchmarked to the index either in composition or level of risk. The index is unmanaged, has no expenses and reflects the reinvestment of dividends and distributions. The spreads are provided for comparative purposes only. A variety of factors may cause an index to be an inaccurate benchmark for any particular fund or separate account and the indices do not necessarily reflect the actual investment strategy of a fund or separate account.

Past performance of the investments presented herein is not indicative of future results and should not be used as the basis for an investment decision. The information included has not been reviewed or audited by independent public accountants. Certain information included herein has been obtained from sources that Hamilton Lane believes to be reliable but the accuracy of such information cannot be guaranteed.

Disclosures

This presentation has been prepared solely for informational purposes and contains confidential and proprietary information, the disclosure of which could be harmful to Hamilton Lane. Accordingly, the recipients of this presentation are requested to maintain the confidentiality of the information contained herein. This presentation may not be copied or distributed, in whole or in part, without the prior written consent of Hamilton Lane.

The information contained in this presentation may include forward-looking statements regarding returns, performance, opinions, the fund presented or its portfolio companies, or other events contained herein. Forward-looking statements include a number of risks, uncertainties and other factors beyond our control, or the control of the fund or the portfolio companies, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect our current judgment, which may change in the future.

All opinions, estimates and forecasts of future performance or other events contained herein are based on information available to Hamilton Lane as of the date of this presentation and are subject to change. Past performance of the investments described herein is not indicative of future results. In addition, nothing contained herein shall be deemed to be a prediction of future performance. The information included in this presentation has not been reviewed or audited by independent public accountants. Certain information included herein has been obtained from sources that Hamilton Lane believes to be reliable, but the accuracy of such information cannot be guaranteed.

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Certain of the performance results included herein do not reflect the deduction of any applicable advisory or management fees, since it is not possible to allocate such fees accurately in a vintage year presentation or in a composite measured at different points in time. A client's rate of return will be reduced by any applicable advisory or management fees, carried interest and any expenses incurred. Hamilton Lane's fees are described in Part 2 of our Form ADV, a copy of which is available upon request.

The following hypothetical example illustrates the effect of fees on earned returns for both separate accounts and fund-of-funds investment vehicles. The example is solely for illustration purposes and is not intended as a guarantee or prediction of the actual returns that would be earned by similar investment vehicles having comparable features. The example is as follows: The hypothetical separate account or fund-of-funds consisted of \$100 million in commitments with a fee structure of 1.0% on committed capital during the first four years of the term of the investment and then declining by 10% per year thereafter for the 12-year life of the account. The commitments were made during the first three years in relatively equal increments and the assumption of returns was based on cash flow assumptions derived from a historical database of actual private equity cash flows. Hamilton Lane modeled the impact of fees on four different return streams over a 12-year time period. In these examples, the effect of the fees reduced returns by approximately 2%. This does not include performance fees, since the performance of the account would determine the effect such fees would have on returns. Expenses also vary based on the particular investment vehicle and, therefore, were not included in this hypothetical example. Both performance fees and expenses would further decrease the return.

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Any tables, graphs or charts relating to past performance included in this presentation are intended only to illustrate the performance of the indices, composites, specific accounts or funds referred to for the historical periods shown. Such tables, graphs and charts are not intended to predict future performance and should not be used as the basis for an investment decision.

The information herein is not intended to provide, and should not be relied upon for, accounting, legal or tax advice, or investment recommendations. You should consult your accounting, legal, tax or other advisors about the matters discussed herein.

The calculations contained in this document are made by Hamilton Lane based on information provided by the general partner (e.g. cash flows and valuations), and have not been prepared, reviewed or approved by the general partners.

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Firm: Axiom Investors

Strategy/Product: Emerging Markets Equity

Client: Massachusetts Water Resources Authority Retirement System

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 all materials submitted in relation to MWRA Retirement System may be subject to disclosure consistent with Massachusetts Public Record laws.

Firm/Organization

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

At the end of Q4 2021, Kurt Polk, Axiom’s former President, and his family made the personal decision to geographically relocate outside the Northeast region. Three of Axiom’s senior Partners, Ed Azimi, Axiom’s Chief Operating Officer, Denise Zambardi, Axiom’s Chief Compliance Officer, and Lindsay Chamberlain, Axiom’s Managing Director of Client Partnerships, will continue to lead their functional areas and Axiom’s Management Committee will continue to oversee Axiom’s non-investment related activities. There have been no changes to Axiom’s ownership structure over the past year.

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

Year	2022 (YTD)**	2021	2020	2019	2018
Firm AUM	\$14,556.07M	\$18,639.70M	\$18,535.88M	\$13,458.05M	\$9,729.25M
Net Flows	\$746.67M	(\$997.10M)	\$499.40M	\$685.01M	\$11.34M
Accounts Gained*	2	8	7	2	3
Accounts Lost*	3	0	3	4	4

*As a matter of firm policy, Axiom does not disclose underlying accounts gained and lost in pooled vehicles; the number of accounts reflects separate accounts only.



***As of 7/31/22*

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

In Q4 2021, Axiom launched the Axiom Global Small Cap Equity Strategy. The Strategy seeks long term compounding by focusing its investments in smaller capitalization companies in global developed markets, and may also invest in companies located in emerging markets.

4. Are any products capacity constrained?

No, Axiom does not currently have any products that are capacity constrained. We continuously review capacity by looking at overall market capitalization and daily trading volumes. We define capacity for the Strategy based on liquidity and the ability to buy and sell securities with minimal market impact and within a minimum number of days. While we do not publish a specific number, we are very conservative and will not hesitate to limit capacity.

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

Axiom has no current or pending regulatory, compliance or litigation issues.

6. Describe your diversity, equity and inclusion efforts with regard to the firm and its employees.

Axiom believes that a culture of diversity and inclusion is critical to the success of our business, and is committed to fostering, cultivating and preserving a working environment where all employees may draw upon their backgrounds and experience in furtherance of the common goal of providing best in class service to Axiom's clients.

Ours is a business that is premised upon providing top-of-market investment services. To that end, Axiom is committed to attracting and retaining the best talent and providing an environment where everyone can thrive. This inclusive approach not only enriches Axiom's culture, but it provides a competitive advantage in the marketplace by helping us understand and connect more effectively with our clients, communities and colleagues.

At Axiom, we define diversity and inclusion as celebrating what each of us brings to the table. Our success is a result of our varied backgrounds, perspectives, talents, cultures and genders. Our concept of diversity is consciously inclusive of and welcoming to members of communities that have been historically underrepresented in the financial services workforce. Inclusion is about creating an environment that celebrates people's differences and, in so doing, inspires innovative ideas, practical solutions, and team building. Axiom seeks to achieve a work environment in which all individuals are recognized for their unique qualities, skills, and abilities, and are given opportunities to apply them fully to the success of the firm.



Axiom’s commitment to diversity and inclusion manifests itself in all aspects of our operations, including our practices and policies on recruitment and selection; compensation and benefits; professional development and training; promotions; transfers; social and recreational programs; layoffs; and terminations.

Portfolio Management Team

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

There have been no changes in 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 changes to the team 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

Axiom’s investment philosophy and process have been consistently applied since inception of the firm. There have been no significant changes in any of these areas in the past year.

Philosophy

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

There have been no recent changes to Axiom’s 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.).

Please see attachment titled “Axiom Emerging Markets Equity Strategy Holdings 7.31.22.” The rest of this data is included in our presentation.

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

Year	2022 YTD**	2021	2020	2019	2018
------	------------	------	------	------	------



Strategy AUM	\$5,847.11M	\$8,307.86M	\$8,443.06M	\$6,604.97M	\$5,000.20M
Net Flows	(\$342.68M)	\$200.08M	(\$198.07M)	\$268.68M	(\$739.16M)
Accounts Gained*	0	1	1	0	0
Accounts Lost*	1	0	1	1	3

*As a matter of firm policy, Axiom does not disclose underlying accounts gained and lost in pooled vehicles; the number of accounts reflects separate accounts only.

**As of 7/31/22

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

Investor Concentration in strategy –

Investor Type	Percent of Strategy*
Corporate (ERISA)	17.73%
Corporate (non-ERISA)	10.15%
Foundation & Endowment	2.07%
Health Care	4.88%
High Net Worth	1.64%
Insurance	2.89%
Other	2.35%
Public Fund	41.49%
Sovereign Wealth Funds	7.62%
Sub-Advised	6.94%
Union/Taft-Hartley	2.25%

*As of 7/31/22



Top five investors in strategy –

Investor	Percent of Strategy*
Public Fund Client	13.48%
Corporate (non-ERISA) Client	5.98%
Public Fund Client	4.97%
Public Fund Client	4.95%
Public Fund Client	4.92%

**As of 7/31/22*

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.

For the most recent quarter-end and calendar year returns for the past 10 years, please see the attachment titled, “Axiom Emerging Markets Equity Strategy Returns.”

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

The outlook for growth stocks is improving after several very challenging quarters. During the second quarter, specifically, the MSCI EM Growth Index fell just under -12%, underperforming value by -1 percentage point, bringing the year-to-date growth decline to just under -21%, or -7 percentage points below value. Despite this sharp recent correction, global growth markets have outperformed value over the 3, 5, 7, and 10-year periods, achieving index returns in the +2% to +5% range over those time periods. We believe the 4D’s secular tailwinds to growth stock investing (debt, demographics, deglobalization and disruption) are poised to reassert themselves and the recent growth stock correction offers an opportunity for longer-term investors. Axiom’s dynamic growth portfolio has been negatively impacted by the severe headwinds to growth investing recently but remains solidly ahead of benchmarks over longer time periods.

The optimal market environment for Axiom is one that is trending, and growth led. Typically, within this environment quality growth stocks are experiencing positive changes in their key operational metrics and financial results. Often, there is a particular industry or general investment thesis that is prevalent in the market and that is experiencing robust and/or sustainable growth. Difficult market environments include sudden, sharp value rotations. These environments are marked by moments of reflationary expectations caused by either economic inflections or policy resulting in a rotation to cyclicals. Market inflections driven by dramatic policy interventions overwhelm earnings drivers, causing a rotation into distressed stocks.



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

The attractiveness of emerging markets and the risk of recession have been topics of particular interest recently. Regarding the attractiveness of emerging markets, not only are EM valuations especially low, currently trading -35% below developed market prices, but emerging market growth is poised to accelerate relative to developed markets. Key emerging markets, notably China, might be easing and/or in the earlier stages of post-COVID reopening even as many developed markets face continued policy tightening and other headwinds. The gap between developed and emerging market growth, which compressed to well under one percentage point during the past two years, is expected to reaccelerate to two and a half percentage points in the coming year, which historically has been a catalyst for EM outperformance. Any moderation in the very elevated US dollar when US interest rates peak could be a further catalyst. Turning to recession risk, the widely followed 2-10 US interest rate spreads turned negative during the second quarter, suggesting a recession within the next 6-18 months. Given the recently overstimulated economy, a policy tightening driven growth slowdown, and possible recession, would seem integral to bringing inflation back under control. While the timing of recessions is typically only clear with hindsight, the most recent data in Axiom's proprietary 'heat-map' of economic growth in over 100 countries around the world shows global growth slowing and beginning to disappoint after nearly 18 months of solid recovery. Any recession will likely be buffered by the recent strength of corporate, bank, and consumer balance sheets. Axiom's dynamic growth stocks tend to be less economically sensitive and benefit from generally high profitability, low leverage, and strong organic growth drivers helping them to outperform during economic growth slowdowns. After the sharp recent rotations, prospective growth stock valuations have returned to historically supportive levels. Investors with a longer-term horizon who agree that recent signs suggest more favorable conditions starting to emerge should consider beginning to reallocate towards public growth equities.

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

Please see the attached PDF titled "Axiom Investors 2Q22 EM Presentation for MWRA."



MWRA Employee Retirement System

Investing Ahead of the Curve

As of June 30, 2022

Table of Contents

3	Firm Overview
12	Emerging Markets Equity
24	Appendix

Axiom Investors – Investing Ahead of the Curve

**Driven by
Fundamentals**

Seasoned investment team collaborating on a common, fundamental investment philosophy and process.

**Supported by
Evidence**

Fundamental investment thesis supported with empirical, fact-based evidence leveraging Axiom's proprietary research database, Axware, and our transparent risk and return framework.

**Rooted in
Collaboration &
Transparency**

Our culture of collaboration facilitates the sharing and integration of information across geographies, global sectors, and market caps.

**Aligned with
Clients in Our
Mission**

Fully independent and 100% active employee-owned allowing us to attract and retain diverse talent and to responsibly invest with a long-term focus in sustainable enterprises.

Our Commitment to Responsible Investing

Advancing positive change through active engagement

Axiom’s Approach to Responsible Investing

At Axiom, we holistically integrate environmental, social, and governance considerations into our investment process, organizational structure, and firm culture, believing that ESG factors are material to achieving investment outperformance and managing risk, as well as fostering a sustainable and responsible way of life.

Advancing Positive Change

- Companies should be well governed and take environmental and social factors into account to enable sustainable long-term investment returns
- Investment decisions should consider opportunities and longer-term risks including environmental, social and governance factors to obtain positive outcomes and manage the risk of financial loss
- Effective stewardship and active engagement can have positive outcomes
- Engagement is preferred but there may be times when divestment is appropriate

Active Engagement

We implement ESG into both our alpha generation and risk management, with a differentiated focus on engaging and investing in companies committed to improving their sustainability profile.

Axiom PRI Reporting Scorecard	
Strategy & Governance	A+
Listed Equity – Incorporation	A+
Listed Equity – Active Ownership	A

Axiom Investors – Client Focused and Aligned

Philosophy

Consistent & Transparent

People

Experienced & Committed

Culture

Client Focused & Aligned

Established

1998

Fundamental, Bottom-up

Focus on forward looking trends in operational drivers

Proven

Net of fee outperformance across all strategies since inception

Centralized

Greenwich, CT

Experienced

25+ years average PM
 20+ years average global sector analysts

Stable

10+ years average PM tenure at Axiom

Assets*

\$14.2B

Independent

100% employee-owned partnership
 24 equity partners

Investing Alongside Our Clients

Alignment of interests with clients allowing for a long-term perspective

As of 6/30/22

*Assets include Assets Under Management (\$13.5B) & Assets Under Advisement (\$0.7B)

Partnering with Professional Investors Around the World



400+

Clients

~40%

Non-US assets

>50%

Client relationships 5+ years

Representative Clients:

Public

- City of Charlottesville
- Illinois Teachers
- Los Angeles City Employees
- State of Maryland
- City of Detroit
- State of North Dakota
- State of West Virginia
- New Mexico PERA

Sovereign Funds

- NPS (Korea)

Corporate

- Dominion Energy, Inc.
- National Football League
- Auto Club Group

Subadvised

- John Hancock
- Northern Trust
- Pear Tree Funds
- Russell Investments
- SEI

Taft-Hartley

- Oregon Laborers-Employers Pension

Endowments & Foundations

- Florida State University
- Iowa State University
- Richard King Mellon
- University of Cincinnati
- University of Nebraska
- University of Oklahoma

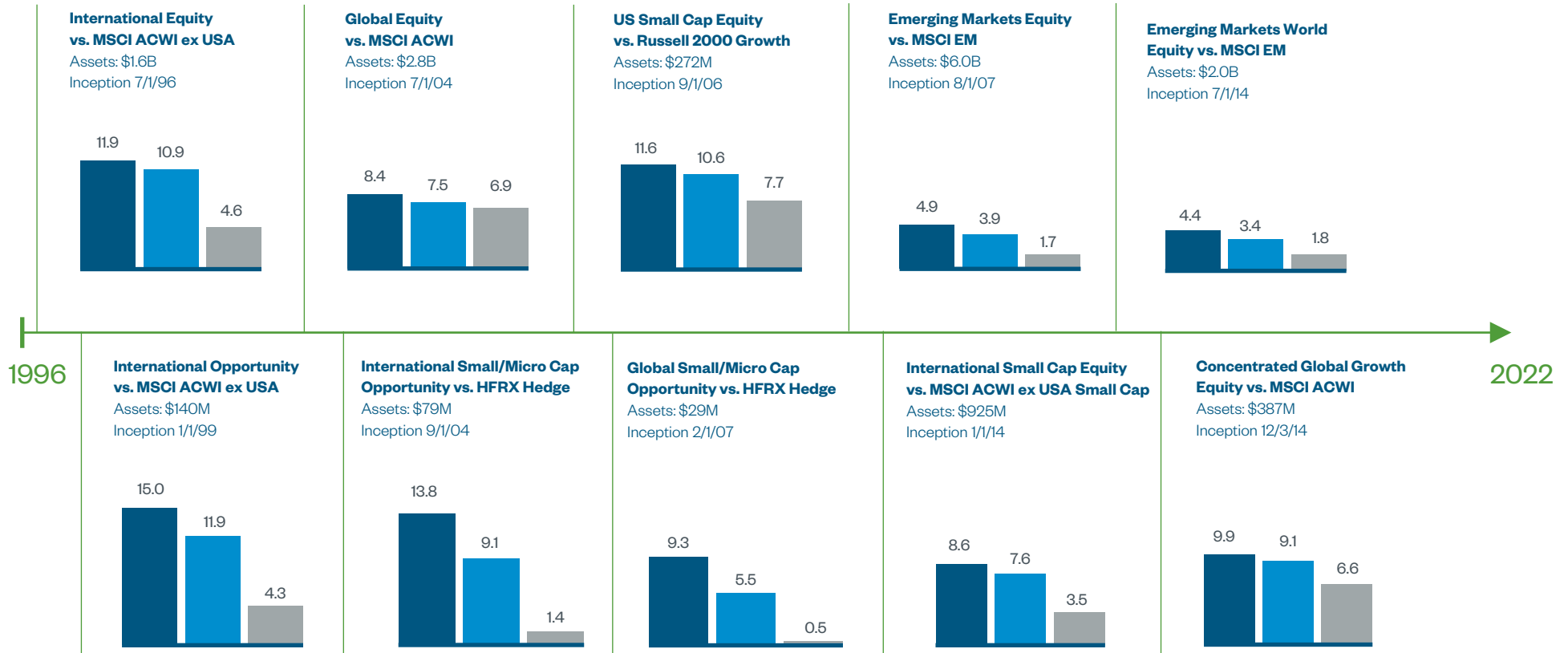
As of 6/30/22

Confidential. Please do not publish for general public.

This list is intended to represent a broad cross section of Axiom clients. None of the clients were selected on the basis of performance criteria and it is not known whether they approve of or disapprove of Axiom or the investment advisory services provided.

Proven Results Across All Strategies

Inception-to-date Percent Returns, Annualized



■ Axiom (Gross) ■ Axiom (Net*) ■ Benchmark

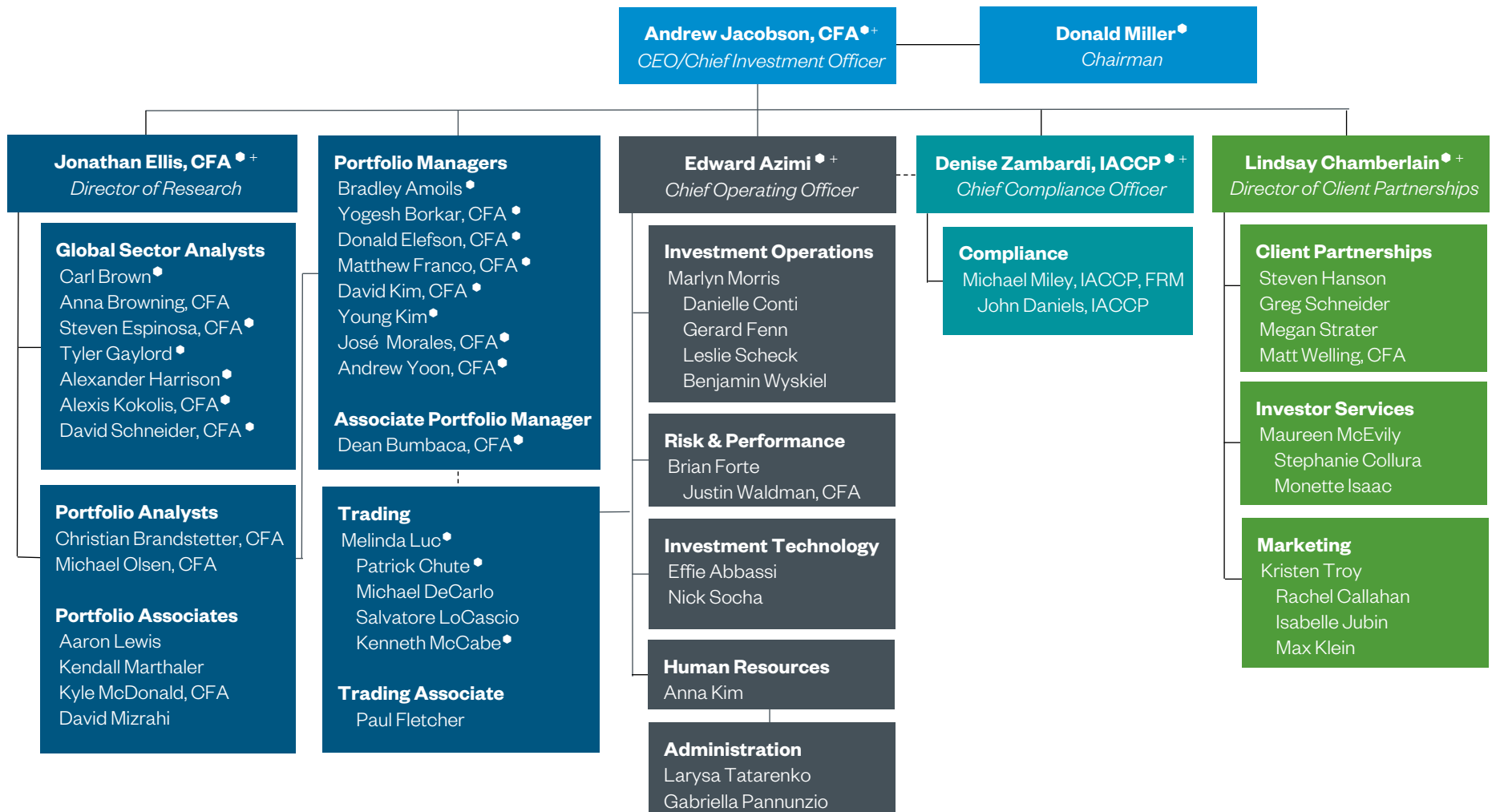
As of 6/30/22

US dollar terms

Assets include Assets Under Management (\$13.5B) & Assets Under Advisement (\$0.7B)

* Net-of-fee calculations are net of highest management fees, and where applicable, performance fees, and do not include individualized client administrative expenses. See disclosures in the back of the presentation for additional information.

A Well-resourced Partnership



● Denotes Partner
 + Denotes Management Oversight Committee

Our Alpha Philosophy

Fundamentals drive ideas, evidence drives action

By focusing on three clearly defined alpha drivers, our objective is to compound capital over the long-term and deliver risk-adjusted relative outperformance of 2-4% per year by fundamentally investing in quality, dynamic growth businesses.



- Forward-looking, fundamental, empirical, holistic approach which incorporates improving ESG as an alpha source
- Consistent integration and transparency of information across geographies, global sectors, and market caps

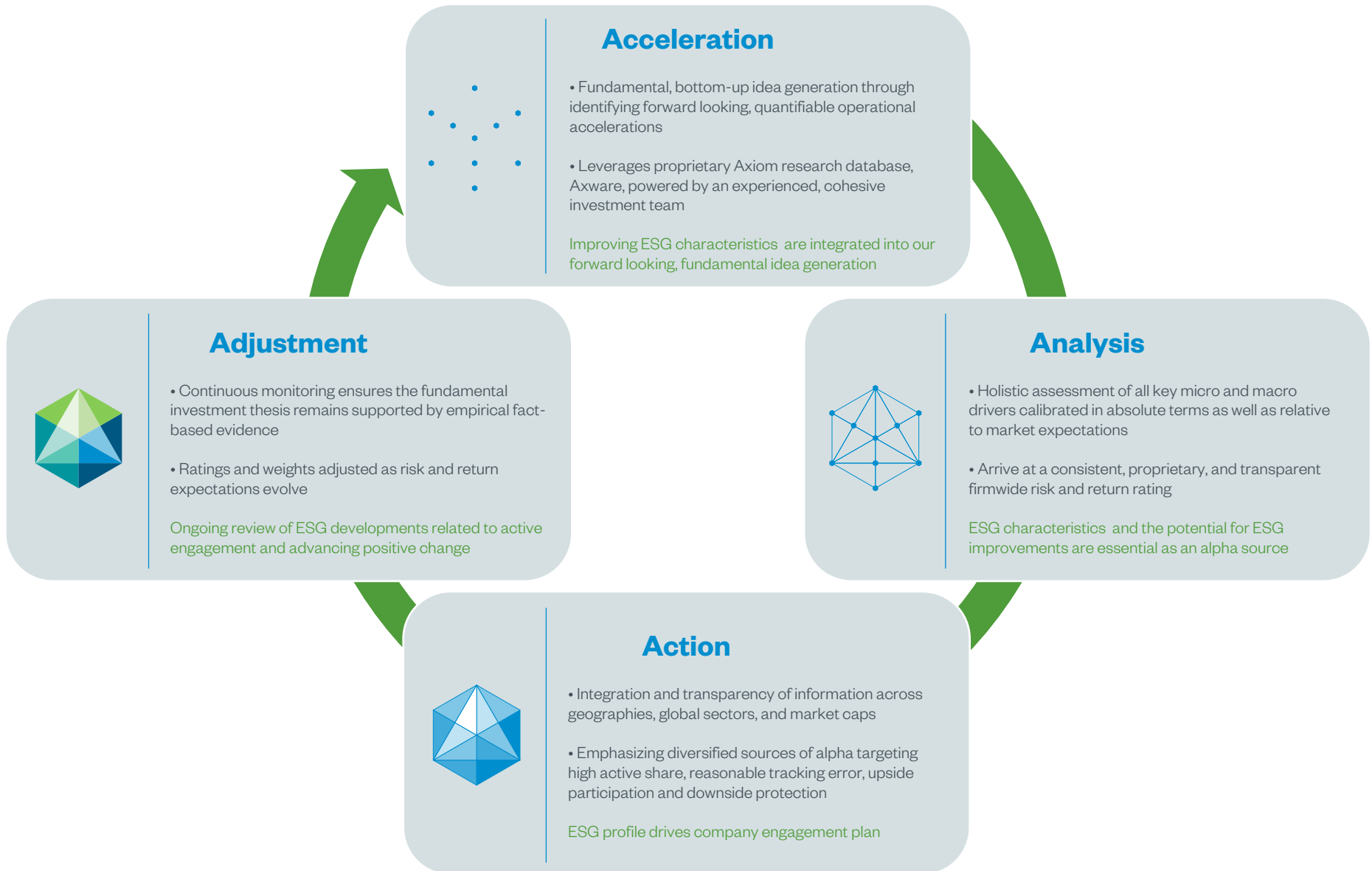


- Performance tailwinds from compounding organic earnings growth and positive ESG characteristics
- Focus on wide and expanding moats, profitability, returns, cash generation, and balance sheet integrity

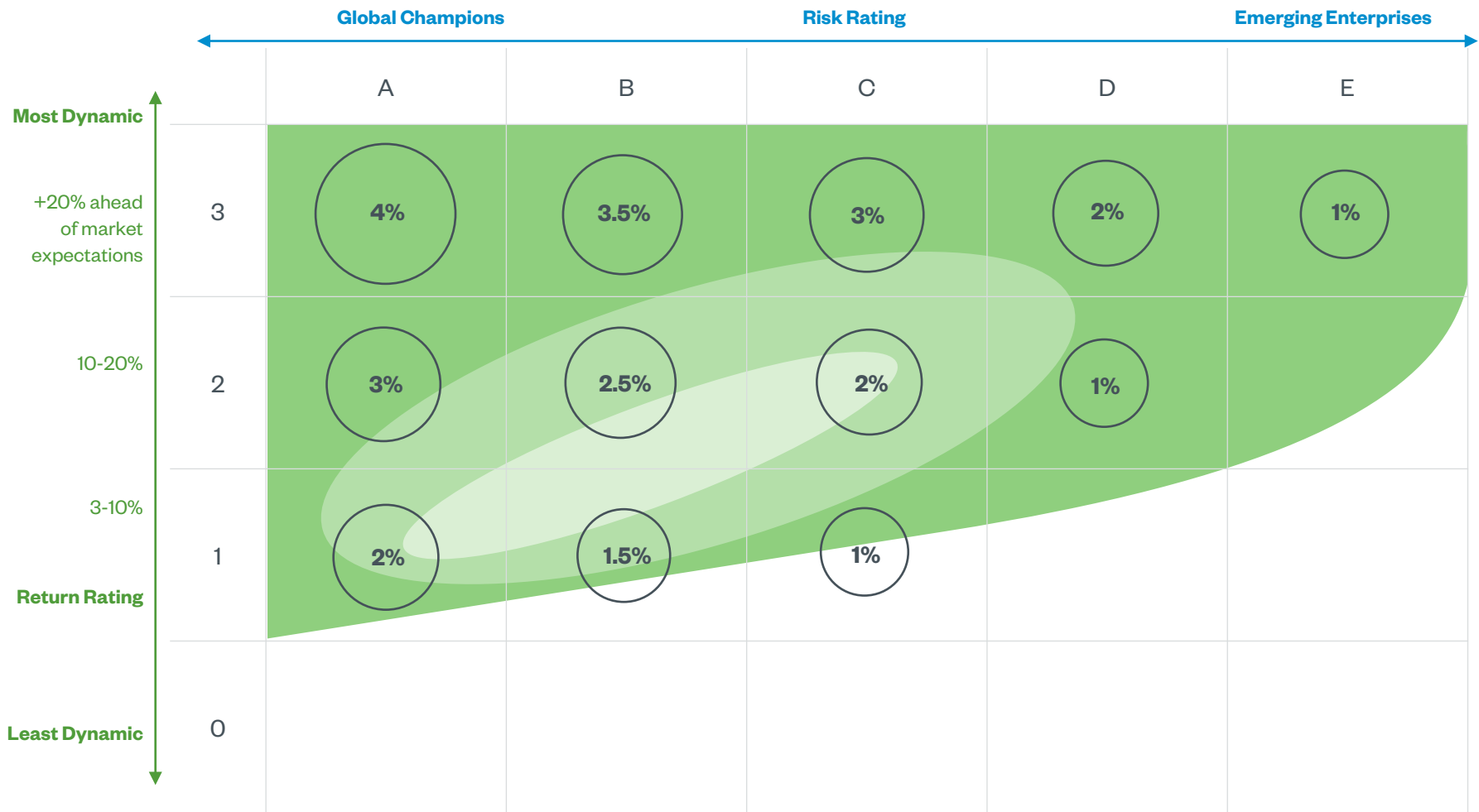


- Comprehensive assessment of valuation provides insight into the implicit expectations for a company
- Attractive valuation confirms upside potential and provides risk control benefits

Our Investment Process



Disciplined Portfolio Construction



Please note the above percentages are representative allocations across Axiom's all-cap portfolios.



Emerging Markets Equity Strategy



Investment Summary

Objective

The Emerging Markets Equity Strategy seeks long term compounding by focusing its investments in emerging markets.

Why Invest

- Clearly defined, transparent, and consistent process
- Driven by fundamentals, supported by evidence
- Active risk management with disciplined portfolio construction
- Advancing positive change through active engagement

Strategy

Inception

August 1, 2007

Firm Assets

\$14.2B*

Benchmark

MSCI Emerging Markets

Strategy Assets

\$6.0B

Vehicles

Separate account, commingled fund, CIT, and UCITS

Strategy Guidelines

Emerging Markets Equity

Number of holdings

70-85 holdings

Position size

Limited to the greater of 5% or the index weight x 1.5

Sector guidelines

0-40%

Country guidelines

The greater of 30% or the index weight +15%

As of 6/30/22

*Assets include Assets Under Management (\$13.5B) & Assets Under Advisement (\$0.7B)

An Experienced and Collaborative Team

Portfolio Managers

Emerging Markets Equity



Andrew Jacobson, CFA
 CIO, Co-Lead Portfolio Manager
 34 years of experience



José Gerardo Morales, CFA
 Co-Lead Portfolio Manager
 33 years of experience



Young Kim
 Co-Lead Portfolio Manager
 23 years of experience



Donald Elefson, CFA
 Co-Portfolio Manager
 39 years of experience

Portfolio managers	Global sector research analysts	Portfolio research analysts	Portfolio research associates	Traders
Bradley Amoils Global (31 yrs. exp.)	Carl Brown Health Care (28)	Christian Brandstetter, CFA US generalist (7)	Aaron Lewis EM generalist (5)	Melinda Luc Head trader (28)
Yogesh Borkar, CFA Small/Micro cap (29)	Anna Browning, CFA Industrials & Materials (19)	Michael Olsen, CFA EM generalist (13)	Kendall Marthaler Small/micro generalist (4)	Patrick Chute Europe (17)
Matthew Franco, CFA Small/Micro cap (26)	Steven Espinosa, CFA IT & Comm. Services (22)		Kyle McDonald, CFA Small/micro generalist (9)	Michael DeCarlo Asia (31)
David Kim, CFA Small/Micro cap/CGG (23)	Tyler Gaylord Financials (20)		David Mizrahi US generalist (4)	Salvatore LoCascio Asia (15)
Andrew Yoon, CFA Emerging markets (11)	Alexander Harrison Consumer (22)			Kenneth McCabe Europe, Asia, US (25)
Director of Research/PM Jonathan Ellis, CFA Conc. Global Growth (24)	Alexis Kokolis, CFA Consumer (17)			
Associate Portfolio Manager Dean Bumbaca, CFA International (12)	David Schneider, CFA IT & Energy (18)			

Annualized Account Returns

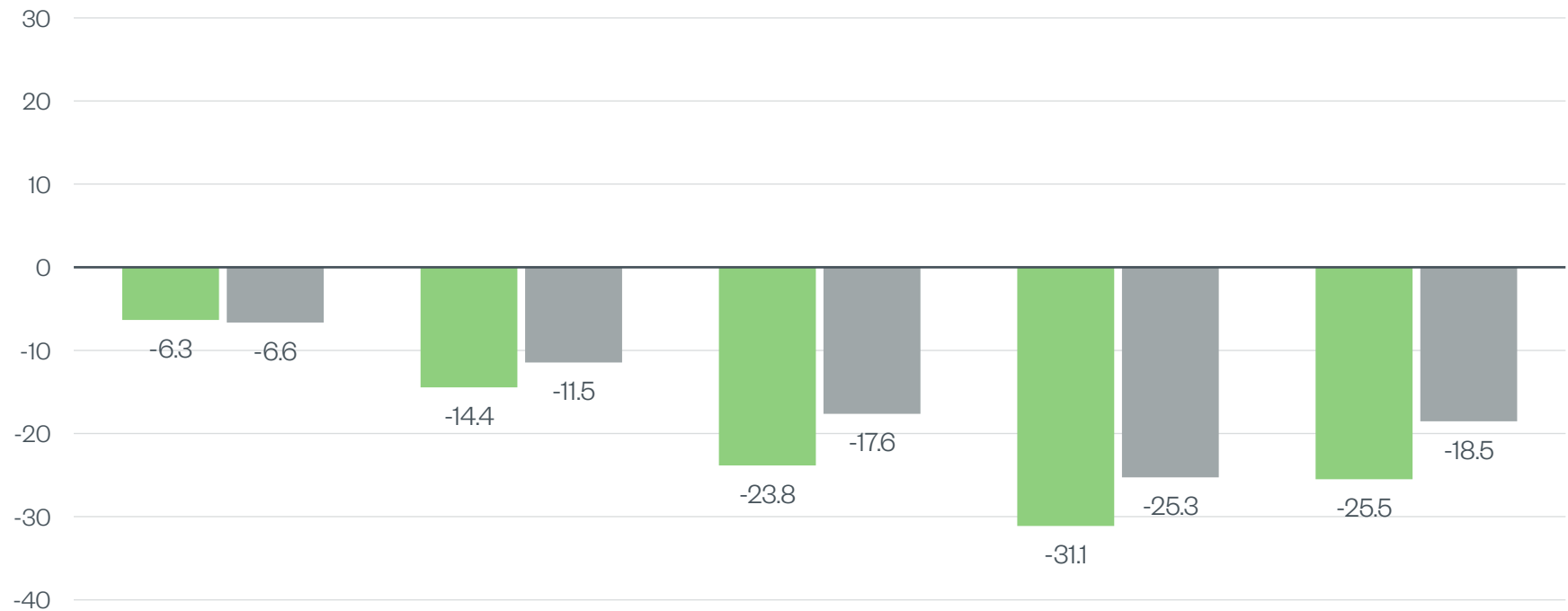
Emerging Markets Equity

Inception date: 2/2/2021

MWRA Employees Retirement System MV: \$16,486,651.83

■ **Axiom - Net**

■ **Index**



**Relative Net
Value Added:**

MTD

0.3

QTD

-3.0

YTD

-6.2

1 Year

-5.8

ITD

-7.0

As of 6/30/22

Index: MSCI Emerging Markets

Currency: USD

Please refer to the attached GIPS® compliant composite presentation for complete performance information. Past performance is no guarantee for future results.

Annualized Composite Returns

Emerging Markets Equity

Inception date: 8/1/07



Relative Gross

Value Added:

-6.2

-5.3

+1.6

+1.8

+2.3

+3.3

As of 6/30/22

Index: MSCI Emerging Markets

Currency: USD

Please refer to the attached GIPS® compliant composite presentation for complete performance information. Past performance is no guarantee for future results.

MWRA Employees Retirement System

Account History

Portfolio Activity Summary	Since Inception	Date
Initial Contribution	\$20,000,000.00	2/2/2021
Additions	\$1,000,000.00	8/6/2021
Additions	\$3,000,000.00	10/7/2021
Withdrawals	\$0	
Ending Market Value	\$16,486,651.83	6/30/2022

Axiom Emerging Markets Equity Strategy

Universe Ranking

Inception date: 8/1/07

	QTD	YTD	1 Year	3 Year	5 Years	10 Years	Since Inception
Universe Percentile Ranking *	74	65	60	43	40	49	7

*eVestment Emerging Markets All Cap Growth Universe

Universe Member Count: 72

Risk/Return Analysis & Portfolio Characteristics

Emerging Markets Equity

5 Year Statistics	Axiom	Index
Cumulative Return (%)	21.5	11.4
Annualized Return (%)	4.0	2.2
Annualized Excess Return (%)	1.8	-
Batting Average (% Quarterly)	60.0	-
Annualized Standard Deviation (%)	17.7	16.9
Tracking Error (%)	3.9	-
Information Ratio	0.5	-
Annualized Sortino Ratio	0.2	0.1
Upside Capture (% Quarterly)	124.0	-
Downside Capture (% Quarterly)	103.8	-

	Axiom	Index
Holdings	85	1382
% in Axiom Top 10 Holdings	29.9%	22.0%
Weighted Average Market Cap (\$B)	\$124.6	\$107.4
Median Market Cap (\$B)	\$27.4	\$6.8
Liquidity (\$M/Day)	\$363	\$226
Net Debt/Equity Ratio (%)	2.9	11.6
Price Earnings Ratio	14.7	10.7
Earnings Growth Rate (%)	26.1	16.9
PEG Ratio (PE/Growth Rate)	0.6	0.6
Weighted Avg. Carbon Intensity	162.6	326.2

As of 6/30/22

Index: MSCI Emerging Markets

Currency: USD

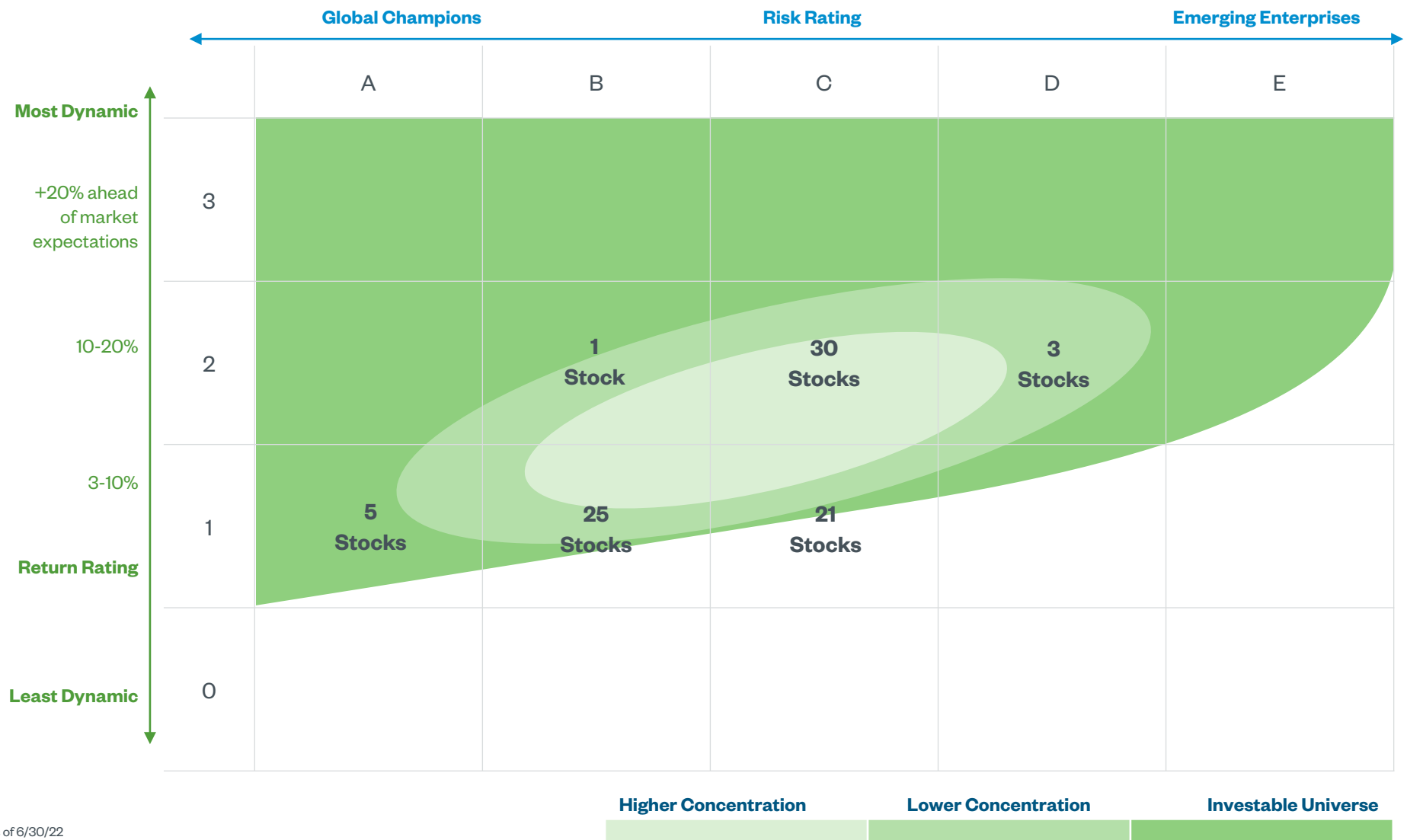
Source: FactSet

Figures are gross of fees.

This information is supplemental to the Investment Performance Disclosure Statement results.

Current Portfolio Construction (Based on Axiom Ratings)

Emerging Markets Equity



As of 6/30/22
Image above is representative of a typical portfolio construction

Top Holdings & Active Weights

Emerging Markets Equity

Top 5 Holdings	Country	Sector	% of Portfolio	Axware Rating
Taiwan Semiconductor	Taiwan	Information Technology	6.1	A1
Baidu	China	Communication Services	3.6	B1
Reliance Industries	India	Energy	3.3	B2
Samsung Electronics	Korea	Information Technology	3.0	A1
Ping An Insurance	China	Financials	2.7	B1

Top 5 Active Weights	Country	Sector	% Active Weight	Axware Rating
Baidu	China	Communication Services	3.0	B1
PTT Exploration & Production	Thailand	Energy	2.1	C2
HDFC Bank	India	Financials	2.0	B1
Ping An Insurance	China	Financials	2.0	B1
BYD Company	China	Consumer Discretionary	1.9	B1

As of 6/30/22

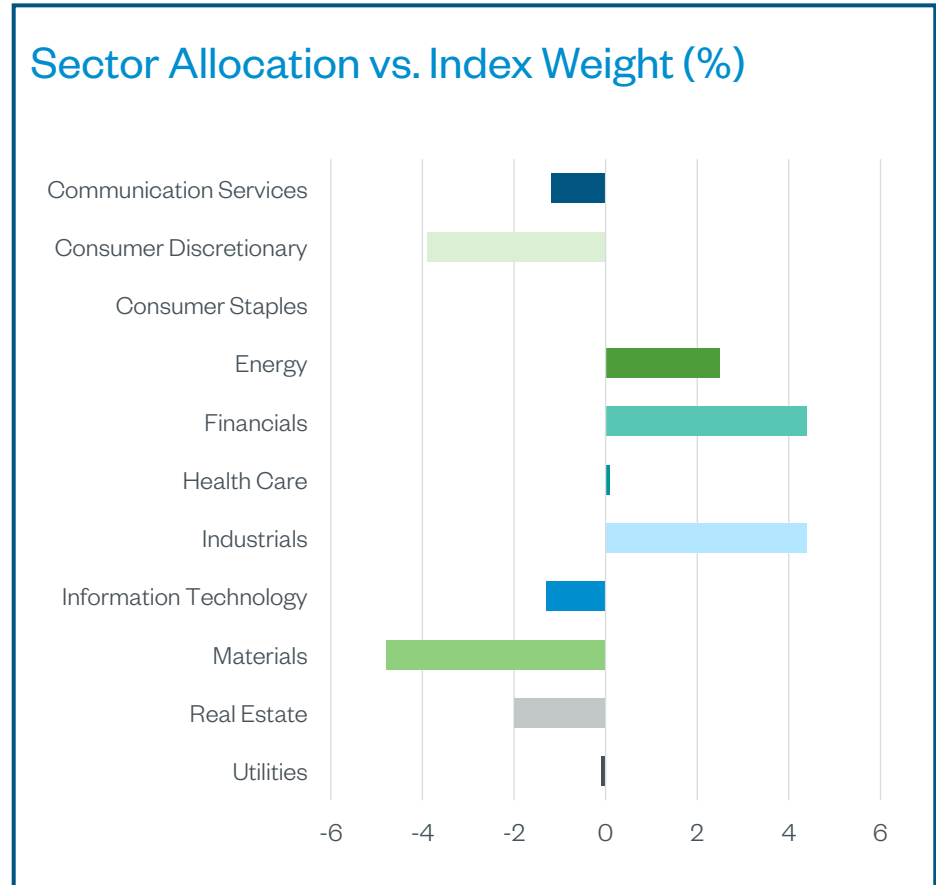
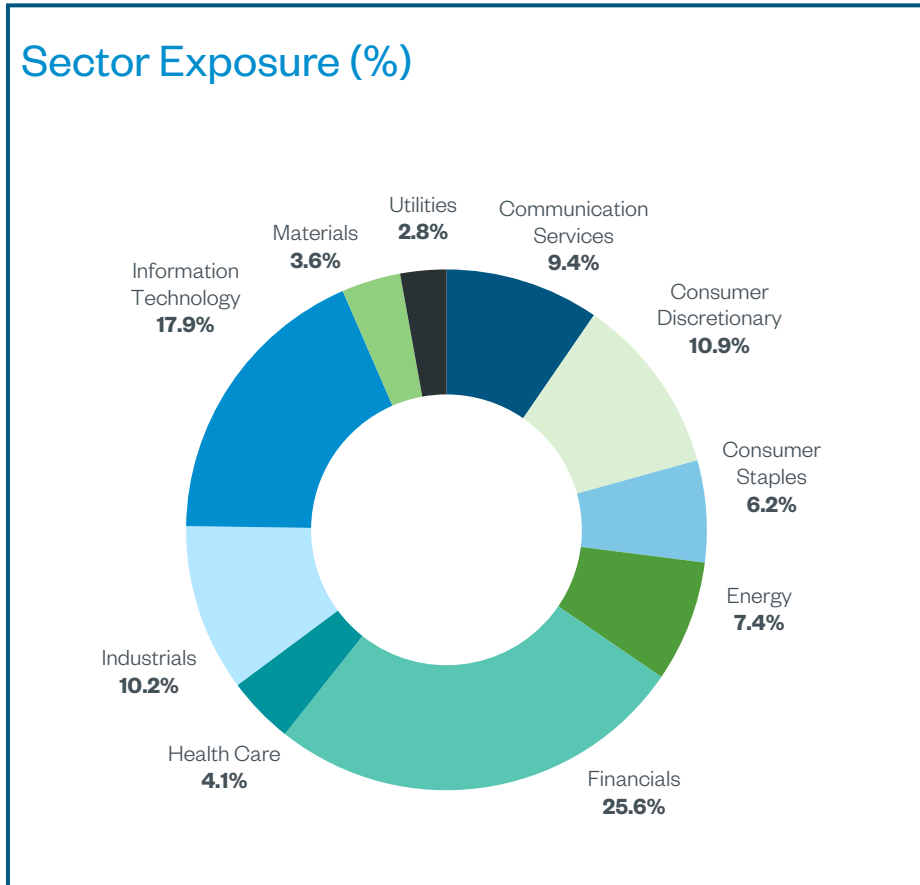
Index: MSCI Emerging Markets

This information is supplemental to the Investment Performance Disclosure Statement results.

It should not be assumed that recommendations made in the future will be profitable or will equal the performance of the securities on this list.

Sector Allocations

Emerging Markets Equity



As of 6/30/22

Index: MSCI Emerging Markets

This information is supplemental to the Investment Performance Disclosure Statement results.

There can be no assurance that the Strategy will continue to hold these positions or that weightings do not change after June 30, 2022.

Country Allocations

Emerging Markets Equity - Country Allocation vs. Index Weight (%)

Country	Port. Weight	Index Weight	Difference
Brazil	5.5	4.9	0.6
China	35.6	35.3	0.3
Hong Kong	1.6	0.1	1.6
India	10.3	12.7	-2.4
Indonesia	3.9	1.8	2.1
Korea	10.1	11.2	-1.1
Malaysia	0.8	1.5	-0.6
Mexico	4.7	2.1	2.6

Country	Port. Weight	Index Weight	Difference
Saudi Arabia	3.5	4.3	-0.8
South Africa	2.0	3.5	-1.6
Taiwan	12.0	14.5	-2.5
Thailand	4.7	1.9	2.9
United Arab Emirates	1.5	1.3	0.2
United Kingdom	0.8	0.0	0.8
United States	0.8	0.0	0.8
Uruguay	0.2	0.0	0.2

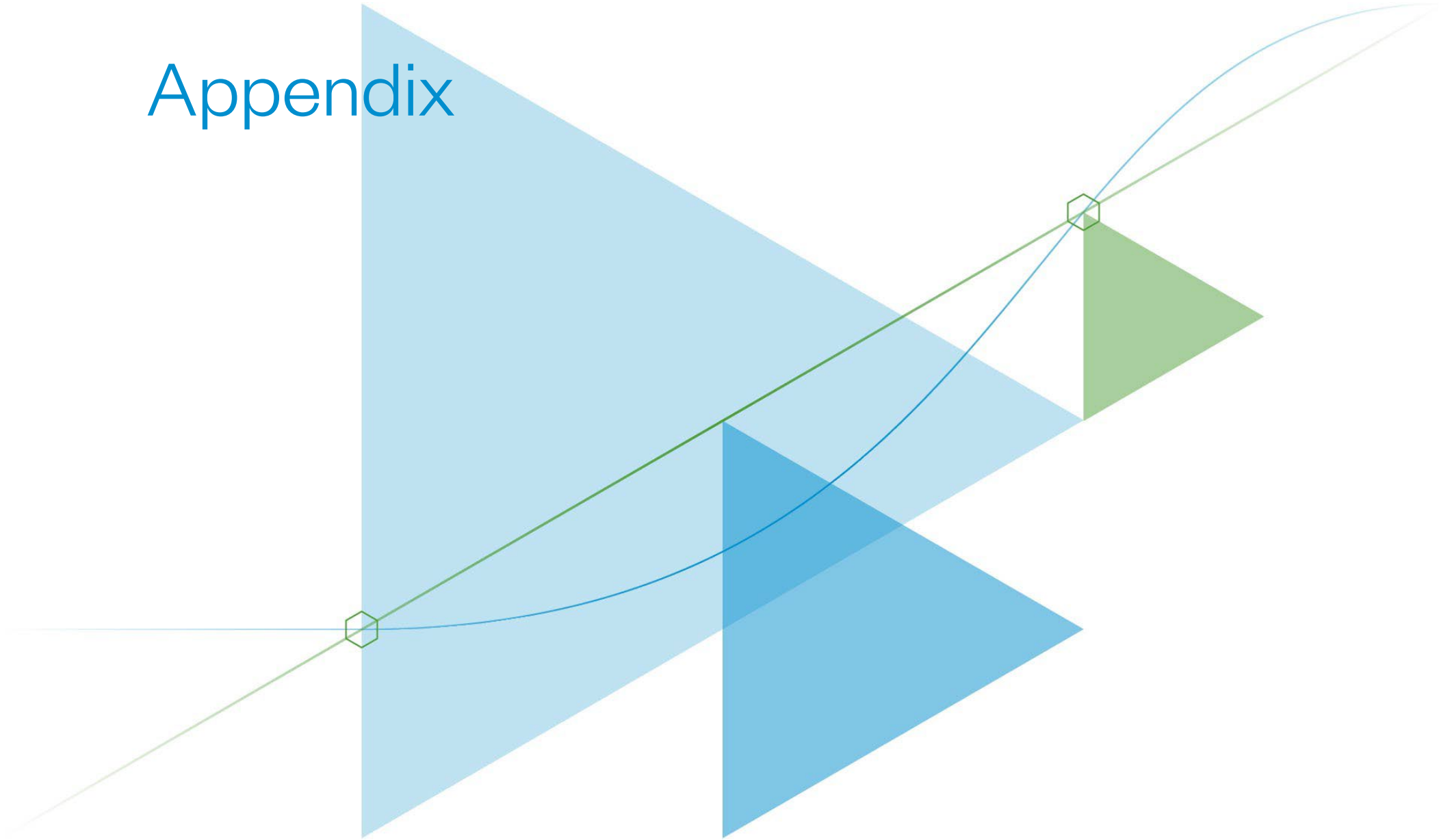
As of 6/30/22

Index: MSCI Emerging Markets

This information is supplemental to the Investment Performance Disclosure Statement results.

There can be no assurance that the Strategy will continue to hold these positions or that weightings do not change after June 30, 2022.

Appendix



Axware Overview

Axware leverages the collective insights of Axiom's entire investment team in order to efficiently analyze new data across geographies, sectors, capitalizations and strategies.

~300

Fundamentally scored data points per day




>1mm

Axware data points

~6,000

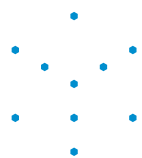
Companies in Axware

Axware contributes to Axiom's edge in three key areas:

	Informational	Axiom's information sources are publicly available, however, our ability to contextualize the relevant data in a consistent, holistic, and transparent way utilizing Axware enhances our decision-making process, giving us an informational advantage.
	Analytical	The consistent, fundamental contextualization and scoring of information in Axware and the extrapolation of this data across sectors, geographies, and market caps allows the investment team to identify investable inflections and durable trends, as well as to proactively monitor investment risks and return potential.
	Behavioral	Our empirical, fact-based, fundamental decision-making process is enhanced by Axware, allowing the investment team to capitalize on persistent behavioral market inefficiencies related to anchoring, confirmation bias, recency bias, availability bias, and group think.

Axiom's Tools / Supported by Evidence

Axware



1 Acceleration

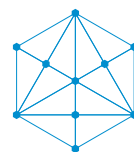
Example: Forward-looking operational drivers include information such as new contract wins, market share gains, and improving industry dynamics as reflected in credit card receipts and website activity.



4 Adjustment

Example: Downgrading from C3 to C2 due to more limited upside following positive EPS revisions that largely reflect the accretion from an acquisition, thereby impacting Axiom's fundamental thesis.

Axiom Rating Grid



2 Analysis

Example: A new EV technology uncovered by a small cap name in China has direct implications for large auto makers across emerging and developed markets.



3 Action

Example: Every company we invest in is given a risk rating (a letter, A-E) and a return rating (a number 1-3). A "C2" rated company is targeted to be a 1-3% weighting of the total portfolio across any Axiom strategy given our consistent framework.

Axware in Action

Selection of notable Axware entries** (from hundreds of cumulative data points)



Acceleration

Forward looking identification of trends and inflections.

Entity	Rating	User	Score	Date	Type
ABC Company	C2	YB	0000	02/02/19	News
XYZ Inc. hires ABC Company to take over 400 person call center in U.K. effective in March.					
ABC Company	C2	JE	0000	03/31/19	Management
Meeting with ABC management reveals recent contract wins in Paris will boost EMEA growth; LATAM will not slow due to success with multi-lingual hubs.					
ABC Company	C2	CDB	0000	04/09/19	Analyst
J&Co. issues limited recall which is expected to boost demand for outsourced call centers over the next 12 months.					
ABC Company	C2	AB	0000	04/15/19	Analyst
Analysis of ABC's job posting online across multiple US states and 6 countries outside the US indicates that the company pays significant premium to the minimum wage requirements. Source: MS					
ABC Company	C2	JE	0000	04/30/19	ESG
Board expands number of independent directors and revised composition of short and long-term incentives for management team.					
ABC Company	C2	MAF	0000	05/10/19	News
Acquisition announced that will provide a larger footprint in North America with estimated EPS accretion of +5% for FY19 and +14% for FY20.					

- Cluster of new contract wins in the U.K. and Europe provide indication of positive change
- Insight from Axiom U.S. small cap team fundamentally shared across portfolios
- Improvement in shareholder alignment and Board composition
- Acquisition expands footprint and results in significant EPS accretion



Adjustment

Ratings and weights adjusted as risk/return evolves.

Entity	Rating	User	Score	Date	Type
ABC Company	C2	DKB	0000	05/30/19	News
Two Italian call centers outsourced to ABC in Milan and Rome, with staff already partially trained.					
ABC Company	C2	JE	0000	06/14/19	Economic
E.U. Services PMI was 68.3 in May >59.0e highest reading since Oct. 2015.					
ABC Company	C2	MAF	0000	08/23/19	Earnings
ABC organic revenue growth of +6.5% > 5%e in Q219; EBIT margin guidance reiterated					
ABC Company	C3	AB	0000	09/12/19	Rank Change
ABC organic revenue growth of +6.5% > 5%e in Q219; EBIT margin guidance reiterated					
ABC Company	C3	MAF	0000	10/01/19	News
ABC management notes an increase in multiples for acquisition targets could impact mid-term ability to expand to new markets					
ABC Company	C2	JE	0000	10/11/19	Economic
U.S. Services PMI was 67.8 in September <70.1e marking the lowest reading since February 2019.					
ABC Company	C2	AB	0000	11/16/19	Rank Change
Downgrading from C3 to C2 due to more limited upside following EPS revisions of +18% that largely reflect May acquisition.					

- C2 rating is confirmed by continuous monitoring of data for ABC by the entire Axiom investment team
- Upgrade from C2 to C3 as a result of an accumulation of positive data points confirming a widening gap between investment thesis and market expectations
- Downgrade from C3 to C2 on full inclusion of acquisition upside in consensus estimates

Axiom Risk / Return Rating Grid



Analysis

Holistic assessment
of key stock drivers

Example grid – stock purchased in 2015

Axiom Return Rating		2
60%	Positive Change <i>Dynamic gap, ESG trends, driver quality</i>	2
20%	Sustainability of Growth <i>Competitive moats, ROE, EBIT margin</i>	2
20%	Valuation <i>Absolute, relative to peers, and to history</i>	2
Axiom Risk Rating		C
35%	Enterprise Characteristics <i>Market cap, competitive position, daily liquidity</i>	C
30%	Financial Soundness <i>Net debt/equity, profit consistency and FCF</i>	B
25%	ESG and Structural Factors <i>ESG, management, country or market risk</i>	C
10%	Statistical Factors <i>Beta, shareholder profile</i>	C
Axiom Overall Rating		C2



Action

Rating reflects risk & return
driving stock inclusion and size

Example grid – stock sold in 2020

Axiom Return Rating		0
60%	Positive Change <i>Dynamic gap, ESG trends, driver quality</i>	0
20%	Sustainability of Growth <i>Competitive moats, ROE, EBIT margin</i>	2
20%	Valuation <i>Absolute, relative to peers, and to history</i>	0
Axiom Risk Rating		C
35%	Enterprise Characteristics <i>Market cap, competitive position, daily liquidity</i>	C
30%	Financial Soundness <i>Net debt/equity, profit consistency and FCF</i>	C
25%	ESG and Structural Factors <i>ESG, management, country or market risk</i>	C
10%	Statistical Factors <i>Beta, shareholder profile</i>	C
Axiom Overall Rating		C0

Strategy Performance



Strategy	Performance							Strategy Information		
	QTD	Cumulative YTD	1 Year	3 Years	Annualized		ITD	AUM	AUA	Inception
Long Only¹										
International Equity (gross)	-17.5	-31.0	-26.5	8.0	8.9	9.4	11.9	\$1.6B	-	7/1/1996
International Equity (net)	-17.7	-31.3	-27.1	7.1	8.0	8.5	10.9			
Benchmark (MSCI ACWI ex USA)	-13.7	-18.4	-19.4	1.4	2.5	4.8	4.6			
Global Equity (gross)	-20.9	-32.2	-27.1	5.5	8.8	10.3	8.4	\$2.8B	-	7/1/2004
Global Equity (net)	-21.1	-32.5	-27.7	4.7	7.9	9.4	7.5			
Benchmark (MSCI ACWI)	-15.7	-20.2	-15.8	6.2	7.0	8.8	6.9			
US Small Cap (gross)	-16.4	-29.5	-22.7	10.6	13.2	13.0	11.6	\$196M	\$76M	9/1/2006
US Small Cap (net)	-16.6	-29.9	-23.3	9.7	12.3	12.0	10.6			
Benchmark (Russell 2000 Growth)	-19.3	-29.5	-33.4	1.4	4.8	9.3	7.7			
Emerging Markets (gross)	-14.3	-23.8	-30.5	2.2	4.0	5.4	4.9	\$6.0B	-	8/1/2007
Emerging Markets (net)	-14.5	-24.2	-31.2	1.2	3.0	4.3	3.9			
Benchmark (MSCI EM)	-11.4	-17.6	-25.3	0.6	2.2	3.1	1.7			
International Small Cap (gross)	-19.4	-33.4	-31.6	5.1	5.9		8.7	\$925M	-	1/1/2014
International Small Cap (net)	-19.7	-33.7	-32.2	4.1	4.9		7.6			
Benchmark (MSCI ACWI ex USA Small Cap)	-17.5	-22.9	-22.4	2.9	2.6		3.5			
Emerging Markets World (gross)	-14.0	-24.9	-29.3	3.4	4.7		4.4	\$1.4B	\$657M	7/1/2014
Emerging Markets World (net)	-14.2	-25.2	-30.0	2.4	3.7		3.4			
Benchmark (MSCI EM)	-11.4	-17.6	-25.3	0.6	2.2		1.8			
Concentrated Global Growth (gross)	-18.7	-30.6	-26.2	8.6	11.5		9.9	\$387M	-	12/3/2014
Concentrated Global Growth (net)	-18.9	-30.9	-26.9	7.7	10.6		9.1			
Benchmark (MSCI ACWI)	-15.7	-20.2	-15.8	6.2	7.0		6.6			
Global Small Cap (gross)	-18.5	-33.8					-32.7	\$35M	-	12/1/2021
Global Small Cap (net)	-18.7	-34.1					-33.1			
Benchmark (MSCI ACWI Small Cap)	-17.1	-22.3					-19.3			
Long/Short²										
Performance										
International Opportunity Fund (net)	-15.4	-33.7	-29.4	6.8	7.7	9.3	11.9	\$140M	-	1/1/1999
Benchmark (MSCI ACWI ex USA)	-13.7	-18.4	-19.4	1.4	2.5	4.8	4.3			
International Small/Micro Cap Opportunity Fund (net)	-12.5	-24.4	-21.6	0.8	2.0	6.7	9.1	\$79M	-	9/1/2004
Benchmark (HFRX Equity Hedge)	-4.4	-4.7	-0.9	5.3	3.5	3.5	1.4			
Global Small/Micro Cap Opportunity Fund (net)	-12.7	-24.0	-21.5	0.9	2.3	7.1	5.5	\$29M	-	2/1/2007
Benchmark (HFRX Equity Hedge)	-4.4	-4.7	-0.9	5.3	3.5	3.5	0.5			

As of 6/30/22

¹Strategies are available via separate account, commingled fund, collective investment trust and UCIT. ²Strategies are available via separate account and commingled fund.

Investment Team Bios: Portfolio Managers

Bradley Amoils

Managing Director/Portfolio Manager, Axiom Investors, 2002-Present
 VP, Portfolio Manager, American Century, 1997-2002
 Equity Research Analyst, OppenheimerFunds, 1995-1997
 M.B.A., Columbia Business School, Columbia University
 B.Sc., M.D. equivalent, University of the Witwatersrand Johannesburg

Yogesh Borkar, CFA

Senior Vice President/Portfolio Manager, Axiom Investors, 2021-Present
 Vice President/Portfolio Manager, Axiom Investors, 2013-2021
 Associate Portfolio Manager, Fidelity Investments, 2005-2012
 Senior Research Analyst, DuPont Capital Management, 2001-2005
 Portfolio Manager/Senior Research Analyst, ValueQuest/TA, 1996-2001
 Vice President, Global Research, CIFAR Princeton, 1989-1994
 Author, Rising Stars in Emerging Markets, Published November 2013
 M.B.A., Yale University
 B.Com., Business Management, University of Bombay
 Certificate in ESG Investing, CFA Institute USA

Dean Bumbaca, CFA

Associate Portfolio Manager, Axiom Investors, 2022-Present
 Research Analyst, Axiom Investors, 2017-2022
 Research Associate, Axiom Investors, 2012-2017
 Trading Assistant, Axiom Investors, 2012
 Operations Associate, Axiom Investors, 2010-2012
 B.B.A., School of Business, University of Wisconsin-Madison
 M.B.A. degree candidate, The Wharton School, University of Pennsylvania

Donald Elefson, CFA

Senior Vice President/Portfolio Manager, Axiom Investors, 2012-Present
 Portfolio Manager, Harding Loevner, 2008-2012
 Portfolio Manager, US Trust, 1999-2007
 Portfolio Manager, Smith Barney Asset Management, 1994-1998
 Analyst, Merrill Lynch Asset Management, 1989-1994
 B.A., Economics, University of Washington

Jonathan Ellis, CFA

Director of Research/Portfolio Manager, Axiom Investors, 2019-Present
 Vice President/Research Analyst, Axiom Investors, 2011-2019
 Director, Senior Equity Analyst, Bank of America Merrill Lynch, 1999-2011
 Associate, Pershing LLC, 1998-1999
 M.B.A., Columbia Business School, Columbia University
 B.A., Economics, with honors, Lafayette College

Matthew Franco, CFA

Managing Director/Portfolio Manager, Axiom Investors, 1998-Present
 Research Analyst, Columbus Circle Investors, 1997-1998
 Research Analyst, R.L. Renck & Co., 1996-1997
 B.S., Finance, summa cum laude, Saint John's University

Andrew Jacobson, CFA

CEO/Chief Investment Officer, Axiom Investors, 1998-Present
 Executive VP, Portfolio Manager, Columbus Circle Investors, 1993-1998
 Business Analyst, Booz Allen Hamilton, 1989-1991
 Analyst, Apax Associates, 1988-1989
 M.B.A., with distinction, The Wharton School, University of Pennsylvania
 A.B., Molecular Biology, cum laude, Princeton University

Investment Team Bios: Portfolio Managers

David Kim, CFA

Senior Vice President/Portfolio Manager, Axiom Investors, 2005-Present
Analyst, Pinnacle Associates, 2002-2005
Associate, Morgan Stanley, 2000-2002
Associate, DLJ International-London/Pershing, 1998-2000
B.S., Finance & International Business, Georgetown University

Young Kim

Senior Vice President/Portfolio Manager, Axiom Investors, 2021-Present
Senior Portfolio Manager, Global EM, Columbia Threadneedle Investments, 2011-2021
Senior Vice President, Asia Equity, Marathon Asset Management, 2010-2011
Vice President, Investments/Advisor, 360IP, Inc., 2009-2011
Vice President, Senior Analyst, Galleon Asia Investments, 2006-2009
Senior Engineer and Director of Business Development, Asia, Wavemarket, 2002-2004
Lead Software Engineer/Consultant, Bluefire Systems, 2000-2002
M.B.A., Harvard Business School
M.S., Electrical Engineering & Computer Science, Massachusetts Institute of Technology
S.B., Computer Science, Massachusetts Institute of Technology

José Gerardo Morales, CFA

Senior Vice President/Portfolio Manager, Axiom Investors, 2017-Present
Portfolio Manager/CIO, Mirae Asset Global Investment (USA), 2010-2016
Head of EM/Deputy CIO, LatAm & EMEA, Mirae Asset Global Invest. (UK), 2007-2010
Head of Emerging European Equities, Pictet Asset Management, 2006-2007
Director, Head of EMEA Emerging Markets, WestLB Mellon Asset Mgmt, 2002-2006
Head of EMEA Emerging Markets, HSBC Asset Management Ltd., 1999-2002
M.B.A., Georgetown University
B.Sc., Finance, George Mason University

Andrew Yoon, CFA

Vice President/Portfolio Manager, Axiom Investors, 2021-Present
Portfolio Manager/Analyst, Putnam Investments, 2017-2021
Equity Analyst, Putnam Investments, 2014-2017
Equity Associate, Putnam Investments, 2012-2014
Investment Associate, Putnam Investments, 2011-2012
S.B., Economics & Management Science, Massachusetts Institute of Technology

Investment Team Bios: Research Analysts

Christian Brandstetter, CFA

Analyst, Axiom Investors, 2022-Present
Research Associate, Axiom Investors, 2016-2022
Operations Associate, Axiom Investors, 2014-2016
Credit Rating Analyst, The Bank of New York Mellon, 2013-2014
B.A., Economics, magna cum laude, Bucknell University

Carl D. Brown

Vice President/Research Analyst, Axiom Investors, 2016-Present
Assistant Portfolio Manager/Analyst, Royce & Associates, 2012-2016
Co-Portfolio Manager/Analyst, Royce & Associates, 2009-2012
Founding Partner/Portfolio Manager, Rebus Partners, 2008-2009
Portfolio Manager/Senior Analyst, Cramer Rosenthal McGlynn, LLC, 1999-2008
Analyst, KPMG Peat Marwick, 1994-1999
M.B.A., The Stern School of Business, New York University
B.A., International Relations, University of Pennsylvania

Anna K. Browning, CFA

Research Analyst, Axiom Investors, 2019-Present
Director, Senior Equity Analyst, Bank of America Merrill Lynch, 2005-2019
Analyst, Investment Banking, Citigroup, 2003-2005
B.A., Economics, cum laude, The Wharton School, University of Pennsylvania

Steven Espinosa, CFA

Research Analyst, Axiom Investors, 2013-Present
Equity Research Analyst, Neuberger Berman, 2007-2013
Financial Advisor, Merrill Lynch, 2003-2005
Senior Banking Analyst, JPMorgan, 2000-2003
M.B.A., The Stern School of Business, New York University
B.S., Business Administration, University of California, Berkeley

Tyler Gaylord

Vice President/Research Analyst, Axiom Investors, 2012-Present
Equity Research Analyst, Fidelity Management and Research, 2006-2012
Fund Accountant, Bank of New York, 2002-2004
M.B.A., The Stern School of Business, New York University
B.S., Business Administration, cum laude, University of Colorado

Alexander Harrison

Research Analyst, Axiom Investors, 2014-Present
Vice President, Sector Analyst, Blackrock Inc., 2010-2014
Vice President, Sector Analyst, Nomura Asset Management, 2006-2009
Associate, Financial Analyst, Goldman, Sachs & Co., 2000-2005
M.B.A., Finance & Economics, Columbia Business School, Columbia University
B.S., Industrial & Labor Relations, Cornell University

Alexis Kokolis, CFA

Research Analyst, Axiom Investors, 2015-Present
Equity Research Analyst, Alpine Woods Capital Investors, 2012-2015
Analyst, Fayed Sarofim & Co., 2008-2010
Senior Associate, Alvarez & Marsal, 2005-2008
M.B.A., Columbia Business School, Columbia University
B.B.A., Finance and B.A., Plan II Honors, University of Texas at Austin



Investment Team Bios: Research Analysts

Michael Olsen, CFA

Research Analyst, Axiom Investors, 2017-Present
Research Associate, Axiom Investors, 2010-2017
Operations Associate, Axiom Investors, 2009-2010
B.S., Finance, magna cum laude, Fairfield University

David Schneider, CFA

Vice President/Research Analyst, Axiom Investors, 2007-Present
Senior Associate, PricewaterhouseCoopers LLC, 2004-2006
B.S., Finance & International Business, with honors, Penn State University

Client Partnership Bios

Lindsay Chamberlain

Managing Director/Client Partnerships, Axiom Investors, 2021-Present
Senior VP/Client Service and Marketing, Axiom Investors, 2013-2021
Director, Institutional Investments, Artio Global Investors, 2008-2013
Investor Relations, JPMorgan, 2007-2008
Sales Assistant, Bank of America, 2006-2007
Project Manager, General Electric, 2004-2006
B.S., Business Information Technology, magna cum laude, Virginia Tech

Steve Hanson

Director of Client Partnerships, Axiom Investors, 2015-Present
Vice President, Institutional Consultant Relations, American Century, 2013-2015
Director, Public Fund Services, Lord Abbett & Company, 2004-2012
M.B.A., Raymond A. Mason School of Business, College of William & Mary
B.S.B.A., Economics, University of Central Florida

Greg Schneider

Director of Client Partnerships, Axiom Investors, 2021-Present
Managing Director of Consultant Relations, GQG Partners, 2019-2021
Director of Business Development, GQG Partners, 2017-2019
Director of Business Development, Pacific Current Group, 2016-2017
Senior Consultant Relations Manager, Aberdeen Asset Management, 2009-2016
Analyst, BlackRock, 2006-2008
B.B.A., Finance & Accounting, University of Michigan

Megan Strater

Director of Client Partnerships, Axiom Investors, 2021-Present
Consultant Relations Lead, Bridgewater Associates, 2018-2021
Marketing Associate, Bridgewater Associates, 2016-2018
Client Service Coordinator, Bridgewater Associates, 2011-2016
Chief of Staff, White Deer Energy, 2007-2011
B.A., English & Spanish, Highest Honors, Rutgers University

Matt Welling, CFA

Director of Client Partnerships, Axiom Investors, 2021-Present
Vice President, Institutional Business Dev, Wasatch Global Investors, 2015-2021
Associate, Global Principal Investments, Bank of America Merrill Lynch, 2014-2015
Summer Associate, Bank of America Merrill Lynch, 2013
Senior Account Associate, PIMCO, 2008-2012
Credit Manager, CITI, 2006-2008
M.B.A., The Wharton School, University of Pennsylvania
B.S., Business, Brigham Young University

Axiom International Equity Strategy: GIPS composite report

International Equity Composite (Inception 07/01/96)

	Composite return (gross of fees)	Composite return (net of fees)	Benchmark Total Return (%)	No. of accounts	Market value (millions)	Total firm assets (millions)	% of firm assets (%)	Internal dispersion (%)	Composite 3-year standard deviation (%)	Benchmark 3-year standard deviation (%)
YTD 2022	-30.98%	-31.28%	-18.42%	≤5	1,590.0	13,544.7	11.74	N/A	19.18	17.22
2021	20.20%	19.21%	7.82%	6	2,251.0	18,639.7	12.08	0.54	15.82	16.79
2020	37.97%	36.84%	10.65%	6	2,202.5	18,535.9	11.88	N/A	17.83	17.93
2019	33.76%	32.66%	21.51%	7	1,715.6	13,458.1	12.75	N/A	12.99	11.34
2018	-16.34%	-17.05%	-14.20%	6	989.4	9,729.2	10.17	N/A	13.02	11.38
2017	35.25%	34.15%	27.19%	6	1,123.6	12,116.0	9.27	N/A	10.91	11.87
2016	-3.56%	-4.38%	4.50%	7	1,124.2	9,671.6	11.62	0.11	11.17	12.51
2015	1.21%	0.35%	-5.66%	7	1,402.2	8,704.3	16.11	0.20	11.25	12.13
2014	-2.76%	-3.58%	-3.87%	8	2,035.0	9,482.3	21.46	0.07	13.04	12.81
2013	32.03%	30.94%	15.29%	8	2,307.9	9,949.8	23.20	0.42	16.91	16.23
2012	13.92%	12.98%	16.83%	12	3,008.3	8,611.6	34.93	0.25	19.83	19.26

Fee schedule: First \$25 million: 0.85%; Balance: 0.75%

Firm Compliance Statement: Axiom Investors LLC (the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Axiom has been independently verified for the period September 1, 1998 to March 31, 2022. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Axiom International Equity Composite has had a performance examination for the periods September 1, 1998 to March 31, 2022. The verification and performance examination reports are available upon request.

Definition of the Firm: The firm is currently defined for GIPS purposes as Axiom Investors, LLC (the "Firm") is a registered investment advisor under the Investment Act of 1940.

Policies: Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance does not predict or guarantee future results.

Composite Description: The International Equity strategy (the "Composite") is designed for investors who seek to invest in a broadly diversified portfolio of international equities. Portfolios are invested in the full range of developed markets and may also invest in selected emerging markets. Currencies may be actively managed to reduce portfolio volatility. The Composite represents the performance of all Institutional international style fee-paying, discretionary equity accounts, regardless of asset size and comingled fund(s). The Composite was initiated and created in September 1998. For the periods from July 1, 1996 to August 31, 1998 (the "Prior Composite") was managed by Andrew Jacobson and current Axiom team members at Columbus Circle Investors ("Columbus"). A list of composite descriptions, a list of limited distribution pooled fund descriptions, a list of broad distribution pooled funds and performance results are available upon request.

Benchmark Description: The benchmark is the MSCI All Country World ex U.S. index, which is designed to measure the equity market performance of developed and emerging markets excluding the United States. The benchmark is calculated on a total return basis with net dividends reinvested, after the deduction of withholding taxes and is free float-adjusted market cap weighted and unmanaged. Prior to January 1, 2001, the benchmark was calculated on a total return basis not including tax credits. FX is based off London 4 P.M. close.

Significant Cash Flow Policy: Accounts with a cash flow greater than 20% of the portfolio market value are excluded for the month.

Reporting Currency: Valuations are computed and performance is reported in U.S. dollars. FX is based off NY 4 P.M. close.

Fees: Gross of fees returns are presented before management and custodial fees but after all trading expenses. Net of fees returns are calculated by deducting the highest fee from the monthly gross composite return which is expressed above in the stated fee schedule. Returns include the reinvestment of income. Performance is calculated net of withholding taxes on dividends. The fee schedule for the Axiom International Equity Fund II, which is included in the International Equity Composite is listed above. The total expense ratio as of December 31, 2020 was 0.07%. The Axiom International Equity CIT, which is also included in the composite has an all-in fee (management fees & expenses) of 0.85%.

Internal Dispersion: Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the composite for the entire year. If 5 or less accounts, N/A is shown.

Annualized Standard Deviation: The three-year annualized standard deviation measures the variability of the composite gross returns and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

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Axiom Global Equity Strategy: GIPS composite report

Global Equity Composite (Inception 07/01/04)

	Composite return (gross of fees)	Composite return (net of fees)	Benchmark Total Return (%)	No. of accounts	Market value (millions)	Total firm assets (millions)	% of firm assets (%)	Internal dispersion (%)	Composite 3-year standard deviation (%)	Benchmark 3-year standard deviation (%)
YTD 2022	-32.22%	-32.52%	-20.18%	≤5	2,458.1	13,544.7	18.15	N/A	20.86	17.77
2021	20.20%	19.21%	18.54%	≤5	3,672.3	18,639.7	19.70	N/A	17.95	16.84
2020	36.03%	34.92%	16.25%	≤5	3,554.8	18,535.9	19.18	N/A	19.40	18.13
2019	32.43%	31.35%	26.60%	≤5	2,575.4	13,458.1	19.14	N/A	13.80	11.22
2018	-10.76%	-11.51%	-9.42%	≤5	1,535.5	9,729.2	15.78	N/A	12.88	10.48
2017	35.03%	33.97%	23.97%	≤5	1,853.3	12,116.0	15.30	N/A	10.96	10.36
2016	-0.82%	-1.61%	7.86%	9	2,829.8	9,671.6	29.26	0.24	11.26	11.06
2015	4.78%	3.95%	-2.36%	10	3,072.8	8,704.3	35.30	0.16	11.19	10.79
2014	1.67%	0.86%	4.16%	11	3,269.7	9,482.3	34.48	0.19	12.08	10.50
2013	27.86%	26.86%	22.80%	13	4,072.2	9,949.8	40.93	0.25	16.30	13.94
2012	19.68%	18.84%	16.13%	16	3,270.0	8,611.6	37.97	0.17	19.76	17.13

Fee schedule: First \$25 million: 0.80%; next \$50 million: 0.70%; next \$150 million: 0.60%; next \$250 million: 0.50%; Balance: 0.30%

Firm Compliance Statement: Axiom Investors LLC (the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Axiom has been independently verified for the period September 1, 1998 to March 31, 2022. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Axiom Global Equity composite has had a performance examination for the periods July 1, 2004 to March 31, 2022. The verification and performance examination reports are available upon request.

Definition of the Firm: The firm is currently defined for GIPS purposes as Axiom Investors, LLC (the "Firm") is a registered investment advisor under the Investment Act of 1940.

Policies: Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance does not predict or guarantee future results.

Composite Description: The Global Equity strategy (the "Composite") is designed for investors who seek to invest in a broadly diversified portfolio of international equities. Portfolios are invested in companies located both in the United States and throughout the world. Currencies may be actively managed to reduce portfolio volatility. The Composite represents the performance of all institutional global style fee-paying, discretionary equity accounts, regardless of asset size and comingled fund(s). The Composite was initiated and created in July 2004. A list of composite descriptions, a list of limited distribution pooled fund descriptions, a list of broad distribution pooled funds and performance results are available upon request.

Benchmark Description: The benchmark is the MSCI All Country World index, which is designed to measure the equity market performance of developed and emerging markets. The benchmark is calculated on a total return basis with net dividends reinvested, after the deduction of withholdings taxes and is free float-adjusted market cap weighted and unmanaged. FX is based off London 4 P.M. close.

Significant Cash Flow Policy: Accounts with a cash flow greater than 20% of the portfolio market value are excluded for the month.

Reporting Currency: Valuations are computed and performance is reported in U.S. dollars. FX is based off NY 4 P.M. close.

Fees: Gross of fees returns are presented before management and custodial fees but after all trading expenses. Net of fees returns are calculated by deducting the highest fee from the monthly gross composite return which is expressed above in the stated fee schedule. Returns include the reinvestment of income. Performance is calculated net of withholding taxes on dividends. The fee schedule for the Axiom Global Equity Fund, which is included in the Global Equity Composite is listed above. The total expense ratio as of December 31, 2020 was 0.19%.

Internal Dispersion: Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the composite for the entire year. If 5 or less accounts, N/A is shown.

Annualized Standard Deviation: The three-year annualized standard deviation measures the variability of the composite gross returns and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

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Axiom US Small Cap Equity Strategy: GIPS composite report

US Small Cap Equity Composite (Inception 09/01/06)

	Composite return (gross of fees)	Composite return (net of fees)	Benchmark Total Return (%)	No. of accounts	Market value (millions)	Total firm assets (millions)	% of firm assets (%)	Internal dispersion (%)	Composite 3-year standard deviation (%)	Benchmark 3-year standard deviation (%)
YTD 2022	-29.54%	-29.85%	-29.45%	≤5	195.6	13,544.7	1.44	N/A	20.20	24.40
2021	25.61%	24.58%	2.83%	≤5	249.9	18,639.7	1.34	N/A	17.06	23.07
2020	48.98%	47.77%	34.63%	≤5	242.7	18,535.9	1.31	N/A	20.74	25.10
2019	30.87%	29.80%	28.48%	≤5	204.3	13,458.1	1.52	N/A	15.67	16.37
2018	-2.70%	-3.51%	-9.31%	≤5	208.0	9,729.2	2.14	N/A	15.73	16.46
2017	21.02%	20.04%	22.17%	≤5	363.1	12,116.0	3.00	N/A	12.56	14.59
2016	5.52%	4.68%	11.32%	≤5	282.4	9,671.6	2.92	N/A	14.23	16.67
2015	-2.73%	-3.50%	-1.38%	≤5	44.2	8,704.3	0.51	N/A	14.37	14.95
2014	1.11%	0.31%	5.60%	≤5	101.7	9,482.3	1.07	N/A	13.14	13.82
2013	54.36%	53.17%	43.30%	≤5	103.7	9,949.8	1.04	N/A	14.65	17.27
2012	10.26%	9.47%	14.59%	≤5	78.0	8,611.6	0.91	N/A	17.68	20.72

Fee schedule: First \$10 million: 0.80%; next \$15 million: 0.75%; Balance: 0.70%

Firm Compliance Statement: Axiom Investors LLC (the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Axiom has been independently verified for the period September 1, 1998 to March 31, 2022. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Axiom US Small Cap Equity composite has had a performance examination for the periods September 1, 2006 to March 31, 2022. The verification and performance examination reports are available upon request.

Definition of the Firm: The firm is currently defined for GIPS purposes as Axiom Investors, LLC (the "Firm") is a registered investment advisor under the Investment Act of 1940.

Policies: Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance does not predict or guarantee future results.

Composite Description: The US Small Cap Equity strategy (the "Composite") is designed for investors who seek to invest in a broadly diversified portfolio of small cap equities. Portfolios are invested in smaller capitalization equity and equity-related securities in companies located within the United States. Currencies may be actively managed to reduce portfolio volatility. The Composite represents the performance of all Institutional small cap style fee-paying, discretionary equity accounts, regardless of asset size and comingled fund(s). The Composite was initiated and created in September 2006. As of January 1, 2022 the composite name changed from US Small Cap Equity Composite - IPO Eligible to US Small Cap Equity Composite. Prior to January 1, 2022 the composite only included accounts that were eligible to invest in Initial Public Offerings. A list of composite descriptions, a list of limited distribution pooled fund descriptions, a list of broad distribution pooled funds and performance results are available upon request.

Benchmark Description: The benchmark is the Russell 2000 Growth index, which is designed to measure the performance of the small cap growth segment of the U.S. equity universe. The benchmark is calculated on a total return basis and is free float-adjusted market cap weighted and unmanaged.

Significant Cash Flow Policy: Accounts with a cash flow greater than 20% of the portfolio market value are excluded for the month.

Reporting Currency: Valuations are computed and performance is reported in U.S. dollars.

Fees: Gross of fees returns are presented before management and custodial fees but after all trading expenses. Net of fees returns are calculated by deducting the highest fee from the monthly gross composite return which is expressed above in the stated fee schedule. Returns include the reinvestment of income. The fee schedule for the Axiom US Small Cap Equity Portfolio, which is included in the US Small Cap Equity Composite is listed above. The total expense ratio as of December 31, 2020 was 0.61%. The Axiom US Small Cap Equity Trust CIT, which is also included in the composite has an all-in fee (management fees & expenses) of 0.70%.

Internal Dispersion: Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the composite for the entire year. If 5 or less accounts, N/A is shown.

Annualized Standard Deviation: The three-year annualized standard deviation measures the variability of the composite gross returns and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

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Axiom Emerging Markets Equity Strategy: GIPS composite report

Emerging Markets Equity Composite (Inception 08/01/07)

	Composite return (gross of fees)	Composite return (net of fees)	Benchmark Total Return (%)	No. of accounts	Market value (millions)	Total firm assets (millions)	% of firm assets (%)	Internal dispersion (%)	Composite 3-year standard deviation (%)	Benchmark 3-year standard deviation (%)
YTD 2022	-23.79%	-24.17%	-17.63%	18	5,701.2	13,544.7	42.09	N/A	18.88	17.92
2021	-3.22%	-4.15%	-2.54%	17	7,526.5	18,639.7	40.38	0.26	18.49	18.33
2020	31.22%	29.99%	18.31%	17	7,342.6	18,535.9	39.61	0.53	19.80	19.60
2019	25.98%	24.79%	18.42%	18	6,180.6	13,458.1	45.93	0.31	14.46	14.17
2018	-15.76%	-16.59%	-14.58%	18	4,541.1	9,729.2	46.67	0.50	14.76	14.60
2017	42.57%	41.21%	37.28%	21	6,210.6	12,116.0	51.26	0.71	15.07	15.35
2016	9.30%	8.21%	11.19%	16	3,170.0	9,671.6	32.78	0.17	15.55	16.07
2015	-11.29%	-12.19%	-14.92%	16	2,571.7	8,704.3	29.54	0.29	13.96	14.06
2014	-0.26%	-1.26%	-2.19%	14	2,349.1	9,482.3	24.77	0.35	15.07	15.00
2013	4.30%	3.26%	-2.60%	8	1,444.2	9,949.8	14.52	0.30	19.37	19.04
2012	22.94%	21.74%	18.22%	8	1,271.3	8,611.6	14.76	0.03	21.98	21.50

Fee schedule: First \$25 million: 1.00%; next \$75 million: 0.90%; next \$25 million: 0.80%; next \$50 million: 0.70%; Balance: 0.60%

Firm Compliance Statement: Axiom Investors LLC (the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Axiom has been independently verified for the period September 1, 1998 to March 31, 2022. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Axiom Emerging Markets Equity composite has had a performance examination for the periods August 1, 2007 to March 31, 2022. The verification and performance examination reports are available upon request.

Definition of the Firm: The firm is currently defined for GIPS purposes as Axiom Investors, LLC (the "Firm") is a registered investment advisor under the Investment Act of 1940.

Policies: Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance does not predict or guarantee future results.

Composite Description: The Emerging Markets Equity strategy (the "Composite") is designed for investors who seek to invest in a broadly diversified portfolio of emerging market equities. Portfolios are invested in the full range of global emerging markets. Currencies may be actively managed to reduce portfolio volatility. The Composite represents the performance of all institutional emerging markets style fee-paying, discretionary equity accounts, regardless of asset size and comingled fund(s). The Composite was initiated and created in August 2007. A list of composite descriptions, a list of limited distribution pooled fund descriptions, a list of broad distribution pooled funds and performance results are available upon request.

Benchmark Description: The benchmark is the MSCI Emerging Markets index, which is designed to measure the equity market performance in the global emerging markets. The benchmark is calculated on a total return basis with net dividends reinvested, after the deduction of withholding taxes and is free float-adjusted market cap weighted and unmanaged. FX is based off London 4 P.M. close.

Significant Cash Flow Policy: Accounts with a cash flow greater than 20% of the portfolio market value are excluded for the month.

Reporting Currency: Valuations are computed and performance is reported in U.S. dollars. FX is based off NY 4 P.M. close.

Fees: Gross of fees returns are presented before management and custodial fees but after all trading expenses. Net of fees returns are calculated by deducting the highest fee from the monthly gross composite return which is expressed above in the stated fee schedule. Returns include the reinvestment of income. Performance is calculated net of withholding taxes on dividends. The fee schedule for the Axiom Emerging Markets Equity Fund, which is included in the Emerging Markets Equity Composite is listed above. The total expense ratio as of December 31, 2020 was 0.15%. The Axiom Emerging Markets Trust CIT, which is also included in the composite has an all-in fee (management fees & expenses) of 1.00%.

Internal Dispersion: Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the composite for the entire year. If 5 or less accounts, N/A is shown.

Annualized Standard Deviation: The three-year annualized standard deviation measures the variability of the composite gross returns and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

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Axiom International Small Cap Equity Strategy: GIPS composite report

International Small Cap Equity Composite (Inception 01/01/14)

	Composite return (gross of fees)	Composite return (net of fees)	Benchmark Total Return (%)	No. of accounts	Market value (millions)	Total firm assets (millions)	% of firm assets (%)	Internal dispersion (%)	Composite 3-year standard deviation (%)	Benchmark 3-year standard deviation (%)
YTD 2022	-33.37%	-33.71%	-22.92%	9	924.9	13,544.7	6.83	N/A	22.16	21.14
2021	11.18%	10.12%	12.93%	7	1,095.4	18,639.7	5.88	N/A	18.58	19.86
2020	38.87%	37.57%	14.24%	7	1,076.8	18,535.9	5.81	N/A	20.93	20.98
2019	34.82%	33.57%	22.42%	6	672.9	13,458.1	5.00	N/A	13.60	11.61
2018	-18.59%	-19.39%	-18.20%	≤5	389.8	9,729.2	4.01	N/A	14.77	12.34
2017	41.39%	40.09%	31.65%	≤5	334.7	12,116.0	2.76	N/A	12.11	11.53
2016	-0.67%	-1.65%	3.91%	≤5	227.0	9,671.6	2.35	N/A	12.53	12.31
2015	29.59%	28.35%	2.60%	≤5	19.8	8,704.3	0.23	N/A	N/A	N/A
2014	-1.48%	-2.47%	-4.03%	≤5	7.9	9,482.3	0.08	N/A	N/A	N/A

Fee schedule: First \$25 million: 0.95%; next \$75 million: 0.85% ; Balance: 0.75%

Firm Compliance Statement: Axiom Investors LLC (the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has pre-pared and presented this report in compliance with the GIPS standards. Axiom has been independently verified for the period September 1, 1998 to March 31, 2022. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Axiom International Small Cap Equity composite has had a performance examination for the periods January 1, 2014 to March 31, 2022. The verification and performance examination reports are available upon request.

Definition of the Firm: The firm is currently defined for GIPS purposes as Axiom Investors, LLC (the "Firm") is a registered investment advisor under the Investment Act of 1940.

Policies: Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance does not predict or guarantee future results.

Composite Description: The International Small Cap Equity strategy (the "Composite") is designed for investors who seek to invest in a broadly diversified portfolio of International small cap equities. Portfolios are invested in smaller capitalization international equity and international equity-related securities. Currencies may be actively managed to reduce portfolio volatility. The Composite represents the performance of all institutional international small cap style fee-paying, discretionary equity accounts, regardless of asset size and comingled fund(s). The Composite was initiated and created in January 2014. A list of composite descriptions, a list of limited distribution pooled fund descriptions, a list of broad distribution pooled funds and performance results are available upon request.

Benchmark Description: The benchmark is the MSCI All Country World ex U.S. Small Cap index, which is designed to measure the small cap equity market performance of developed and emerging markets excluding the United States. The benchmark is calculated on a total return basis with net dividends reinvested, after the deduction of withholding taxes and is free float-adjusted market cap weighted and unmanaged. FX is calculated using London 4 P.M. close.

Significant Cash Flow Policy: Accounts with a cash flow greater than 20% of the portfolio market value are excluded for the month effective September 30, 2017.

Reporting Currency: Valuations are computed and performance is reported in U.S. dollars. FX is based off NY 4 P.M. close.

Fees: Gross of fees returns are presented before management and custodial fees but after all trading expenses. Net of fees returns are calculated by deducting the highest fee from the monthly gross composite return which is expressed above in the stated fee schedule. Returns include the reinvestment of income. Performance is calculated net of withholding taxes on dividends. The fee schedule for the Axiom International Small Cap Equity Fund, which is included in the International Small Cap Equity Composite is listed above. The total expense ratio as of December 31, 2020 was 0.20%. The Axiom International Small Cap CIT, which is also included in the composite has an all-in fee (management fees & expenses) of 0.80%.

Internal Dispersion: Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the composite for the entire year. If 5 or less accounts, N/A is shown.

Annualized Standard Deviation: The three-year annualized standard deviation measures the variability of the composite gross returns and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

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Axiom Emerging Markets World Equity Strategy: GIPS composite report

Emerging Markets World Equity Composite (Inception 07/01/14)

	Composite return (gross of fees)	Composite return (net of fees)	Benchmark Total Return (%)	No. of accounts	Market value (millions)	Total firm assets (millions)	% of firm assets (%)	Internal dispersion (%)	Composite 3-year standard deviation (%)	Benchmark 3-year standard deviation (%)
YTD 2022	-24.86%	-25.23%	-17.63%	7	787.1	13,544.7	5.81	N/A	18.89	17.92
2021	-0.71%	-1.66%	-2.54%	8	1,634.8	18,639.7	8.77	0.48	18.10	18.33
2020	34.07%	32.81%	18.31%	8	1,876.2	18,535.9	10.12	N/A	19.65	19.60
2019	25.67%	24.49%	18.42%	6	1,268.6	13,458.1	9.43	0.09	14.33	14.17
2018	-16.00%	-16.82%	-14.58%	≤5	1,118.5	9,729.2	11.50	N/A	14.42	14.60
2017	44.13%	42.76%	37.28%	≤5	221.6	12,116.0	1.83	N/A	13.87	15.35
2016	7.09%	6.07%	11.19%	≤5	87.1	9,671.6	0.90	N/A	N/A	N/A
2015	-7.83%	-8.73%	-14.92%	≤5	2.2	8,704.3	0.02	N/A	N/A	N/A
2014*	-5.89%	-6.37%	-7.84%	≤5	2.4	9,482.3	0.02	N/A	N/A	N/A

*Non-annualized partial period performance beginning 7/01/2014

Fee schedule: First \$25 million: 1.00%; next \$75 million: 0.90%; next \$25 million: 0.80%; next \$50 million: 0.70%; Balance: 0.60%

Firm compliance statement: Axiom Investors LLC (the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Axiom has been independently verified for the period September 1, 1998 to March 31, 2022. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Axiom Emerging Markets World Equity composite has had a performance examination for the periods July 1, 2014 to March 31, 2022. The verification and performance examination reports are available upon request.

Definition of the Firm: The firm is currently defined for GIPS purposes as Axiom Investors, LLC (the "Firm") is a registered investment advisor under the Investment Act of 1940.

Policies: Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance does not predict or guarantee future results.

Composite Description: The Emerging Markets World Equity strategy (the "Composite") is designed for investors who seek to invest in a broadly diversified portfolio of emerging market equities. Portfolios are invested in the full range of global emerging markets within all capitalization sizes. Currencies may be actively managed to reduce portfolio volatility. The Composite represents the performance of all institutional emerging markets world style fee-paying, discretionary equity accounts, regardless of asset size. The Composite was initiated and created in July 2014. A list of composite descriptions, a list of limited distribution pooled fund descriptions, a list of broad distribution pooled funds and performance results are available upon request. As of September 30, 2016, the Emerging Markets All Cap strategy (the "Composite") has been renamed the Emerging Markets World Equity composite.

Benchmark Description: The benchmark is the MSCI Emerging Markets index, which is designed to measure the equity market performance in the global emerging markets. The benchmark is calculated on a total return basis with net dividends reinvested, after the deduction of withholding taxes and is free float-adjusted market cap weighted and unmanaged. FX is based off London 4 P.M. close.

Significant Cash Flow Policy: Accounts with a cash flow greater than 20% of the portfolio market value are excluded for the month effective July 31, 2018.

Reporting Currency: Valuations are computed and performance is reported in U.S. dollars. FX is based off NY 4 P.M. close.

Fees: Gross of fees returns are presented before management and custodial fees but after all trading expenses. Net of fees returns are calculated by deducting the highest fee from the monthly gross composite return which is expressed above in the stated fee schedule. Returns include the reinvestment of income. Performance is calculated net of withholding taxes on dividends. The fee schedule for the Axiom Emerging Markets World Equity Fund, which is included in the Emerging Markets World Equity Composite is listed above. The total expense ratio as of December 31, 2020 was 0.96%.

Internal Dispersion: Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the composite for the entire year. If 5 or less accounts, N/A is shown.

Annualized Standard Deviation: The three-year annualized standard deviation measures the variability of the composite gross returns and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

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Axiom Concentrated Global Growth Equity Strategy: GIPS composite report

Concentrated Global Growth Equity Composite (Inception 12/03/14)

	Composite return (gross of fees)	Composite return (net of fees)	Benchmark Total Return (%)	No. of accounts	Market value (millions)	Total firm assets (millions)	% of firm assets (%)	Internal dispersion (%)	Composite 3-year standard deviation (%)	Benchmark 3-year standard deviation (%)
YTD 2022	-30.60%	-30.91%	-20.18%	≤5	386.9	13,544.7	2.86	N/A	20.64	17.77
2021	22.32%	21.31%	18.54%	≤5	384.6	18,639.7	2.06	N/A	17.89	16.84
2020	38.02%	36.89%	16.25%	≤5	781.1	18,535.9	4.21	N/A	19.28	18.13
2019	38.49%	37.36%	26.60%	≤5	105.1	13,458.1	0.78	N/A	14.21	11.22
2018	-9.59%	-10.34%	-9.42%	≤5	135.1	9,729.2	1.39	N/A	13.33	10.48
2017	36.29%	35.43%	23.97%	≤5	153.4	12,116.0	1.27	N/A	11.11	10.36
2016	-3.09%	-3.46%	7.86%	≤5	43.1	9,671.6	0.45	N/A	N/A	N/A
2015	6.71%	6.27%	-2.36%	≤5	64.0	8,704.3	0.74	N/A	N/A	N/A
2014*	-1.23%	-1.26%	-1.55%	≤5	74.1	9,482.3	0.78	N/A	N/A	N/A

*Non-annualized partial period performance beginning 12/03/2014

Fee schedule: First \$25 million: 0.80%; next \$50 million: 0.70%; next \$150 million: 0.60%; next \$250 million: 0.50%; Balance: 0.30%

Firm Compliance Statement: Axiom Investors LLC (the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Axiom has been independently verified for the period September 1, 1998 to March 31, 2022. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Axiom Concentrated Global Growth Equity composite has had a performance examination for the periods December 3, 2014 to March 31, 2022. The verification and performance examination reports are available upon request.

Definition of the Firm: The firm is currently defined for GIPS purposes as Axiom Investors, LLC (the "Firm") is a registered investment advisor under the Investment Act of 1940.

Policies: Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance does not predict or guarantee future results.

Composite Description: The Concentrated Global Growth Equity strategy (the "Composite") is designed for investors who seek to invest in a broadly diversified portfolio of international equities. Portfolios are invested in companies within the United States and throughout the world. Currencies may be actively managed to reduce portfolio volatility. The Composite represents the performance of all institutional concentrated global growth style fee-paying, discretionary equity accounts, regardless of asset size. The Composite was initiated and created in December 2014. A list of composite descriptions, a list of limited distribution pooled fund descriptions, a list of broad distribution pooled funds and performance results are available upon request.

Benchmark Description: The benchmark is the MSCI All Country World index, which is designed to measure the equity market performance of developed and emerging markets. The benchmark is calculated on a total return basis with net dividends reinvested, after the deduction of withholdings taxes and is free float-adjusted market cap weighted and unmanaged. FX is based off London 4 P.M. close.

Reporting Currency: Valuations are computed and performance is reported in U.S. dollars. FX is based off NY 4 P.M. close.

Fees: Gross of fees returns are presented before management and custodial fees but after all trading expenses. Net of fees returns are calculated by deducting the highest fee from the monthly gross composite return which is expressed above in the stated fee schedule. Prior to May 2017, actual fees were used to calculate net of fee performance. Returns include the reinvestment of income. Performance is calculated net of withholding taxes on dividends. The fee schedule for the Axiom Concentrated Global Growth Equity Fund, which is included in the Concentrated Global Growth Equity Composite is listed above. The total expense ratio as of December 31, 2020 was 0.66%.

Internal Dispersion: Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the composite for the entire year. If 5 or less accounts, N/A is shown.

Annualized Standard Deviation: The three-year annualized standard deviation measures the variability of the composite gross returns and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

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Axiom International Opportunity Strategy: GIPS composite report

International Opportunity Long/Short Composite (Inception 01/01/99)

	Composite return (gross of fees)	Composite return (net of fees)	Benchmark Total Return (%)	No. of accounts	Market value (millions)	Total firm assets (millions)	% of firm assets (%)	Internal dispersion (%)	Composite 3-year standard deviation (%)	Benchmark 3-year standard deviation (%)
YTD 2022	-33.32%	-33.68%	-18.42%	≤5	139.9	13,544.7	1.03	N/A	22.37	17.22
2021	22.15%	18.79%	7.82%	≤5	212.9	18,639.7	1.14	N/A	18.72	16.79
2020	46.38%	40.07%	10.65%	≤5	193.8	18,535.9	1.05	N/A	21.56	17.93
2019	37.50%	35.44%	21.51%	≤5	161.0	13,458.1	1.20	N/A	16.49	11.34
2018	-20.05%	-20.97%	-14.20%	≤5	126.3	9,729.2	1.30	N/A	16.43	11.38
2017	43.90%	40.79%	27.19%	≤5	164.7	12,116.0	1.36	N/A	14.02	11.87
2016	-7.04%	-7.94%	4.50%	≤5	130.4	9,671.6	1.35	N/A	14.85	12.51
2015	4.24%	3.23%	-5.66%	≤5	156.2	8,704.3	1.79	N/A	16.65	12.13
2014	-4.03%	-5.22%	-3.87%	≤5	157.5	9,482.3	1.66	N/A	16.77	12.81
2013	47.57%	45.87%	15.29%	≤5	182.1	9,949.8	1.83	N/A	19.06	16.23
2012	12.02%	10.44%	16.83%	≤5	132.6	8,611.6	1.54	N/A	23.76	19.26

Fee schedule: 1.00% Management Fee and 10% Incentive Fee

Firm compliance statement: Axiom Investors LLC (the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Axiom has been independently verified for the period September 1, 1998 to March 31, 2022. The verification reports are available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedure for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

Definition of the firm: The firm is currently defined for GIPS purposes as Axiom Investors, LLC (the "Firm") is a registered investment advisor under the Investment Act of 1940.

Policies: Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance does not predict or guarantee future results.

Composite description: The International Opportunity strategy (the "Composite") is designed for investors who seek to invest in a broadly diversified portfolio of international equities both long and short. Portfolios are invested in the full range of developed markets and may also invest in selected emerging markets. Currencies may be actively managed to reduce portfolio volatility. Modest levels of leverage may be used when deemed appropriate in declining markets. The Composite represents the performance of all institutional global style fee-paying, discretionary equity accounts, regardless of asset size and commingled fund(s). The Composite was initiated and created in January 1999. A list of composite descriptions, a list of limited distribution pooled fund descriptions, a list of broad distribution pooled funds and performance results are available upon request. As of September 1, 2016, the Composite includes both the International Opportunity and International Offshore Funds. Previously, only International Opportunity was included in the Composite.

Benchmark Description: The benchmark is the MSCI All Country World ex US Index, which is designed to measure the equity market performance of developed and emerging markets excluding the United States. The benchmark is calculated

on a total return basis with Net Dividends reinvested, after the deduction of withholding taxes and is free float-adjusted market cap weighted and unmanaged. Prior to January 1, 2001, the benchmark was calculated on a total return basis not including tax credits.

Reporting currency: Valuations are computed and performance is reported in US dollars. FX is based off NY 4 P.M. Close.

Fees: Gross of fees returns are presented before management and custodial fees but after all trading expenses. Net of fees returns are calculated by deducting the highest fee from the monthly gross composite return which is expressed above in the stated fee schedule along with incentive fees. Incentive Fees are applied when the fund reaches its High Water Mark and are calculated quarterly over the period its realized. Returns include the reinvestment of income. Performance is calculated net of withholding taxes on dividends. The fee schedule for the Axiom International Opportunity Fund, L.P. and Axiom Offshore Opportunity LP, which are included in the International Opportunity Long/Short Composite is listed above. The total expense ratio including incentive fees as of December 31, 2020 were 4.33% and 6.18%. The performance fee is earned when the fund's total return, reduced by the management fee, exceeds the benchmark return (the excess return) and the fund's net asset value is above the high watermark, which is the fund's net asset value as of the last quarter end when the performance fee crystallized. The performance fee is 10% of the excess return, which is calculated arithmetically, accrued quarterly, and crystallizes quarterly. Further details of the performance fee calculation are available upon request.

Internal dispersion: Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the composite for the entire year. If 5 or less accounts, N/A is shown.

Annualized standard deviation: The three-year annualized standard deviation measures the variability of the composite gross returns and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

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As of 6/30/22

Axiom International Small/Micro Cap Opportunity Strategy: GIPS composite report International Small/Micro Cap Opportunity Long/Short Composite (Inception 09/01/04)

	Composite return (gross of fees)	Composite return (net of fees)	Benchmark Total Return (%)	No. of accounts	Market value (millions)	Total firm assets (millions)	% of firm assets (%)	Internal dispersion (%)	Composite 3-year standard deviation (%)	Benchmark 3-year standard deviation (%)
YTD 2022	-23.71%	-24.41%	-4.73%	≤5	79.4	13,544.7	0.59	N/A	15.82	8.54
2021	10.85%	7.09%	12.14%	≤5	108.0	18,639.7	0.58	N/A	13.87	8.47
2020	24.21%	17.45%	4.58%	≤5	109.5	18,535.9	0.59	N/A	14.98	9.22
2019	22.45%	19.60%	10.71%	≤5	103.5	13,458.1	0.77	N/A	9.86	5.43
2018	-7.99%	-10.60%	-9.42%	≤5	97.2	9,729.2	1.00	N/A	10.78	5.89
2017	30.51%	23.36%	9.98%	≤5	101.2	12,116.0	0.84	N/A	9.26	5.06
2016	0.56%	-2.19%	0.10%	≤5	88.7	9,671.6	0.92	N/A	9.72	5.37
2015	23.12%	17.64%	-2.33%	≤5	94.5	8,704.3	1.09	N/A	11.27	5.02
2014	3.83%	0.75%	1.42%	≤5	83.2	9,482.3	0.88	N/A	11.80	4.54
2013	22.47%	16.90%	11.14%	≤5	111.2	9,949.8	1.12	N/A	12.72	6.67
2012	24.61%	20.34%	4.81%	≤5	94.6	8,611.6	1.10	N/A	13.27	7.38

Fee schedule: 1.75% Management Fee and 20% Incentive Fee

Firm compliance statement: Axiom Investors LLC (the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Axiom has been independently verified for the period September 1, 1998 to March 31, 2022. The verification reports are available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedure for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

Definition of the firm: The firm is currently defined for GIPS purposes as Axiom Investors, LLC (the "Firm") is a registered investment advisor under the Investment Act of 1940.

Policies: Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance does not predict or guarantee future results.

Composite description: The International Small/Micro Cap Opportunity strategy (the "Composite") is designed for investors who seek to invest in a broadly diversified portfolio of Small/Micro Capitalization stocks, both long and short. Portfolios are invested in the full range of developed markets outside the United States and may also invest in selected emerging markets. Currencies may be actively managed to reduce portfolio volatility. Modest levels of leverage may be used when deemed appropriate in declining markets. The Composite represents the performance of all institutional global style fee-paying, discretionary equity accounts, regardless of asset size and commingled fund(s). The Composite was initiated and created in September 2004. A list of composite descriptions, a list of limited distribution pooled fund descriptions, a list of broad distribution pooled funds and performance results are available upon request. Prior to January 1, 2018, the composite name was the International Micro Cap Strategy.

Benchmark Description: The benchmark is the HFRX Equity Hedge which encompasses various equity hedge strategies, also known as long/short equity, that combine core long holdings of equities with short sales of stock, stock indices, related

derivatives, or other financial instruments related to the equity markets. Net exposure of equity hedge portfolios may range anywhere from net long to net short depending on market conditions. It is constructed using robust filtering, monitoring and quantitative constituent selection process using the Hedge Fund Research database (HFR Database), an industry standard for hedge fund data. FX is based off London 4 P.M. close.

Reporting currency: Valuations are computed and performance is reported in US dollars. FX is based off NY 4 P.M. Close.

Fees: Gross of fees returns are presented before management and custodial fees but after all trading expenses. Net of fees returns are calculated by deducting the highest fee from the monthly gross composite return which is expressed above in the stated fee schedule along with incentive fees. Incentive Fees are applied when the fund reaches its High Water Mark and are calculated quarterly over the period its realized. Returns include the reinvestment of income. Performance is calculated net of withholding taxes on dividends. The fee schedule for the Axiom International Small/Micro Cap Opportunity Fund, L.P., which is included in the International Small/Micro Cap Opportunity Long/Short Composite is listed above. The total expense ratio including incentive fees as of December 31, 2020 were 4.00%. The performance fee is earned when the fund's total return, reduced by the management fee, exceeds the benchmark return (the excess return) and the fund's net asset value is above the high watermark, which is the fund's net asset value as of the last quarter end when the performance fee crystallized. The performance fee is 20% of the excess return, which is calculated arithmetically, accrued quarterly, and crystallizes quarterly. Further details of the performance fee calculation are available upon request.

Internal dispersion: Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the composite for the entire year. If 5 or less accounts, N/A is shown.

Annualized standard deviation: The three-year annualized standard deviation measures the variability of the composite gross returns and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

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Axiom Global Small/Micro Cap Opportunity Strategy: GIPS composite report

Global Small/Micro Cap Opportunity Long/Short Composite (Inception 02/01/07)

	Composite return (gross of fees)	Composite return (net of fees)	Benchmark Total Return (%)	No. of accounts	Market value (millions)	Total firm assets (millions)	% of firm assets (%)	Internal dispersion (%)	Composite 3-year standard deviation (%)	Benchmark 3-year standard deviation (%)
YTD 2022	-23.34%	-24.04%	-4.73%	≤5	29.0	13,544.7	0.21	N/A	16.18	8.54
2021	9.96%	6.40%	12.14%	≤5	39.9	18,639.7	0.21	N/A	14.39	8.47
2020	25.23%	18.27%	4.58%	≤5	40.8	18,535.9	0.22	N/A	15.49	9.22
2019	22.81%	19.80%	10.71%	≤5	36.8	13,458.1	0.27	N/A	10.04	5.43
2018	-7.45%	-10.08%	-9.42%	≤5	32.6	9,729.2	0.33	N/A	11.13	5.89
2017	32.25%	25.63%	9.98%	≤5	35.2	12,116.0	0.29	N/A	9.64	5.06
2016	1.30%	-1.58%	0.10%	≤5	31.4	9,671.6	0.32	N/A	10.24	5.37
2015	23.01%	17.85%	-2.33%	≤5	32.7	8,704.3	0.38	N/A	11.36	5.02
2014	1.60%	-1.25%	1.42%	≤5	32.9	9,482.3	0.35	N/A	11.95	4.54
2013	24.43%	18.79%	11.14%	≤5	35.7	9,949.8	0.36	N/A	13.33	6.67
2012	26.45%	22.12%	4.81%	≤5	21.6	8,611.6	0.25	N/A	14.89	7.38

Fee schedule: 1.75% Management Fee and 20% Incentive Fee

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Benchmark Description: The benchmark is the HFRX Equity Hedge which encompasses various equity hedge strategies, also known as long/short equity, that combine core long holdings of equities with short sales of stock, stock indices, related derivatives, or other financial instruments related to the equity markets. Net exposure of equity hedge portfolios may range

As of 6/30/22

anywhere from net long to net short depending on market conditions. It is constructed using robust filtering, monitoring and quantitative constituent selection process using the Hedge Fund Research database (HFR Database), an industry standard for hedge fund data. FX is based off London 4 P.M. close.

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Axiom Investors

Axiom Emerging Markets Equity Strategy

Holdings as of 7.31.2022

	Sedol	Market Capitalization	Price	Port. Shares	Port. Ending Market Value	Axiom Sector
Total		128,246			287,707,160.85	
Equity		128,246			283,980,551.64	
AIA Group Limited	B4TX8S1	121,437	10.06	443,800	4,466,438.21	Financials
Airports of Thailand Public Co. Ltd.	BDFLHW9	27,264	1.91	1,006,900	1,922,008.70	Industrials
Airtac International Group	B52J816	5,457	27.29	98,200	2,679,762.18	Industrials
Alibaba Group Holding Ltd.	BK6YZP5	251,433	11.86	729,400	8,650,921.69	Consumer Discretionary
Alibaba Group Holding Ltd. Sponsored ADR	BP41ZD1	236,831	89.37	4,246	379,465.02	Consumer Discretionary
Alinma Bank	B39NWT3	20,261	10.13	481,699	4,880,091.31	Financials
America Movil SAB de CV Sponsored ADR Class L	2722670	38,125	18.93	78,500	1,486,005.00	Communication Services
Anglo American plc	B1XZS82	43,586	35.92	54,474	1,956,657.21	Materials
Apollo Hospitals Enterprise Limited	6273583	7,642	53.15	20,676	1,098,885.83	Health Care
Baidu Inc Sponsored ADR Class A	B0FXT17	37,643	136.57	30,781	4,203,761.17	Communication Services
Baidu, Inc. Class A	BOJ2D41	46,660	16.88	321,850	5,432,707.62	Communication Services
Bajaj Finance Limited	BD2N0P2	54,903	90.96	37,553	3,415,800.05	Financials
Bangkok Dusit Medical Services Public Co. Ltd. NVDR	B013SV4	11,549	0.73	4,202,000	3,054,235.45	Health Care
BB Seguridade Participacoes SA	B9N3SQ0	11,136	5.60	732,100	4,102,363.78	Financials
Bharti Airtel Limited	6442327	46,947	8.55	632,811	5,413,005.13	Communication Services
BYD Company Limited Class H	6536651	105,915	36.38	191,400	6,963,812.63	Consumer Discretionary
Capitec Bank Holdings Limited	6440859	13,826	119.91	17,233	2,066,435.09	Financials
Centre Testing International Group Co., Ltd. Class A	BD5C7D3	5,126	3.04	654,900	1,993,540.86	Industrials
Chailease Holding Co. Ltd.	B58J1S8	10,758	7.06	538,550	3,804,513.34	Financials
China Longyuan Power Group Corporation Ltd Class H	B4Q2TX3	13,411	1.60	3,001,000	4,801,783.51	Utilities
China Merchants Bank Co., Ltd. Class H	B1DYPZ5	136,221	5.40	500,500	2,703,440.90	Financials
China Yangtze Power Co., Ltd. Class A	BP3R2M8	80,609	3.54	757,200	2,678,448.21	Utilities
Chongqing Brewery Co.Ltd Class A	BP3RCZ1	8,829	18.20	215,200	3,917,711.71	Consumer Staples
Clicks Group Limited	6105578	4,098	16.84	91,597	1,542,799.49	Consumer Staples
Contemporary Amperex Technology Co., Ltd. Class A	BHQPSY7	175,011	75.34	34,800	2,621,765.99	Industrials
Country Garden Services Holdings Co. Ltd.	BDQZP48	7,495	2.23	1,022,000	2,275,827.10	Industrials

Delta Electronics, Inc.	6260734	22,383	8.62	434,000	3,740,004.68	Information Technology
DLocal Limited Class A	BKVF490	8,199	27.78	25,035	695,472.30	Information Technology
East Money Information Co., Ltd Class A	BD5CPC8	43,641	3.30	1,022,520	3,370,079.54	Financials
Eclat Textile Co., Ltd.	6345783	3,739	13.63	58,300	794,495.47	Consumer Discretionary
First Abu Dhabi Bank P.J.S.C.	6624471	58,376	5.29	869,763	4,599,138.88	Financials
FirstRand Limited	6606996	22,060	3.95	524,297	2,068,783.65	Financials
Globant SA	BP40HF4	8,292	199.24	6,015	1,198,428.60	Information Technology
Grupo Financiero Banorte SAB de CV Class O	2421041	16,427	5.69	791,500	4,504,361.04	Financials
Grupo Mexico S.A.B. de C.V. Class B	2643674	30,457	3.95	540,500	2,137,432.78	Materials
HDFC Bank Limited	BK1N461	100,526	18.10	346,688	6,273,577.71	Financials
Hon Hai Precision Industry Co., Ltd.	6438564	50,463	3.64	1,010,000	3,677,143.53	Information Technology
Hypera S.A.	B2QY968	5,185	8.23	410,100	3,376,081.76	Health Care
Infosys Limited	6205122	82,003	19.55	41,779	816,906.64	Information Technology
Infosys Limited Sponsored ADR	2398822	81,749	19.49	91,060	1,774,759.40	Information Technology
JD.com, Inc. Class A	BKPQZT6	93,030	29.78	209,650	6,244,336.73	Consumer Discretionary
Jiumaojiu International Holdings Ltd.	BLBFH65	3,162	2.18	832,000	1,810,331.61	Consumer Discretionary
Kasikornbank Public Co. Ltd.	6888783	9,397	2.38	996,137	2,368,371.71	Financials
KB Financial Group Inc.	B3DF0Y6	14,531	37.30	23,045	859,662.96	Financials
Kia Corp.	6490928	25,060	62.52	59,194	3,700,764.40	Consumer Discretionary
Localiza Rent A Car S.A.	B08K3S0	8,337	11.14	308,800	3,438,671.69	Industrials
LONGi Green Energy Technology Co., Ltd. Class A	BRTL411	69,176	9.11	303,500	2,764,853.58	Information Technology
Luzhou Laojiao Company Limited Class A	BD5CMM7	48,307	32.91	56,000	1,843,191.28	Consumer Staples
MediaTek Inc	6372480	36,299	22.81	65,200	1,487,411.07	Information Technology
MercadoLibre, Inc.	B23X1H3	40,961	813.71	2,594	2,110,763.74	Consumer Discretionary
NAVER Corp.	6560393	29,796	199.41	5,579	1,112,535.42	Communication Services
Ping An Insurance (Group) Company of China, Ltd. Class	B01FLR7	106,717	5.89	1,084,000	6,379,963.57	Financials
PT Bank Central Asia Tbk	B01C1P6	61,087	0.50	9,441,300	4,679,268.71	Financials
PT Bank Rakyat Indonesia (Persero) Tbk Class B	6709099	44,505	0.29	17,591,600	5,171,906.68	Financials
PT Telkom Indonesia (Persero) Tbk Class B	BD4T6W7	28,251	0.29	7,814,400	2,228,921.92	Communication Services
PTT Exploration & Production Plc	B1359K1	17,526	3.72	1,506,980	5,609,843.08	Energy
Public Bank Bhd	B012W42	20,237	1.04	2,588,000	2,699,712.23	Financials
Reliance Industries Limited	6099626	214,123	31.66	300,122	9,502,614.97	Energy
S-Oil Corporation	6406055	8,227	70.68	23,055	1,629,541.88	Energy
SABIC Agri-Nutrients Co.	B1323K0	16,856	35.41	60,393	2,138,630.65	Materials
SAMSUNG BIOLOGICS Co., Ltd.	BYNJCV6	44,056	666.00	3,714	2,473,521.71	Health Care

Samsung Electronics Co Ltd Pfd Non-Voting	6773812	298,039	43.89	26,248	1,151,937.17	Information Technology
Samsung Electronics Co., Ltd.	6771720	321,045	47.27	177,970	8,413,426.24	Information Technology
Samsung SDI Co., Ltd	6771645	29,290	438.10	11,137	4,879,083.00	Information Technology
Samvardhana Motherson International Limited	6743990	7,247	1.61	1,244,575	1,999,015.82	Consumer Discretionary
Saudi Arabian Oil Co.	BJTM270	2,324,320	10.57	360,518	3,810,789.87	Energy
Shenzhen Inovance Technology Co., Ltd Class A	BD5CMN8	25,836	9.79	335,900	3,289,888.46	Industrials
Shenzhen Mindray Bio-Medical Electronics Co., Ltd. Cla	BHQK864	51,968	42.88	53,800	2,307,114.61	Health Care
Shinhan Financial Group Co., Ltd.	6397502	14,172	27.49	104,597	2,875,048.43	Financials
Silergy Corp.	BH4DMW9	7,009	18.57	68,000	1,262,834.43	Information Technology
SK hynix Inc.	6450267	51,821	75.38	21,149	1,594,153.91	Information Technology
Taiwan Semiconductor Manufacturing Co., Ltd.	6889106	440,819	17.00	259,000	4,403,320.08	Information Technology
Taiwan Semiconductor Manufacturing Co., Ltd. Sponso	2113382	458,864	88.48	161,920	14,326,681.60	Information Technology
Tencent Holdings Ltd.	BMMV2K8	370,824	39.08	145,800	5,698,490.39	Communication Services
Titan Company Limited	6139340	26,356	29.68	30,370	901,276.60	Consumer Discretionary
TOTVS S.A.	B10LQP6	3,073	5.10	354,000	1,804,383.88	Information Technology
Trip.com Group Ltd. Sponsored ADR	BK1K3N2	15,830	25.78	97,200	2,505,816.00	Consumer Discretionary
Wal-Mart de Mexico SAB de CV	BW1YVH8	63,326	3.62	1,598,600	5,791,528.83	Consumer Staples
WEG S.A.	2945422	22,635	5.42	814,000	4,411,821.78	Industrials
WuXi AppTec Co., Ltd. Class H	BGHH0L6	35,377	12.10	74,300	899,206.34	Health Care
Wuxi Lead Intelligent Equipment Co. Ltd. Class A	BD6QWJ5	13,834	8.83	511,500	4,518,784.16	Industrials
XP Inc. Class A	BK4Y052	11,801	21.10	77,330	1,631,663.00	Financials
Yunnan Botanee Bio-Technology Group Co., Ltd. Class A	BP91N43	12,203	28.75	139,100	3,998,952.44	Consumer Staples
Yunnan Energy New Material Co., Ltd. Class A	BFCCR30	28,293	31.70	117,100	3,711,661.85	Materials
Cash		NA			3,726,609.21	

Axiom MSCI Country	Axiom MSCI Region	Port. Weight	Bench. Ending Weight	Cusip (9 Digit)	ISIN	Bloomberg ID	Asset Type (Client Definition/ FactSet)
		100.00	100.00				
		98.70	100.00				
Hong Kong	Asia Ex Japan	1.55	0.00	B4TX8S	HK0000069689	1299 HK	Equity Common
Thailand	Asia Ex Japan	0.67	0.13	BDFLHW	TH0765010Z08	AOT TB	Equity Common
Taiwan	Asia Ex Japan	0.93	0.06	B52J81	KYG014081064	1590 TT	Equity Common
China	Asia Ex Japan	3.01	2.78	BK6YZP	KYG017191142	9988 HK	Equity Common
China	Asia Ex Japan	0.13	0.00	01609W102	US01609W1027	BABA US	ADR/GDR
Saudi Arabia	EMEA	1.70	0.15	B39NWT	SA122050HV19	ALINMA AB	Equity Common
Mexico	EMEA	0.52	0.00	02364W105	US02364W1053	AMX US	ADR/GDR
United Kingdom	United Kingdom	0.68	0.00	B1XZS8	GB00B1XZS820	AAL LN	Equity Common
India	Asia Ex Japan	0.38	0.08	627358	INE437A01024	APHS IN	Equity Common
China	Asia Ex Japan	1.46	0.00	056752108	US0567521085	BIDU US	ADR/GDR
China	Asia Ex Japan	1.89	0.58	B0J2D4	KYG070341048	9888 HK	Equity Common
India	Asia Ex Japan	1.19	0.38	BD2NOP	INE296A01024	BAF IN	Equity Common
Thailand	Asia Ex Japan	1.06	0.00	B013SV	TH0264010R10	BDMS-R TB	Equity Common
Brazil	Latin America	1.43	0.06	B9N3SQ	BRBBSEACNOR5	BBSE3 BZ	Equity Common
India	Asia Ex Japan	1.88	0.29	644232	INE397D01024	BHARTI IN	Equity Common
China	Asia Ex Japan	2.42	0.46	653665	CNE100000296	1211 HK	Equity Common
South Africa	EMEA	0.72	0.16	644085	ZAE000035861	CPI SJ	Equity Common
China	Asia Ex Japan	0.69	0.00	BD5C7D	CNE100000GV8	300012 C2	Equity Common
Taiwan	Asia Ex Japan	1.32	0.15	B58J1S	KYG202881093	5871 TT	Equity Common
China	Asia Ex Japan	1.67	0.08	B4Q2TX	CNE100000HD4	916 HK	Equity Common
China	Asia Ex Japan	0.94	0.33	B1DYPZ	CNE1000002M1	3968 HK	Equity Common
China	Asia Ex Japan	0.93	0.07	BP3R2M	CNE000001G87	600900 C1	Equity Common
China	Asia Ex Japan	1.36	0.01	BP3RCZ	CNE000000TL3	600132 C1	Equity Common
South Africa	EMEA	0.54	0.06	610557	ZAE000134854	CLS SJ	Equity Common
China	Asia Ex Japan	0.91	0.16	BHQPSY	CNE100003662	300750 C2	Equity Common
China	Asia Ex Japan	0.79	0.07	BDQZP4	KYG2453A1085	6098 HK	Equity Common

Taiwan	Asia Ex Japan	1.30	0.26	626073	TW0002308004	2308 TT	Equity Common
Uruguay	Latin America	0.24	0.00	G29018101	KYG290181018	DLO US	Equity Common
China	Asia Ex Japan	1.17	0.04	BD5CPC	CNE10000MD4	300059 C2	Equity Common
Taiwan	Asia Ex Japan	0.28	0.04	634578	TW0001476000	1476 TT	Equity Common
United Arab Emirates	EMEA	1.60	0.36	662447	AEN000101016	FAB UH	Equity Common
South Africa	EMEA	0.72	0.31	660699	ZAE000066304	FSR SJ	Equity Common
United States	US & Canada	0.42	0.00	L44385109	LU0974299876	GLOB US	Equity Common
Mexico	Latin America	1.57	0.23	242104	MXP370711014	GFNORTEO MM	Equity Common
Mexico	Latin America	0.74	0.19	264367	MXP370841019	GMEXICOB MM	Equity Common
India	Asia Ex Japan	2.18	0.00	BK1N46	INE040A01034	HDFCB IN	Equity Common
Taiwan	Asia Ex Japan	1.28	0.70	643856	TW0002317005	2317 TT	Equity Common
Brazil	Latin America	1.17	0.05	B2QY96	BRHYPEACNOR0	HYPE3 BZ	Equity Common
India	Asia Ex Japan	0.28	1.02	620512	INE009A01021	INFO IN	Equity Common
India	Asia Ex Japan	0.62	0.00	456788108	US4567881085	INFY US	ADR/GDR
China	Asia Ex Japan	2.17	0.92	BKPQZT	KYG8208B1014	9618 HK	Equity Common
China	Asia Ex Japan	0.63	0.02	BLBFH6	KYG5141L1059	9922 HK	Equity Common
Thailand	Asia Ex Japan	0.82	0.00	688878	TH0016010009	KBANK TB	Equity Common
Korea	Asia Ex Japan	0.30	0.23	B3DF0Y	KR7105560007	105560 KS	Equity Common
Korea	Asia Ex Japan	1.29	0.25	649092	KR7000270009	000270 KS	Equity Common
Brazil	Latin America	1.20	0.13	B08K3S	BRRENTACNOR4	RENT3 BZ	Equity Common
China	Asia Ex Japan	0.96	0.06	BRTL41	CNE100001FR6	601012 C1	Equity Common
China	Asia Ex Japan	0.64	0.04	BD5CMM	CNE000000GF2	000568 C2	Equity Common
Taiwan	Asia Ex Japan	0.52	0.54	637248	TW0002454006	2454 TT	Equity Common
United States	US & Canada	0.73	0.00	58733R102	US58733R1023	MELI US	ADR/GDR
Korea	Asia Ex Japan	0.39	0.40	656039	KR7035420009	035420 KS	Equity Common
China	Asia Ex Japan	2.22	0.58	B01FLR	CNE1000003X6	2318 HK	Equity Common
Indonesia	Asia Ex Japan	1.63	0.42	B01C1P	ID1000109507	BBCA IJ	Equity Common
Indonesia	Asia Ex Japan	1.80	0.31	670909	ID1000118201	BBRI IJ	Equity Common
Indonesia	Asia Ex Japan	0.77	0.22	BD4T6W	ID1000129000	TLKM IJ	Equity Common
Thailand	Asia Ex Japan	1.95	0.09	B1359K	TH0355A10Z04	PTTEP TB	Equity Common
Malaysia	Asia Ex Japan	0.94	0.23	B012W4	MYL129500004	PBK MK	Equity Common
India	Asia Ex Japan	3.30	1.49	609962	INE002A01018	RIL IN	Equity Common
Korea	Asia Ex Japan	0.57	0.05	640605	KR7010950004	010950 KS	Equity Common
Saudi Arabia	EMEA	0.74	0.12	B1323K	SA0007879139	SAFCO AB	Equity Common
Korea	Asia Ex Japan	0.86	0.18	BYNJCV	KR7207940008	207940 KS	Equity Common

Korea	Asia Ex Japan	0.40	0.56	677381	KR7005931001	005935 KS	Equity Common
Korea	Asia Ex Japan	2.92	3.49	677172	KR7005930003	005930 KS	Equity Common
Korea	Asia Ex Japan	1.70	0.37	677164	KR7006400006	006400 KS	Equity Common
India	Asia Ex Japan	0.69	0.03	674399	INE775A01035	MSS IN	Equity Common
Saudi Arabia	EMEA	1.32	0.40	BJTM27	SA14TG012N13	ARAMCO AB	Equity Common
China	Asia Ex Japan	1.14	0.02	BD5CMN	CNE100000V46	300124 C2	Equity Common
China	Asia Ex Japan	0.80	0.05	BHQK86	CNE100003G67	300760 C2	Equity Common
Korea	Asia Ex Japan	1.00	0.20	639750	KR7055550008	055550 KS	Equity Common
Taiwan	Asia Ex Japan	0.44	0.09	BH4DMW	KYG8190F1028	6415 TT	Equity Common
Korea	Asia Ex Japan	0.55	0.64	645026	KR7000660001	000660 KS	Equity Common
Taiwan	Asia Ex Japan	1.53	6.47	688910	TW0002330008	2330 TT	Equity Common
Taiwan	Asia Ex Japan	4.98	0.00	874039100	US8740391003	TSM US	ADR/GDR
China	Asia Ex Japan	1.98	3.77	BMMV2K	KYG875721634	700 HK	Equity Common
India	Asia Ex Japan	0.31	0.16	613934	INE280A01028	TTAN IN	Equity Common
Brazil	Latin America	0.63	0.04	B10LQP	BRTOTSACNOR8	TOTS3 BZ	Equity Common
China	Asia Ex Japan	0.87	0.22	89677Q107	US89677Q1076	CTRP US	ADR/GDR
Mexico	Latin America	2.01	0.29	BW1YVH	MX01WA000038	WALMEX* MM	Equity Common
Brazil	Latin America	1.53	0.14	294542	3RWEGEACNOR0	WEG3 BZ	Equity Common
China	Asia Ex Japan	0.31	0.07	BGHH0L	CNE100003F19	2359 HK	Equity Common
China	Asia Ex Japan	1.57	0.00	BD6QWJ	CNE100001ZF9	300450 C2	Equity Common
Brazil	Latin America	0.57	0.00	G98239109	KYG982391099	XP US	Equity Common
China	Asia Ex Japan	1.39	0.01	BP91N4	CNE100004G74	300957 C2	Equity Common
China	Asia Ex Japan	1.29	0.03	BFCCR3	CNE100002BR3	002812 C2	Equity Common
		1.30	0.00				

Axiom Investors

Axiom Emerging Markets Equity Strategy

Quarter End Returns

As of 6/30/2022

QTD Returns

Axiom Emerging Markets Equity (Gross)	-14.30
Axiom Emerging Markets Equity (Net)	-14.52
MSCI Emerging Markets Index Net	-11.45
Relative Performance (+/-)	-2.85

Axiom Investors

Axiom Emerging Markets Equity Strategy

Calendar Year Returns

12/31/2011 to 12/31/2021

Dates	Axiom Emerging Markets Equity Strategy (Gross)	Axiom Emerging Markets Equity Strategy (Net)	MSCI Emerging Markets Index (Net)
12/31/2021	-3.22	-4.15	-2.54
12/31/2020	31.22	29.99	18.31
12/31/2019	25.98	24.79	18.42
12/31/2018	-15.76	-16.59	-14.57
12/31/2017	42.57	41.21	37.28
12/31/2016	9.30	8.21	11.19
12/31/2015	-11.29	-12.19	-14.92
12/31/2014	-0.26	-1.26	-2.19
12/31/2013	4.30	3.26	-2.60
12/31/2012	22.94	21.74	18.22
12/31/2011	-17.48	-18.31	-18.42



NEPC, LLC

Firm: ABS Investment Management LLC

Strategy/Product: ABS Emerging Markets MA Fund LP

Client: MWRA Employees Retirement System

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 all materials submitted in relation to MWRA Retirement System may be subject to disclosure consistent with Massachusetts Public Record laws.

Firm/Organization

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

Effective April 1st, 2022, Alain De Coster stepped down from the Management Committee of ABS and as portfolio manager for the global equity strategies. He remains on the Investment Committee and remains active in qualitative research. Michael Halper, Head of Research, replaced Alain as a Portfolio Manager.

In the first quarter of 2022, ABS took the opportunity to buy back part of Evercore's equity interest in the firm. Evercore previously held 40.5% of ABS' equity and as of April 1, 2022 owns 23.4%. The purchase was a combination of the ABS management company and individual partners/employees buying personally.

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

As of 8/1/2022 AUM was \$6.7 Billion. Net flows for the past 5 years +761M. We gained 387 accounts and lost 357 accounts across the firm.

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

Yes, we launched several new products in the past year.

4. Are any products capacity constrained?

No.

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

None.



6. Describe your diversity, equity and inclusion efforts with regard to the firm and its employees.

We have created a Diversity and Inclusion Committee which includes personnel across the firm from all levels, along with senior management, to ensure women and minorities are equally represented in leadership roles. The Committee is responsible for researching and pursuing D&I initiatives, including recruiting a diverse group of candidates to work at ABS and maintaining the goals of our policy.

Portfolio Management Team

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

We added one new qualitative analyst to the EM team in the past year.

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

No.

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

No.

Philosophy

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

There have been no changes.

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

Strategy AUM is \$1.5 billion and \$114M for the fund. Net flows for the past 5 years was +\$1.5 billion. The strategy gained 58 new accounts and lost 0 accounts.



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

Institutional investors make up 99% of the strategy with 55% of AUM attributable to the top five investors.

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.

Trailing returns included in the presentation. See below annual returns.

Year	ABS Emerging Markets MA Fund(w/Related Fund Performance)	MSCI EM IMI Index
2018	-15.34%	-14.57%
2019	19.55%	18.42%
2020	23.81%	18.30%
2021	5.82%	-2.54%

ABS Emerging Markets MA Fund, LP commenced operations on November 1 2021 and has limited performance history. The historical performance information presented from December 2017 through October 2021 is for the ABS Emerging Markets Strategic Portfolio, LP (the "Related Fund") with adjustments to ensure a consistent management fee rate of .75% p.a. applied to all monthly returns shown above. The performance is representative of the long only emerging markets strategy employed by the Fund with substantially the same investment allocations and the same management fee rate.

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

See attached Q2 letter. Discussion also in presentation. The optimal environment for the Portfolio is one where underlying stock dispersion is high with fundamentals driving stock prices. In this environment, our local specialists should be able to capture alpha in their respective regions, while the high dispersion cancels out some of the top down impact on stock prices. The portfolio is likely to underperform in periods where large, global-oriented index stock are the primary drivers of performance.

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

Discussion in presentation.

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.



Included.



ABS GLOBAL INVESTMENTS
MASSACHUSETTS WATER RESOURCES
AUTHORITY EMPLOYEES' RETIREMENT
SYSTEM (MWRA)

August 2022

ABS Global Investments

OVERVIEW

ABS specializes in sourcing alpha across global equity markets

\$6.5B AUM

36 employees

21 equity partners

21 investment professionals

13 nationalities



ABS Product Evolution

2003 Global Equity Strategies | **2012** Emerging Markets Strategies | **2021** Crossover Growth Strategy

Firm AUM is approximate as of June 30, 2022 and is subject to change. The above reflect the opinions of ABS and is subject to change at any time, without notice to investors.

ABS Team Organizational Chart

Investment Team (21)

Qualitative Analysis / Portfolio Management (12)		Operations / Accounting (8)	Business Development (7)
<p>Guilherme Valle, CFA* <i>Co-Founder / Portfolio Manager</i></p> <p>Michael Halper, CFA* <i>Portfolio Manager</i></p>	<p>Laurence Russian, CFA* <i>Co-Founder / Portfolio Manager</i></p> <p>Alain De Coster* <i>Co-Founder</i></p>	<p>David Finn, CPA* <i>CFO / CCO</i></p> <p>John Mulfinger, CPA <i>Head of Accounting</i></p> <p>Dayana Khemraj <i>Head of Operations</i></p>	<p>Jon Feinberg* <i>Head of Business Development</i></p> <p>Jestine Roberts <i>Head of Investor Relations</i></p>
Quantitative Analysis Risk Management (4)	Operational Due Diligence (5)		
<p>Sean White, CFA* <i>Head of Risk/Quant</i></p>	<p>Frank Docimo, CPA <i>Head of Ops Due Diligence</i></p>		

*ABS Operating Committee Members

Investment Expertise

18 Avg years industry experience

10 Avg years ABS tenure

Diversity

13 Nationalities

15 Languages spoken

Ownership

21 Equity Holders

10 Women/minority partners

Investment experience references investment team only.

Partnerships

DIVERSE INVESTOR BASE

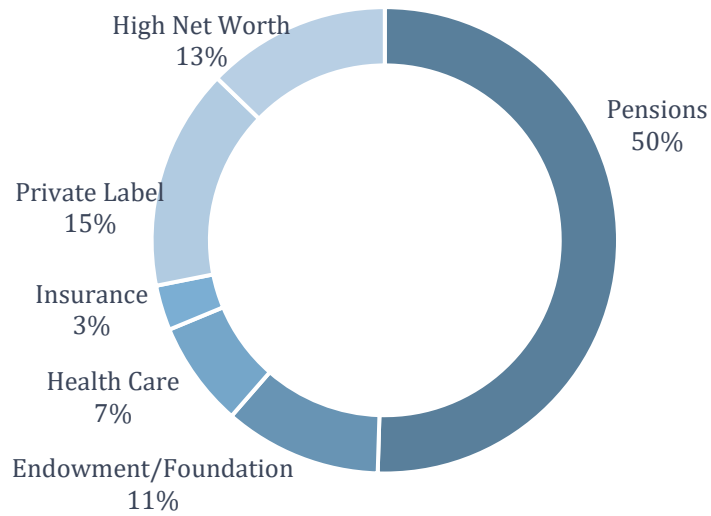
AUM by the Numbers

\$6.5 billion assets under management

537 clients

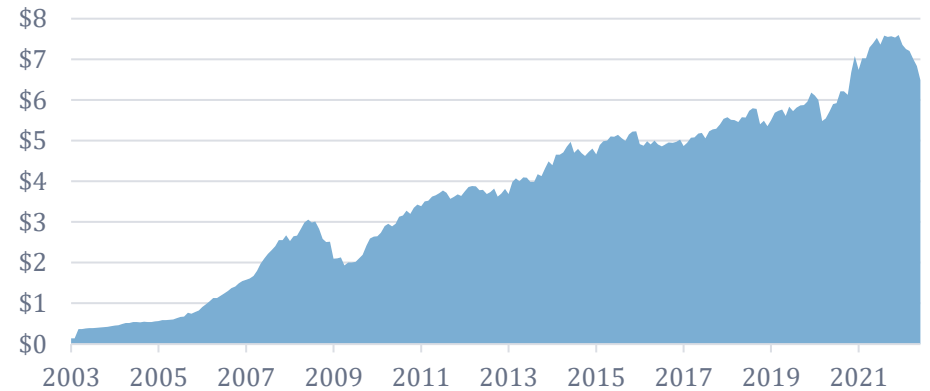
48 advisor/consultant relationships

AUM by Client Type

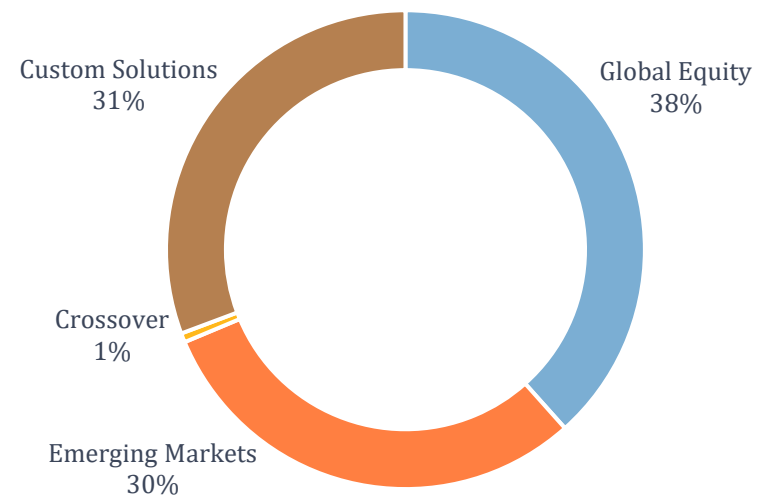


AUM Growth Since Inception

AUM in USD Billions



AUM by Strategy Type



Firm AUM and AUM by strategy type is estimated as of June 30, 2022 and is subject to change. AUM by client type, unique clients, and advisor relationships as of May 31, 2022. ABS firm inception January 1, 2003.

Portfolios

ABS PRODUCT DETAIL

Global Equity

AUM: \$2.5 Billion

Defensive Equity Strategies (30-60% Net)

- ABS Global Portfolio (Inception: 1/1/2003)
- ABS Global ERISA Portfolio (1/1/2006)
- ABS Limited Partnership (7/1/2003)
- ABS Long/Short Strategies Fund (3/1/2011)

Directional Strategies (60-80% Net)

- ABS Directional Global Portfolio (2/1/2013)

Long-Only Strategies

- ABS Japan Strategic Portfolio (6/1/2021)
- ABS Global Strategic Portfolio (1/1/2022)

Emerging Markets

AUM: \$1.9 Billion

Long/Short Strategies (50-75% Net)

- ABS Emerging Markets Portfolio (7/1/2012)
- ABS Emerging Markets LP (1/1/2013)

Long-Only Strategies

- ABS EM Strategic Portfolio (12/1/2017)
- ABS EM MA Fund (11/1/2021)
- ABS EM Direct Fund (4/1/2018)
- ABS China Direct Fund (2/6/2020)
- ABS EM ex-China Direct (11/1/2021)
- ABS EM ex-China & MENA Direct (4/1/2022)

Crossover Growth

AUM: \$47 Million

Public/Private Hybrid Portfolio (50-100% Net, 1/1/2021)

- Growth-focused, concentrated portfolio investing in public and late-stage private equity
- Specialized managers focused on the following sectors across the globe:
 - Internet, software, ecommerce, biotech, therapeutics, fintech, and clean energy
- Co-investment opportunities

Custom Solutions

AUM: \$2.0 Billion

Long/Short Mandates

- 5 Global Equity portfolios
- 2 Low beta/flexible portfolios
- 1 Emerging market portfolio

Long-Only Strategies

- Direct allocation to ABS SMA "Pods"

AUM estimated as of June 30, 2022.

MARKET ENVIRONMENT

REVIEW OF Q2 2022

Fears of Stagflation Sour Investor Sentiment

MARKET REVIEW

- Over the second quarter, investors shifted their focus to the risk of global stagflation, the painful coexistence of high inflation and low growth.
- The result has been meaningful volatility in financial markets and a sentiment-driven sell off.
- While emerging markets have tumbled along with investor sentiment, losses have thus far been in line with developed market equities.

Emerging & Developed Market Equity Performance

January 1 – June 30 2022



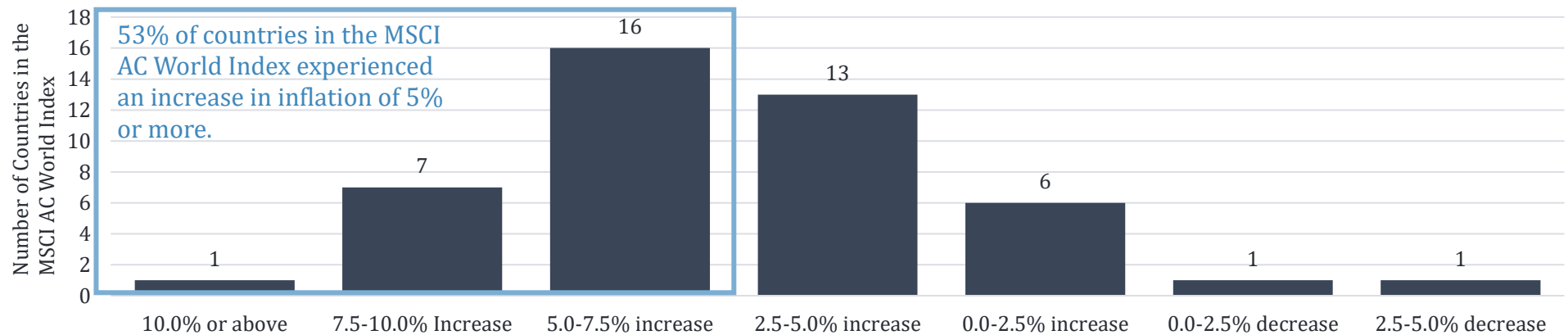
Source: Bloomberg as of June 30, 2022. Graphs are presented for illustration purposes only and should not be relied on to make an investment decision. Past performance is not a guarantee of future results.

Inflation: Global & Persistent

MARKET REVIEW

- Post-COVID re-opening drove the initial spike in inflation, however, other factors have contributed to its persistence into 2022
 - Russia's invasion of the Ukraine (energy and food)
 - Tight labor markets (wages)
 - Supply chain issues (goods)
- 39 out of the 45 nations in the MSCI All Country World Index have seen their annual inflation rate more than double from the first quarter of 2020 to the first quarter of 2022.
- Persistent inflation puts pressure on growth themes and limits central bank flexibility

A Global Surge in Inflation: Change in Year-Over-Year Inflation from March 2020 to March 2022



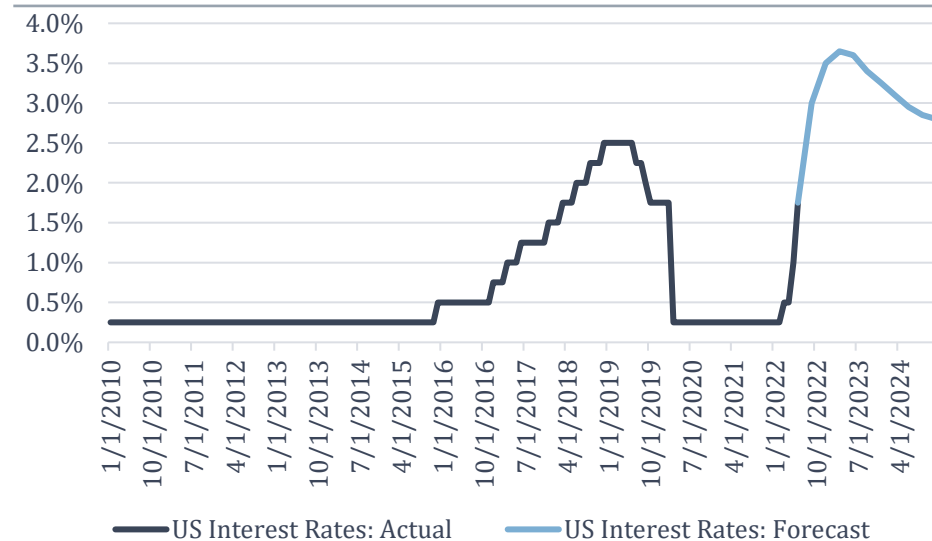
Source: Bloomberg as of March 31, 2022 and March 31, 2020. Graphs are presented for illustration purposes only and should not be relied on to make an investment decision.

End of Easy Global Financial Conditions

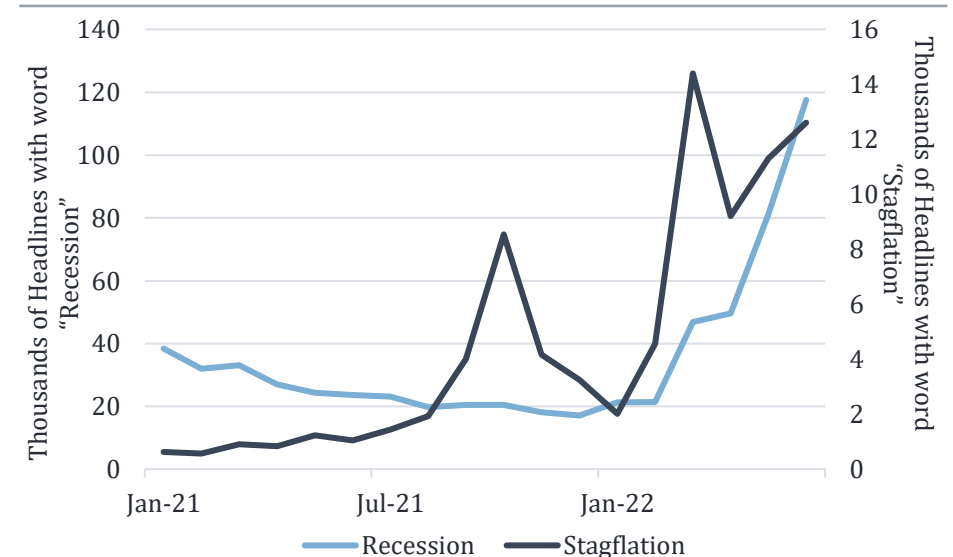
MARKET REVIEW

- Concerned with price pressures, the US Fed raised its key interest rates by 25 basis points in March 2022, 50 points in May and a further 75 points in June.
- Other developed markets to follow with similar decisions.
- Economic growth expectations rapidly deteriorated.
 - Now the focus is on whether the Fed and other central banks around the world can raise rates enough to slow down inflation, without pushing their economies into recession.

US Fed Interest Rates



Headlines Make Recession Risks Hard to Ignore*



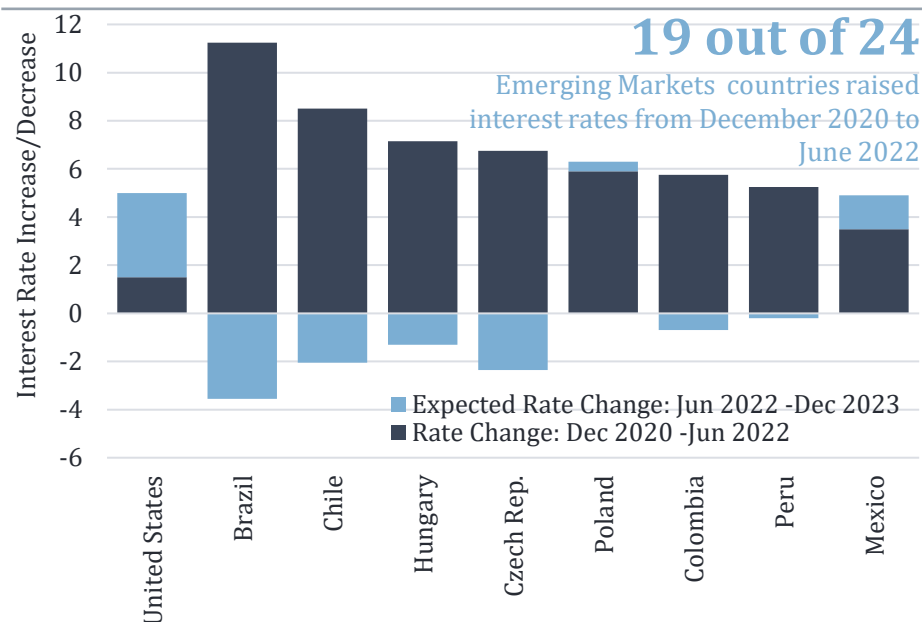
Source: Bloomberg as of June 30, 2022. US interest rate forecasts as defined by Bloomberg's forecast survey as of July 22, 2022. Graphs are presented for illustration purposes only and should not be relied on to make an investment decision. Past performance is not a guarantee of future results.

Change In Narrative: Stagflation & Recession Concerns

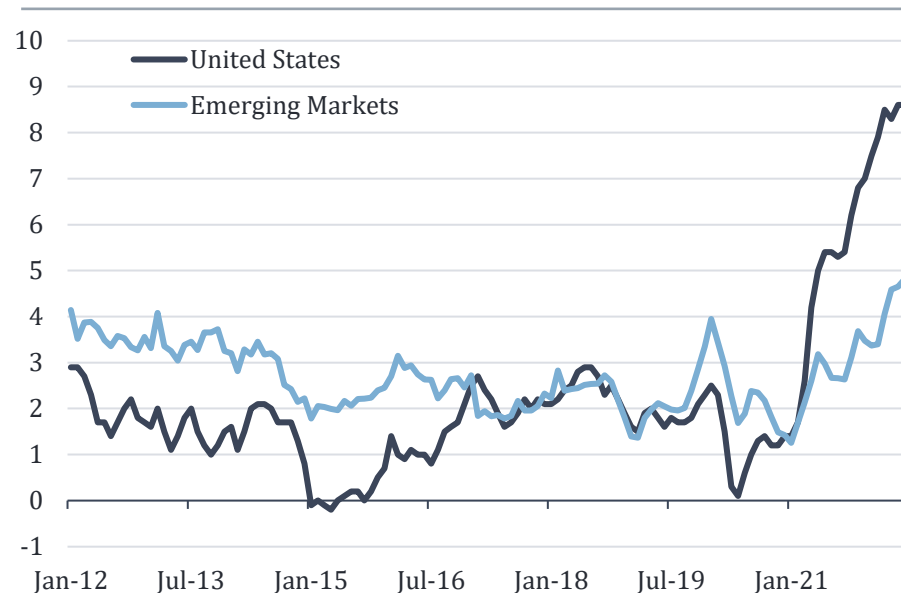
MARKET REVIEW

- Emerging Markets Central banks in these regions have built credibility fighting inflation over decades. As inflation began to rise, central banks of many emerging economies were quick to begin raising rates.
- While the proactive and responsive attitude of emerging market economies has diminished the risks associated with local inflation, important concerns remain. The greatest risk is imported inflation and spillover effects from developed markets.

Interest Rates: Emerging Markets vs. Developed Markets



Inflation: Emerging Markets vs US*



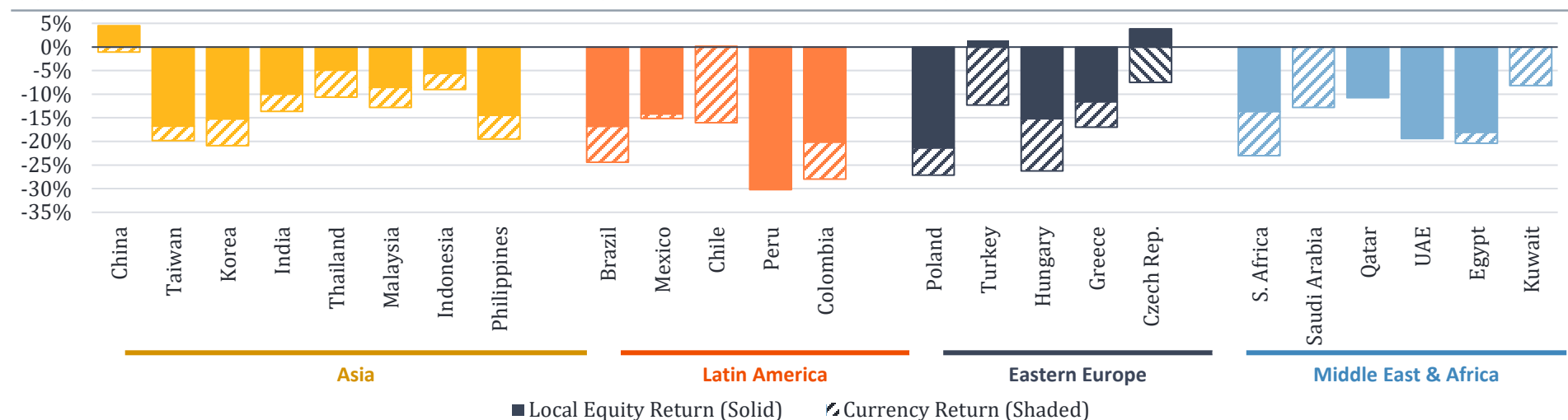
Source: *Emerging Markets Inflation defined as the weighted average inflation utilizing country weights of the MSCI Emerging Markets Index as of June 30, 2022. Source for Inflation and Interest rates: Bloomberg as of June 30, 2022. Graphs are presented for illustration purposes only and should not be relied on to make an investment decision. Past performance is not a guarantee of future results.

Q2 2022 Drivers of Performance

MARKET REVIEW

- The initial investor sentiment-driven selloff was sharp and broad based, leaving few places to hide. On a relative basis, the greatest drawdowns occurred in markets with
 - Fragile External - Countries with greater dependence on foreign investment to finance growth, current account deficits or low foreign reserves generally considered to be more sensitive to US rate hikes
 - Export Focus - Fears that a global recession could dampen demand for export products increased. Technology exporters such as Korea and Taiwan especially faced headwinds as the outlook for the semiconductor and technology sector soured.

Equity and Currency Returns Weighed Down by Global Economic Backdrop: Q2 2022 Performance



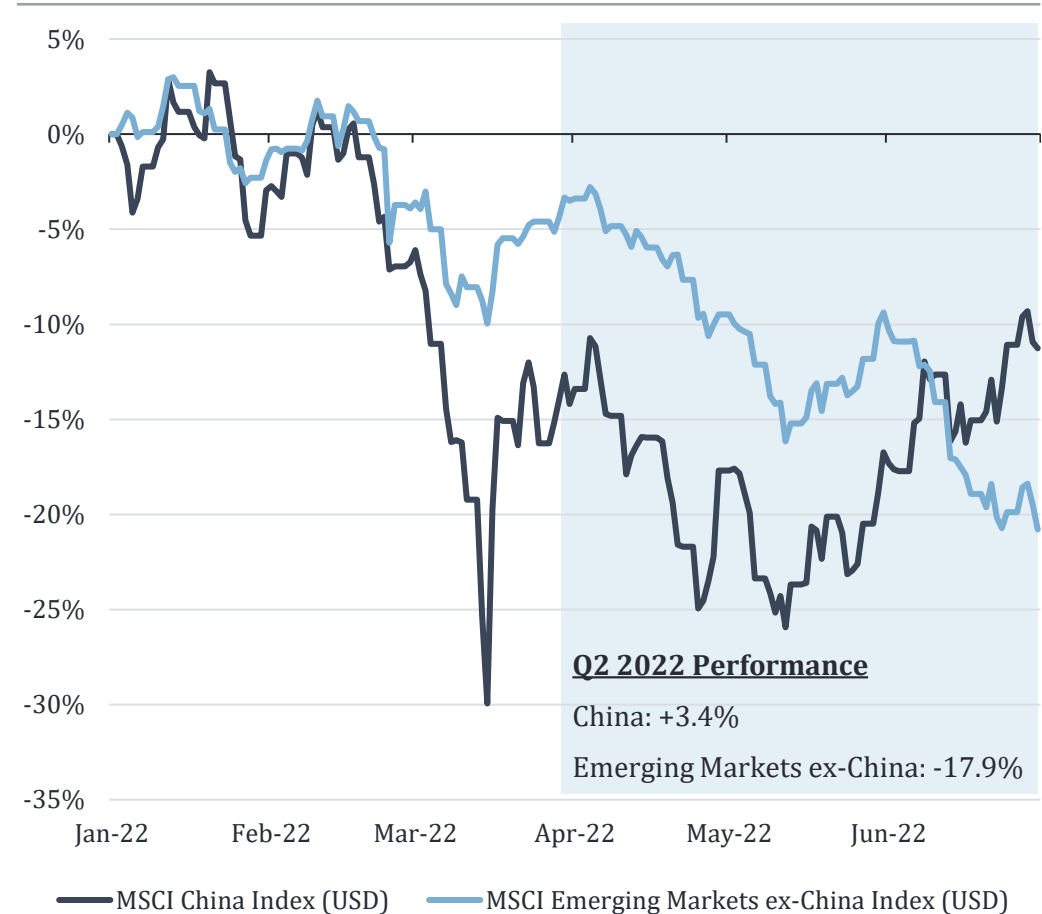
Source: Bloomberg as of June 30, 2022. Graphs are presented for illustration purposes only and should not be relied on to make an investment decision. Past performance is not a guarantee of future results.

A Chinese Recovery

MARKET REVIEW

- The only emerging market to generate a positive return during the quarter was China.
- After having lost -31.8% over the last 12 months, risk factors finally eased, and the Chinese equity market staged a recovery of +6.6% in June.
- Some factors that contributed to this recovery included:
 - An end to widespread Covid-19 lockdowns
 - The government's pledge to support markets and maintain a more constructive regulatory environment
 - Monetary easing that reduced concerns regarding property sector

2022 Performance: China vs Emerging Markets ex-China



Source: Bloomberg as of June 30, 2022. Graphs are presented for illustration purposes only and should not be relied on to make an investment decision. Past performance is not a guarantee of future results.



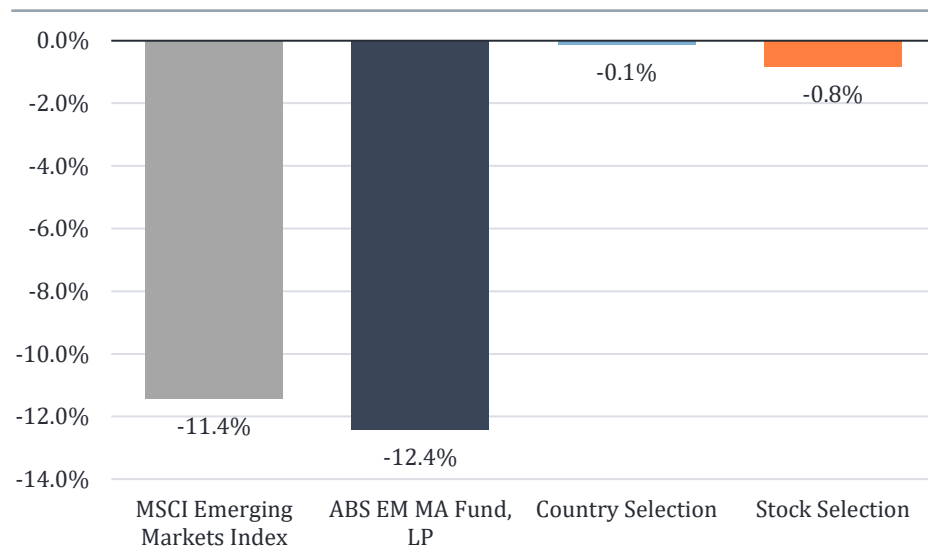
ABS EMERGING MARKETS MA FUND (EM MA)

ABS Emerging Markets MA Fund (EM MA)

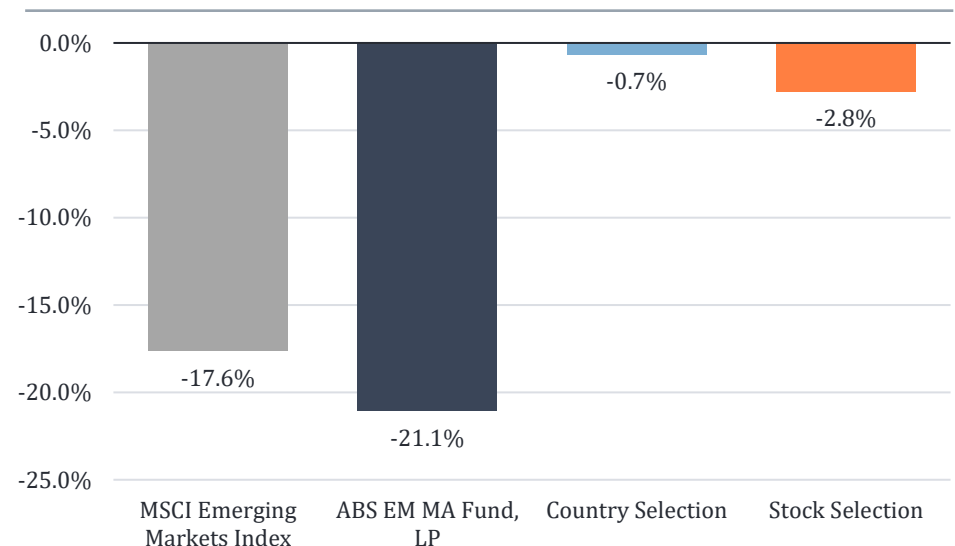
PERFORMANCE UPDATE

- While the ABS Emerging Markets MA Fund has been caught in the crosscurrents of declining investor sentiment of the second quarter, losses have thus far been in line with the broader market sell off.
- Neither stock selection, nor country selection were meaningful contributors to return. Most of performance was driven by market exposure.

Components of Return: Q2 2022



Components of Return: 2022



Data updated through June 30, 2022. The MSCI Emerging Markets Index includes the reinvestment of dividends the impact of currency and is net of foreign taxes, symbol NDUEEGF; Performance numbers are estimates, include reinvestment of earnings, are net of a flat 0.75% p.a. management fee and are subject to change. Past returns are not a guarantee of future results. Graphs are provided for illustrative purposes only and should not be relied upon to make an investment decision. Please see end of this presentation for important disclosure information.

ABS Emerging Markets MA Fund (EM MA)

RETURN & RISK

Annualized Risk/Return Statistics (includes Related Fund performance)

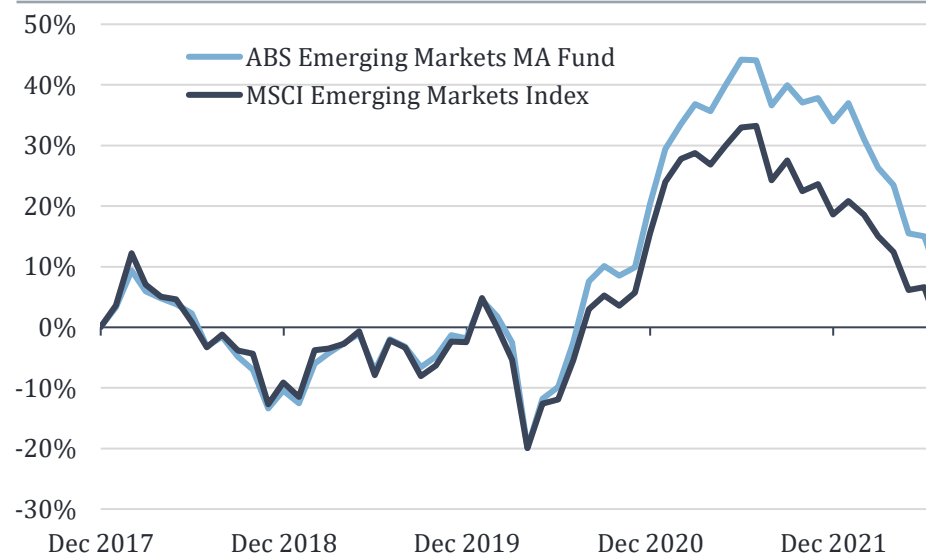
December 2017– June 2022

	QTD	YTD	1-Year	3-Year	Annualized Return	Annualized Standard Deviation
ABS Emerging Markets MA Fund	-12.4%	-21.1%	-24.9%	3.3%	1.7%	17.4%
MSCI Emerging Markets Index	-11.4%	-17.6%	-25.3%	0.6%	-0.1%	17.6%
Excess Returns	-1.0%	-3.4%	0.3%	2.8%	1.8%	

MWRA Account History

- Initial Investment: December 2021, \$16M
- Additional Subscription: January 2022, \$6M
- Current Value: \$17.8M (as of 7/31/2022)
- Cumulative Performance Since Inception to 7/31/2022:
 - **ABS EM MA Fund: -18.7%**
 - MSCI EM Index -16.3%
 - **Underperformance of -2.4%**

Cumulative Returns (includes Related Fund performance)



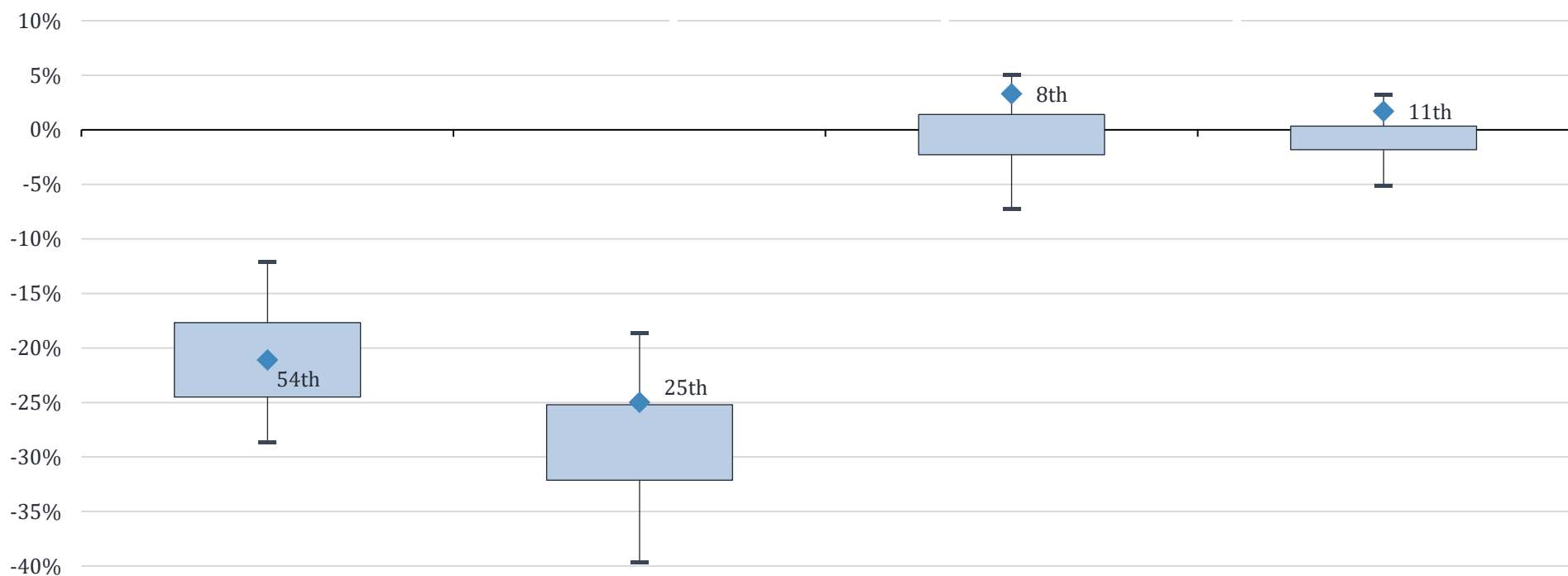
Data updated through June 30, 2022. The MSCI Emerging Markets Index includes the reinvestment of dividends the impact of currency and is net of foreign taxes, symbol NDUEEGF; Performance numbers are estimates, include reinvestment of earnings, are net of a flat 0.75% p.a. management fee and are subject to change. ABS Emerging Markets MA Fund (the "Fund") commenced operations on November 1, 2021 and has limited performance history. The historical performance information presented from December 2017 through October 2021 is for the ABS Emerging Markets Strategic Portfolio, LP (the "Related Fund"). The performance of the Related Fund is representative of the long only emerging markets strategy employed by the Fund with substantially the same investment allocations and the same management fee rate. Return information is calculated by ABS using performance information believed to be reliable and provided by the underlying managers. Such information is provided "as is" and may not be independently verified. ABS assumes no responsibility for the accuracy of this information and undertakes no independent verification of it. Past returns are not a guarantee of future results. Graphs are provided for illustrative purposes only and should not be relied upon to make an investment decision. Please see end of this presentation for important disclosure information.

ABS Emerging Markets MA Fund (EM MA)

PEER RANKING

Peer Rankings (includes Related Fund performance)

December 2017– June 2022



2022 (through June 30)		1-Year		3-Year		Annualized	
Return	Peer Rank (Percentile)	Return	Peer Rank (Percentile)	Return	Peer Rank (Percentile)	Return	Peer Rank (Percentile)
-21.1%	54	-24.9%	25	3.3%	8	1.7%	11

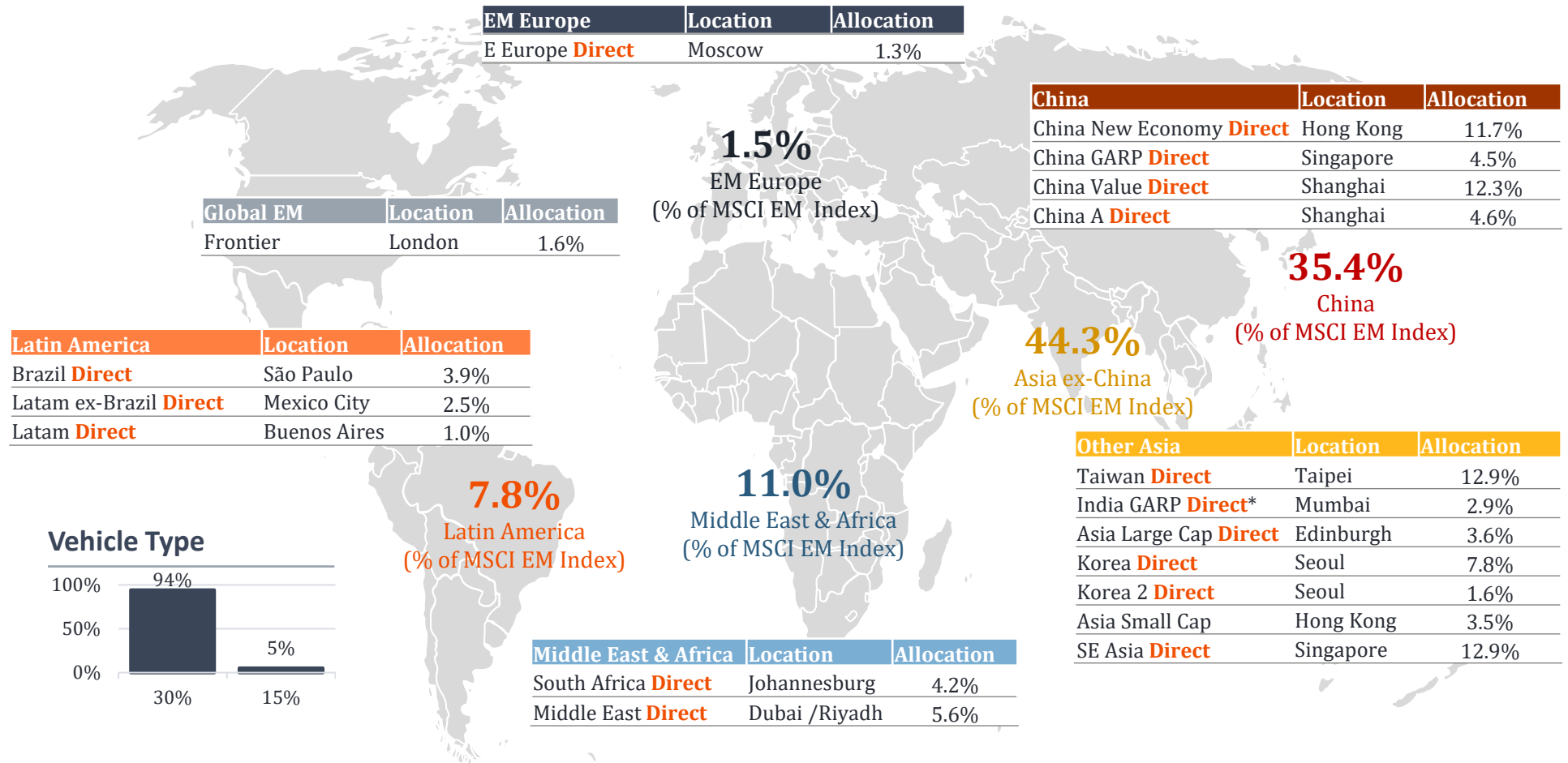
Data updated through June 30, 2022. Average Peer data is based on a Bloomberg screen of all US-listed mutual funds that are classified as active global emerging markets with AUM above \$250M as of July 1, 2022 with track records from July 2012 to June 2022 (61 funds). Performance data for the fund and peer group is net of fees. Performance data for the fund from December 2017 through October 2021 represents the track record of the Related Fund which charges the same fees. Please see the end of this presentation for additional performance disclosures.

ABS Emerging Markets MA Fund (EM MA)

FOCUS ON LOCAL SPECIALISTS

ABS EM MA Fund Portfolio Breakdown by Region/Manager

as of July 1, 2022



*These specialists manage both fund and SMA vehicles for ABS. Data updated through July 1, 2022. Graphs are provided for illustrative purposes only and should not be relied upon to make an investment decision. Please see the end of this presentation for important disclosure information.

ABS Emerging Markets MA Fund (EM MA)

CURRENT EXPOSURE BY GEOGRAPHY, SECTOR & MARKET CAP

Portfolio Allocation by Geography

	Portfolio	Index	Relative Exposure
China	33%	35%	-2.6%
Taiwan	13%	14%	-1.9%
India	14%	13%	-1.1%
Korea	9%	11%	1.2%
Thailand	1%	2%	-1.2%
Indonesia	2%	2%	-0.3%
Other EM Asia	3%	2%	0.6%
Brazil	4%	5%	-0.7%
Mexico	2%	2%	-0.2%
Other Latin America	1%	1%	0.3%
Other EM Europe	2%	1%	0.1%
South Africa	4%	4%	0.2%
Saudi Arabia	3%	4%	-1.3%
Other EMEA	3%	3%	-0.5%
Dev. Markets	2%	-	1.7%

Portfolio Allocation by Sector

	Portfolio	Index	Relative Exposure
Comm. Svcs	4%	11%	-6.4%
Cons. Discre.	13%	15%	-1.8%
Cons. Staples	7%	6%	0.8%
Energy	4%	5%	-1.3%
Financial	18%	21%	-3.0%
Healthcare	6%	4%	1.8%
Industrial	10%	6%	4.1%
Materials	7%	8%	-1.1%
Real Estate	4%	2%	1.5%
Technology	20%	19%	0.6%
Utilities	2%	3%	-0.9%

Portfolio Allocation by Market Cap

	Portfolio	Index	Relative Exposure
Large Cap	45%	76%	-30.5%
Mid Cap	34%	24%	10.1%
Small Cap	15%	0%	14.7%

Data estimated as of July 1, 2022. Exposure data is based on information provided by the underlying managers, is subject to change and is not independently verified. Please see the end of this presentation for important disclosure information.

ABS Emerging Markets MA Fund (EM MA)

PORTFOLIO HOLDINGS

Top and Bottom 10 Relative Allocations by Stock

Stock	Portfolio	Index	Relative Exposure
Greentown China	1.9%	0.0%	1.8%
Kweichow Moutai A	2.0%	0.4%	1.6%
China Merchants Bank A	1.7%	0.1%	1.6%
China State Construction A	1.5%	0.0%	1.5%
Bank of Chengdu A	1.3%	0.0%	1.3%
E Ink Holdings Inc	1.2%	0.1%	1.1%
Bank of Ningbo	1.0%	0.0%	0.9%
China Oilfield	0.9%	0.0%	0.9%
Faraday Technology	0.8%	-	0.8%
HDFC Bank Ltd	0.8%	-	0.8%
Tata Consultancy Svcs	-	0.6%	-0.6%
China Construction Bk H	0.3%	1.0%	-0.6%
Ping An Insurance H	-	0.7%	-0.7%
Hon Hai Precision Ind.	-	0.7%	-0.7%
Housing Dev Finance	-	0.7%	-0.7%
Vale SA	0.0%	0.9%	-0.9%
Reliance Industries	0.2%	1.5%	-1.3%
Taiwan Semiconductor	4.0%	6.1%	-2.0%
Alibaba Group	0.2%	3.3%	-3.2%
Tencent	0.6%	4.3%	-3.7%

Portfolio Summary

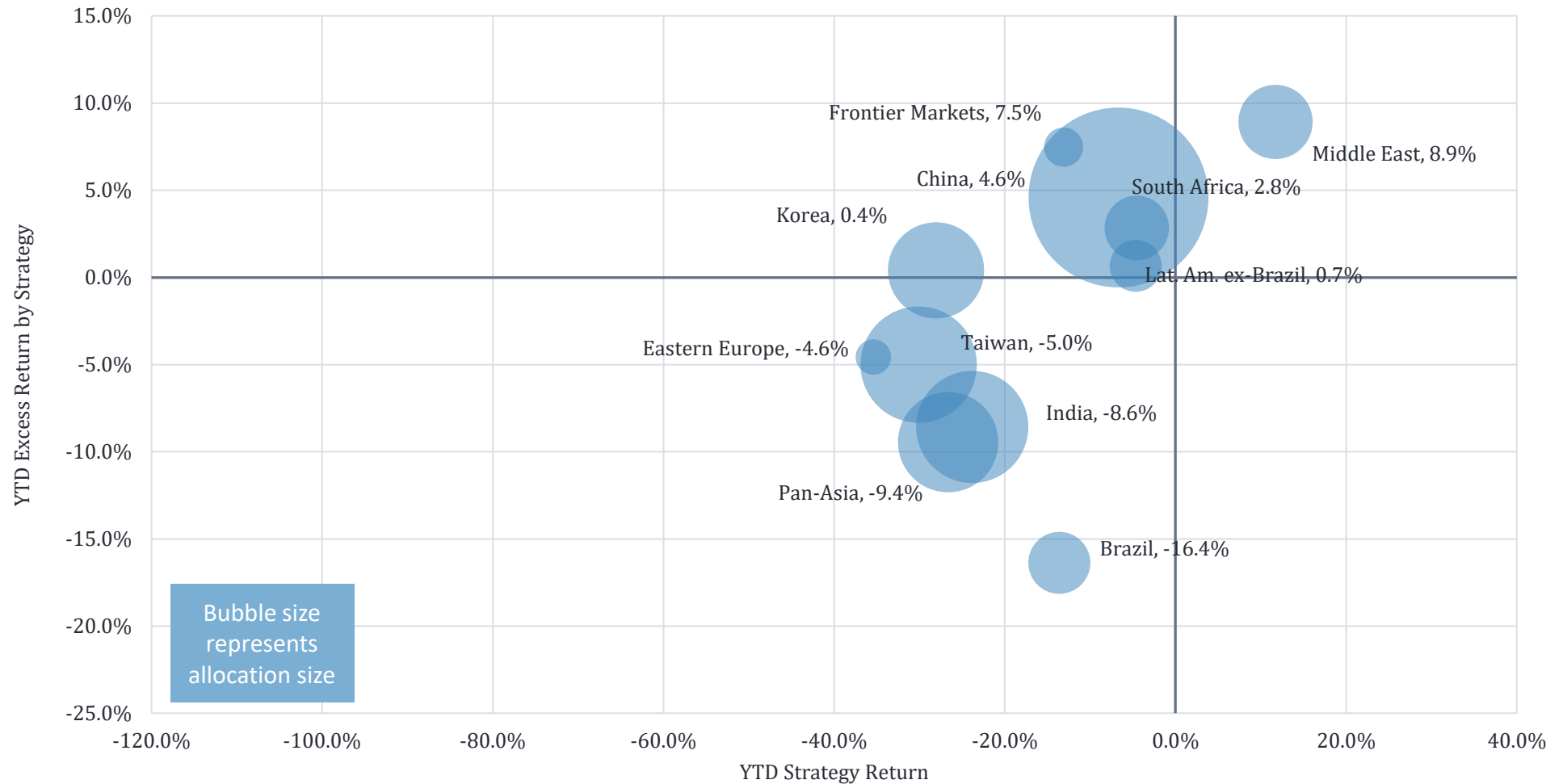
	ABS EM MA	MSCI EM Index
Total Holdings	563	1,381
Unique Stocks (not in index)	318	-
Active Share	66%	-
Largest Country Overweight		Korea: +1.2%
Largest Country Underweight		China: -2.6%
Largest Sector Overweight		Industrial: +4.1%
Largest Sector Underweight		Comm Srvcs: -6.4%

Data as of July 1, 2022. Please see the end of this presentation for important disclosure information. Top 10 holdings inclusion criteria are not performance based. Relative Exposure is vs. the MSCI EM Index

ABS Emerging Markets MA Fund (EM MA)

2022 PERFORMANCE BY STRATEGY

2022 Performance



* Allocation as of June 30, 2022. Data estimated as of March 31, 2022; Performance is net of underlying manager fees but gross of ABS fees. Past performance is not an indicator of future performance. Graphs are presented for illustration purposes only and should not be relied on to make an investment decision.

NOTES & DISCLOSURES

ABS Emerging Markets MA Fund (EM MA)

IMPORTANT DISCLOSURES

ABS Emerging Markets MA Fund: This presentation was prepared to provide some general background, current statistics and performance returns for the ABS Emerging Markets MA Fund LP (for purposes of this paragraph, the “Fund” or “Portfolio”). Fees are not necessarily representative of any client’s actual returns. Based on the timing of capital contributions or higher performance and /or management fees, the returns achieved by an existing investor over a shorter or identical period may be materially lower. Performance numbers are estimates, include reinvestment of earnings, are net of a flat (0.75% p.a.) management fee charged and are subject to change. The Fund commenced operations on November 1, 2021 and has limited performance history. The historical performance information presented from December 2017 through October 2021 is for the ABS Emerging Markets Strategic Portfolio, LP (the “Related Fund”). It is not that of the Fund and should not be considered a substitute for the Fund’s own performance. The performance of the Related Fund is representative of the long only emerging markets strategy employed by the Fund with substantially the same investment allocations and the same management fee rate. The Related Fund launched on December 1, 2017. Actual returns may vary materially from the estimates shown. Exposure and return information presented under the section entitled “Portfolio Allocation and Exposure” is based on information provided by underlying managers, is subject to change and is not independently verified. The data originate from the underlying managers and ABS believes them to be reliable but has not undertaken any independent verification of these numbers and does not assume responsibility for their accuracy. Past performance is no guarantee of future results.

The MSCI Emerging Markets Index is the Fund’s benchmark, includes the reinvestment of dividends, the impact of currency and is net of foreign taxes, symbol NDUEEGF. Index performance returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index.

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This presentation shall not constitute an offer to sell or the solicitation of any offer to buy which may only be made at the time a qualified investor receives a final confidential private offering memorandum (the “Fund Documents”) describing the Fund. In the event of any inconsistency between this presentation and the Fund Documents, the Fund Documents will govern. This presentation being provided to a prospective investor does not guarantee an investor’s qualification for an investment in the Fund or the Fund’s capacity for its investment. Such criteria may only be determined upon completion of the Subscription Material for the Fund. This presentation is strictly confidential and is not to be provided to any person without the approval of ABS Investment Management LLC. An investment in the Fund will involve significant risks, including the risk of loss of the amount invested. Although indices used in this presentation have been gathered using public and private sources and data we believe to be reliable, we make no representations as to their accuracy or completeness. The MSCI Emerging Markets TR Index includes the reinvestment of dividends, the impact of currency and is net of foreign taxes, symbol NDUEEGF; Index performance returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. The Fund’s financial statements are audited within 180 days after each year end and thus the prior year’s annual return may be unaudited for up to six months into the current year. The most recent month’s performance return is an internal estimate and has not been calculated by the Fund’s third party administrator. References made to “ABS” herein refer to ABS Investment Management LLC, the investment manager to the Fund, which manages multiple portfolios other than the Fund. The size and nature of the other portfolios has varied since the Fund’s inception and the size of the Fund relative to other ABS portfolios may materially differ at certain points in time. The underlying managers provided data used herein by ABS to calculate annualized returns, but have not reviewed this presentation for accuracy or completeness. The data utilized in the calculation of annualized returns since inception is purported to be net of all underlying manager fees and expenses, but has not necessarily been verified by ABS or an independent party.

HISTORICAL PERFORMANCE (NET)

	Quarter to Date Return	Year to Date Return
ABS EM MA Fund, LP, Option E2	-12.4%	-21.1%
MSCI Emerging Markets Index	-11.4%	-17.6%
Excess Return	-1.0%	-3.4%

Performance numbers are estimates, include reinvestment of earnings, are net of a flat (0.75% p.a.) management fee charged and are subject to change. Past performance is no guarantee of future results. Please see the end of this presentation for important disclosure information. *Inception December 1, 2017

SECOND QUARTER MARKET REVIEW

The first half of 2022 has been a challenging environment for global equities. An uncertain first three months of the year evolved into a trying second quarter as the narrative regarding global macroeconomic risks became increasingly negative. Against this backdrop, the MSCI Emerging Markets Index ended the second quarter down -11.4%.

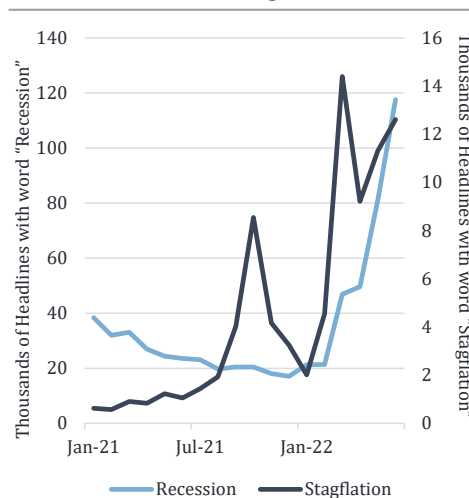
Global inflation fears have loomed since the end of the Covid-19 pandemic. However, concerns regarding the macroeconomic backdrop were largely moderated by the combination of a benign global growth outlook, tailwinds of a sharp commodity rally, as well as a view from the US Federal Reserve (Fed) that elevated inflation readings were transitory.

By May 2022, the narrative shifted towards a more negative tone. Supply chain disruptions and commodities shortages aggravated by China's Covid Zero Strategy and the Russia's prolonged war in Ukraine compounded the damage from the pandemic, elevating inflation to levels not witnessed in decades. More importantly, inflation was re-classified as persistent and global by the US Fed. Concerned with price pressures, the US Fed raised its key interest rates by 25 basis points in March 2022, 50 points in May and a further 75 points in June. Other developed markets have or are expected to follow with similar decisions. The move set a firm ending to years of easy global financial conditions. Meanwhile, economic growth expectations rapidly deteriorated. The focus became whether the Fed and other central banks around the world can raise rates enough to slow down inflation, without pushing their economies into recession.

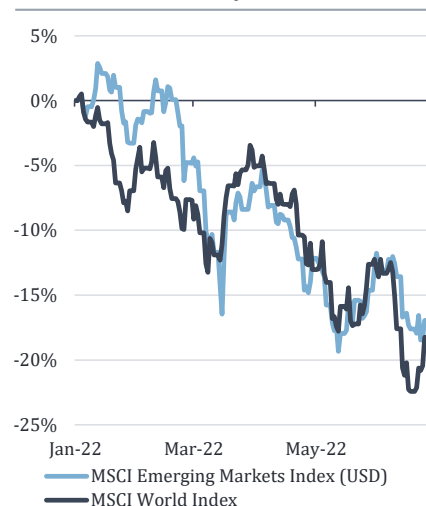
Inflation: Emerging Markets vs US*
January 2012-June 2022



Change in Narrative: Headlines Which Make Recession Risks Hard to Ignore**



Emerging & Developed Market Equity Performance: January 1 – June 30 2022



Source: Bloomberg as of June 30, 2022. *Emerging Markets Inflation defined as the weighted average inflation utilizing country weights of the MSCI Emerging Markets Index as of June 30, 2022. ** Daily headline count in thousands. Data based on the Bloomberg terminal, which aggregates 150,000 news sources with every bulletin categorized and counted. Past returns are not a guarantee of future results. Graphs are presented for illustration purposes only and should not be relied on to make an investment decision.

Against this setting, investors shifted their focus to the risk of global stagflation, the painful coexistence of high inflation and low growth. The result has been meaningful volatility in financial markets, particularly risk assets. While emerging markets have tumbled along with investor sentiment, losses have thus far been in line with developed market equities. The MSCI Emerging Markets Index and MSCI World Index respectively plunged -17.6% and -20.5% for the year through June 30, 2022. Within the



asset class, the sentiment driven sell off was sharp and broad-based leaving investors with few places to hide. On a relative basis, the greatest drawdowns occurred in markets with the following characteristics:

Fragile External Accounts

Countries with greater dependence on foreign investment to finance growth, current account deficits or low foreign reserves are generally considered more sensitive to US tightening cycles. While several emerging economies have boosted reserves and strengthened current account positions over the past decades, those with the weakest relative positions experienced greater drawdowns in both their equities and currencies. Some examples include Colombia, Hungary, and Egypt.

Export Focus

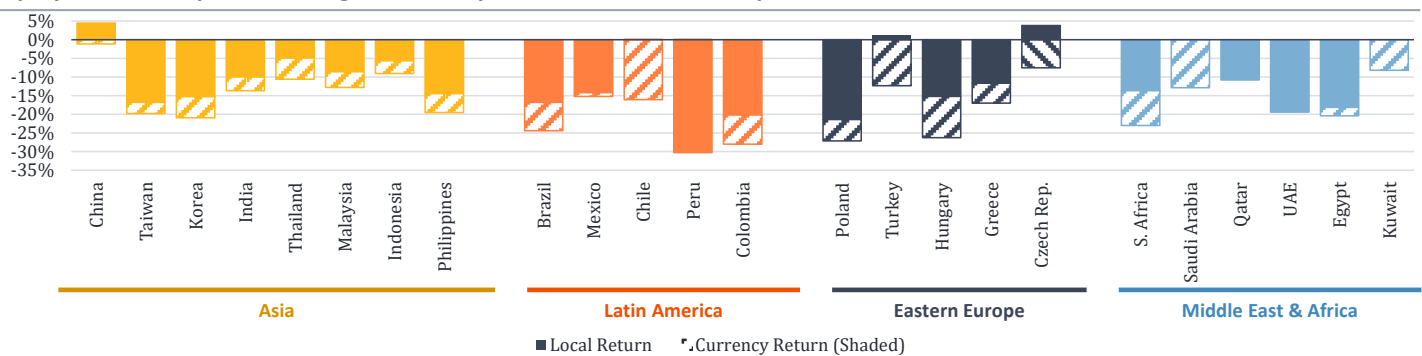
As investors sentiment focused on stifling growth expectations, concerns about global trade mounted. Fears that a global recession could dampen demand for products in non-commodity sectors increased. Technology exporters such as Korea and Taiwan especially faced headwinds as the outlook for the semiconductor and technology sector soured. Commodity exporters also faced challenges. After months of soaring prices, commodities came off their highs. Having peaked in early June at over \$122/barrel, oil prices fell over 13% by month-end. Similar declines were seen in other commodity prices including agriculture and industrial metals, leading to a correction in markets that had been beneficiaries of the commodity supply chain disruptions. South Africa and Chile were among the most affected by this trend.

Local Politics

While local trends and events generally took a back seat to the global economic environment, politics continued to create noise in places like Colombia and Brazil. In both cases, highly polarized election cycles have generated noise and increased volatility.

Finally, while the MSCI Emerging Market Currencies Index fell only -4.5% for the quarter, currencies with greater sensitivity to the global scenario experienced losses of more meaningful magnitude, further exacerbating the local equity drawdown. The Korean Won was down -6.7%, the Hungarian Forint was down -12.2%, the South African Rand was down -10.2% and the Chilean Peso was down -14.4%.

Equity and Currency Returns Weighed Down by Global Economic Backdrop: Q2 2022 Performance



Source: Bloomberg as of June 30, 2022. Past returns are not a guarantee of future results. Graphs are presented for illustration purposes only and should not be relied on to make an investment decision.

The only emerging market to generate a positive return during the quarter was China. After having lost -31.8% over the last 12 months, risk factors finally eased, and the Chinese equity market staged a recovery of +6.6% in June. This rally was in sharp contrast to the rest of the asset class which on average fell -11.8% over the same month. Some factors that contributed to this recovery included: an end to widespread Covid-19 lockdowns, the government’s pledge to support markets and maintain a more constructive regulatory environment and monetary easing that reduced concerns regarding property sector. The greatest gains came from areas of the market that had suffered the most. Chinese ADR’s, particularly large cap consumer companies that were previously the target of Chinese regulators, and China A-shares were among the greatest beneficiaries of the rebound.

It was equally as challenging for emerging markets investors to find places to hide from a sector perspective. Indeed, consumer discretionary was the only sector to finish the second quarter in positive territory and was only able to do so because of large Chinese stocks. The worst performing areas of the market were technology, financials, and materials. From a market cap perspective, small cap stocks led the market lower.



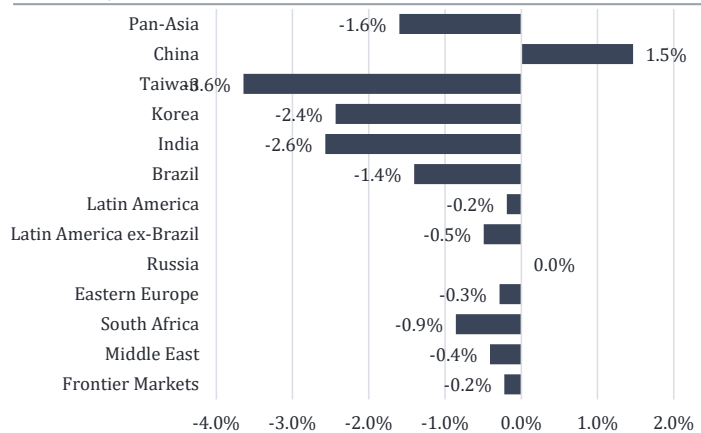
PORTFOLIO PERFORMANCE REVIEW

While the ABS Emerging Markets MA fund has been caught in the crosscurrents of declining investor sentiment, losses have thus far been just under with the broader market sell off. With few places to hide, the portfolio fell -12.4%, underperforming the MSCI Emerging Markets Index by -1.0% basis points for the second quarter. Neither stock selection, nor country selection were meaningful contributors to return. Most of performance was driven by market exposure. For the year, the portfolio is down -21.1%, underperforming the index by -3.4%.

At the underlying specialist level, 14 out of the 18 non-Russia specialists delivered negative absolute performance¹. The greatest detractors to absolute losses came from managers specialized in Taiwan, India, and Korea. All positive absolute performers were our China specialists. Performance was more robust on a relative basis with half the managers outperforming the index. Our Middle East, China A-shares and China new economy specialists led positive relative performance, with outsized alpha above +5%. Meanwhile only one specialist delivered a loss greater than -5%, our Asia Mid Cap Manager.

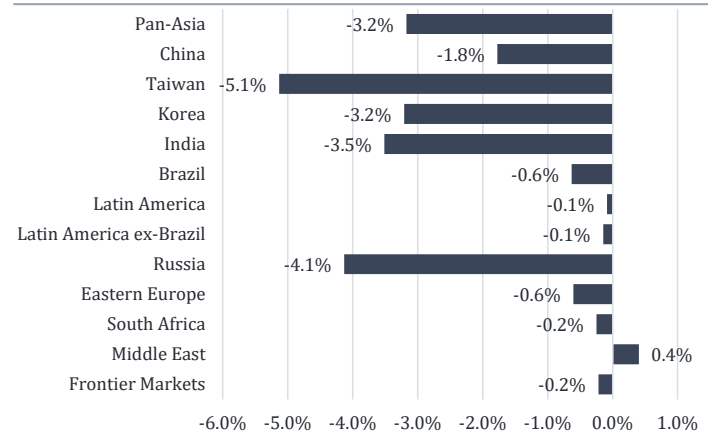
PERFORMANCE BY STRATEGY

Second Quarter 2022: Contribution to Return



PERFORMANCE BY STRATEGY

2022: Contribution to Return



Source: ABS as of June 30, 2022. Graph is presented for illustrative purposes only and should not be relied on to make an investment decision. Past returns are not an indicator of future

¹ Russia related assets remained markets down to zero as foreign investors are still unable to transact normally within the country.



PORTFOLIO POSITIONING REVIEW

PORTFOLIO ALLOCATION BY GEOGRAPHY

	Portfolio	Index	Relative Exposure
China	29%	30%	-2.6%
Korea	11%	13%	-1.9%
Taiwan	15%	16%	-1.1%
India	15%	13%	1.2%
Thailand	1%	2%	-1.2%
Indonesia	1%	2%	-0.3%
Other EM Asia	2%	2%	0.6%
Brazil	4%	6%	-0.7%
Mexico	2%	2%	-0.2%
Other Latin America	1%	1%	0.3%
Other EM Europe	2%	2%	0.1%
South Africa	4%	4%	0.2%
Saudi Arabia	3%	4%	-1.3%
Other EMEA	3%	3%	-0.5%
Dev. Markets	2%	-	1.7%

PORTFOLIO ALLOCATION BY SECTOR

	Portfolio	Index	Relative Exposure
Comm. Svcs	4%	11%	-6.4%
Cons. Discre.	13%	15%	-1.8%
Cons. Staples	7%	6%	0.8%
Energy	4%	5%	-1.3%
Financial	18%	21%	-3.0%
Healthcare	6%	4%	1.8%
Industrial	10%	6%	4.1%
Materials	7%	8%	-1.1%
Real Estate	4%	2%	1.5%
Technology	20%	19%	0.6%
Utilities	2%	3%	-0.9%

PORTFOLIO ALLOCATION BY MARKET CAP

	Portfolio	Index	Relative Exposure
Large Cap	45%	76%	-30.5%
Mid Cap	34%	24%	10.1%
Small Cap	15%	0%	14.7%

Data estimated as of July 1, 2022. In some cases, exposure data is based on information that may be provided by the underlying managers, is subject to change and may not independently verified. Index exposure is adjusted by the net exposure of the portfolio.

ABS UPDATE

As of July 1, 2022, the estimated AUM of the ABS Emerging Markets MA Fund is \$108 million. In total, ABS manages \$2.3 billion in emerging markets dedicated products. Firm-wide assets are approximately \$6.6 billion. We made one hire during the quarter, adding Stephen Epifano to our qualitative investment team. Lastly, in conjunction with our ESG/DNI initiatives, we added two investment team interns for the summer.

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This document shall not constitute an offer to sell or the solicitation of any offer to buy which may only be made at the time a qualified investor receives a final confidential private offering memorandum (the "Fund Documents") describing an investment fund (each an "ABS Fund", or in the plural, the "ABS Funds"). The information contained herein is preliminary, is provided for discussion purposes only, is only a summary of key information, is not complete, is subject to change without notice, and does not contain certain material information including important conflicts disclosures and risk factors associated with an investment which are described in the Fund Documents. In the event of any inconsistency between this document and the Fund Documents, the Fund Documents will govern.

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Any underlying investments discussed herein are not representative of the performance of all the underlying investments in the ABS Funds, but are merely a sample. ABS has made numerous recommendations to the ABS Funds, and only a small number of those recommendations are discussed herein. As a result, you will not be able to determine the context in which any specific recommendation referred to herein was made or make any inference or assessment with regard to all the investment recommendations made by the investment manager.

In considering the prior performance information contained herein, prospective investors should bear in mind that past performance is not indicative of, or a guarantee of, future results, which may differ materially.





NEPC, LLC

Firm: HarbourVest Partners, LLC

Strategy/Product: Secondaries & Buyout

Client: MWRA Employees' Retirement System

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 all materials submitted in relation to MWRA Retirement System may be subject to disclosure consistent with Massachusetts Public Record laws.

Firm/Organization

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

No. HarbourVest is an independent, privately-owned Firm. The equity ownership is held by 30 individuals. Within this group, no individual owns more than 7.5% of the Firm. In addition, 36 other employees (managing directors) participate in a profit-sharing plan. Together, these senior professionals have a significant vested personal and financial interest in the long-term success of HarbourVest. The ownership structure includes provisions to expand ownership over time to enable continuity and stability of the Firm.

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

HarbourVest Total AUM: \$98.4 billion

Approximately 2,000 active Limited Partners

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

In 2022, the Firm launched the HarbourVest Infrastructure Income Partnership (HIIP), which has an investment focus on several ESG-oriented areas of the real assets and infrastructure markets, most notably around the global transition to a low-carbon economy.

4. Are any products capacity constrained?

In private equity there is a marked performance differential between top performing funds and median fund performance. To be compensated for the illiquidity assumed, investors must identify and access the top subset of the



investible universe. We know that capacity with these top managers is finite, so we carefully monitor our forward-looking capacity to managers that we believe have the potential to deliver top performance. Each investment team sets and monitors capacity limits with this in mind.

Doing so allows us to manage pools of capital in-line with what we believe we can prudently invest without forcing capital into less attractive opportunities. Accordingly, we do not take on client capital beyond what we can appropriately allocate and invest on behalf of those clients. We believe maintaining this investment discipline is vital to long-term successful solutions for and partnerships with our investors.

Our Portfolio Construction Committee provides centralized portfolio construction and makes final allocation decisions for all HarbourVest managed pools of capital. To ensure a fair and equitable approach is maintained, each decision takes into consideration the overall portfolio construction, investment guidelines of that pool of capital and other considerations as outlined in our Allocation Policy. All allocation decisions are clearly documented and can be reviewed with our separate account investors and their consultants. Further, our allocation process is incorporated into SOC-1 audits.

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

In the normal course of business, as with many other private equity managers, HarbourVest is from time-to-time involved in litigation as a plaintiff and a defendant. In the opinion of the managing directors, litigation has not had any material impact on the Firm.

6. Describe your diversity, equity and inclusion efforts with regard to the firm and its employees.

Diversity of thought, experience, and backgrounds are long-held tenets of both our partnership and our culture at HarbourVest and integral to how we will continue building our team in the future. It is also our corporate responsibility. At HarbourVest, we have the opportunity to promote diversity and inclusion through several avenues. This includes, but is not limited to,

providing capital support to diverse-led managers through certain dedicated investment programs, hiring and developing skilled, diverse talent, and engaging with key stakeholders on best practices.

HarbourVest has long been committed to building and developing teams that reflect the business opportunities, communities, and partners with whom we work, and we provide a broad range of career opportunities across all functional areas of the Firm. We have had a longstanding emphasis on promoting a diverse



and inclusive workplace, and this commitment is reflected and reinforced across our firm policies.

In 2019, the Firm established its Diversity & Inclusion Council, a cross-functional group of senior leaders focused on ensuring a continued strong emphasis on diversity and inclusion across the organization. The Council helps develop our diversity and inclusion strategy by driving decisions, measuring and monitoring progress, and making sure the Firm has the policies and practices in place to sustain and strengthen its values and beliefs.

Portfolio Management Team

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

Since the Dover Street program's inception, there have been no senior (managing director or principal) departures from the team, with the exception of two individuals who transitioned to senior adviser status. Additionally, there have no been any changes in the portfolio management team in the past year for the Direct team.

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

We expect there to be normal course of business changes, such as junior hires, promotions, and associates leaving after three years, as scheduled, typically to go to business school.

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 (N/A)
- Approach to portfolio monitoring and risk management

Our overall due diligence and investment process has remained consistent throughout HarbourVest's history, but we continually look for ways to refine and improve on what we do.

Philosophy

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

No recent changes.

HarbourVest's integrated global investment platform provides clients with significant and diverse private market opportunities across primary investments,



secondary investments, direct co-investments, private credit, and infrastructure & real assets investments.

The Firm's four-stage approach involves:

- Knowing the markets
- Researching opportunities deeply and collaboratively
- Evaluating, selecting, and allocating investments through structured committees and decision-making
- Ongoing, active monitoring with due diligence, analytical, and benchmarking tools

From this foundation, HarbourVest's investment teams aim to deliver returns above those generated by public markets, while also being mindful of downside risk protection. HarbourVest's dedicated expertise across the major private market segments allows our teams to analyze opportunities from multiple angles. The Firm also leverages the information stored in its proprietary database to identify managers and companies that have repeatedly demonstrated the ability to create value through all stages of the market cycle.

The Firm's long-term investment philosophy revolves around maximizing returns while managing risk appropriately. The key tenets of this approach include:

- *Understanding each client's situation and risk profile* – each investor has unique needs and profiles; our teams strive to understand their objectives so we can effectively assist them in structuring appropriate portfolios.
- *Investing with teams that have worked well together over time* – we believe that seasoned investment teams who have worked collaboratively over time can generate stronger returns than those with limited experience working together.
- *Avoiding market timing* – like other asset classes, private equity is cyclical. Our focus on diversification over time helps to moderate risks associated with poorly timed investments.
- *Actively participating in core private market segments* – our investment teams look for opportunities across primary, secondary, direct co-investments, credit, and real assets

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.).

Please refer to the reports regularly provided to MWRA.

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



Please refer to the reports regularly provided to MWRA.

As closed-end funds, client gains and losses are not applicable.

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

Dover X- Please refer to the Detailed Schedule of Partners' Equity in the Audited Financial Statement.

HCF VI has not yet held its final close. As such, the ultimate investor concentrations are still to be determined.

Performance / Market Outlook

- 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.

Fund	Fund LP IRR as of 3/31/2022	PME IRR - MSCI AC World	PME IRR - S&P 500 Index	Fund	Fund LP IRR as of 12/31/2021	PME IRR - MSCI AC World	PME IRR - S&P 500 Index
Dover X Fund	76.7%	10.7%	17.6%	Dover X Fund	85.7%	20.0%	28.1%
Co-Investment VI	NM	NM	NM	Co-Investment VI	NM	NM	NM

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

HCF VI: HarbourVest intends to construct a well-balanced portfolio that is exposed to numerous underlying demand drivers and trends, amongst other factors. Consequently, we are typically agnostic as to industry and investment themes across geographies and evaluates each investment opportunity on its own individual merits. That said, below are a few examples of current themes from investments in recent co-investment programs, which we expect to see in the near-term as well.

- Decreasing use of cash in developed economies: Providers of payments services in the US and Europe.**
- Growing middle class in developing economies: Providers of education, financial services, and consumer products in Asia and emerging markets.**



- **Aging population demographics in developed economies: Providers of healthcare goods and services in US, Europe and developed Asian countries.**
- **The rising adoption of ecommerce, particularly in light of COVID-19.**

As it compares to the prior three years, we expect an enhanced focus on:

- **Cautious Around Valuation / Volatility: Given recent market volatility, we are thoughtfully scrutinizing valuations and leverage levels, as well as assessing exit risks with respect to sector re-rating**
- **Probing on Inflationary Risks: We are examining how the inflationary environment and commodity pricing will flow through to business models and stress testing model assumptions**
- **Ongoing Focus on Recessionary Modeling: As discussed above, we continue to incorporate recessionary downside cases into our underwriting to ensure cash flow is sufficient, covenants have adequate cushion, and the return profile remains attractive.**

Dover X: In summary:

- **We expect the current economic uncertainty and public market volatility to create attractive opportunities in the secondary market, especially for buyers with deep experience, global relationships, and resources;**
- **We are seeing sellers willing to accept larger discounts than had been the case in recent quarters – a trend that we expect to persist;**
- **We expect private equity investors of all kinds to be motivated to sell assets, in some cases due to overallocation issues and the “denominator effect”;**
- **We expect GPs to increasingly embrace GP-led transactions as a liquidity source and portfolio management tool**

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

HCF VI: The current market environment of high valuations, high leverage, and low interest rates has persisted for the majority of the investment periods for HCF III, HCF IV, and HCF V. Similar to what we saw pre-pandemic, GPs have a significant amount of dry powder and we therefore expect investment activity to remain high in 2021 and beyond. Specifically, we expect a continued focus on i) solutions-oriented opportunities, ii) partnering with GPs who have a deep understanding of the specific sector and assets, iii) structured transactions with downside protection, and iv) recapitalizations.

Dover X: Rising inflation, increasing interest rates, the Russia-Ukraine conflict, and ongoing supply chain disruptions are some of the factors that have contributed to



significant uncertainty in financial markets. While public equity prices have declined significantly, the implications for private market valuations are not yet clear. However, based on our experience, we believe that such circumstances can create attractive opportunities in the secondary market – particularly for those buyers with deep experience in deploying capital during market disruptions or dislocations.

Overall, the market is experiencing a modest decline in secondary market volumes as asset owners and general partners await second quarter 2022 valuations, which we believe will help to calibrate pricing and terms for transactions going forward. Looking ahead, we expect the current market turbulence to create a strong supply of secondary investment opportunities.

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

Client Summary provided in presentation



MWRA Employees' Retirement System

August 2022

Intended for use with institutional and qualified investors only. This document contains confidential and proprietary information and should not be disseminated without express written consent from HarbourVest.

- I. HarbourVest Firm Overview
 - II. Client Update
 - III. Dover Street Program
 - IV. Co-Investment Program
- Appendix

These materials do not constitute an offer to sell or the solicitation of an offer to buy interests in any fund or any other investment product sponsored by HarbourVest Partners L.P. or its affiliates (“HarbourVest”), hereafter referred to as the “Fund”. Any offering of interests in the Fund will be made by means of delivery of a confidential Private Placement Memorandum or similar materials that contain a description of the material terms of such investment and subscriptions will be accepted solely pursuant to definitive documentation. These materials do not purport to contain all the information relevant to evaluating an investment in the Fund. No sale will be made in any jurisdiction in which the offer, solicitation, or sale is not authorized or to any person to whom it is unlawful to make the offer, solicitation, or sale. Offers and sales of interests in the Fund will not be registered under the laws of any jurisdiction and will be made solely to “qualified purchasers” as defined in the U.S. Investment Company Act of 1940, as amended. These materials are highly confidential and may not be reproduced or redistributed in any format without the express written approval of HarbourVest. An investment in the Fund involves a high degree of risk and therefore should be undertaken only by prospective investors capable of evaluating the risks of the Fund and bearing the risks such an investment represents. There can be no assurance that the Fund will be able to achieve its investment objectives or that the investors will receive a return on their capital. For further legal and regulatory disclosures see ‘Additional Important Information’ at the end of these materials.



HARBOURVEST FIRM OVERVIEW



\$98.4 billion
total AUM
across all
strategies*

Private markets
specialists in
equity, credit,
and real assets



Expertise
in primary,
secondary, direct
co-investments,
credit, and real
assets



800+
colleagues
175+
investment
professionals



25 years
average industry
experience of
managing
directors

900+
advisory
board seats



Strong track
record
35+ years



1000+
Managers
tracked

As of March 31, 2022

*Reflects committed capital from LPs for all active funds/accounts, excludes any funds / accounts that are in extension, liquidation, or fully liquidated.

Global Scale – Our market coverage is broad and deep



Americas		EMEA		Asia Pacific	
135	\$77.0	35	\$33.3	25	\$11.2
Investment Professionals	Billion Committed	Investment Professionals	Billion Committed	Investment Professionals	Billion Committed

Expertise Across Capital Structure (Equity and Debt) and Investment Types		
PRIMARY INVESTMENTS	SECONDARY & REAL ASSETS	DIRECT – EQUITY & CREDIT
\$51.4 billion committed	\$41.6 billion committed	\$28.6 billion committed

As of March 31, 2022. Based on primary, secondary, and direct commitments made by HarbourVest since inception. Commitment amounts reflect the aggregate commitments made by HarbourVest to primary, secondary, and direct investments since inception, and are presented gross of leverage. ○ Indicates HarbourVest team location.



CLIENT UPDATE

MWRA Employees' Retirement System Summary as of December 31, 2021

Fund	NAV Date	Vintage Year	Committed Capital	Contributed Capital	Cumulative Distribution	Transfer of Interest	NAV	Total Value	TV/C	Investor IRR
Dover X Fund	12/31/21	2020	\$ 9,000,000	3,780,000	1,056,042	0	5,464,462	6,520,504	1.7x	88.8%
Co-Investment VI	12/31/21	2022	\$ 8,000,000	0	0	0	27,743	27,743	0.0x	NM
Subtotal:			17,000,000	3,780,000	1,056,042	0	5,492,205	6,548,247	1.7x	89.6%
Grand Total:			17,000,000	3,780,000	1,056,042	0	5,492,205	6,548,247	1.7x	89.6%

Totals are based on historic exchange rates on date of actual cash flow. All funds include related AIVs.

NAV and Total Value reflect values as of NAV Date, updated for capital calls and distributions through the As of Date. Investor IRRs are based on the As of Date.

NM: Since the majority of capital has yet to be called from partners, the IRR is not yet meaningful.

Reflects net returns to client based on their specific commitments and cash flows, after all fees, operating expenses and carried interest. See 'Additional Important Information' at the end of the presentation, including important disclosures related to Net Performance Returns, Fees and Expenses. Past performance is not a reliable indicator of future results.



HARBOURVEST SECONDARY STRATEGY

Six core strengths provide significant advantages

Experience & Stability

- 35+ years secondary experience across 500+ transactions
- Stable, consistent team
- 16 years of average MD tenure



Global Platform of Scale

- 12 global offices and 175+ investment professionals
- Over \$121B committed to primaries, secondaries, and direct co-investments*



GP Relationships & Alignment

- Strategic & trusted partner to general partners
- 1,000+ advisory board seats



HARBOURVEST



Expertise in Complexity

- Market leader and innovator in complex secondary transactions for over 20 years

Independence

- Privately held & independent
- Accountable only to our limited partners



Robust Database

- 40 years of private markets data
- Information tracked on:
 - 24,000+ partnerships
 - 10,000+ managers
 - 34,000+ companies

As of March 31, 2022.

* Reflects the total committed capital since inception for primary, secondary and direct co-investments excluding real assets investments. Includes all investments made by a HarbourVest managed fund or account. In order to show a comprehensive track record and our experience in selecting investments, these figures include investments made by HarbourVest managed funds or accounts since 1983. This includes data (prior to 1998) related to transactions that occurred when the HarbourVest team was affiliated with Hancock Venture Partners, Inc.

Secondary program performance

Since inception as of December 31, 2021

	Vintage Year	Fund Size (millions)	% Called	Gross Portfolio DPI	Gross Portfolio TVPI	Gross Portfolio IRR	Net DPI	Net TVPI	Net IRR	MSCI AC World PME**	S&P 500 PME**
Dover Ia-Dover IV ¹	1991-1999	\$363.3	97%	1.9x	1.9x	34.5%	1.6x	1.6x	20.8%	8.1%	9.7%
Dover V	2003	\$515.2	97%	1.7x	1.7x	28.7%	1.5x	1.5x	17.9%	10.5%	8.3%
Dover VI	2005	\$621.2	96%	1.5x	1.5x	7.1%	1.3x	1.3x	3.9%	4.8%	7.1%
Dover VII	2008	\$2,929.3	96%	1.6x	1.6x	12.8%	1.4x	1.4x	9.2%	9.6%	14.0%
Secondary Overflow	2010	\$540.4	98%	1.8x	1.8x	17.0%	1.6x	1.7x	13.6%	11.7%	16.7%
Dover VIII	2012	\$3,591.5	92%	1.7x	2.0x	23.4%	1.5x	1.7x	20.2%	10.6%	14.2%
Secondary Overflow 2011	2012	\$253.8	85%	1.8x	2.1x	26.9%	1.5x	1.9x	20.5%	11.3%	15.1%
Dover IX	2016	\$4,777.0	83%	0.9x	2.0x	29.9%	0.9x	1.8x	29.6%	15.4%	19.4%
Secondary Overflow III	2017	\$334.7	72%	1.0x	2.3x	31.4%	1.0x	2.3x	29.9%	14.2%	18.1%
Secondary Overflow IV	2019	\$1,133.2	37%	0.4x	1.6x	77.7%	0.3x	1.6x	69.9%	19.1%	26.7%
Dover X	2020	\$8,121.8	42%	0.3x	1.7x	64.2%	0.3x	1.7x	85.8%	22.3%	30.0%

¹ Reflects the aggregated performance of all investments made by Dover Street Ia L.P., Dover Street II L.P., Dover Street III L.P., and Dover Street IV L.P. No investor received this aggregated performance. Excludes Dover Ib, which was a £10M fund and had a 18.9% net IRR at liquidation due to currency inconsistency with the rest of the Dover program.

The performance information in the table above represents the performance of HarbourVest's Dover Program which focuses exclusively on secondary investments and does not include secondary investments made by other HarbourVest-managed funds or accounts. The Secondary Overflow Programs make investments that may be more concentrated with respect to number of investments, geographic location of investments, and type of transactions as compared to the Dover Street Funds.

Dover IX and Dover X also include the performance of any AIF-related funds.

For EEA prospective investors, this performance information is intended for distribution with the annual performance information in 'Additional Track Record Detail.'

Past performance is not a reliable indicator of future results.

The vintage year presented for each fund represents the first year in which capital was called from limited partners; in certain cases, a fund's first investment may have occurred in a prior year.

See 'Additional Important Information' at the end of the presentation, including important disclosures related to Gross Performance Returns, Net Performance Returns, Dover Investment Allocation, Model Performance, Public Market Equivalent, and Fees and Expenses. ** Adjusted index returns to reflect a comparable public market index ("PME").



HARBOURVEST'S CO-INVESTMENT PROGRAM

Strong, demonstrated model track record*

20.5%
gross model
10-year IRR

\$16.1 billion
proceeds
generated since
inception

Active deal-sourcing platform**

1,029
deals sourced
in LTM

64%
small/mid-market
deals reviewed in LTM



HARBOURVEST STRENGTHS

Focus on creating solutions for GPs

66%
of capital invested in
solutions-oriented
opportunities†

50+
GP partners§

Large, experienced global team

65
investment
professionals
globally

20
average years of
MD experience

As of March 31, 2022, unless otherwise noted. Team data is as of June 30, 2022.

* Past performance is not a reliable indicator of future results. Gross model IRR is presented on a gross basis and reflects the performance of all co-investments made by the HarbourVest team in the last 10 years across all HarbourVest-managed funds and accounts, and does not reflect the management fees, carried interest, and other expenses borne by investors, which would reduce returns. The gross model IRR since inception (1983) is 17.5%. No investor received the gross model IRR. Actual performance may differ substantially from the gross model IRR presented. Proceeds generated reflect gross realized proceeds from all partially and realized co-investments in this same universe. There can be no assurance that the actual investment activity of the Fund will be consistent with these assumptions. See 'Additional Important Information' at the end of the presentation, including important disclosures related to Gross Performance Returns, Model Performance, and Fees and Expenses.

** As of December 31, 2021. Small/mid-market deals statistic represents percentage of deals reviewed in depth that has an enterprise value of \$1.5 billion or less at the time of our review.

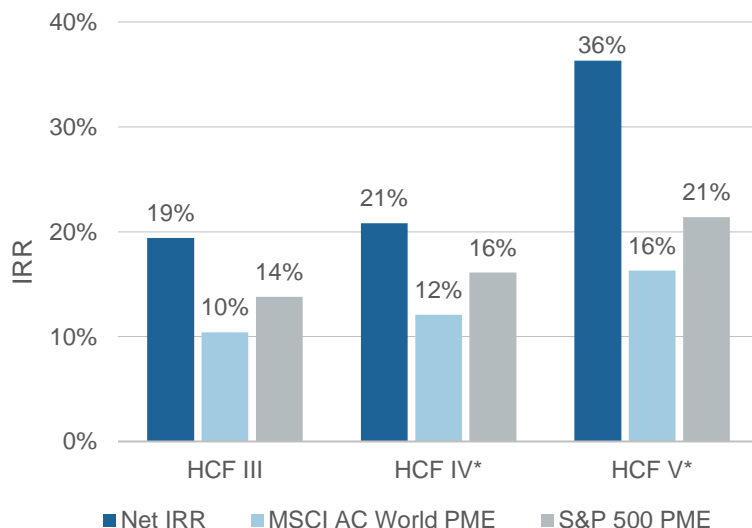
† Based on total cost of investments in Co-Investment Fund III – Co-Investment Fund V. Past performance is not a reliable indicator of future results.

§ Includes all GPs in Co-Investment Fund III – Co-Investment Fund V where HarbourVest provided a solution to the lead GP.

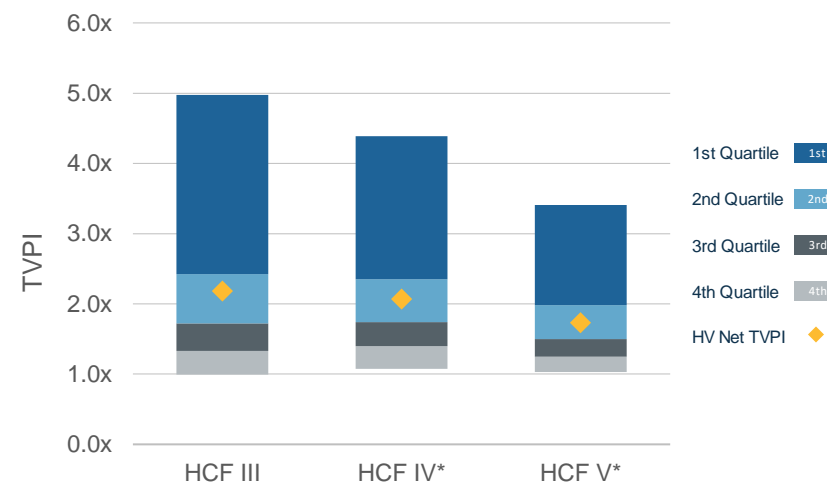
HarbourVest has outperformed public and private benchmarks

	Commitment Period	Fund Size (Millions)	% Called	Net DPI	Net TVPI	Net IRR	MSCI AC World PME	S&P 500 PME
HCF III	2013-2016	\$1,010.1	97%	1.5x	2.2x	19.4%	10.4%	13.8%
HCF IV*	2016-2019	\$1,767.7	84%	0.9x	2.1x	20.8%	12.1%	16.1%
HCF V*	2018-2022	\$3,030.3	79%	0.2x	1.7x	36.3%	16.3%	21.4%
HCF VI*	2021-Present	\$3,645.9	0%	-	-	-	-	-

Performance (Since Inception) vs. Public Benchmarks



Performance (Since Inception) vs. Burgiss Global All Private Equity Benchmark**



* HCF IV, HCF V, and HCF VI performance also includes the performance of any AIF-related funds.

** Source: Burgiss, Global All Private Equity benchmarks for the respective fund vintage years (2013, 2016, and 2018 respectively). There are 248 funds in the benchmark for the 2013 vintage, 365 funds in the benchmark for the 2016 vintage, and 523 funds in the 2018 vintage. The quartiles are determined based on the net TVPI return of each fund in the benchmark. The funds comprising the Global All Private Equity benchmark may have substantially different characteristics than the respective HarbourVest funds, and the comparison is provided for illustrative purposes only.

Performance provided as of March 31, 2022. HCF III refers to 2013 Direct Fund, HCF IV to Co-Investment Fund IV, and HCF V to Co-Investment Fund V. Past performance is not a reliable indicator of future results. For EEA prospective investors, this performance information is intended for distribution with the annual performance information in 'Additional Track Record Detail.' See 'Additional Important Information' at the end of the presentation, including important disclosures related to Net Performance Returns, Public Market Comparison, Private Equity Index Data, and Fees and Expenses.



APPENDIX

Contacts – We are accessible across the globe

Americas	EMEA	APAC
BOGOTÁ HarbourVest Partners, LLC Oficina de Representación +57 1 552 1400	DUBLIN HarbourVest Partners (Ireland) Limited +353 1 566 4410	BEIJING HarbourVest Investment Consulting (Beijing) Company Limited +86 10 5706 8600
BOSTON HarbourVest Partners, LLC +1 617 348 3707	FRANKFURT HarbourVest Partners (Ireland) Limited, Zweigniederlassung Deutschland +49 69 589964040	HONG KONG HarbourVest Partners (Asia) Limited +852 2525 2214
TORONTO HarbourVest Partners (Canada) Limited +1 647 484 3022	LONDON HarbourVest Partners (U.K.) Limited +44 20 7399 9820	SEOUL HarbourVest Partners Korea Limited +82 2 6410 8020
	TEL AVIV HarbourVest Partners (Israel) Limited +972 3 3720123	SINGAPORE HarbourVest Partners (Singapore) Pte. Limited +65 6978 9800
		TOKYO HarbourVest Partners (Japan) Limited +81 3 3284 4320

harbourvest.com



ADDITIONAL IMPORTANT INFORMATION

Additional important information

Epidemics, Pandemics and Other Health Risks: Many countries have experienced infectious illnesses in recent decades, including swine flu, avian influenza, SARS and 2019-nCoV (the “Coronavirus”). In December 2019, an initial outbreak of the Coronavirus was reported in Hubei, China. Since then, a large and growing number of cases have been confirmed around the world. The Coronavirus outbreak has resulted in numerous deaths and the imposition of both local and more widespread “work from home” and other quarantine measures, border closures and other travel restrictions causing social unrest and commercial disruption on a global scale. The World Health Organization has declared the Coronavirus outbreak a pandemic. The ongoing spread of the Coronavirus has had and will continue to have a material adverse impact on local economies in the affected jurisdictions and also on the global economy as cross-border commercial activity and market sentiment are increasingly impacted by the outbreak and government and other measures seeking to contain its spread. In addition to these developments having potentially adverse consequences for underlying portfolio investments of the Fund and the value of the Fund’s investments therein, the operations of HarbourVest and the Fund have been, and could continue to be, adversely impacted, including through quarantine measures and travel restrictions imposed on HarbourVest personnel or service providers based around the world, and any related health issues of such personnel or service providers. Any of the foregoing events could materially and adversely affect the Fund’s ability to source, manage and divest its investments and its ability to fulfill its investment objectives. Similar consequences could arise with respect to other comparable infectious diseases.

Certain information contained herein (including financial information and information relating to investments) has been obtained from published and non-published sources. Such information has not been independently verified by HarbourVest. Except where otherwise indicated herein, the information provided herein is based on matters as they exist as of the date of preparation and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available, or circumstances existing or changes occurring after the date hereof. Any forecast provided herein is based on HarbourVest’s opinion of the market as of the date of preparation and is subject to change, dependent on future changes in the market.

In considering any performance data contained herein, you should bear in mind that past performance is not a reliable indicator of future results. Certain information contained herein constitutes forward-looking statements, which can be identified by the use of terms such as “may”, “will”, “should”, “expect”, “anticipate”, “project”, “estimate”, “intend”, “continue”, or “believe” (or the negatives thereof) or other variations thereof. Due to various risks and uncertainties, including those discussed above, actual events or results or actual performance of the Fund may differ materially from those reflected or contemplated in such forward-looking statements. As a result, investors should not rely on such forward-looking statements in making their investment decisions.

Any data presented about investments prior to 1998 is related to transactions that occurred when the HarbourVest team was affiliated with Hancock Venture Partners, Inc.

Additional important information

Ported Performance: HarbourVest's founders began making venture capital investments for John Hancock Financial Services in late 1970s. In 1982 they formed Hancock Venture Partners, Inc, which was fully owned by John Hancock Mutual Life Insurance Company, to independently develop and manage third-party private equity capital. In January 1997, the Hancock Venture Partners management team formed a new independent management company, HarbourVest Partners, LLC. All then-employees of Hancock Venture Partners became owners and/or employees of HarbourVest Partners, LLC. As of January 1, 2021 all employees of HarbourVest Partners, LLC hired prior to 1997 are still affiliated with HarbourVest and serve either as a Managing Director or in a Senior Advisor capacity. HarbourVest Partners, LLC has no affiliation with John Hancock Financial Services.

The source of the performance information is HarbourVest. In considering the performance information contained herein, prospective investors should bear in mind that past performance is not a reliable indicator of future results, and there can be no assurance that an investment sponsored (or an account managed) by HarbourVest will achieve comparable results or be able to implement its investment strategy or meet its performance objectives. The funds that made these investments may have had different terms and investment objectives than those proposed or modeled herein.

The foregoing performance information includes realized and unrealized investments. Unrealized investments are valued by HarbourVest in accordance with the valuation guidelines contained in the applicable partnership agreement. Actual realized returns on unrealized investments will depend on, among other factors, future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs, and the timing and manner of sale, all of which may differ from the assumptions on which the valuations used in prior performance data contained herein are based. Accordingly, the actual realized returns on these unrealized investments may differ materially from returns indicated herein.

In certain cases, a HarbourVest fund or account, or the partnerships in which it invests, may utilize a credit facility or other third-party financing. This is generally to bridge capital calls from limited partners or to fund a portion of an investment and may also be used to facilitate transactions involving the recapitalization of portfolio investments. This may make the resulting IRR and multiples higher or lower than the IRR or multiples that would have been presented had drawdowns from partners or available cash been initially used to acquire or pay for the investment.

IRRs are calculated from the date of a fund's first cash flow from a limited partner, which may include capital contributions in connection with fund formation, as may occur with certain AIF-Related Funds (as defined below), and therefore can be earlier than the date of the first capital call from a limited partner for the purpose of investment. The start date for IRR calculations can also be later than the date of initial investment when a credit facility or other third-party financing is used to fund such investment.

Additional important information

Performance is expressed in US dollars, unless otherwise noted. Returns do not include the effect of any withholding taxes. Cash flows are converted to US dollars at historic daily exchange rates, unless otherwise indicated. The return to investors whose local currency is not the US dollar may increase or decrease as a result of currency fluctuations.

Net IRR (Internal Rate of Return) are based on the Fund's Limited Partner ("LP") cash flow after all management fees, commissions, fund operating expenses, and carried interest. These returns reflect the combined return for all limited partners in a fund and do not necessarily reflect an individual limited partner's actual return. The Net IRR is calculated using daily LP cash flows. Where applicable, a final LP cash flow is based on the fair market value of all LP capital accounts as determined by the Fund or account's General Partner ("GP") in accordance with the Firm's valuation policy. Actual management fees and carried interest will vary and are established in negotiations with the limited partners of a Fund or separate account client. Management fees may range from an average of 0.1% to 1.25% per year of committed, called, or invested capital over the expected life of the Fund. Fees for Funds in extension years may be reduced. Fund investors will typically bear all the costs and expenses relating to the operations of a Fund and its GP (or similar managing fiduciary). A Fund shall bear its pro rata share of any such expenses incurred in connection with any portfolio investment to the extent the same portfolio investment is being made by other Funds. Organization expenses of a Fund will also typically be borne by the LPs. The specific payment terms and other conditions of the management fees, carried interest, and other expenses of a Fund are set forth in the governing documents of the Fund. Fees and expenses are also described in Part 2A of HarbourVest's Form ADV.

Net DPI and Net TVPI are calculated based on daily LP cash flows.

Gross IRR is based on the annual return calculated using daily cash flows from the Fund(s) to and from the various partnerships or companies held by the Fund, either directly or through a special purpose vehicle in which the Fund invested during the period specified. The Gross IRR does not reflect the deduction of management fees, carried interest, and other expenses borne by investors in the Fund(s), which will reduce returns. If such fees and expenses were deducted from performance, returns would be lower. For example, if a fund appreciated by 10% a year for five years, the total annualized return for five years prior to deducting fees and expenses at the end of the five year period would be 10%. If total fund fees and expenses were 1% for each of the five years, the total annualized return of the fund for five years at the end of the five-year period would be 8.90%.

Portfolio Company Performance is based on the cost and value of the individual company referenced. These returns do not reflect the fees, expenses, and carried interest of the partnership investments of the Fund(s), which will reduce returns. These returns do not represent the performance of any specific Fund or the return to limited partners of any specific Fund.

Additional important information

Hypothetical information for illustrative purposes only. This information represents adjusted Model Track Record of each index as if the respective index had been purchased and sold at the time of the limited partners' capital calls and distributions, with the remainder held at the date noted. The indices used assume reinvestment of all dividends. Under this methodology, the capital calls for the purchase of the public market index are the same as the capital calls for the Fund. The distributions for the sales of the public market index are scaled to represent the same proportion of the Fund's NAV at the time of the distribution. For example, if the Fund distributes 5% of NAV, then 5% of the index NAV is distributed. The adjusted public market indices shown are not subject to the risk, investment strategy, or investment characteristics of the Fund. The securities comprising the public market indices have substantially different characteristics than the investments held by a Fund, and accordingly, a direct comparison may not be meaningful. The adjusted indices are shown to demonstrate the approximate returns an investor may have received had the investor invested in certain publicly-traded equity securities in lieu of a Fund or the investments made by HarbourVest. An investor is not able to directly invest in an unmanaged index.

The MSCI AC World[®] Index (ACWI) is designed to measure the performance of publicly-traded large and mid-capitalization equity securities in global developed and emerging markets. The MSCI ACWI Index is maintained by Morgan Stanley Capital International ("MSCI") and has historically captured approximately 85% coverage of the free float-adjusted market capitalization of its publicly-traded global equity opportunity set.

The S&P 500[®] Index is designed to measure the performance of publicly-traded equity securities of the large capitalization sector of the US market and includes 500 large companies having common stock listed on eligible U.S. exchanges. The S&P 500 Index is maintained by Standard & Poors ("S&P") and has historically captured approximately 80% coverage of available market capitalization of publicly-traded equities in the US market.

Vintage Years: HarbourVest vintage classification is based on the year in which capital was first funded to each underlying fund (for primary fund investments) or the year of HarbourVest's purchase (for secondary investments).

Additional important information

Model Track Record: Model results are inherently limited and should not be relied upon as indicators of future performance. Individual fund and strategy performance can be better or worse than the model. No investor received the indicated Model Track Record. Certain assumptions have been made for modeling purposes. No representation or warrant is made as to the reasonableness of the assumptions made. Changes in the assumptions may have a material impact on the hypothetical returns presented. Different model scenarios will provide different results. While the model portfolio may consist of investments made by HarbourVest during the relevant period(s), it does not reflect an actual portfolio managed by HarbourVest during the relevant period(s) and does not represent the impact that material economic and market factors might have had on HarbourVest's decision making if HarbourVest had been managing a fund that incorporated the investment strategy shown during the specified period(s).

In addition, the HarbourVest fund(s) had investment results materially different from the results portrayed in the model portfolio during the relevant period(s). The fund(s)' actual investments may have substantially different terms than those reflected in the model portfolio. No representation is made that any Fund will or is likely to achieve returns similar to those presented, and there can be no assurance that the fund(s) or HarbourVest will achieve profits or avoid incurring substantial losses. Other periods selected for the model portfolios may have different results, including losses. Current Model Track Record may differ from that shown.

Strategy Model Criteria: Model assumes each portfolio participates in every investment opportunity on a pro rata basis based on actual aggregate HarbourVest commitments for each vintage year. Actual investment opportunities may be limited due to scarcity and desired portfolio construction; creating a more concentrated portfolio in comparison to the model. The incremental benefit of portfolio diversification may become limited at the higher range of underlying partnerships / investments.

Fees and Expenses: Actual management fees and carried interest will vary and are established in negotiations with the limited partners of a Fund or separate account client. Management fees may range from an average of 0.1% to 1.25% per year of committed, called, or invested capital over the expected life of the Fund, pursuant to the limited partnership agreement or investment management agreement. Fees for Funds in extension years may be reduced, including to nil. Fund investors will typically bear all the costs and expenses relating to the operations of a Fund and its general partners (or similar managing fiduciary). A Fund shall bear its pro rata share of any such expenses incurred in connection with any portfolio investment to the extent the same portfolio investment is being made by other Funds. Organization expenses of a Fund will also typically be borne by Fund investors. When a Fund is generally expected to invest alongside a Fund primarily intended for European-based investors, which takes into account the regulatory requirements of the Alternative Investment Fund Managers Directive (an "AIF Related Fund"), organization expenses may be aggregated and allocated pro-rata between a Fund and its AIF Related Fund based on the relative commitments of the partners of the Fund and the partners of its AIF Related Fund (unless HarbourVest, as general partner, determines in good faith that a different share is appropriate). Fees and expenses are also described in HarbourVest's Form ADV, Part 2A brochure.

Additional important information

Gross Performance Returns – This information (Distributed / Funded, Total Value / Funded, TV/TC (Total Value / Total Cost), Gross Portfolio IRR, and Gross IRR), if shown, is presented on a gross basis and reflects the performance of the investment portfolio, including primary fund investments, secondary investments, and/or direct co-investments. Gross Portfolio IRR represents the annual return calculated using daily cash flows from the Fund(s) to and from the various partnerships or companies, either directly or through a special purpose vehicle in which the Fund(s) invested during the period specified. These returns reflect the fees, expenses, and carried interest of the underlying fund investments (where applicable), certain expenses of any special purpose vehicle that held an interest in the underlying fund, as applicable, but do not reflect the management fees, carried interest, and other expenses borne by investors in the Fund(s), which will reduce returns.

Fees and Expenses (Net and Gross only): Actual management fees and carried interest will vary and are established in negotiations with the limited partners of a Fund or separate account client. Management fees may range from an average of 0.1% to 1.25% per year of committed, called, or invested capital over the expected life of the Fund, pursuant to the limited partnership agreement or investment management agreement. Fees for Funds in extension years may be reduced, including to nil. Fund investors will typically bear all the costs and expenses relating to the operations of a Fund and its general partners (or similar managing fiduciary). A Fund shall bear its pro rata share of any such expenses incurred in connection with any portfolio investment to the extent the same portfolio investment is being made by other Funds. Organization expenses of a Fund will also typically be borne by Fund investors. When a Fund is generally expected to invest alongside a Fund primarily intended for European-based investors, which takes into account the regulatory requirements of the Alternative Investment Fund Managers Directive (an “AIF Related Fund”), organization expenses may be aggregated and allocated pro-rata between a Fund and its AIF Related Fund based on the relative commitments of the partners of the Fund and the partners of its AIF Related Fund (unless HarbourVest, as general partner, determines in good faith that a different share is appropriate).

Gross performance returns, if shown, are presented before management fees, carried interest, and other expenses borne by investors in the Fund(s). An actual portfolio would bear such fees and expenses. If such fees and expenses were deducted from performance, returns would be lower. For example, if a fund appreciated by 10% a year for five years, the total annualized return for five years prior to deducting fees and expenses at the end of the five year period would be 10%. If total fund fees and expenses were 1% for each of the five years, the total annualized return of the fund for five years at the end of the five-year period would be 8.90%. The specific payment terms and other conditions of the management fees, carried interest, and other expenses of a Fund are set forth in the governing documents of the Fund. Fees and expenses are also described in HarbourVest's Form ADV, Part 2A brochure.

Additional important information

Fees and Expenses (Gross only): Gross performance returns are presented before management fees, carried interest, and other expenses borne by investors in the Fund(s). An actual portfolio would bear such fees and expenses. If such fees and expenses were deducted from performance, returns would be lower. For example, if a fund appreciated by 10% a year for five years, the total annualized return for five years prior to deducting fees and expenses at the end of the five year period would be 10%. If total fund fees and expenses were 1% for each of the five years, the total annualized return of the fund for five years at the end of the five-year period would be 8.90%. The specific payment terms and other conditions of the management fees, carried interest, and other expenses of a Fund are set forth in the governing documents of the Fund. Fees and expenses are also described in HarbourVest's Form ADV, Part 2A brochure.

Private Equity Index Data: Unless otherwise indicated, all private equity fund benchmark data reflects the fees, carried interest, and other expenses of the funds included in the benchmark. Please note that Fund returns would be reduced by the fees, carried interest, and other expenses borne by investors in the Fund. Such fees, carried interest, and other expenses may be higher or lower than those of the funds included in the benchmark. Burgiss (unless otherwise noted) is the source and owner of any private equity index data contained or reflected in this material and all trademarks and copyrights related thereto. The material may contain confidential information and unauthorized use, disclosure, copying, dissemination, or redistribution is strictly prohibited. This is HarbourVest's presentation of the data. Burgiss is not responsible for the calculations conducted by HarbourVest, the formatting or configuration of this material, or for any inaccuracy in presentation thereof.

The information contained herein is highly confidential and may not be relied on in any manner as legal, tax, or investment advice or as an offer to sell or a solicitation of an offer to buy an interest in any fund or any other investment product sponsored by HarbourVest (the "Fund"). Any offering of interests in the Fund will be made by means of delivery of a confidential Private Placement Memorandum or similar materials (the "Memorandum") that contain a description of the material terms of such investment and subscriptions will be accepted solely pursuant to definitive documentation. These materials do not purport to contain all the information relevant to evaluating an investment in the Fund. The information contained herein will be superseded by, and is qualified in its entirety by reference to, the Memorandum, which will contain information about the investment objective, terms, and conditions of an investment in the Fund and will also contain tax information and risk disclosures that are important to any investment decision regarding the Fund. No person has been authorized to make any statement concerning the Fund other than as will be set forth in the Memorandum and any such statements, if made, may not be relied upon. No sale will be made in any jurisdiction in which the offer, solicitation, or sale is not authorized or to any person to whom it is unlawful to make the offer, solicitation, or sale. Offers and sales of interests in the Fund will not be registered under the laws of any jurisdiction and will be made solely to "qualified purchasers" as defined in the U.S. Investment Company Act of 1940, as amended. The information contained herein must be kept strictly confidential and may not be reproduced or redistributed in any format without the express written approval of HarbourVest.

Additional important information

An investment in the Fund will involve significant risks, including loss of the entire investment. Before deciding to invest in the Fund, prospective investors should pay particular attention to the risk factors contained in the Memorandum. Prospective investors should make their own investigations and evaluations of the information contained herein. Prior to the closing of a private offering of interests in the Fund, HarbourVest will give investors the opportunity to ask questions and receive additional information concerning the terms and conditions of such offering and other relevant matters. Each prospective investor should consult its own attorney, business advisor, and tax advisor as to legal, business, tax, and related matters concerning the information contained herein and such offering.

Net Performance Returns - DPI (Distributions / Paid-In Capital), TVPI (Total Value / Paid-In Capital), and Net IRR (Internal Rate of Return) through the applicable date are the returns to limited partners after all management fees, commissions, fund operating expenses, and carried interest. These returns reflect the combined return for all limited partners in a fund and may not reflect an individual limited partner's actual return. The Net IRR is calculated using daily cash flows to and from limited partners. In this calculation, the final cash flow to limited partners is the fair market value of all limited partners' capital accounts at the applicable date as determined by the general partner of the respective HarbourVest fund or account in accordance with the valuation policy. The net multiples (DPI and TVPI) are calculated based on the same cash flows.

NM: IRR is "Not Meaningful" where the Fund has less than 1 year of cash flows.

Aggregated Performance - Aggregated performance results are inherently limited and should not be relied upon as indicators of future performance. Individual fund and strategy performance can be better or worse than the model. **No investor received the indicated model performance.**

While the aggregated performance may consist of investments made by HarbourVest during the relevant period(s) noted, it does not reflect an actual portfolio managed by HarbourVest during the relevant period(s) noted and does not represent the impact that material economic and market factors might have had on HarbourVest's decision making if HarbourVest had been managing a fund that incorporated the investment strategy shown during the specified period(s).

HarbourVest's individual products and strategies had investment results materially different from the results portrayed by the aggregated performance during the relevant period(s) noted. The actual investments for each product or strategy may have substantially different terms than those reflected by the aggregated performance. No representation is made that any individual product or strategy will or is likely to achieve returns similar to those presented as aggregated performance, and there can be no assurance that any product or strategy will achieve profits or avoid incurring substantial losses. Other periods selected for the aggregated performance may have different results, including losses.

MONTHLY PERFORMANCE REPORT

**MWRA EMPLOYEES' RETIREMENT
SYSTEM**

JULY 31, 2022



PROPRIETARY & CONFIDENTIAL

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

	Market Value (\$)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Composite	663,098,018	3.7	-9.0	-5.4	7.0	6.6	7.5
<i>Allocation Index</i>		3.7	-7.8	-3.5	7.7	7.1	7.7
<i>Policy Index</i>		4.3	-8.1	-3.5	8.3	7.7	7.9

20 Years As of July 31, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Composite	7.4	8.4	0.7	1.1
<i>Allocation Index</i>	6.8	7.8	0.7	1.1
<i>Policy Index</i>	7.2	8.5	0.7	1.1

Performance

- The Composite had a return of 3.7% (net) for the month, outpacing the Allocation Index (3.6%) and trailing the Policy Index (4.3%).
- In equities, the S&P 500 Index returned 9.2% in July, outpacing the MSCI ACWI ex U.S. Index of 3.4%. Growth equities benefited from lower yields and outperformed value stocks with the Russell 1000 Growth and Value indexes up 12% and 6.6%, respectively. Outside of the U.S., the MSCI EAFE Index gained 5%, while the MSCI Emerging Markets lost 0.2%. The portfolio's Domestic Equity composite was up 8.9% (net) and the Non-US Equity composite returned 4.1% (net).
- In fixed income, Global yields shifted lower amid increased demand for sovereign bonds. In the U.S., the Treasury yield curve inverted after the two- and 10-year Treasury yield decreased three and 33 basis points, respectively. The Fixed Income composite was up 2.6% (net) for the month while the Bloomberg Agg and Bloomberg US HY returned 2.4% and 5.9% respectively.
- This brings the total plan return for the trailing one-year period to -5.4% (net), while the Allocation Index and Policy Index both returned -3.5%.

Returns for 20 years Risk/Return Summary are net of fees.

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

TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Composite	663,098,018	100.0	100.0	3.7	-9.0	-5.4	7.0	6.6	7.5	6.8	Jan-86
Allocation Index				3.7	-7.8	-3.5	7.7	7.1	7.7		
Policy Index				4.3	-8.1	-3.5	8.3	7.7	7.9		
Total Balanced	5,059,398	0.8	0.0	3.3	-6.8	-0.2	8.6	6.0	5.5	5.1	Dec-10
PRIT Core Fund	5,059,398	0.8		3.3	-7.8	-1.3	9.4	8.4	8.9	7.0	Apr-99
60% S&P 500 / 40% Bloomberg Aggregate				6.5	-10.7	-6.2	8.1	8.4	9.0	6.2	
Total Domestic Equity	196,635,131	29.7	31.0	8.9	-14.5	-9.9	11.1	11.7	12.8	7.5	May-99
Russell 3000 Index				9.4	-13.7	-7.4	12.6	12.2	13.5	7.2	
Large Cap	151,504,234	22.8	24.0	8.6	-14.7	-9.2	12.1	12.6	13.1	12.8	Dec-10
Rhumblin Advisors S&P 500 Index Fund	60,025,653	9.1	10.0	9.2	-12.6	-4.7	13.3	12.8	13.7	9.0	Apr-97
S&P 500 Index				9.2	-12.6	-4.6	13.4	12.8	13.8	8.9	
Coho Relative Value Equity	48,130,281	7.3	7.0	5.7	-5.3	1.1	11.6	10.8		11.2	Mar-16
Russell 1000 Value Index				6.6	-7.1	-1.4	8.9	8.3	11.1	11.0	
Polen Focused Growth	43,348,300	6.5	7.0	11.2	-26.6	-24.7	10.0	13.8		14.5	Feb-16
Russell 1000 Growth Index				12.0	-19.4	-11.9	16.1	16.3	16.0	17.3	
Small Cap	45,130,897	6.8	7.0	9.7	-13.7	-12.1	8.3	9.2	11.8	11.4	Dec-10
Boston Partners Small Cap Value	23,494,555	3.5	3.5	8.8	-6.2	-4.0	9.2	6.9	10.3	10.4	Feb-97
Russell 2000 Value Index				9.7	-9.3	-4.8	9.4	6.7	10.2	8.9	
Loomis Sayles Small Cap Growth	21,636,341	3.3	3.5	10.7	-21.0	-19.9	6.6	10.8	12.7	6.7	Jan-97
Russell 2000 Growth Index				11.2	-21.6	-23.2	4.7	6.9	10.7	6.7	
Total Non-US Equity	102,699,782	15.5	19.0	4.0	-19.8	-21.5	0.7	1.2	4.7	3.8	Mar-99
International Equity	68,868,821	10.4	12.0	6.6	-18.0	-19.4	2.7	2.9	5.7	3.4	Sep-05
SEG Baxter Street	29,844,040	4.5	5.0	7.3	-17.4	-20.2	1.5	4.1		6.7	May-16
MSCI AC World ex USA (Net)				3.4	-15.6	-15.3	2.9	2.4	5.0	5.1	
Schroder International Alpha Trust Class 1	25,639,515	3.9	4.0	5.1	-18.6	-16.5	6.9	5.5	7.1	6.1	Mar-12
MSCI AC World ex USA (Net)				3.4	-15.6	-15.3	2.9	2.4	5.0	4.0	
Baillie Gifford International Growth Fund Class K	13,385,266	2.0	3.0	7.9	-30.0	-36.1				-13.5	Oct-20
MSCI AC World ex USA (Net)				3.4	-15.6	-15.3	2.9	2.4	5.0	3.5	
Emerging Markets Equity	33,830,961	5.1	7.0	-0.9	-23.5	-26.0				-20.9	Mar-21
Axiom Emerging Markets Trust Class 2	16,049,812	2.4	7.0	-2.7	-26.2	-29.0				-23.2	Mar-21
MSCI Emerging Markets (Net)				-0.2	-17.8	-20.1	0.9	1.0	2.8	-16.7	
ABS Emerging Markets MA Fund	17,781,148	2.7		0.7	-20.8					-19.1	Dec-21
MSCI Emerging Markets (Net)				-0.2	-17.8	-20.1	0.9	1.0	2.8	-16.3	

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 the transition to the CIT investment vehicle is linked to mutual fund performance history.

TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fixed Income	137,383,274	20.7	20.0	2.6	-7.0	-7.4	1.7	2.3	3.3	5.9	Mar-99
Garcia Hamilton Fixed Income Aggregate	36,781,185	5.5	6.0	2.7	-5.4	-6.5	0.5			1.8	Apr-18
<i>Blmbg. U.S. Aggregate Index</i>				2.4	-8.2	-9.1	-0.2	1.3	1.6	1.6	
Lord Abbett Core Fixed Income	35,169,612	5.3	4.0	2.3	-8.4	-9.2	0.1			1.8	Apr-18
<i>Blmbg. U.S. Aggregate Index</i>				2.4	-8.2	-9.1	-0.2	1.3	1.6	1.6	
Loomis Sayles Multisector Full Discretion Trust	51,634,907	7.8	8.0	3.0	-9.1	-9.6	2.1	2.6	4.1	7.1	Mar-99
<i>Blmbg. U.S. Aggregate Index</i>				2.4	-8.2	-9.1	-0.2	1.3	1.6	4.2	
<i>Blmbg. U.S. Corp: High Yield Index</i>				5.9	-9.1	-8.0	1.9	3.1	4.9	6.2	
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	13,743,911	2.1	2.0	1.9	-3.6	-2.1	2.1			2.1	Aug-19
<i>Credit Suisse Leveraged Loan</i>				1.9	-2.7	-0.9	2.4	3.2	4.0	2.4	
Invesco Mortgage Recovery Loans Feeder Fund	53,659	0.0		0.0	-0.1	-0.6	-1.8	2.3	5.6	10.3	Apr-10
<i>Blmbg. U.S. Aggregate Index</i>				2.4	-8.2	-9.1	-0.2	1.3	1.6	2.6	
Total Hedge Fund	41,820,650	6.3	6.0	0.5	-3.0	-0.6	4.6	4.0	4.2	3.4	Oct-06
PRIM Portfolio Completion Strategies	15,048,078			0.9	-1.9	-0.3	3.1	3.7	4.7	3.8	Oct-06
Corbin Pinehurst Partners	12,487,883	1.9		1.2	-11.6	-9.6	3.8			4.5	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				0.5	-6.1	-4.4	4.0	3.5	3.7	4.4	
UBS Neutral Alpha Strategies	13,549,539	2.0		-0.7	2.6	6.9	7.0			6.4	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				0.5	-6.1	-4.4	4.0	3.5	3.7	4.4	
Entrust Peru Wind Down	735,151	0.1		-0.1	-1.3	-1.0	-2.7			-3.3	Dec-17
<i>HFRI Fund of Funds Composite Index</i>				0.5	-6.1	-4.4	4.0	3.5	3.7	3.3	
Other	19,815,817	3.0	0.0	0.0	0.1	0.1	0.7	1.2	0.7	0.6	Dec-10
Cash Account	19,815,817	3.0		0.0	0.1	0.1	0.7	1.2	0.7	1.7	Feb-00
<i>90 Day U.S. Treasury Bill</i>				0.1	0.2	0.2	0.6	1.1	0.6	1.6	

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.

TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Real Estate	73,453,723	11.1	12.0	0.0							Apr-99
<i>NCREIF Property Index</i>				0.0	8.7	21.5	10.2	8.9	9.7	9.0	
Morgan Stanley Prime Property (\$2.8m commitment in '95)	26,990,423	4.1		0.0	10.3	27.9	11.8	10.1	11.6	9.1	Sep-95
TA Realty Core Property Fund, LP (\$15m commitment in '19)	28,540,684	4.3		0.0	13.7	36.8	17.5			16.5	Jun-19
Invesco Mortgage Recovery II (\$3M commitment in '15)	968,569	0.1		0.0	-1.2	1.8	-18.7	-5.4		-1.3	Oct-15
Landmark VI (\$2m commitment in '11)	42,917	0.0		0.0	-17.0	-2.1	-10.2	-8.4	1.1	2.2	Jul-11
Landmark VIII (\$4m commitment in '17)	2,275,283	0.3		0.0	11.7	43.8	17.9			19.9	Nov-17
StepStone Real Estate Fund II (\$2m commitment in '11)	472,141	0.1		0.0	1.1	0.6	-2.8	-0.1	4.8	2.4	May-12
Cerberus Institutional Real Estate Partners III (\$1.5m commitment in '12)	516,079	0.1		0.0	-14.3	29.2	19.6	15.1		14.7	May-13
TA Realty Fund X LP (\$3.5m commitment in '12)	3,478	0.0		0.0	5.7	6.1	0.5	7.3		8.2	May-13
TerraCap Partners III, LP (\$2.6m commitment in '15)	1,561,343	0.2		0.0	4.2	5.1	4.7	5.7		9.3	Jul-15
TerraCap Partners IV, LP (\$4m commitment in '17)	3,623,305	0.5		0.0	2.8	15.3	13.0			11.0	Nov-17
TerraCap Partners V, LP (\$8m commitment in '22)	8,459,501	1.3									
Total Private Equity and Debt	86,230,243	13.0	12.0	-0.1	2.9	17.1	19.1	16.5	15.4	10.5	Apr-99
<i>CJA US All PE</i>				0.0	0.8	12.7	21.5	18.6	16.0	13.6	
<i>NASDAQ W/O Income</i>				12.3	-20.8	-15.6	14.9	14.3	15.5	7.2	
PRIM Vintage Year 2008 (\$3m commitment in '08)	856,912	0.1		-0.7	5.7	26.6	18.1	18.1	19.8	10.5	Jun-08
PRIM Vintage Year 2009 (\$1m commitment in '09)	106,779	0.0		-14.4	-8.6	20.7	42.9	34.5	27.4	15.1	Nov-09
PRIM Vintage Year 2010 (\$1m commitment in '10)	520,675	0.1		-7.1	-35.2	-1.2	24.2	22.9	20.8	12.3	Jun-10
PRIM Vintage Year 2011 (\$1.5m commitment in '11)	996,668	0.2		0.0	2.8	40.3	35.5	28.7	22.9	11.1	May-11
PRIM Vintage Year 2012 (\$1m commitment in '12)	578,326	0.1		-0.7	-14.3	-5.6	22.3	19.0	12.4	-8.4	Jun-12
PRIM Vintage Year 2014 (\$2m commitment in '14)	2,344,423	0.4		-0.1	3.0	31.3	29.6	27.7		9.5	Jun-14
PRIM Vintage Year 2017 (\$2m commitment in '17)	2,624,005	0.4		-0.4	6.4	32.2	28.9	19.0		18.1	May-17
PRIM Vintage Year 2020 (\$5m commitment in '20)	3,299,405	0.5		-0.2	10.3	24.3				22.3	Mar-20
PRIM Vintage Year 2021 (\$5m commitment in '21)	2,456,244	0.4		-0.6	3.0	9.4				4.0	Dec-20
PRIM Vintage Year 2022 (\$7.5m commitment in '22)	544,431	0.1		0.0						-2.8	Apr-22
Alcentra European DLF (\$5m commitment in '14)	188,337	0.0		0.0	4.5	71.5	23.0	13.7		12.0	Jan-15
Ascent Fund IV-B (\$1m commitment in '16)	45,225	0.0		0.0	-14.7	-15.0	-27.6	-20.3		-15.8	Jul-16
Ascent Fund V (\$2m commitment in '08)	1,655,897	0.2		0.0	-0.8	-0.5	3.8	0.9	7.0	5.1	Oct-08
Ascent VI (\$3m commitment in '15)	3,328,252	0.5		0.0	-1.1	8.7	1.1	4.7		2.0	Dec-15
CVI Credit Value Fund IV A LP (\$6m commitment in '17)	5,754,763	0.9		0.0	2.7	7.7	6.5			6.3	Dec-17
Invesco Fund VI (\$5m commitment in '13)	1,662,256	0.3		0.0	-6.9	27.7	39.5	29.3		21.9	Jul-13

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.

TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Kayne Energy Fund VII (\$5m commitment in '15)	3,388,589	0.5		0.0	60.7	81.2	-17.1	-9.3		-2.1	Jan-16
Foundry 2007 (\$3m commitment in '07)	528,336	0.1		0.0	-1.1	5.6	20.2	5.3	12.9	20.6	Dec-07
Foundry 2010 (\$3m commitment in '10)	5,798,777	0.9		0.0	-0.9	60.8	30.5	27.3	17.0	14.8	Feb-11
Foundry 2010 Annex (\$0.4m commitment in '15)	1,114,791	0.2		0.0	0.0	200.3	84.5	73.0		45.2	Sep-15
Pinebridge PEP V (\$6m commitment in '07)	520,534	0.1		0.0	-0.1	0.8	9.2	5.7	9.4	8.8	Dec-10
Pinebridge (AIG) PEP V Asia (\$6m commitment in '07)	40,070	0.0		0.0	0.0	-5.7	-11.0			-11.6	Oct-18
Pinebridge (AIG) PEP V Co-Investment (\$6m commitment in '07)	89,273	0.0		0.0	0.0	22.2	18.4			6.5	Oct-18
Pinebridge (AIG) PEP V Europe (\$6m commitment in '07)	21,535	0.0		0.0	-2.2	-5.4	222.5			160.1	Oct-18
Pinebridge (AIG) PEP V Large Market US Buyout (\$6m commitment in '07)	91,895	0.0		0.0	0.0	-2.3	19.6			12.6	Oct-18
Pinebridge (AIG) PEP V Preferred Participation Fund (\$6m commitment in '07)	106,747	0.0		0.0	0.0	0.3	7.8			3.4	Oct-18
Pinebridge (AIG) PEP V Secondary (\$6m commitment in '07)	33,880	0.0		0.0	0.0	2.4	-4.7	-5.4		-4.8	Jan-17
Pinebridge (AIG) PEP V Small-Mid Market US Buyout (\$6m commitment in '07)	92,082	0.0		0.0	0.0	1.9	19.3			18.5	Oct-18
Pinebridge (AIG) PEP V US Venture (\$6m commitment in '07)	45,052	0.0		0.0	0.0	-0.3	-3.0			-3.4	Oct-18
Landmark XV (\$3m commitment in '13)	734,721	0.1		0.0	-2.9	5.5	13.3	12.4		13.2	Nov-13
JFL Equity Investors IV, L.P. (\$6m commitment in '16)	2,566,725	0.4		0.0	4.1	22.8	45.8	45.4		39.3	Jan-17
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)	4,726,439	0.7		0.0	1.2	11.2	24.3	22.5		21.1	Feb-17
Park Square Credit Opportunities III (\$3m commitment in '17)	2,809,486	0.4		0.0	0.9	5.6	7.5			6.6	Feb-18
Ironsides Constitution Opportunities (\$3m commitment in '18)	2,320,910	0.4		0.0	3.6	10.7	13.3			12.7	Oct-18
HarbourVest Dover Street X (\$9m commitment in '20)	6,548,195	1.0		0.0	8.2	40.9				82.5	Jun-20
Hamilton Lane Secondary Fund V LP (\$9m commitment in '20)	7,266,909	1.1		0.0	1.7	23.8				41.7	Jul-20
Constitution Ironsides Co-Investment Fund VI (\$12m commitment in '21)	12,222,815	1.8		0.0							Nov-21
HarbourVest Co-Investment Fund VI (\$8m commitment in '21)	1,200,000	0.2		0.0							Jan-22
JFL Equity Investors V, L.P. (\$9m commitment in '20)	7,520,418	1.1		0.0	9.0	16.7				0.4	Sep-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.

FEE SCHEDULE

Account Name	Fee Schedule	Market Value (\$)	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
PRIT Core Fund	0.5 % of Assets	5,059,398	0.8	24,791	0.5
Rhumblin Advisors S&P 500 Index Fund	0.1 % of Assets	60,025,653	9.1	30,013	0.1
Coho Relative Value Equity	0.5 % of First \$75 M 0.4 % of Next \$75 M 0.4 % Thereafter	48,130,281	7.3	240,651	0.5
Polen Focused Growth	0.7 % of Assets	43,348,300	6.5	281,764	0.6
Boston Partners Small Cap Value	1.0 % of Assets	23,494,555	3.5	234,946	1.0
Loomis Sayles Small Cap Growth	0.5 % of Assets Minimum Fee: \$45,000	21,636,341	3.3	97,364	0.5
SEG Baxter Street	1.0 % of Assets	29,844,040	4.5	298,440	1.0
Schroder International Alpha Trust Class 1	0.6 % of Assets	25,639,515	3.9	141,017	0.5
Baillie Gifford International Growth Fund Class K	0.6 % of Assets	13,385,266	2.0	80,312	0.6
Axiom Emerging Markets Trust Class 2	0.7 % of Assets	16,049,812	2.4	117,164	0.7
ABS Emerging Markets MA Fund	0.8 % of Assets	17,781,148	2.7	133,359	0.7
Garcia Hamilton Fixed Income Aggregate		36,781,185	5.5	45,976	0.1
Lord Abbett Core Fixed Income	0.2 % of Assets	35,169,612	5.3	66,822	0.2
Rhumblin TIPS Pooled Index Fund	0.0 % of Assets		0.0		0.0
Loomis Sayles Multisector Full Discretion Trust	0.5 % of First \$20 M 0.4 % of Next \$20 M 0.3 % Thereafter	51,634,907	7.8	214,905	0.4
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	0.4 % of Assets	13,743,911	2.1	54,976	0.4
Invesco Mortgage Recovery Loans Feeder Fund		53,659	0.0		
PRIM Portfolio Completion Strategies		15,048,078	2.3		
Corbin Pinehurst Partners	0.9 % of Assets	12,487,883	1.9	106,147	0.8
UBS Neutral Alpha Strategies	0.9 % of Assets	13,549,539	2.0	121,946	0.9
Entrust Peru Wind Down	0.5 % of Assets	735,151	0.1	3,676	0.5
Cash Account		19,815,817	3.0		
Morgan Stanley Prime Property (\$2.8m commitment in '95)		26,990,423	4.1		
TA Realty Core Property Fund, LP (\$15m commitment in '19)		28,540,684	4.3		
Invesco Mortgage Recovery II (\$3M commitment in '15)		968,569	0.1		
Landmark VI (\$2m commitment in '11)		42,917	0.0		
Landmark VIII (\$4m commitment in '17)		2,275,283	0.3		
StepStone Real Estate Fund II (\$2m commitment in '11)		472,141	0.1		
Cerberus Institutional Real Estate Partners III (\$1.5m commitment in '12)		516,079	0.1		

FEE SCHEDULE

Account Name	Fee Schedule	Market Value (\$)	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
TA Realty Fund X LP (\$3.5m commitment in '12)		3,478	0.0		
TerraCap Partners III, LP (\$2.6m commitment in '15)		1,561,343	0.2		
TerraCap Partners IV, LP (\$4m commitment in '17)		3,623,305	0.5		
TerraCap Partners V, LP (\$8m commitment in '22)		8,459,501	1.3		
PRIM Vintage Year 2008 (\$3m commitment in '08)		856,912	0.1		
PRIM Vintage Year 2009 (\$1m commitment in '09)		106,779	0.0		
PRIM Vintage Year 2010 (\$1m commitment in '10)		520,675	0.1		
PRIM Vintage Year 2011 (\$1.5m commitment in '11)		996,668	0.2		
PRIM Vintage Year 2012 (\$1m commitment in '12)		578,326	0.1		
PRIM Vintage Year 2014 (\$2m commitment in '14)		2,344,423	0.4		
PRIM Vintage Year 2017 (\$2m commitment in '17)		2,624,005	0.4		
PRIM Vintage Year 2020 (\$5m commitment in '20)		3,299,405	0.5		
PRIM Vintage Year 2021 (\$5m commitment in '21)		2,456,244	0.4		
PRIM Vintage Year 2022 (\$7.5m commitment in '22)		544,431	0.1		
Alcentra European DLF (\$5m commitment in '14)		188,337	0.0		
Ascent Fund IV-B (\$1m commitment in '16)		45,225	0.0		
Ascent Fund V (\$2m commitment in '08)		1,655,897	0.2		
Ascent VI (\$3m commitment in '15)		3,328,252	0.5		
CVI Credit Value Fund IV A LP (\$6m commitment in '17)		5,754,763	0.9		
Invesco Fund VI (\$5m commitment in '13)		1,662,256	0.3		
Kayne Energy Fund VII (\$5m commitment in '15)		3,388,589	0.5		
Foundry 2007 (\$3m commitment in '07)		528,336	0.1		
Foundry 2010 (\$3m commitment in '10)		5,798,777	0.9		
Foundry 2010 Annex (\$0.4m commitment in '15)		1,114,791	0.2		
Pinebridge (AIG) PEP V Asia (\$6m commitment in '07)		40,070	0.0		
Pinebridge (AIG) PEP V Co-Investment (\$6m commitment in '07)		89,273	0.0		
Pinebridge (AIG) PEP V Europe (\$6m commitment in '07)		21,535	0.0		
Pinebridge (AIG) PEP V Large Market US Buyout (\$6m commitment in '07)		91,895	0.0		
Pinebridge (AIG) PEP V Preferred Participation Fund (\$6m commitment in '07)		106,747	0.0		
Pinebridge (AIG) PEP V Secondary (\$6m commitment in '07)		33,880	0.0		
Pinebridge (AIG) PEP V Small-Mid Market US Buyout (\$6m commitment in '07)		92,082	0.0		
Pinebridge (AIG) PEP V US Venture (\$6m commitment in '07)		45,052	0.0		
Landmark XV (\$3m commitment in '13)		734,721	0.1		
JFL Equity Investors IV, L.P. (\$6m commitment in '16)		2,566,725	0.4		

FEE SCHEDULE

Account Name	Fee Schedule	Market Value (\$)	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)		4,726,439	0.7		
Park Square Credit Opportunities III (\$3m commitment in '17)		2,809,486	0.4		
Ironsides Constitution Opportunities (\$3m commitment in '18)		2,320,910	0.4		
HarbourVest Dover Street X (\$9m commitment in '20)		6,548,195	1.0		
Hamilton Lane Secondary Fund V LP (\$9m commitment in '20)		7,266,909	1.1		
Constitution Ironsides Co-Investment Fund VI (\$12m commitment in '21)		12,222,815	1.8		
JFL Equity Investors V, L.P. (\$9m commitment in '20)		7,520,418	1.1		
HarbourVest Co-Investment Fund VI (\$8m commitment in '21)		1,200,000	0.2		
Investment Manager Fee		663,098,018	100.0	2,294,268	0.3

The estimated fee for private markets, inclusive of carried interest, is ~\$3,541,145 annually, which brings the total expense ratio for privates to ~53 bps. This brings the total estimated expense ratio for MWRA to ~83 bps.

DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered 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.

Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv

Asset Allocation Rebalance Summary

August 19, 2022

	Market Value	Weight in Fund	Target Weight	Recommendation	New Market Value	New Weight
Composite	\$667,315,269	100.0%	100.0%	\$0	\$667,315,269	100.0%
Total Balanced	\$5,059,398	0.8%	0.0%	\$0	\$5,059,398	0.8%
PRIT Core Fund	\$5,059,398	0.8%	0.0%	\$0	\$5,059,398	0.8%
Total Domestic Equity	\$201,985,857	30.3%	31.0%	\$4,000,000	\$205,985,857	30.9%
Rhumblin Advisors S&P 500 Index Fund	\$61,526,294	9.2%	10.0%	\$4,000,000	\$65,526,294	9.8%
Coho Relative Value	\$49,984,943	7.5%	7.0%	\$0	\$49,984,943	7.5%
Polen Focused Growth	\$44,317,256	6.6%	7.0%	\$0	\$44,317,256	6.6%
Robeco Boston Partners Small Cap Value	\$23,776,882	3.6%	3.5%	\$0	\$23,776,882	3.6%
Loomis Sayles Small Cap Growth	\$22,380,482	3.4%	3.5%	\$0	\$22,380,482	3.4%
Total International Equity	\$102,289,814	15.3%	19.0%	\$2,000,000	\$104,289,814	15.6%
SEG - Baxter Street Fund	\$29,844,040	4.5%	5.0%	\$0	\$29,844,040	4.5%
Schroders International Alpha	\$25,344,661	3.8%	4.0%	\$0	\$25,344,661	3.8%
Baillie Gifford	\$13,270,153	2.0%	3.0%	\$0	\$13,270,153	2.0%
Axiom Emerging Markets	\$16,049,812	2.4%	3.5%	\$1,000,000	\$17,049,812	2.6%
ABS Emerging Markets Strategic Portfolio	\$17,781,148	2.7%	3.5%	\$1,000,000	\$18,781,148	2.8%
Total Equity	\$304,275,671	45.6%	50.0%	\$6,000,000	\$310,275,671	46.5%
Total Fixed Income	\$135,826,420	20.4%	20.0%	\$4,000,000	\$139,826,420	21.0%
Garcia Hamilton	\$36,000,990	5.4%	6.0%	\$2,000,000	\$38,000,990	5.7%
Lord Abbett	\$34,568,212	5.2%	6.0%	\$2,000,000	\$36,568,212	5.5%
Loomis Sayles Multi Sector Bonds	\$51,459,648	7.7%	7.0%	\$0	\$51,459,648	7.7%
Octagon Senior Secured Loans	\$13,743,911	2.1%	1.0%	\$0	\$13,743,911	2.1%
Invesco Mortgage Recovery	\$53,659	0.0%	0.0%	\$0	\$53,659	0.0%
Total Hedge Fund	\$41,820,650	6.3%	6.0%	\$0	\$41,820,650	6.3%
PRIM Absolute Return Fund	\$15,048,077	2.3%		\$0	\$15,048,077	2.3%
Corbin Pinehurst Partners	\$12,487,883	1.9%		\$0	\$12,487,883	1.9%
UBS Neutral Alpha Strategies	\$13,549,539	2.0%		\$0	\$13,549,539	2.0%
Entrust Peru Winddown	\$735,151	0.1%		\$0	\$735,151	0.1%
Total Real Estate	\$73,453,723	11.0%	12.0%	\$0	\$73,453,723	11.0%
TA Realty Core	\$28,540,684	4.3%		\$0	\$28,540,684	4.3%
Morgan Stanley PPF	\$26,990,423	4.0%		\$0	\$26,990,423	4.0%
Total Private Equity	\$86,230,243	12.9%	12.0%	\$0	\$86,230,243	12.9%
Cash	\$20,649,164	3.1%	0.0%	-\$10,000,000	\$10,649,164	1.6%
Peoples United Cash	\$20,649,164	3.1%	0.0%	-\$10,000,000	\$10,649,164	1.6%





PORTFOLIO AND PERFORMANCE OVERVIEW

MWRA RETIREMENT SYSTEM

AUGUST 25, 2022

Sebastian Grzejka, CAIA, Principal
Kiley Fisher, Senior Analyst



PROPRIETARY & CONFIDENTIAL

EXECUTIVE SUMMARY

- **The purpose of today's discussion is the review the structure, implementation and performance of the Portfolio**
 - The goal is to reaffirm approach, review implementation and consider efficiencies to the overall process

- **Today, we want to focus on the following areas**
 - ***Asset Allocation:***
 - We recently reviewed and reaffirmed the strategic targets of the portfolio
 - The portfolio is structured to balance risk and return over time
 - We do not recommend any further changes at this time
 - ***Portfolio Implementation:***
 - We currently follow a five-to-seven-year cycle for asset class reviews
 - Should this be adjusted in the event of performance or other manager headwinds?
 - Consider ways to make the RFP and decision-making process be more efficient
 - Are adjustments needed to the cadence of rebalancing?
 - ***Portfolio Returns:***
 - Near term, returns haven't met expectations largely due to select active management
 - We recommend prioritizing the public equity allocation for review
 - Long term, returns outpace stated goals and objectives as well as peers
 - How should performance be reviewed, on an absolute or relative (peer) basis?

- **The following pages provide additional thoughts and analysis to help guide the discussion on these focus points**



MWRA RETIREMENT PERFORMANCE OVERVIEW



PROPRIETARY & CONFIDENTIAL

ASSET ALLOCATION OVERVIEW

	Long Term Policy*
US Large Cap	24%
US Small Cap	7%
Non-US Equity	12%
Emerging Equity	7%
Private Equity	12%
Total Equity	62%
High Quality Bonds	12%
Multi Sector Credit	8%
Total Fixed Income	20%
Real Estate	12%
Total Real Assets	12%
Hedge Funds	6%
Total Multi Asset	6%
Exp Return 10 Yr	7.0%
Exp Return 30 Yr	7.6%
Std Dev (Asset)	14.1%
Sharpe Ratio	0.29

- **NEPC and MWRAERS conduct an annual asset allocation to reaffirm policy targets**
 - The goal is to ensure the strategy meets the System’s needs, and is positioned to take advantage of market opportunities in a risk-controlled manner

- **The current approach is structured to support the long-term goals of the System:**
 - The primary goal is to provide benefits to participants and beneficiaries of the System, with the goal of becoming fully funded
 - In order to achieve this goal, consistency of returns and risk of loss are primary considerations
 - The assumed rate of return for the Plan is currently 6.9%

- **Based on NEPC’s most recent asset class assumptions, the portfolio aligns with stated goals and objectives**
 - NEPC reviews asset class assumptions on a quarterly basis
 - Assumptions have increased since the beginning of 2022

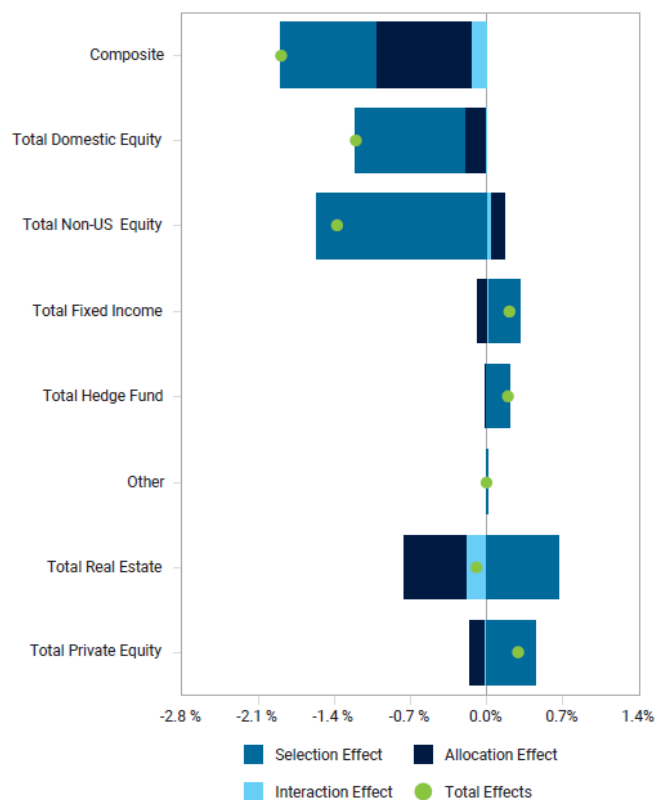


*Based on NEPC’s Q2 2022 Asset Class Assumptions

YEAR IN REVIEW – JULY 31, 2022

	Market Value (\$)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Composite	663,098,018	3.7	-9.0	-5.4	7.0	6.6	7.5
<i>Allocation Index</i>		3.7	-7.8	-3.5	7.7	7.1	7.7
<i>Policy Index</i>		4.3	-8.1	-3.5	8.3	7.7	7.9

Attribution Effects
1 Year Ending July 31, 2022



- **For the last twelve months, performance has been challenged by a combination of macro head winds and select manager performance**

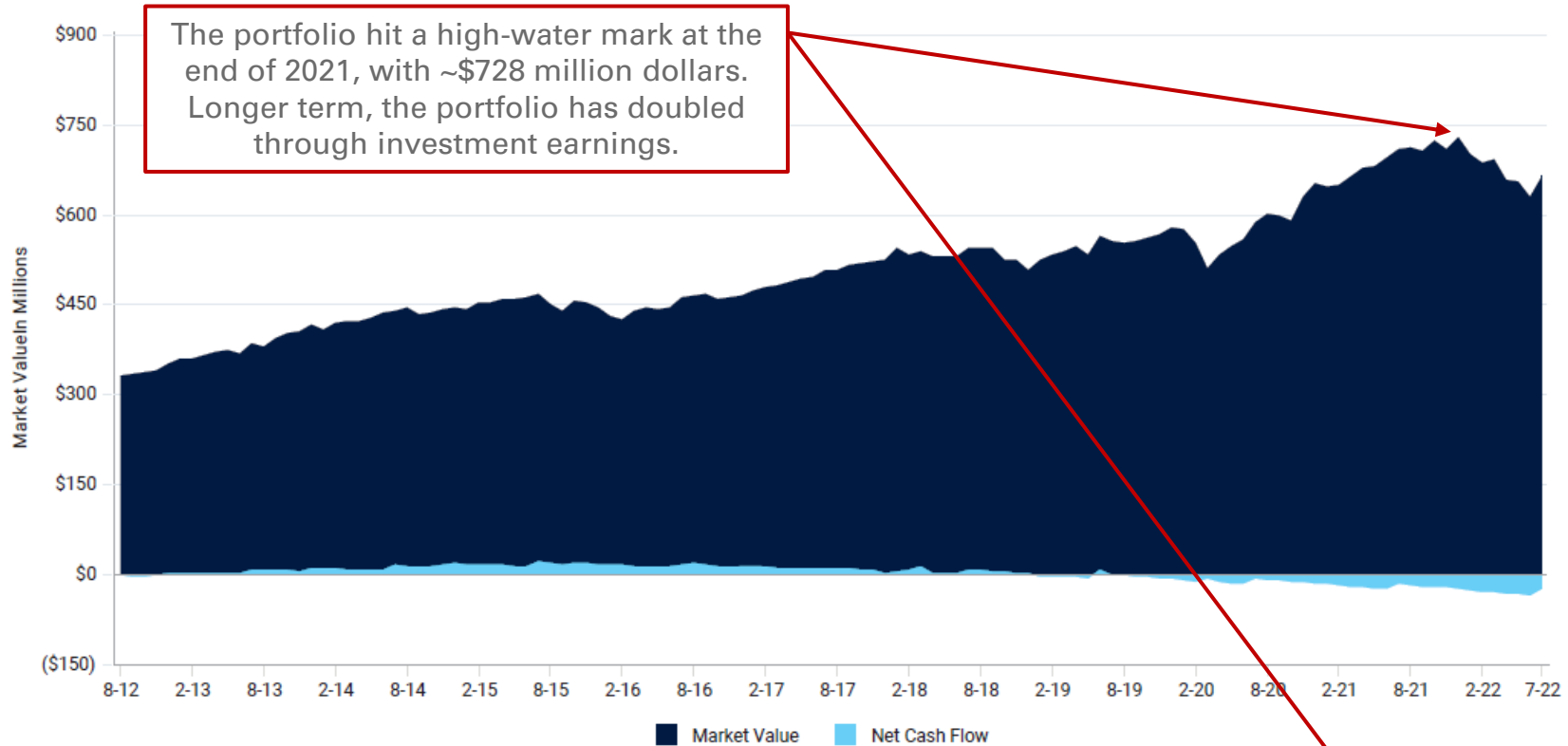
- **What has helped performance over the trailing one period year?**
 - Exposure to private markets and real estate as these asset classes have proven resilient during the recent bout of volatility
 - Select active managers such as Coho, Loomis Small Cap, and UBS
 - Maintaining a relatively higher cash position for liquidity needs also helped

- **What has impacted performance over the trailing one-year period?**
 - Overall exposure to public equities during the sell off to start 2022
 - Active management, specifically exposures such as Polen, Ballie Gifford, Emerging Markets and Loomis Fixed
 - An underweight to real estate also hurt relative performance for the Plan



PLAN ASSET GROWTH SUMMARY

10 Years Ending July 31, 2022

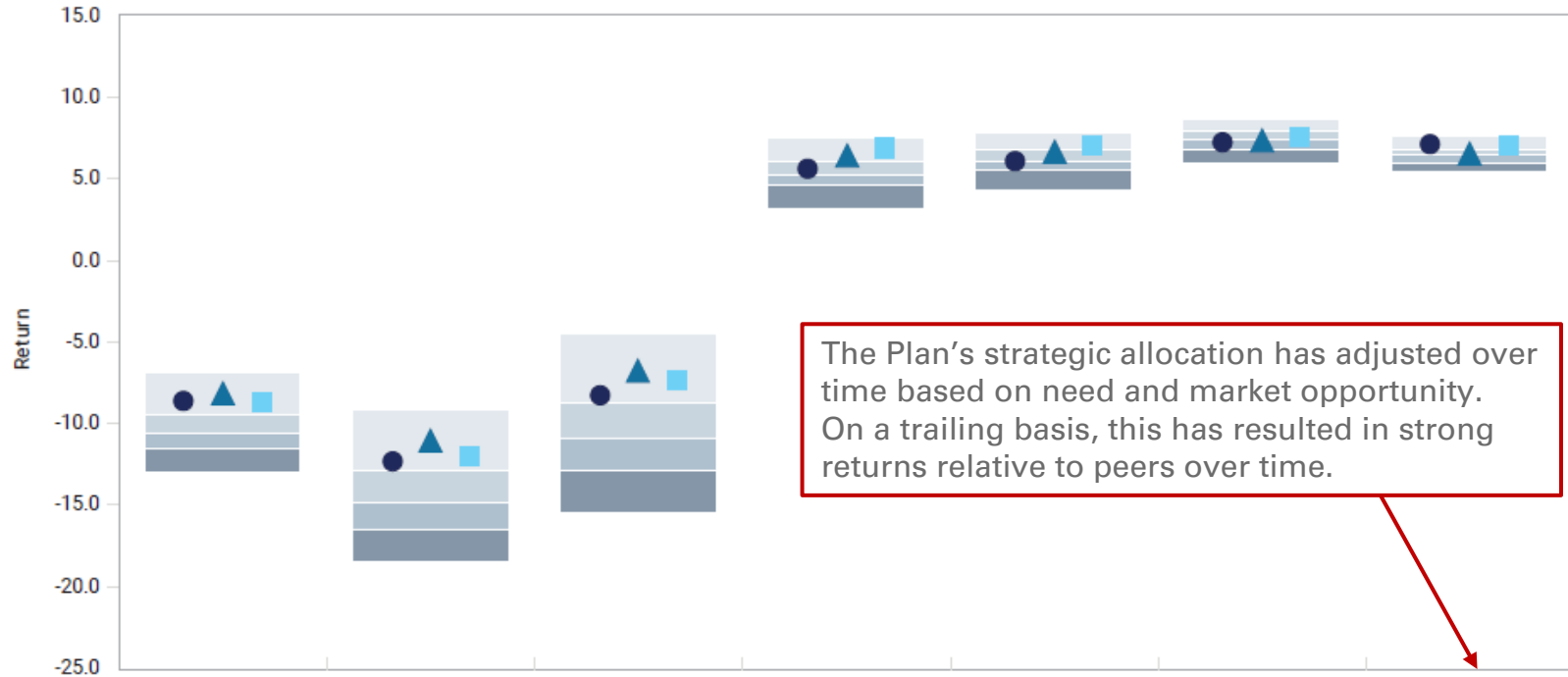


	1 Month	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years
Beginning Market Value	628,984,981	730,188,208	708,600,812	556,593,777	507,010,987	469,170,526	325,671,462
Net Cash Flow	10,261,981	-570,299	-10,490,333	-23,557,383	-36,315,526	-45,613,814	-23,546,907
Net Investment Change	23,851,055	-66,519,892	-35,012,461	130,061,623	192,402,558	239,541,305	360,973,463
Ending Market Value	663,098,018	663,098,018	663,098,018	663,098,018	663,098,018	663,098,018	663,098,018



TRAILING PERFORMANCE – JUNE 30, 2022

Composite vs. All Public DB Plans



The Plan's strategic allocation has adjusted over time based on need and market opportunity. On a trailing basis, this has resulted in strong returns relative to peers over time.

	3 Mo	YTD	1 Year	3 Years	5 Years	10 Years	20 Years
● Composite	-8.6 (16)	-12.3 (18)	-8.3 (21)	5.7 (37)	6.1 (52)	7.2 (56)	7.0 (13)
▲ Allocation Index	-8.2 (12)	-11.0 (11)	-6.8 (12)	6.5 (17)	6.7 (28)	7.4 (49)	6.4 (36)
■ Policy Index	-8.7 (18)	-11.9 (16)	-7.3 (13)	6.9 (11)	7.1 (16)	7.6 (39)	6.8 (19)

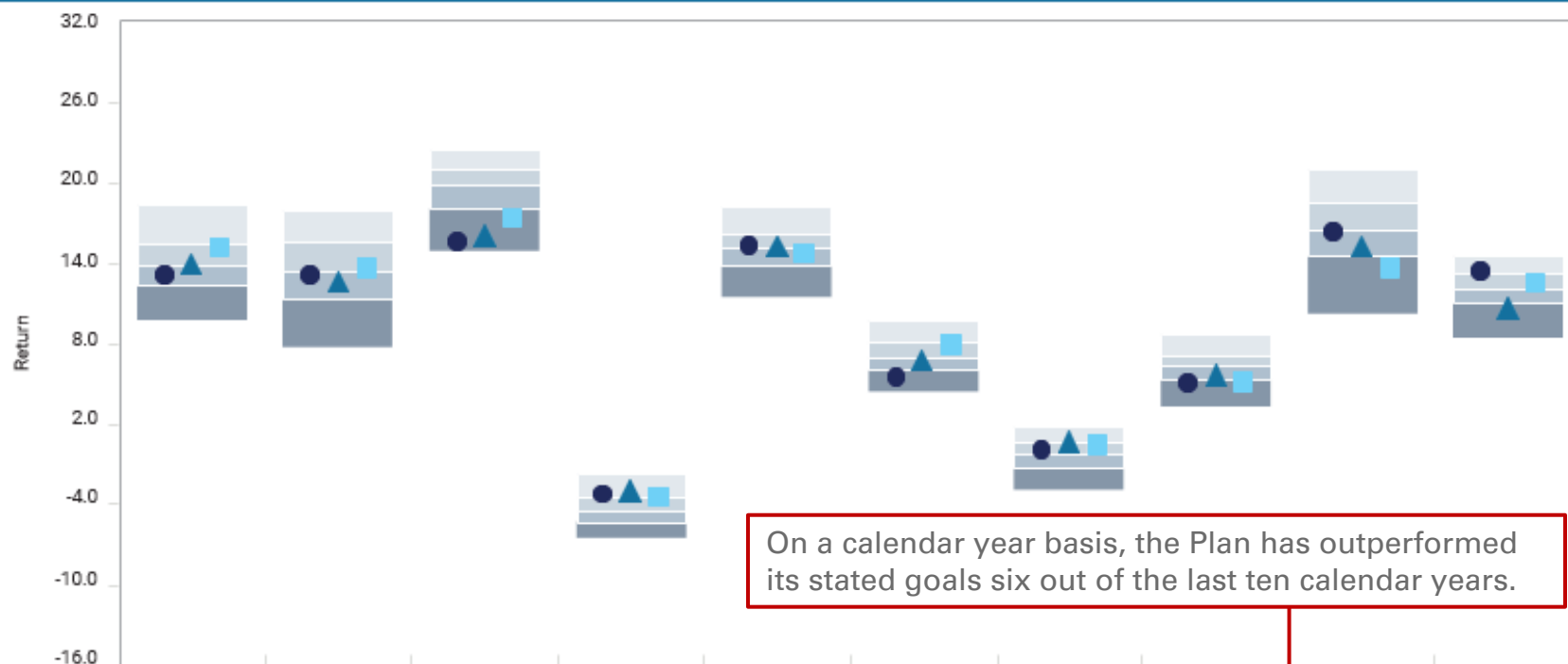
Median	-10.6	-14.9	-10.9	5.3	6.1	7.3	6.2
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Near term, active management has detracted from absolute performance results.



CALENDAR YEAR PERFORMANCE

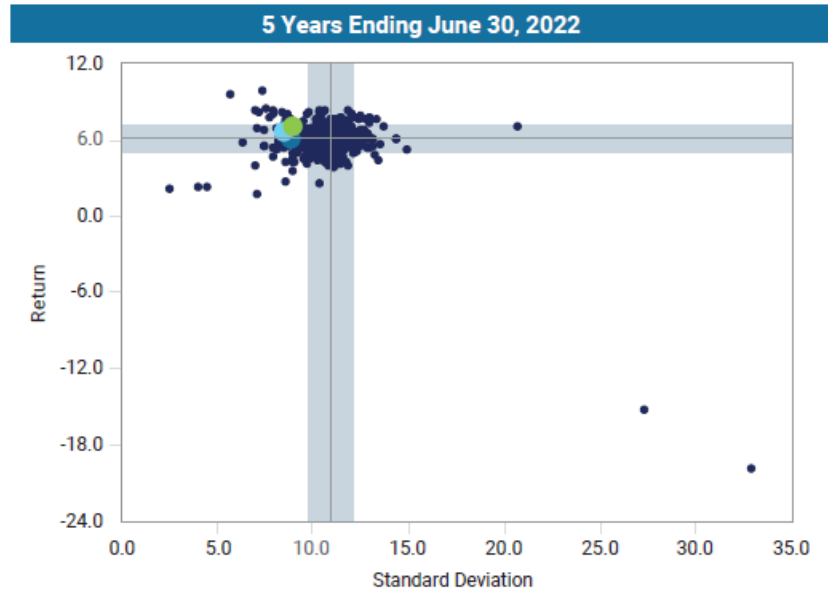
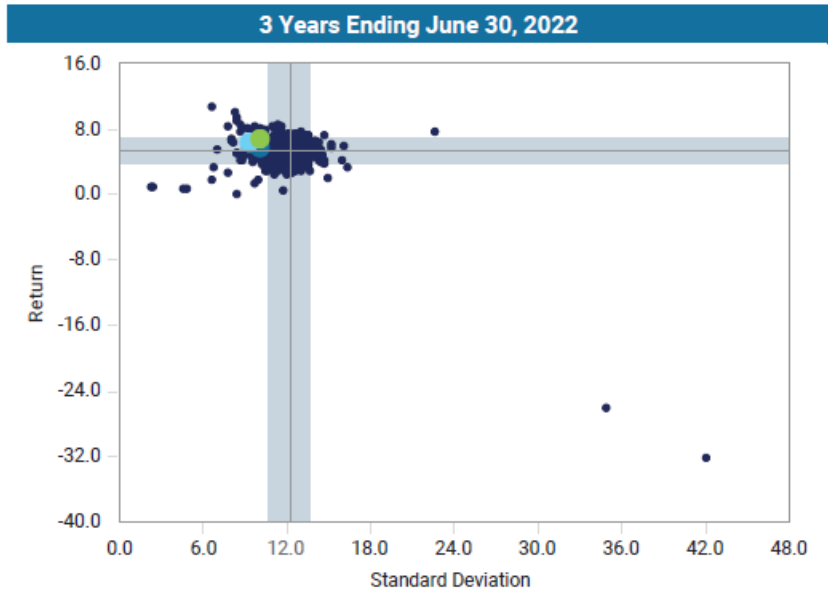
Composite vs. All Public DB Plans



	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
● Composite	13.1 (64)	13.1 (54)	15.6 (93)	-3.2 (22)	15.3 (49)	5.5 (86)	0.1 (41)	5.0 (82)	16.3 (51)	13.4 (24)
▲ Allocation Index	14.0 (45)	12.6 (59)	16.1 (91)	-3.0 (18)	15.1 (51)	6.8 (55)	0.6 (26)	5.6 (68)	15.2 (72)	10.6 (82)
■ Policy Index	15.3 (28)	13.7 (47)	17.4 (83)	-3.3 (24)	14.8 (57)	8.0 (27)	0.6 (28)	5.2 (80)	13.6 (84)	12.6 (42)
Median	13.8	13.4	19.9	-4.5	15.2	7.0	-0.2	6.3	16.4	12.1



RISK ADJUSTED RETURNS NEAR TERM



- All Public DB Plans
- Composite
- Allocation Index
- Policy Index
- All Public DB Plans

- All Public DB Plans
- Composite
- Allocation Index
- Policy Index
- All Public DB Plans

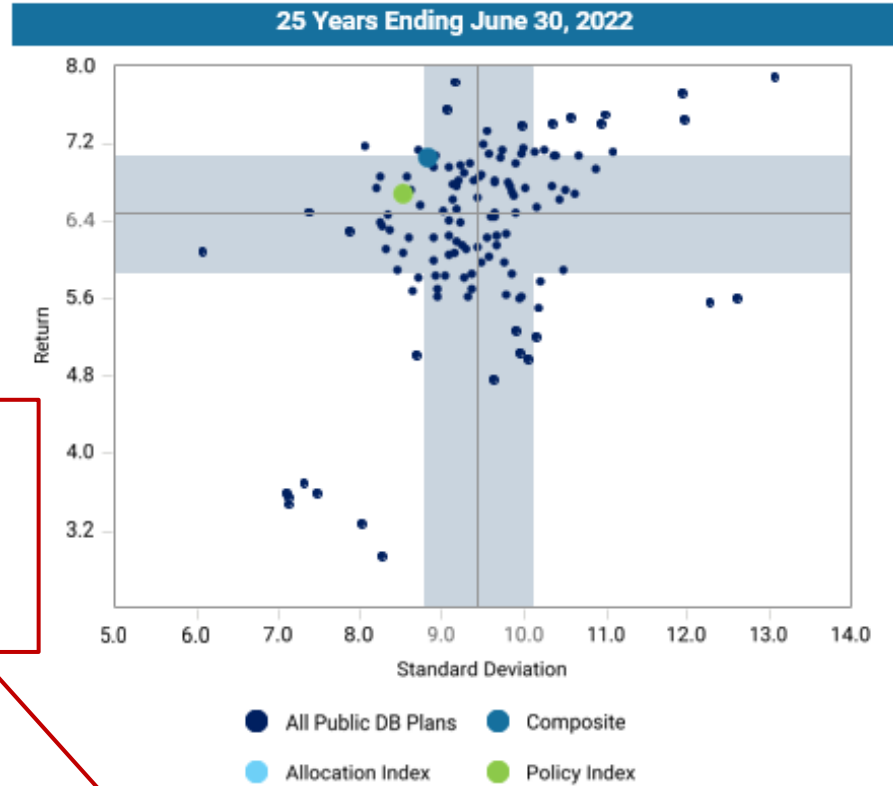
3 Years Ending June 30, 2022			
	Return	Standard Deviation	Sharpe Ratio
Composite	5.7 (37)	10.1 (10)	0.5 (18)
Allocation Index	6.5 (17)	9.4 (6)	0.6 (7)
Policy Index	6.9 (11)	10.1 (10)	0.6 (7)

5 Years Ending June 30, 2022			
	Return	Standard Deviation	Sharpe Ratio
Composite	6.1 (52)	8.8 (8)	0.6 (18)
Allocation Index	6.7 (28)	8.4 (5)	0.7 (7)
Policy Index	7.1 (16)	9.0 (10)	0.7 (7)

Risk has always been a key input into strategy setting for the Plan. Over recent periods, the Plan has achieved a sound return with less risk than peers.



RISK ADJUSTED RETURNS LONG TERM

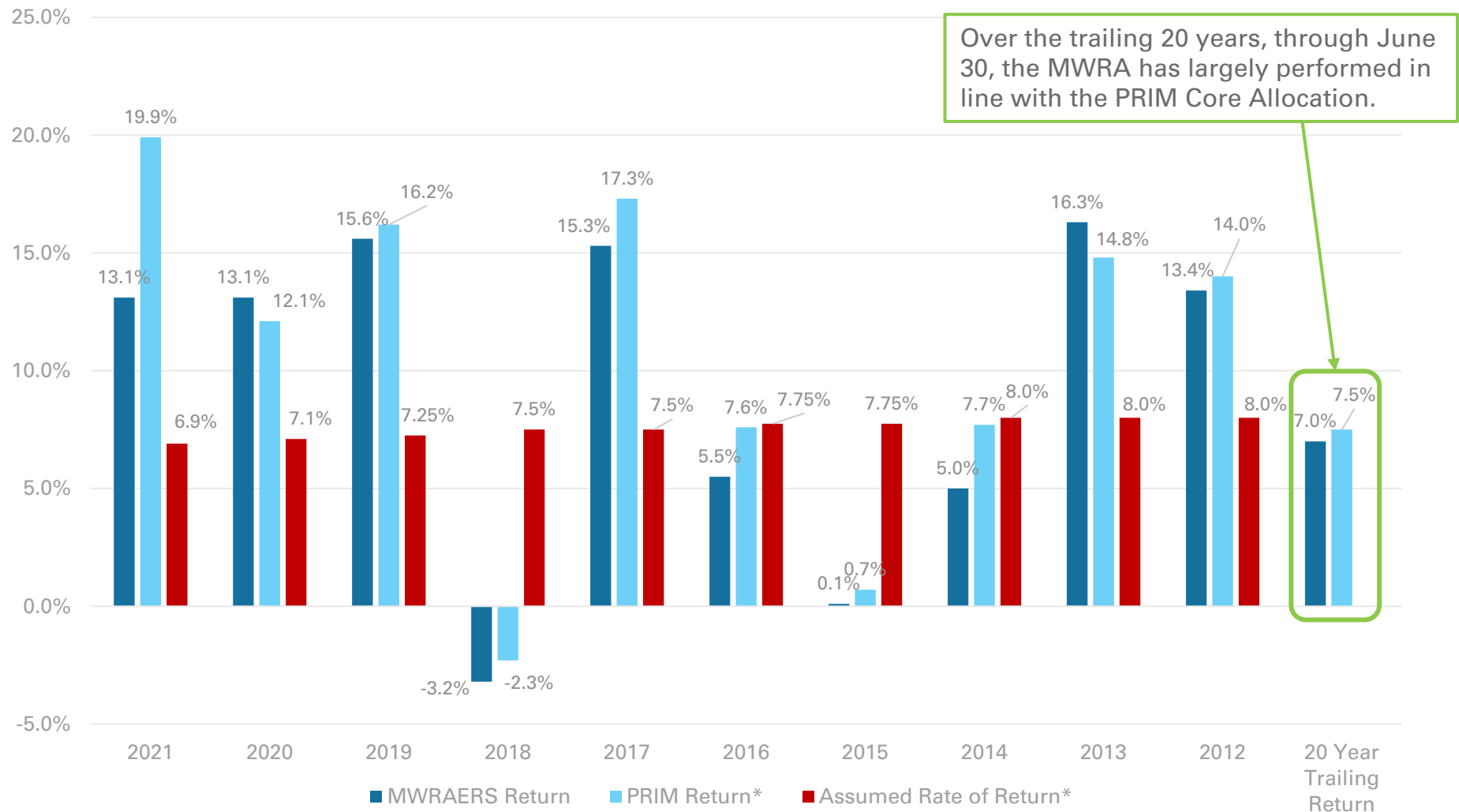


The same metric carries through long term performance, as the Plan has outpaced peers, while doing so with a much lower risk profile.

25 Years Ending June 30, 2022			
	Return	Standard Deviation	Sharpe Ratio
Composite	7.0 (20)	8.8 (22)	0.6 (7)
Policy Index	6.7 (42)	8.5 (15)	0.6 (13)



ANNUAL PEER PERFORMANCE OVERVIEW



*Based on the MWRA's actual history with the PRIT Core Fund, which may differ from stated returns. Assumed RoR pulled from annual report.

CONCLUSION AND NEXT STEPS

- **Over time, the Plan has met and exceeded its stated goals and objectives as well as outperformed peers**
 - We believe the current strategic allocation is appropriate for the Plan and do not recommend changes at this time

- **The strategic allocation is complemented through periodic rebalancing**
 - Historically, rebalancing has occurred following asset allocation changes, market movement, new opportunities or to invest or raise cash
 - The Board typically reviews and acts on the need to rebalance monthly
 - We do not recommend a change to this approach

- **Portfolio implementation has been structured to balance style, size, region, liquidity and approach as well as ensure appropriate fit within the portfolio**
 - Each manager has been carefully selected to complement the line up and to add value to the Plan over time, however, some managers have struggled recently
 - NEPC recommends prioritizing public equity to ensure the structure remains appropriate

- **Lastly, can the RFP and review process be more efficient?**
 - Prioritize focus of RFP's and potentially move up reviews if necessary
 - Potential for special investment-oriented meetings to review results more quickly
 - Consider utilizing PRIM as the "core" allocation in private equity



FORWARD LOOKING WORK PLAN



PROPRIETARY & CONFIDENTIAL

EQUITY OVERVIEW – JULY 31, 2022

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)
Total Domestic Equity	196,635,131	29.7	31.0	8.9	-14.5	-9.9	11.1	11.7	12.8	7.5	May-99
<i>Russell 3000 Index</i>				9.4	-13.7	-7.4	12.6	12.2	13.5	7.2	
Large Cap	151,504,234	22.9	24.0	8.6	-14.7	-9.2	12.1	12.6	13.1	12.8	Dec-10
Rhumbline Advisors S&P 500 Index Fund	60,025,653	9.1	10.0	9.2	-12.6	-4.7	13.3	12.8	13.7	9.0	Apr-97
<i>S&P 500 Index</i>				9.2	-12.6	-4.6	13.4	12.8	13.8	8.9	
Coho Relative Value Equity	48,130,281	7.3	7.0	5.7	-5.3	1.1	11.6	10.8		11.2	Mar-16
<i>Russell 1000 Value Index</i>				6.6	-7.1	-1.4	8.9	8.3	11.1	11.0	
Polen Focused Growth	43,348,300	6.5	7.0	11.2	-26.6	-24.7	10.0	13.8		14.5	Feb-16
<i>Russell 1000 Growth Index</i>				12.0	-19.4	-11.9	16.1	16.3	16.0	17.3	
Small Cap	45,130,897	6.8	7.0	9.7	-13.7	-12.1	8.3	9.2	11.8	11.4	Dec-10
Boston Partners Small Cap Value	23,494,555	3.5	3.5	8.8	-6.2	-4.0	9.2	6.9	10.3	10.4	Feb-97
<i>Russell 2000 Value Index</i>				9.7	-9.3	-4.8	9.4	6.7	10.2	8.9	
Loomis Sayles Small Cap Growth	21,636,341	3.3	3.5	10.7	-21.0	-19.9	6.6	10.8	12.7	6.7	Jan-97
<i>Russell 2000 Growth Index</i>				11.2	-21.6	-23.2	4.7	6.9	10.7	6.7	
Total Non-US Equity	102,699,782	15.5	19.0	4.0	-19.8	-21.5	0.7	1.2	4.7	3.8	Mar-99
International Equity	68,868,821	10.4	12.0	6.6	-18.0	-19.4	2.7	2.9	5.7	3.4	Sep-05
SEG Baxter Street	29,844,040	4.5	5.0	7.3	-17.4	-20.2	1.5	4.1		6.7	May-16
<i>MSCI AC World ex USA (Net)</i>				3.4	-15.6	-15.3	2.9	2.4	5.0	5.1	
Schroder International Alpha Trust Class 1	25,639,515	3.9	4.0	5.1	-18.6	-16.5	6.9	5.5	7.1	6.1	Mar-12
<i>MSCI AC World ex USA (Net)</i>				3.4	-15.6	-15.3	2.9	2.4	5.0	4.0	
Baillie Gifford International Growth Fund Class K	13,385,266	2.0	3.0	7.9	-30.0	-36.1				-13.5	Oct-20
<i>MSCI AC World ex USA (Net)</i>				3.4	-15.6	-15.3	2.9	2.4	5.0	3.5	
Emerging Markets Equity	33,830,961	5.1	7.0	-0.9	-23.5	-26.0				-20.9	Mar-21
Axiom Emerging Markets Trust Class 2	16,049,812	2.4	7.0	-2.7	-26.2	-29.0				-23.2	Mar-21
<i>MSCI Emerging Markets (Net)</i>				-0.2	-17.8	-20.1	0.9	1.0	2.8	-16.7	
ABS Emerging Markets MA Fund	17,781,148	2.7		0.7	-20.8					-19.1	Dec-21
<i>MSCI Emerging Markets (Net)</i>				-0.2	-17.8	-20.1	0.9	1.0	2.8	-16.3	

- **Recent performance has struggled, as growth-oriented managers, have experienced headwinds during the recent bout of market volatility**
 - In particular, Polen, Baillie Gifford and the emerging markets managers have struggled to start the year
 - Style, process and macro factors all played into performance for each
- **Given the size of the allocation, NEPC recommends prioritizing the public equity allocation for review**
 - We will provide a quantitative and qualitative review of the current managers, performance, tilts and exposures to help prioritize next steps



FIXED INCOME REVIEW – JULY 31, 2022

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fixed Income	137,383,274	20.8	20.0	2.6	-7.0	-7.4	1.7	2.3	3.3	5.9	Mar-99
Garcia Hamilton Fixed Income Aggregate	36,781,185	5.6	6.0	2.7	-5.4	-6.5	0.5			1.8	Apr-18
<i>Bmbg. U.S. Aggregate Index</i>				2.4	-8.2	-9.1	-0.2	1.3	1.6	1.6	
Lord Abbeatt Core Fixed Income	35,169,612	5.3	4.0	2.3	-8.4	-9.2	0.1			1.8	Apr-18
<i>Bmbg. U.S. Aggregate Index</i>				2.4	-8.2	-9.1	-0.2	1.3	1.6	1.6	
Loomis Sayles Multisector Full Discretion Trust	51,634,907	7.8	8.0	3.0	-9.1	-9.6	2.1	2.6	4.1	7.1	Mar-99
<i>Bmbg. U.S. Aggregate Index</i>				2.4	-8.2	-9.1	-0.2	1.3	1.6	4.2	
<i>Bmbg. U.S. Corp: High Yield Index</i>				5.9	-9.1	-8.0	1.9	3.1	4.9	6.2	
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	13,743,911	2.1	2.0	1.9	-3.6	-2.1	2.1			2.1	Aug-19
<i>Credit Suisse Leveraged Loan</i>				1.9	-2.7	-0.9	2.4	3.2	4.0	2.4	
Invesco Mortgage Recovery Loans Feeder Fund	53,659	0.0		0.0	-0.1	-0.6	-1.8	2.3	5.6	10.3	Apr-10
<i>Bmbg. U.S. Aggregate Index</i>				2.4	-8.2	-9.1	-0.2	1.3	1.6	2.6	

- **The fixed income allocation has been structured to balance high quality with yield seeking exposures**
 - Through the end of July, this allocation has outperformed the Bloomberg Aggregate by over 150 basis points
 - Performance was driven by Garcia Hamilton and TIPS which has since been reallocated in the portfolio
 - However, both Loomis Sayles and Octagon have underperformed their respective benchmarks

- **Looking forward, we believe the balance between high quality and yield seeking is appropriate for the portfolio**
 - However, *there may be an opportunity to simplify the implementation*



HEDGE FUND REVIEW – JULY 31, 2022

	Allocation			Performance (%)								
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Hedge Fund	41,801,715	6.7	6.0	-1.6	-2.8	-3.3	-0.7	4.6	4.0	4.3	3.4	Oct-06
PRIM Portfolio Completion Strategies				-2.0	-3.7	-2.8	-1.3	3.0	3.6	4.7	3.7	Oct-06
Corbin Pinehurst Partners	12,513,035	2.0		-3.2	-8.0	-11.4	-9.2	4.1			4.7	Nov-18
HFRI Fund of Funds Composite Index				-1.4	-4.1	-6.7	-5.7	3.9	3.6	3.7	4.3	
UBS Neutral Alpha Strategies	13,640,933	2.2		0.4	2.7	3.3	8.1	7.5			6.7	Nov-18
HFRI Fund of Funds Composite Index				-1.4	-4.1	-6.7	-5.7	3.9	3.6	3.7	4.3	
Entrust Peru Wind Down	736,692	0.1		-0.1	-0.5	-1.1	-1.0	-2.7			-3.3	Dec-17
HFRI Fund of Funds Composite Index				-1.4	-4.1	-6.7	-5.7	3.9	3.6	3.7	3.1	

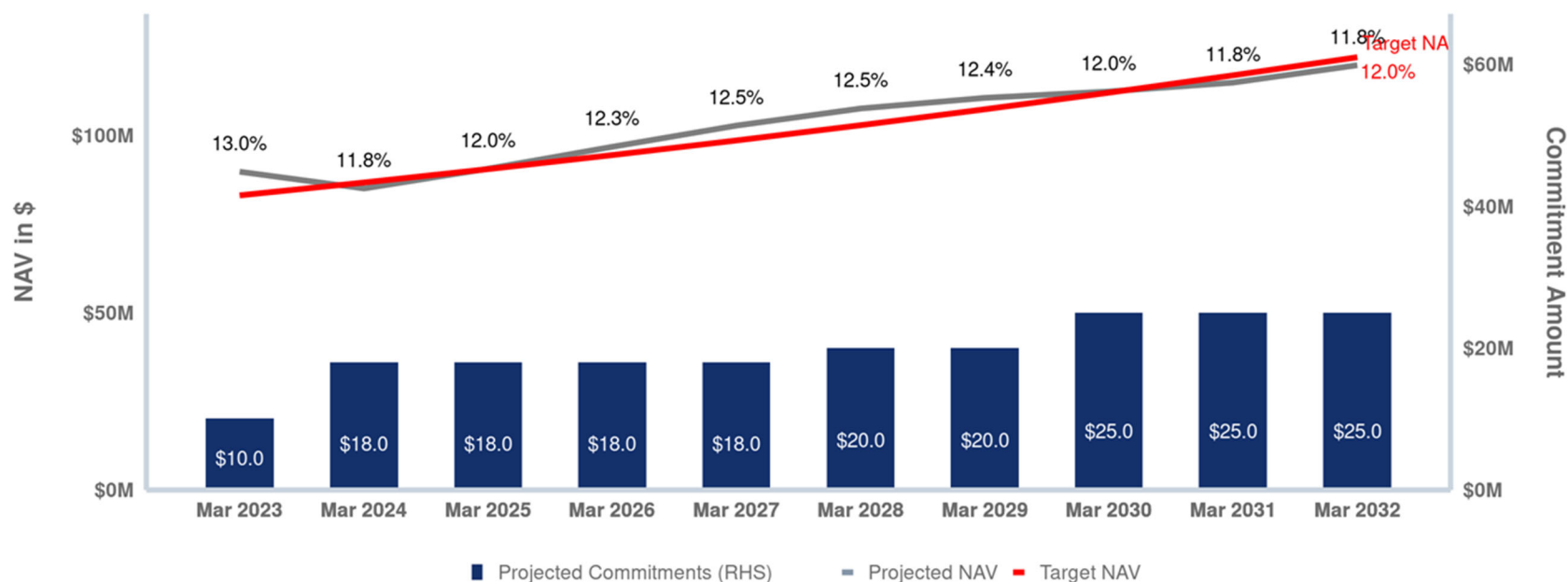
- **The hedge fund allocation is meant to provide a diversified and differentiated exposure to the rest of the portfolio**
 - The PRIM completion strategies act as a core allocation for the Plan
 - Corbin provides a more return oriented portfolio
 - Corbin underperformed the broad-based benchmark, given their credit focus
 - UBS provides a market neutral, low beta approach
 - UBS saw sound performance, as their market neutral approach benefited from the volatility experienced thus far this year

- **We believe the combination of managers achieves the goal of this allocation, therefore, *do not recommend any changes at this time***



PRIVATE EQUITY REVIEW*

Private Markets Commitments by Vintage



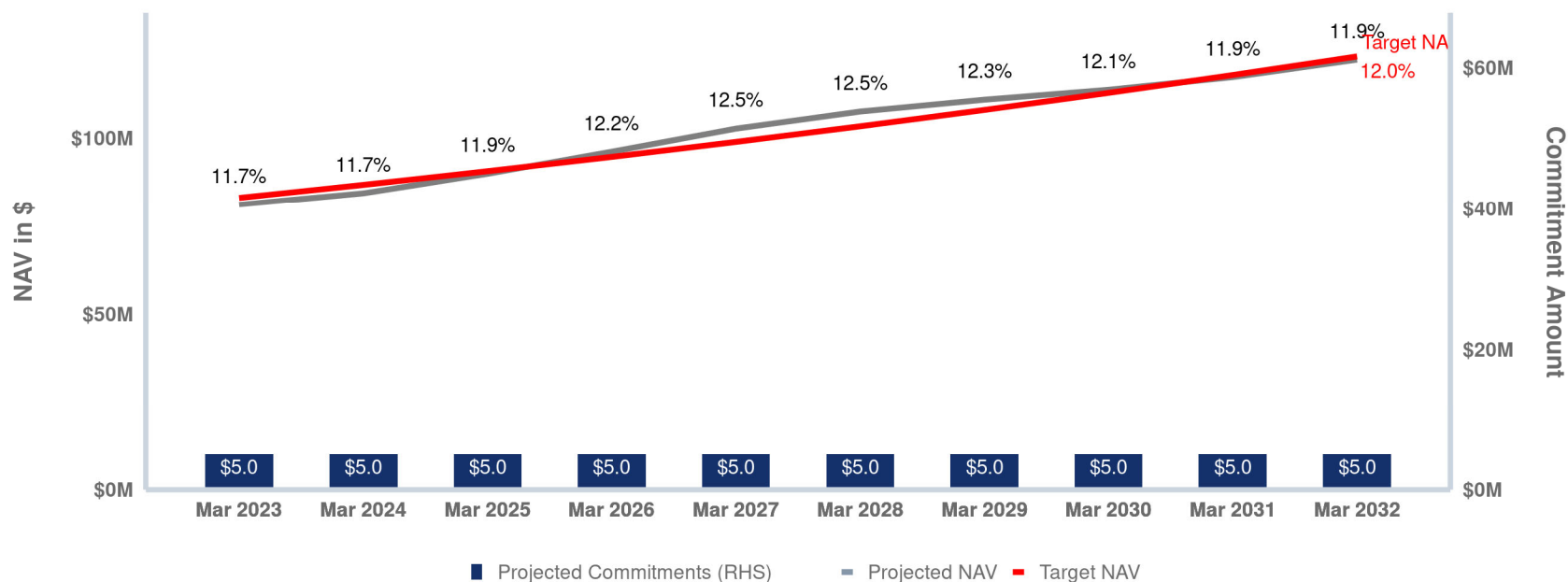
- Based on NEPC’s preliminary Private Markets Pacing, we are recommending a commitment of \$10 Million for vintage year 2022**
 - Given the current exposure, private equity is overweight relative to targets
- NEPC would recommend considering utilizing the PRIM private equity sleeve as a core allocation going forward**
 - Therefore, *for 2022, we would recommend committing the entire \$10 Million to PRIM*
 - For future commitments, we would recommend considering a complementary strategy to the core allocation



*Private Market values as of March 31, 2022. Portfolio value as of July 31, 2022

REAL ESTATE REVIEW

Private Markets Commitments by Vintage



- Based on NEPC’s preliminary Real Estate Pacing, we not recommending a further commitment at this time**
 - As a reminder, the System recently committed to TA XIII and TerraCap V
 - TerraCap has called the entire \$8 million commitment, while TA has not yet held a call
 - In the event an adjustment to the allocation is needed, Core exposure can be used
- NEPC will provide an updated pacing analysis at the start of 2023, with a formal recommendation on commitment at that time**



*Real Estate values as of March 31, 2022. Portfolio value as of July 31, 2022



APPENDIX



PROPRIETARY & CONFIDENTIAL

NEPC DYNAMIC ASSET ALLOCATION OUTLOOK

We encourage maintaining equity exposure below policy targets and **recommend adding value exposure to U.S. large-cap equities**

Despite a challenging environment for fixed income returns, we encourage maintaining **adequate portfolio liquidity with safe-haven exposure**

We remain **constructive on public infrastructure and natural resources** due to the potential for elevated inflation levels

ASSET CLASS	DYNAMIC TILT					COMMENTS
Public Equity	<i>Unfavorable</i>					Elevated inflation levels and expectations for tighter monetary policy suggest a more defensive risk asset posture. We encourage maintaining adequate portfolio liquidity levels given elevated economic regime uncertainty.
Public Credit	<i>Neutral</i>					
Public Real Assets	<i>Neutral</i>					
Safe-Haven Fixed Income	<i>Neutral</i>					

Shaded diagonal ratings reflect the asset class ratings for the previous month.

REDUCE	UNFAVORABLE	NEUTRAL	FAVORABLE	ADD
--------	-------------	---------	-----------	-----



NEPC PUBLIC MARKET EQUITY OUTLOOK

We encourage maintaining equity exposure below policy targets and **recommend adding value exposure to U.S. large-cap equities**

The **public market strategic view** represents a neutral exposure to U.S. and an overweight to Emerging Markets relative to the MSCI ACWI IMI

Implementation Outlook: Target areas with high alpha potential, such as global equity strategies, to capture regional and industry shifts within the developed world

SUB-ASSET CLASS	DYNAMIC TILT					COMMENTS
U.S. Large-Cap	<i>Neutral</i>					Equity risk posturing remains defensive. Look to add value exposure to U.S. large-cap equity to mitigate the portfolio impact of inflation normalizing above market expectations.
U.S. Small-Cap	<i>Unfavorable</i>					
EAFE Large-Cap	<i>Unfavorable</i>					
EAFE Small-Cap	<i>Unfavorable</i>					
EM Large-Cap	<i>Unfavorable</i>					
EM Small-Cap	<i>Unfavorable</i>					

Shaded diagonal ratings reflect the asset class ratings for the previous month.

REDUCE	UNFAVORABLE	NEUTRAL	FAVORABLE	ADD
--------	-------------	---------	-----------	-----



NEPC PUBLIC MARKET CREDIT OUTLOOK

The opportunity in higher quality credit has improved with higher yields broadly lifting expected returns and a more subdued risk asset outlook

The strategic view for return-seeking credit encourages a more diversified exposure with the use of high yield, levered loans, and emerging market debt

Implementation Outlook: We encourage adding high quality, short duration credit given higher yields and uncertainty surrounding growth and inflation

SUB-ASSET CLASS	DYNAMIC TILT					COMMENTS
U.S. IG Corporate	<i>Favorable</i>					The relative outlook for investment-grade corporate bonds is positive within the public credit space given higher yields and more subdued risk asset posturing.
U.S. High Yield	<i>Neutral</i>					
Structured Credit	<i>Neutral</i>					
Levered Loans	<i>Unfavorable</i>					
Emerging Market Debt	<i>Unfavorable</i>					

Shaded diagonal ratings reflect the asset class ratings for the previous month.

REDUCE	UNFAVORABLE	NEUTRAL	FAVORABLE	ADD
--------	-------------	---------	-----------	-----



NEPC SAFE-HAVEN FIXED INCOME OUTLOOK

Real and nominal yields are likely to be volatile as the Fed transitions to a tighter policy environment amid persistent inflation pressures

The strategic safe-haven view reinforces the need for safe-haven fixed income to be a liquidity source for the portfolio in periods of market stress

Implementation of safe-haven exposure should reflect investor risk tolerance and sized to support portfolio downside protection needs

SUB-ASSET CLASS	DYNAMIC TILT					COMMENTS
U.S. Treasury	<i>Unfavorable</i>					Rate hike expectations may accelerate with continued inflation pressures. It remains vital to maintain minimum portfolio liquidity levels with the use of safe-haven fixed income exposure amidst elevated economic regime uncertainty.
U.S. TIPS	<i>Unfavorable</i>					
Municipal Bonds	<i>Unfavorable</i>					
Non-U.S. Govt. Bonds	<i>Reduce</i>					
Global IL Bonds	<i>Reduce</i>					
Cash	<i>Neutral</i>					

Shaded diagonal ratings reflect the asset class ratings for the previous month.

REDUCE	UNFAVORABLE	NEUTRAL	FAVORABLE	ADD
--------	-------------	---------	-----------	-----



CORE ASSET CLASS RETURN ASSUMPTIONS

	Asset Class	06/30/22 10-Year Return	06/30/21 10-Year Return	Delta
	Cash	2.9%	1.2%	+1.7%
	U.S. Inflation	2.4%	2.3%	+0.1%
Equity	U.S. Large-Cap Equity	5.8%	4.9%	+0.9%
	Non-U.S. Developed Equity	6.4%	5.2%	+1.2%
	Emerging Market Equity	9.6%	7.4%	+2.2%
	Global Equity*	6.8%	5.6%	+1.2%
	Private Equity*	9.8%	8.9%	+0.9%
Fixed Income	U.S. Treasury Bond	3.2%	1.4%	+1.8%
	U.S. Aggregate Bond*	3.8%	1.9%	+1.9%
	U.S. TIPS	3.0%	1.5%	+1.5%
	U.S. High Yield Corporate Bond	6.9%	3.1%	+3.8%
	Private Debt*	8.0%	6.4%	+1.6%
Real Assets	Commodity Futures	3.4%	1.3%	+2.1%
	REIT	6.1%	4.7%	+1.4%
	Gold	4.4%	3.4%	+1.0%
	Real Estate - Core	4.4%	4.8%	-0.4%
	Private Real Assets - Infrastructure	6.1%	5.4%	+0.7%
Multi-Asset	60% S&P 500 & 40% U.S. Aggregate	5.3%	4.0%	+1.3%
	60% MSCI ACWI & 40% U.S. Agg.	6.0%	4.5%	+1.5%
	Hedge Fund*	6.0%	4.2%	+1.8%



*Calculated as a blend of other asset classes

NEPC DISCLOSURES

Past performance is no guarantee of future results.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

Some of the information presented herein has been obtained from external sources NEPC believes to be reliable. While NEPC has exercised reasonable professional care in preparing this content, we cannot guarantee the accuracy of all source information contained within.

The opinions presented herein represent the good faith views of NEPC as of the publication date and are subject to change at any time.

This presentation contains summary information regarding the investment management approaches described herein but is not a complete description of the investment objectives, portfolio management and research that supports these approaches. This analysis does not constitute a recommendation to implement any of the aforementioned approaches.



From: [Russo, Carolyn](#)
To: [McManus, Julie](#)
Cc: jfleming47@comcast.net
Subject: FW: Coho Team Departure - Watch Status Recommended
Date: Monday, August 15, 2022 7:35:12 AM
Attachments: [image005.png](#)
[image006.png](#)

Julie:

Please add this to the Board meeting packet.

Thank you.

Carolyn

From: Grzejka, Sebastian <SGrzejka@nepc.com>
Sent: Monday, August 8, 2022 4:16 PM
To: Russo, Carolyn <Carolyn.Russo@mwra.com>
Cc: Fischer, Kiley <KFischer@nepc.com>
Subject: [EXTERNAL] Coho Team Departure - Watch Status Recommended

[EXTERNAL]: This is an external email. Do not click on links or attachments if sender is unknown or if the email is unexpected.

Hi Carolyn,

I hope you are well! I wanted to write to provide you an update regarding a recent departure from Coho. Coho has informed us that Nimrit Kang, Partner, PM and Director of Research is no longer with the firm. Given her role at the firm and the suddenness of the departure, at today's Due Diligence Committee meeting, the Committee voted to place Coho on Watch. We will be in regular dialogue with the manager to get more information regarding the departure, as well as updates on her replacement. Once we have more detail, we will share that with you along with any changes in our view. I have included the brief note from our research team below regarding the announcement. Let us know if you have questions.

Sebastian

From NEPC Research:

Coho has informed us that Nimrit Kang, Partner, PM and Director of Research is no longer with Coho Partners. At this time, the remaining six members of the investment team will pick up her research coverage: Peter Thompson (Partner, Co-CIO), Chris Leonard (Partner, Co-CIO), Ruairi O'Neill (Partner, PM, Investment Analyst), Ward Kruse (Partner, PM, Investment Analyst), Shirley Chen (ESG Investment Analyst), and Andrew Hanna (Investment Analyst). Coho has engaged a search firm to find an experienced replacement for Nimrit. At this time Coho cannot share any more detail surrounding this event other than what was provided in their announcement. In time, they hope they can share more detail about the cause/reasoning behind the departure. In the meantime, NEPC research recommends placing Coho on Watch. We will share more details as they become available.

Sebastian Grzejka, CAIA

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