

**AGENDA**  
**INVESTMENT COMMITTEE MEETING**  
**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION (MCERA)**

**One McInnis Parkway, 1st Floor**  
**Retirement Board Chambers**  
**San Rafael, CA**

**June 18, 2024 – 9:00 a.m.**

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This meeting will be held at the address listed above and, absent technological disruption, will be accessible via videoconference and conducted in accordance with Government Code section 54953 and 54954.2 through December 31, 2025.

Instructions for watching the meeting and/or providing public comment, as well as the links for access, are available on the [Watch & Attend Meetings](https://www.mcera.org/retirementboard/agendas-minutes/watchmeetings) page of MCERA's website. Please visit <https://www.mcera.org/retirementboard/agendas-minutes/watchmeetings> for more information.

The Board of Retirement encourages a respectful presentation of public views to the Board. The Board, staff and public are expected to be polite and courteous, and refrain from questioning the character or motives of others. Please help create an atmosphere of respect during Board meetings.

**CALL TO ORDER**

**ROLL CALL**

**CONSIDER ANY BOARD MEMBER REQUESTS TO TELECONFERENCE FOR "JUST CAUSE" OR "EMERGENCY," AS SET FORTH ON THIS AGENDA BELOW**

**A. OPEN TIME FOR PUBLIC EXPRESSION**

Note: The public may also address the Committee regarding any agenda item when the Committee considers the item.

Open time for public expression, from three to five minutes per speaker, on items not on the Committee Agenda. While members of the public are welcome to address the Committee during this time on matters within the Committee's jurisdiction, except as otherwise permitted by the Ralph M. Brown Act (Government Code Sections 54950 et seq.), no deliberation or action may be taken by the Committee concerning a non-agenda item. Members of the Committee may (1) briefly respond to statements made or questions posed by persons addressing the Committee, (2) ask a question for clarification, or (3) provide a reference to staff for factual information.

## **B. MANAGER REPORTS**

1. Manager Overview – Jim Callahan, Callan LLC
2. KBI Global Investors – Global Resources Solutions – Noel O’Halloran, Simon Padley  
TIME CERTAIN: 9:05 a.m.

## **C. NEW BUSINESS**

1. Investment Manager Personnel Update – Western Asset Management Co.
2. Public Real Assets Structure Review (ACTION) – Jim Callahan, Callan LLC  
Consider, discuss and take possible action on real asset allocations
3. Future Meetings

## **D. INVESTMENT CONSULTANT QUARTERLY REPORT**

1. Summary Report as of March 31, 2024
  - a. Flash Performance Update as of May 31, 2024

**Note on Process:** Items designated for information are appropriate for Committee action if the Committee wishes to take action.

**Note on Voting:** As provided by statute, the Alternate Safety Member votes in the absence of the Elected General or Safety Member, and in the absence of both the Retired and Alternate Retired Members. The Alternate Retired Member votes in the absence of the Elected Retired Member. If both Elected General Members, or the Safety Member and an Elected General Member, are absent, then the Elected Alternate Retired Member may vote in place of one absent Elected General Member.

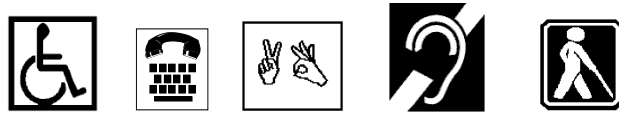
**Note on Board Member requests to participate by teleconference under Government Code section 54953, subdiv. (f):** At least a quorum of the Committee must be present together physically at the meeting to invoke this provision. The provision is limited to “just cause” and “emergency” circumstances, as follows:

“Just cause” is only: (1) a childcare or caregiving need of a child, parent, grandparent, grandchild, sibling, spouse or domestic partner that requires them to participate remotely; (2) a contagious illness that prevents a member from attending in person; (3) a need related to a physical or mental disability, as defined; or (4) travel while on official business of MCERA or another state or local agency. A Board member invoking “just cause” must provide a general description of the circumstances relating to their need to appear remotely at a given meeting, and it may not be invoked by a Board member for more than two meetings in a calendar year.

“Emergency circumstances” is only: “a physical or family medical emergency that prevents a member from attending in person.” The Board member invoking this provision must provide a general description of the basis for the request, which shall not require the member to disclose personal medical information. Unlike with “just cause,” the Board must by majority vote affirm that an “emergency circumstance” situation exists.

As to both of the above circumstances, the Board member “shall publicly disclose at the meeting before any action is taken whether any other individuals 18 years of age or older are present in the room at the remote location with the member and the general nature of the member’s relationship with any such individuals.” Also, the Board member “shall participate through both audio and visual technology,” and thus be both audible and visible to those attending. Finally, no Board member may invoke these teleconference rules for more than three consecutive months or 20 percent of the regular meetings of the Board.

**Note on teleconference disruption that interrupts the live stream: In the event of a technological or similar disruption, and provided no Board/committee members are attending by teleconference, the meeting will continue in person.**



Agenda material is provided upon request. Requests may be submitted by email to [MCERABoard@marincounty.org](mailto:MCERABoard@marincounty.org), or by phone at (415) 473-6147.

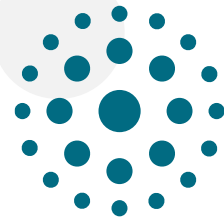
MCERA is committed to assuring that its public meetings are accessible to persons with disabilities. If you are a person with a disability and require an accommodation to participate in a County program, service, or activity, requests may be made by calling (415) 473-4381 (Voice), Dial 711 for CA Relay, or by email at least five business days in advance of the event. We will do our best to fulfill requests received with less than five business days’ notice. Copies of documents are available in alternative formats upon request.

The agenda is available on the Internet at <http://www.mcera.org>

## **B.1 Manager Overview**

This is a discussion with no backup.

B.2



**KBIGI**

# KBI Global Investors

## Review of the KBIGI Global Resource Solutions Strategy June 2024



Marketing Communication  
For Professional Clients only

Signatory of:





## **Noel O'Halloran, B.E., C.DiP A.F., A.S.I.P**

**Executive Director – Chief Investment Officer, Lead Portfolio Manager KBIGI Global Resource Solutions Strategy**  
32 years with firm, 36 years industry experience

Noel is the lead Portfolio Manager for the KBI Global Resource Solutions Strategy. He joined the KBIGI in 1992, was promoted to Head of Equities in 1996 and was appointed CIO in 2002. As CIO, he has overall responsibility for investment process and performance of the firm's assets under management across the various asset classes and specialist equity portfolios. He has specifically managed equity portfolios across Irish, European, Asian and US equity markets. Prior to joining the firm, Noel worked for Irish Life Investment Managers as a US Equity Asset Manager. He is an engineer by profession having graduated with 1st Class honours degree from University College Cork. He is a member of the CFA Institute, the Society of Investment Analysts in Ireland & the UK Society of Investment Professionals.



## **Simon Padley BSc (Hons), H Dip (Hons)**

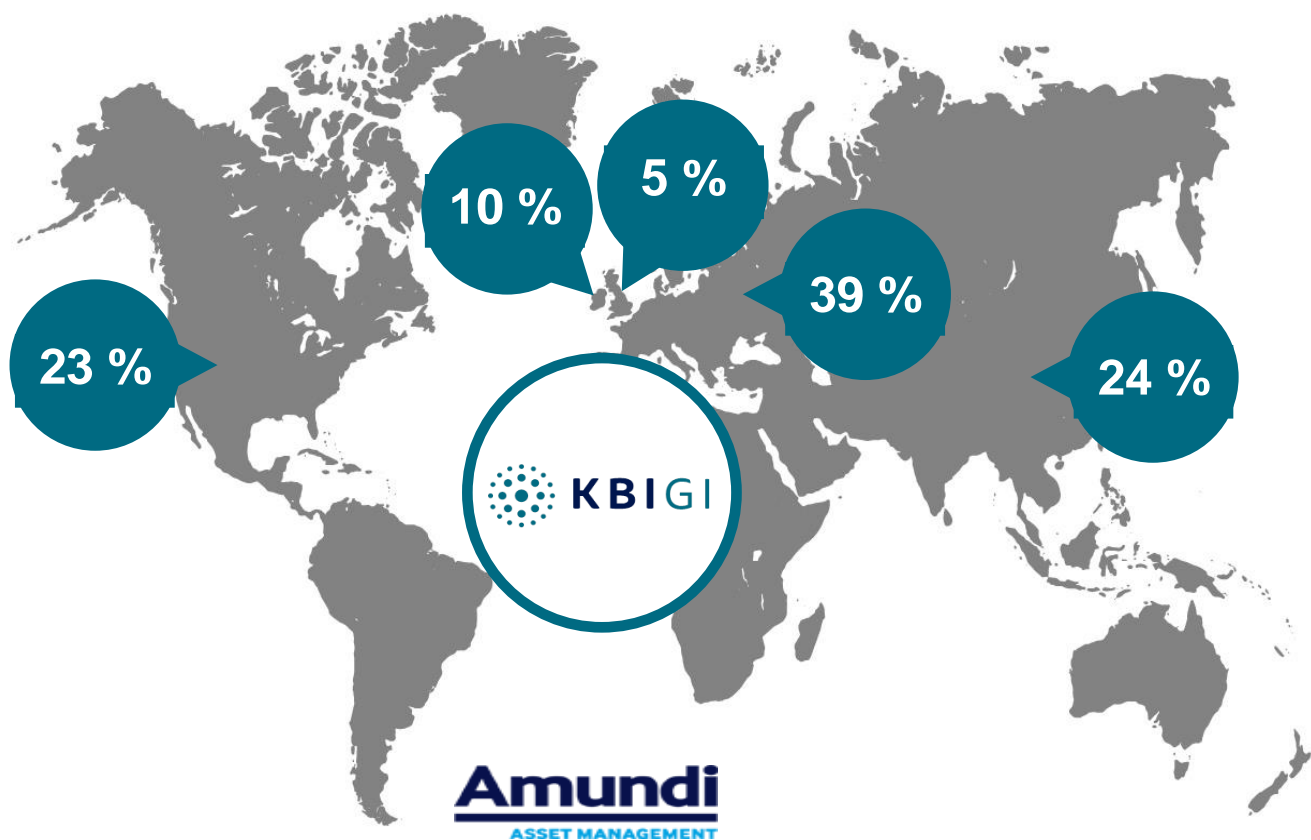
**Senior Vice President, Business Development & Client Services**  
13 years with the firm, 22 years industry experience

Simon heads up KBIGI's US office and has specific responsibility for KBI's key relationships on the US market. He worked with the firm in the position of Client Servicing Manager in the institutional client segment from 2002 to 2004. From 2005 - 2007 he was a Product Development Manager with KBC Asset Management in Belgium. From 2007 to 2009 Simon was Head of Distribution at the KBCAM's office in Sydney Australia. Prior to re-joining the firm in June 2013 as part of the business development team in North America, Simon was the Senior Vice President responsible for Marketing & Products at Union KBC Asset Management in India. He graduated from the University College Dublin with a BSc in Cell & Molecular Biology in 2000 and completed a Higher Diploma in Business Studies in 2001.

## Differentiated solutions and a global footprint

**KBIGI Firmwide AUM**  
 £13.5 bn | €15.8bn | \$17.0 bn

**Geographic breakdown of investors by revenue:**



**Founded in 1980:** asset management company for institutional clients. KBI GI became part of the **Amundi Group** in September 2016.



Headquartered in Dublin, Ireland with representative sales office in Boston. **An international team of 66 people.**



**Global client base** with mandates in the United Kingdom, Europe, North America and Asia.



**Strong growth** in assets under management in the last 10 years, primarily driven by new external institutional mandates.



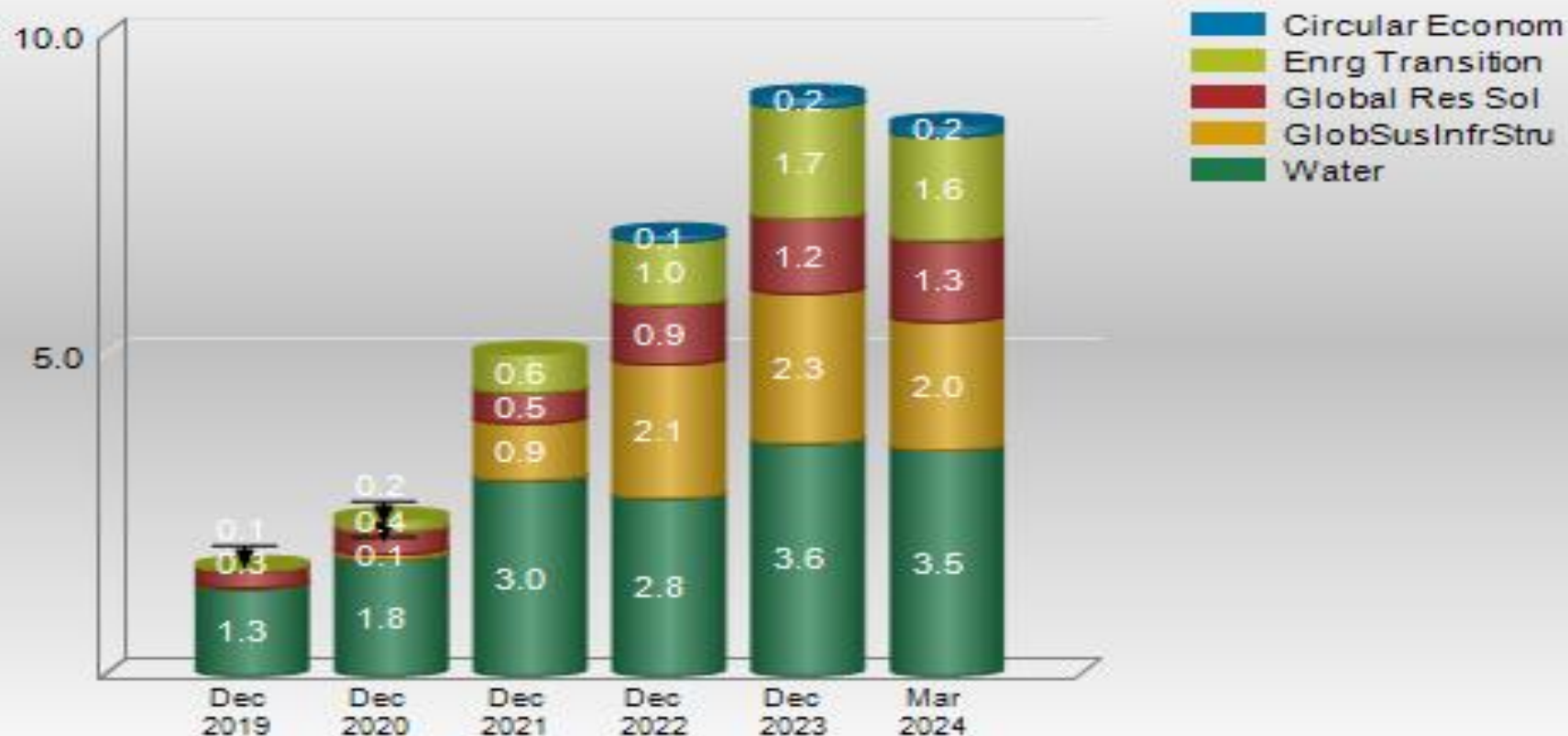
Meeting highest international regulatory **risk and operational** standards.



Thought-leader status attained through long track record of managing **Responsible Investing** investment strategies. Signatory to the Net Zero Asset Managers initiative. Attained **UNPRI highted possible rating, member of IIGCC, CDP, Ceres**



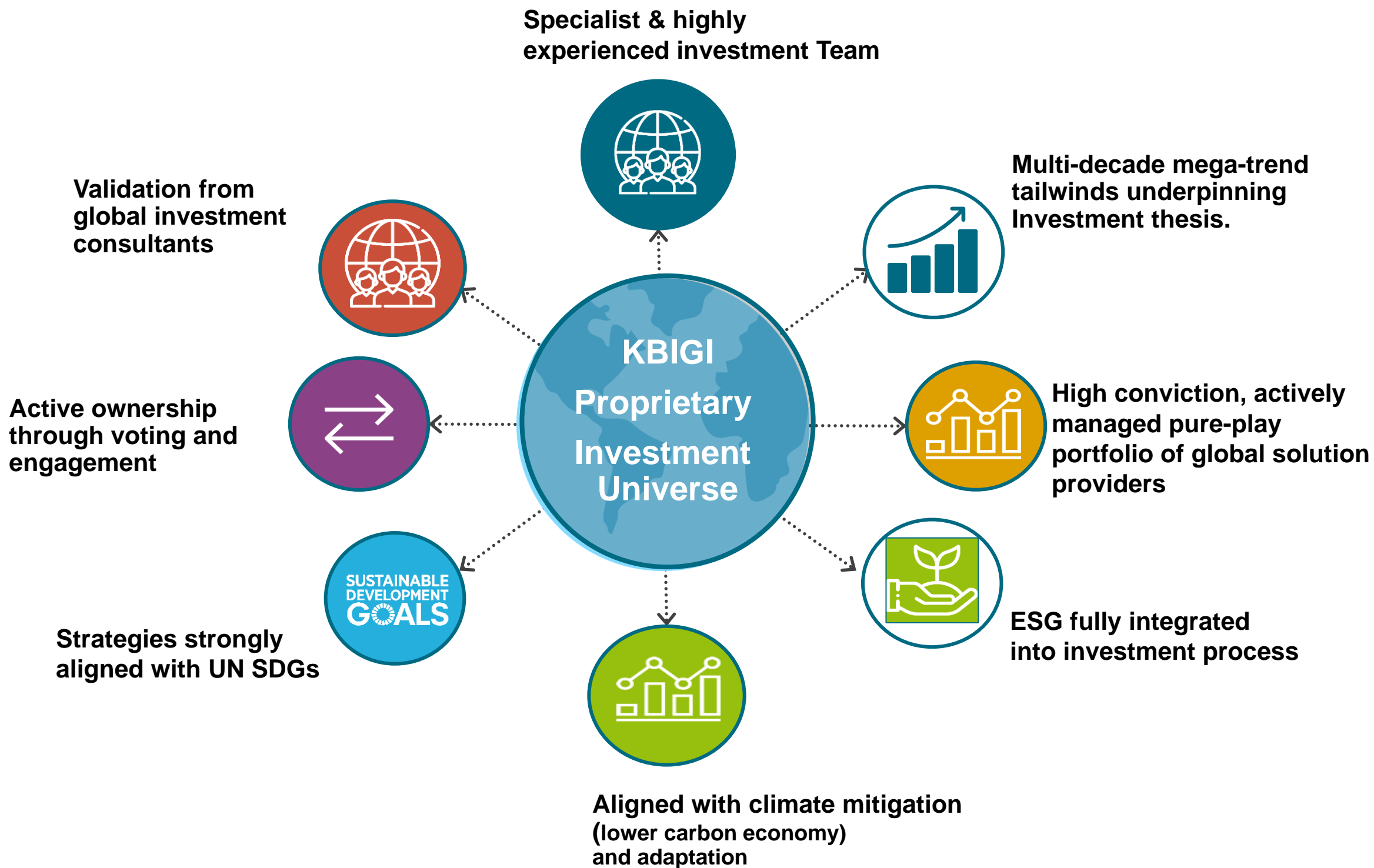
## FIRM Natural Resources Evolution in Billions (USD)



Strategy (USD)	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023	March 2024
<b>Circular Economy Strategy</b>				109,444,955	174,004,324	185,150,240
<b>Energy Transition Strategy</b>	65,013,803	195,683,570	623,038,598	990,391,349	1,734,987,431	1,621,535,148
<b>Global Resource Solution Strategy</b>	258,598,475	352,874,943	470,902,938	925,265,365	1,167,301,789	1,262,846,760
<b>Global Sustainable Infrastructure Strategy</b>	17,563,822	81,902,820	894,320,243	2,089,758,419	2,341,452,434	2,001,808,733
<b>Water Strategy</b>	1,349,805,902	1,811,642,546	3,042,300,242	2,763,499,875	3,616,985,250	3,516,081,935
<b>Total</b>	<b>1,690,982,002</b>	<b>2,442,103,878</b>	<b>5,030,562,021</b>	<b>6,878,359,962</b>	<b>9,034,731,228</b>	<b>8,587,422,816</b>

Source: KBI Global Investors, 31<sup>st</sup> Mach 2024. This is the combined assets under management of KBI Global Investors Ltd and KBI Global Investors (North America) Ltd excluding assets under advisement in USD. Inception date for Circular Economy strategy is 1<sup>st</sup> February 2022.







The KBI team is an innovator in the Resource Solutions theme.



Long-serving experienced investment team



Long-term orientated investment approach



GRS Portfolio Management Team	Role	Investment Experience (years)	In firm (years)
Noel O'Halloran	Lead Portfolio Manager	36	32
Treasa Ni Chonghaile	Co Portfolio Manager	25	25
Matt Sheldon	Co Portfolio Manager	22	13
Andros Florides	Senior Portfolio Manager	29	16
Martin Conroy	Senior Portfolio Manager	20	20
Catherine Cahill	Senior Portfolio Manager	24	16
Colm O'Connor	Head of Portfolio Management, NR Team	21	21
Ben Cooke	Portfolio Manager	8	3
Robert Fullam	Investment Analyst	10	3
Eoin Fahy	Head of Responsible Investing	35	35
Jeanne Chow Collins	ESG & Engagement Analyst	23	10

	USD
Initial Investment (29 <sup>th</sup> Sept 2016)	30,000,000
Net Cashflow (inc. fees, contribution and withdrawals)	-10.9m
End Value May 2024	62,605,832

	1 year	3 years p.a.	5 years p.a.	Since Inception (7.7 years) p.a.
Marin CIT %	10.0%	3.2%	16.3%	12.0%
S&P Gbl Nat Res %	19.4%	6.5%	10.7%	9.0%

YTD performance to close 06/10/2024 for the GRS CIT is +2.0% vs. the S&P Nat Res Index +0.95%.

- Since inception (Sept 2016) the account has made over ~\$40m in absolute terms.
- Relative to the benchmark, the S&P Global Natural Resource Index:
  - Long-term performance net of fees has been very strong. Our allocation to and selection of innovative industrials and technology companies in the water and energy transition sleeves has helped this outperformance.
  - Over the shorter term we have seen some underperformance vs. the benchmark due to traditional Energy and Materials performing strongly. Also, our overweight position in Utility companies has not been favoured by investors over the short-term.
- Since the inception of the account, we have outperformed the broader market (represented by the MSCI ACWI) by ~1.4% per annum.



Sources of Alpha	Explanation
Genuine company/ industry-specific informational advantage	Quick interpretation on policy or regulatory news, knowing how the “pieces” fit together, logical industry combinations, companies going public, competitive dynamics and proclivities, view through the value chain
Portfolio/exposure management	Knowing what to own when, balancing risks & end market/style exposures, both macro and theme tailwind/headwinds related
Valuation-orientation, sizing moves, use of U-D model	Opportunistically adding to and reducing positions due to relative performance & relative valuations, using our proprietary upside-downside modeling tool that incorporates ESG scores which include UNSDG’s as an input as a key portfolio construction input
Momentum	Not cutting short performing stocks by anticipating and allowing certain types of stocks to keep working
Knowing management teams’ abilities	Knowledge of which companies can execute, innovate, outgrow, handle adversity...or not
Active ownership through Engagement & Proxy Voting	Intentional interactions with management, sustainability teams, or board to push an agenda of investor-friendly, value-additive actions, whether ESG-related or corporate/capital/communication strategy



## Stronger now than ever

### Drivers



**Insufficient Supply**



**Increasing Demand**



**Increasing Regulation**

### Solutions



**Increasing Infrastructure Spend**



**Increasing Technological Solutions**



# 1. Insufficient Supply & 2. Increasing Demand<sup>B.2</sup>

## Drivers



**Insufficient Supply**



**Increasing Demand**



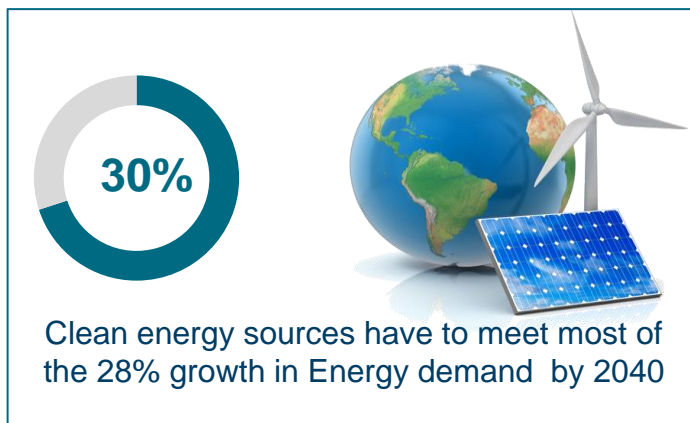
**Increasing Regulation**

**TODAY**, the demand for necessities have already outpaced supply...

**TOMORROW**, the problems will only worsen if no change is made...

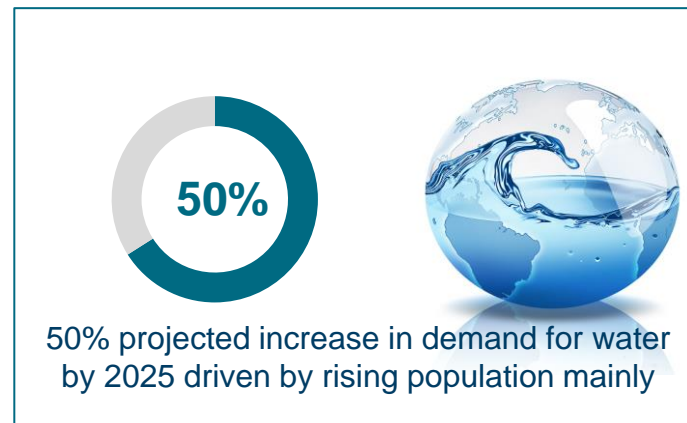
**41**

# of countries where less than half the population has access to electricity



**<1%**

of the earth's water is fit for human consumption



**50%**

of harvest is wasted between farm and fork



**Sources:** <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data> <https://www.eia.gov/outlooks/archive/ieo17/> <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html> <https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS> <http://www.cnn.com/SPECIALS/road-to-rio/secret-life-drinking-water> <http://online.wsj.com/news/articles/SB123483638138996305> <http://www.cnn.com/SPECIALS/road-to-rio/secret-life-drinking-water> <http://fieldnotes.unicefusa.org/infographic-world-water-crisis> <https://www.scientificamerican.com/article/can-we-feed-the-world/> <https://www.mercycorps.org/articles/quick-facts-what-you-need-know-about-global-hunger> <http://blogs.worldbank.org/transport/comment/reply/672>



## Drivers



“If carbon is the driver of climate change, water is the casualty”

Our most essential / critical industries are at the intersect of policy support and investment opportunity



**EU**

GHG emissions cut by >55% in 2030, climate neutral by 2050<sup>2</sup>

EU Green deal EUR 750bn<sup>3</sup>

**UK**

Plan to power all UK homes with wind by 2030<sup>4</sup>

**USA**

Drinking Water and Wastewater Infrastructure Act<sup>7</sup>

**EU**

Water framework directive<sup>9</sup>

**China**

2060 net zero target <sup>5</sup>

**Brazil**

New Basic Sanitation Law<sup>8</sup>

**India**

Jal Jeevan Mission<sup>11</sup>

**Japan**

Carbon Neutral by 2050, 50% renewable electricity by 2030<sup>6</sup>

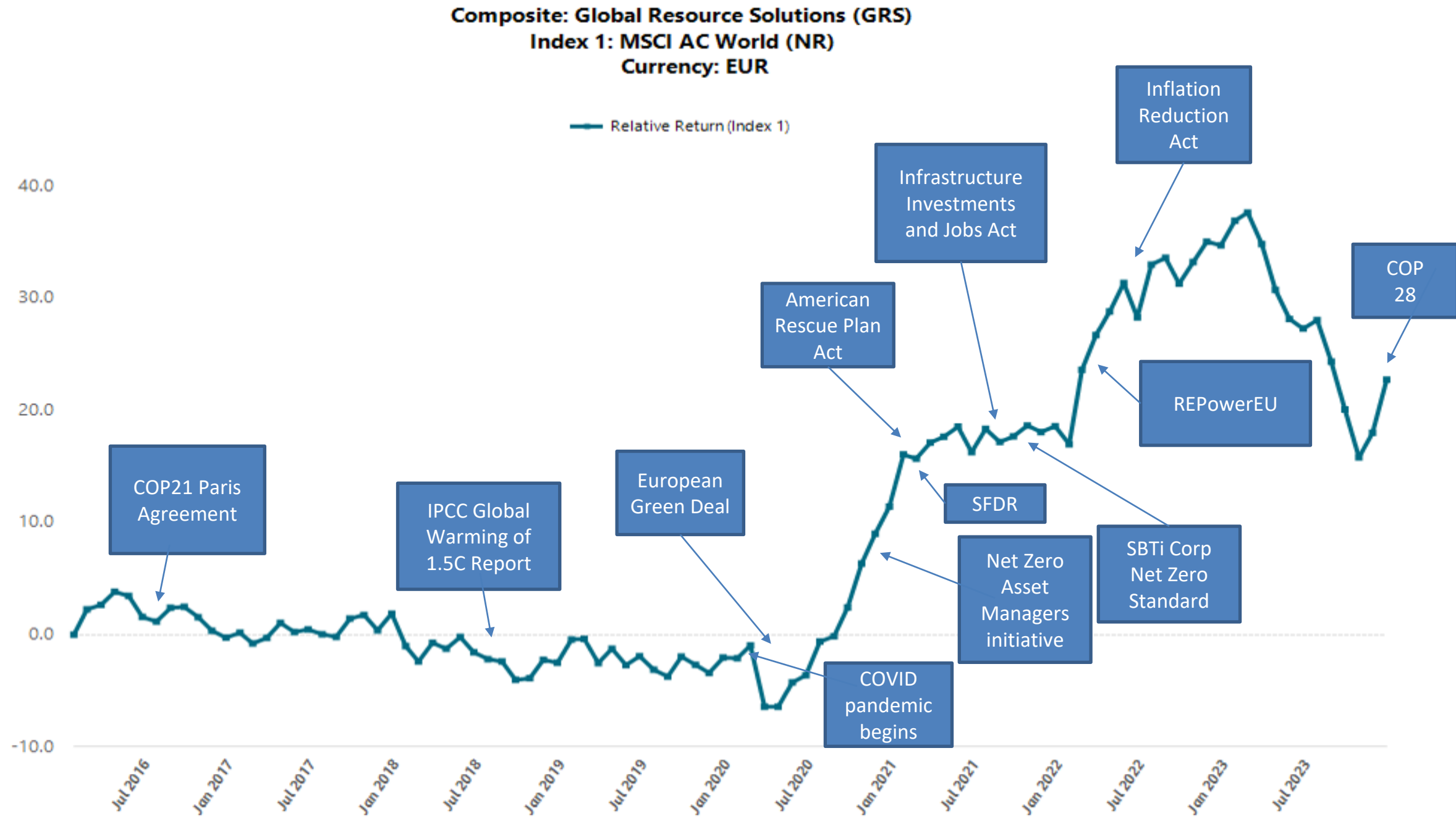
**USA**

Inflation Reduction Act

**China**

Water Pollution Prevention and Control Law<sup>10</sup>

Sources: 1 <https://www.nytimes.com/2020/07/14/us/politics/biden-climate-plan.html> ; 2 [https://ec.europa.eu/clima/policies/strategies/2030\\_en#:~:text=Greenhouse%20gas%20emissions%20%2D%20raising%20the,least%2055%25%20compared%20to%201990](https://ec.europa.eu/clima/policies/strategies/2030_en#:~:text=Greenhouse%20gas%20emissions%20%2D%20raising%20the,least%2055%25%20compared%20to%201990;) ; 3 [https://ec.europa.eu/info/strategy/recovery-plan-europe\\_en](https://ec.europa.eu/info/strategy/recovery-plan-europe_en) ; 4 <https://www.bbc.co.uk/news/uk-politics-54421489> ; 5 <https://www.bbc.com/news/science-environment-54256826> ; 6 <https://climateactiontracker.org/press/japans-net-zero-2050-announcement-step-forward-2030-target-revision-now-crucial/> ; 7 <https://www.waterworld.com/drinking-water/infrastructure-funding/press-release/14202376/senate-passes-water-infrastructure-package> ; 8 <https://www.forbes.com/sites/mergermarket/2020/07/14/brazils-new-sanitation-bill-to-draw-domestic-and-foreign-private-investment/?sh=51d1cdf4ef0> ; 9 [https://ec.europa.eu/environment/water/water-framework/info/intro\\_en.htm](https://ec.europa.eu/environment/water/water-framework/info/intro_en.htm) ; 10 <https://www.chinawatererrisk.org/notices/revised-water-pollution-prevention-and-control-law-approved/> ; 11 <https://jaljeevanmission.gov.in/>



**It's different this time: it took a while but government, corporate, and investor policies are now massively supporting climate action**



Greater than **USD29 trillion**  
of investment opportunity

Investing in technologies leading  
the transition to a sustainable economy

**USD2.5 trillion** required in Agriculture investment



**Precision Agriculture, Satellite Crop Management  
Driverless Farm Machines**

**USD5 trillion** required in Water investment



**Smart Water, Waste Water Treatment,  
Ultra Pure Water, Ballast UV Disinfection**

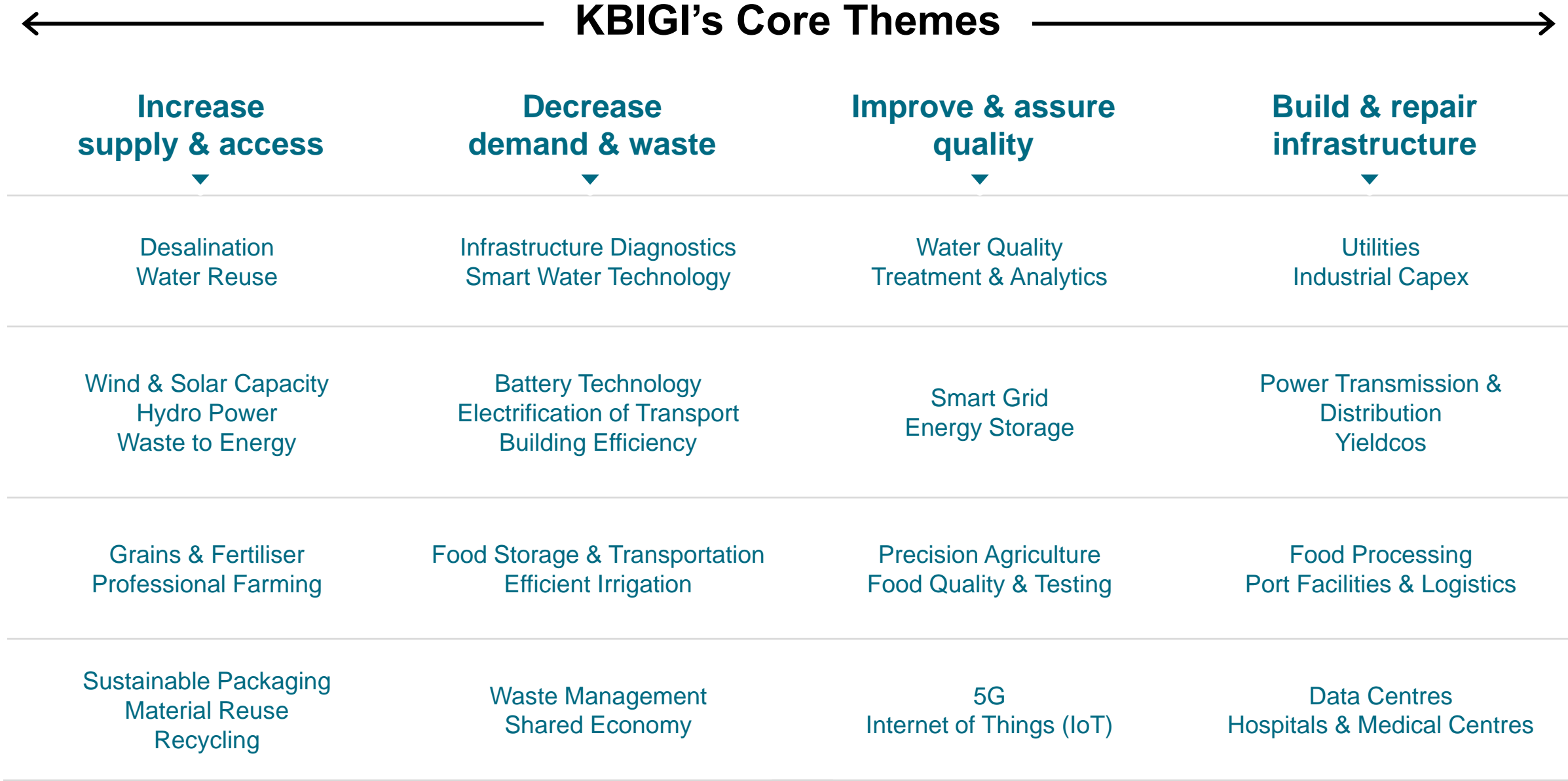
**USD22 trillion** required in Energy investments with  
over 70% projected to be in clean energy



**Electric Vehicles, Smart Grid, Battery Storage,  
Renewables**

Sources: Food Demand: Michigan State University, "Feeding the world in 2050 and beyond", 2018. Water investment: <https://reglobal.co/green-capex-in-infrastructure/> at 19<sup>th</sup> October 2021; Energy Demand: US Energy Information Administration, 2019. Power required investment: Brookings Institute, "Delivering on Sustainable Infrastructure", 2016. Agribusiness required investment: FAO, 'The Future of Food and Agriculture, Trends and Challenges, 2017; Land for Farming'.

## KBIGI's Core Themes



### KBI Strategies

Global Water Strategy

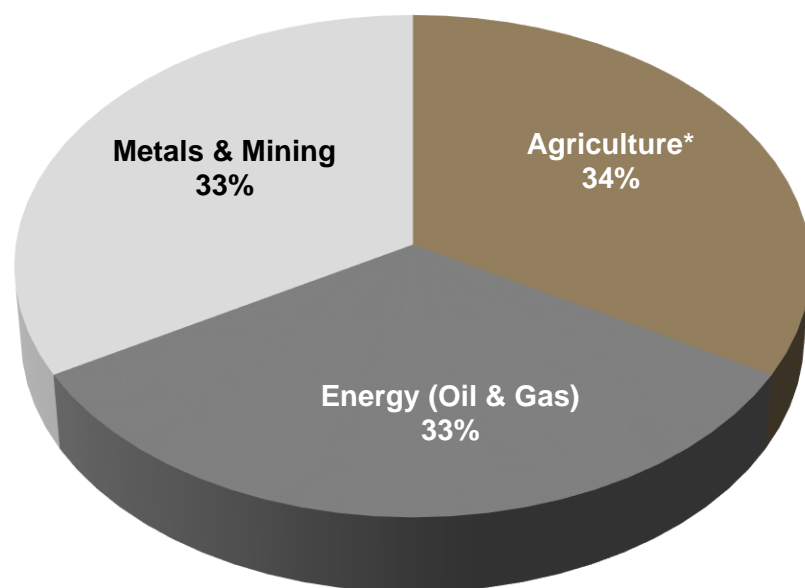
Global Energy Transition Strategy

Global Resource Solutions Strategy

Global Sustainable Infrastructure Strategy

Circular Economy Strategy

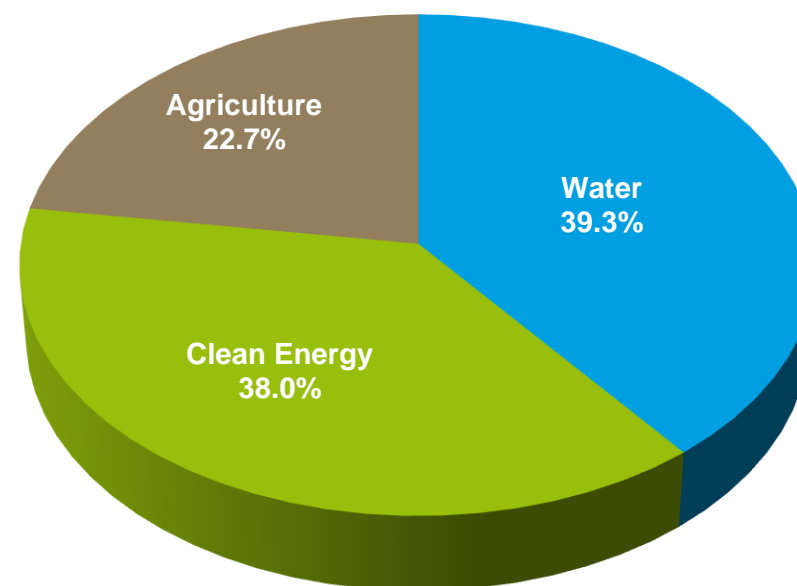
## S&P Global Natural Resource Index



\*Traditional Agri includes paper, forestry and timber.

Source: S&P Dow Jones Indices

## KBIGI Global Resource Solutions Strategy



ESG is used as a key part of the stock selection process

Source: KBI Global Investors

### Key differences:

GRS has Water, Clean Energy, broader Agri solutions set and no exposure to fossil fuel extraction

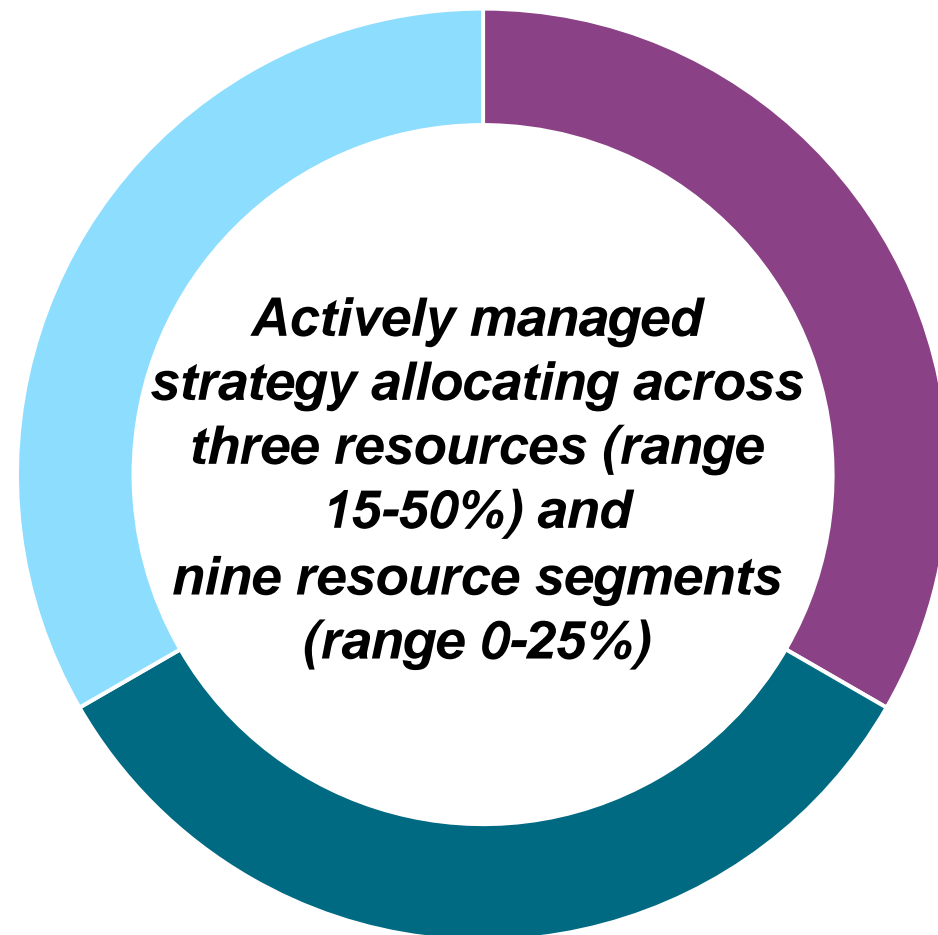
Source: KBI Global Investors, S&P Thematic Indices Methodology. Data as of 31<sup>st</sup> March 2024 Note that the index weights are set at the levels shown on the annual rebalancing date, actual weights will vary from time to time due to relative market performance. S&P Global Natural Resource Index, Portfolio and Benchmark Statistics are from a representative account managed to the same strategy and the benchmark respectively. KBI Global Investors independently estimate these statistics for both the portfolio and the benchmark, please see disclaimer for description of index information.

Identification of sustainable companies as either:

**Pure plays** (>50% of sales from either Water, Agri or Clean Energy) or

**Market leaders** (>10% sales and also be a global leader)

An investment universe of 483 stocks representing a market cap of \$5.8trn\*



**Water (manufacturers, service providers and operators across the water cycle)**

- Water Utilities
- Water Infrastructure
- Water Technology



**Agri (across the agribusiness value chain inc. increasing crop yields, storing, transporting & processing of agri-products)**



- Agri Producers
- Agri Infrastructure & Processors
- Agri Inputs

**Global Energy Transition (renewable energy, technologies that facilitate grid integration and use energy more efficiently)**

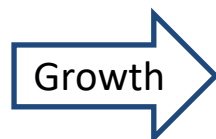
- Clean Energy Utilities
- Renewable Energy
- Energy Efficiency



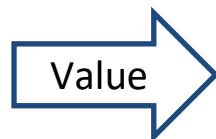


While most of the value add comes from bottom-up stock picking by the resource specialists, the GRS team adds value and manages risks via allocations among the resources based on:

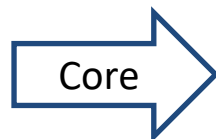
1. Valuations
2. Earnings growth
3. Theme conviction
4. Top down and styles



Energy Transition has more growth style, including some speculative/hyper growth within Renewables



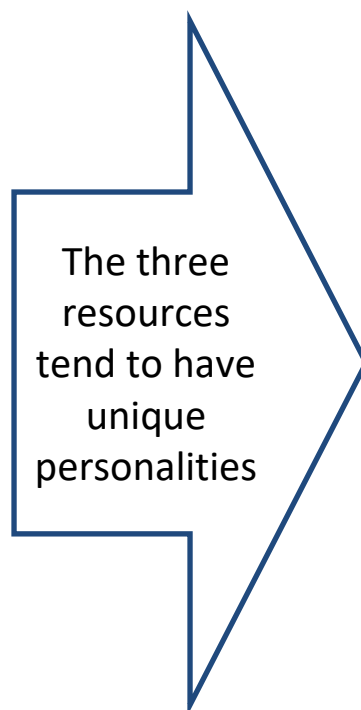
Agribusiness tends to be more value orientated, with a strong relationship with inflation



Water is more core, but has a higher connection to cyclical performance, particularly Water Infrastructure



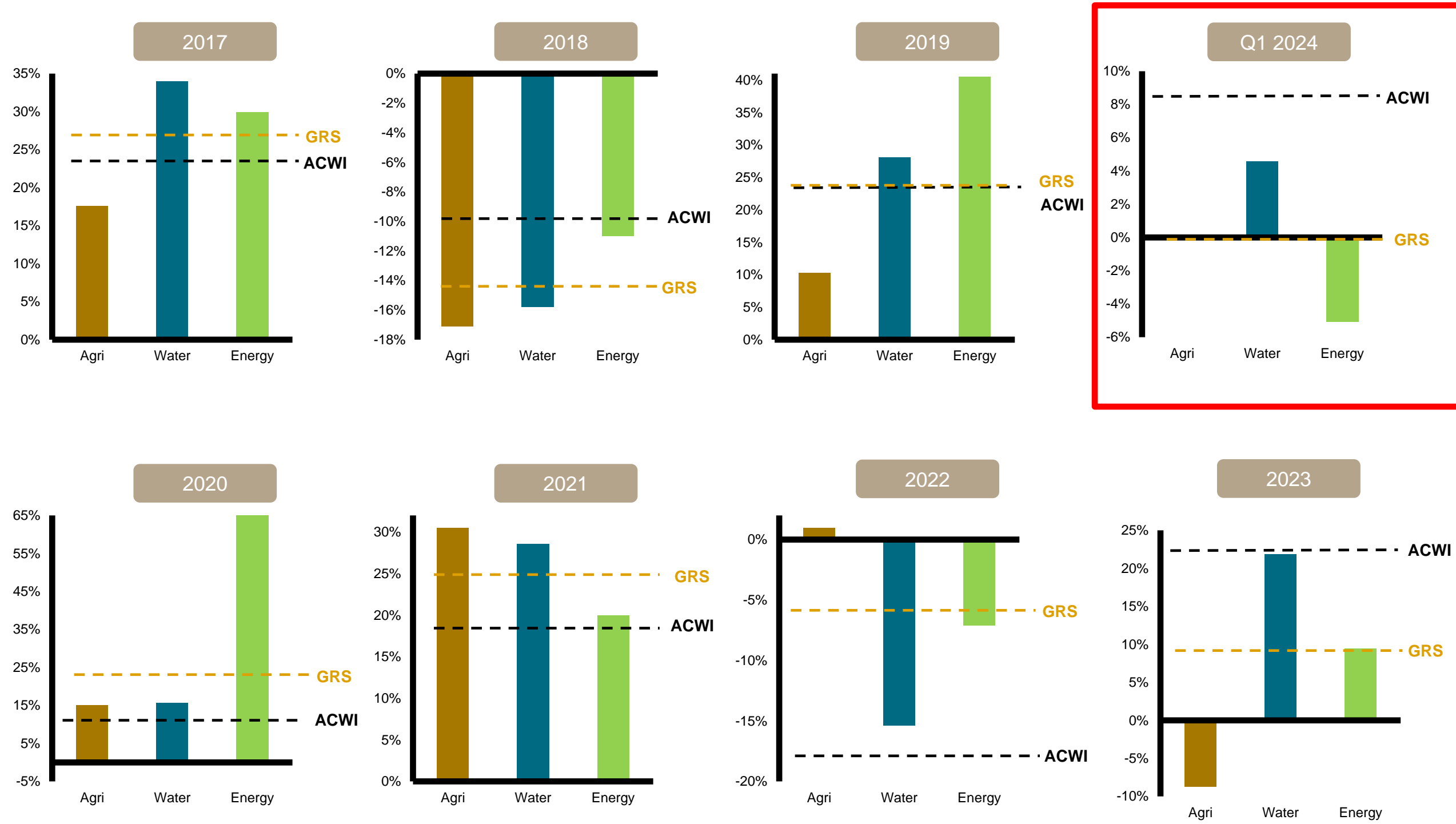
Both Water & Energy Transition have ability to play defense via utilities





# GRS Flat on the Qtr. as was Agri with Water and GET producing symmetrically opposite returns

B.2

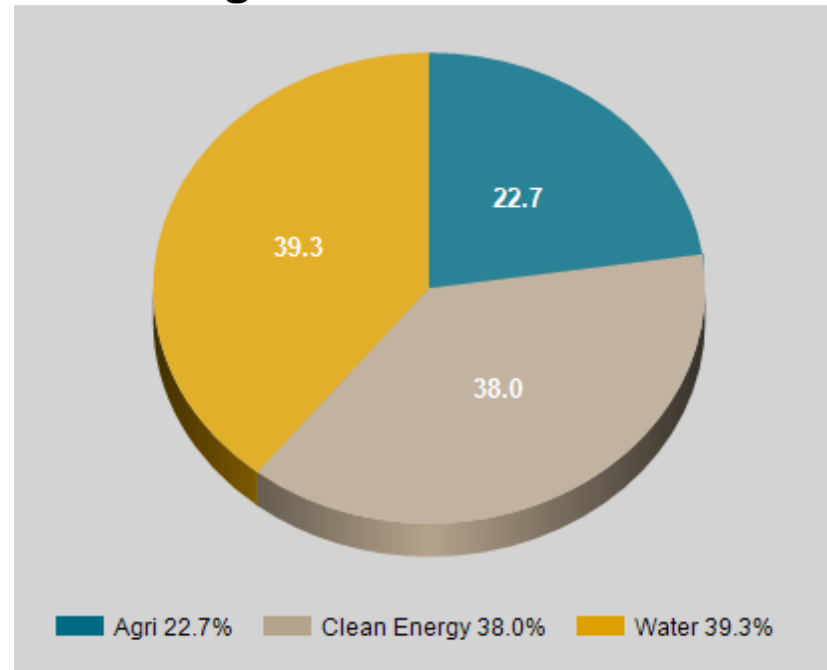


Source: KBI Global Investors, Global Resource Strategy (GRS) in USD as at 31<sup>st</sup> March 2024. MSCI ACWI index.

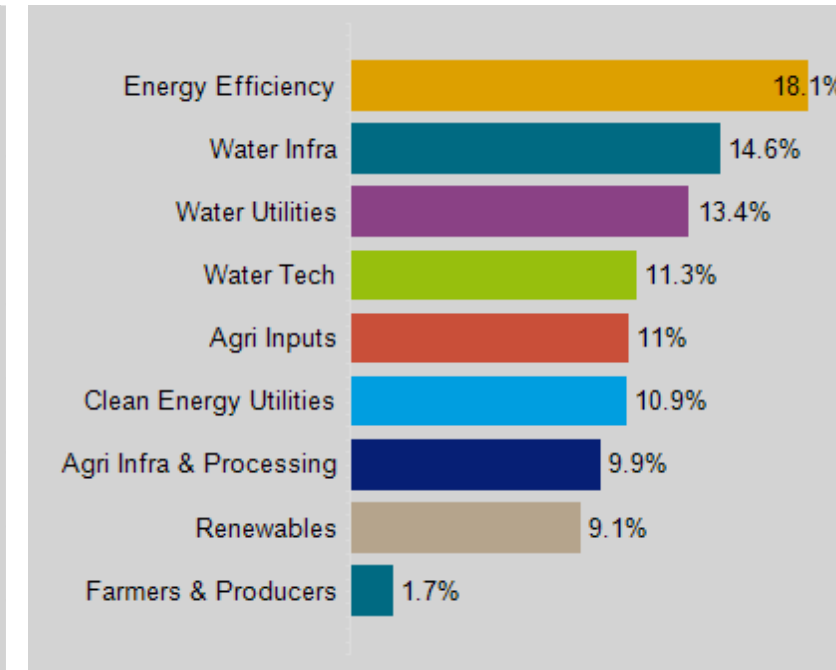
## Portfolio Characteristics

	KBIGI Global Resource Solutions Strategy	S&P Gbl Nat Resources	MSCI AC World (NR)
No. of holdings	92	89	2841
Active Share	-	95.4%	97.3%
Weighted Ave. Mkt. Cap.	30.3bn	79.5bn	498.3bn
Dividend Yield	2.4%	3.4%	1.9%
P/E (forward)	16.4x	11.7x	17.8x
Beta*	-	0.7	1.1
Tracking Error*	-	12.3%	8%

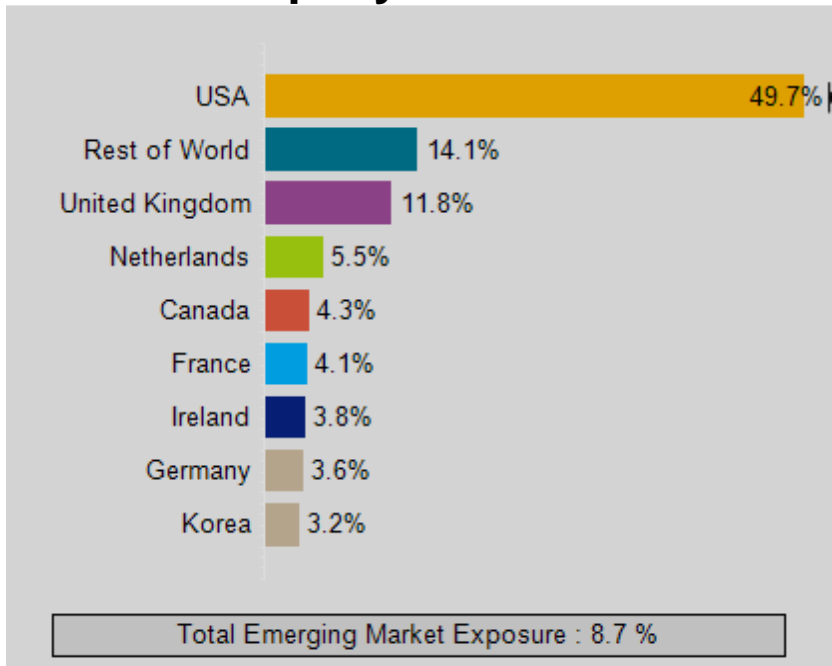
## Segments/Resources %



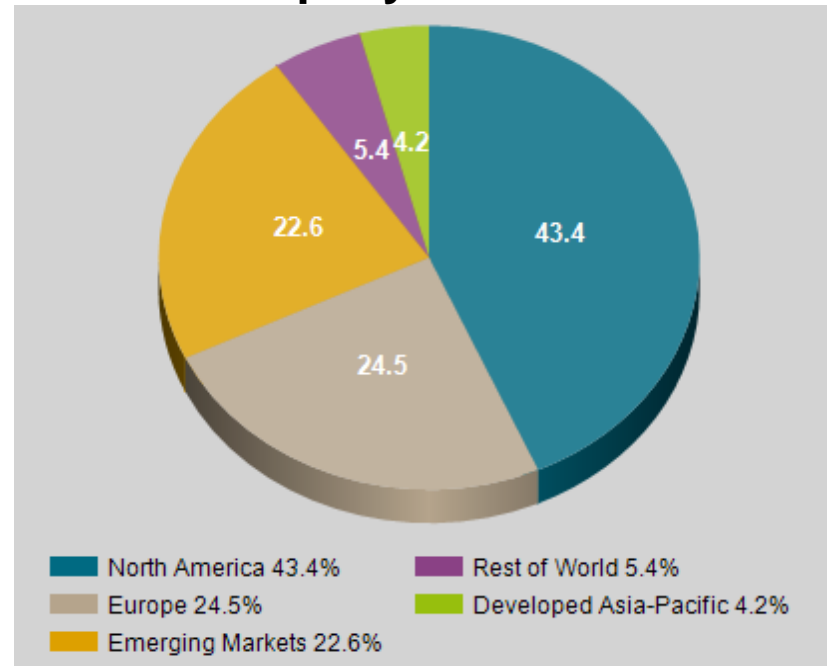
## End Markets



## Company Domicile %



## Company Revenue %



## Top Ten Stocks

Stock	Country	Weight %
Veolia Environnement SA	France	3.0
United Utilities Group Plc	UK	2.5
Xylem Inc	USA	2.4
Halma PLC	UK	2.1
Essential Utilities Inc	USA	2.0
Itron Inc	USA	2.0
NXP Semiconductors NV	USA	1.9
Samsung Sdi Co Ltd	Korea	1.9
Vestas Wind Systems A/S	Denmark	1.9
Bunge Global SA	USA	1.8

Source: KBI Global Investors Ltd. Data as at 31<sup>st</sup> March 2024. \*3 Years tracking error and Beta to 31/03/2024 in USD. Company revenue are based on look-through revenues This information contains forecasts, which are estimates only and not a reliable indicator of future performance. See disclaimers for description of index. Stocks mentioned in this document are a representative sample of stocks that may or may not be in the strategy. The securities listed are selected based on objective, consistently applied, non-performance-based criteria. Size or profitability of stocks mentioned have not been used in determining the selection of stocks and their inclusion should not be construed as a stock recommendation. A complete list of all securities recommended for the immediately preceding year is available upon request. Each quarter KBI Global Investors uses this same objective, non-performance based criteria to select the ten largest holdings. The specific securities identified and described do not represent all of the securities purchased, sold, or recommended for the Infrastructure Strategy, and the reader should not assume that investments in the securities identified and discussed were or will be profitable. All information is provided for informational purposes only and should not be deemed as a recommendation to buy or sell the securities mentioned. A complete list of all securities recommended for the immediately preceding year is available upon request. The risk characteristics are calculated independently by KBI Global Investors using monthly gross returns of a representative account managed to the same strategy over a 3 year period relative to the Index as at the 31/03/2024. Portfolio and Benchmark Statistics are from a representative account managed to the same strategy and the benchmark respectively. KBI Global Investors independently estimate these statistics for both the portfolio and the benchmark.

For Professional Clients Only 20/43

## Energy Efficiency



Transport Technology: Manufacture **energy efficient chips** used in automotive, smart phones, 5G and IOT

Main revenues from **high performance mixed signal (HPMS) devices** used in car infotainment and autonomous driving

Exposure to **rapidly growth EV market** - EVs use twice the amount of power semiconductors as ICE cars

## Renewables



Solar Capacity Growth: Residential solar & energy storage provider

Leading provider of **storage and home energy management systems**

Leveraged to growth in **US residential solar market**

Offering consumers lower priced electricity

## Clean Energy Utilities



Renewable Generator, Grid Infrastructure: Investments in **smart grids, offshore wind, large-scale energy storage, digitisation and green hydrogen**

**Strategic-Plan 2023-2025** commits to investment in **electricity grids** (€27bn) and **renewables** (€17bn)

Scaling up on **green hydrogen** with more than 60 renewable and green hydrogen projects in 8 countries

## Water Utilities



Global operator in the water and waste space serving **municipal and industrial markets**:

- building and operating the distribution network for water and waste-water
- water quality through its various water treatment technologies.

Its business model focuses **more on long term contracts and concessions** which are less capital intensive.

## Water Technology



Leader in **water treatment facilities and chemicals** for industrial customers.

Strong exposure to the **electronics value chain**, which requires high quality water for cleaning and thermal management of facilities

Many customers outsource their ultra-pure water supply to Kurita, which is a **higher margin solution**

## Water Infrastructure



This US **consulting engineer** that plays a key role in **water infrastructure investments**, beginning to end

It works alongside **government and private industry** to plan, design, build, monitor, restore and remediate critical infrastructure and the environment

Expected to be a **key beneficiary of global infrastructure spending**.

## Agri Input



**Precision Agriculture** – using big data to get more from less. A Canadian company. The world's largest provider of crop inputs and services, playing a critical role in helping growers increase food production in a sustainable manner.

It fully integrates precision analytics technology to ensure optimal input delivery and outcomes.

## Agri Infra and Processing



**Reducing food waste and helping food security:** A US company with significant operations in Emerging Markets, serving many levels of food processing in an integrated fashion across the globe

Bunge is well positioned to help customers to find solutions in times of global supply disruptions in Agri-commodities, while generating healthy profits for the company.

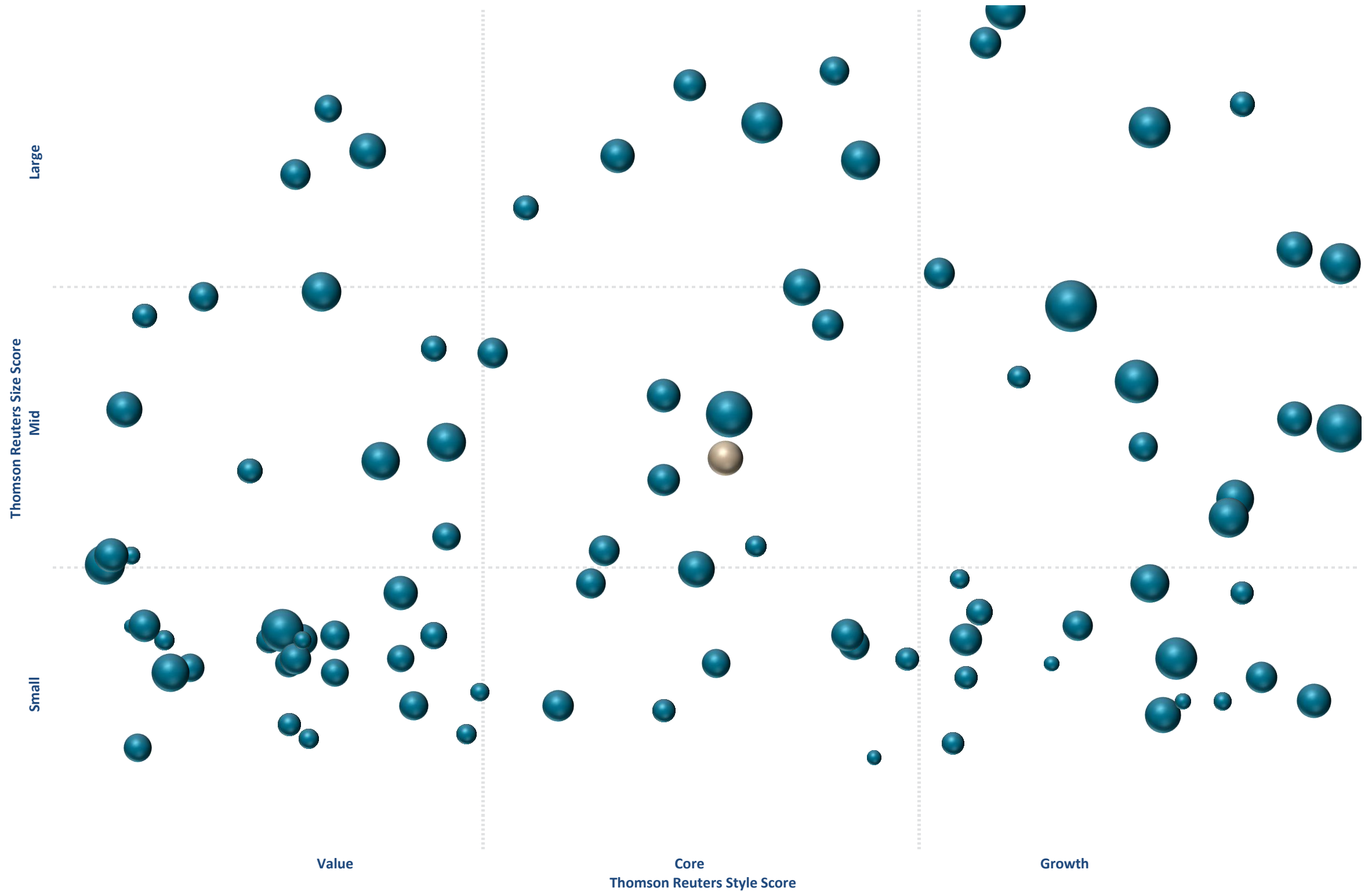
## Farmers & Producers



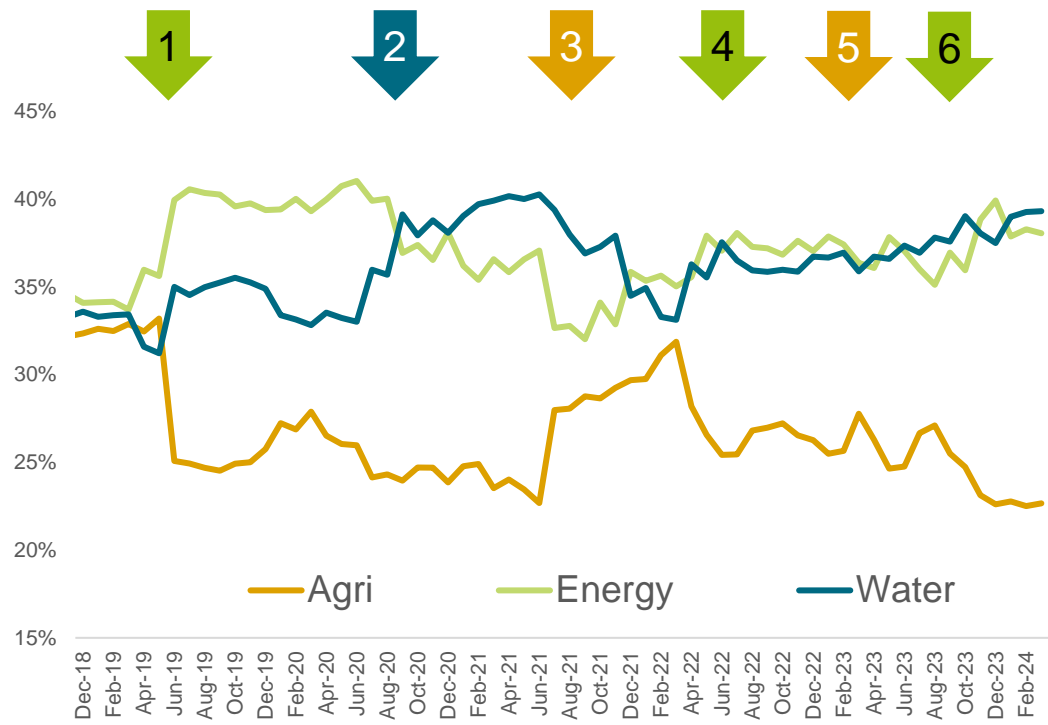
A **professional farmer** primarily located in Emerging markets.

Exposure to both the precision agriculture (dairy rice and cereal crops) and renewable energy markets (sugar and ethanol production).

Committed to sustainable farming practices and the circular economy through no-till farming, carbon sequestration and crop rotation.

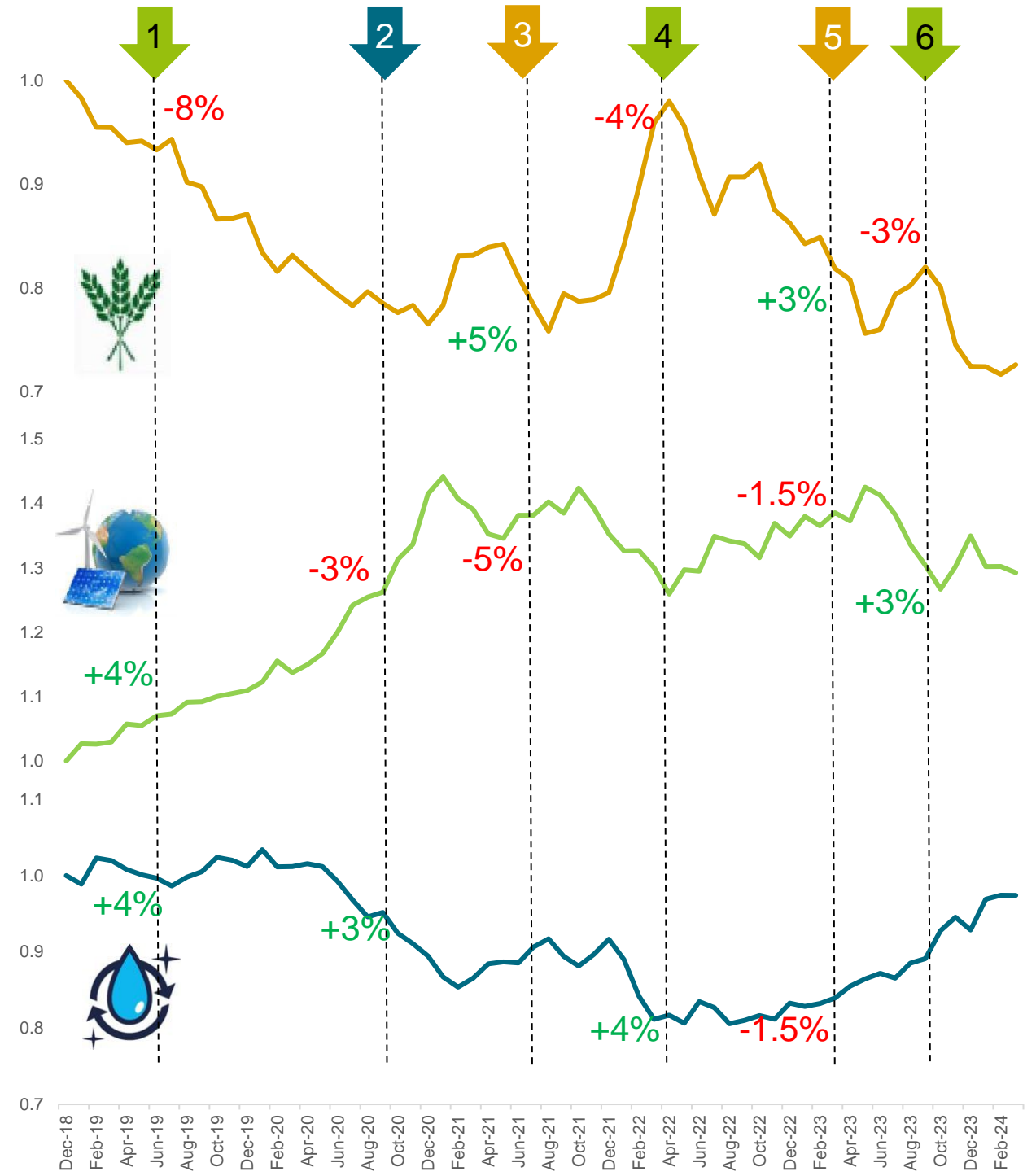


## GRS Resource Weightings



Percentages on this chart represent changes to resource weightings associated with allocation decisions

## Relative Resource Performances vs GRS

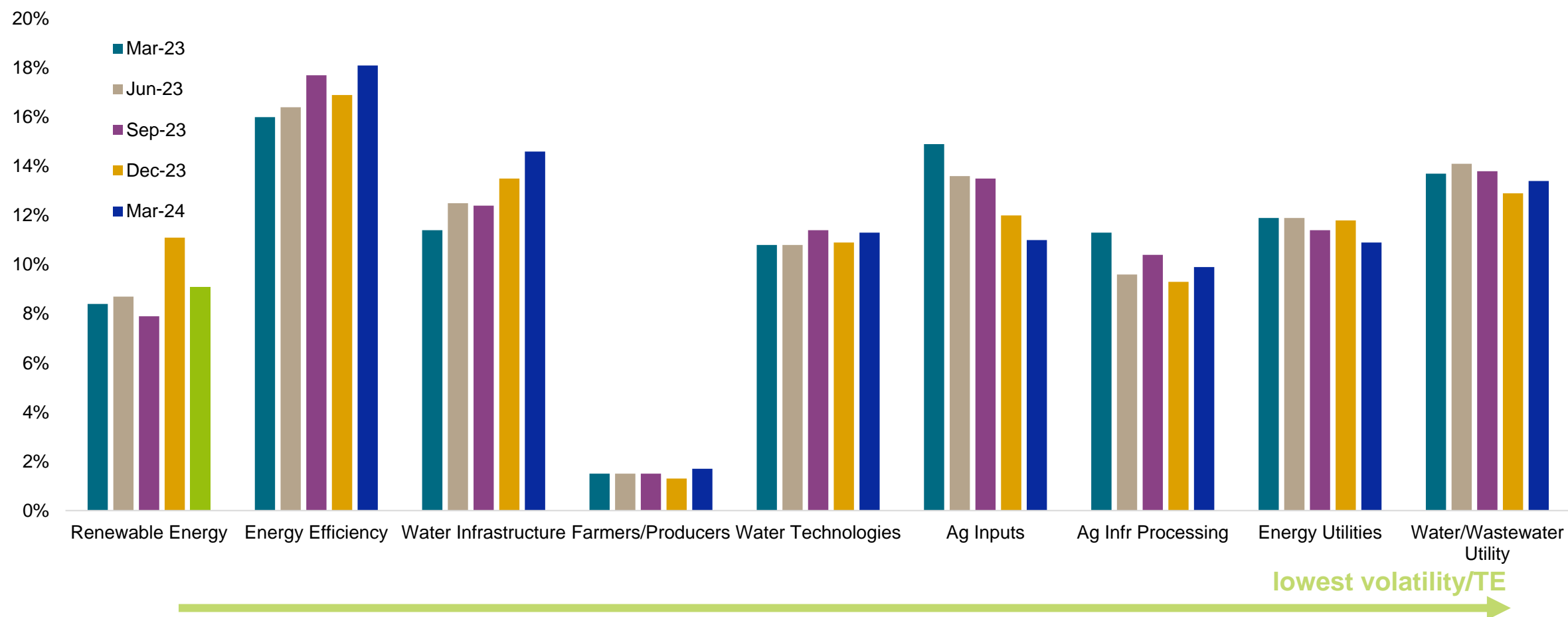




There were no allocation decisions made in GRS in the first quarter of 2024

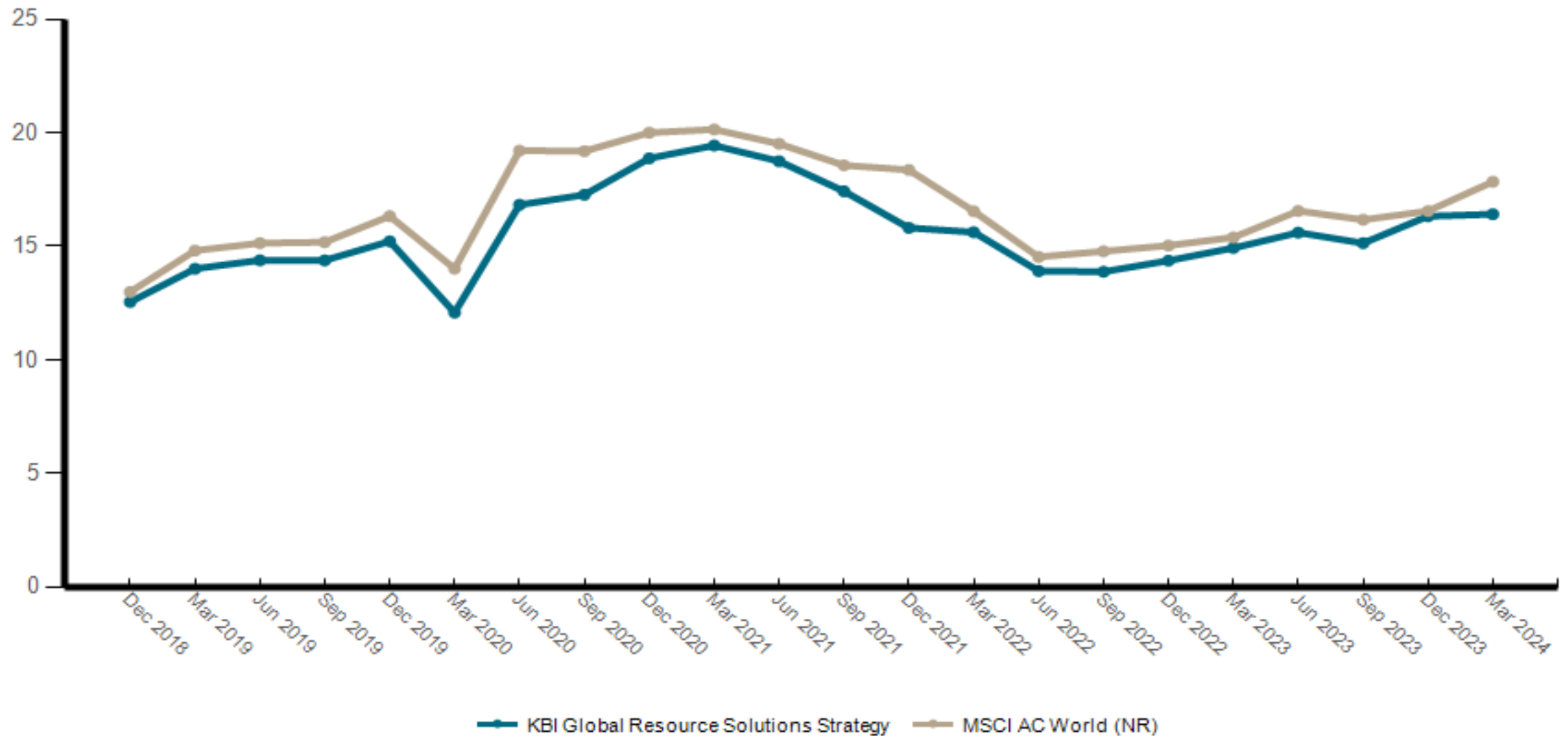
- Within the Agri sleeve, there was a shift from nitrogen fertilizers, including the exit from Yara, to add to Infrastructure and Processing stocks on weakness
- In the Water sleeve, we topped up on underperforming Water Utilities and shifted within the Water Infrastructure segment from engineers and water works stocks to irrigation stocks based on relative attractiveness
- The Energy Transition segments position size changes were mostly driven by relative performance, though there were some minor trades based on relative attractiveness, particularly within the Energy Utilities segment

## GRS Resource Segments: 1Q23 to 1Q24





## P/E 1 Year Forward



- Attractive valuation relative to the MSCI AC World Index, based on KBI's forecast of faster earnings growth from the KBIGI Global Resource Solutions Portfolio vs MSCI ACWI Index.

Note: P/E is the forward price earnings ratio using bottom-up estimates. This information contains forecasts, which are estimates only and not a reliable indicator of future performance.

Source: KBI Global Investors, 31<sup>st</sup> March 2024. S&P Global Natural Resources & MSCI ACWI Index. Portfolio and Benchmark Statistics are from a representative account managed to the same strategy and the benchmark respectively. KBI Global Investors independently estimate these statistics for both the portfolio and the benchmark. (see disclaimers for description of index information)

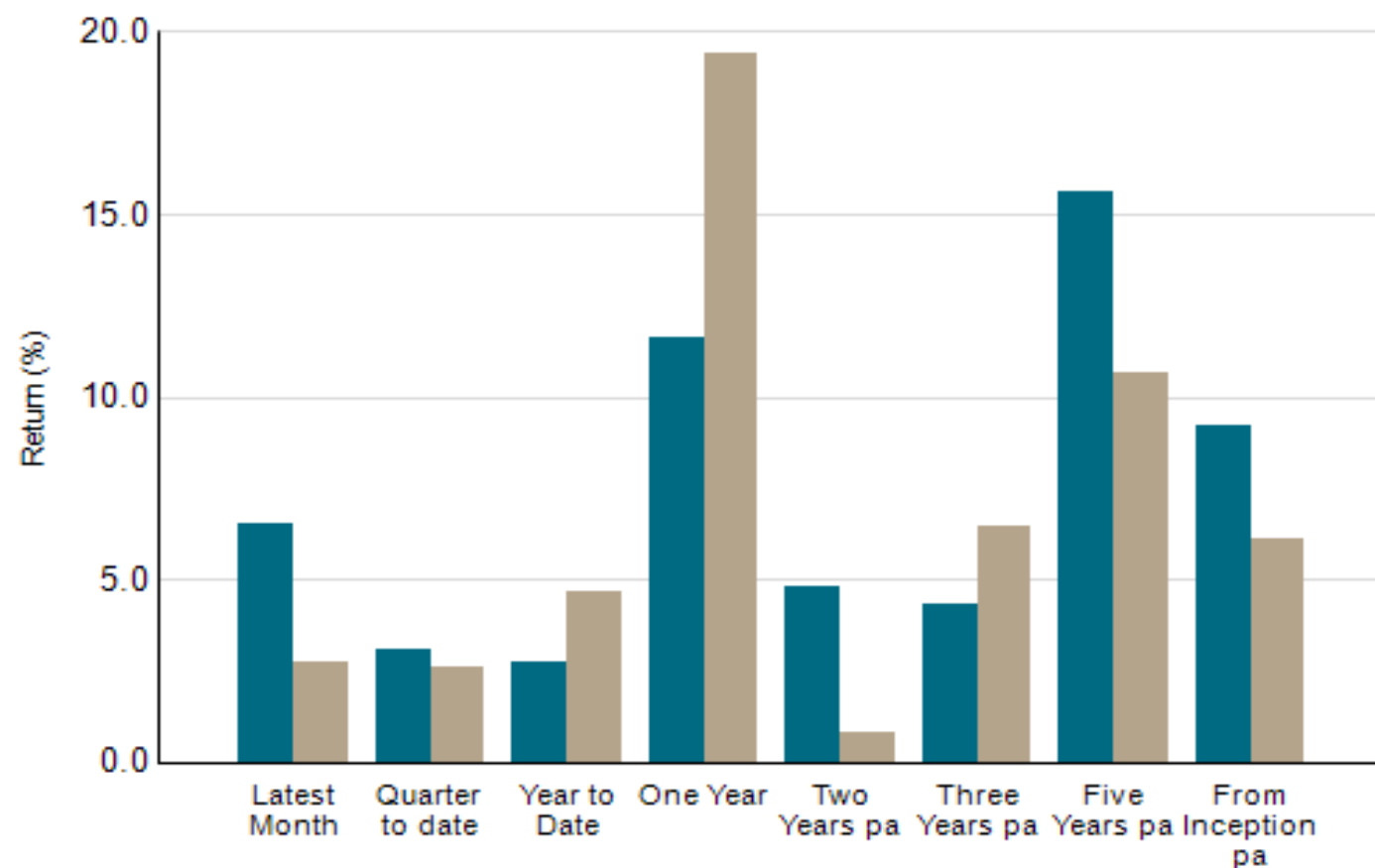
Risks- There is no guarantee that a strategy will achieve its investment objective. The value of a portfolio can rise as well as fall. Whilst it is the intention of the investment manager to implement strategies which are designed to minimise potential losses, there can be no assurance that these strategies will be successful. As a result, each investor should carefully consider the risks of investing in the strategy prior to making an investment decision.

# Global Resource Solutions (GRS)

B.2

Benchmark	S&P Gbl Nat Resources
Strategy Inception	01 March 2015
Reporting Date	31 May 2024

Term of Strategy (Yrs)	9.25
Return Type	Gross
Reporting Currency	USD



Return To	Gross %	Benchmark %	Relative %
* 31-May-2024	2.7	4.7	(1.9)
31-Dec-2023	11.3	3.4	7.7
31-Dec-2022	(7.3)	9.6	(15.4)
31-Dec-2021	26.2	24.4	1.4
31-Dec-2020	32.2	(0.0)	32.3
31-Dec-2019	27.2	16.4	9.3
31-Dec-2018	(13.3)	(13.1)	(0.3)
31-Dec-2017	26.6	22.0	3.8
31-Dec-2016	6.3	31.5	(19.1)
* 31-Dec-2015	(13.9)	(27.5)	18.8

	Latest Month	Quarter to date	Year to Date	One Year	Two Years pa	Three Years pa	Five Years pa	From Inception pa
Gross	6.5	3.1	2.7	11.6	4.8	4.3	15.6	9.2
Benchmark	2.7	2.6	4.7	19.4	0.8	6.5	10.7	6.1
Relative	3.7	0.5	(1.9)	(6.5)	3.9	(2.0)	4.5	2.9

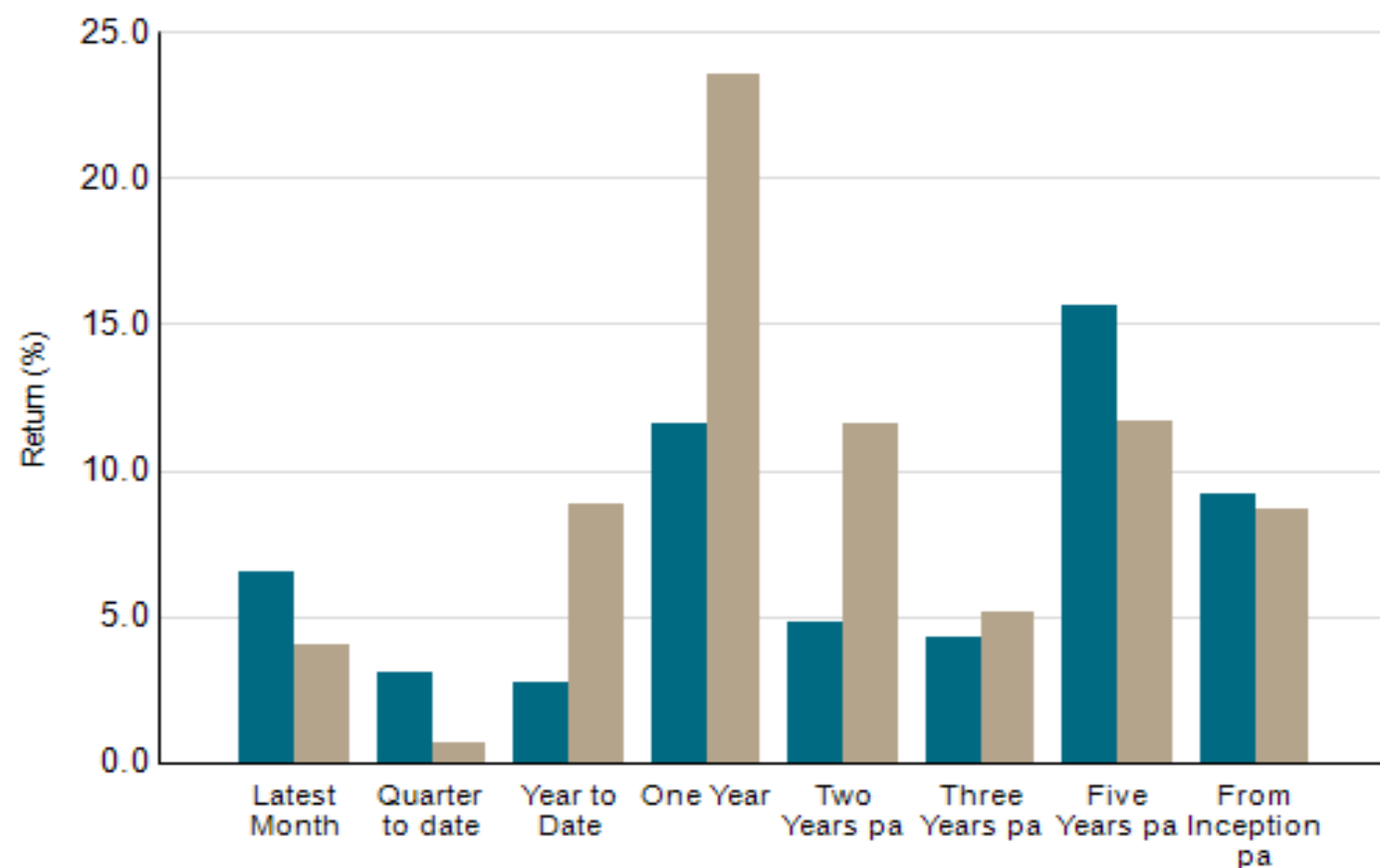
Source: KBI Global Investors, Datastream and Bloomberg. Strategy returns are gross of fees in USD at 31-May-2024 using GIPS Composite. See disclaimer for further information. S&P Gbl Nat Resources benchmark returns assume the reinvestment of dividends after the deduction of withholding taxes. Portfolio and Benchmark Statistics are from a representative account managed to the same strategy and the benchmark respectively. KBI Global Investors independently estimate these statistics for both the portfolio and the benchmark. See disclaimers for description of index information. A GIPS composite presentation to the latest quarter end is attached as an appendix.

# Global Resource Solutions (GRS)

B.2

Benchmark	MSCI AC World (NR)
Strategy Inception	01 March 2015
Reporting Date	31 May 2024

Term of Strategy (Yrs)	9.25
Return Type	Gross
Reporting Currency	USD



Return To	Gross %	Benchmark %	Relative %
* 31-May-2024	2.7	8.9	(5.7)
31-Dec-2023	11.3	22.2	(8.9)
31-Dec-2022	(7.3)	(18.4)	13.6
31-Dec-2021	26.2	18.5	6.4
31-Dec-2020	32.2	16.3	13.7
31-Dec-2019	27.2	26.6	0.5
31-Dec-2018	(13.3)	(9.4)	(4.3)
31-Dec-2017	26.6	24.0	2.2
31-Dec-2016	6.3	7.9	(1.5)
* 31-Dec-2015	(13.9)	(6.0)	(8.3)

	Latest Month	Quarter to date	Year to Date	One Year	Two Years pa	Three Years pa	Five Years pa	From Inception pa
Gross	6.5	3.1	2.7	11.6	4.8	4.3	15.6	9.2
Benchmark	4.1	0.6	8.9	23.6	11.6	5.1	11.7	8.7
Relative	2.4	2.5	(5.7)	(9.7)	(6.1)	(0.8)	3.5	0.5

Source: KBI Global Investors, Datastream and Bloomberg. Strategy returns are gross of fees in USD at 31-May-2024 using GIPS Composite. See disclaimer for further information. MSCI AC World (NR) benchmark returns assume the reinvestment of dividends after the deduction of withholding taxes. Portfolio and Benchmark Statistics are from a representative account managed to the same strategy and the benchmark respectively. KBI Global Investors independently estimate these statistics for both the portfolio and the benchmark. See disclaimers for description of index information. A GIPS composite presentation to the latest quarter end is attached as an appendix.



- Strong collection of high conviction multi-year tailwinds
- Quality, defense, and secular growth make it a strong anchor



- Dislocations in 2023/24 do not change the upside from secular growth
- Being out of favor provides unique buying opportunity



- Sequential stabilization and easy comps should help '24
- Lots of portfolio hedges: inflation, value, EM, geopolitics

## Fundamentals Perspective

- After decreases from elevated levels, the outlook for headline crop and input pricing appear to be stabilizing back towards historical averages
- El Niño dynamics still have yet to fully play out, creating uncertainty about crop supply in 2024
- Crop storage still at below average levels
- Still supply constraints, albeit better than feared (e.g. from Belarus)
- The Agri sector still suffers from an Infrastructure deficit e.g. Brazil crop production outpaces storage capacity (soybeans, corn, wheat, rice etc), and government support is still strong
- Many of the Agri holdings appear very attractively priced relative to their fundamentals, and in many cases are better positioned business model-wise for the next decade

## GRS Portfolio Perspective

- If the value style were to work—and there is still a lot to unwind from the last ~15 years of growth outperformance—Agri should strongly benefit
- If inflation turns out to be stickier than expected—whether due to material undersupply/under-investment or central bank error—Agri expected to benefit
- With elections in key countries in 2024, there is heightened geopolitical risk, which can positively impact the agri markets
- Could Agri stocks in '24 be the Construction stocks of '23—out of favour, cheap, under-owned, but catalyst comes from the market being better than expected
- Agri is most tied to EM, where consensus earnings growth in 2024 are well above developed markets and the asset class is widely out of favour

**Fundamentals  
Perspective**

- A lot of the same drivers that we anticipated in 2023 are still at play, with infrastructure stimulus in the US just getting underway
- New tailwinds relate to the upcoming 5-year regulatory cycle in the UK where water spending plans look like they will approximately double, and in Brazil where they continue to advance their goals towards universal sanitation
- We got positive early '24 news on previously delayed higher water tariffs in some Chinese cities, and better capital discipline by the water utilities, providing some support for stocks which are currently sporting very inexpensive valuations
- While residential water stocks had a very strong 2023, valuations are still reasonable and 2024 is expected to see improved fundamentals (potential channel restocking, higher existing home sales, back to normal price increases, etc.)

**GRS Portfolio  
Perspective**

- The Water sleeve continues to exhibit high quality and defensive characteristics that make it a core allocation in GRS
- The earnings outgrowth in 2023 are expected to continue in 2024, particularly if economic weakness manifests
- Like Energy Transition, Water will benefit from stimulus that is just getting underway, but it is focused more on the IIJA versus the IRA, which diversifies political risks in the portfolio



## Fundamentals Perspective

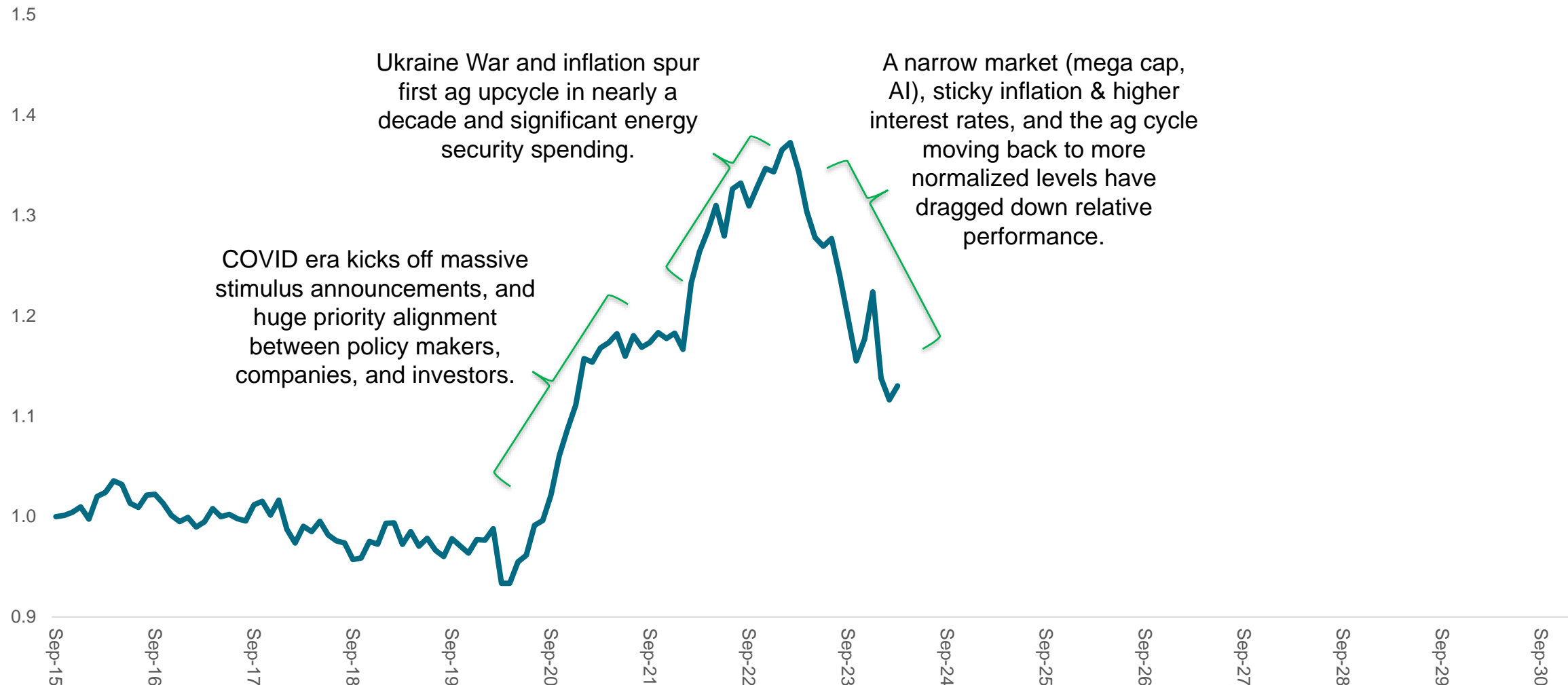
- Strong tailwinds in the areas of decarbonisation, grid resiliency, industrial automation, data centres and reshoring driving significant demand for electrical infrastructure
- After growth scares and company-specific issues within wind and solar in 2023, the potential for recovery and valuations at some of the best levels seen in several years offers an attractive opportunity
- Clean energy electric utilities offering earnings resilience while trading at near record low valuation multiples
- Many of the key beneficiaries of stimulus and policy support—particularly the IRA and reshoring trend—are trading at levels lower than when the surprise positive announcements were made
- Renewable energy projects not reliant on falling rates as project economics remain attractive

## GRS Portfolio Perspective

- The relative attractiveness of the Energy Transition sleeve is quite favourable given the growth and valuations, and the likelihood that 2023's headwinds either die down or become tailwinds
- The difficulty is balancing the secular high growth opportunities with political risk, and general stock volatility in a year in which economic weakness may come to fruition
  - That said, we have been upgrading the quality and managing position sizes within the sleeve to accommodate for this



## GRS Indexed Relative Performance vs ACWI, USD



Ukraine War and inflation spur first ag upcycle in nearly a decade and significant energy security spending.

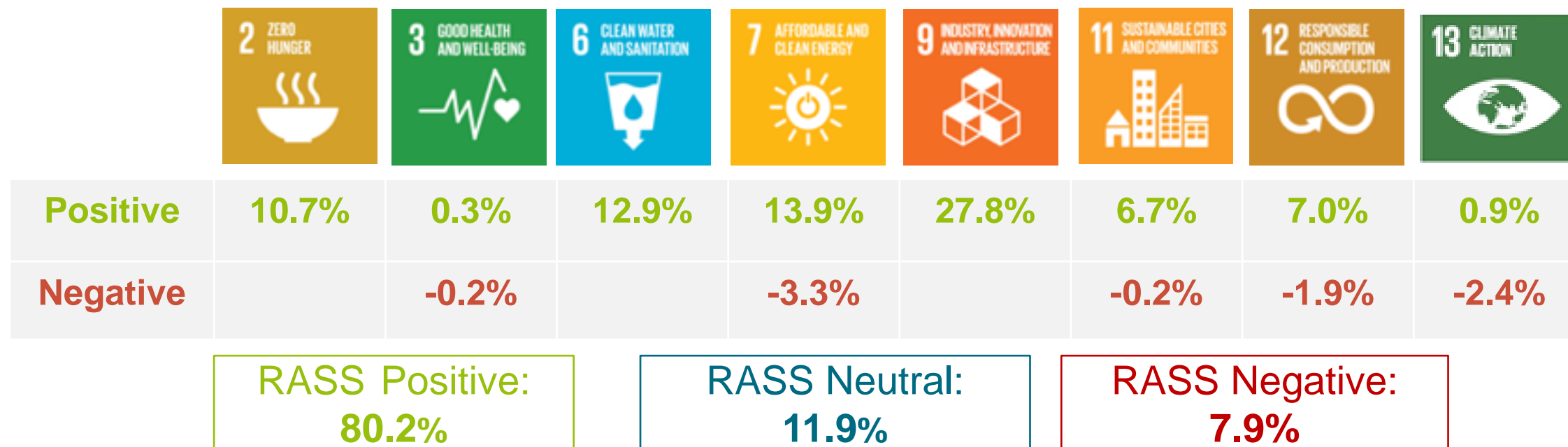
A narrow market (mega cap, AI), sticky inflation & higher interest rates, and the ag cycle moving back to more normalized levels have dragged down relative performance.

COVID era kicks off massive stimulus announcements, and huge priority alignment between policy makers, companies, and investors.

Paris Agreement leads to years of climate spending need recognition and policy discussions at a time when many of our companies were favorably reshaping their portfolios, upgrading execution, and building robust growth algorithms.

The huge amount of stimulus money and infrastructure spending is just now starting to flow. Climate adaptation investment requirements are increasingly evident as we crossed the 1.5 degrees threshold. Still another ~5 years to achieve UN SDGs and ~25 years to get to 2050 climate targets. Elevated backlogs and bidding activity point to very material spending on climate solutions, and support earnings that are expected to grow significantly.

## KBI leads the way in measuring our revenue's impact on UN SDG progress



**80.2%** of the revenue of the **KBI Global Resource Solutions** strategy directly supports the United Nations SDGs

Each year, we carry out a detailed analysis of the revenues of all the companies in which invest, to calculate the proportion of revenues which are contributing to the achievement of the SDGs, which we call the Revenue Aligned SDG Score, or RASS. For further details on this please see our website <https://www.kbiglobalinvestors.com/impact-investing-and-the-un-sustainable-development-goals/>.

Source: KBI Global Investors. Calculations are based on KBIGI's own methodology and are not independently verified. Based on portfolio holdings as at 31<sup>st</sup> December 2023.

ESG Metrics	Global Resource Solutions Portfolio	MSCI ACWI	S&P Natural Resources
MSCI ESG Score <sup>1</sup>	7.6	6.8	7.1
<b>E</b> Carbon Intensity (Scope 1 & 2) <sup>2</sup>	228.2	118.4	314.8
	Carbon Intensity (Scope 3) <sup>2</sup>	822.3	2,735.3
<b>S</b> Workplace Accident Prevention Policy <sup>3</sup>	97.5	94.0	100.0
<b>G</b> Board Gender Diversity <sup>4</sup>	36.6	33.6	35.7



**MSCI**  
ESG RATINGS



CCC B BB BBB A **AA** AAA

**Topical Issue:**

Plastic Pollution: We signed the financial sector investor statement addressed to the Intergovernmental Negotiating Committee to develop an international legally binding instrument (ILBI) on plastic pollution.

PRI initiative: We joined 'Spring' as a collaborating investor. 'Spring' is a PRI stewardship initiative for Nature, convening investors to use their influence to halt and reverse global biodiversity loss by 2030.

Active Ownership	
RWE	We have been engaging with the company's Head of Sustainability and Head of Investor Relations. We have previously discussed a lack of short and medium-term emission target reductions. The company revised its targets in Nov 2023, to reduce its Scope 1&2 emissions by 70% by 2030 and Scope 3 emissions by 40% in 2030. It is seeking SBTi approval for a 1.5-degree scenario.
Kurita Water	Since 2021, we have asked the company to increase the number of external directors, increase the number of women on the board, and to increase its target of women in management. We also raised the issues with one of the Kurita Directors. The company announced plans to change its board composition in 2023, and in 2024, the majority of the board comprises of independent, external directors, the CEO/Chair roles are separated, board gender diversity has increased to 25% and a board member with international experience has been added to the board.
Willdan Group	In June 2022 we engaged with the company on its joint Chair/CEO position on the board. We asked the company to separate these roles as this reduces the effectiveness of the board. In 2024, the company appointed a new CEO and the Chair remained on the board.

Data as at 31<sup>st</sup> March 2024. Fund rating badge for KBI Global Resource Solution Strategy produced by MSCI ESG Research as of 31<sup>st</sup> March 2024. MSCI ESG Research LLC's ("MSCI ESG") Fund Metrics products (the "Information") provide environmental, social and governance data with respect to underlying securities within more than 23,000 multi-class Mutual Funds and ETFs globally. MSCI ESG is a Registered Investment Adviser under the Investment Advisers Act of 1940. MSCI ESG materials have not been submitted to, nor received approval from, the US SEC or any other regulatory body. None of the Information constitutes an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product or trading strategy, nor should it be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. None of the Information can be used to determine which securities to buy or sell or when to buy or sell them. The Information is provided "as is" and the user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. Source of all ESG Metrics: MSCI ESG Research. Footnote: 1. The weighted average ESG rating of the portfolio and index as determined by MSCI ESG ratings of investee companies; 2. The weighted average carbon intensity is a measure of the portfolio/investment universe's Scope 1 + Scope 2 greenhouse gas emissions normalised by sales in USD; Scope 3 number as at 31<sup>st</sup> December 2023. 3. The percentage of portfolio/index companies with a health & safety/workplace accident prevention policy. 4. The percentage of board members of companies in which the portfolio/index invests which are female; See description of MSCI ACWI index in disclaimer at end of presentation. Stocks mentioned in this document are a representative sample of stocks that may or may not be in the strategy. The securities listed are selected based on objective, consistently applied, non-performance-based criteria. Size or profitability of stocks mentioned have not been used in determining the selection of stocks and their inclusion should not be construed as a stock recommendation. A complete list of all securities recommended for the immediately preceding year is available upon request.

## 1. Massive capital spend on the most essential natural resources

### Energy

Energy transition underway to clean supply & more efficient usage

### Food

Address food security & evolving dietary needs

### Water

Provide clean water and sanitation & address dilapidated infrastructure

## 2. GRS invests in a broad, diverse collection of the beneficiaries: Solutions Providers

Increase supply & access

Decrease demand & waste

Improve & assure quality

Build & repair infrastructure

## 3. GRS leverages the expertise of the full research team to drive alpha

Large team with 100+ years of combined specialty expertise

Addresses climate change adaption, mitigation, resiliency

3-sleeve approach drives alpha decisions into under-held, smaller companies

Top down allocations based on valuation, conviction, risk/style management

## 4. Fits naturally in Natural Resources, Climate Impact & Global Equity allocations

Balanced & Diversified: Low tracking error vs. broader market despite very high active share

Mix of inflation protection & beneficiaries

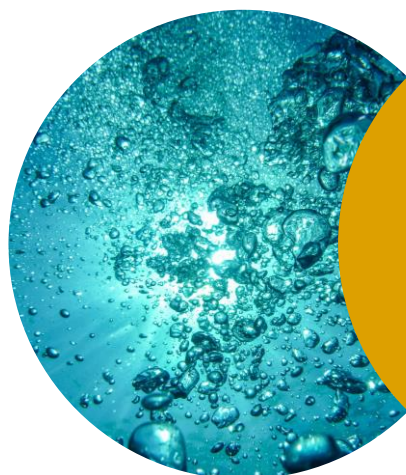
Robust competitive moats & policy support, unlike traditional commodity resources

Active management with lots of levers, with ESG integration & impact measurement



## Agribusiness

Soft commodity inflation is positive for agri-inputs such as fertiliser, seeds etc. and farmers' income. Non crop inflation such as steel for farm equipment is passed through to end consumer.



## Water

Utility price increases in line with inflation, increased spending on industrial waste water treatment, EM utilities linked to EM growth, pricing power of equipment makers.



## Energy Solutions

Rising energy costs further improves already strong economics and increases spending on renewables and energy efficiency measures, Utility price increases in line with inflation.



# Main Risks

- Market Risk **and** Change in Market Conditions
- Sector Risk
- Equity Risk
- Investment Risk
- Investment Objective Risk
- Reliance on the Investment Manager and Key Personnel
- Active Investment Management
- Emerging Markets Risk
- Market Disruptions
- Liquidity Risk

The risk information in this slide is intended to give an idea of the main and material risks associated with this strategy. Any of these risks could cause the strategy to lose money, to perform less well than similar investments, to experience high volatility, or to fail to meet its objective over any period of time.

By choosing an active investment manager, an investor places reliance on the firm and its strategies. Key person risk exists and a loss of one or more employees could result in poor performance and investors may lose money. There is no guarantee that a strategy will achieve its investment objective. The value of a portfolio can rise as well as fall. Diversification does not guarantee a profit or protect against a loss. Whilst it is the intention of the investment manager to implement strategies which are designed to minimise potential losses, there can be no assurance that this strategy will be successful. As a result, each investor should carefully consider whether it can afford to bear the risks of investing in the strategy prior to making an investment decision.



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Information about indices is provided to allow for comparison of the performance of the Adviser to that of certain well-known and widely recognized indices. There is no representation that such index is an appropriate benchmark for such comparison. You cannot invest directly in an index, which also does not take into account trading commissions and costs. The volatility of the indices may be materially different from that of the strategy. In addition, the strategy’s holdings may differ substantially from the securities that comprise the indices shown. All MSCI data is provided “as is”. In no event shall MSCI, its affiliates, or any MSCI data provider have any liability of any kind in connection with the MSCI data. No further distribution or dissemination of the MSCI data is permitted without MSCI’s prior express written consent. Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties. **MSCI World:** The MSCI World index covers more than 1,600 securities across large and mid-cap size segments and across style and sector segments in 23 developed markets. **MSCI ACWI:** The MSCI ACWI Index covers more than 2,400 securities across large and mid-cap size segments and across style and sector segments in 46 developed and emerging markets. **MSCI EM:** The MSCI Emerging Markets Index covers more than 800 securities across large and mid-cap segments and across style and sector segments in 23 emerging markets. **MSCI EAFE:** The MSCI EAFE Index covers more than 900 securities across large and mid-cap stocks and across style and sector segments in 21 developed markets. **MSCI EMU:** The MSCI EMU Index covers more than 200 securities across large and mid-cap stocks and across style and sector segments in the 10 developed market countries in the EMU. **MSCI North America:** The MSCI North America Index covers more than 700 securities across large and mid-cap stocks and across style and sector segments in the USA and Canada markets. **MSCI Europe:** The MSCI Europe Index covers more than 400 securities across large and mid-cap stocks and across style and sector segments in 15 developed markets in Europe. **MSCI World Small Cap:** The MSCI World Small Cap Index covers more than 4,000 securities across small-cap stocks and across style and sector segments in 23 developed markets. **MSCI World Value:** The MSCI World Value Index covers more than 800 securities across large and mid-cap stocks exhibiting overall value style characteristics in 23 developed markets. **MSCI EAFE Value:** The MSCI EAFE Value Index covers more than 500 securities across large and mid-cap stocks exhibiting overall value style characteristics in 21 developed markets around the world, excluding the US and Canada. **MSCI ACWI Value:** The MSCI ACWI Value Index covers more than 1,300 securities across large and mid-cap stocks exhibiting overall value style characteristics in 46 developed and emerging markets. **MSCI EM Value:** The MSCI Emerging Markets Value Index covers more than 500 securities across large and mid-cap stocks exhibiting overall value style characteristics in 23 emerging markets. **Russell 1000:** The Russell 1000 index represents the highest-ranking 1,000 stocks in the Russell 3000 index. **Russell 2000:** The Russell 2000 is a small-cap stock market index of the bottom 2,000 stocks in the Russell 3000 index. **MSCI EAFE Small Cap:** The MSCI EAFE Small Cap Index covers more than 2,200 securities across small-cap stocks and across style and sector segments in 21 developed markets. **S&P 500 Index:** The S&P 500 Index is a market-cap weighted index including 500 of the leading large-cap US equities. **MSCI EM Small Cap:** The MSCI EM Small Cap Index covers more than 1,800 securities across small-cap stocks and across style and sector segments in 23 emerging markets. **MSCI NA Small Cap:** The MSCI NA Small Cap Index covers more than 2,000 securities across small-cap stocks and across style and sector segments in the USA and Canada. **Dax Global Agribusiness:** The Dax Global Agribusiness Index represents the performance of global companies generating more than 50% of overall turnover from the agricultural economy. **S-Network Global Water Index:** The S-Network Global Water Index covers 60 global companies that derive 30% or more of annual revenues from participation in the water sector. **Wilderhill New Energy Global Innovation Index:** The Wilderhill New Energy Global Innovation Index is a global index of 98 companies listed on 29 exchanges in 23 countries whose technologies and services focus on the generation and use of cleaner energy, conservation, efficiency and the advancement of renewable energy in general. **S&P Global Natural Resources Index:** The index measures the performance of 90 of the largest companies in the natural resources and commodities businesses. This index is a composite of the three sub-indices listed below. The index is FMC weighted, subject to the single stock and country/market weight caps as detailed in Eligibility Criteria and Index Construction. **S&P Global Natural Resources – Agriculture Index.** The index measures the performance of 30 of the largest companies involved in agriculture and timber & forestry businesses around the world. **S&P Global Natural Resources – Energy Index.** The index measures the performance of 30 of the largest energy companies involved in oil, gas and coal exploration, extraction and production around the world. **S&P Global Natural Resources – Metals and Mining Index.** The index measures the performance of 30 of the largest mining companies involved in industrial and precious metals exploration, extraction and production around the world. **Lipper Global Natural Resources Index:** The Lipper Global Natural Resources Index is an index of 30 natural resource funds. **S&P Global Infrastructure Index:** The S&P Global Infrastructure Index is designed to track 75 companies from around the world chosen to represent the listed infrastructure industry while maintaining liquidity and tradability. To create diversified exposure, the index includes three distinct infrastructure clusters: energy, transportation, and utilities. **MSCI Japan:** The MSCI Japan Index is designed to measure the performance of the large and mid cap segments of the Japanese market. With 322 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.

**USA/CANADA Performance GIPS Disclaimer:**

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Performance returns for individual investors may differ due to the timing of investments, subsequent subscriptions/redemptions, share classes, fees and expenses. Performance for periods of more than 1 year is annualized. Investments denominated in foreign currencies are subject to changes in exchange rates that may have an adverse effect on the value, price and income of the product. Income generated from an investment may fluctuate in accordance with market conditions and taxation arrangement. PAST PERFORMANCE IS NOT A RELIABLE GUIDE TO FUTURE PERFORMANCE AND THE VALUE OF INVESTMENTS MAY GO DOWN AS WELL AS UP. Stocks mentioned in this document may or may not be held in this strategy at this time. Any projections, market outlooks or estimates in this document are forward-looking statements and are based upon certain assumptions. Other events which were not taken into account may occur and may significantly affect the returns or performance of the strategy. Any projections, outlooks or assumptions should not be construed to be indicative of the actual events which will occur. Discussions of market conditions, market high/low, objectives, strategies, styles, positions, and similar information set forth herein is specifically subject to change if market conditions change, or if KBIGI (North America) believes, in its discretion, that investors returns can better be achieved by such changes and/or modification. Style descriptions, market movements over time and similar items are meant to be illustrative, and may not represent all market information over the period discussed.

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**Natural Resource Strategies USA/Canada:**

**Global Energy Transition Representative Strategy Performance Disclaimer:** Returns up to 04/30/08 are based on a Belgian Fund which followed the Global Energy Transition Strategy and was managed by KBI Global Investors. Returns from 05/01/08 are based on the KBI Global Investors Global Energy Transition Strategy. **Water Representative Strategy Performance Disclaimer:** Returns up to 09/30/07 are based on a Belgian Fund which followed the same strategy as the KBI Global Investors Water Strategy and was managed by KBI Global Investors. Returns from 10/01/07 are actual returns from the KBI Global Investors Water Strategy. 'The S-Network Global Water Indexes<sup>SM</sup> are calculated, distributed and marketed by S-Network Global Indexes, LLC which have been licensed for use. All content of the S-Network Global Water Indexes<sup>SM</sup> © 2011 are the intellectual property of S-Network Global Indexes, LLC.' **AGRI Representative Strategy Performance Disclaimer:** Returns since inception are based on the KBI Global Investors Agri Representative Strategy. **GRS Representative Strategy Performance Disclaimer:** Water returns since inception are based on the KBI Global Investors Water Strategy. Agribusiness returns since inception are based on the KBI Global Investors Agri Strategy. Global Energy Transition returns since inception are based on the KBI Global Investors Global Energy Transition Strategy. **The Water strategy** gives investors the opportunity to invest in companies whose revenues are closely linked to the water industry. The strategy invests in circa 40 to 70 internationally diversified companies active across the water cycle - the range of activities needed to provide clean water to the end user (human, industrial, agricultural) and return it to nature. The firm invests across all parts of the cycle including: Water and Wastewater Treatment, Water Testing, Infrastructure, Filtration, Engineering/Consulting Services and Pumps/Valves. The strategy is managed by a dedicated, specialist team of investment professionals in Boston, USA and Dublin, Ireland. The strategy is ethically screened to exclude the diverse range of corporate activities which concern the ethical investor, from human rights to environmental exploitation and animal welfare. The benchmark is the MSCI AC World Index, inclusive of net income. The benchmark is designed to measure the equity market performance of developed and emerging market countries. The benchmark is market-cap weighted. Sources of foreign exchange rates may be different between the composite and the benchmark; but not materially so. **GESS Representative Strategy Performance Disclaimer:** Returns since inception are based on the KBIGI Global Environmental Solutions Strategy. Blended Environmental Index is made up of: Ardour Global Alternative Energy Index (25%), S-Network Global Water Index (25%), DAXglobal Agribusiness Index (25%), HSBC Climate Change Index (25%). 'The S-Network Global Water Indexes<sup>SM</sup> are calculated, distributed and marketed by S-Network Global Indexes, LLC which have been licensed for use. All content of the S-Network Global Water Indexes<sup>SM</sup> © 2011 are the intellectual property of S-Network Global Indexes, LLC.'



**Global Equity Strategies USA/Canada: KBIGI Global Equity Representative Strategy Global Performance Disclaimer:** Returns from 06/01/03 to 07/31/2004 are based on a Belgian Fund which followed the Global Equity Strategy and was managed by KBIGI. Returns from 08/01/2004 are actual returns from the KBIGI Global Equity Strategy. **KBIGI Developed Equity Representative Strategy Performance Disclaimer:** Returns from 06/01/03 to 07/31/2004 are based on a Belgian Fund which followed the KBI Global Investors Developed Equity Strategy and was managed by KBI Global Investors. Returns from 08/01/2004 are actual returns from the KBI Developed Equity Strategy. **KBIGI Emerging Markets Equity Representative Strategy Performance Disclaimer:** Returns since inception are actual returns from the KBI Global Investors Emerging Markets Equity Strategy. **KBIGI Emerging Markets ESG Equity Representative Strategy Performance Disclaimer:** Returns since inception are based on the KBI Global Investors Emerging Markets ESG Equity Strategy. **KBIGI Global ESG Equity Representative Strategy Performance Disclaimer:** Returns since inception are based on the KBIGI Global ESG Strategy. **KBIGI International Developed Equity Representative Strategy Performance Disclaimer:** Returns since inception are based on the KBI Global Investors Intl Developed Equity Strategy. **KBIGI International Equity Representative Strategy Performance Disclaimer:** Returns from 06/01/03 to 07/31/04 are based on the International Developed Equity component of a Global Belgian Fund which was managed by KBI Global Investors. Returns from 08/01/04 to 06/30/05 are based on the International Developed Equity component of the KBI Global Investors Global Equity Strategy. Returns from 07/01/05 to 07/31/10 are based on the KBI Global Investors Intl Developed Equity Strategy. Returns from 08/01/10 are based on the KBI Global Investors International Equity Strategy. **KBIGI North America Equity Representative Strategy:** Returns from 01/11/13 are actual returns from the KBIGI North America Strategy. Returns since inception to 31/10/13 are based on the KBIGI North America Developed Equity component of a segregated account (KBIGI Developed Equity Strategy) managed by KBIGI to an identical process applied to all KBIGI Global Equity Strategies. **KBIGI Global Developed Equity Strategy Performance:** Returns from 01/06/03 to 31/07/2004 are based on a Belgian Fund which followed the KBIGI Developed Equity Strategy and was managed by KBIGI. Returns from 08/01/2004 are actual returns from the KBIGI Developed Equity Strategy. **KBIGI ACWI** Please note that returns from 1st Aug 2011 to present are based on a simulated combination of two live KBIGI strategies - the KBIGI Emerging Markets Equity Strategy and the KBIGI Developed Equity Strategy. On a monthly basis each component (Emerging Markets & Developed) is weighted by using the market caps of the MSCI Emerging Markets Index and MSCI World Index. The weights are then multiplied by the actual strategy returns to calculate a total simulated ACWI return. Simulated past performance is hypothetical and is provided for informational purposes only to indicate historical performance had the ACWI strategy been available over the relevant time period. These figures are estimates only. Simulated past performance is not a reliable guide to future performance. The effect of transaction costs, interest and taxation have not been taken into account in this simulation as they vary from client to client. Source: KBIGI (or KBI Global Investors Ltd.) **KBIGI European Equity Representative Strategy Performance Disclaimer:** Returns from 01/06/15 are actual returns from the KBI Global Investors Pan European Equity Strategy. Returns from 31/07/04 to 31/05/15 are based on the Pan European equity component of the KBI Global Investors Developed Equity Strategy managed by KBI Global Investors to an identical process applied to all KBI Global Investors Global Equity Strategies. **KBI Global Investors Equity Strategy Performance:** Returns from 01/06/03 to 31/07/2004 are based on a Belgian Fund which followed the KBI Global Investors Developed Equity Strategy and was managed by KBI Global Investors. Returns from 08/01/2004 are actual returns from the KBI Global Investors Developed Equity Strategy. **KBIGI ACWI ex US Equity Representative Strategy Performance Disclaimer:** Returns from 08/01/10 are based on a simulated combination of two live KBIGI strategies - the KBIGI Emerging Markets Equity Strategy and the KBIGI International Developed Equity Strategy. On a monthly basis each component (Emerging Markets & EAFE) is weighted by using the market caps of the MSCI Emerging Markets Index and MSCI EAFE Index. The weights are then multiplied by the actual strategy returns to calculate a total simulated ACWI ex US return. Simulated performance is hypothetical and is provided for informational purposes only to indicate historical performance had the strategy been available over the relevant time period. It is not a reliable guide to future performance. **KBIGI Global Small Cap Equity Representative Strategy Performance Disclaimer:** Returns from 07/01/15 are based on the KBIGI Global Small Caps Strategy. **KBIGI EAFE Small Cap Equity Representative Strategy Performance Disclaimer:** Returns from 07/01/2015 are based on the KBIGI EAFE Small Cap equity component of the KBIGI Global Small Cap Strategy managed by KBIGI to an identical process applied to all KBIGI Global Equity Strategies. **Principles for Responsible Investing 2023 Assessment:** Signatories of the PRI are assessed against a range of Responsible Investing indicators within each module. KBI Global Investors was awarded the highest possible rating (which was A+ until 2020, and Five Stars since then) for all modules relevant to equity investors. KBIGI's Transparency Report, reporting the data on which the Assessment was made, is available from this link: <https://dataportal.unpri.org/dataportalv2/transparency>. The methodology of assessment is detailed at this link: [https://dwtyzx6upklss.cloudfront.net/Uploads/w/a/b/pri\\_assessment\\_methodology\\_december\\_2023\\_583425.pdf](https://dwtyzx6upklss.cloudfront.net/Uploads/w/a/b/pri_assessment_methodology_december_2023_583425.pdf) The full Assessment Report is available to clients on request. **European SRI Transparency logo:** The European SRI Transparency logo signifies that KBI Global Investors commits to provide accurate, adequate and timely information to enable stakeholders, in particular consumers, to understand the Sustainable Responsible Investment (SRI) policies and practices relating to the strategy. Detailed information about the European SRI Transparency Code can be found on [www.eurosif.org](http://www.eurosif.org), and information of the SRI policies and practices of the KBI Water Strategy can be found at [www.kbiglobalinvestors.com](http://www.kbiglobalinvestors.com). 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## Compliance Statement

KBI Global Investors Ltd. claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. KBI Global Investors Ltd. has been independently verified for the periods 1 January 2000 to 31 December 2023. 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 KBIGI Global Resource Solutions composite has had a performance examination for the periods 1 January 2020 to 31 December 2023. The verification and performance examination reports are available upon request.

## Definition of Firm

The firm is defined as the institutional business of KBI Global Investors Ltd., and its subsidiary, KBI Global Investors (North America). The term 'institutional business' shall have the meaning of all pensions, charity and corporate asset management strategies of the firm as they pertain to client funds. Unitised clients are specifically excluded from composite assignment given that their underlying unit holdings are already assigned to composites and such strategies are therefore accounted for in composite values and returns. The firm definition has been re-defined on two occasions over recent years; on 30 September 2010 to reflect the firm's sale to RHJI by our previous parent firm KBC Asset Management NV, and on 1 October 2016 to reflect the firm's sale to Amundi Asset Management. No change in investment process arose as a result of these sales.

## Composite Description

The Global Resource Solutions Strategy (GRS) is a long-only global equity strategy investing in securities across a broad range of companies providing value-added solutions to the increasingly challenging provision of vital natural resources. The opportunities are dominated by increasing investment in infrastructure and technological advancement across water, agribusiness and energy. The material risks associated with the composite include market risk and stock-specific event risk. Share prices can decline and there is a risk that the composite may under-perform its benchmark.

## Benchmark Description

The S&P Global Natural Resources index includes some of the largest publicly-traded companies in natural resources and commodities businesses that meet specific investability requirements. The benchmark offers a diversified and investable universe across three primary commodities-related sectors: agribusiness, energy, and metals & mining. The benchmark returns include the reinvestment of dividend income from these constituent companies represented in the index.

## Treatment of Large and Significant Cash Flows

The strategy represented by the composite has a significant weight in mid- and small-cap stocks. Effective for all periods beginning 1 January 2010, the firm set a 70% of start-of-day portfolio aum cash flow threshold for significant cash flows. Where the significant cash flow threshold was met or exceeded, the portfolio was removed from the composite for the month of the cash flow event. All portfolios within the composite are valued daily and therefore the requirement within the GIPS standards to revalue for large cash flows does not apply. A review of the significant cash flow policy in March 2019 recognized that the strategy is highly liquid and a decision was made to suspend the significant cash flow policy with an effective date of April 1st 2019.

## Fee Schedule

The standard fixed management fee for accounts within this strategy is 0.850% per annum. Fees are negotiable depending of asset size.

## Treatment of Fees

Returns are presented gross of management fees, custodial fees, and other administrative charges not under the control of the firm, but net of all trading expenses.

## Income Accruals

Both interest and dividend accruals are included when valuing portfolio assets for performance measurement purposes. Dividend accruals are captured at the date of performance return processing and are dependent on the accuracy and timeliness of third party data providers. Any differences or omissions will be captured in the month of dividend payment. Returns are calculated including income net of non-recoverable withholding taxes while including recoverable tax as received. Benchmark returns are calculated on a net income basis.

**Policies** The firm's policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.

**List of Composites** A list of all composite descriptions and a list of descriptions of limited distribution pooled funds, and broad distribution pooled funds, is available upon request.

## Internal Dispersion

Internal dispersion is calculated using the equal-weighted standard deviation of annual gross-of-fees returns of those portfolios that were included in the composite for the entire year. For those years when less than six portfolios were included in the composite for the full year, no dispersion measure is presented.

## CFA Institute Trademark Statement

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Composite	Benchmark	Report Date	Inception Date	Currency
Global Resource Solutions (GRS)	S&P Gbl Nat Resources	31 Mar 2024	01 Mar 2015	USD

Year	Composite (Gross) %	Benchmark %	Internal Disp %	No of Accounts	Composite Assets(USD M)	Firm Assets (USD M)	% of Firm Assets
2024 (YTD)	-0.4	2.0	0.2	8	1294	17012	7.6
2023	11.3	3.4	1.6	7	1199	17637	6.8
2022	-7.3	9.6	0.2	7	955	15869	6.0
2021	26.2	24.4	n/a	<6	491	15918	3.1
2020	32.2	-0.1	n/a	<6	378	13149	2.9
2019	27.2	16.4	n/a	<6	281	13323	2.1
2018	-13.3	-13.1	n/a	<6	69	11102	0.6
2017	26.6	22.0	n/a	<6	80	11984	0.7
2016	6.3	31.5	n/a	<6	64	9424	0.7
2015*	-13.9	-27.5	n/a	<6	42	8244	0.5

\* The 2015 composite and benchmark return is from the inception date of the composite to the end of the year.

Period Returns to : 31 March 2024		
Period	Gross Return	Benchmark Return
One Year	3.2	5.0
Three Years pa	5.7	8.8
Five Years pa	14.2	8.3
Nine Years pa	9.3	6.8
From Inception pa	9.0	6.0

Three Year Ex-Post Standard Deviation		
Three Year Ending:	Gross Return	Benchmark Return
31 Mar 2024	20.7	20.3
31 Dec 2023	20.3	20.1
31 Dec 2022	23.6	25.8
31 Dec 2021	20.1	23.6
31 Dec 2020	21.4	23.9
31 Dec 2019	12.8	14.9
31 Dec 2018	11.2	15.3

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## Memorandum

**To:** MCERA Board of Trustees  
**From:** Jim Callahan, CFA  
Anne Heaphy  
**Date:** June 18, 2024  
**Subject:** Western Asset Management Company Personnel Update

Western Asset Management Company (WAMCO) recently announced that John Bellows, portfolio manager and member of WAMCO's U.S. Broad Market Strategy Committee and Global Investment Strategy Committee, has departed the firm. His departure was surprising and abrupt. Bellows was a key member of the team, and his insights into the Fed were appreciated by many within and outside the firm. No replacement has been announced.

The unexpected departure of Bellows warrants heightened monitoring, particularly regarding WAMCO's succession planning. Ken Leech, as WAMCO's Chief Investment Officer, is the senior voice at the firm on Fed policy and macroeconomic strategies; however, Bellows was seen as a strong complement and eventual successor to Leech as the firm's Fed watcher. WAMCO's investment process uses top down macro and credit investment outlooks to shape the overall themes for their US Broad Market investment strategies (which includes the Core Plus strategy in which MCERA is invested). This is an important part of their investment process.

WAMCO is now potentially very thin in the next generation of leadership on the macro side. We will closely monitor any developments in the coming months to ensure WAMCO takes appropriate steps in shoring up their bench and replacing Bellows' role as Fed watcher.



Callan

June 18, 2024



**Real Assets Allocation  
Structure Review**

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**Jim Callahan, CFA**  
President

## MCERA Real Assets Structure

MCERA has a 15% target allocation to Real Assets:

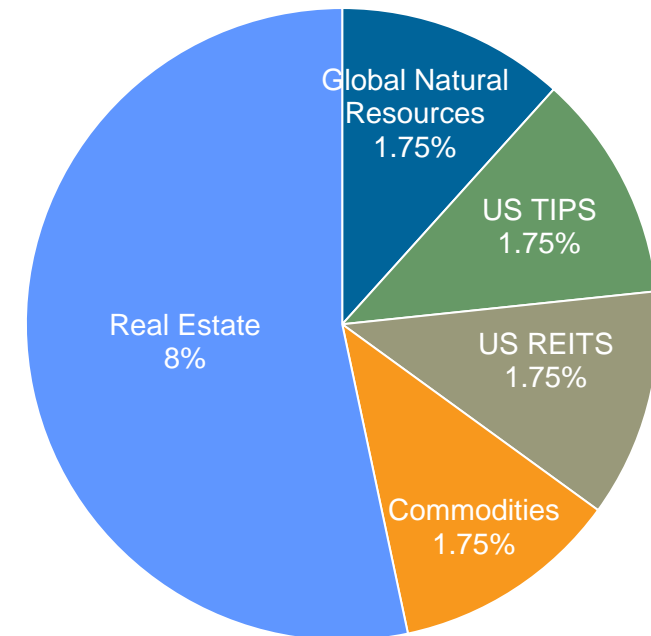
- 7% Public Real Assets
- 8% Private Core Real Estate

### History

- In 2015, The Board elected to diversify its 15% target to real assets, which was exclusively in private real estate
- Liquidity and diversification benefits of public real assets was appealing
- Current public real assets targets were adopted in 2015

### Considerations & Objectives

- Is the Board still committed to 8% real estate and 7% public real assets targets?
- If the 7% public real assets target is retained, is the current structure still appropriate?
- Discuss the merits and considerations of various real asset implementation structures



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## Executive Summary

The case for a diversified real asset (DRA) allocation in the MCERA portfolio

- Provide diversification – relative to equities, fixed income, and CPI
- Inflation hedging is a secondary objective
- Allocation to TIPS and commodities typically defines risk posture for a DRA fund;
- The case for a commodities allocation inside is challenged; alternative designs can meet the goals of a DRA option, but require other real asset building blocks with attendant potential increase in complication and cost

MCERA implementation of public diversified real assets

- Complement to private real estate
- Current MCERA implementation includes traditional and simple structure comprised of 25% exposure to each of commodities, US REITs, TIPS and natural resource equity
- Combined active/passive implementation results in management fee of 41bps
- Strong performance to benchmark as well as Callan real asset peer group

Alternative DRA structures worth considering

- Should Commodities be reduced or eliminated given volatility and challenging returns?
- If reduced or eliminated, re-assign commodity assets to existing asset categories, and/or consider adding other components such as global infrastructure and/or Floating Rate Bonds
- A lower allocation to commodities and additional equity diversification has generally outperformed but with higher volatility and reduced beta to CPI

Callan

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## Why Real Assets

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## Why Inflation Matters

### Impact of High Inflation on Traditional Asset Classes

Inflation is the rate of increases in price for goods and services over a period of time.

How does high inflation impact fixed income and equity?

#### Fixed Income

- Erodes the present value of future interest and principal payments
- Historical record – periods of high or rising inflation exhibited poor (negative) real return performance
- Inflation-linked bonds are the exception, although expectations for inflation are priced in by market participants
- Longer term – higher expected inflation eventually leads to higher coupons (return)

#### Equity

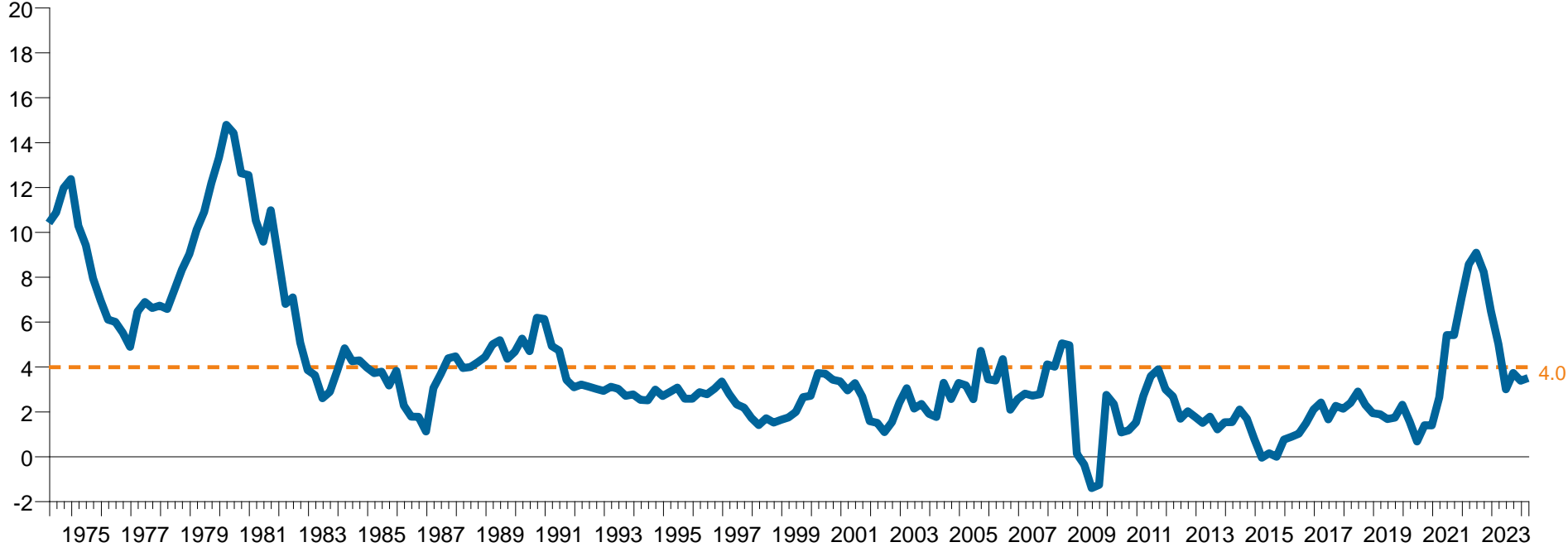
- Erodes the present value of future profits and capital appreciation
- Higher interest rates constrain credit and restrict economic growth, thereby lower the growth in profit and appreciation
- Historical record – periods of high or rising inflation exhibited poor (negative) real return performance
- Longer term – ownership is a claim on the underlying real economy; equity is expected to provide long-term inflation protection (a positive real return)

Time horizon matters when evaluating the impact of rising inflation on a portfolio.

# Inflation

## CPI-U (past 50 years)

Inflation (CPI-U) for 50 Years Ended March 31, 2024



Inflation has averaged 4% over the past 50 years – heavily skewed by 1970s.



## Real Assets Defined

What are they and how are they accessed?

**Definition:** Real assets are a material or tangible investment in which value is derived from the asset's existence or use.

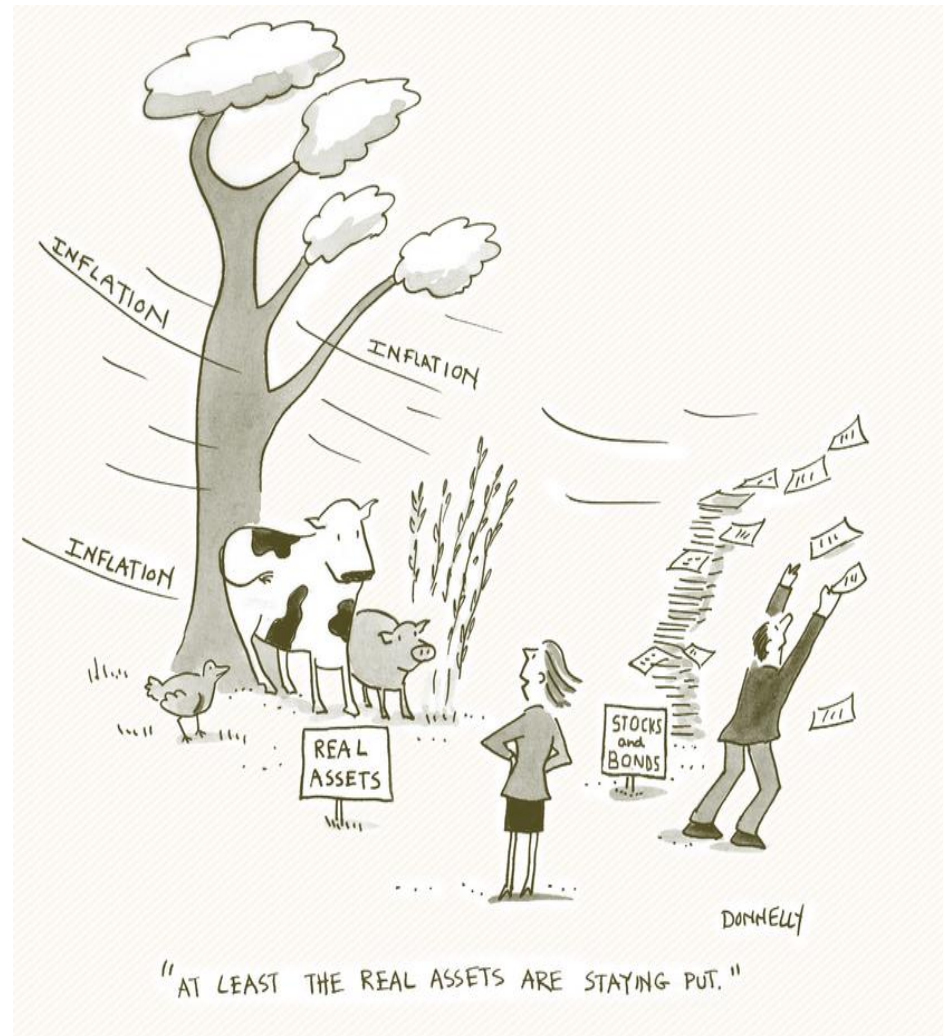
- ▶ Generally include real estate, timberland, farmland, and infrastructure
- ▶ May also include other types of physical assets such as commodities or precious metals
- ▶ Exist in both the private and public market spheres
- ▶ Investment can be through both equity and debt
- ▶ Many similarities to private equity and private credit in terms of implementation considerations



## Why Invest in Real Assets?

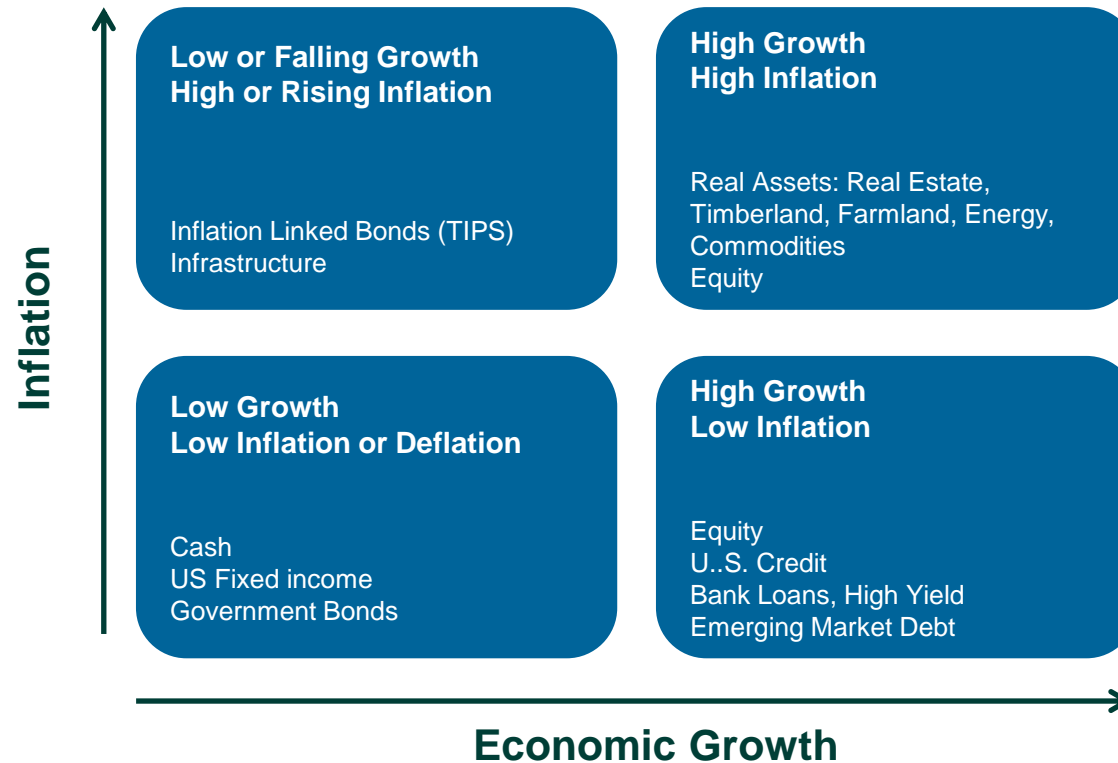
They offer several benefits, with some considerations

- ▶ Inflation protection
  - Ability to adjust lease and contract rates on a periodic basis in response to market dynamics
- ▶ Diversification
  - Historically has exhibited low correlation with other traditional asset classes
- ▶ Return profile
  - More stable, predictable cash flows from lease structures and contracted revenue
  - Can also be used for return enhancement and can exhibit absolute return characteristics
- ▶ Asset class considerations
  - Cyclical asset class
  - Illiquid structures
  - Monthly or quarterly pricing
  - Higher fees than other traditional asset classes
  - Lack of investable indices; benchmarking issues



## Asset Class Performance Varies with the Economy

There Is Not One Silver Bullet for Hedging Inflation



Given uncertainty, investors are seeking a diversified solution to preserve capital through various economic conditions and inflationary environments.

Callan

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**Common Components of a Diversified Public  
Real Assets Portfolio**

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## Common Components of a Diversified Public Real Assets Portfolio

### A Diversified Approach Is Beneficial

No single asset class has proven to be a perfect inflation hedge over various market conditions.

To provide protection over various inflation scenarios, it is recommended to invest in multiple inflation-sensitive asset classes.

#### **Shorter term inflation sensitivity:**

- Treasury Inflation-Protected Securities (TIPS)
- Commodities
- Floating Rate Bonds

#### **Positive long term real returns - Equity with inflation sensitive underlying assets are:**

- REITs
- Natural Resources Equity
- Global Listed Infrastructure

## Treasury Inflation-Protected Securities (TIPS)

TIPS are a treasury security that is indexed to inflation in order to protect investors from the negative effects of inflation. Their par value rises with inflation as measured by CPI, while their interest rate remains fixed. They are considered low risk since they are backed by the US Government.

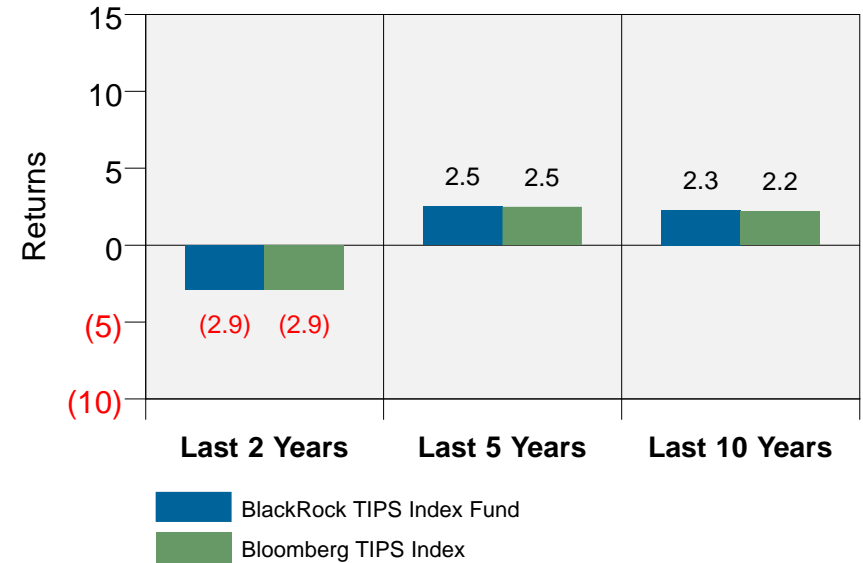
### Features:

- Considered the risk-free real return available in the marketplace
- Respond positively to unexpected inflation
- Lower duration and standard deviation than a nominal Treasury with the same maturity

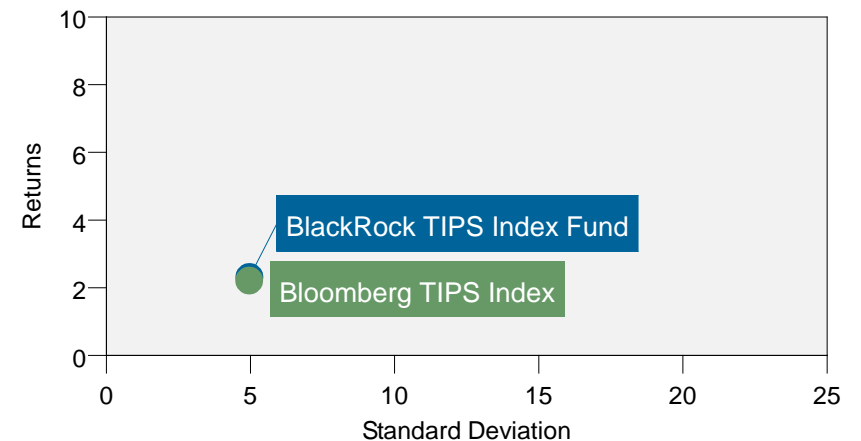
### MCERA

- Invests in a passively managed strategy: BlackRock TIPS Index Fund
- The fund tracks the Bloomberg US TIPS Index
- Fees: 3 bps

### Net of Fee Returns as of March 31, 2024



### Risk/Reward Chart for 10 Years Ended March 31, 2024





## Real Estate Investment Trusts (REITs)

REITs are publicly traded real estate securities that provide liquidity not found in private real estate. Invest in sectors such as: apartments, industrials, health care, self-storage, hotels, data centers, and telecom towers. Returns stem from dividend income and capital appreciation.

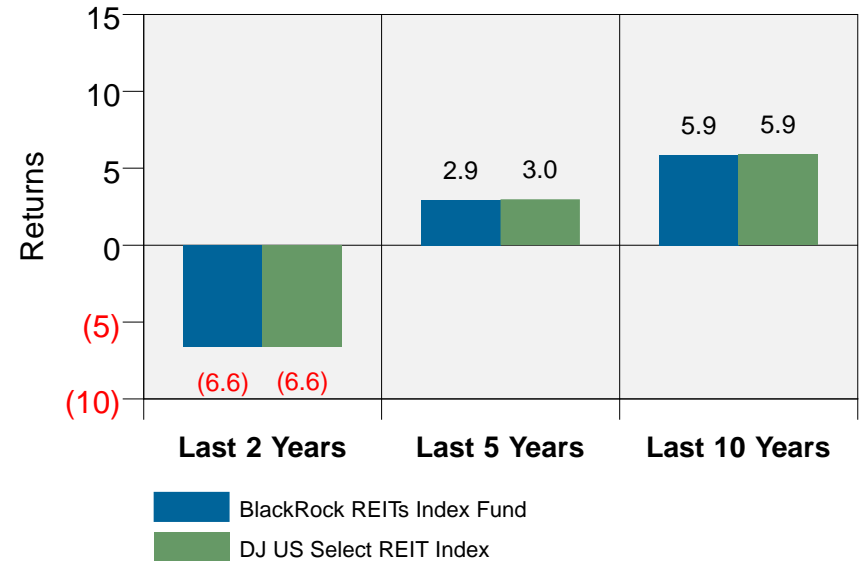
### Features:

- Inflation-sensitivity is derived from the characteristics of the underlying private real estate assets
- Generally perform well in periods of high growth and inflation as rents and values tend to increase
- Dividend growth typically outpaces inflation
- Sensitive to interest rates and management
- Highly correlated to small and mid cap equities; highly volatile

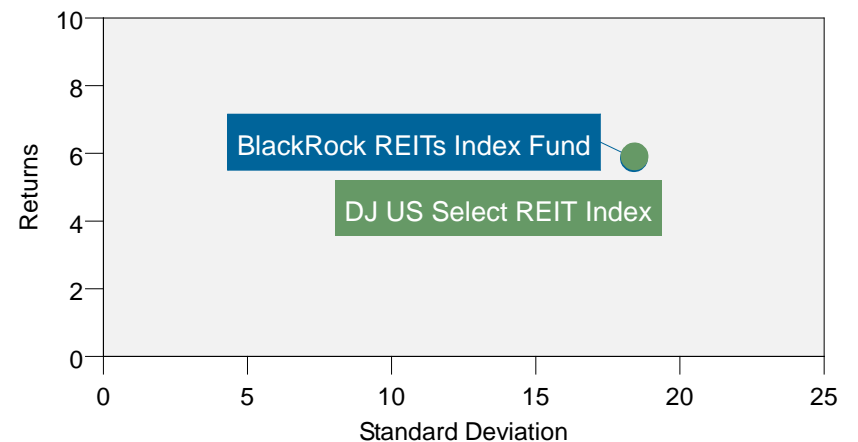
### MCERA

- Invests in a passively managed strategy: BlackRock REITs Index Fund
- The fund tracks the Dow Jones US Select REIT Index
- Fees: 6 bps

### Net of Fee Returns as of March 31, 2024



### Risk/Reward Chart for 10 Years Ended March 31, 2024



## Commodities

The commodities market trades nearly 100 different commodities. These are basic goods and raw materials such as: crude oil, natural gas, copper, silver, aluminum, coffee, sugar, and livestock. Institutional investors typically invest in commodity futures contracts because of the difficulties of owning and storing physical commodities.

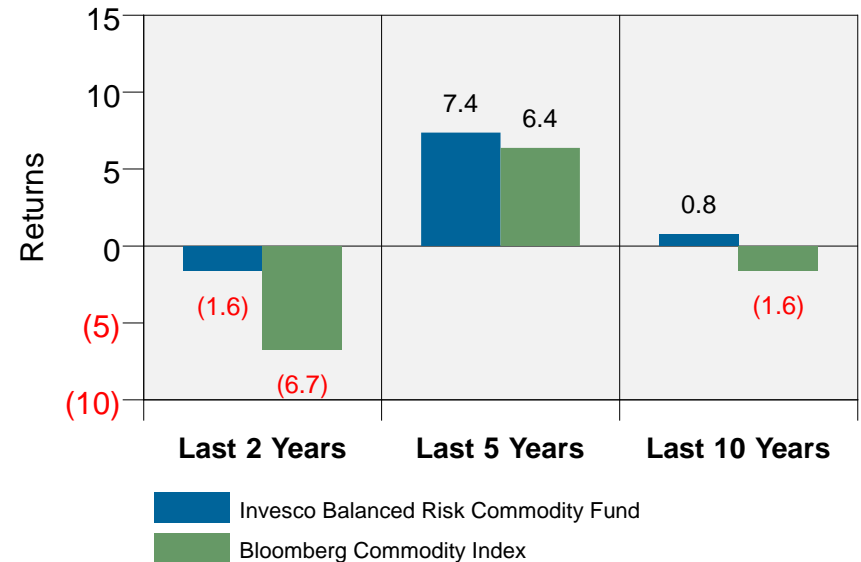
### Features:

- Typically do well in high growth and high inflation environments as commodity cost is expected to increase with inflation
- Prices are generally linked to demand and supply factors
- Generally have lower or negative correlations to stocks and bonds making them a good diversifier
- It is a highly volatile asset class

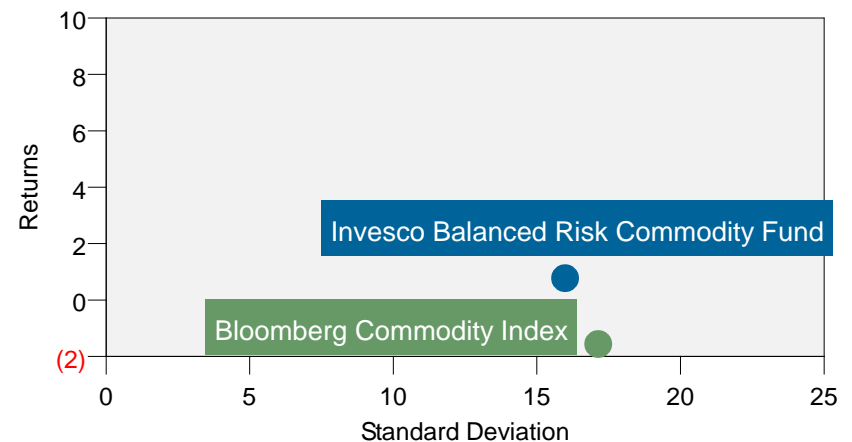
### MCERA

- Invests in an actively managed commodities strategy: Invesco Balanced Risk Commodities
- Approximately 50% of the risk in the benchmark comes from energy related commodities. Invesco seeks to correct this concentration by gaining risk balanced exposures to the different commodity complexes which include energy, agriculture, precious metals, and industrial metals.
- Fees: 70 bps

### Net of Fee Returns as of March 31, 2024



### Risk/Reward Chart for 10 Years Ended March 31, 2024



## Natural Resource Equities

Natural resource equities are the equity securities of commodity producers, generating returns from two sources: dividend income and capital appreciation. Industries can include: energy producers, metals, mining, agriculture, forestry, and renewables.

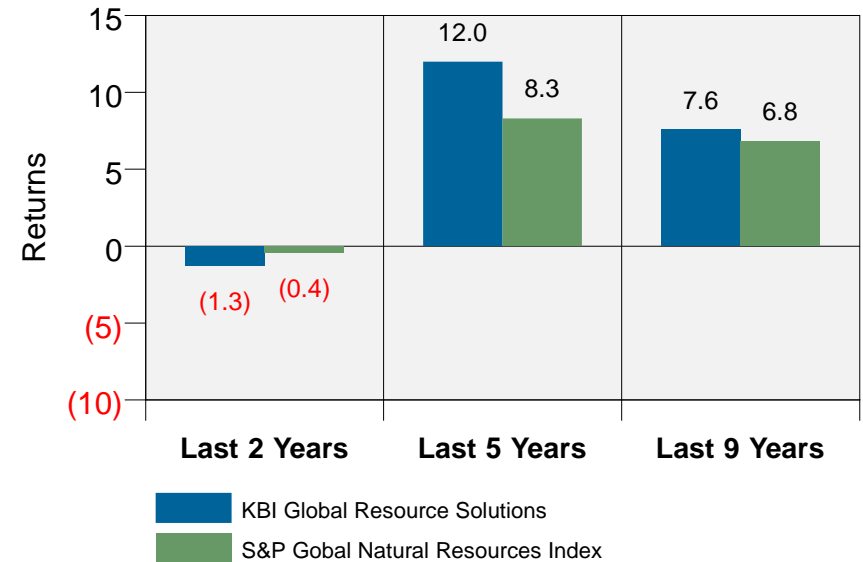
### Features:

- Offer broader exposure to natural resources where commodities futures are not available
- Generally positive correlation with inflation while having equity-like risk/reward characteristics
- More correlated with equity markets, at times, than direct commodity exposure

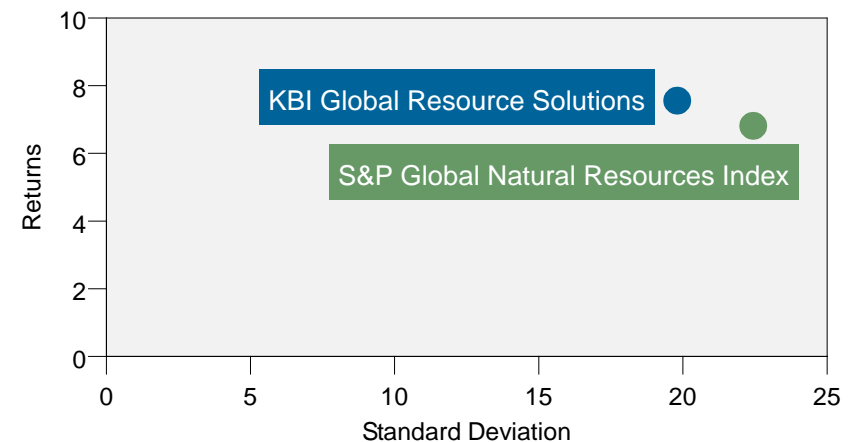
### MCERA

- Invests in an actively managed strategy: KBI Global Resource Solutions Fund
- The strategy takes a unique approach to natural resource equities by integrating an ESG philosophy and investing in companies providing sustainable solutions to resource scarcity across water, food, and clean energy. The index is comprised of more traditional natural resources companies within oil and gas, metals and mining, and agriculture.
- Fees: 85 bps

### Net of Fee Returns as of March 31, 2024



### Risk/Reward Chart for 9 Years Ended March 31, 2024



## Global Listed Infrastructure

Global listed infrastructure investments consist of publicly traded stocks of companies engaged in infrastructure-related activities. These activities are focused on economic infrastructure rather than social infrastructure such as airports, toll roads, ports, railways, cell towers, and utilities. There is an emphasis on appreciation.

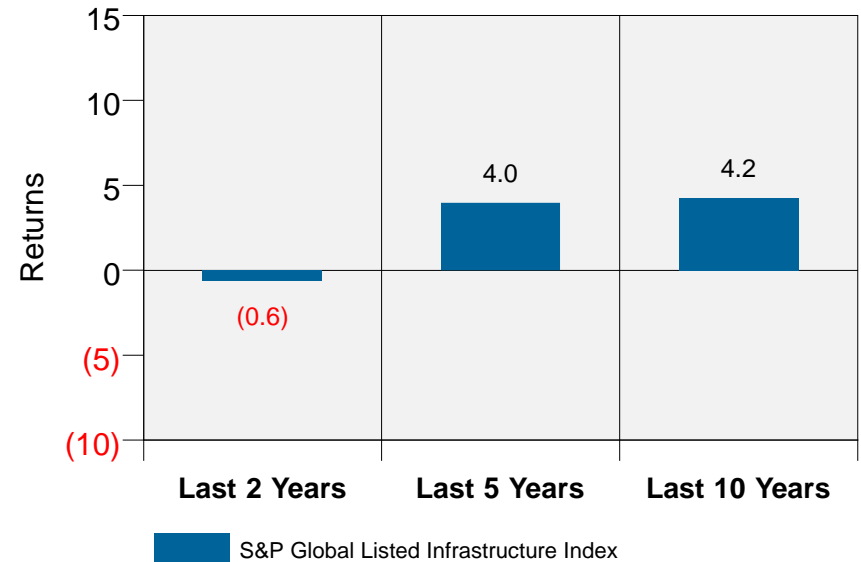
### Features:

- Generally monopolistic and regulated business structures with high barriers to entry
- Regulated or contracted pricing that often adjusts with inflation
- Shares the volatility of equity markets although can be more defensive in nature

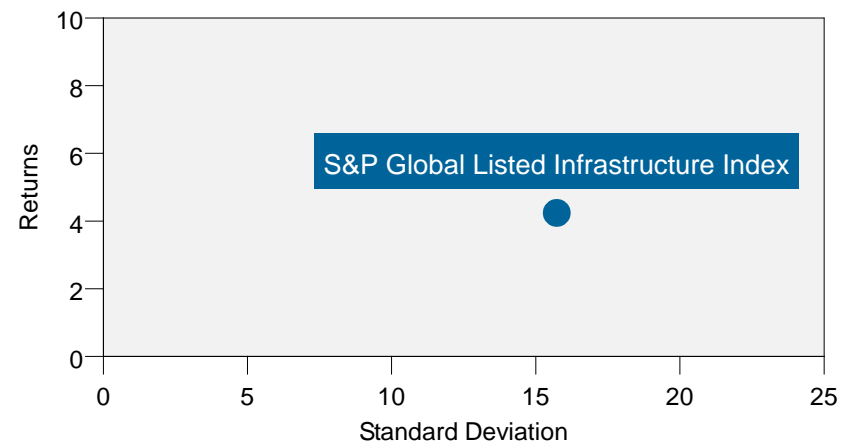
### MCERA

- Does not currently have a direct investment in global listed infrastructure
- Could invest passively or actively, but Callan prefers active
  - Opportunity set is idiosyncratic enough to benefit active management; passive products are limited primarily to ETFs with high fees (~30 to 70 bps)
- Active fees can vary widely, but a reasonable estimate is about 75 bps

### Returns as of March 31, 2024



### Risk/Reward Chart for 10 Years Ended March 31, 2024



## Why Global Listed Infrastructure?

### Characteristics

“The basic facilities, services, and installations needed for the functioning of a community or society, such as transportation and communications systems, water and power lines, and public institutions including schools, hospitals and post offices” (Dictionary.com)

- Provides essential economic or social services
- Monopolistic or near-monopolistic in nature
- High barriers to entry
- Low demand elasticity
- Long-life assets
- Stable cash flow
- Illiquidity
- High leverage

	Economic Infrastructure			Social Infrastructure
<b>Transportation</b>	<b>Utilities</b>	<b>Communications</b>		
Bridges	Gas pipelines	Cable systems		Educational facilities
Toll Roads	Electricity works	Wireless towers		Hospitals
Tunnels	Power generation	Broadcast towers		Correctional facilities
Airports	Water and sewage	Satellites		Public transportation
Seaports	Renewable energy			
Rail				

## Floating Rate Bonds

Floating rate bonds portfolios are typically comprised of leveraged loans (a.k.a. bank loans), which are senior secured debt securities issued by corporations rated below-investment grade paying a floating rate coupon. Return is generated through income and credit risk.

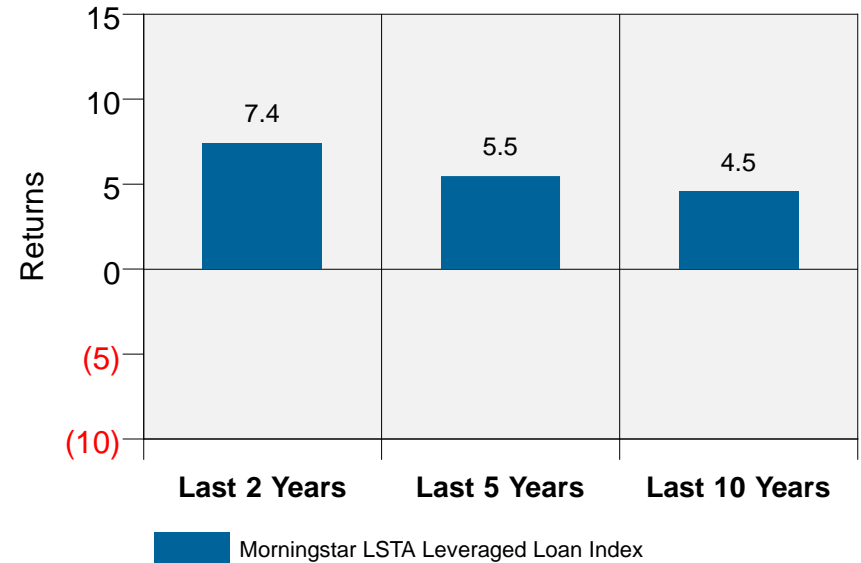
### Features:

- Floating rate structure mitigates interest rate risk when rates rise, which typically occurs with inflation
- Senior position in the capital structure and security of collateral may cushion against credit risk
- May provide incremental yield relative to publicly traded corporate bonds
- High volatility and correlation to stocks relative to traditional bonds and default risks could lead to underperformance in unfavorable environments (such as recessions)

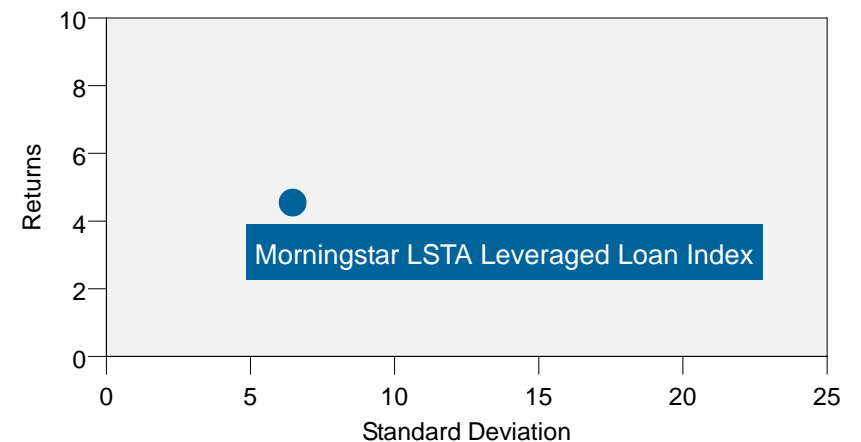
### MCERA

- Does not currently have a direct investment in floating rate bonds
- Could invest passively or actively, but Callan prefers active
  - Opportunity set is idiosyncratic enough to benefit active management; passive products are limited primarily to ETFs with variable fees (~20 to 95 bps)
- A reasonable fee estimate for an active strategy is about 60 bps

Returns as of March 31, 2024



Risk/Reward Chart for 10 Years Ended March 31, 2024



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## Why Floating Rate Bonds?

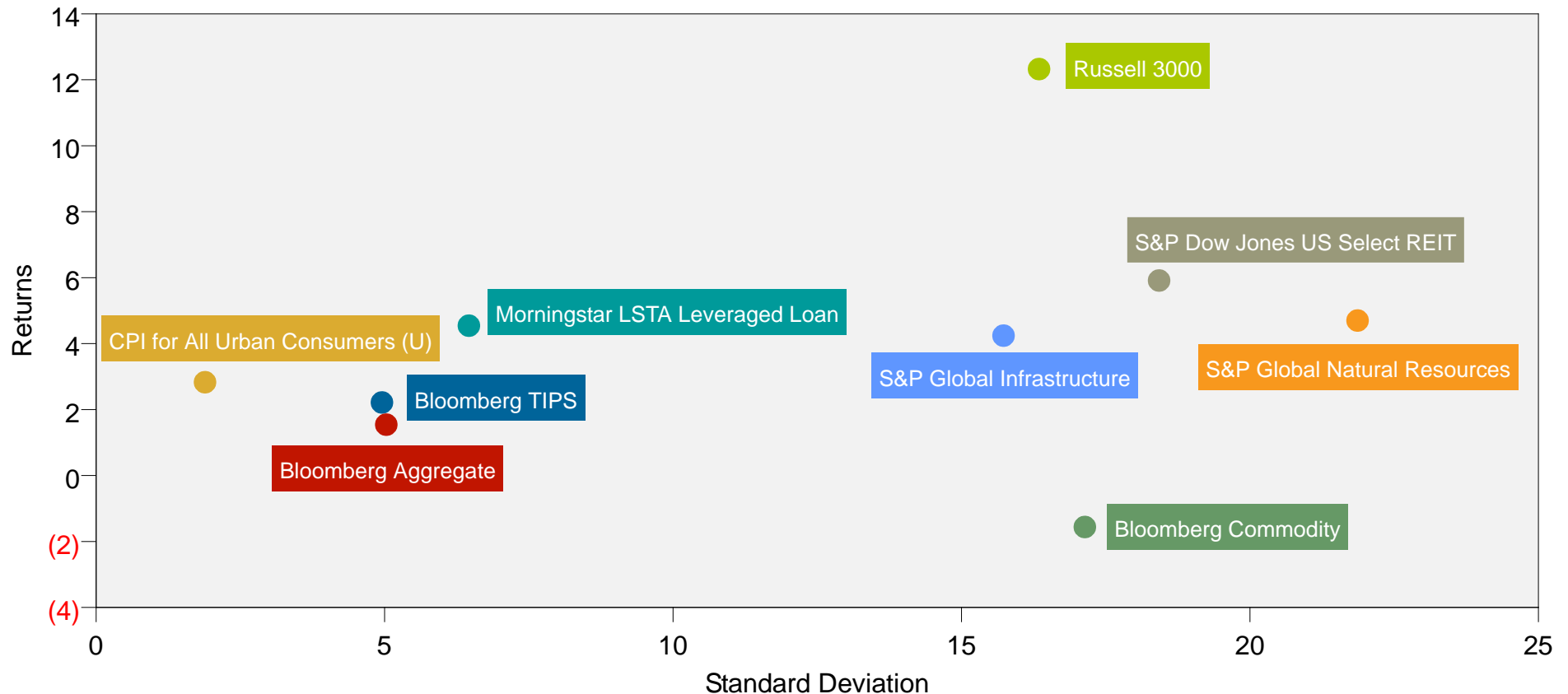
### Characteristics

- Added diversification to a public real asset structure
- Higher expected yield/return relative to traditional fixed income
- Floating rate structure mitigates duration risk
- Historically higher correlation to inflation than the aggregate bond index
- Exposure to credit risk, but through senior secured notes
- Lowers the expected volatility of a diversified real assets program through higher use of bond securities relative to equity securities



## Risk/Return of Real Assets

Risk/Reward Chart for 10 Years Ended March 31, 2024

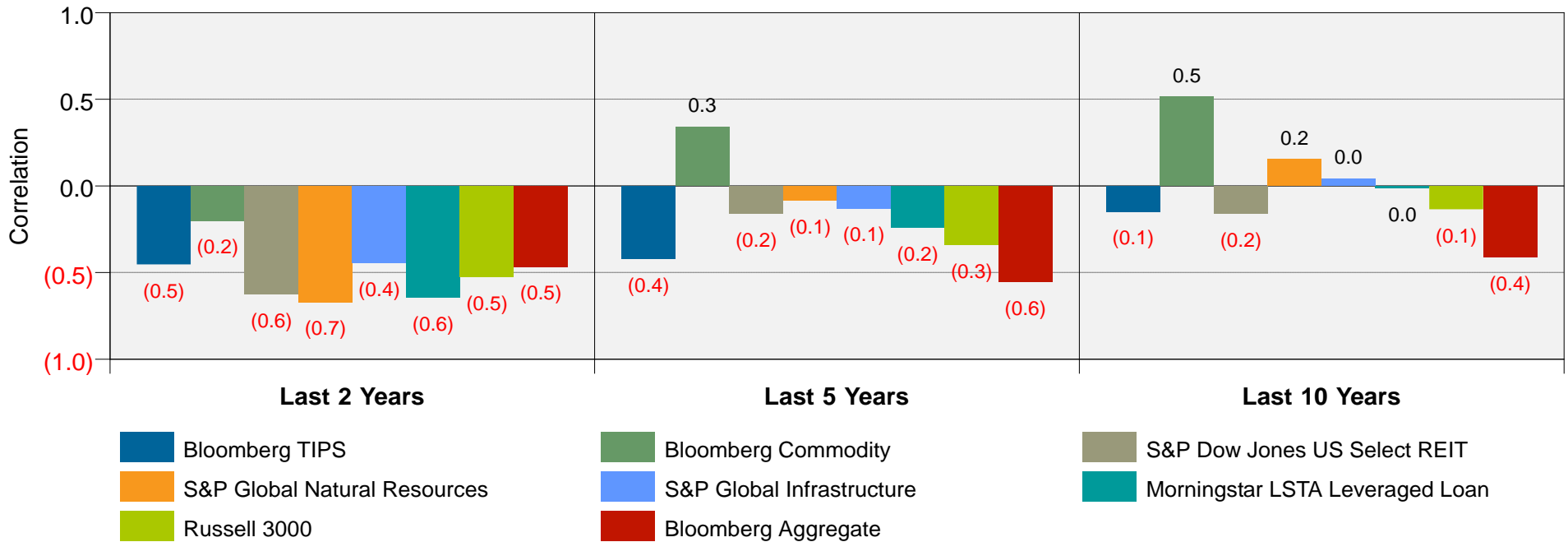


Historically, many of the underlying asset classes in real assets have substantially higher volatility in returns than TIPS.

While constructing a real assets portfolio balancing the inflation hedging characteristics with the volatility of the real asset sectors is key to maximizing return per unit of risk.

# Correlation of Real Assets to Inflation (CPI-U)

Correlation relative to CPI All Urban Consumers as of March 31, 2024

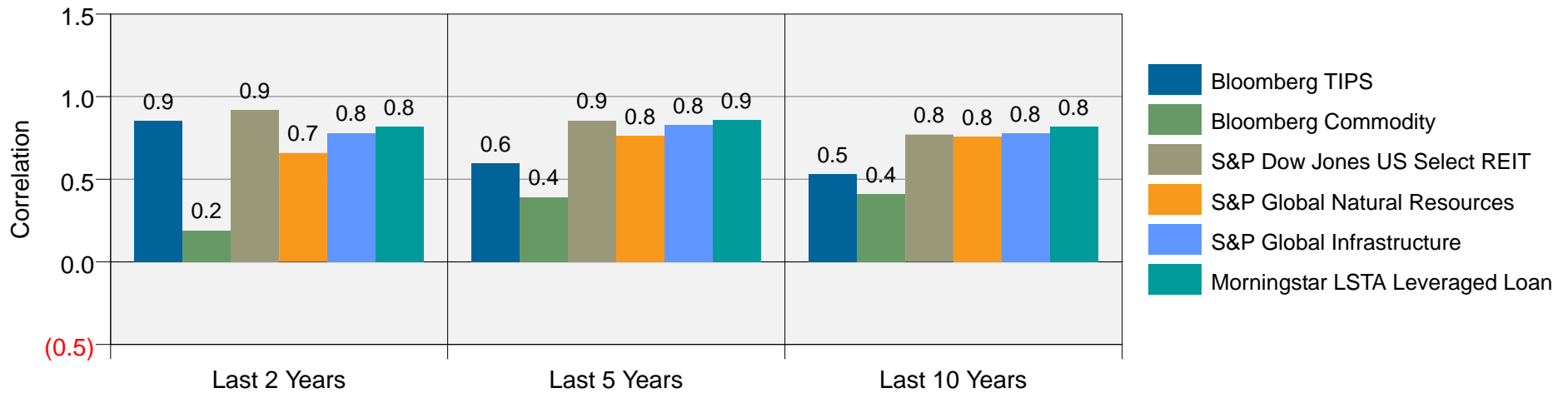


Over longer periods, commodities and global natural resource equities offer positive correlations to inflation, indicating a potential hedge against inflation.

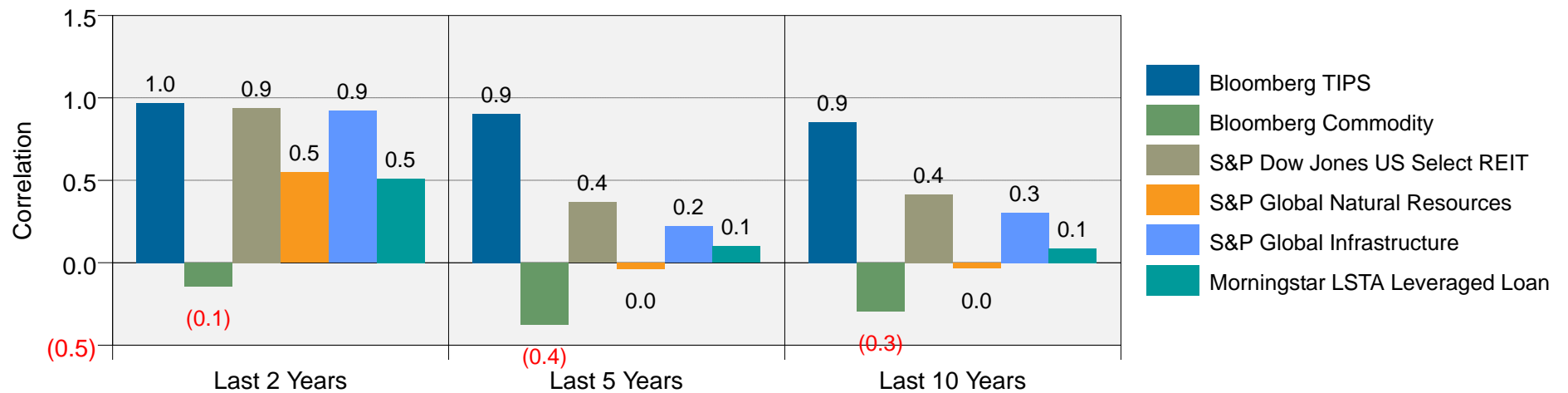
Commodities and natural resource equities (the equity securities of commodity producers) have a higher correlation to the inflation index, as costs are expected to increase with inflation.

# Correlation of Real Assets to Traditional Asset Classes

Correlation relative to Russell 3000 Index as of March 31, 2024

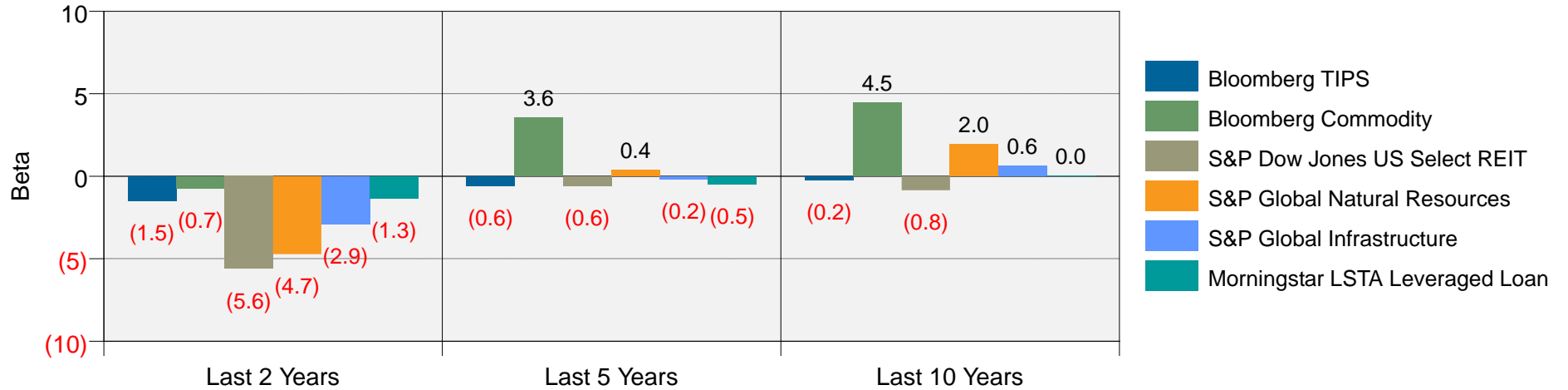


Correlation relative to Bloomberg Aggregate Index as of March 31, 2024

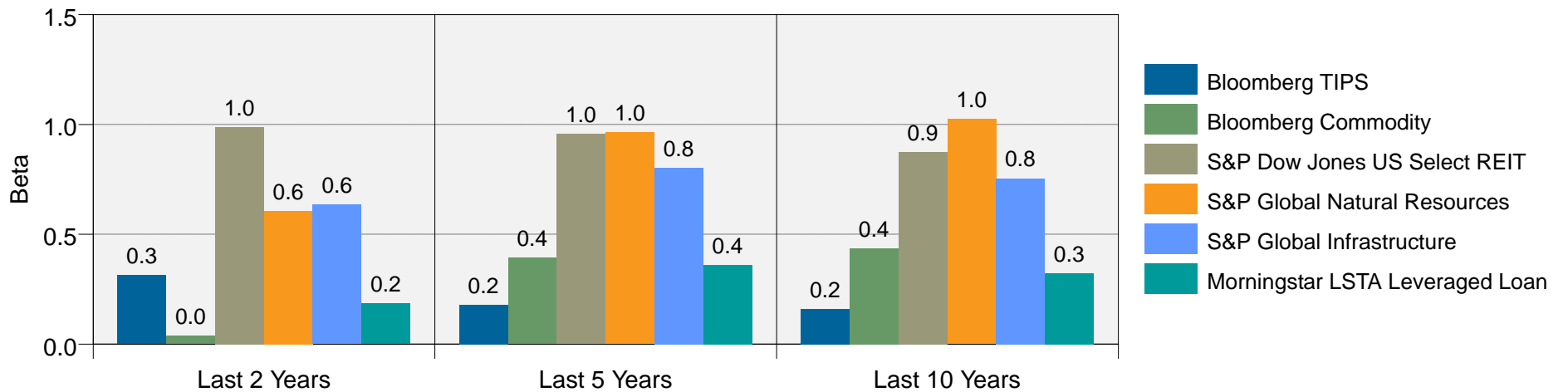


# Beta of Real Assets to Inflation and Equities

Beta relative to CPI-U as of March 31, 2024



Beta relative to Russell 3000 Index as of March 31, 2024

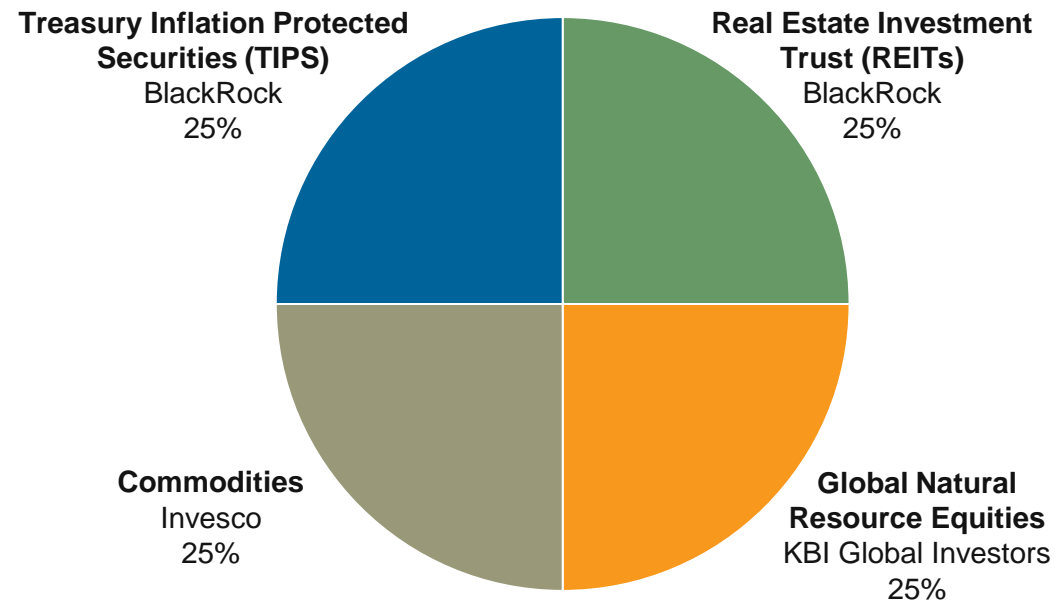


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## Current Structure

## MCERA Public Real Assets Structure

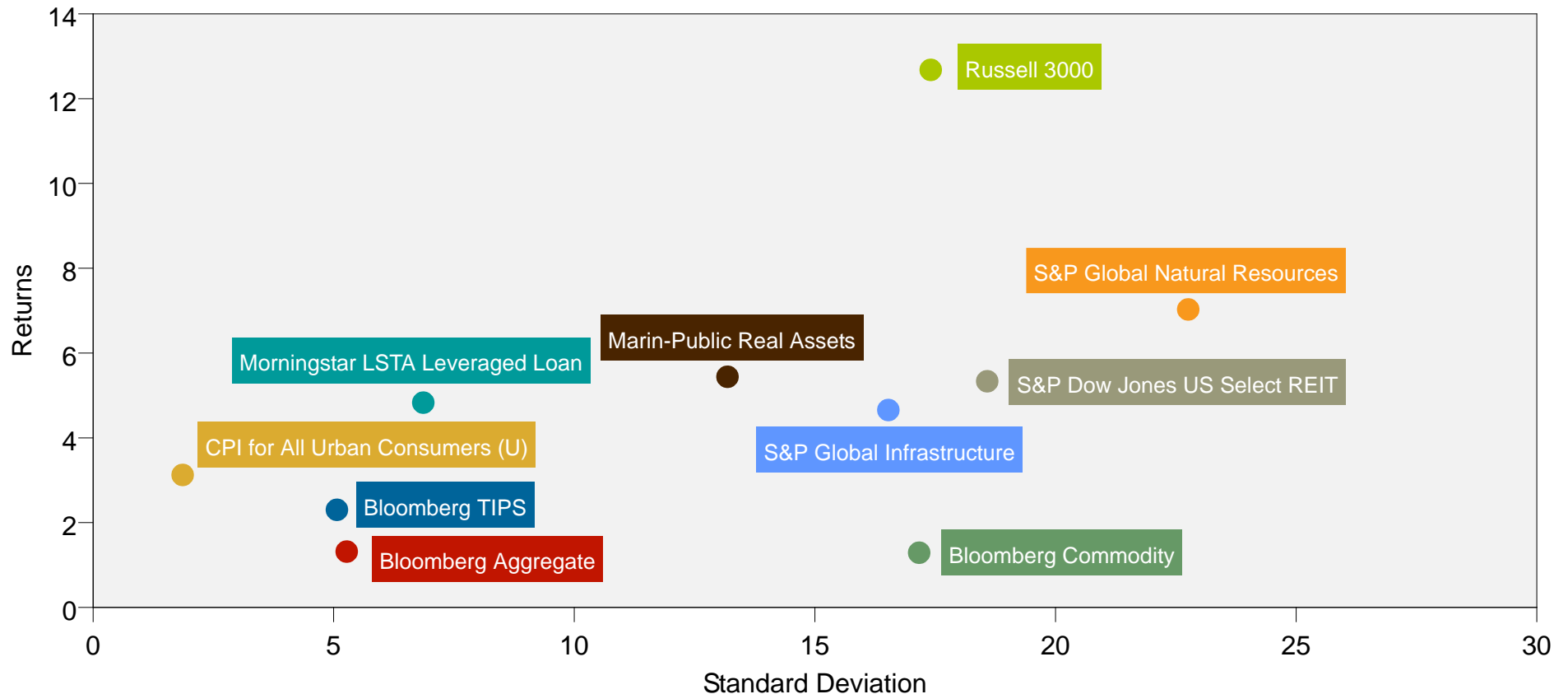


MCERA has a 15% allocation to Real Assets of which 7% is allocated to Public Real Assets. The remaining 8% is allocated to Private Real Assets (Core Real Estate).

The TIPS and REITs portfolios are passively managed. The Commodities and Global Natural Resource equity portfolios are actively managed.

## Risk/Return of Real Assets

Risk/Reward Chart for 8 3/4 Years Ended March 31, 2024



Historically, many of the underlying asset classes in real assets have substantially higher volatility in returns than TIPS.

While constructing a real assets portfolio balancing the inflation hedging characteristics with the volatility of the real asset sectors is key to maximizing return per unit of risk.

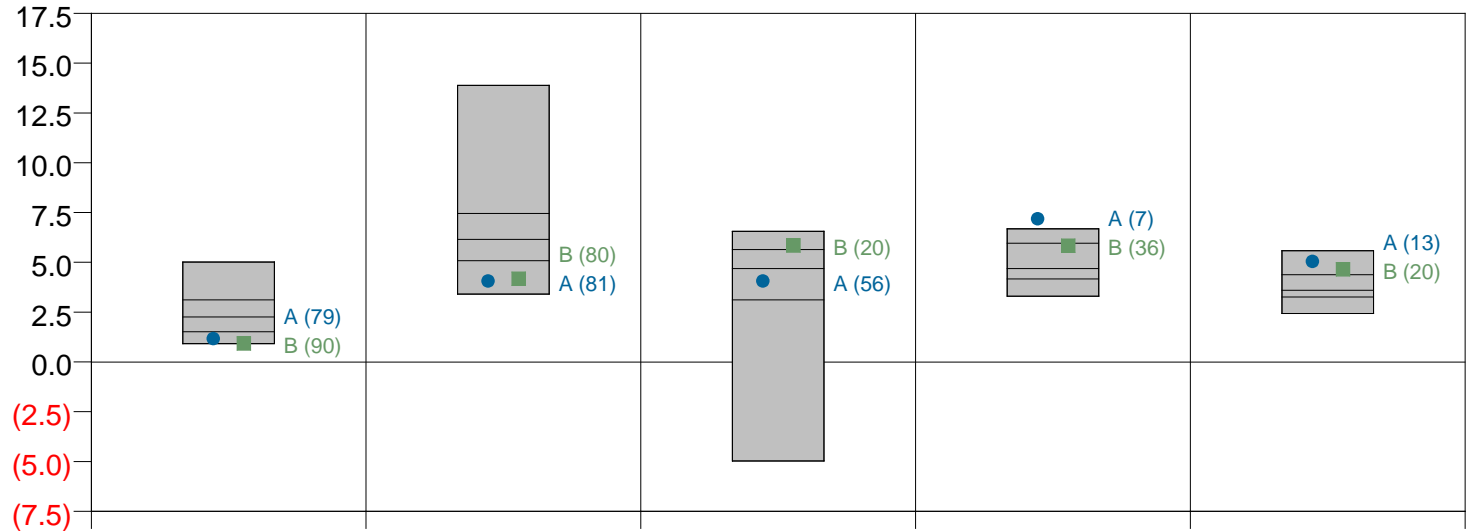


# MCERA Public Real Assets Structure

## Performance

Net of Fee Returns for Periods Ended March 31, 2024

Group: Callan Real Assets Mutual Funds



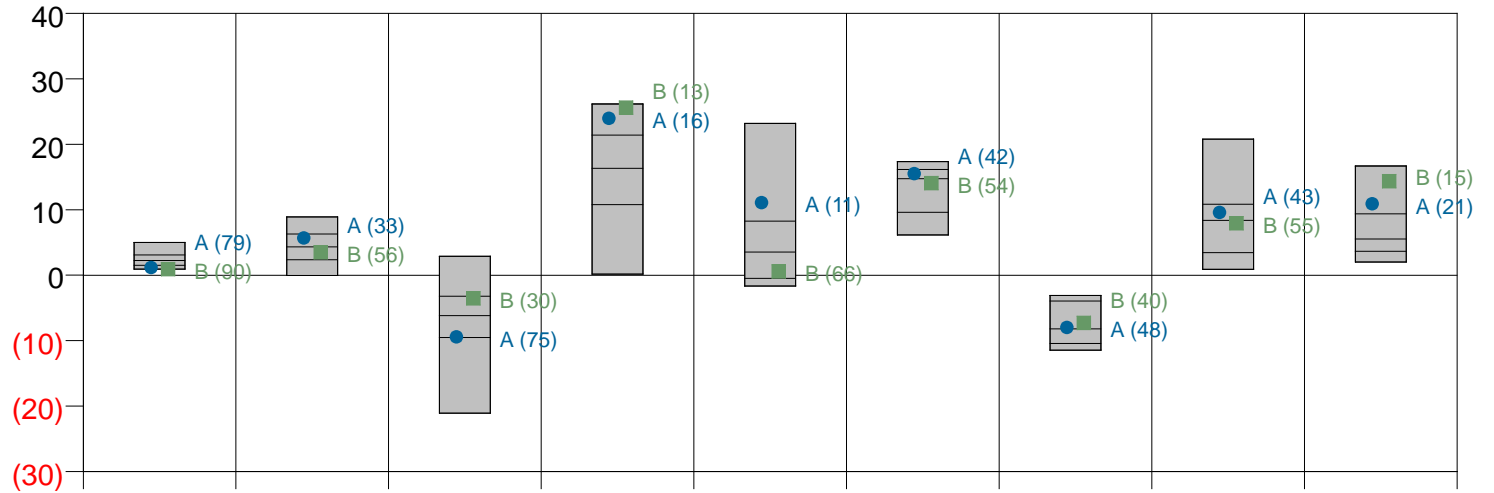
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 8 3/4 Years
10th Percentile	5.02	13.89	6.56	6.68	5.59
25th Percentile	3.12	7.46	5.65	5.96	4.38
Median	2.27	6.16	4.69	4.70	3.60
75th Percentile	1.52	5.08	3.12	4.17	3.27
90th Percentile	0.93	3.41	(4.97)	3.30	2.43
Marin-Public Real Assets ● A	1.17	4.06	4.06	7.19	5.05
Marin-Public Real Assets Target ■ B	0.93	4.18	5.85	5.84	4.65

# MCERA Public Real Assets Structure

## Performance

Net of Fee Returns for Periods Ended March 31, 2024

Group: Callan Real Assets Mutual Funds



	1 Qtr. 2024	2023	2022	2021	2020	2019	2018	2017	2016	
10th Percentile	5.02	8.91	2.90	26.16	23.20	17.37	(3.08)	20.79	16.68	
25th Percentile	3.12	6.31	(3.21)	21.41	8.26	16.16	(3.93)	10.86	9.37	
Median	2.27	4.33	(6.17)	16.34	3.54	14.76	(8.20)	8.40	5.54	
75th Percentile	1.52	2.37	(9.49)	10.80	(0.48)	9.62	(10.41)	3.46	3.66	
90th Percentile	0.93	(0.03)	(21.05)	0.18	(1.64)	6.17	(11.44)	0.91	2.04	
Marin-Public Real Assets	● A	1.17	5.69	(9.41)	23.96	11.08	15.51	(7.97)	9.59	10.90
Marin-Public Real Assets Target	■ B	0.93	3.52	(3.52)	25.60	0.57	14.08	(7.27)	7.95	14.37

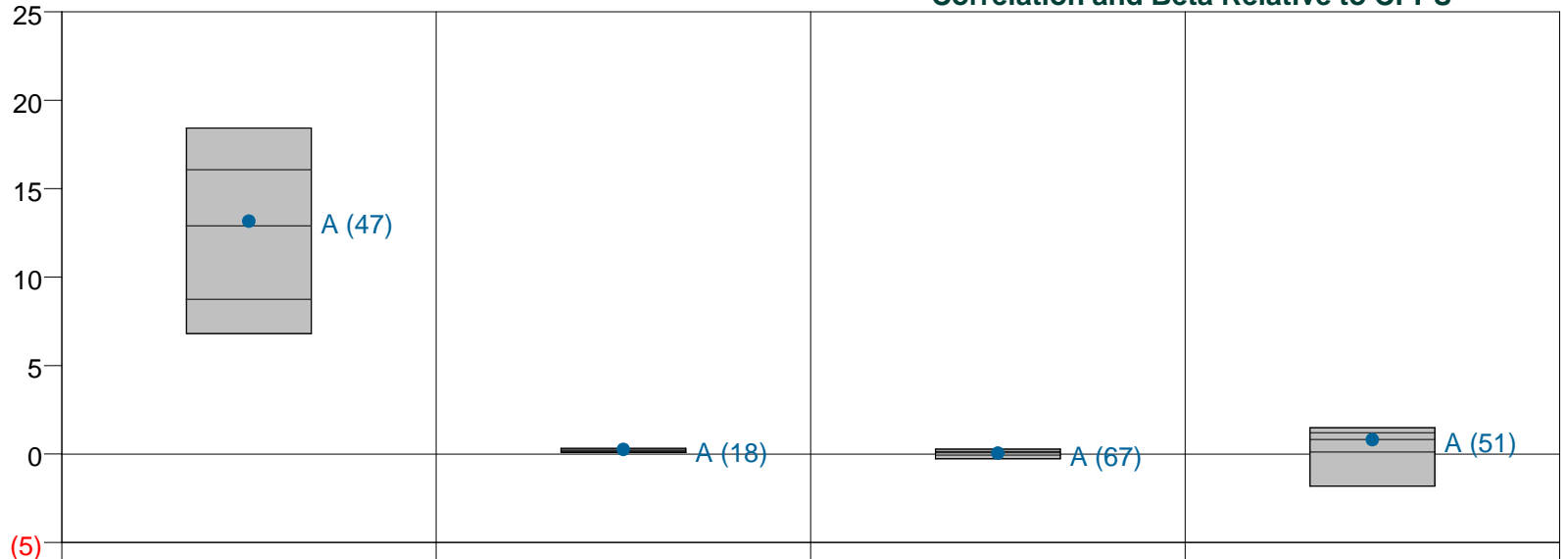
# MCERA Public Real Assets Structure

## Various Statistics

Statistics for 8 3/4 Years Ended March 31, 2024

Group: Callan Real Assets Mutual Funds

Correlation and Beta Relative to CPI-U



	Standard Deviation	Sharpe Ratio	Correlation	Beta
10th Percentile	18.43	0.32	0.28	1.50
25th Percentile	16.07	0.23	0.15	1.21
Median	12.91	0.17	0.08	0.83
75th Percentile	8.75	0.13	(0.06)	0.12
90th Percentile	6.81	0.08	(0.26)	(1.81)
Marin-Public Real Assets ● A	13.17	0.26	0.05	0.82

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## **Alternative Structures**

## Alternative Portfolio Structures to Consider

The objective of MCERA's public real assets allocation is diversification to the total fund, inflation protection, and to be a complement to the private real assets allocation.

Portfolio construction is critical to delivering on these three objectives:

- Infrastructure and natural resources equity provide inflation sensitivity, but equity market correlation is high
- Diversification will largely come from inclusion of TIPS and Commodities
- The beta of the portfolio to inflation is a critical factor; highest historical beta comes from commodities, natural resources and infrastructure

Below are some potential alternative portfolio structures to consider as a starting point:

	Current Mix	Mix 1	Mix 2	Mix 3	Mix 4
Fees	0.41%	0.31%	0.42%	0.39%	0.46%
<b>Sector Weights:</b>					
TIPS	25%	33%	25%	25%	20%
REITs	25%	33%	25%	25%	20%
Global Natural Resources Equities	25%	33%	25%	25%	20%
Commodities	25%	-	-	-	-
Global Listed Infrastructure	-	-	25%	-	20%
Leveraged Loans	-	-	-	25%	20%

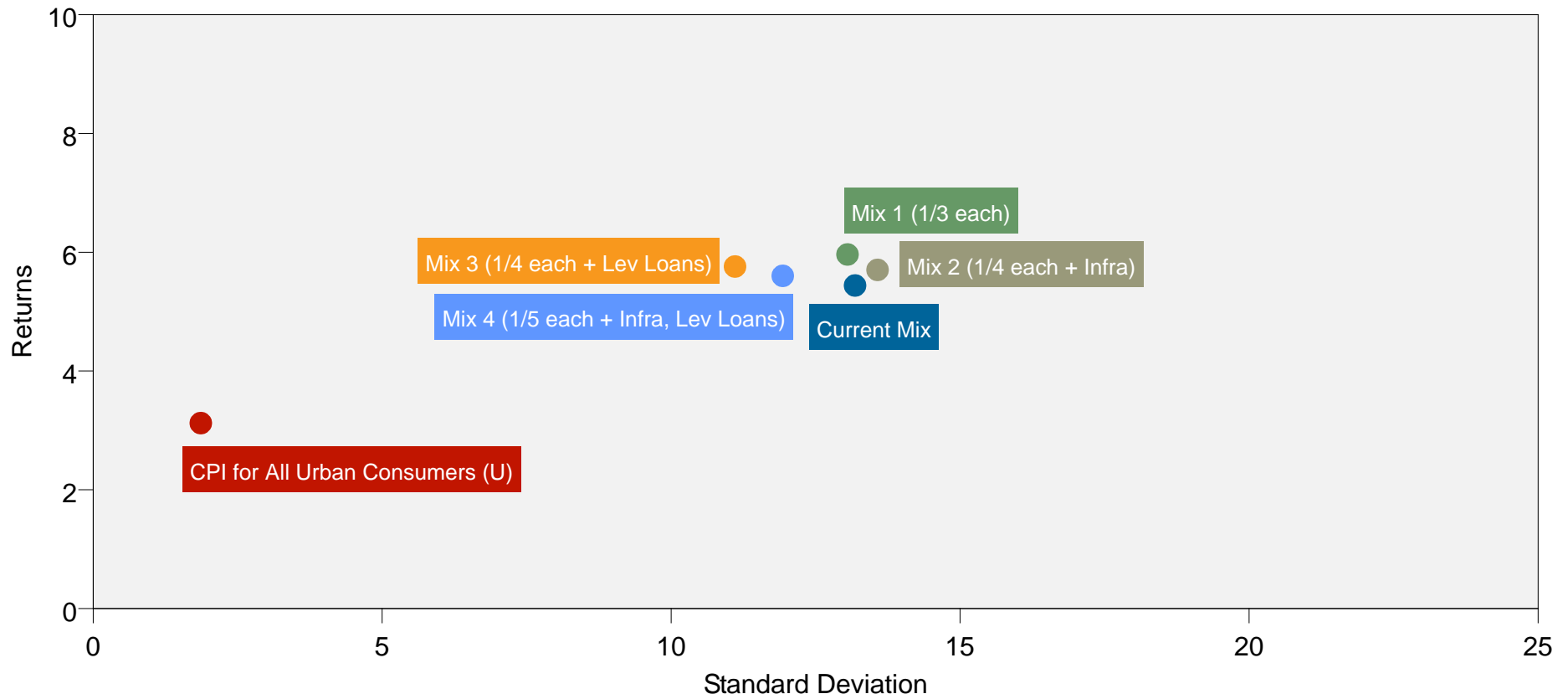
- Mix 1 – removes commodities and reallocates evenly to the 3 remaining sectors
- Mix 2 – removes commodities, adds global listed infrastructure in its place
- Mix 3 – removes commodities, adds leveraged loans in its place
- Mix 4 – removes commodities, adds infrastructure and leveraged loans (equal weight to all categories)

Fees for Global Listed Infrastructure (75 bps) and Leveraged Loans (60 bps) represent estimated average fees for actively managed strategies.

# Alternative Portfolio Structures

## Risk/Reward

Risk/Reward Chart for 8 3/4 Years Ended March 31, 2024



Performance for Infrastructure represented by the S&P Global Listed Infrastructure Index, and performance for Leveraged Loans represented by the Morningstar LSTA Leveraged Loan Index. Mixes are rebalanced quarterly.

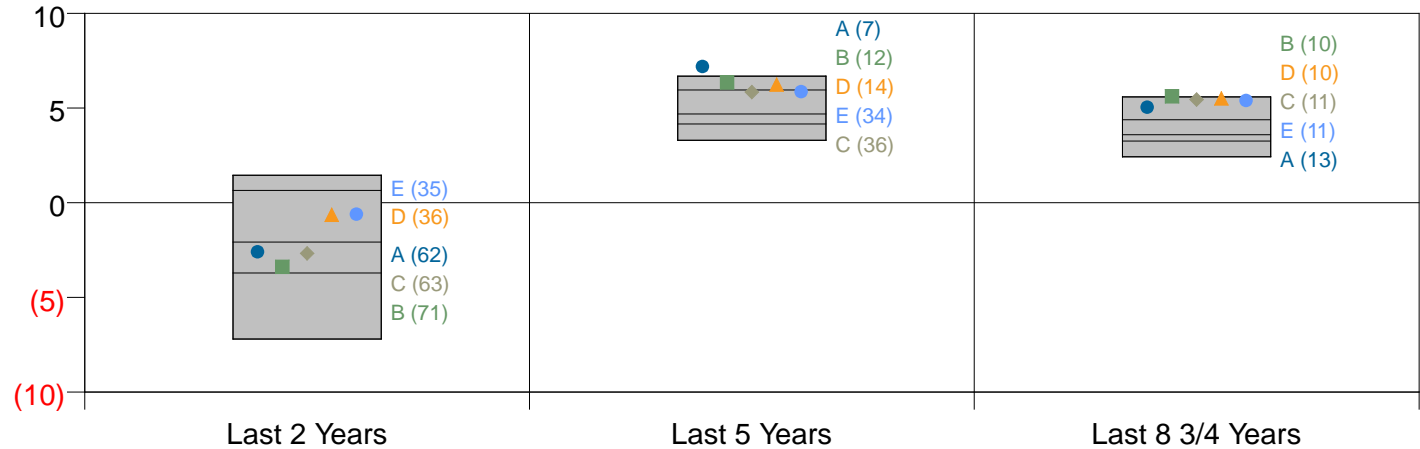


# Alternative Portfolio Structures

## Performance

Net of Fee Returns for Periods Ended March 31, 2024

Group: Callan Real Assets Mutual Funds



	Last 2 Years	Last 5 Years	Last 8 3/4 Years
10th Percentile	1.46	6.68	5.59
25th Percentile	0.66	5.96	4.38
Median	(2.08)	4.70	3.60
75th Percentile	(3.70)	4.17	3.27
90th Percentile	(7.19)	3.30	2.43
Current Mix ● A	(2.59)	7.19	5.05
Mix 1 (1/3 each) ■ B	(3.38)	6.35	5.63
Mix 2 (1/4 each + Infra) ◆ C	(2.67)	5.85	5.45
Mix 3 (1/4 each + Lev Loans) ▲ D	(0.63)	6.25	5.51
Mix 4 (1/5 each + Infra, Lev Loans) ● E	(0.60)	5.87	5.40

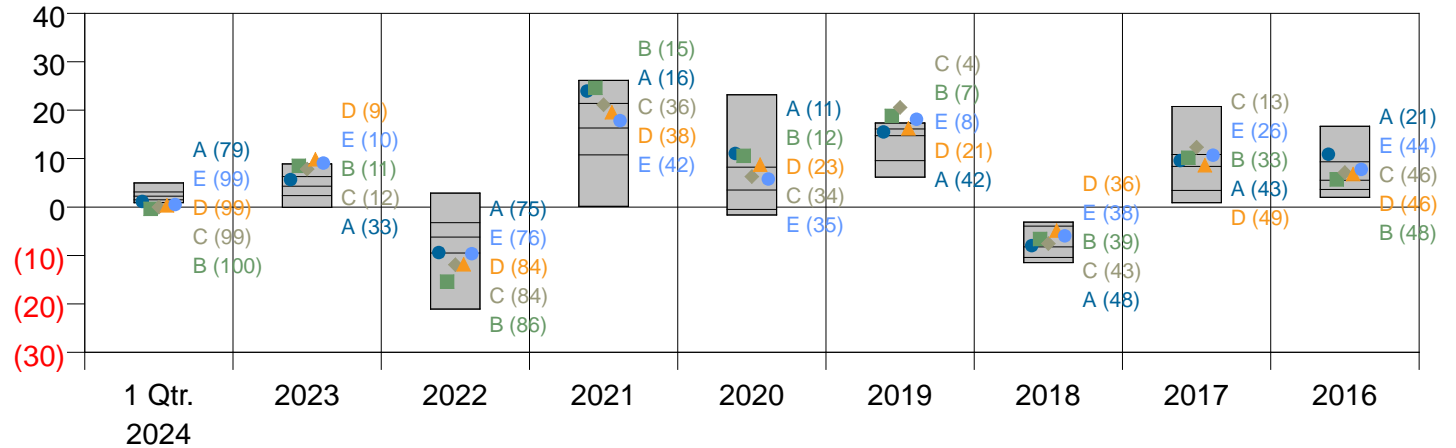
Performance for Infrastructure represented by the S&P Global Listed Infrastructure Index, and performance for Leveraged Loans represented by the Morningstar LSTA Leveraged Loan Index. Mixes are rebalanced quarterly.

# Alternative Portfolio Structures

## Performance

Net of Fee Returns for Periods Ended March 31, 2024

Group: Callan Real Assets Mutual Funds



	1 Qtr. 2024	2023	2022	2021	2020	2019	2018	2017	2016
10th Percentile	5.02	8.91	2.90	26.16	23.20	17.37	(3.08)	20.79	16.68
25th Percentile	3.12	6.31	(3.21)	21.41	8.26	16.16	(3.93)	10.86	9.37
Median	2.27	4.33	(6.17)	16.34	3.54	14.76	(8.20)	8.40	5.54
75th Percentile	1.52	2.37	(9.49)	10.80	(0.48)	9.62	(10.41)	3.46	3.66
90th Percentile	0.93	(0.03)	(21.05)	0.18	(1.64)	6.17	(11.44)	0.91	2.04
Current Mix ● A	1.17	5.69	(9.41)	23.96	11.08	15.51	(7.97)	9.59	10.90
Mix 1 (1/3 each) ■ B	(0.36)	8.55	(15.40)	24.63	10.59	18.86	(6.59)	10.20	5.73
Mix 2 (1/4 each + Infra) ◆ C	0.01	7.85	(11.89)	21.14	6.30	20.57	(7.54)	12.39	7.16
Mix 3 (1/4 each + Lev Loans) ▲ D	0.35	9.89	(11.81)	19.58	8.78	16.26	(4.84)	8.65	6.84
Mix 4 (1/5 each + Infra, Lev Loans) ● E	0.50	9.07	(9.65)	17.84	5.80	18.13	(5.96)	10.70	7.79

Performance for Infrastructure represented by the S&P Global Listed Infrastructure Index, and performance for Leveraged Loans represented by the Morningstar LSTA Leveraged Loan Index. Mixes are rebalanced quarterly.

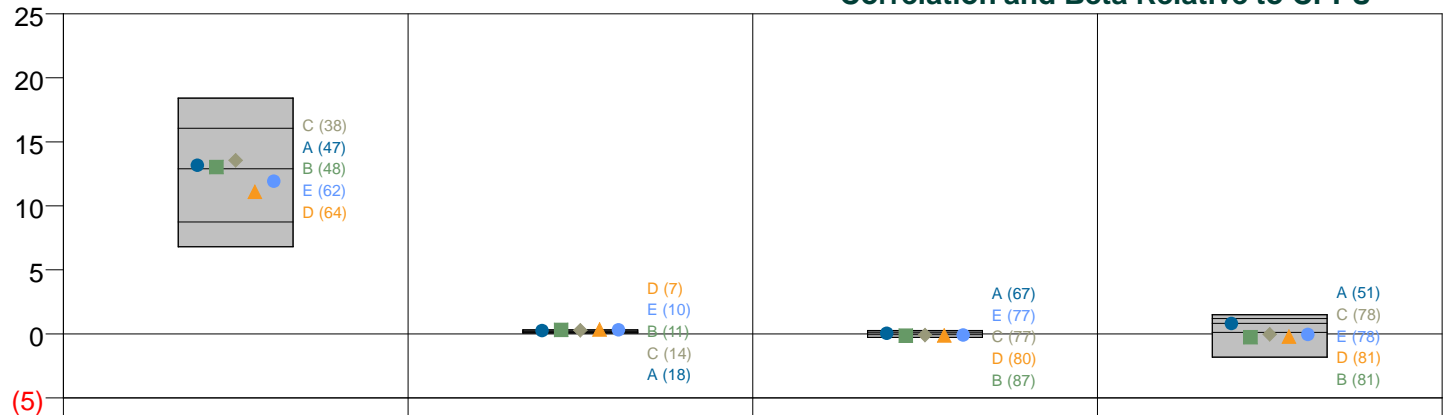
# Alternative Portfolio Structures

## Various Statistics

Statistics for 8 3/4 Years Ended March 31, 2024

Group: Callan Real Assets Mutual Funds

Correlation and Beta Relative to CPI-U



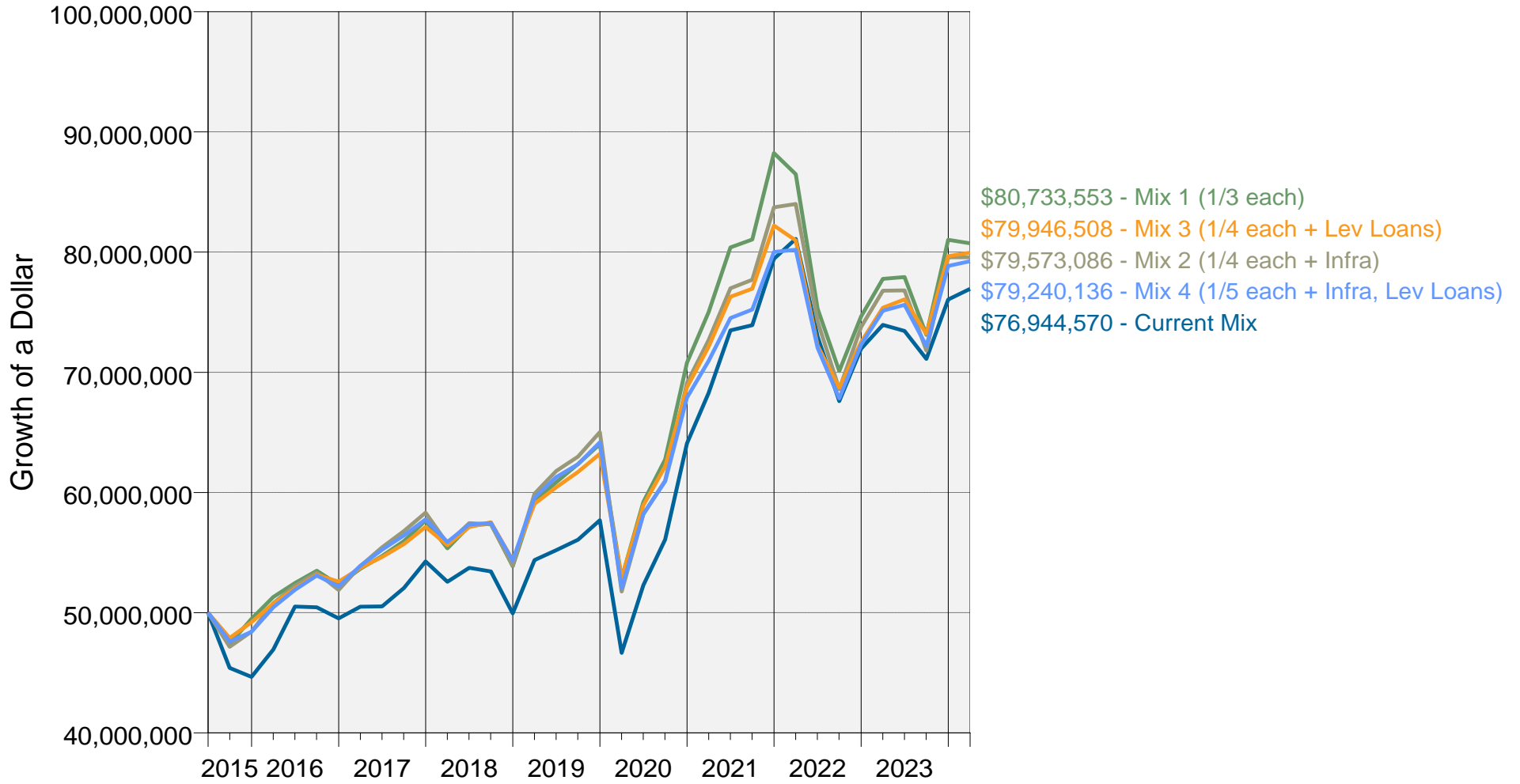
	Standard Deviation	Sharpe Ratio	Correlation	Beta
10th Percentile	18.43	0.32	0.28	1.50
25th Percentile	16.07	0.23	0.15	1.21
Median	12.91	0.17	0.08	0.83
75th Percentile	8.75	0.13	(0.06)	0.12
90th Percentile	6.81	0.08	(0.26)	(1.81)
Current Mix ● A	13.17	0.26	0.05	0.82
Mix 1 (1/3 each) ■ B	13.04	0.31	(0.13)	(0.25)
Mix 2 (1/4 each + Infra) ◆ C	13.57	0.29	(0.08)	(0.03)
Mix 3 (1/4 each + Lev Loans) ▲ D	11.10	0.35	(0.12)	(0.20)
Mix 4 (1/5 each + Infra, Lev Loans) ● E	11.93	0.32	(0.08)	(0.04)

Performance for Infrastructure represented by the S&P Global Listed Infrastructure Index, and performance for Leveraged Loans represented by the Morningstar LSTA Leveraged Loan Index. Mixes are rebalanced quarterly.

# Alternative Portfolio Structures

## Growth of a Dollar

Net of Fee Growth of a Dollar for a \$50,000,000 Mandate for 8 3/4 Years Ended March 31, 2024



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## Summary

- MCERA's public real assets allocation employs a traditional static allocation to TIPS, commodities, REITs and global natural resources. TIPS and REITs are implemented passively, while commodities and natural resources employ active management.
- Current portfolio reflects moderate risk due to the diversification benefit of half of the portfolio in TIPS and commodities.
- While commodities offers diversification benefits and the highest historical correlation to inflation, it is a volatile asset class.
- Allocations to REITs, natural resources equity, and infrastructure will increase the overall correlation to equities.
- Leveraged loans along with TIPS can be used to reduce volatility and equity correlation.

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**Appendix**



## MCERA Public Real Assets vs. Representative Diversified Real Assets Funds

### Fees and Sector Weights

The following pages compares MCERA's public real assets portfolio to some representative diversified real assets funds.

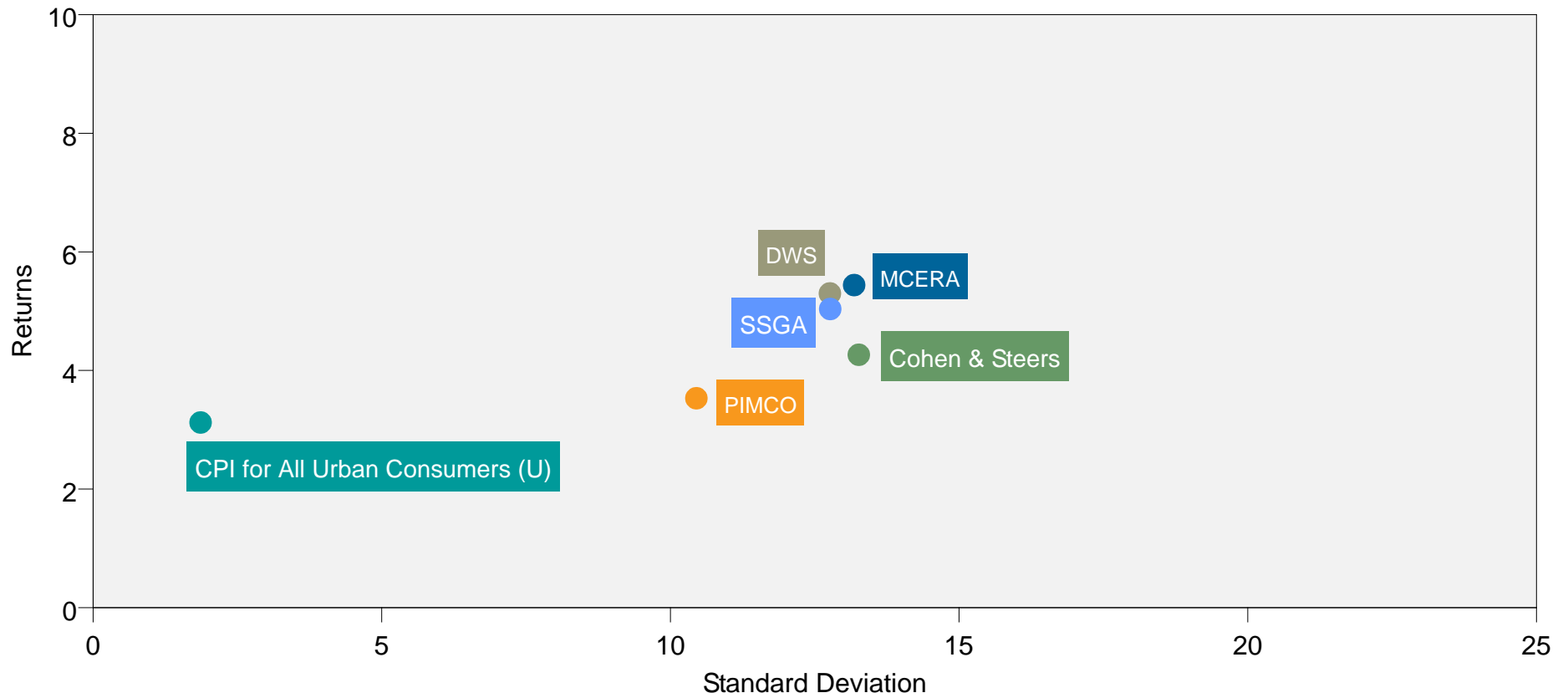
- These funds allocate to multiple underlying asset classes, but performance is rolled up into a single line item.
- This is an option should MCERA prefer a single fund rather than monitoring multiple individual portfolios and managers.

	MCERA	Cohen & Steers Real Assets Fund	DWS Real Assets Fund	PIMCO Diversified Real Assets	SSGA Real Assets Strategy
Active or Passive Management	Combination	Active	Active	Active	Passive
Fees	0.41%	0.81%	0.90%	0.41%	0.22%
<b>Sector Weights:</b>					
TIPS	25%	-	10%	40%	20%
Real Estate	25%	27.5%	30%	35%	10%
Global Natural Resources Equities	25%	15%	15%	-	25%
Commodities	25%	27.5%	15%	25%	25%
Infrastructure	-	15%	30%	-	20%
Short Duration Credit	-	10%	-	-	-
Gold	-	5%	-	-	-

# MCERA Public Real Assets vs. Representative Diversified Real Assets Funds

## Risk/Reward

Risk/Reward Chart for 8 3/4 Years Ended March 31, 2024

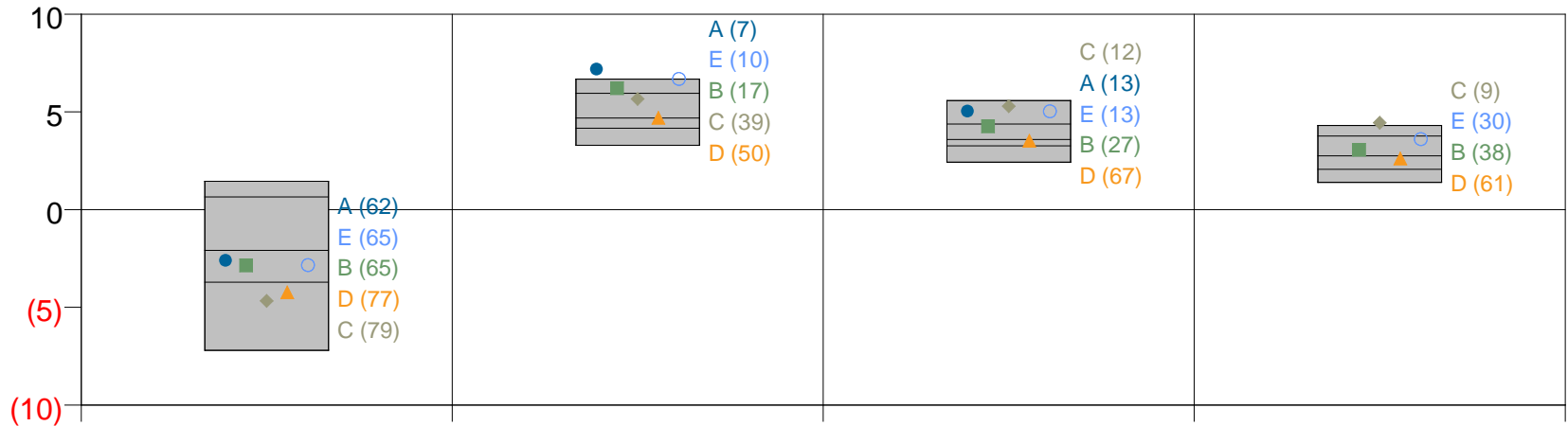


# MCERA Public Real Assets vs. Representative Diversified Real Assets Funds

## Performance

Net of Fee Returns for Periods Ended March 31, 2024

Group: Callan Real Assets Mutual Funds



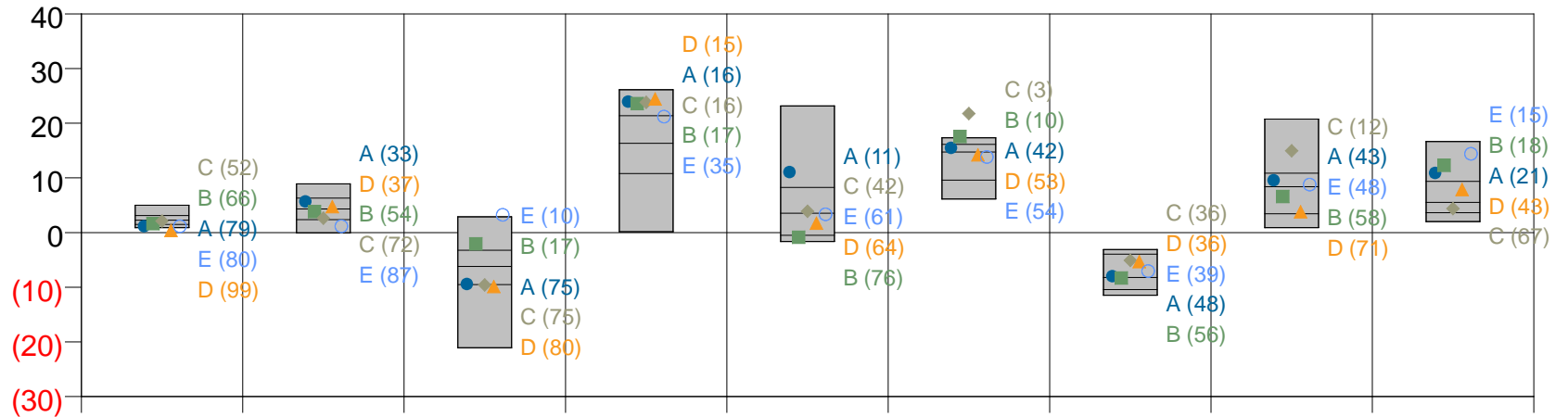
	Last 2 Years	Last 5 Years	Last 8 3/4 Years	Last 10 Years
10th Percentile	1.46	6.68	5.59	4.32
25th Percentile	0.66	5.96	4.38	3.78
Median	(2.08)	4.70	3.60	2.75
75th Percentile	(3.70)	4.17	3.27	2.07
90th Percentile	(7.19)	3.30	2.43	1.40
MCERA ● A	(2.59)	7.19	5.05	--
Cohen & Steers ■ B	(2.85)	6.22	4.27	3.07
DWS ◆ C	(4.67)	5.67	5.30	4.45
PIMCO ▲ D	(4.22)	4.70	3.53	2.62
SSGA ○ E	(2.83)	6.70	5.04	3.61

# MCERA Public Real Assets vs. Representative Diversified Real Assets Funds

## Performance

Net of Fee Returns for Periods Ended March 31, 2024

Group: Callan Real Assets Mutual Funds



	1 Qtr. 2024	2023	2022	2021	2020	2019	2018	2017	2016
10th Percentile	5.02	8.91	2.90	26.16	23.20	17.37	(3.08)	20.79	16.68
25th Percentile	3.12	6.31	(3.21)	21.41	8.26	16.16	(3.93)	10.86	9.37
Median	2.27	4.33	(6.17)	16.34	3.54	14.76	(8.20)	8.40	5.54
75th Percentile	1.52	2.37	(9.49)	10.80	(0.48)	9.62	(10.41)	3.46	3.66
90th Percentile	0.93	(0.03)	(21.05)	0.18	(1.64)	6.17	(11.44)	0.91	2.04
MCERA ● A	1.17	5.69	(9.41)	23.96	11.08	15.51	(7.97)	9.59	10.90
Cohen & Steers ■ B	1.62	3.84	(2.04)	23.62	(0.85)	17.58	(8.31)	6.62	12.32
DWS ◆ C	2.13	2.63	(9.55)	23.84	3.90	21.79	(5.06)	14.97	4.39
PIMCO ▲ D	0.39	4.76	(9.86)	24.46	1.71	14.24	(5.31)	3.80	7.88
SSGA ○ E	1.16	1.18	3.27	21.22	3.37	13.85	(7.02)	8.80	14.42

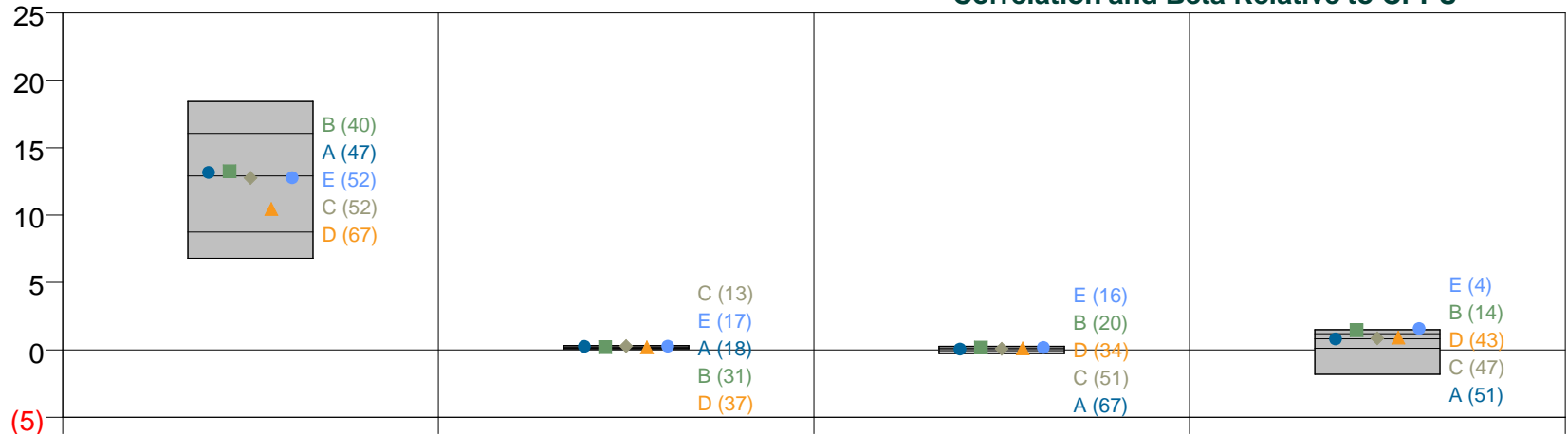
# MCERA Public Real Assets vs. Representative Diversified Real Assets Funds

## Various Statistics

Statistics for 8 3/4 Years Ended March 31, 2024

Group: Callan Real Assets Mutual Funds

Correlation and Beta Relative to CPI-U

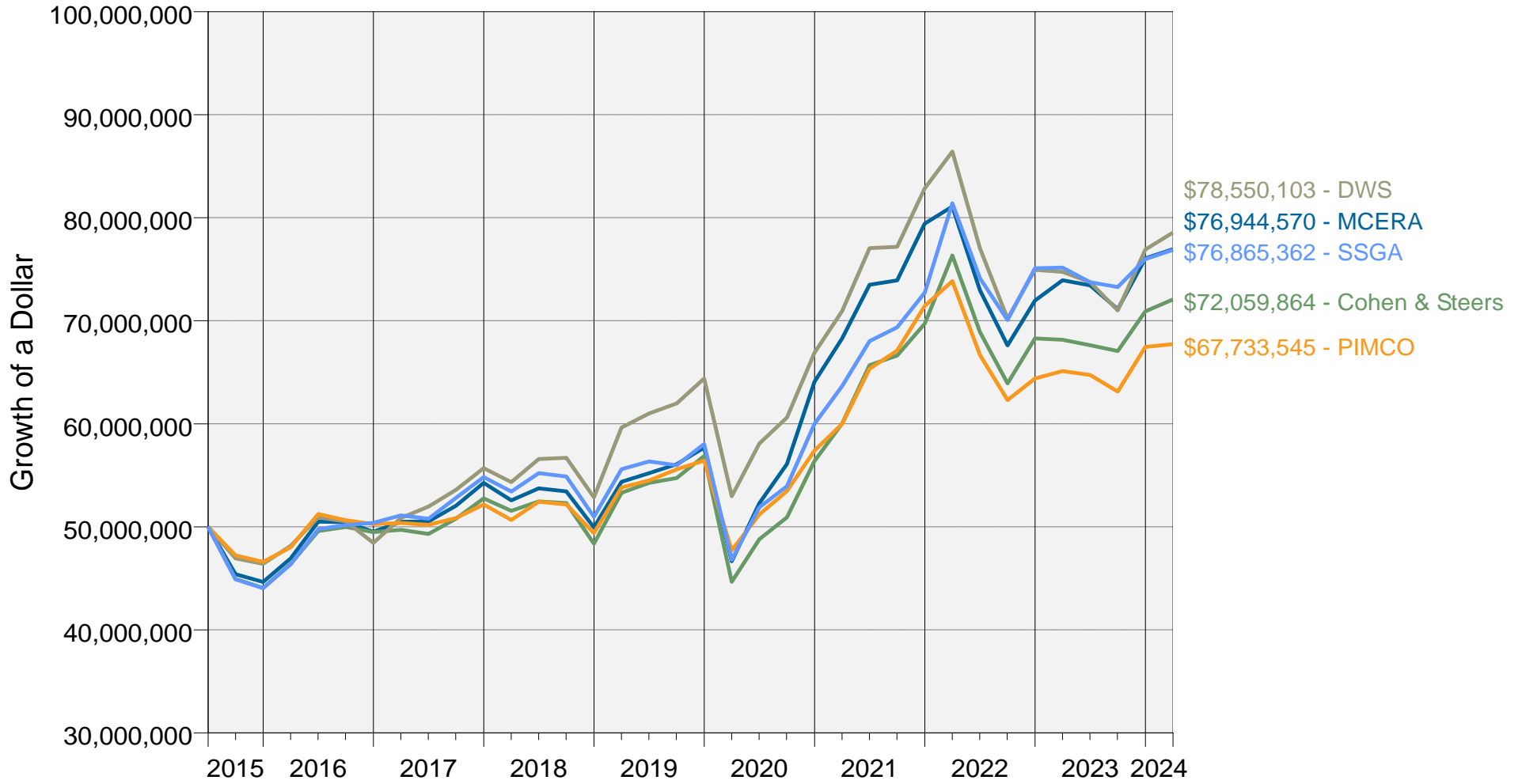


	Standard Deviation	Sharpe Ratio	Correlation	Beta
10th Percentile	18.43	0.32	0.28	1.50
25th Percentile	16.07	0.23	0.15	1.21
Median	12.91	0.17	0.08	0.83
75th Percentile	8.75	0.13	(0.06)	0.12
90th Percentile	6.81	0.08	(0.26)	(1.81)
MCERA ● A	13.17	0.26	0.05	0.82
Cohen & Steers ■ B	13.27	0.20	0.17	1.46
DWS ◆ C	12.76	0.29	0.08	0.86
PIMCO ▲ D	10.45	0.19	0.11	0.91
SSGA ● E	12.77	0.27	0.18	1.59

# MCERA Public Real Assets vs. Representative Diversified Real Assets Funds

Growth of a Dollar

Net of Fee Growth of a Dollar for a \$50,000,000 Mandate for 8 3/4 Years Ended March 31, 2024



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### **C.3 Future Meetings**

This is a discussion with no backup.

June 18, 2024



## **First Quarter 2024 Summary Investment Presentation**

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**Jim Callahan, CFA**  
President

**Anne Heaphy**  
Senior Vice President

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**Economic and Capital Markets Review**

## Equity Markets Climb in 1Q, Bonds Falter

Stocks have recovered losses of 2022; bonds still have ground to make up

### S&P 500 climbed 10.6% in 1Q24

- Stocks continued their momentum from the end of last year when the index surged 11.7% in 4Q23.
- The S&P 500 has fully recovered after falling 18.1% in 2022.

### Fixed income faltered in 1Q24

- The Bloomberg Aggregate fell 0.8% amid rising rates in 1Q24.
- Interest rates have been volatile as the markets assess when and how swiftly the Fed will begin easing.
- CPI-U declined during 2023 but remains stalled at 3.5% in 1Q (year-over-year); the inflation index is 13% higher than it was at the start of 2022.
- Grinding out the last bit of stubborn inflation to get to the Fed's broad 2% goal may take longer than expected.

### First signs of cooling for economy

- The initial estimate for 1Q24 GDP growth came in at 1.6%, failing to meet consensus expectations of 2.5% to 3%.

Returns for Periods ended 3/31/24

	Quarter	1 Year	1/1/22 - Current	5 Years	10 Years	25 Years
<b>U.S. Equity</b>						
Russell 3000	10.02	29.29	5.15	14.34	12.33	8.01
S&P 500	10.56	29.88	6.13	15.05	12.96	7.78
Russell 2000	5.18	19.71	-0.96	8.10	7.58	8.37
<b>Global ex-U.S. Equity</b>						
MSCI World ex USA	5.59	15.29	2.94	7.48	4.81	4.78
MSCI Emerging Markets	2.37	8.15	-4.65	2.22	2.95	--
MSCI ACWI ex USA Small Cap	2.11	12.80	-2.48	6.24	4.74	7.20
<b>Fixed Income</b>						
Bloomberg Aggregate	-0.78	1.70	-4.06	0.36	1.54	3.84
90-day T-Bill	1.29	5.24	3.45	2.02	1.38	1.91
Bloomberg Long Gov/Credit	-2.41	-1.15	-11.36	-0.62	2.32	5.25
Bloomberg Global Agg ex-US	-3.21	-0.71	-7.85	-2.49	-1.38	2.34
<b>Real Estate</b>						
NCREIF Property	-0.98	-7.16	-1.71	3.76	6.41	7.88
FTSE Nareit Equity	-0.20	10.54	-6.56	4.15	6.61	9.48
<b>Alternatives</b>						
Cambridge Private Equity*	-0.42	4.17	2.69	14.59	14.27	13.87
Cambridge Senior Debt*	0.13	11.34	4.05	5.86	6.69	--
HFRI Fund Weighted	4.44	11.60	3.58	6.91	4.93	6.34
Bloomberg Commodity	2.19	-0.56	4.01	6.38	-1.56	2.70
<b>CPI-U</b>	1.82	3.48	5.18	4.20	2.83	2.58

\*Cambridge Private Equity and Cambridge Senior Debt data as of 9/30/23.

Returns greater than one year are annualized. Sources: Bloomberg, Callan, Cambridge, FTSE Russell, HFRI, MSCI, NCREIF, S&P Dow Jones Indices

## U.S. Equity

### Callan style group median and index returns\*

#### Periods Ended 3/31/24

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years
<b>Large Cap Equity</b>									
Large Cap Core Style	11.8	11.8	31.7	11.5	15.2	12.9	15.7	10.6	8.8
Russell 3000	10.0	10.0	29.3	9.8	14.3	12.3	15.4	10.1	8.0
Russell 1000	10.3	10.3	29.9	10.5	14.8	12.7	15.6	10.2	8.0
S&P 500	10.6	10.6	29.9	11.5	15.0	13.0	15.6	10.2	7.8
<b>Large Cap Growth Style</b>									
Large Cap Growth Style	12.5	12.5	40.0	10.4	16.4	15.0	17.1	11.8	8.9
Russell 1000 Growth	11.4	11.4	39.0	12.5	18.5	16.0	17.8	11.8	8.0
<b>Large Cap Value Style</b>									
Large Cap Value Style	9.8	9.8	22.8	10.1	12.2	9.8	13.8	9.3	8.9
Russell 1000 Value	9.0	9.0	20.3	8.1	10.3	9.0	13.1	8.3	7.4
<b>Mid Cap Equity</b>									
Mid Cap Core Style	9.6	9.6	22.2	7.8	11.7	10.5	15.9	10.9	11.7
Russell Midcap	8.6	8.6	22.3	6.1	11.1	9.9	14.9	10.0	9.7
<b>Mid Cap Growth Style</b>									
Mid Cap Growth Style	9.6	9.6	22.5	2.8	11.7	11.0	14.9	11.0	10.7
Russell Midcap Growth	9.5	9.5	26.3	4.6	11.8	11.4	15.6	10.4	8.7
<b>Mid Cap Value Style</b>									
Mid Cap Value Style	8.7	8.7	22.5	9.2	12.2	9.5	14.5	10.2	11.1
Russell Midcap Value	8.2	8.2	20.4	6.8	9.9	8.6	14.2	9.4	9.6
<b>Small Cap Equity</b>									
Small Cap Core Style	5.8	5.8	19.6	4.5	10.5	9.3	14.8	9.9	11.7
Russell 2000	5.2	5.2	19.7	-0.1	8.1	7.6	12.9	8.1	8.4
<b>Small Cap Growth Style</b>									
Small Cap Growth Style	7.5	7.5	18.5	-0.5	10.1	10.3	15.8	10.8	11.3
Russell 2000 Growth	7.6	7.6	20.3	-2.7	7.4	7.9	13.4	8.4	7.1
<b>Small Cap Value Style</b>									
Small Cap Value Style	5.0	5.0	20.6	6.2	10.9	8.7	14.4	9.4	11.4
Russell 2000 Value	2.9	2.9	18.8	2.2	8.2	6.9	12.1	7.5	9.2

#### Periods Ended 3/31/24

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
<b>Smid Cap Equity</b>							
Smid Cap Core Style	8.3	8.3	21.8	6.2	11.5	10.1	14.7
Russell 2500	6.9	6.9	21.4	3.0	9.9	8.8	14.1
<b>Smid Cap Growth Style</b>							
Smid Cap Growth Style	7.9	7.9	17.5	0.0	9.9	10.8	15.8
Russell 2500 Growth	8.5	8.5	21.1	-0.8	9.4	9.6	14.7
<b>Smid Cap Value Style</b>							
Smid Cap Value Style	8.0	8.0	23.9	8.3	11.6	9.0	14.8
Russell 2500 Value	6.1	6.1	21.3	5.4	9.4	7.7	13.1
<b>S&amp;P 500 Sectors</b>							
Communication Svcs**	15.8	15.8	49.8	6.9	13.7	9.4	11.0
Consumer Discretionary	5.0	5.0	28.7	4.3	11.5	12.6	17.8
Consumer Staples	7.5	7.5	7.2	8.0	10.0	9.3	12.3
Energy	13.7	13.7	17.7	30.0	12.9	4.7	8.5
Financials	12.5	12.5	33.5	9.5	12.8	11.1	14.7
Health Care	8.8	8.8	16.1	10.0	12.1	11.7	14.9
Industrials	11.0	11.0	26.7	10.4	13.0	11.1	15.8
Information Technology	12.7	12.7	46.0	19.0	25.4	22.0	21.8
Materials	8.9	8.9	17.6	7.9	13.3	9.2	12.7
Real Estate**	-0.5	-0.5	9.6	3.4	5.3	--	--
Utilities	4.6	4.6	0.4	4.1	5.9	8.4	10.5

\*Returns less than one year are not annualized.

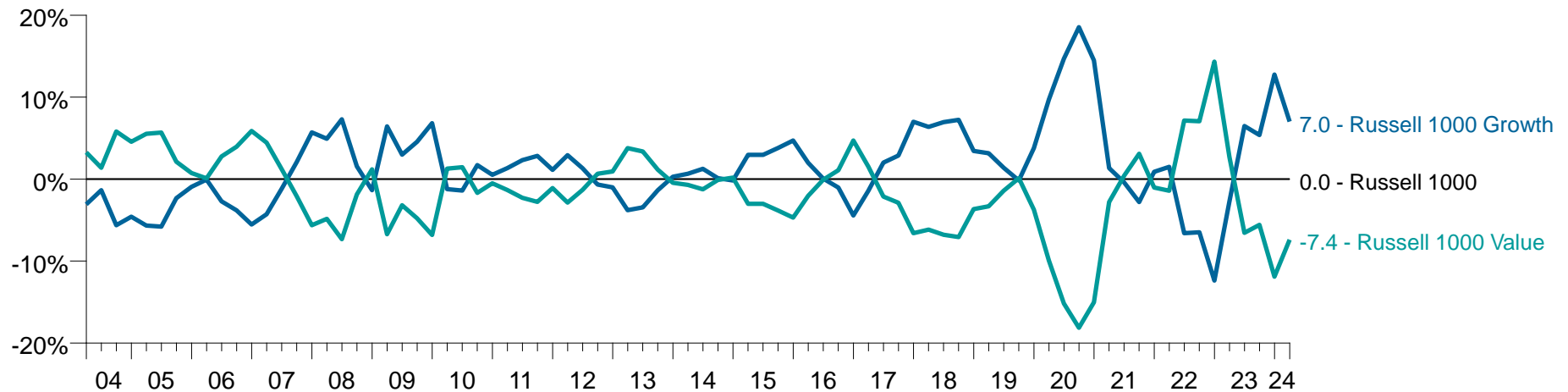
\*\*The Communication Services sector, which replaced and expanded the Telecommunication Services sector, was created in September 2018. The Real Estate sector was carved out from the Financials sector in September 2016, due to a change in the Global Industry Classification Standard taxonomy.

Sources: Callan, FTSE Russell, S&P Dow Jones Indices. All style group returns presented gross of fees.

# U.S. Equity

## Index relative returns and characteristics

### Rolling One-Year Relative Returns (vs. Russell 1000 Index)



### Index Characteristics as of 3/31/24

	Number of Issues	Wtd. Average Market Cap (\$bn)	Price/Book Ratio	Forward P/E Ratio	Dividend Yield	5-Year Earnings Forecast
Russell 3000	2,947	659	3.7	20.9	1.3%	15.7%
Russell 1000	1,004	694	4.0	21.0	1.3%	15.6%
Russell 1000 Value	845	145	2.4	16.3	2.1%	12.5%
Russell 1000 Growth	440	1,146	10.1	27.7	0.7%	18.2%
S&P 500	503	758	4.1	21.1	1.4%	15.5%
Russell Midcap	808	27	2.8	18.7	1.5%	14.4%
Russell 2500	2,440	8	2.3	17.7	1.4%	15.2%
Russell 2000	1,943	5	2.0	18.5	1.3%	17.1%

Sources: FTSE Russell, S&P Dow Jones Indices

# Global Equity

## Callan style group median and index returns\*

### Periods Ended 3/31/24

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
<b>Global Equity</b>							
Global Style	8.5	8.5	22.1	7.1	11.6	9.5	12.9
MSCI World	8.9	8.9	25.1	8.6	12.1	9.4	12.3
MSCI ACWI	8.2	8.2	23.2	7.0	10.9	8.7	11.6
<b>Global ex-U.S. Equity</b>							
Global ex-U.S. Style	5.7	5.7	14.5	3.8	7.9	5.6	9.6
MSCI EAFE	5.8	5.8	15.3	4.8	7.3	4.8	8.4
MSCI World ex USA	5.6	5.6	15.3	4.9	7.5	4.8	8.4
MSCI ACWI ex USA	4.7	4.7	13.3	1.9	6.0	4.3	7.9
<b>Regional Equity</b>							
MSCI China	-2.2	-2.2	-17.1	-18.9	-6.3	1.2	4.2
MSCI Europe ex UK	5.9	5.9	15.1	5.7	8.9	5.0	8.8
MSCI Japan	11.0	11.0	25.8	3.7	7.8	6.7	7.9
MSCI Japan (local)	19.2	19.2	43.0	15.2	14.7	10.9	11.0
MSCI Pacific	6.7	6.7	17.5	2.3	6.2	5.6	8.1
MSCI Pacific (local)	13.2	13.2	28.8	10.8	11.1	9.1	10.0
MSCI Pacific ex Japan	-1.7	-1.7	2.4	-0.5	3.0	3.4	8.5
MSCI Pacific ex Japan (local)	1.7	1.7	4.4	2.9	4.1	5.8	8.6
MSCI United Kingdom	3.1	3.1	10.9	7.7	5.1	2.9	7.9
MSCI United Kingdom (local)	4.0	4.0	8.5	10.9	5.8	5.8	8.8

### Periods Ended 3/31/24

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
<b>Emerging/Frontier Markets</b>							
Emerging Market Style	3.3	3.3	9.7	-4.8	3.7	4.5	8.3
MSCI Emerging Markets	2.4	2.4	8.2	-5.1	2.2	2.9	6.7
MSCI Emerging Markets (local)	4.5	4.5	10.6	-2.4	4.4	5.7	8.2
MSCI Frontier Markets	5.3	5.3	14.0	0.9	3.0	1.8	6.0
<b>Global/Global ex-U.S. Small Cap</b>							
Global ex-U.S. Small Cap Style	4.8	4.8	11.5	1.0	6.5	6.1	12.0
MSCI World Small Cap	4.4	4.4	15.9	1.3	7.9	6.9	12.4
MSCI ACWI Small Cap	3.9	3.9	16.5	1.6	8.0	6.8	12.2
MSCI World ex USA Small Cap	2.6	2.6	10.0	-0.9	5.4	4.5	9.9
MSCI ACWI ex USA Small Cap	2.1	2.1	12.8	0.4	6.2	4.7	10.0
MSCI Emerging Markets Small Cap	1.1	1.1	20.6	4.2	8.5	5.1	9.7

\*Returns less than one year are not annualized.

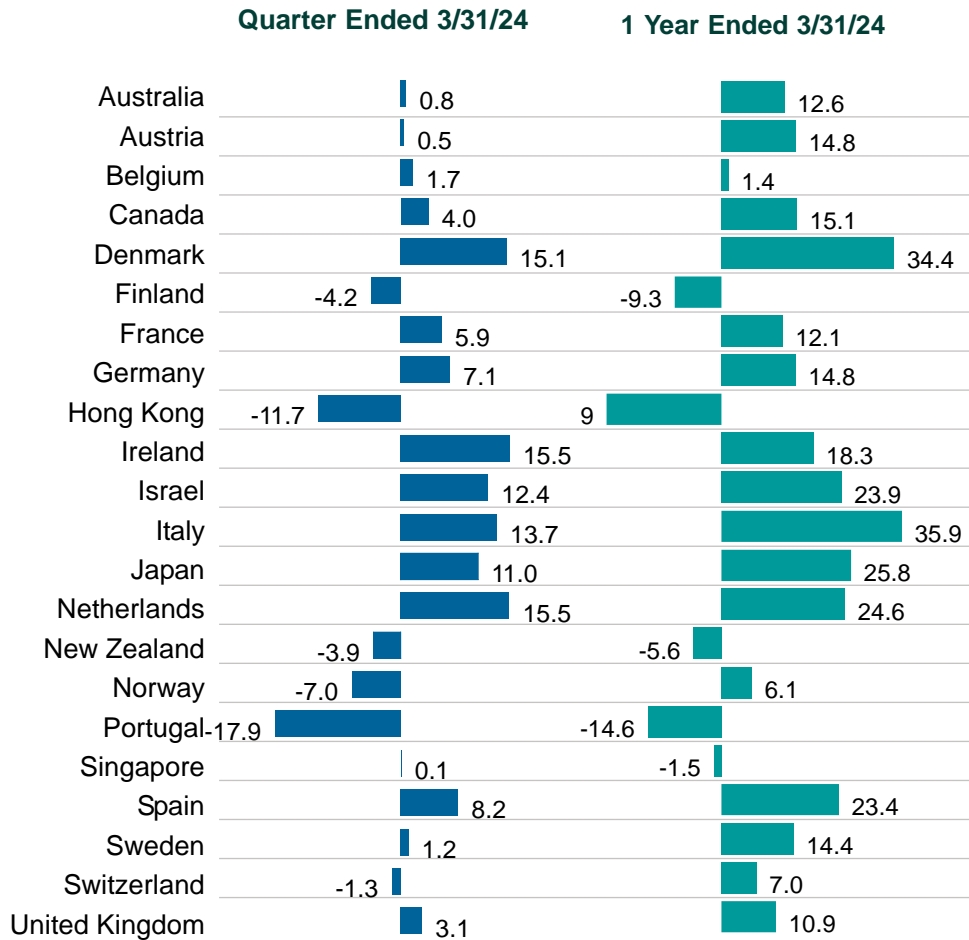
Sources: Callan, MSCI. All style group returns presented gross of fees.



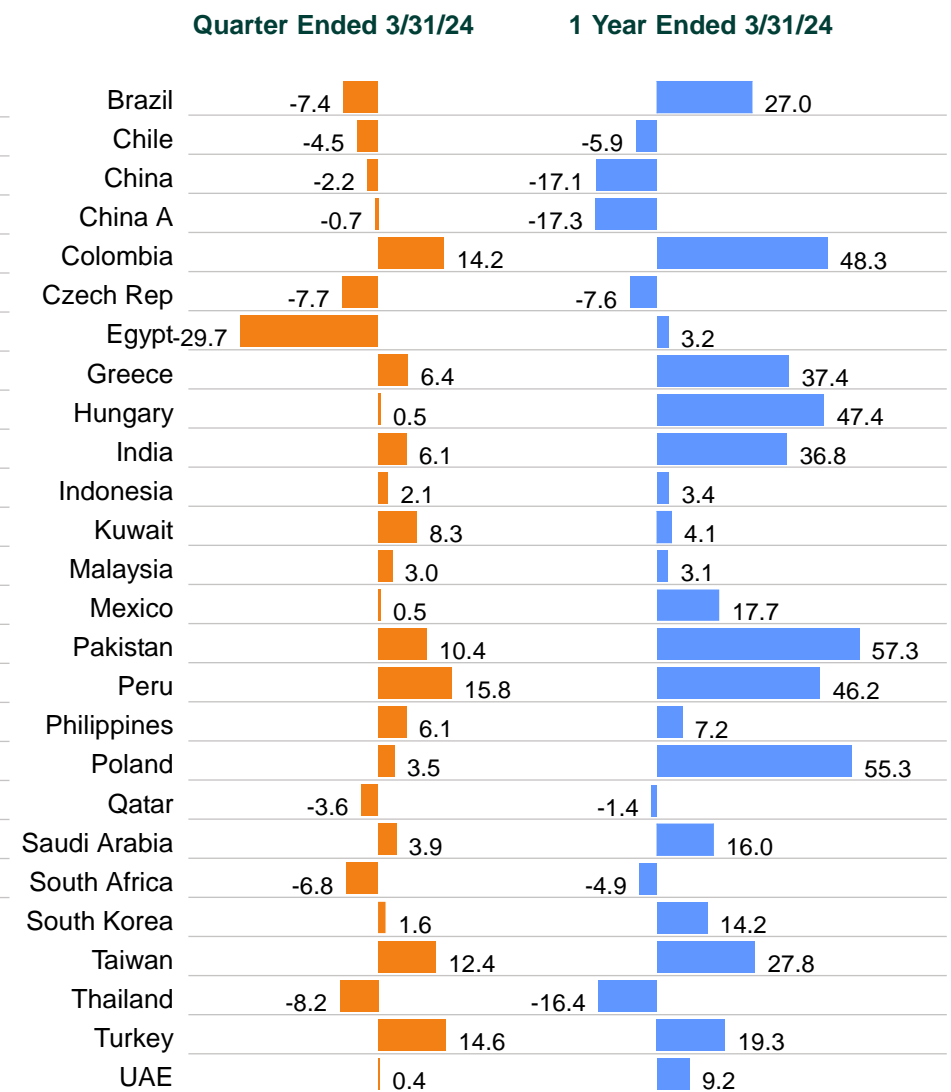
# Global ex-U.S. Equity

Returns for developed ex-U.S. market countries and emerging market countries

Developed Country Returns (%)



Emerging Market Country Returns (%)



Source: MSCI

# Global ex-U.S. Equity

## Quarterly returns in dollars and local currencies

### Developed Market Countries

Country	Equity Index (\$)	Equity Index (Local Currency)	Currency Returns	Weight*
Australia	0.8%	5.4%	-4.4%	4.7%
Austria	0.5%	2.8%	-2.2%	0.1%
Belgium	1.7%	4.1%	-2.2%	0.6%
Canada	4.0%	6.7%	-2.6%	7.6%
Denmark	15.1%	17.8%	-2.3%	2.4%
Finland	-4.2%	-2.0%	-2.2%	0.6%
France	5.9%	8.3%	-2.2%	7.9%
Germany	7.1%	9.5%	-2.2%	5.6%
Hong Kong	-11.7%	-11.5%	-0.2%	1.2%
Ireland	15.5%	18.1%	-2.2%	0.2%
Israel	12.4%	13.5%	-1.7%	0.5%
Italy	13.7%	16.3%	-2.2%	1.8%
Japan	11.0%	19.2%	-6.8%	15.3%
Netherlands	15.5%	18.0%	-2.2%	3.3%
New Zealand	-3.9%	1.8%	-5.5%	0.1%
Norway	-7.0%	-0.6%	-6.4%	0.4%
Portugal	-17.9%	-16.0%	-2.2%	0.1%
Singapore	0.1%	2.2%	-2.3%	0.9%
Spain	8.2%	10.6%	-2.2%	1.7%
Sweden	1.2%	7.3%	-5.7%	2.0%
Switzerland	-1.3%	5.6%	-6.6%	6.1%
U.K.	3.1%	4.0%	-0.9%	9.4%

### Emerging Market Countries

Country	Equity Index (\$)	Equity Index (Local Currency)	Currency Returns	Weight*
Brazil	-7.4%	*4.5%	-3.0%	1.4%
Chile	-4.5%	7.3%	-11.0%	0.1%
China	-2.2%	-1.7%	-1.9%	6.9%
Colombia	14.2%	13.9%	0.2%	0.0%
Czech Republic	-7.7%	-3.3%	-4.5%	0.0%
Egypt	-29.7%	7.7%	-34.8%	0.0%
Greece	6.4%	8.9%	-2.2%	0.1%
Hungary	0.5%	5.9%	-5.2%	0.1%
India	6.1%	6.3%	-0.2%	4.9%
Indonesia	2.1%	5.2%	-2.9%	0.5%
Kuwait	8.6%	8.6%	**	0.2%
Malaysia	3.0%	6.1%	**	0.4%
Mexico	0.5%	-1.4%	1.9%	0.7%
Pakistan	10.4%	9.1%	1.1%	0.0%
Peru	15.8%	15.8%	-0.5%	0.1%
Philippines	6.1%	7.7%	-1.5%	0.2%
Poland	3.5%	4.9%	-1.4%	0.3%
Qatar	-3.6%	-3.6%	0.0%	0.2%
Saudi Arabia	3.9%	-3.5%	**	1.2%
South Africa	-6.8%	6.2%	-3.4%	0.8%
South Korea	1.6%	17.2%	-4.3%	3.5%
Taiwan	12.4%	-1.9%	-4.1%	4.9%
Thailand	-8.2%	25.5%	-6.5%	0.4%
Turkey	14.6%	0.3%	-8.7%	0.2%
United Arab Emirates	0.4%	3.9%	0.0%	0.3%

\*Weight in the MSCI ACWI ex USA Index

\*\*Data not available at time of publication

Source: MSCI

## U.S. Fixed Income

### Callan style group median and index returns\*

#### Periods Ended 3/31/24

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
<b>Fixed Income</b>							
Core Bond Style	-0.5	-0.5	2.5	-2.0	0.9	2.0	3.5
Core Bond Plus Style	-0.1	-0.1	3.4	-1.7	1.5	2.5	4.6
Bloomberg Aggregate	-0.8	-0.8	1.7	-2.5	0.4	1.5	2.6
Bloomberg Universal	-0.5	-0.5	2.7	-2.1	0.7	1.8	3.1
<b>Long-Term</b>							
Extended Maturity Credit Style	-1.5	-1.5	3.4	-4.0	1.6	3.7	7.0
Bloomberg Long Credit	-1.6	-1.6	3.3	-4.3	0.8	3.1	6.2
Extended Maturity Gov/Credit Style	-2.2	-2.2	-0.6	-5.7	0.1	2.8	5.6
Bloomberg Long Gov/Credit	-2.4	-2.4	-1.1	-6.0	-0.6	2.3	4.5
<b>Intermediate-Term</b>							
Intermediate Fixed Income Style	0.1	0.1	3.3	-0.7	1.5	2.0	3.1
Bloomberg Interm Gov/Credit	-0.2	-0.2	2.7	-1.1	1.1	1.6	2.5
<b>Short-Term</b>							
Short Fixed Income Style	0.7	0.7	4.4	0.8	1.8	1.7	2.2
Bloomberg Gov/Credit 1-3 Yr	0.4	0.4	3.5	0.2	1.4	1.3	1.5
<b>Bank Loans</b>							
Bank Loan Style	2.5	2.5	12.2	5.8	5.3	4.5	6.9
Credit Suisse Leveraged Loan	2.5	2.5	12.4	5.8	5.3	4.6	7.0

#### Periods Ended 3/31/24

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
<b>High Yield</b>							
High Yield Style	1.7	1.7	10.9	2.6	4.6	4.7	8.6
Bloomberg Corp High Yield	1.5	1.5	11.2	2.2	4.2	4.4	8.9
<b>Unconstrained</b>							
Unconstrained Fixed Style	1.5	1.5	8.2	1.7	3.2	3.1	5.0
90-Day T-Bill + 3%	2.0	2.0	8.2	5.6	5.0	4.4	4.0
<b>Stable Value</b>							
Stable Value Style	0.7	0.7	2.8	2.2	2.3	2.2	2.5
iMoneyNet Mutual Fund Avg	1.3	1.3	5.0	2.5	1.8	1.2	0.8
<b>TIPS</b>							
Inflation-Linked Style	0.0	0.0	0.4	-0.4	2.5	2.3	3.2
Bloomberg US TIPS	-0.1	-0.1	0.5	-0.5	2.5	2.2	3.1
<b>Municipal</b>							
Short Municipal Style	0.0	0.0	2.6	0.6	1.2	1.4	2.0
Bloomberg Municipal 1-5 Yr	-0.2	-0.2	2.0	0.1	1.2	1.4	1.8
Intermediate Municipal Style	-0.2	-0.2	2.5	0.0	1.5	2.1	2.8
Bloomberg Municipal 1-10 Yr	-0.4	-0.4	2.2	0.0	1.4	2.0	2.7
Long Municipal Style	0.0	0.0	3.7	-0.2	1.8	3.0	4.3
Bloomberg Municipal	-0.4	-0.4	3.1	-0.4	1.6	2.7	3.7

\*Returns less than one year are not annualized.

Sources: Bloomberg, Callan, Credit Suisse, iMoneyNet. All style group returns presented gross of fees.

## U.S. Fixed Income Index Characteristics

Statistics as of 3/31/24

	Yield to Worst	Modified Adjusted Duration	Average Maturity
Bloomberg Aggregate	4.8	6.2	8.4
Bloomberg Universal	5.1	6.0	8.2
Bloomberg Long Credit	5.5	12.8	22.8
Bloomberg Long Gov/Credit	5.0	14.0	22.7
Bloomberg Intermediate Gov/Credit	4.7	3.8	4.3
Bloomberg Gov/Credit 1-3 Year	4.8	1.8	2.0
Credit Suisse Leveraged Loan	9.3	0.3	4.2
Bloomberg Gov/Credit	4.8	6.3	8.9
Bloomberg Corp High Yield	7.7	3.2	4.9
Bloomberg US TIPS	4.6	4.6	7.3
Bloomberg Municipal	3.5	6.1	13.3
Bloomberg Muni Bond 1-5 Year	3.2	2.6	3.4
Bloomberg Muni 1-10 Year	3.1	3.8	6.1

**Yield to Worst:** The lowest yield an investor can expect if a bond is held to maturity, and it does not default. Yield to maturity, yield to call, or yield to put are alternative measures of yield.

**Modified Adjusted Duration:** A measure of the percentage price change of a bond given a change in its yield-to-maturity, adjusted for the presence of embedded options.

**Average Maturity:** The market value-weighted average time to stated maturity for all securities in a portfolio.

Sources: Bloomberg, Credit Suisse

## Real Assets

### Callan style group median and index returns and risk\*

Periods Ended 3/31/24

10 Years

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years	Standard Deviation	Sharpe Ratio
<b>U.S. Private Real Assets</b>									
Real Estate ODCE Style	-1.8	-1.8	-11.6	2.9	3.2	6.4	6.0	7.6	0.4
NFI-ODCE (value-weighted net)	-2.6	-2.6	-12.0	2.5	2.6	5.8	6.0	7.4	0.2
NCREIF Property	-1.0	-1.0	-7.2	3.6	3.8	6.4	7.5	5.4	0.5
NCREIF Farmland	0.7	0.7	3.6	7.4	6.0	7.1	12.2	2.1	2.0
NCREIF Timberland	2.1	2.1	9.8	11.0	7.0	5.8	7.1	3.1	1.5
<b>Public Real Estate</b>									
Global Real Estate Style	-0.7	-0.7	9.4	0.8	2.9	5.5	7.1	21.1	0.2
FTSE EPRA Dev Core Infra 50/50	0.7	0.7	1.6	2.5	3.3	5.5	--	22.0	0.0
Global ex-U.S. Real Estate Style	-1.0	-1.0	8.4	-4.2	-0.3	3.8	--	22.0	0.1
FTSE EPRA Nareit Developed ex US	-2.0	-2.0	5.9	-5.8	-3.3	0.9	--	21.5	-0.1
U.S. REIT Style	-0.8	-0.8	9.9	3.7	5.3	7.3	8.3	21.8	0.3
FTSE Nareit Equity REITs	-0.2	-0.2	10.5	4.1	4.1	6.6	7.4	22.8	0.2
<b>Other Public Real Assets</b>									
Alerian MLP	13.9	13.9	38.5	29.4	11.5	3.0	8.8	42.4	0.2
Bloomberg Commodity	2.2	2.2	-0.6	9.1	6.4	-1.6	-0.6	19.3	0.3
DJB Global Infrastructure	-0.4	-0.4	1.6	3.4	3.8	4.7	8.9	2.1	1.1
Consumer Price Index (CPI-U)	1.8	1.8	3.5	5.6	4.2	2.8	2.6	17.5	0.3

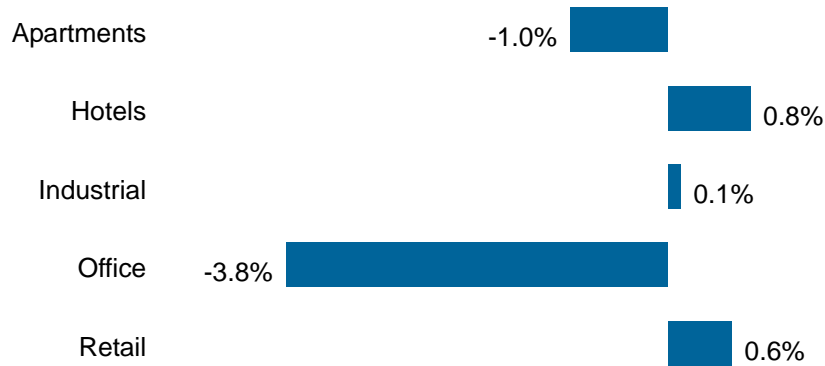
\* Returns less than one year are not annualized.

Sources: Alerian Capital Management, Bloomberg, Bureau of Economic Analysis, Callan, Dow Jones Brookfield, FTSE Russell, NCREIF

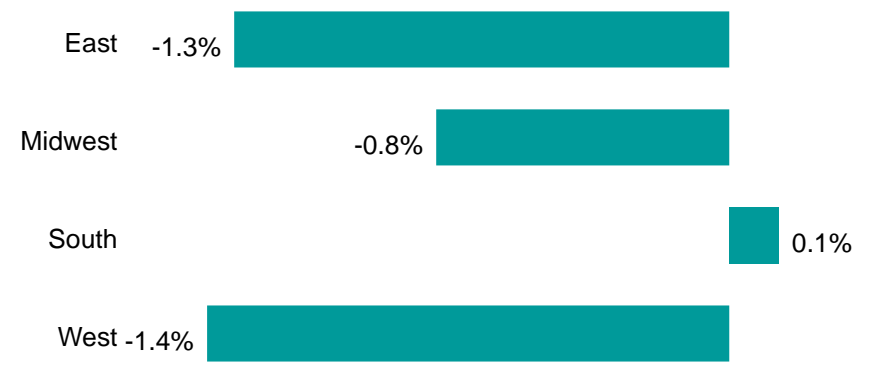
# Real Estate Quarterly Performance and Capitalization Rates

## NCREIF Property Index

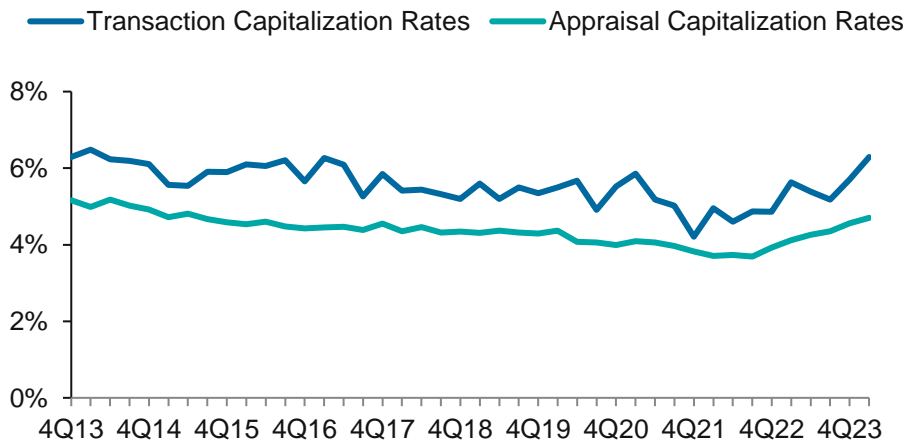
Quarterly Returns by Property Type (3/31/24)



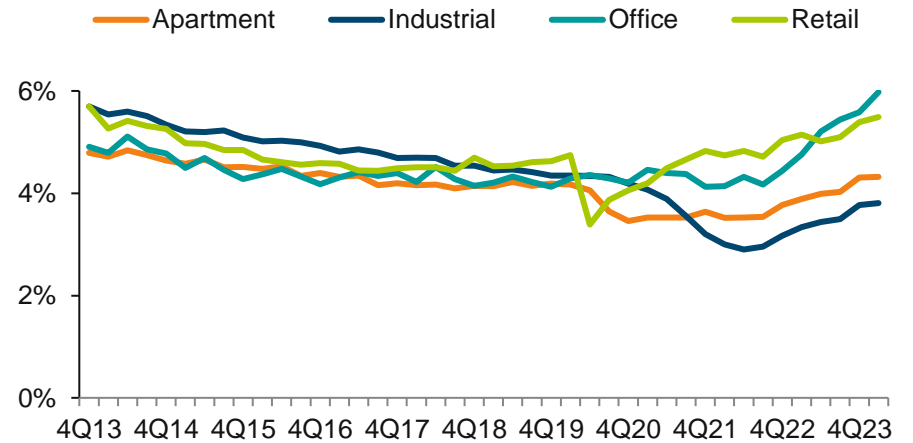
Quarterly Returns by Region (3/31/24)



NCREIF Transaction and Appraisal Capitalization Rates



NCREIF Capitalization Rates by Property Type



Note: Transaction capitalization rate is equal-weighted. Capitalization rate = net operating income / current market value (or sale price)

Source: NCREIF

Note: Capitalization rates are appraisal-based.

## U.S. Private Real Estate Performance: 1Q24

Appreciation returns negative once again

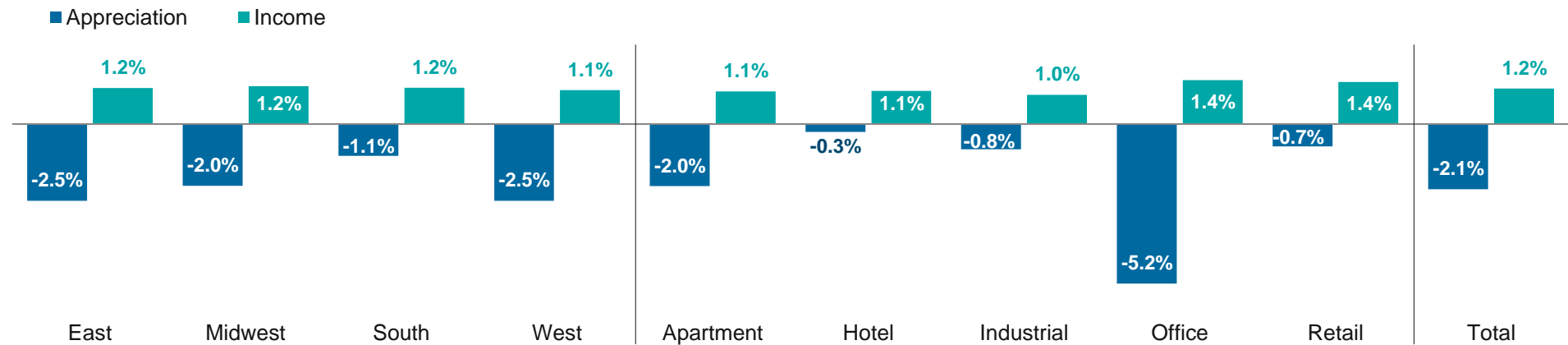
### Valuations reflect higher interest rates

- Income returns were positive across sectors and regions.
- All property sectors and regions experienced negative appreciation.
- Valuations are reflective of higher interest rates, which have put upward pressure on capitalization rate and discount rate assumptions.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
NCREIF ODCE	-2.6%	-12.0%	2.5%	2.6%	5.8%
Income	0.8%	2.9%	2.8%	2.9%	3.3%
Appreciation	-3.4%	-14.6%	-0.3%	-0.4%	2.5%
NCREIF Property Index	-1.0%	-7.2%	3.6%	3.8%	6.4%
Income	1.2%	4.5%	4.2%	4.2%	4.5%
Appreciation	-2.1%	-11.2%	-0.5%	-0.5%	1.8%

Returns are geometrically linked

### NCREIF Property Index Quarterly Returns by Region and Property Type



Source: NCREIF; ODCE return is net



## Private Equity Market Trends

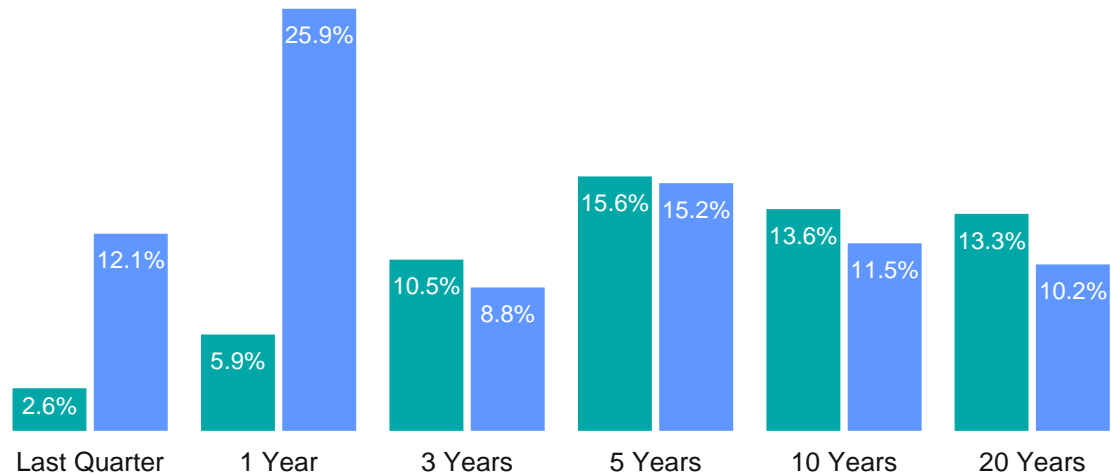
### Gains for stocks not shared by private equity

#### Smoothing effect in performance

- Public equity’s strong recovery in 2023 (led by the “Magnificent 7” technology stocks) has left private equity in its wake.
- Private equity doesn’t recover as quickly as the public markets, because the smoothing effect dampens private equity returns in both up and down markets.
- Private equity only saw about a fifth of the gains of the public markets over the last year, on a PME basis.
- While buyouts saw solid performance for the year, venture capital continued to struggle given the valuation adjustments from the highs of 2021.

Net IRRs as of 12/31/23

■ Global Private Equity ■ Russell 3000 PME



Net IRRs by Strategy as of 12/31/23

Strategy	Last Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Venture Capital	0.3%	-3.7%	6.0%	17.1%	15.7%	12.5%
Growth Equity	2.2%	4.2%	6.5%	15.4%	13.6%	13.6%
Buyouts	3.6%	10.0%	13.3%	16.2%	14.0%	14.2%
Mezzanine	3.3%	12.3%	12.4%	11.7%	11.1%	11.1%
Credit Opportunities	2.6%	7.9%	10.0%	8.3%	7.4%	9.2%
Control-Oriented Distressed	1.8%	5.3%	16.2%	14.6%	11.1%	11.4%
<b>Total Private Equity</b>	<b>2.6%</b>	<b>5.9%</b>	<b>10.5%</b>	<b>15.6%</b>	<b>13.6%</b>	<b>13.3%</b>

Source: Refinitiv/Cambridge  
PME: Public Market Equivalent

# Private Equity Trends

## Fundraising and deal activity both plunge

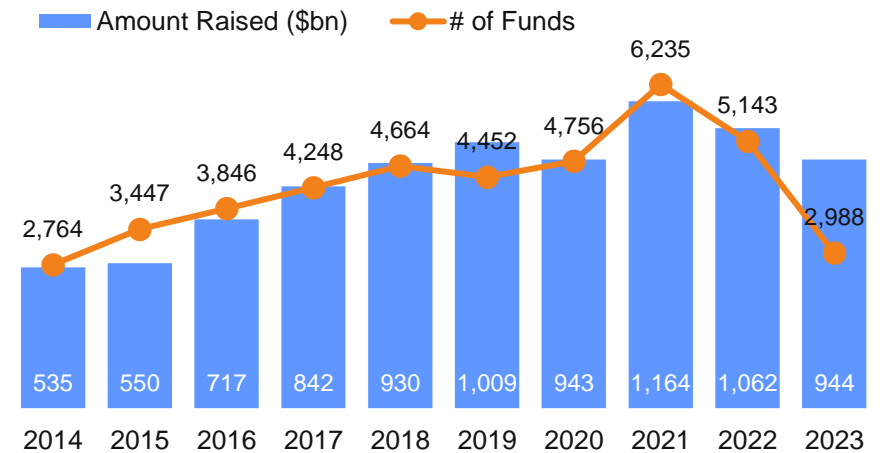
### Fundraising

- In 2023 the number of funds raised sharply declined by ~50% from the highs of 2021–22. The 2023 vintage experienced the full impact of the denominator effect, which when combined with slower deal activity and exits, left minimal capital for new commitments.
- As investors' mindsets shifted from growth to value, fundraising concentrated on large and medium buyouts, at the expense of growth equity and venture capital.
- Going into 2024 there is less uncertainty surrounding the private markets: valuations have adjusted, public markets have rebounded, and denominator effects have waned. Assuming deal activity picks up, fundraising should follow suit.

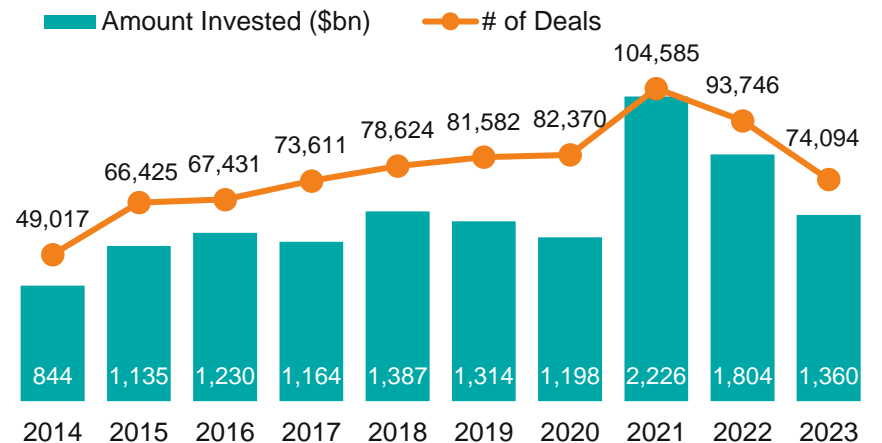
### Deal activity

- 3Q23 appears to be the trough in PE deal-making, dropping by a third from its 2021 peak.
- There are small, but promising, signs of recovery with a few noteworthy exits and IPOs (i.e., SRS Distribution and Reddit). A broader snapback in exits, however, is needed to spark the next wave of deal activity.

### Annual Fundraising



### Annual Deal Activity

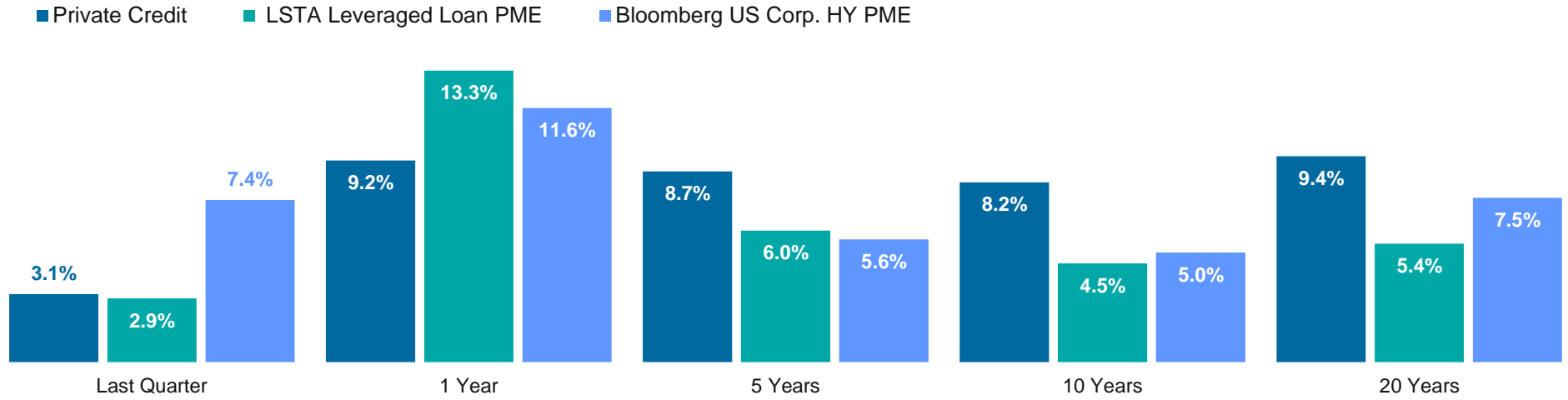


Source: PitchBook

## Private Credit Market Overview

Has outperformed leveraged loans over 5, 10, and 20 years ended 4Q23

### Pooled Horizon Net IRRs as of December 31, 2023



### Pooled Horizon Net IRRs by Strategy as of December 31, 2023

Strategy	Last Quarter	1 Year	5 Years	10 Years	20 Years
Senior Debt	4.2	9.9	7.0	7.1	7.3
Subordinated	3.3	12.3	11.7	11.1	11.1
Credit Opportunities	2.6	7.9	8.3	7.5	9.2
<b>Total Private Credit</b>	<b>3.1</b>	<b>9.2</b>	<b>8.7</b>	<b>8.2</b>	<b>9.4</b>

Private credit performance varies across sub-asset class and underlying return drivers. Over the past 10 years the asset class has generated a net IRR of 8.2%, outperforming leveraged loans as of Dec. 31, 2023. Higher-risk strategies have performed better than lower-risk strategies.

Source: LSEG/Cambridge

Callan

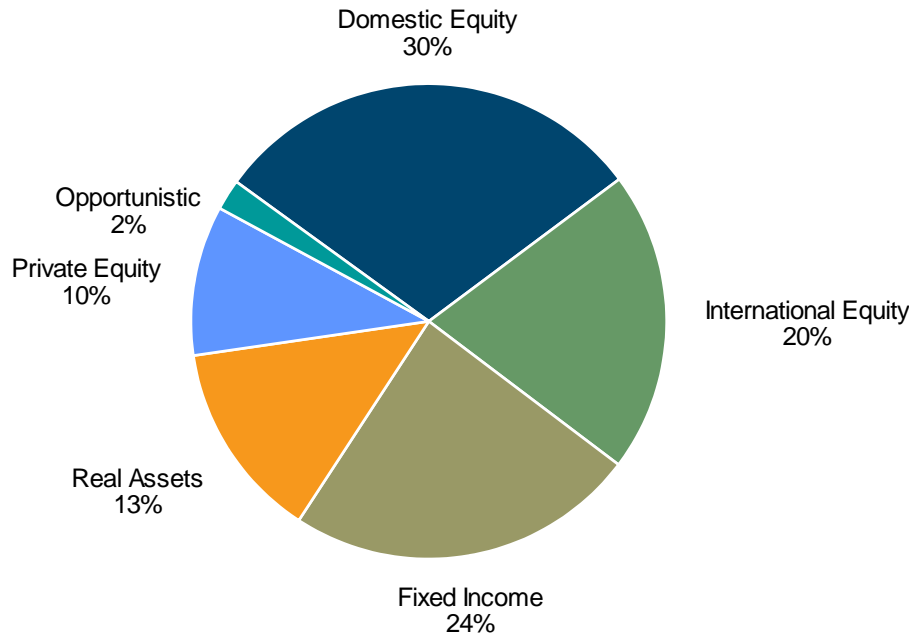
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**MCERA Total Fund Review**

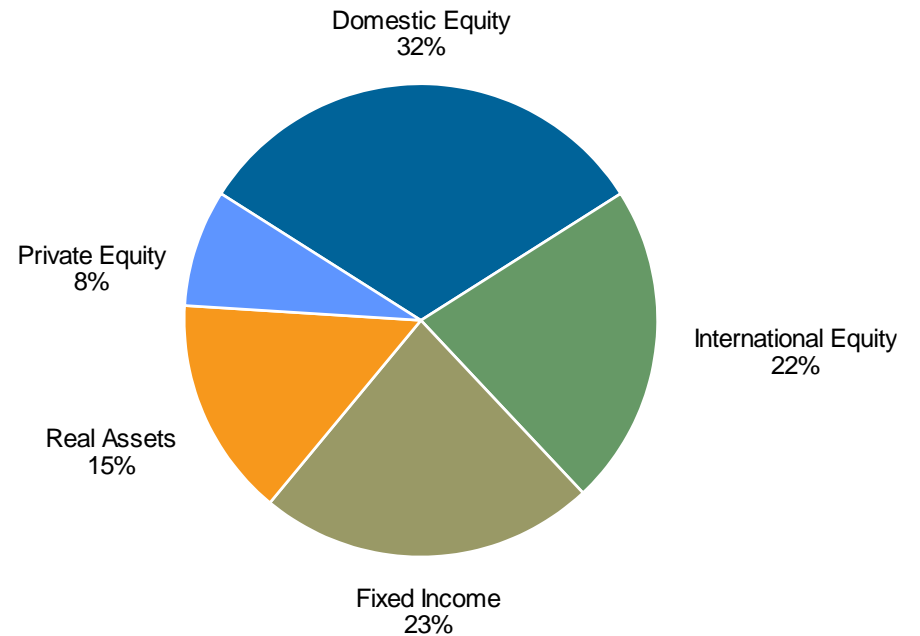
# Total Fund Asset Allocation

As of March 31, 2024

**Actual Asset Allocation**



**Target Asset Allocation**



Asset Class	\$000s Actual	Weight Actual	Min Target	Target	Max Target	Percent Difference	\$000s Difference
Domestic Equity	986,501	29.8%	28.0%	32.0%	36.0%	(2.2%)	(73,266)
International Equity	678,319	20.5%	19.0%	22.0%	25.0%	(1.5%)	(50,270)
Fixed Income	792,747	23.9%	20.0%	23.0%	26.0%	0.9%	31,040
Real Assets	446,016	13.5%	12.0%	15.0%	18.0%	(1.5%)	(50,750)
Private Equity	336,492	10.2%	0.0%	8.0%	12.0%	2.2%	71,551
Opportunistic	71,695	2.2%	0.0%	0.0%	5.0%	2.2%	71,695
<b>Total</b>	<b>3,311,770</b>	<b>100.0%</b>		<b>100.0%</b>			

## Total Fund Asset Distribution

	March 31, 2024			December 31, 2023		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
<b>Domestic Equity</b>	<b>\$986,500,735</b>	<b>29.79%</b>	<b>\$(72,087,567)</b>	<b>\$85,308,251</b>	<b>\$973,280,051</b>	<b>30.22%</b>
Parametric Domestic Equity Futures (1)	-77,002,502	(2.33%)	21,678,916	(7,977,385)	-90,704,033	(2.82%)
SSGA Russell 1000 Index (2)	791,426,836	23.90%	(92,926,108)	80,773,234	803,579,710	24.95%
DFA Small Cap Core	272,076,402	8.22%	(840,375)	12,512,402	260,404,374	8.09%
<b>International Equity</b>	<b>\$678,319,013</b>	<b>20.48%</b>	<b>\$(17,534,405)</b>	<b>\$30,257,552</b>	<b>\$665,595,866</b>	<b>20.67%</b>
SSGA World ex-US Index Fund	324,204,319	9.79%	310,000,000	14,204,319	-	-
Morgan Stanley Value	0	0.00%	(211,870,600)	(2,420,964)	214,291,564	6.65%
Artisan Partners Growth	0	0.00%	(208,371,991)	4,457,877	203,914,114	6.33%
TimesSquare Intl Small Cap	171,544,394	5.18%	57,264,800	8,029,397	106,250,197	3.30%
FIAM Select Emerging Equity	169,394,240	5.11%	57,500,000	4,735,801	107,158,439	3.33%
Parametric International Equity Futures	13,176,060	0.40%	(22,056,614)	1,251,123	33,981,551	1.06%
<b>Fixed Income</b>	<b>\$792,747,287</b>	<b>23.94%</b>	<b>\$79,205,317</b>	<b>\$(4,531,294)</b>	<b>\$718,073,264</b>	<b>22.30%</b>
Wellington Core Plus	339,586,119	10.25%	51,572,572	204,834	287,808,713	8.94%
Western Core Plus	336,663,748	10.17%	32,570,407	(2,021,029)	306,114,370	9.50%
Parametric Fixed Income Futures	116,497,420	3.52%	(4,937,662)	(2,715,099)	124,150,181	3.85%
<b>Real Assets</b>	<b>\$446,015,546</b>	<b>13.47%</b>	<b>\$(2,253,654)</b>	<b>\$(2,518,894)</b>	<b>\$450,788,093</b>	<b>14.00%</b>
<b>Real Estate</b>	<b>\$211,737,392</b>	<b>6.39%</b>	<b>\$(2,158,002)</b>	<b>\$(5,455,821)</b>	<b>\$219,351,216</b>	<b>6.81%</b>
Woodmont	13,999,995	0.42%	0	(3,099,996)	17,099,992	0.53%
UBS Trumbull Property Fund	87,832,046	2.65%	(885,277)	(1,482,326)	90,199,649	2.80%
AEW Core Property Trust	109,905,351	3.32%	(1,272,725)	(873,499)	112,051,575	3.48%
<b>Public Real Assets</b>	<b>\$234,278,153</b>	<b>7.07%</b>	<b>\$(95,652)</b>	<b>\$2,936,928</b>	<b>\$231,436,877</b>	<b>7.19%</b>
INVESCO Commodities Fund	57,191,328	1.73%	(95,652)	3,445,688	53,841,291	1.67%
BlackRock TIPS Index Fund	58,006,204	1.75%	0	17,980	57,988,225	1.80%
KBI Global Resources Fund	60,769,394	1.83%	0	(306,073)	61,075,467	1.90%
Blackrock REIT Index Fund	58,311,227	1.76%	0	(220,667)	58,531,894	1.82%

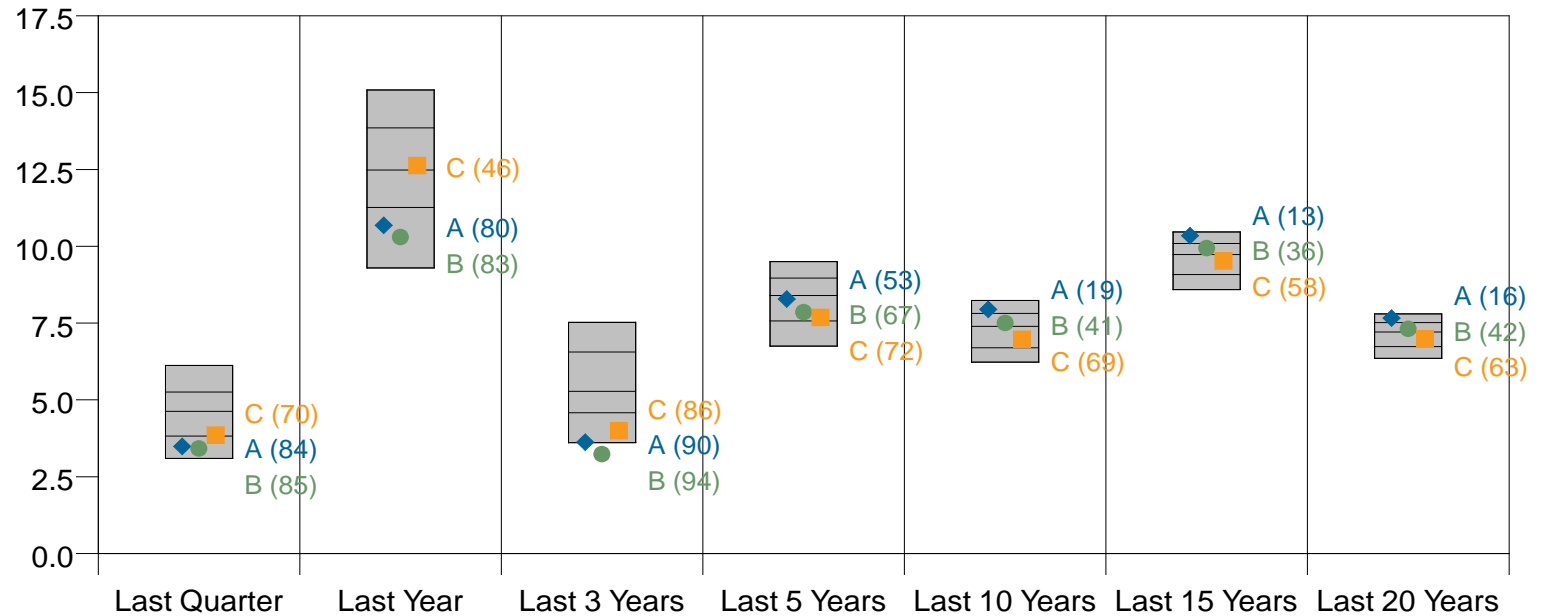
## Total Fund Asset Distribution

	March 31, 2024			Inv. Return	December 31, 2023	
	Market Value	Weight	Net New Inv.		Market Value	Weight
<b>Opportunistic (3)</b>	<b>\$71,694,606</b>	<b>2.16%</b>	<b>\$(123,928)</b>	<b>\$2,808,447</b>	<b>\$69,010,087</b>	<b>2.14%</b>
CarVal Credit Value V	27,051,378	0.82%	(86,991)	879,714	26,258,655	0.82%
Fortress Credit Opps Fund V	21,686,957	0.65%	1,612,497	1,214,494	18,859,966	0.59%
Varde Dislocation Fund	22,956,271	0.69%	(1,649,434)	714,239	23,891,466	0.74%
<b>Private Equity (4)</b>	<b>\$336,492,489</b>	<b>10.16%</b>	<b>\$(7,469,153)</b>	<b>\$0</b>	<b>\$343,961,642</b>	<b>10.68%</b>
Abbott ACE VI	31,480,823	0.95%	(2,500,000)	0	33,980,823	1.06%
Abbott ACE VII	35,347,792	1.07%	(875,000)	0	36,222,792	1.12%
Abbott 2016	69,245,809	2.09%	(1,237,500)	0	70,483,309	2.19%
Abbott 2017	20,872,105	0.63%	0	0	20,872,105	0.65%
Abbott 2021	11,996,660	0.36%	0	0	11,996,660	0.37%
Abbott 2023	2,879,494	0.09%	1,143,750	0	1,735,744	0.05%
Pathway PPEF 2008	32,739,300	0.99%	(3,176,225)	0	35,915,525	1.12%
Pathway PE I-7	30,024,798	0.91%	(882,893)	(0)	30,907,691	0.96%
Pathway PE I-8	57,526,827	1.74%	(1,062,136)	0	58,588,963	1.82%
Pathway PE I-9	16,940,747	0.51%	(230,657)	(0)	17,171,404	0.53%
Pathway PE I-10	23,842,416	0.72%	45,522	0	23,796,894	0.74%
Pathway PE I-11	3,595,718	0.11%	1,305,986	0	2,289,732	0.07%
<b>Total Fund</b>	<b>\$3,311,769,676</b>	<b>100.0%</b>	<b>\$(20,263,389)</b>	<b>\$111,324,062</b>	<b>\$3,220,709,002</b>	<b>100.0%</b>

# Total Fund Performance – Annualized

Returns for Periods Ended March 31, 2024

Group: Callan Public Fund Sponsor - Large (>1B)



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years	Last 20 Years
10th Percentile	6.12	15.09	7.52	9.51	8.24	10.47	7.80
25th Percentile	5.26	13.86	6.56	8.97	7.82	10.10	7.52
Median	4.63	12.49	5.28	8.40	7.40	9.74	7.21
75th Percentile	3.83	11.26	4.59	7.58	6.70	9.08	6.74
90th Percentile	3.10	9.30	3.61	6.76	6.24	8.59	6.35

MCERA Total Fund - Gross	◆ A	3.49	10.68	3.63	8.29	7.95	10.35	7.67
MCERA Total Fund - Net	● B	3.42	10.30	3.23	7.85	7.51	9.94	7.32
Marin-Total Fund Target	■ C	3.85	12.63	4.00	7.69	6.98	9.53	6.99

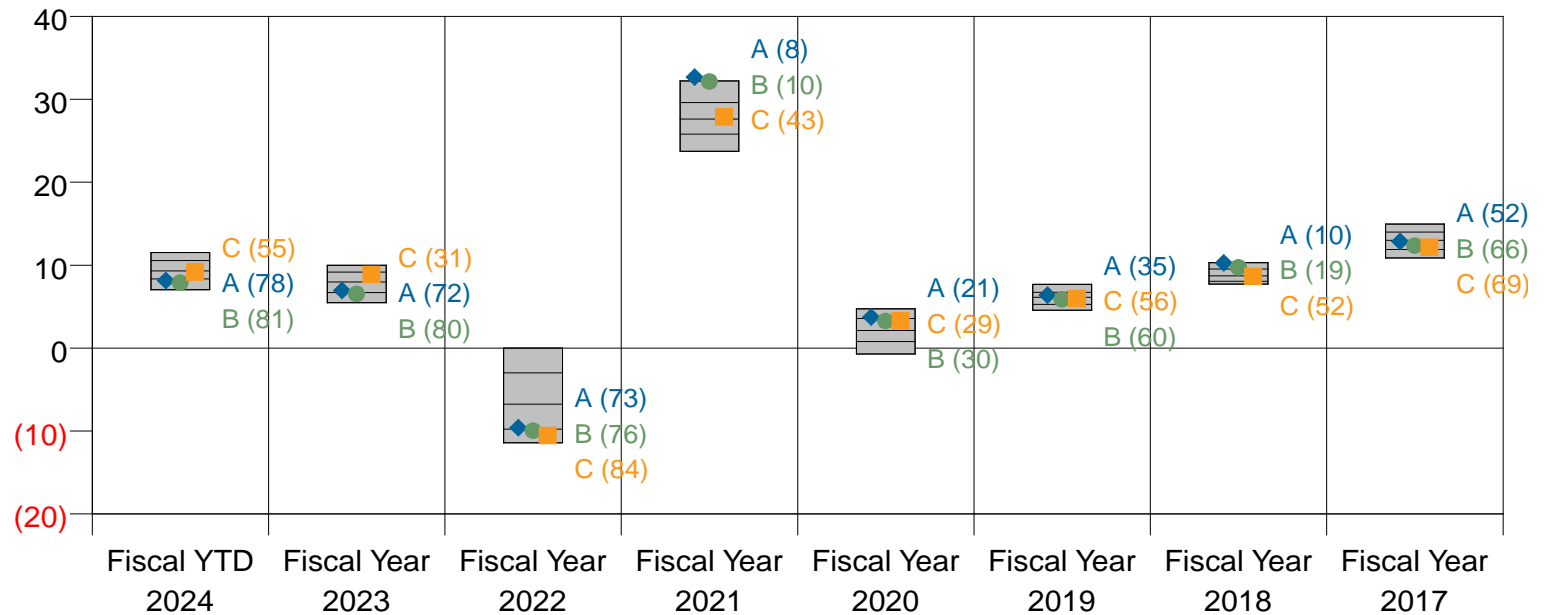
Current Quarter Target = 32.0% Russell 3000 Index, 22.0% MSCI ACWI ex US IMI Index, 23% Bloomberg Aggregate Index, 8.0% NCREIF NFI-ODCE Equal Weight Net, 1.8% Bloomberg Commodity Price Index, 1.8% S&P Global Natural Resources Index, 1.8% S&P DJ US Select REIT Index, 1.8% Bloomberg US TIPS Index, 4.8% Russell 3000 Index (Lagged) and 3.2% MSCI ACWI ex US IMI Index (Lagged).



# Total Fund Performance – Fiscal Year

## Fiscal Year Returns

Group: Callan Public Fund Sponsor - Large (>1B)



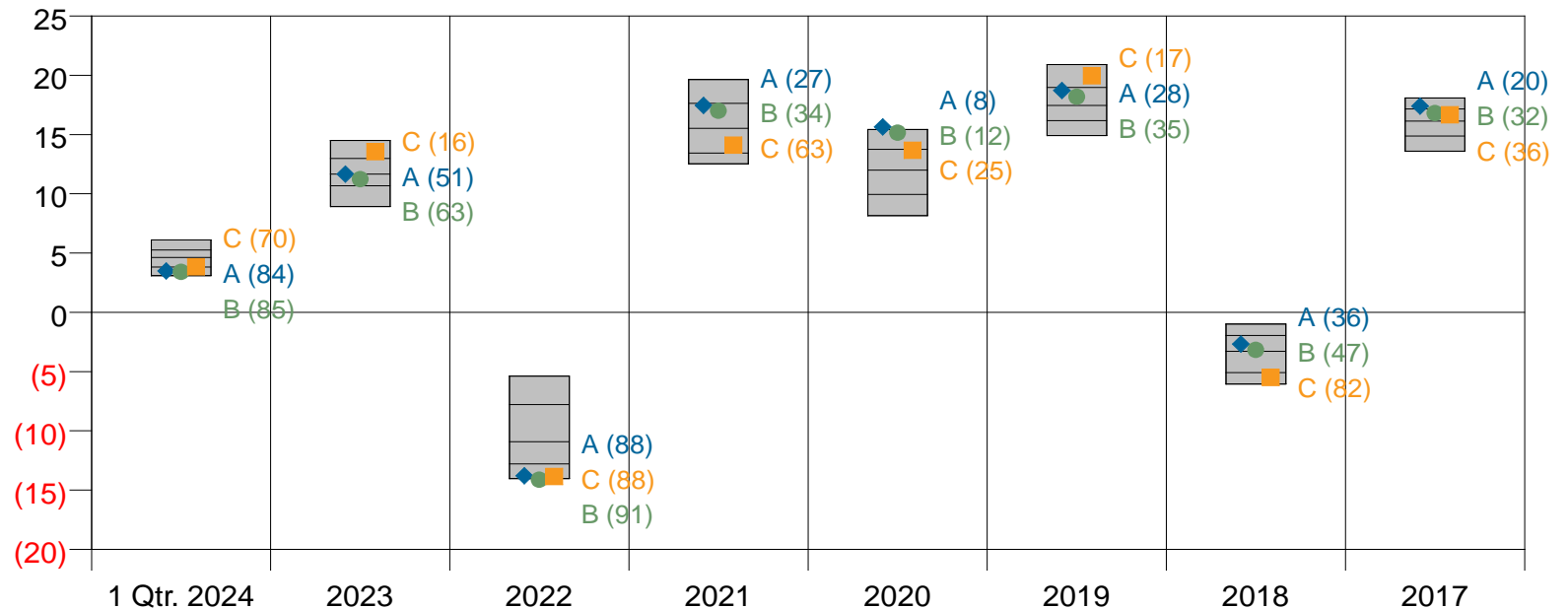
10th Percentile	11.52	10.00	0.01	32.23	4.74	7.70	10.30	14.97
25th Percentile	10.58	9.16	(2.97)	29.63	3.58	6.73	9.56	14.01
Median	9.33	7.98	(6.76)	27.65	2.13	6.13	8.71	13.00
75th Percentile	8.34	6.72	(9.78)	25.82	0.79	5.29	8.07	11.91
90th Percentile	7.04	5.47	(11.40)	23.75	(0.69)	4.57	7.74	10.88

MCERA Total Fund - Gross	◆ A	8.16	6.95	(9.60)	32.69	3.74	6.39	10.29	12.88
MCERA Total Fund - Net	● B	7.89	6.53	(9.95)	32.15	3.26	5.88	9.74	12.37
MCERA Total Fund Target	■ C	9.18	8.89	(10.52)	27.89	3.29	5.99	8.67	12.20

## Total Fund Performance – Calendar Years

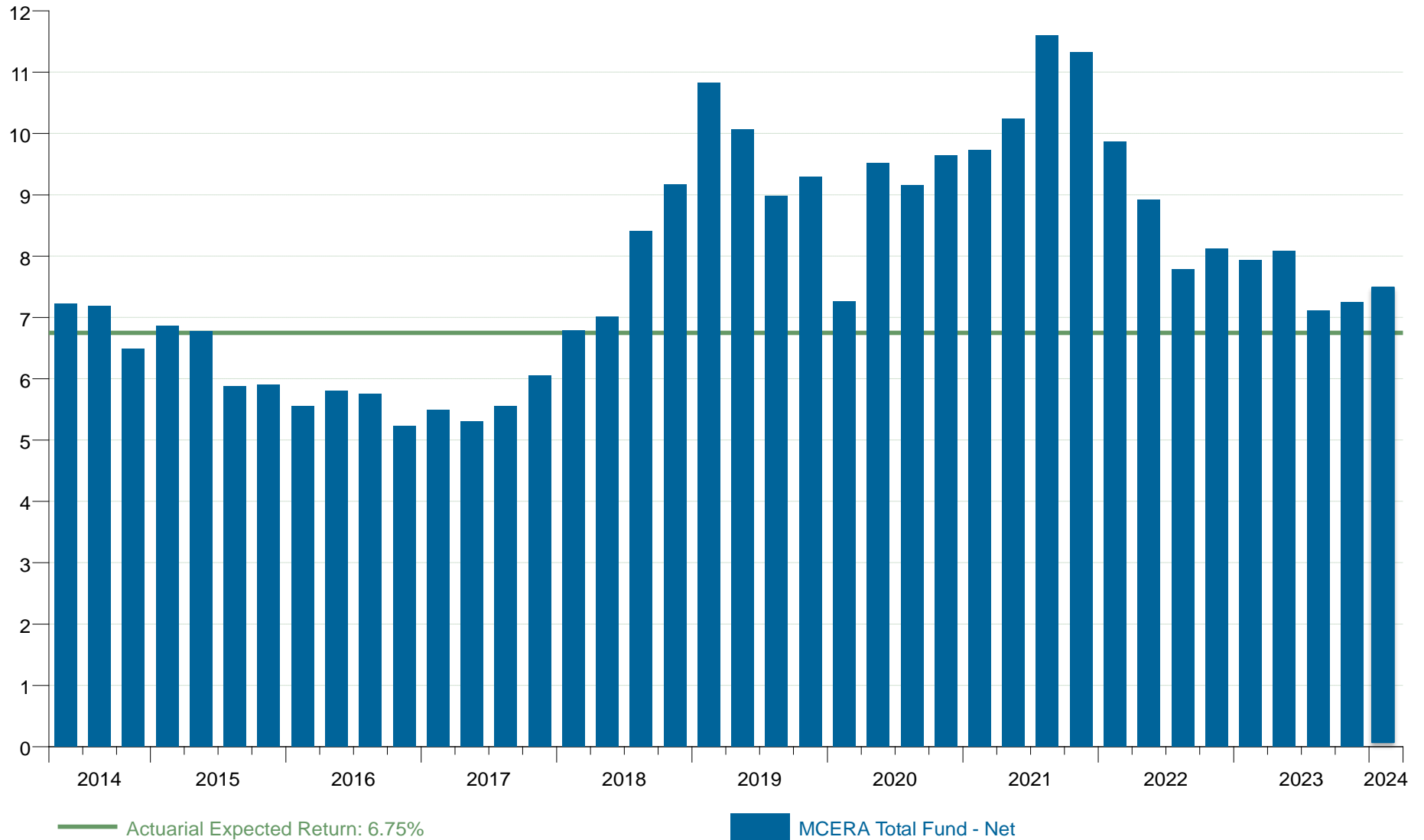
Returns for Periods Ended March 31, 2024

Group: Callan Public Fund Sponsor - Large (>1B)



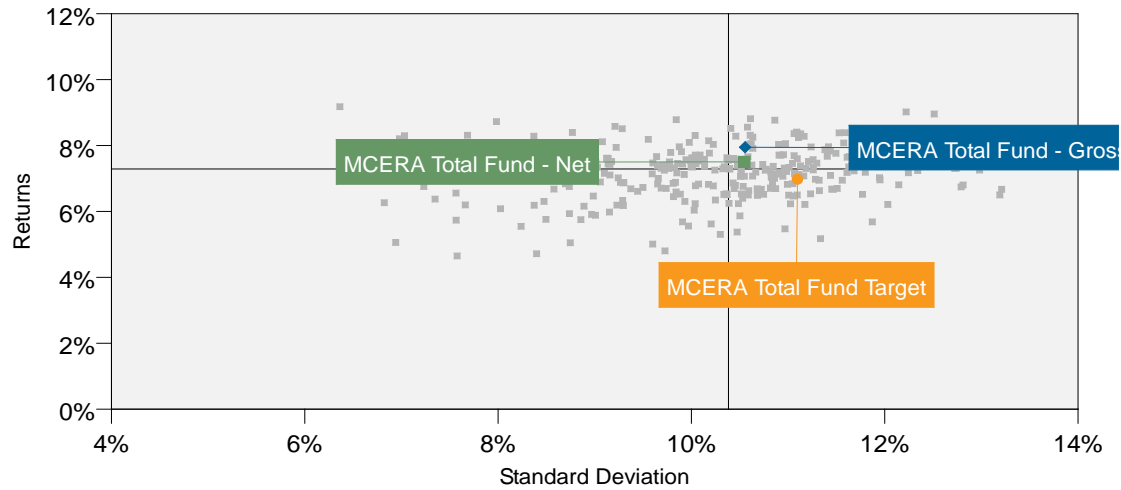
10th Percentile	6.12	14.51	(5.37)	19.66	15.44	20.92	(0.97)	18.09	
25th Percentile	5.26	13.00	(7.78)	17.63	13.77	18.98	(1.94)	17.17	
Median	4.63	11.68	(10.91)	15.54	12.01	17.45	(3.28)	16.14	
75th Percentile	3.83	10.68	(12.78)	13.44	9.96	16.18	(5.07)	14.89	
90th Percentile	3.10	8.94	(14.01)	12.53	8.16	14.92	(6.05)	13.61	
Total Fund - Gross	◆ A	3.49	11.67	(13.78)	17.47	15.66	18.73	(2.68)	17.41
MCERA Total Fund - Net	● B	3.42	11.25	(14.12)	17.01	15.16	18.19	(3.16)	16.81
Total Fund Target	■ C	3.85	13.57	(13.84)	14.12	13.68	19.97	(5.49)	16.68

# Annualized 10 Year Total Fund Net Returns (Quarterly Roll)

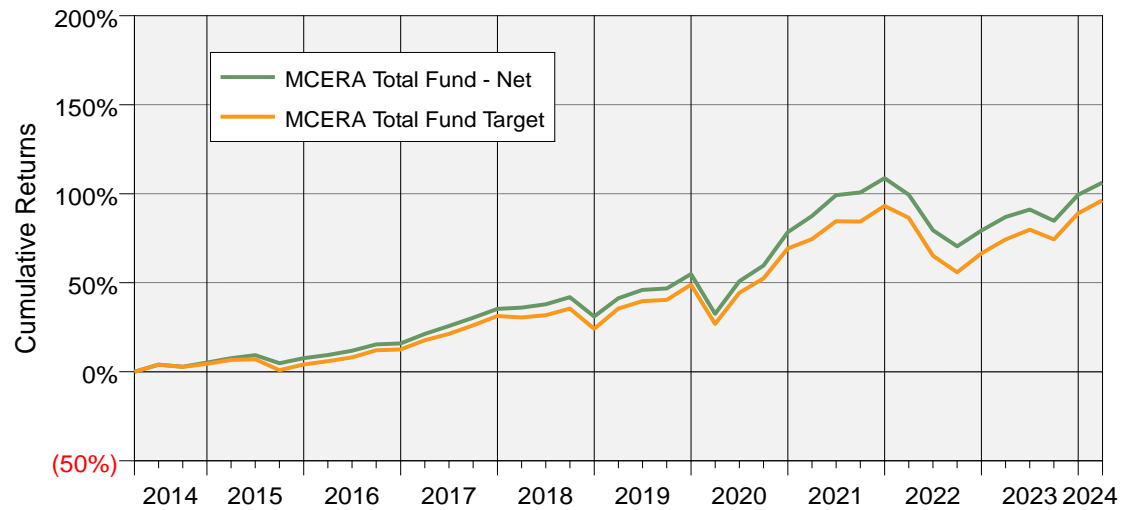


# Total Fund – Cumulative Returns Relative to Target

Ten Year Annualized Risk vs. Return  
As of March 31, 2024



Total Fund Cumulative Returns vs. Target  
10 Years Ended March 31, 2024



# Watchlist

## Investment Manager Monitoring Summary Report Active Managers as of March 31, 2024




Investment Manager	Organization/ Team	3 Year Performance vs Benchmark	3 Year Performance vs Peers	5 Year Performance vs Benchmark	5 Year Performance vs Peers	Qualify for Watchlist?	Date Added
<b>DFA Small Cap Core Equity</b> <i>Russell 2000 Index</i>						No	
<b>TimesSquare International Small Cap Equity</b> <i>MSCI EAFE Small Cap Index</i>				N/A	N/A		
<b>Fidelity Emerging Markets Equity</b> <i>MSCI Emerging Markets Index</i>		N/A	N/A	N/A	N/A		
<b>Wellington Core Plus Fixed Income</b> <i>Bloomberg U.S Aggregate Index</i>						No	4Q23
<b>Western Asset Core Plus Fixed Income</b> <i>Bloomberg U.S Aggregate Index</i>		N/A	N/A	N/A	N/A	Yes	
<b>Invesco Balanced Risk Commodity Fund</b> <i>Bloomberg Commodity Index</i>						No	
<b>KBI Global Natural Resources Fund</b> <i>S&amp;P Global Natural Resource Index</i>			N/A		N/A		
<b>UBS Trumbull Property Fund*</b> <i>NFI-ODCE Index</i>		N/A	N/A	N/A	N/A		4Q19

\*UBS Trumbull Property Fund placed on watch for organizational concerns. Quantitative criteria for private market portfolios under review by Governance Committee.

### Quantitative Criteria

If a manager trails its relevant benchmark by more than 100 basis points (net of fees) and ranks in the bottom quartile of its peer universe (gross of fees ranking) for the trailing three years, or if a manager trails its relevant benchmark (net of fees) or ranks below median of its peer universe (gross of fees ranking) for the trailing five years, then the manager may be placed on the Watchlist.

### Color Code

	meets watch list criteria, no concerns, no actions recommended
	concerns exist, no actions recommended
	violates watch list criteria, concerns exist, action to be determined

# Watchlist

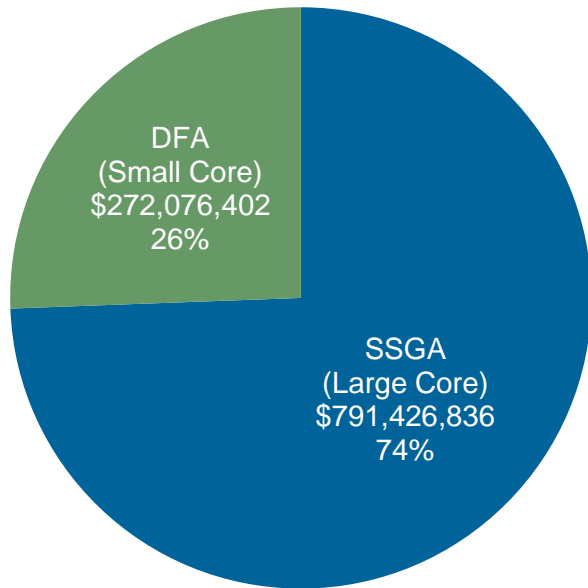
Investment Manager	3 Year Net Return Trails Benchmark by more than 100 bps (relative return shown in bps)	<u>AND</u>	3 Year Gross Return Ranks 75th - 100th%	<u>OR</u>	5 Year Net Return Trails Benchmark (relative return shown in bps)	<u>OR</u>	5 Year Gross Return Ranks 50th - 100th%	Qualify for Watchlist (Quantitative)
<b>DFA Small Cap Core Equity</b> <i>Russell 2000 Index</i>	556		27th		287		30th	No
<b>TimesSquare International Small Cap Equity</b> <i>MSCI EAFE Small Cap Index</i>	-253		69th		N/A		N/A	No
<b>Fidelity Emerging Markets Equity</b> <i>MSCI Emerging Markets Index</i>	N/A		N/A		N/A		N/A	No
<b>Wellington Core Plus Fixed Income</b> <i>Bloomberg U.S Aggregate Index</i>	51		56th		93		45th	No
<b>Western Asset Core Plus Fixed Income</b> <i>Bloomberg U.S Aggregate Index</i>	N/A		N/A		N/A		N/A	No
<b>Invesco Balanced Risk Commodity Fund</b> <i>Bloomberg Commodity Index</i>	-91		80th		159		19th	No
<b>KBI Global Natural Resources Fund</b> <i>S&amp;P Global Natural Resource Index</i>	-512		N/A		369		N/A	No
<b>UBS Trumbull Property Fund</b> <i>NCREIF NFI-ODCE Index</i>	Quantitative criteria for private markets portfolios under review by Governance Committee. On watch due to organizational changes.							Under Review

Callan

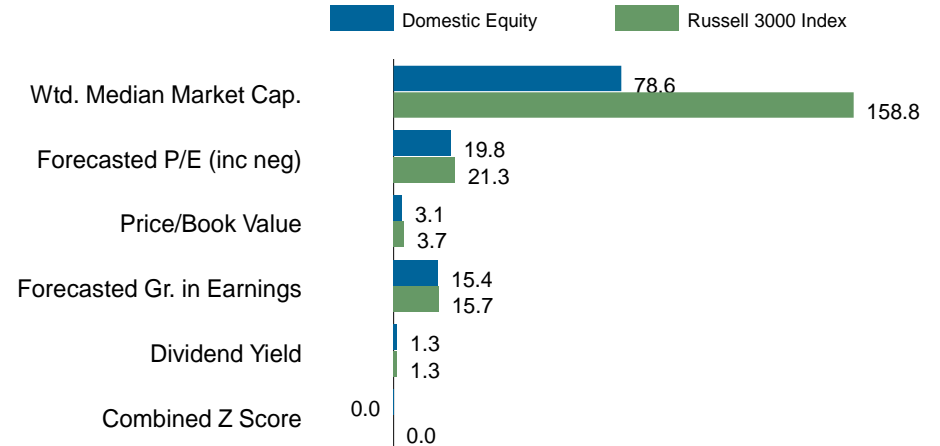
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**MCERA Asset Class Review**

# Domestic Equity Composite



## Portfolio Characteristics as of March 31, 2024

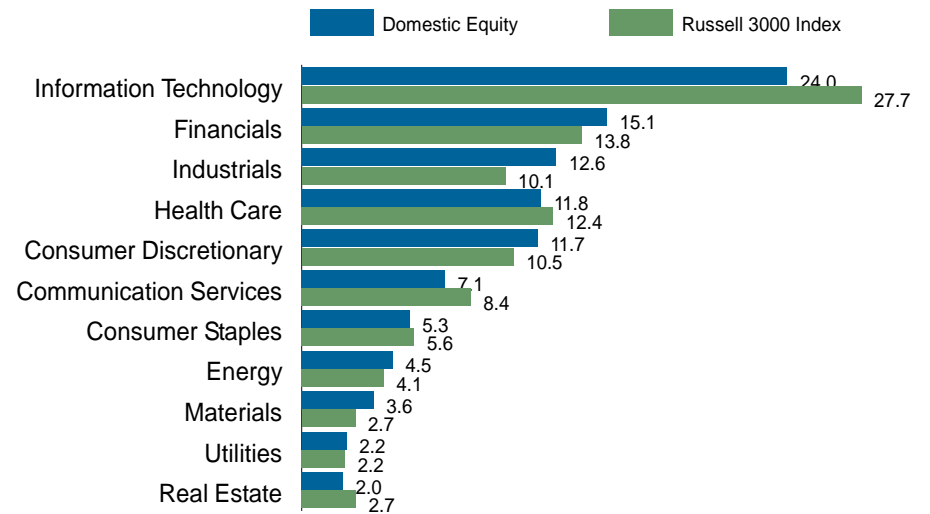


## Style Exposure Matrix

### Holdings as of March 31, 2024

	-- Domestic Equity		-- Russell 3000 Index	
	Value	Core	Growth	Total
Large	13.9% (96)	16.6% (96)	33.2% (100)	63.7% (292)
	17.3% (96)	20.9% (96)	41.7% (100)	79.9% (292)
Mid	4.3% (165)	5.4% (200)	6.7% (207)	16.4% (572)
	4.6% (166)	5.0% (207)	4.7% (213)	14.3% (586)
Small	3.6% (212)	7.4% (428)	6.4% (308)	17.4% (948)
	1.3% (282)	2.2% (528)	1.8% (362)	5.3% (1172)
Micro	1.1% (341)	0.9% (243)	0.5% (120)	2.4% (704)
	0.2% (292)	0.3% (423)	0.1% (161)	0.6% (876)
Total	22.8% (814)	30.3% (967)	46.8% (735)	100.0% (2516)
	23.4% (836)	28.3% (1254)	48.3% (836)	100.0% (2926)

## Sector Allocation as of March 31, 2024





## Domestic Equity Composite

### Returns and Rankings for Periods Ended March 31, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Domestic Equity - Net</b>	<b>9.06</b>	<b>28.00</b>	<b>9.56</b>	<b>14.35</b>	<b>12.02</b>
Domestic Equity Target	10.02	29.29	9.78	14.34	12.33
<b>SSGA - Net</b>	<b>10.27</b>	<b>29.85</b>	<b>10.58</b>	<b>14.47</b>	<b>12.69</b>
Large Cap Blended Benchmark	10.30	29.87	10.57	14.47	12.68
Ranking vs. Large Cap Equity	64	55	51	49	51
<b>DFA Small Core - Net</b>	<b>4.74</b>	<b>19.80</b>	<b>5.46</b>	<b>10.97</b>	--
Russell 2000 Index	5.18	19.71	(0.10)	8.10	7.58
Ranking vs. Small Cap Equity	76	44	27	30	--

### Returns and Rankings for Calendar Years

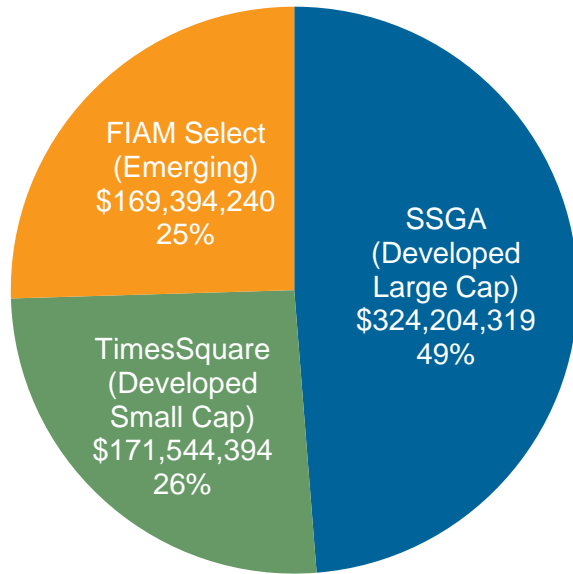
	1 Qtr. 2024	2023	2022	2021	2020
<b>Domestic Equity - Net</b>	<b>9.06</b>	<b>25.01</b>	<b>(17.43)</b>	<b>29.74</b>	<b>17.85</b>
Domestic Equity Target	10.02	25.96	(19.21)	25.66	20.89
<b>SSGA - Net</b>	<b>10.27</b>	<b>26.50</b>	<b>(19.06)</b>	<b>27.16</b>	<b>18.33</b>
Large Cap Blended Benchmark	10.30	26.53	(19.13)	27.15	18.40
Ranking vs. Large Cap Equity	64	50	55	49	53
<b>DFA Small Core - Net</b>	<b>4.74</b>	<b>18.16</b>	<b>(12.97)</b>	<b>29.22</b>	<b>11.74</b>
Russell 2000 Index	5.18	16.93	(20.44)	14.82	19.96
Ranking vs. Small Cap Equity	76	37	21	19	54

- The domestic equity composite underperformed the benchmark over the quarter and last year.
- Although small cap has underperformed large cap over intermediate and long time periods, DFA has had strong relative outperformance over the last one, three, and five years.
  - They exclude stocks with the lowest profitability and highest relative prices (high growth). At times, the market has favored the relative safety of value-oriented stocks, which has greatly benefitted returns in 2021 and 2022.

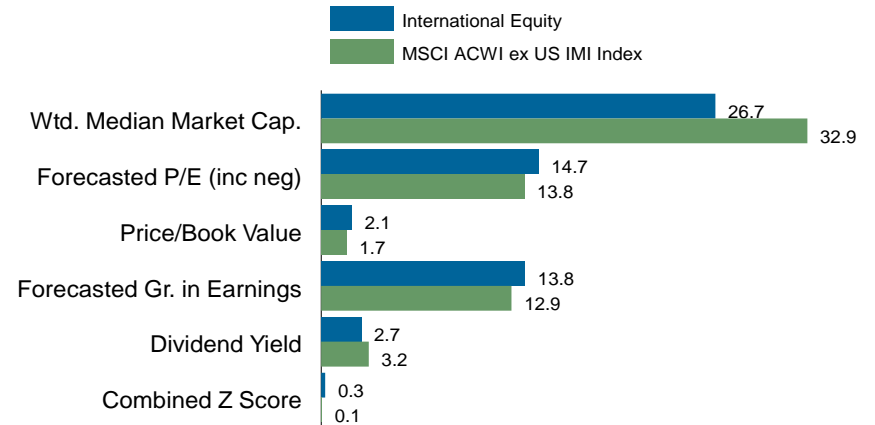
The Domestic Equity Target consists of the Russell 3000 Index.

The Large Cap Blended Benchmark consists of the S&P 500 Index to 7/31/2021 and the Russell 1000 Index thereafter.

# International Equity Composite



## Portfolio Characteristics as of March 31, 2024

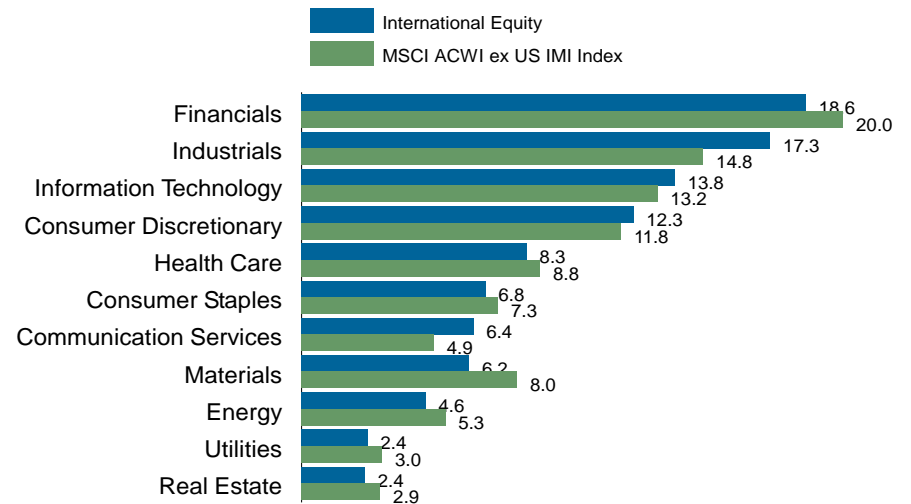


## Region & Style Exposure Matrix Holdings as of March 31, 2024

-- International Equity  
-- MSCI ACWI ex US IMI Index

Region	Value	Core	Growth	Total
Europe	11.9% 10.6% (461)	13.8% 13.3% (506)	16.0% 16.3% (450)	41.6% 40.2% (1417)
N. America	1.4% 2.6% (95)	1.6% 2.1% (118)	1.5% 3.0% (96)	4.5% 7.7% (309)
Pacific	7.5% 6.9% (527)	9.1% 9.2% (520)	7.7% 7.8% (472)	24.2% 23.9% (1519)
Emerging	7.5% 7.2% (1028)	11.5% 10.9% (1191)	10.7% 10.1% (1091)	29.7% 28.2% (3310)
Total	28.3% 27.4% (2111)	35.9% 35.4% (2335)	35.8% 37.3% (2109)	100.0% 100.0% (6555)

## Sector Allocation as of March 31, 2024



## International Equity Composite

### Returns and Rankings for Periods Ended March 31, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>International Equity - Net</b>	<b>5.29</b>	<b>10.74</b>	<b>0.49</b>	<b>4.94</b>	<b>3.95</b>
International Equity - Target	4.33	13.20	1.72	6.00	4.32
<b>TimesSquare - Net</b>	<b>5.62</b>	<b>8.66</b>	<b>(3.89)</b>	--	--
MSCI EAFE Small Cap	2.40	10.45	(1.36)	4.94	4.70
Ranking vs. International Small Cap Equity	31	58	69	--	--
<b>FIAM Select EM - Net</b>	<b>3.41</b>	<b>10.27</b>	--	--	--
MSCI Emerging Markets Index	2.37	8.15	(5.05)	2.22	2.95
Ranking vs. Emerging Markets Equity	41	44	--	--	--

### Returns and Rankings for Periods Ended March 31, 2024

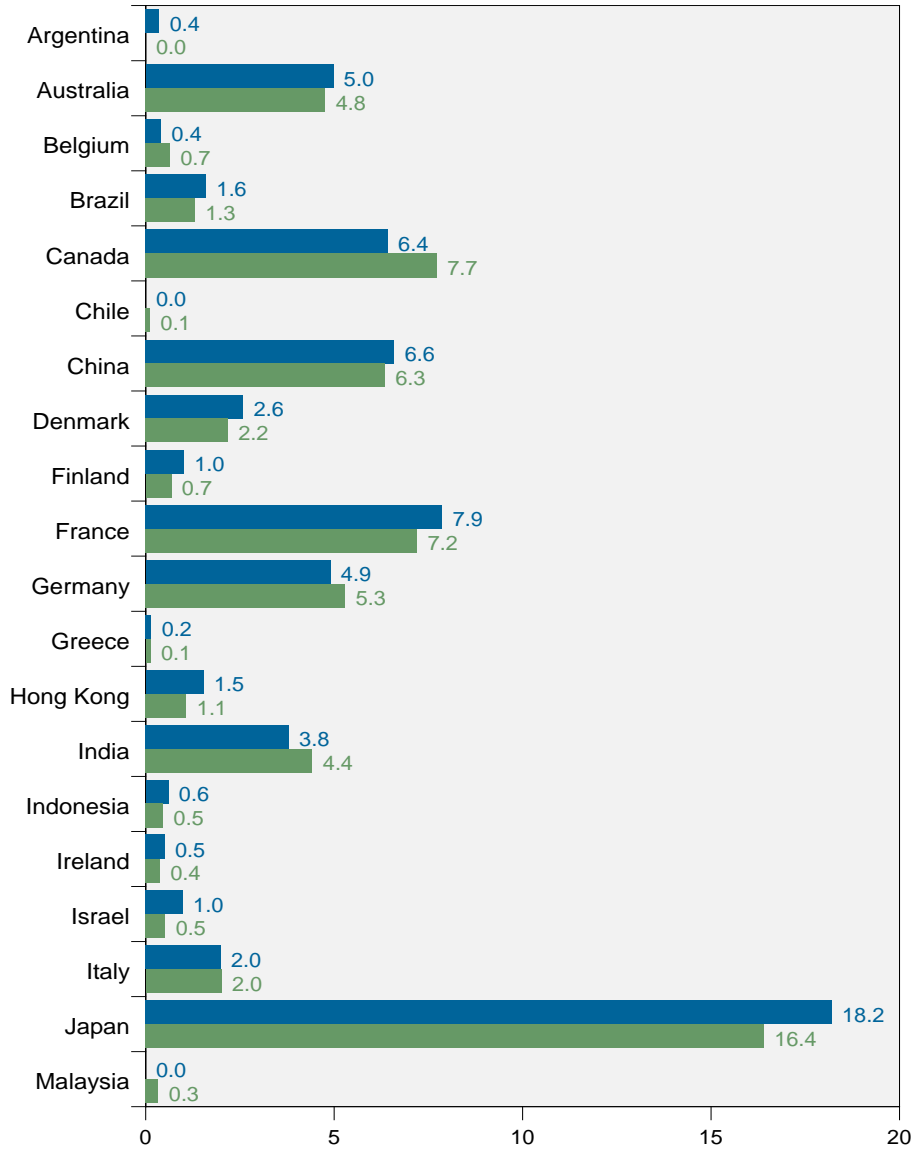
	1 Qtr.				
	2024	2023	2022	2021	2020
<b>International Equity - Net</b>	<b>5.29</b>	<b>14.35</b>	<b>(19.28)</b>	<b>5.28</b>	<b>10.79</b>
International Equity - Target	4.33	15.62	(16.58)	8.53	11.12
<b>TimesSquare - Net</b>	<b>5.62</b>	<b>12.32</b>	<b>(26.82)</b>	<b>2.18</b>	<b>13.87</b>
MSCI EAFE Small Cap	2.40	13.16	(21.39)	10.10	12.34
Ranking vs. International Small Cap Equity	31	66	74	93	40
<b>FIAM Select EM - Net</b>	<b>3.41</b>	<b>12.22</b>	<b>(23.89)</b>	--	--
MSCI Emerging Markets Index	2.37	9.83	(20.09)	(2.54)	18.31
Ranking vs. Emerging Markets Equity	41	44	70	--	--

- Morgan Stanley and Artisan were terminated in February, and the passively managed SSGA World ex-US Index Fund was inceptioned.
  - Performance for SSGA will be shown with its first full quarter return in 2Q.
  - The International Equity composite return captures the transition activity.
- The International Equity composite outperformed the benchmark during the quarter but fell short over the trailing year.
  - TimesSquare: outperformance was driven by strong stock selection in Europe and Japan.
  - FIAM: the strategy's overweight position to Consumer Discretionary and stock selection within the sector drove outperformance.

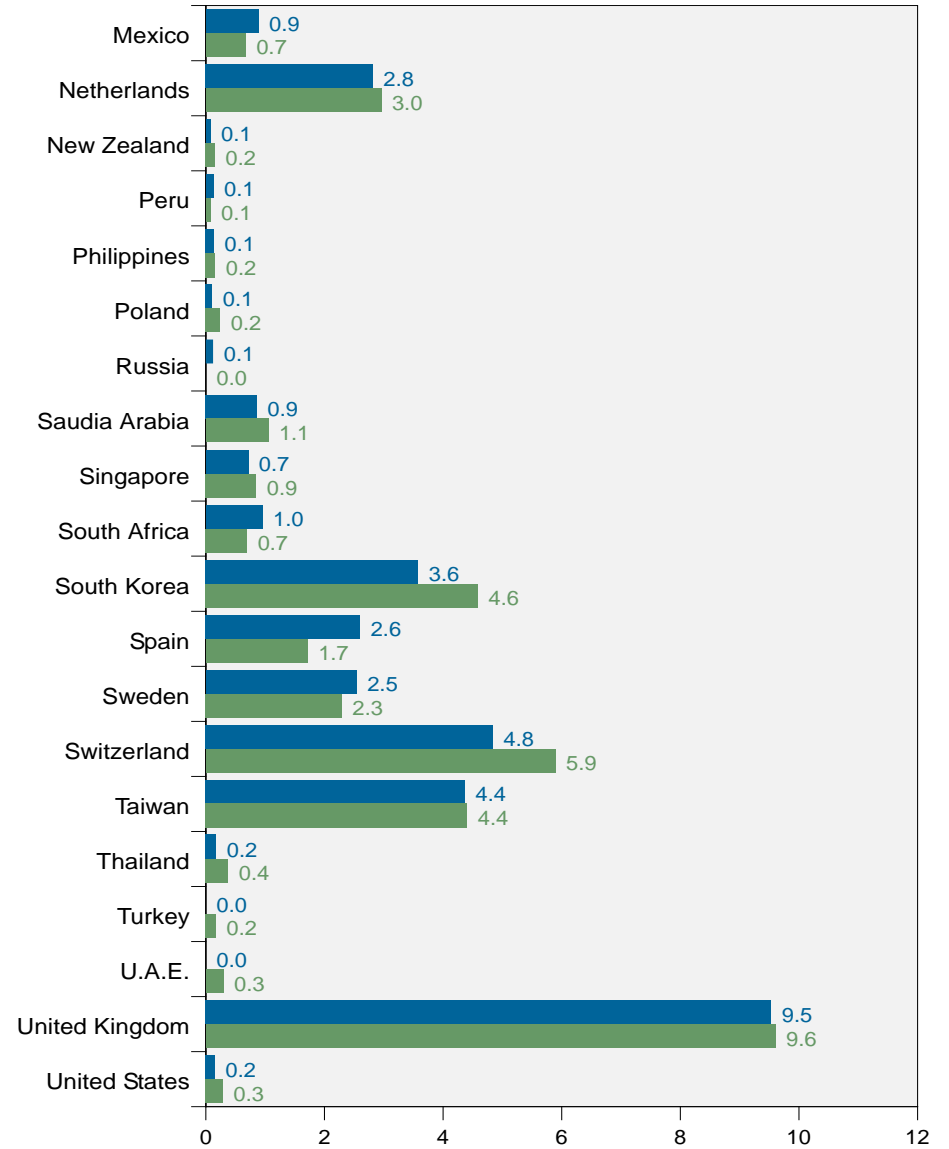
The International Equity Target is comprised of 100% MSCI EAFE Index through 06/30/2010, and 100% MSCI ACWI ex-US IMI Index thereafter.

# International Equity Composite

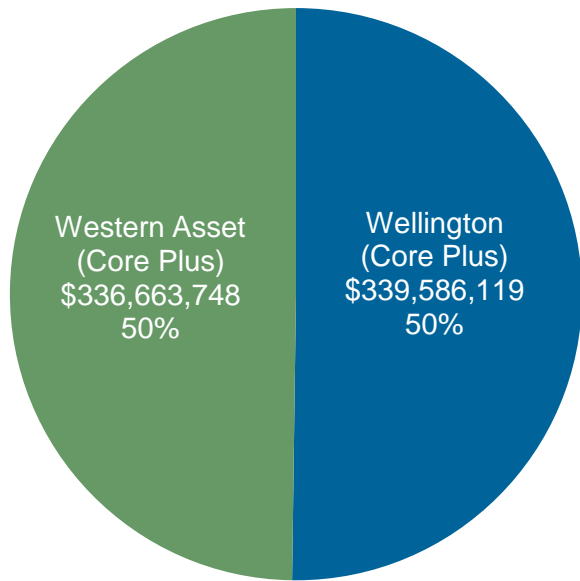
Country Allocations as of March 31, 2024



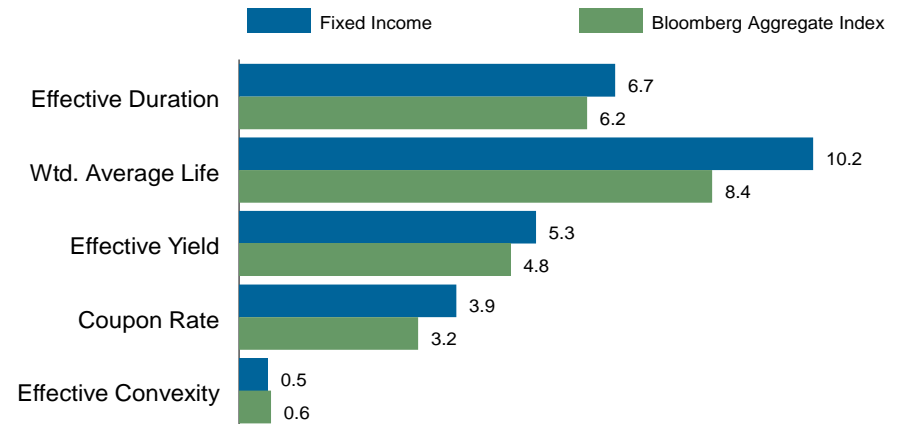
-- International Equity  
-- MSCI ACWI ex US IMI Index



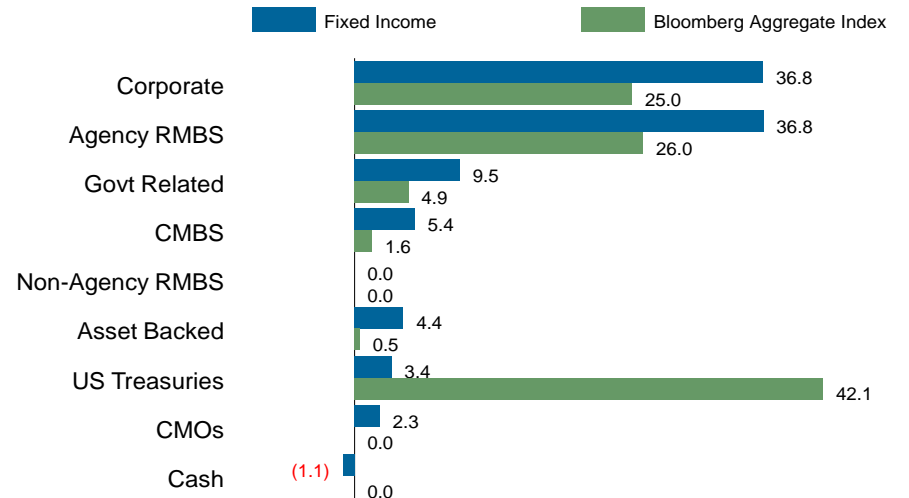
# Fixed Income Composite



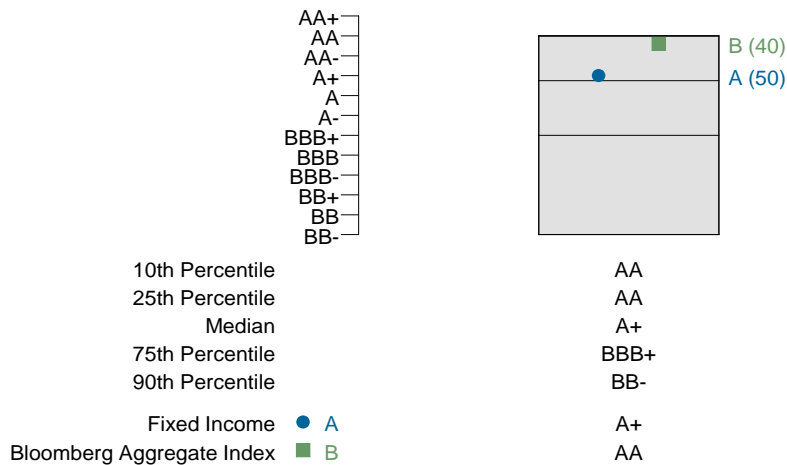
## Portfolio Characteristics as of March 31, 2024



## Sector Allocation as of March 31, 2024



## Quality Rating as of March 31, 2024 Total Domestic Fixed Income Database



## Fixed Income Composite

### Returns and Rankings for Periods Ended March 31, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Fixed Income - Net</b>	<b>(0.71)</b>	<b>1.62</b>	<b>(3.57)</b>	<b>0.32</b>	<b>1.51</b>
Fixed Income Target	(0.78)	1.70	(3.00)	0.02	1.12
<b>Wellington - Net</b>	<b>(0.07)</b>	<b>3.08</b>	<b>(1.95)</b>	<b>1.29</b>	<b>2.37</b>
Bloomberg Aggregate Index	(0.78)	1.70	(2.46)	0.36	1.54
Ranking vs. Core Plus Fixed Income	38	55	56	45	42
<b>Western Asset - Net</b>	<b>(0.77)</b>	<b>2.84</b>	<b>(1.66)</b>	<b>1.70</b>	<b>2.52</b>
Western Asset Blended Benchmark	(0.78)	1.70	(1.98)	0.88	1.86
Ranking vs. Core Plus Fixed Income	94				

### Returns and Rankings for Calendar Years

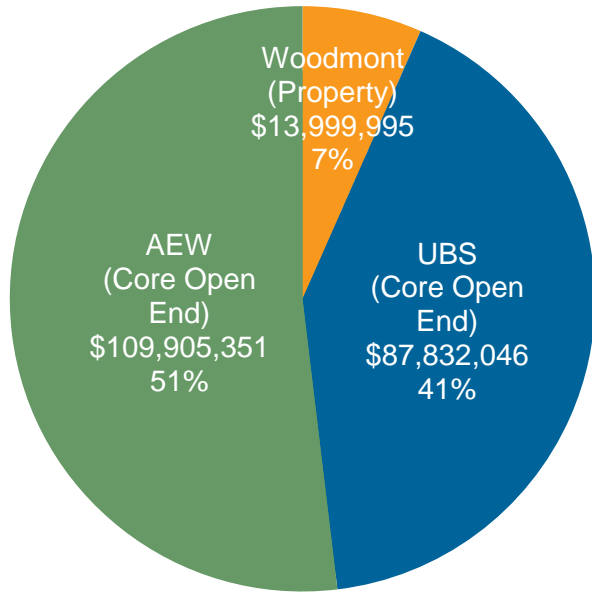
	1 Qtr. 2024	2023	2022	2021	2020
<b>Fixed Income - Net</b>	<b>(0.71)</b>	<b>5.74</b>	<b>(15.56)</b>	<b>(2.50)</b>	<b>11.47</b>
Fixed Income Target	(0.78)	5.53	(13.58)	(2.79)	8.08
<b>Wellington - Net</b>	<b>(0.07)</b>	<b>6.66</b>	<b>(13.68)</b>	<b>(0.71)</b>	<b>9.93</b>
Bloomberg Aggregate Index	(0.78)	5.53	(13.01)	(1.54)	7.51
Ranking vs. Core Plus Fixed Income	38	55	62	64	26
<b>Western Asset - Net</b>	<b>(0.77)</b>	<b>7.32</b>	<b>(11.71)</b>	<b>(0.43)</b>	<b>10.03</b>
Western Asset Blended Benchmark	(0.78)	5.53	(11.01)	(1.03)	7.08
Ranking vs. Core Plus Fixed Income	94				

- The Fixed Income composite outpaced the benchmark during the quarter but trailed over the last year. Performance for periods longer than one year includes the Colchester Global and Western Asset Intermediate Credit portfolios (transitioned in 4Q22).
  - Wellington: relative returns were bolstered by active duration and yield curve management, as well as an overweight to TIPS.
  - Western Asset: produced benchmark like returns in the quarter as strength in structured product positioning and an emerging markets overweight was offset by weakness in interest rate positioning.

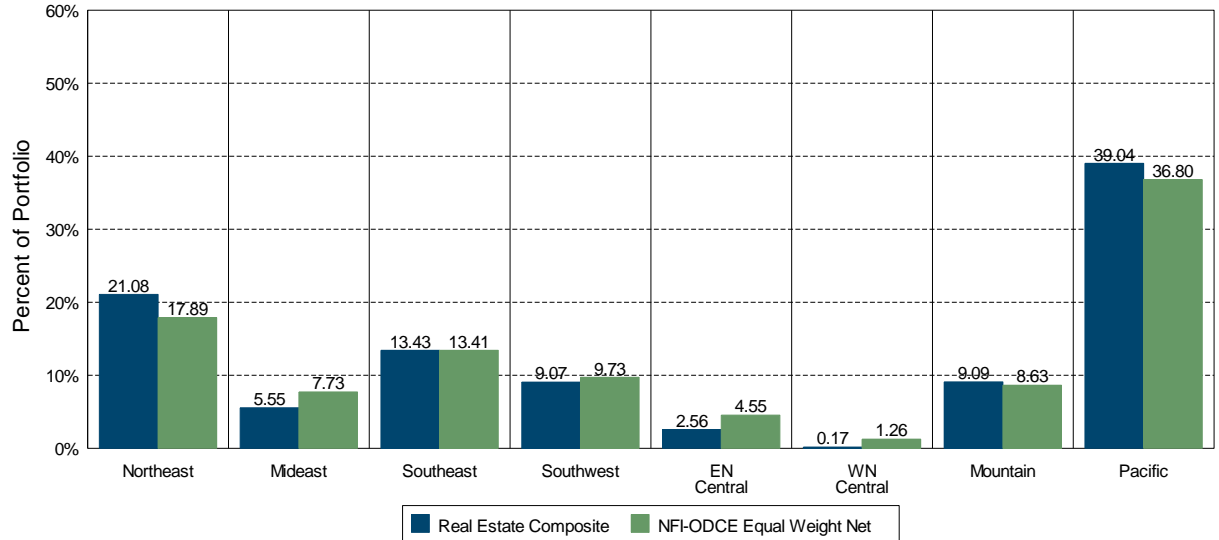
Fixed Income Target is comprised of 100% Bloomberg US Aggregate Index until March 2014, 50% Bloomberg US Aggregate Index, 25% Bloomberg US Intermediate Credit Index, and 25% FTSE World Government Bond Index until November 2022, and 100% Bloomberg US Aggregate Index thereafter.

Western Asset Blended Benchmark is comprised of the Bloomberg US Aggregate Index until March 2014, the Bloomberg US Intermediate Credit Index to 11/6/2022, and the Bloomberg US Aggregate Index thereafter.

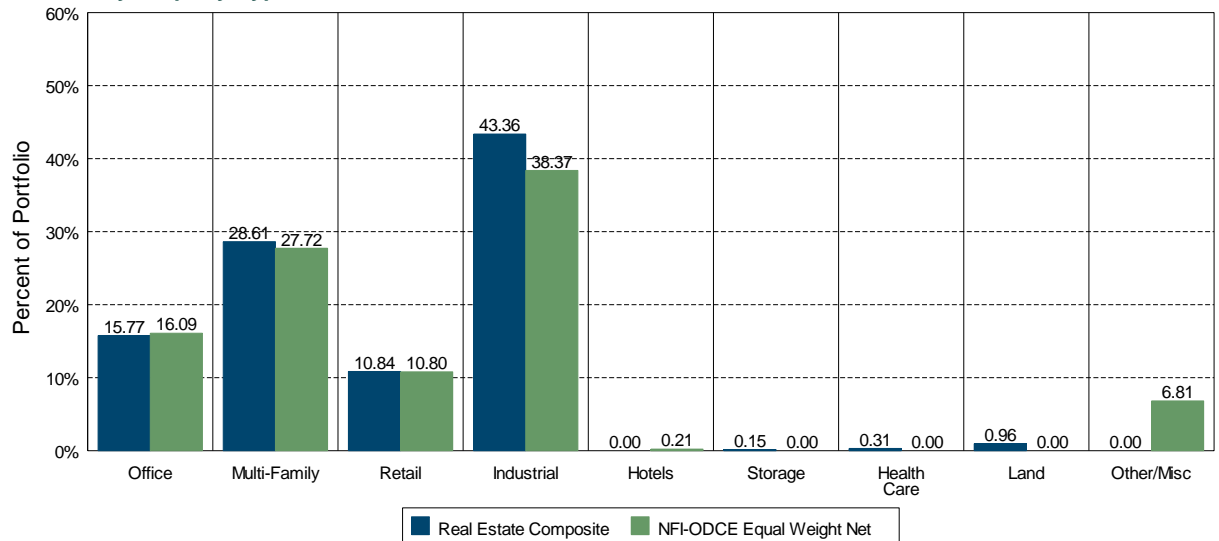
# Real Estate Composite



Diversification by Geographic Region as of March 31, 2024



Diversification by Property Type as of March 31, 2024



## Real Estate Composite

### Returns and Rankings for Periods Ended March 31, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Real Estate - Net</b>	<b>(2.67)</b>	<b>(9.53)</b>	<b>1.37</b>	<b>0.60</b>	<b>6.08</b>
Real Estate Target	(2.38)	(12.33)	2.81	2.98	6.15
<b>AEW Core Property Trust - Net</b>	<b>(1.00)</b>	<b>(7.39)</b>	<b>4.52</b>	<b>3.96</b>	<b>6.30</b>
NFI-ODCE Equal Wt Net Index	(2.38)	(12.33)	2.81	2.98	6.15
Ranking vs. Core Open End Funds	1	7	31	30	57
<b>UBS Trumbull Property Fund - Net</b>	<b>(1.82)</b>	<b>(10.63)</b>	<b>(0.13)</b>	<b>(1.49)</b>	<b>2.95</b>
NFI-ODCE Equal Wt Net Index	(2.38)	(12.33)	2.81	2.98	6.15
Ranking vs. Core Open End Funds	42	39	90	95	95

### Returns and Rankings for Calendar Years

	1 Qtr. 2024	2023	2022	2021	2020
<b>Real Estate - Net</b>	<b>(2.67)</b>	<b>(12.04)</b>	<b>6.20</b>	<b>16.16</b>	<b>(2.29)</b>
Real Estate Target	(2.38)	(13.33)	7.56	21.88	0.75
<b>AEW Core Property Trust - Net</b>	<b>(1.00)</b>	<b>(10.00)</b>	<b>7.95</b>	<b>21.00</b>	<b>0.57</b>
NFI-ODCE Equal Wt Net Index	(2.38)	(13.33)	7.56	21.88	0.75
Ranking vs. Core Open End Funds	1	23	54	56	66
<b>UBS Trumbull Property Fund - Net</b>	<b>(1.82)</b>	<b>(15.53)</b>	<b>5.21</b>	<b>15.41</b>	<b>(4.68)</b>
NFI-ODCE Equal Wt Net Index	(2.38)	(13.33)	7.56	21.88	0.75
Ranking vs. Core Open End Funds	42	75	82	89	96

- The AEW Core Property Trust's current leverage is 30% (NFI-ODCE leverage: 27%).
- The UBS Trumbull Property Fund's current leverage is 22%.
- The office sector continued to face headwinds, while residential and industrial also detracted to a lesser extent. Retail was neutral.

MCERA's office building is included in the real estate composite ("Woodmont").

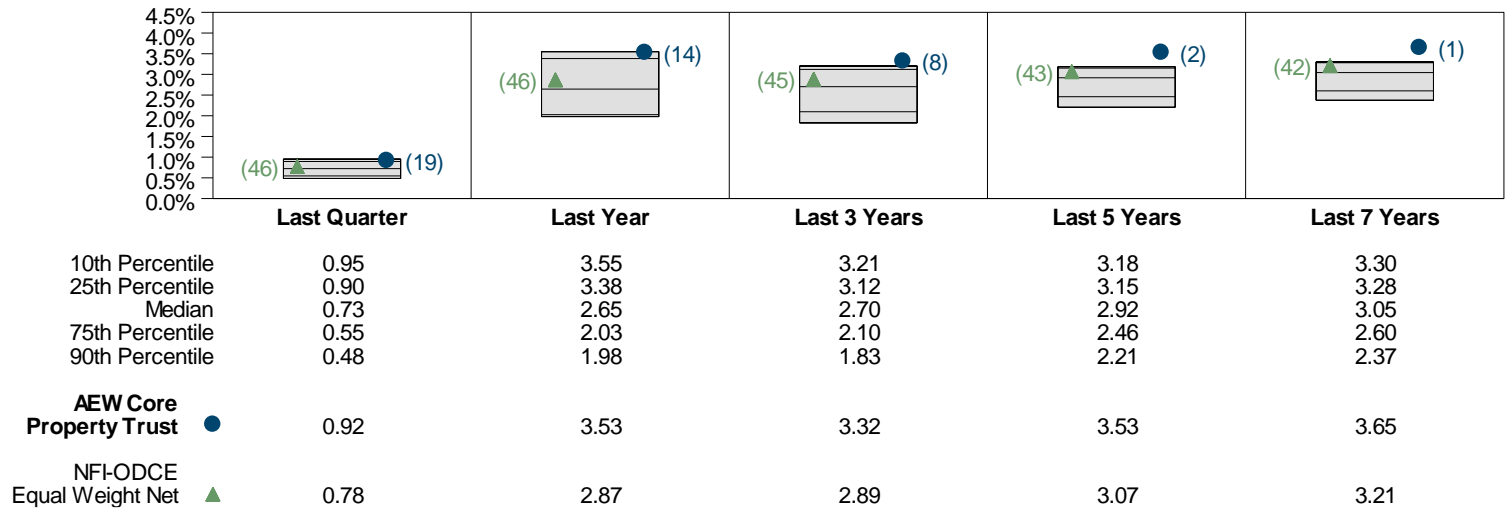
- The property was recently appraised, and the value declined.
- This is captured in the Real Estate composite return and accounts for the return difference between the core funds during the first quarter.

The Real Estate Target is comprised of the NCREIF Classic Index through 12/31/2004, NCREIF Total Property Index through 12/31/2014, and the NFI-ODCE Equal Weight Net thereafter.

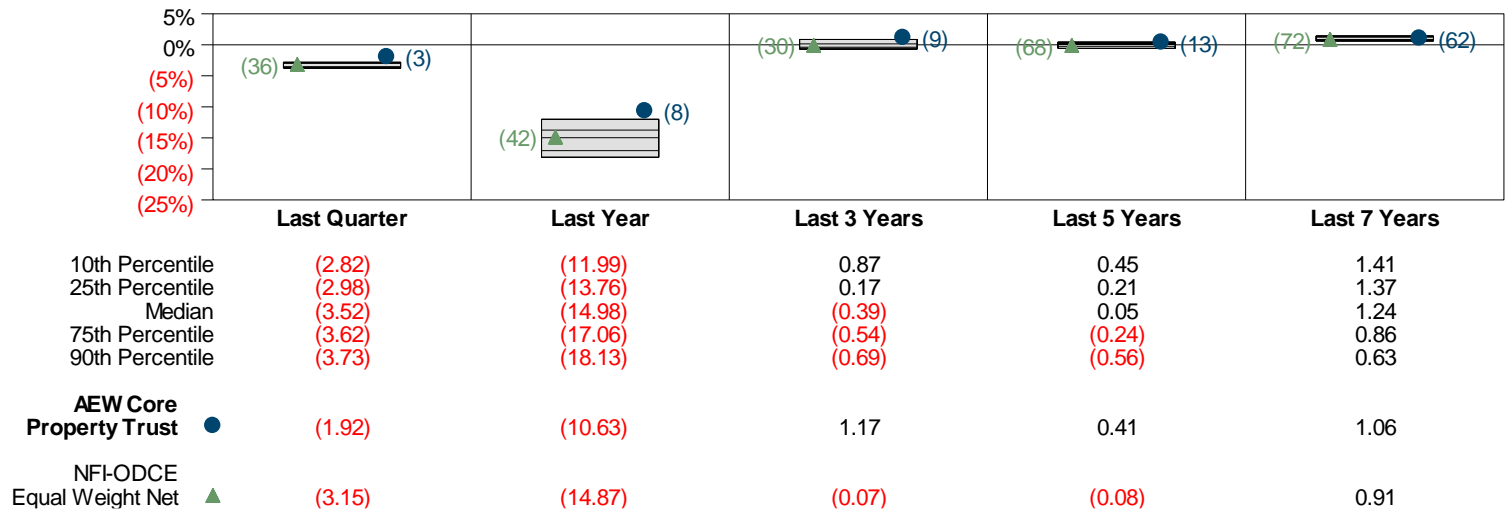


# AEW Income and Appreciation Returns

## Income Rankings vs Callan Real Estate ODCE Periods ended March 31, 2024

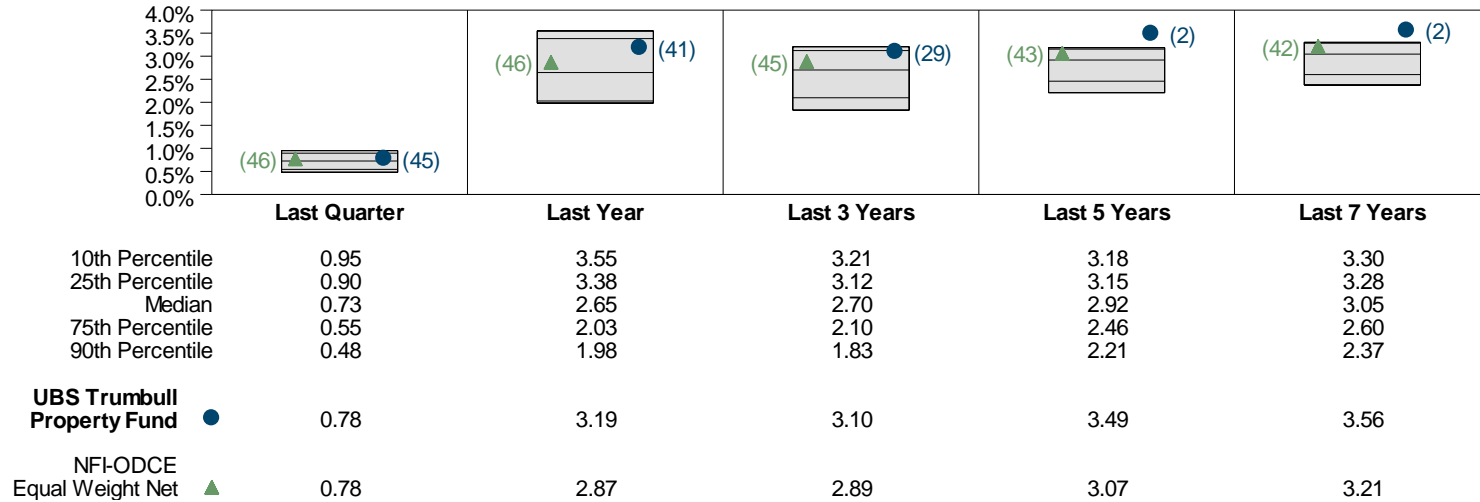


## Appreciation Rankings vs Callan Real Estate ODCE Periods ended March 31, 2024

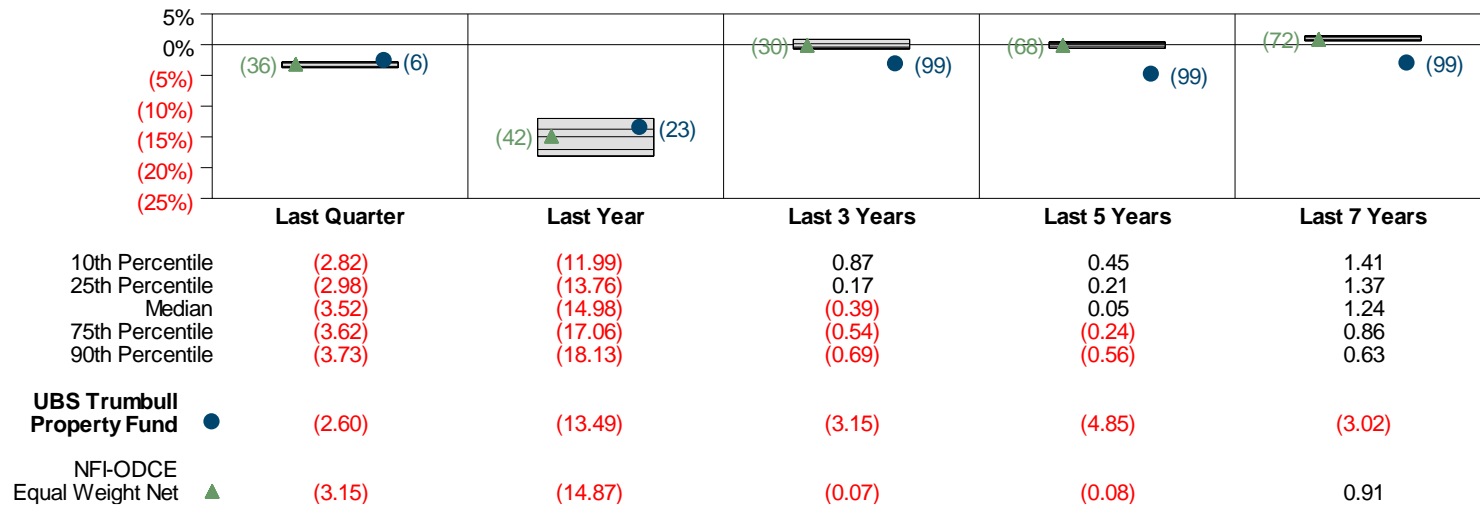


# UBS Income and Appreciation Returns

## Income Rankings vs Callan Real Estate ODCE Periods ended March 31, 2024



## Appreciation Rankings vs Callan Real Estate ODCE Periods ended March 31, 2024

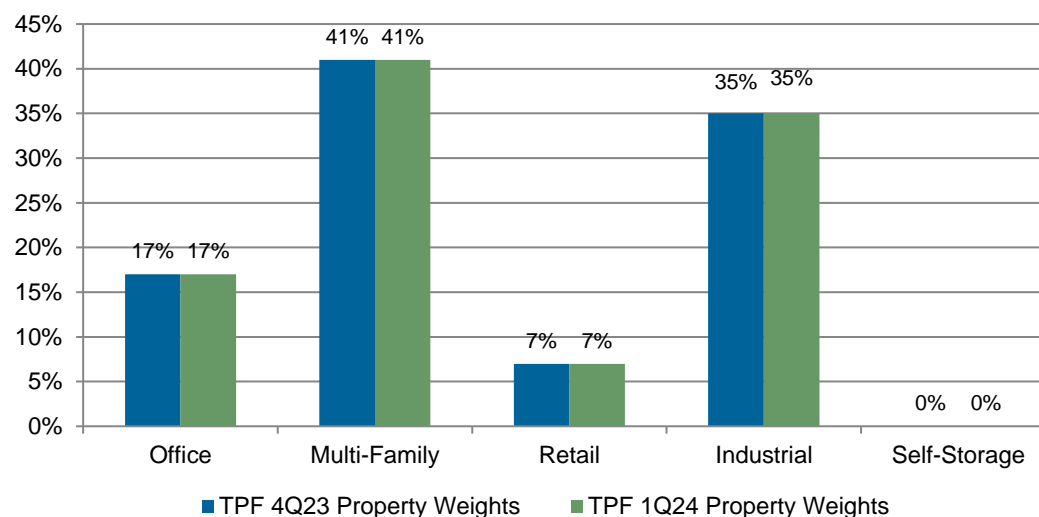


## UBS Trumbull Property Fund Snapshot

As of March 31, 2024

As of 1Q 2024	
Gross Asset Value	\$13.7B
Net Asset Value	\$10.6B
Leverage	22.2%
Number of Investments	124
Number of Investors	434
Redemption Queue	\$6.2 billion
1Q24 Redemption Queue Payout	\$50 million
Contribution Queue	\$0 million

Property Type Weights (Change from Prior Quarter)



- The Fund has a current redemption pool of \$6.2 billion. The Fund made a 1Q 2024 redemption payment in April 2024 of \$50 million after not making a 4Q 2023 redemption payment in January 2024. UBS estimates, based on current capital flows and the fund's disposition program, that the fund's redemption queue will be brought into balance in 2026.
- In September 2019, UBS announced a Loyalty Fee Program. MCERA elected to participate in the four-year option for a management fee discount of 25% on approximately \$100 million NAV (effective January 1, 2020). In 2023, MCERA again elected for the four-year option for a 25% discount on the total NAV, effective January 1, 2024.
- In February 2024, UBS announced significant changes to the Loyalty Fee Program, including no lock-up required and no management fee clawback should MCERA opt to enter the redemption queue. These changes provide greater flexibility for MCERA in managing its position in the fund.

## NFI-ODCE Funds - Net of Fee Returns

As of March 31, 2024

Fund Name	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>AEW Core Property Trust</b>	<b>-0.98%</b>	<b>-7.32%</b>	<b>4.61%</b>	<b>4.04%</b>
ARA Core Property Fund	-2.46%	-12.95%	2.58%	2.73%
ASB Allegiance Real Estate Fund	-7.02%	-23.22%	-3.95%	-1.40%
Bailard Real Estate Fund	-3.20%	-9.90%	6.10%	6.00%
Barings Core Property Fund	-0.94%	-19.06%	-2.21%	-0.19%
BentallGreenOak BGO Diversified	-2.99%	-15.86%	1.88%	2.28%
BlackRock U.S. Core Property Fund	-3.47%	-18.17%	-0.25%	1.65%
CBRE U.S. Core Partners LP	-0.84%	-9.35%	7.50%	6.83%
CIM Urban Income Investments	-2.54%	-12.77%	3.50%	3.46%
Clarion Lion Property Fund	-2.85%	-14.05%	2.08%	2.85%
DWS RREEF America REIT II	-0.27%	-10.60%	3.33%	3.53%
Heitman America Real Estate Trust	-2.50%	-11.30%	4.55%	4.14%
Intercontinental U.S. Real Estate Investment Fund	-1.76%	-9.89%	4.77%	3.15%
Invesco Core Real Estate USA	-3.92%	-16.01%	0.67%	2.32%
J.P. Morgan Strategic Property Fund	-3.56%	-12.26%	2.17%	2.05%
LaSalle US Property Fund	-5.74%	-17.39%	-0.79%	0.55%
MetLife Core Property Fund	-0.86%	-9.81%	4.09%	3.80%
Morgan Stanley Prime Property Fund	-7.22%	-17.60%	2.51%	3.16%
NYL Madison Core Property Fund	-1.35%	-5.90%	5.54%	4.92%
PGIM PRISA	-2.41%	-10.28%	6.17%	5.40%
Principal U.S. Core Property Account	-2.84%	-12.12%	2.64%	3.07%
Sagard Real Estate U.S. Property Fund	-1.98%	-9.67%	2.96%	3.26%
Stockbridge Smart Markets Fund	-0.53%	-8.19%	6.43%	5.83%
TA Realty	-1.12%	-9.16%	7.53%	7.37%
<b>UBS Trumbull Property Fund</b>	<b>-1.84%</b>	<b>-10.72%</b>	<b>-0.18%</b>	<b>-1.53%</b>

## NFI-ODCE Funds - Gross of Fee All Sector Returns

As of March 31, 2024

Fund	Retail 1Q 2024	Residential 1Q 2024	Industrial 1Q 2024	Office 1Q 2024
<b>AEW</b>	<b>2.05%</b>	<b>-2.82%</b>	<b>0.41%</b>	<b>-2.37%</b>
ARA	1.23%	-2.58%	0.06%	-5.12%
ASB	-7.07%	-1.68%	-0.65%	-16.05%
Bailard	-0.36%	-1.14%	-1.65%	-5.95%
Barings	-0.41%	0.55%	1.41%	-6.18%
BGO	4.04%	-0.91%	-0.37%	-6.26%
BlackRock	1.08%	-1.70%	0.02%	-9.02%
CBRE	1.21%	-0.36%	0.07%	-0.60%
CIM Group	2.47%	1.01%	0.73%	-6.38%
Clarion	1.64%	-2.08%	-0.77%	-6.25%
DWS	1.30%	0.00%	1.47%	-5.86%
Heitman	-0.30%	-1.21%	-0.59%	-2.72%
Intercontinental	-2.88%	-2.29%	-0.82%	-2.61%
Invesco	N/A	N/A	N/A	N/A
JP Morgan	N/A	N/A	N/A	N/A
LaSalle	N/A	N/A	N/A	N/A
MetLife	-3.35%	-0.60%	-0.02%	-1.64%
MSIM	1.62%	0.55%	1.10%	-3.29%
NYLIM	4.29%	-0.53%	-1.12%	-4.19%
PGIM	0.53%	-2.45%	-0.51%	-5.06%
Principal	0.42%	-0.01%	-0.74%	-4.74%
Sagard	0.35%	-0.35%	-0.88%	-8.38%
Stockbridge	1.74%	-0.63%	0.55%	-3.91%
TA Realty	2.31%	-2.06%	2.10%	-9.88%
<b>UBS</b>	<b>1.14%</b>	<b>-1.07%</b>	<b>0.39%</b>	<b>-5.17%</b>

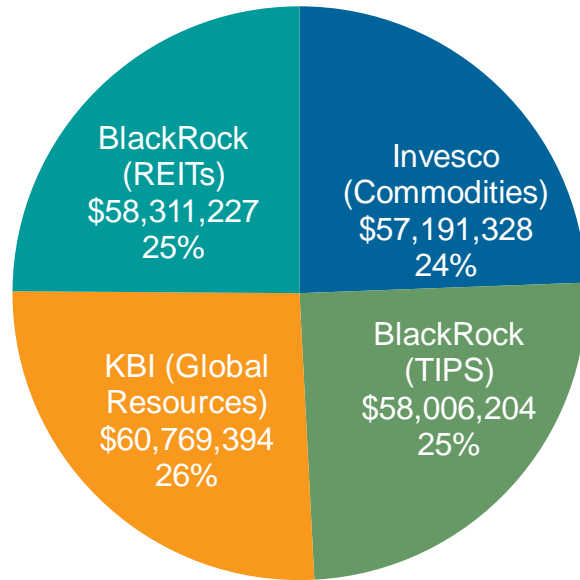
N/A = returns not available yet for these funds.

## NFI-ODCE Funds – Key Fund Metrics

As of March 31, 2024

Fund Name	Last Quarter	Net Asset Value (\$ millions)	Contribution Queue (\$ millions)	Redemption Queue (\$ millions)	Redemption Queue % of NAV
<b>AEW Core Property Trust</b>	<b>-0.98%</b>	<b>\$6,731.6</b>	<b>\$0.0</b>	<b>\$765.0</b>	<b>11.36%</b>
ARA Core Property Fund	-2.46%	\$5,358.8	\$23.0	\$741.9	13.84%
ASB Allegiance Real Estate Fund	-7.02%	\$4,776.0	\$0.0	\$958.0	20.06%
Bailard Real Estate Fund	-3.16%	\$975.1	\$0.0	\$11.0	1.13%
Barings Core Property Fund	-0.94%	\$2,056.5	\$0.0	\$721.8	35.10%
BentallGreenOak BGO Diversified	-2.99%	\$7,186.8	\$58.0	\$1,668.0	23.21%
BlackRock U.S. Core Property Fund	-3.47%	\$2,145.4	\$0.0	\$349.2	16.28%
CBRE U.S. Core Partners LP	-0.84%	\$7,687.0	\$12.5	\$830.0	10.80%
CIM Urban Income Investments	-2.54%	\$1,320.9	\$0.2	\$463.0	35.05%
Clarion Lion Property Fund	-2.85%	\$13,411.1	\$0.0	\$3,700.0	27.59%
DWS RREEF America REIT II	-0.27%	\$12,650.4	\$0.0	\$1,342.3	10.61%
Heitman America Real Estate Trust	-2.50%	\$8,689.4	\$60.1	\$1,610.0	18.53%
Intercontinental U.S. Real Estate Investment Fund	-1.76%	\$8,766.4	\$0.0	\$1,100.0	12.55%
Invesco Core Real Estate USA	-3.92%	\$10,384.2	\$0.0	\$2,400.0	23.11%
J.P. Morgan Strategic Property Fund	-3.56%	\$25,763.0	\$796.5	\$7,300.0	28.34%
LaSalle US Property Fund	-5.74%	\$6,100.0	\$10.0	\$35.0	0.57%
MetLife Core Property Fund	-0.86%	\$4,335.6	\$143.0	\$601.0	13.86%
Morgan Stanley Prime Property Fund	-7.22%	\$31,038.6	\$0.0	\$5,100.0	16.43%
NYL Madison Core Property Fund	-1.35%	\$1,469.2	\$0.0	\$99.7	6.79%
PGIM PRISA	-2.41%	\$23,196.7	\$0.0	\$2,859.7	12.33%
Principal U.S. Core Property Account	-2.84%	\$8,505.0	\$612.0	\$1,400.0	16.46%
Sagard Real Estate U.S. Property Fund	-1.98%	\$897.1	\$0.0	\$94.0	10.48%
Stockbridge Smart Markets Fund	-0.53%	\$3,363.6	\$68.5	\$336.2	10.00%
TA Realty	-1.12%	\$5,448.6	\$295.3	\$349.7	6.42%
<b>UBS Trumbull Property Fund</b>	<b>-1.84%</b>	<b>\$10,563.8</b>	<b>\$0.0</b>	<b>\$6,200.0</b>	<b>58.69%</b>

## Real Assets Composite



- The BlackRock TIPS and REITs Funds are passive.
- Invesco outperformed primarily due to strategic and tactical positioning in energy and agriculture, bolstered by rising oil prices.
- KBI underperformed the index. The index contains traditional energy names which KBI does not own as the fund focuses on renewable energy sources. Traditional energy saw a strong start to the year creating relative headwinds for the strategy.

### Returns and Rankings for Periods Ended March 31, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Real Assets - Net</b>	<b>1.17</b>	<b>4.06</b>	<b>4.06</b>	<b>7.19</b>
Real Assets Target	0.93	4.18	5.85	5.84
<b>BlackRock TIPS Index Fund - Net</b>	<b>0.02</b>	<b>0.46</b>	<b>(0.53)</b>	<b>2.53</b>
Bloomberg US TIPS Index	(0.08)	0.45	(0.53)	2.49
Ranking vs. Real Returns Database	36	43	57	45
<b>BlackRock REIT Index Fund - Net</b>	<b>(0.39)</b>	<b>10.49</b>	<b>3.63</b>	<b>2.94</b>
S&P Dow Jones US Select REIT	(0.39)	10.45	3.69	2.99
Ranking vs. Real Estate Mutual Funds	26	15	13	75
<b>Invesco Commodity Fund - Net</b>	<b>6.22</b>	<b>5.82</b>	<b>8.20</b>	<b>7.97</b>
Bloomberg Commodity Index	2.19	(0.56)	9.11	6.38
Ranking vs. Commodities Funds	15	18	80	19
<b>KBI Global Resources Fund - Net</b>	<b>(0.71)</b>	<b>0.30</b>	<b>3.69</b>	<b>12.00</b>
S&P Global Natural Resources Index	2.00	5.02	8.81	8.31

### Returns and Rankings Calendar Years

	1 Qtr. 2024	2023	2022	2021
<b>Real Assets - Net</b>	<b>1.17</b>	<b>5.69</b>	<b>(9.41)</b>	<b>23.96</b>
Real Assets Target	0.93	3.52	(3.52)	25.60
<b>BlackRock TIPS Index Fund - Net</b>	<b>0.02</b>	<b>3.98</b>	<b>(11.96)</b>	<b>5.92</b>
Bloomberg US TIPS Index	(0.08)	3.90	(11.85)	5.96
Ranking vs. Real Returns Database	36	46	78	36
<b>BlackRock REIT Index Fund - Net</b>	<b>(0.39)</b>	<b>13.99</b>	<b>(26.08)</b>	<b>45.80</b>
S&P Dow Jones US Select REIT Index	(0.39)	13.96	(25.96)	45.91
Ranking vs. Real Estate Mutual Funds	26	15	51	17
<b>Invesco Commodity Fund - Net</b>	<b>6.22</b>	<b>(2.05)</b>	<b>9.00</b>	<b>19.68</b>
Bloomberg Commodity Index	2.19	(7.91)	16.09	27.11
Ranking vs. Commodities Funds	15	15	83	87
<b>KBI Global Resources Fund - Net</b>	<b>(0.71)</b>	<b>7.37</b>	<b>(7.85)</b>	<b>24.08</b>
S&P Global Natural Resources Index	2.00	3.38	9.59	24.40

## Private Equity Portfolio (as of 12/31/23)

- 85% Paid-In through 12/31/23.
- When ranked against the Thomson-Cambridge Private Equity Database, MCERA is ranked in the second quartile for Total Value to Paid-In (TVPI) basis.
- The total portfolio is well diversified by vintage year and investment type.

	December 31, 2023	Quarter Change	September 30, 2023
<b>Summary</b>			
Vintage Years	17 in 2008-2024		17 in 2008-2024
# Total Partnerships	591	14	577
# Active Partnerships	565	13	552
# Liquidated Partnerships	26	1	25
<b>Changes in Value</b>			
Capital Commitments	\$500,000,000	-	\$500,000,000
Paid-In Capital	\$424,620,350	\$3,392,897	\$421,227,453
Uncalled Capital	\$91,586,395	\$(3,392,897)	\$94,979,292
% Paid-In	84.92%	0.68%	84.25%
Distributed Capital	\$498,177,417	\$8,282,891	\$489,894,526
Net Asset Value	\$343,961,642	\$1,416,705	\$342,544,937
<b>Total Realized and Unrealized Value</b>	<b>\$842,139,059</b>	<b>\$9,699,596</b>	<b>\$832,439,463</b>
<b>Ratios and Performance</b>			
Distributions to Paid-In Capital (DPI)	1.17x	0.01x	1.16x
Residual Value to Paid-In Capital (RVPI)	0.81x	(0.00)x	0.81x
Total Value to Paid-In Capital (TVPI)	1.98x	0.01x	1.98x
Quartile Ranking	2nd		2nd
Net IRR	14.80%	(0.10%)	14.90%
<b>Additional Performance Metrics</b>			
Distribution Rate, as % of Beginning NAV		2.42%	
Unrealized Gain/(Loss), Dollars		\$6,306,699	
Unrealized Gain/(Loss), %		1.84%	

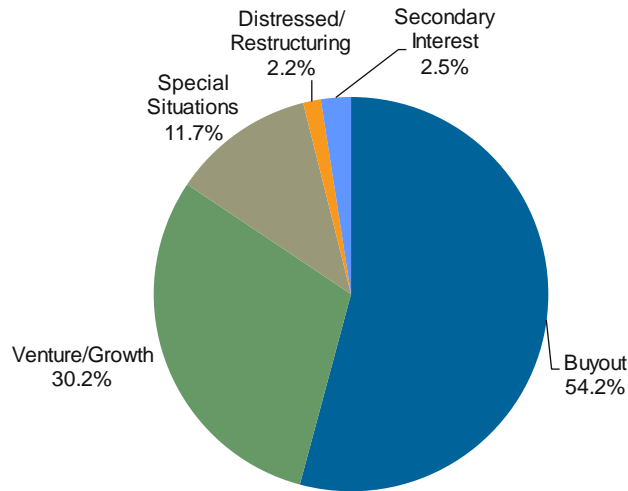
Quartile Rankings against the All Private Equity, All Regions Refinitiv/Cambridge Database.

Pathway does not include capital called for fees towards the commitment. Paid-in may exceed the total commitment due to fees and/or currency effects. .

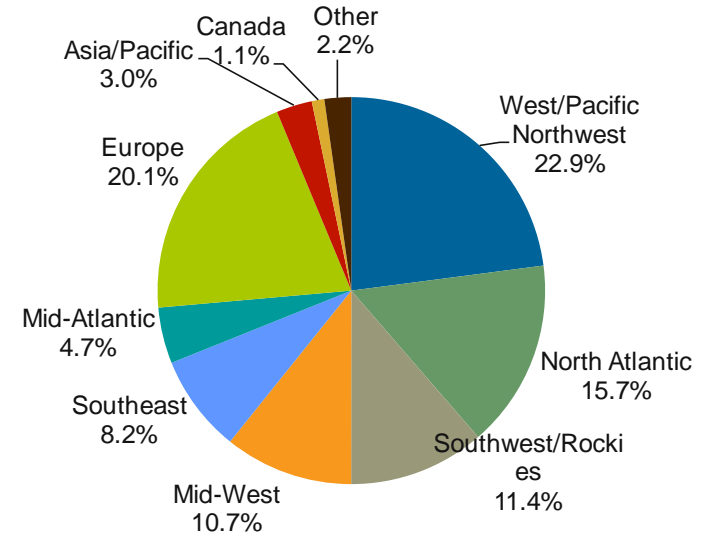


# Private Equity Portfolio Exposure

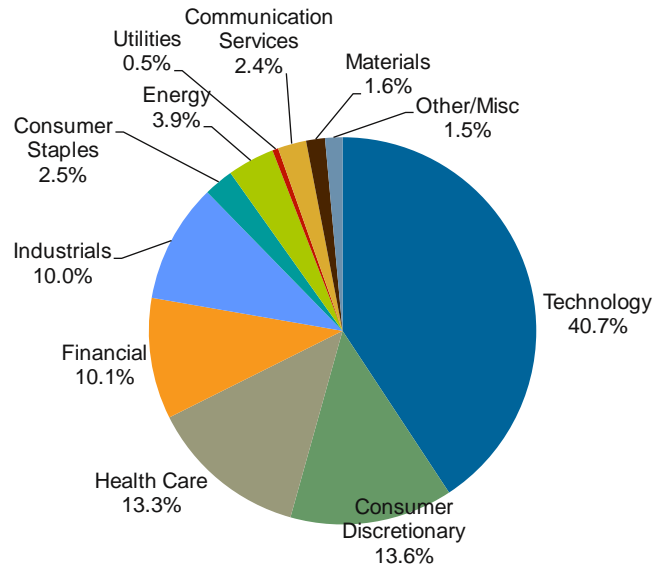
Strategy Mix by Net Asset Value



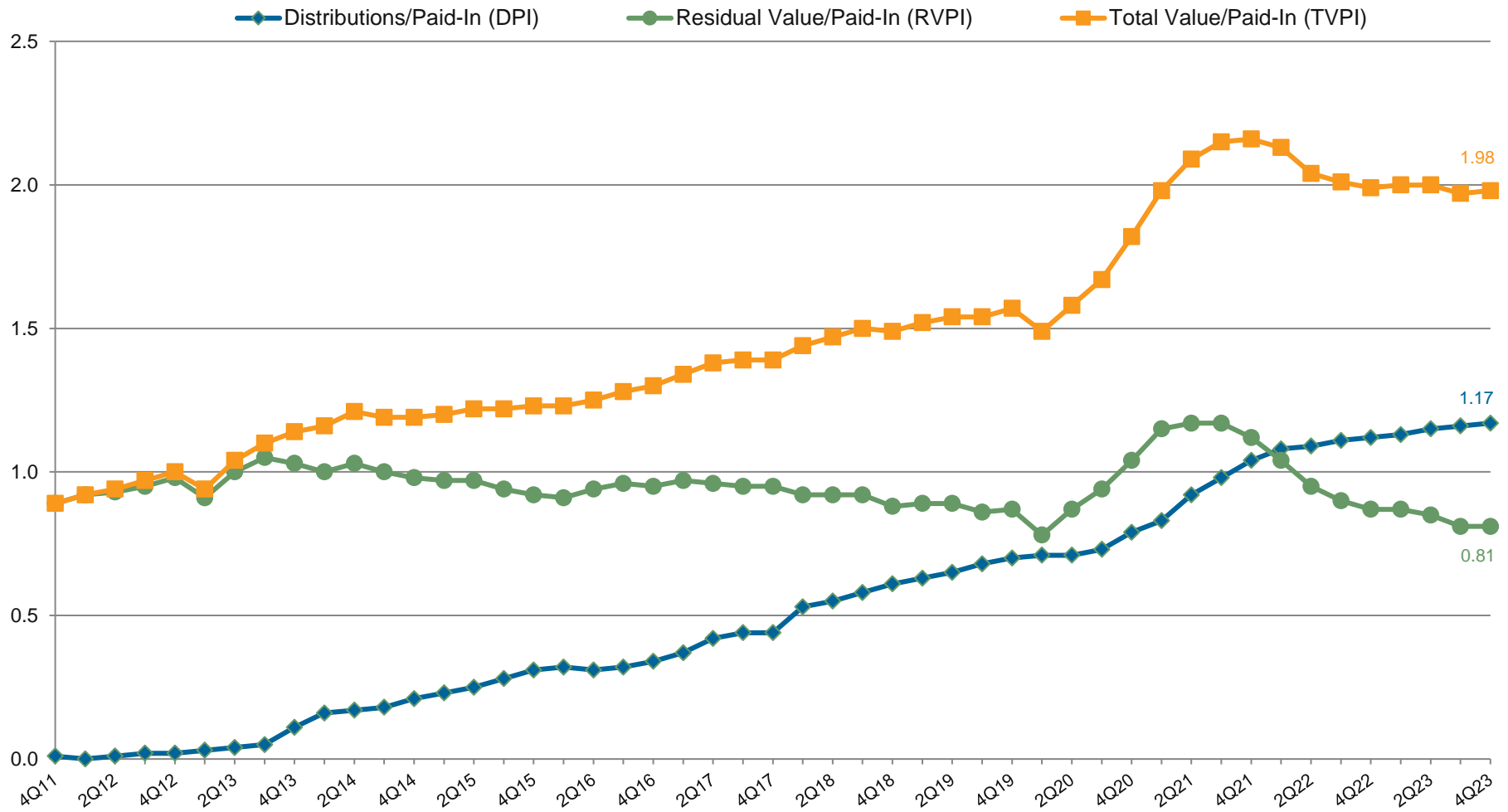
Geographic Mix by Net Asset Value



Industry Mix by Net Asset Value



# Private Equity Ratios – Changes Over Time



## Opportunistic Portfolio

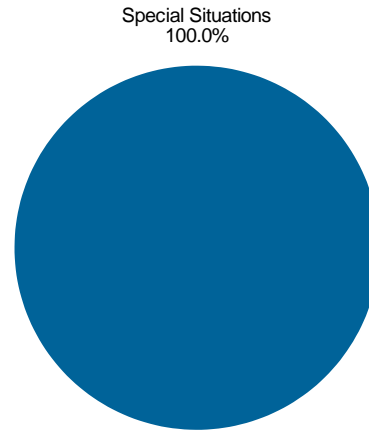
- 74% Paid-In through 3/31/24.
- The total portfolio is diversified by industry type and geographic location.

	March 31, 2024	Quarter Change	December 31, 2023
<b>Summary</b>			
Vintage Year	2020		2020
# Total Partnerships	193	-	193
# Active Partnerships	193	-	193
# Liquidated Partnerships	0	-	0
<b>Changes in Value</b>			
Capital Commitments	\$100,000,000	-	\$100,000,000
Paid-In Capital	\$73,496,016	\$2,316,092	\$71,179,923
Uncalled Capital	\$29,614,845	\$(2,316,092)	\$31,930,938
% Paid-In	73.50%	2.32%	71.18%
Distributed Capital	\$15,301,221	\$2,214,913	\$13,086,308
Net Asset Value	\$71,694,606	\$2,684,519	\$69,010,087
<b>Total Realized and Unrealized Value</b>	<b>\$86,995,827</b>	<b>\$4,899,432</b>	<b>\$82,096,395</b>
<b>Ratios and Performance</b>			
Distributions to Paid-In Capital (DPI)	0.21x	0.02x	0.18x
Residual Value to Paid-In Capital (RVPI)	0.98x	0.01x	0.97x
Total Value to Paid-In Capital (TVPI)	1.18x	0.03x	1.15x
Quartile Ranking	3rd		3rd
Net IRR	8.81%	0.76%	8.05%
<b>Additional Performance Metrics</b>			
Distribution Rate, as % of Beginning NAV		3.21%	
Unrealized Gain/(Loss), Dollars		\$2,583,340	
Unrealized Gain/(Loss), %		3.74%	

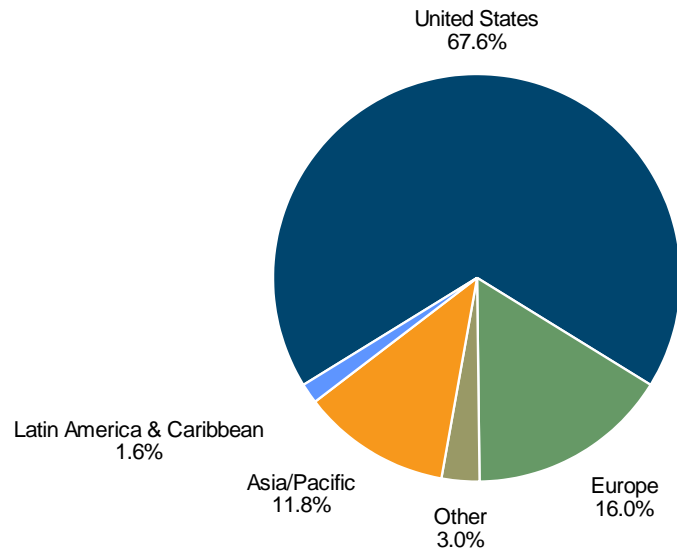
Quartile rankings against the 2020 vintage Control Oriented Distressed and Credit Opportunities Refinitiv/Cambridge Database.

# Opportunistic Portfolio Exposure

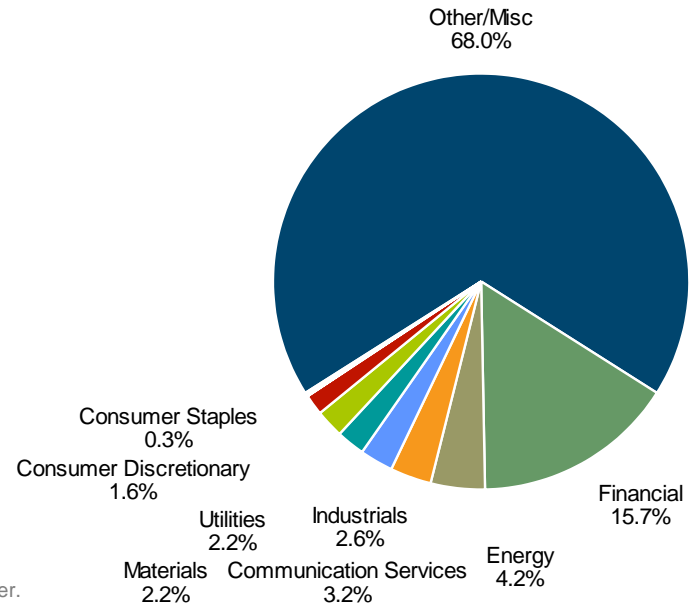
Strategy Mix by Net Asset Value



Industry Mix by Net Asset Value



Geographic Mix by Net Asset Value



CarVal and Fortress do not categorize their assets by industry and therefore classify their investments as Other.

CarVal portfolio by asset class: corporate securities, loan portfolios, structured credit, and special opportunities/hard assets.

Fortress portfolio by asset class: asset backed securities, commercial real estate and debt securities, consumer loans, corporate debt and securities (distressed), corporate debt and securities (stressed), corporate loan originations, diversified credit, legal assets, preferred and common equity corporate securities, residential, and transportation assets.

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Past performance is no guarantee of future results.

**Marin County Employees' Retirement Association  
Defined Benefit Plan**

Managers	May 2024 Market Value	Fiscal Year To Date 7/1/23 - 5/31/24	Calendar Year To Date 1/1/24 - 5/31/24
<b>Domestic Equity</b>	<b>\$1,059,991,188</b>	<b>18.2%</b>	<b>8.7%</b>
<i>Russell 3000 Index</i>		19.4%	10.1%
<b>SSGA Russell 1000 Index</b>	<b>\$791,648,755</b>	<b>19.7%</b>	<b>10.5%</b>
<i>Russell 1000 Index</i>		19.9%	10.6%
<b>Dimensional Fund Advisors</b>	<b>\$268,566,124</b>	<b>13.5%</b>	<b>3.4%</b>
<i>Russell 2000 Index</i>		11.1%	2.7%
<b>Parametric Domestic Equity Overlay</b>	<b>-\$223,691</b>		
<b>International Equity</b>	<b>\$725,459,661</b>	<b>8.0%</b>	<b>3.7%</b>
<i>MSCI ACWI ex-US IMI Index</i>		11.8%	5.5%
<b>SSGA World ex US Index</b>	<b>\$328,180,862</b>	<b>NA</b>	<b>NA</b>
<i>MSCI World ex-US Index</i>		11.7%	5.8%
<b>TimesSquare</b>	<b>\$172,315,910</b>	<b>11.0%</b>	<b>6.2%</b>
<i>MSCI EAFE Small Cap Index</i>		11.2%	3.7%
<b>FIAM Emerging Markets</b>	<b>\$171,391,814</b>	<b>9.4%</b>	<b>4.6%</b>
<i>MSCI Emerging Markets Index</i>		8.3%	3.4%
<b>Parametric International Equity Overlay</b>	<b>\$53,571,076</b>		
<b>Fixed Income</b>	<b>\$742,440,146</b>	<b>2.5%</b>	<b>-1.3%</b>
<i>Bloomberg US Aggregate Index</i>		1.7%	-1.6%
<b>Wellington</b>	<b>\$334,578,720</b>	<b>3.0%</b>	<b>-0.8%</b>
<b>Western Asset</b>	<b>\$330,358,121</b>	<b>2.1%</b>	<b>-1.9%</b>
<i>Bloomberg US Aggregate Index</i>		1.7%	-1.6%
<b>Parametric Fixed Income Overlay</b>	<b>\$77,503,305</b>		
<b>Public Real Assets</b>	<b>\$228,954,540</b>	<b>5.1%</b>	<b>1.6%</b>
<i>Blended Benchmark</i>		5.9%	1.8%
<b>BlackRock TIPS Index Fund</b>	<b>\$58,067,031</b>	<b>2.0%</b>	<b>0.1%</b>
<i>Bloomberg US TIPS Index</i>		1.9%	-0.1%
<b>BlackRock REIT Index Fund</b>	<b>\$56,627,651</b>	<b>4.2%</b>	<b>-3.3%</b>
<i>DJ S&amp;P US Select REIT Index</i>		4.2%	-3.3%
<b>Invesco Balanced Risk Commodities Fund</b>	<b>\$57,592,806</b>	<b>10.0%</b>	<b>7.0%</b>
<i>Bloomberg Commodities Index</i>		6.6%	6.8%
<b>KBI Global Resources Fund</b>	<b>\$62,605,832</b>	<b>4.4%</b>	<b>2.3%</b>
<i>S&amp;P Global Natural Resources Index</i>		11.0%	3.6%
<b>Parametric Real Assets Overlay</b>	<b>-\$5,938,780</b>		

All market values and returns shown are preliminary and subject to revision.  
DFA market value estimated using preliminary manager performance.

**Marin County Employees' Retirement Association  
Defined Benefit Plan**

Managers	May 2024 Market Value	Fiscal Year To Date 7/1/23 - 5/31/24	Calendar Year To Date 1/1/24 - 5/31/24
<b>Real Estate(1)</b>	<b>\$256,921,101</b>	<b>-7.8%</b>	<b>-4.4%</b>
<i>NFI-ODCE Equal Weight Net(1)</i>		<b>-11.0%</b>	<b>-3.9%</b>
<b>Woodmont</b>	\$13,999,995	-	-
<b>UBS Trumbull Property Fund</b>	\$87,832,046	-	-
<b>AEW Core Property Trust</b>	\$109,905,351	-	-
<b>Parametric Real Estate Overlay</b>	<b>\$45,183,709</b>		
<b>Private Equity(2)</b>	<b>\$217,069,171</b>	<b>0.9%</b>	<b>0.0%</b>
<b>Abbott ACE VI</b>	\$31,480,823	-	-
<b>Abbott ACE VII</b>	\$35,347,792	-	-
<b>Abbott AP 2016</b>	\$69,245,809	-	-
<b>Abbott AP 2017</b>	\$20,872,105	-	-
<b>Abbott AP 2021</b>	\$11,996,660	-	-
<b>Abbott 2023</b>	\$2,879,494	-	-
<b>Pathway PPEF 2008</b>	\$32,739,300	-	-
<b>Pathway PPEF I-7</b>	\$30,024,798	-	-
<b>Pathway PPEF I-8</b>	\$57,526,827	-	-
<b>Pathway PPEF I-9</b>	\$16,940,747	-	-
<b>Pathway PPEF I-10</b>	\$23,842,416	-	-
<b>Pathway PPEF I-11</b>	\$3,595,718	-	-
<b>Parametric Private Equity Overlay</b>	<b>-\$119,423,318</b>		
<b>Opportunistic(3)</b>	<b>\$71,694,606</b>	<b>12.1%</b>	<b>6.4%</b>
<b>CarVal Credit Value Fund V</b>	\$27,051,378	-	-
<b>Fortress Credit Opportunities Fund V Expansion</b>	\$21,686,957	-	-
<b>Varde Dislocation Fund</b>	\$22,956,271	-	-
<b>Total Fund</b>	<b>\$3,302,530,413</b>	<b>7.9%</b>	<b>2.8%</b>

(1)Market values as of March 31, 2024. FYTD and YTD returns use MCERA's and ODCE's pro-rata performance of prior quarter.

(2)Market values as of December 31, 2023. FYTD and YTD returns use MCERA's pro-rata performance of prior quarter.

(3)Market values as of March 31, 2024. FYTD and YTD returns use MCERA's pro-rata performance of prior quarter.

All market values and returns shown are preliminary and subject to revision.