

















August 2022 IC Meeting

Schedule	Friday, August 26, 2022 10:00 AM — 2:00 PM CDT
Venue	6850 Austin Center Blvd., Suite 320, Austin, TX 78731
Organizer	Sarah McCleary



Agenda

- 10:00 AM 1. Call roll of Committee members
Presented by Committee Chair Benson
-  [Item #1 Summary.docx](#)
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- 10:00 AM 2. Review order of business and establish meeting objectives
Presented by Committee Chair Benson
-  [Item #2 Summary.docx](#)
-  [Timeframes.pdf](#)
-
- 10:05 AM 3. Receive public comments
Presented by Committee Chair Benson
-  [Item #3 Summary.docx](#)
-
- 10:10 AM 4. Consider approval of the May 20, 2022 Investment Committee minutes
Presented by Committee Chair Benson
-  [Item #4 Summary.docx](#)
-  [2022 05 20 Investment Committee.docx](#)
-
- 10:15 AM 5. Review investment performance including strategy, compliance, and delegation of authority
Presented by David Stafford and RVK
-  [05A Item 5 Summary.docx](#)
-  [05B COAERS Investment Strategy Dashboard 2022-Q2.pdf](#)
-  [05C COAERS Compliance Dashboard 2022-Q2.pdf](#)
-  [05D COAERS Status of Delegated Authority 2022-Q2.pdf](#)
-  [05E RVK Summary Report of Fund Performance 2022-Q2.pdf](#)
-  [05F Cash Activity Detail for IC 2022-Q2.pdf](#)
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10:45 AM 6. Review investment strategy including Investment Risk Framework
Presented by David Stafford

-  06A Item Summary.docx
 -  06B IRF Insights 2022-07 Confidential.pptx
 -  06C Summary IRF Dashboard 2022-08-05 Confidential.pdf
 -  06D Manager Strategy 2022-Q2 Confidential.docx
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11:15 AM 7. Discussion of Asset/Liability Study
Presented by David Kushner

-  07A Item Summary.docx
 -  07B ALM Education 220826.pptx
-

11:35 AM 8. Receive education on Global Equities asset class including role in the Strategic Asset Allocation and private markets considerations
Presented by David Stafford and RVK

-  08A Item Summary.docx
 -  08B Assessing the Role of Global Equities.pptx
 -  08C RVK City of Austin Private Equity Introduction.pdf
 -  08D Evaluation Form.docx
-

12:05 PM 9. Discuss and consider investment implementation including Premier List for Global Equities
Presented by Ty Sorrel and David Stafford

-  09A Item Summary.docx
 -  09B Implementation Update CONFIDENTIAL.docx
 -  09C COAERS Implementation Dashboard 2022-Q2 PORTIONS CONFIDENTIAL.pdf
 -  09D Manager Monitoring Report 2022-Q2 CONFIDENTIAL.docx
 -  09E Manager Fees by Quarter 2022-Q2.pdf
 -  09F Current Premier List CONFIDENTIAL.pdf
 -  09G RVK Quarterly Summary of Manager Performance 2022-Q2.pdf
 -  09H Annual Review of Global Equity Portfolio PORTIONS CONFIDENTIAL.pptx
 -  09I Proposed Premier List CONFIDENTIAL.pdf
-

12:50 PM 10. Receive key meeting takeaways and call for future agenda items
Presented by Committee Chair Benson

 10A Summary.docx

 10B Proposed 2022 Investment Committee Work Plan.docx

1. Call roll of Committee members

Presented by Committee Chair Benson

AGENDA ITEM 1:
Call roll of Committee members

AGENDA ITEM OBJECTIVE

The objective of the agenda item is to determine for the record which Trustees are present at the start of the meeting.

Each Trustee should respond to the roll call, and it will be noted which Trustees are present in person and which Trustees have joined via video conference.

2. Review order of business and establish meeting objectives

Presented by Committee Chair Benson

AGENDA ITEM 2:

Review order of business and establish meeting objectives

AGENDA ITEM OBJECTIVE

This agenda item provides Trustees the opportunity to review the order of business and to express a desire to take an agenda item out of order, and to discuss the key objectives of the meeting. The time frames on the agenda are for informational purposes only.

RELEVANCE TO STRATEGIC PLAN

This agenda item meets **COAERS Strategic Plan Goal 4: Identify and implement leading practices in board governance, pension administration, and investment management**. It is an industry best practice to establish meeting objectives and review them at the outset of each meeting.

MEETING OBJECTIVES

1. As part of its **oversight** responsibility, the Committee will:
 - Receive reports on the Fund's performance relative to investment policy goals and objectives as well as the use of delegated authority in the pursuit of those goals (Agenda Item #5).
 - Receive reports on employment of the Fund's investment strategy including the Investment Risk Framework (Agenda Item #6).
 - Receive reports on the Fund's implementation approach including the status of COAERS Investment Manager Premier Lists (Agenda Item #9).
2. As part of its **review** responsibility, the Committee will:
 - Review the considerations of and strategy associated with the Asset/Liability Study (Agenda Item #7).
 - Receive education of the role of Global Equities in the Strategic Asset Allocation and considerations for private equity (Agenda Item #8).
3. As part of its **approval** responsibility, the Committee will:
 - Consider the Premier List for Global Equities (Agenda Item #9).

ATTACHMENT

1. Proposed timeline of agenda items with potential time frames

Agenda Timeframes

August 26, 2022

Committee:
Investment Committee

Agenda Number	Agenda Item	Duration	Start	End
1	Call roll of Committee members – Committee Chair Benson	0:05	10:00 AM	10:05 AM
2	Review order of business and establish meeting objectives – Committee Chair Benson	0:05	10:05 AM	10:10 AM
3	Receive public comments – Committee Chair Benson	0:05	10:10 AM	10:15 AM
4	Consider approval of the May 20, 2022 Investment Committee minutes – Committee Chair Benson	0:05	10:15 AM	10:20 AM
5	Review investment performance including strategy, compliance, and delegation of authority - David Stafford and RVK	0:30	10:20 AM	10:50 AM
6	Review investment strategy including Investment Risk Framework (IRF) – David Stafford	0:30	10:50 AM	11:20 AM
7	Discussion of Asset/Liability Study – David Kushner	0:20	11:20 AM	11:40 AM
8	Receive education on Global Equities asset class including role in the Strategic Asset Allocation and private markets considerations – David Stafford and RVK	0:30	11:40 AM	12:10 PM
9	Discuss and consider investment implementation including Premier List for Global Equities - Ty Sorrel and David Stafford	0:45	12:10 PM	12:55 PM
10	Review key meeting takeaways and call for future agenda items – Committee Chair Benson	0:05	12:55 PM	1:00 PM
		3 Hr & 0 Min		

3. Receive public comments

Presented by Committee Chair Benson

AGENDA ITEM 3:
Receive public comments

AGENDA ITEM OBJECTIVE

This standing agenda item allows System members and members of the public the opportunity to provide comments to the Board.

RELEVANCE TO STRATEGIC PLAN/CORE COMPETENCIES

This agenda item meets the core competency established in the **COAERS Strategic Plan** “*Transparency: Complying with open meeting and public information laws to ensure the decision-making process is clear to members and the public.*”

The Chair will recognize any person who wishes to comment for up to three minutes per person.

4. Consider approval of the May 20, 2022
Investment Committee minutes
Presented by Committee Chair Benson

AGENDA ITEM 4:

Consider approval of the May 20, 2022 Investment Committee minutes

AGENDA ITEM OBJECTIVE

This standing agenda item seeks approval of the minutes from the prior quarterly Investment Committee meeting. The charter for the Investment Committee requires the Committee to keep minutes of its meetings.

RELEVANCE TO STRATEGIC PLAN

This agenda item meets the core competency established in the **COAERS Strategic Plan** “*Transparency: Complying with open meeting and public information laws to ensure the decision-making process is clear to members and the public.*”

RECOMMENDATION FOR COMMITTEE ACTION

Staff recommends approval of the minutes of the May 20, 2022 Investment Committee meeting.

ATTACHMENT

1. Draft minutes of May 20, 2022 Investment Committee meeting

MINUTES

INVESTMENT COMMITTEE

Public Meeting held in person and videoconference

on May 20, 2022 at 10:00 a.m. CT

Pursuant to Texas Govt. Code 551.127 – COVID-19 circumstances

Committee Members
Present/(Absent)

Michael Benson,
Committee Chair
Michael Granof
Amy Hunter†
Dick Lavine
Chris Noak

Guests:

Ian Bray, RVK
Spencer Hunter, RVK
Paige Saenz*, General
Counsel
Joe Ebisa WithIntelligence*
David Kushner
Matthew Featherston,
PRB*

Other Board Trustees
Present/(Absent)

(Kelly Crook)
(Yuejiao Liu)
(Leslie Pool)
(Anthony B. Ross, Sr.)
(Brad Sinclair)
(Diana Thomas)

Others Present

Staff:

Christopher Hanson
David Stafford
Sarah McCleary
Ty Sorrel
Kelly Doggett
Yun Quintanilla*
Mehrinn Rahman
Jenni Bonds*
Amy Kelley*

- * present telephonically
† present via videoconference

1 Call meeting to order

Chair Benson called the meeting to order at 10:01 a.m. The following Committee members were present in person: Mr. Benson, Mr. Lavine, Mr. Noak, and Dr. Granof. The following Committee member was in virtual attendance: Ms. Hunter.

2 Review order of business and establish meeting objectives

Chair Benson reviewed the order of business and meeting objectives with the Committee. No changes were made to the order of business.

3 Receive update on Chief Investment Officer Position

Mr. Christopher Hanson introduced David Kushner who will start on May 23, 2022 as COAERS' new Chief Investment Officer.

4 Receive public comments

Chair Benson asked if any members of the public wished to speak, either now or during an agenda item. There were no comments.

5 Consider approval of the February 18, 2022 Investment Committee minutes

Chair Benson asked the Committee to review the Investment Committee minutes. Mr. Chris Noak moved approval of the February 18, 2022 Investment Committee minutes. Mr. Dick Lavine seconded, and the motion passed unanimously.

6 Review investment performance including strategy, compliance, and reporting

The Committee reviewed investment performance and market data from RVK through March 31, 2022. Fund investments lost 5.15% net of fees during the quarter and gained 5.29% during the trailing one-year period.

Mr. Noak left the meeting from 10:34 a.m. to 10:38 a.m.

Mr. David Stafford reviewed the investment strategy dashboard and noted that Staff continues to balance the long-term performance of the Fund with what has been a challenging current market environment. Mr. Stafford noted that the Fund exceeded the assumed rate of return and passive benchmark over the trailing 3-, 5- and 10-year periods. Mr. Stafford also presented data that suggested the Fund has been very well rewarded on a risk-adjusted basis.

Mr. Ian Bray and Mr. Spencer Hunter of RVK noted that the first quarter headwinds including inflation and supply chain disruption were exacerbated by soaring energy costs and commodity shortages caused by the war in Ukraine. Despite the Federal Reserve raising interest rates, inflationary pressures remained.

Mr. Stafford also reviewed the compliance report, the delegation of authority report, and the investment cash activity report.

7 Discuss and consider investment strategy including Investment Risk Framework

Mr. Stafford reviewed the risk/return outlook for the Fund via the IRF. He noted that markets imply elevated volatility for neutral Fund positioning. He further noted that the market environment is highly unusual with both stocks and bonds performing poorly at the same time, with both down more than 5% in the quarter. He also noted that US Treasuries are losing some of their efficacy as a hedge to equity risk, and that Fund positioning with heavy overweight to real assets remains appropriate. He discussed

the market environment for other diversifying exposures in the Fund including Cash & Equivalents and private markets exposures in Real Assets.

8 Receive presentation on Fixed Income asset class and diversification of the Strategic Asset Allocation

Trustees received an educational presentation given by both Ian Bray and Spencer Hunter of RVK, and by Mr. Stafford. RVK gave an overview of the broad fixed income universe including a discussion on the spectrum of risk/return profiles available across strategy types. This discussion included data on the challenges faced in the public, investment grade fixed income universe as well as the growing importance of private credit and below investment grade strategies.

Trustees took a break from 11:53 a.m. to 12:10 p.m.

Mr. Stafford noted that the Fund's Fixed Income portfolio as currently constructed is expected to serve as a hedge to equity risk through negative correlations and provide a source of liquidity. He also discussed the risks to this outlook and noted that it may be prudent to consider other ways to improve the diversification of the Fund. Mr. Stafford suggested that a carefully constructed portfolio of higher returning Fixed Income strategies could improve the likelihood of favorable outcomes for the Fund and laid out possible next steps for implementing such an approach.

For reporting purposes to the Pension Review Board, training began at 11:06 am and ended at 12:22 p.m., with a break as noted above.

9 Discuss and consider investment implementation including:

- A. Premier List for Fixed Income**
- B. Premier List for Cash and Equivalents**

Mr. Ty Sorrel presented an update on implementation activities during the first quarter, reviewed the manager monitoring report, and discussed investment manager fees by quarter.

Mr. Sorrel explained that Cash & Equivalents are implemented in a layered approach to assure that both operational and investment needs are effectively met. Core cash is held in extremely high-quality, liquid strategies and incremental cash is invested in strategies which provide improved yields with small marginal risks. This discussion also included data which suggested that Cash & Equivalents were becoming an increasingly important allocation tool. Mr. Sorrel proposed an update to the Premier List for Cash & Equivalents.

Mr. Noak moved to recommend the proposed change to the Premier List for Cash & Equivalents. Dr. Granof seconded, and the motion passed unanimously.

Mr. Sorrel reviewed the Fixed Income portfolio including the disaggregated portfolio construction with mandates in US Treasuries, US MBS, and US Credit. He reviewed data which suggested that the portfolio was well constructed to meet the intended

portfolio goals of hedging equity risk and providing liquidity despite inflationary headwinds. He then proposed changes to the existing Premier List for Fixed income.

Mr. Noak moved to recommend the proposed changes to the Premier List for Fixed Income. Mr. Lavine seconded, and the motion passed unanimously.

10 Discuss and consider investment beliefs, goals, and strategy

Mr. Stafford presented the results of the investment beliefs survey which was taken by Staff, Consultants, and Trustees. He noted strong agreement with the existing investment beliefs that are incorporated into the Investment Policy Statement. He also presented the more mixed results of prospective beliefs along with areas where Trustees had requested more information and educational opportunities.

Mr. Benson left the meeting at 1:45 p.m.

Mr. Noak chaired the remainder of the meeting.

11 Discuss and consider Investment Consultant including annual review and contracting

Trustees reviewed the current contract for RVK and considered the Staff evaluation of RVK performance. Staff noted that RVK remains a well aligned resource who provides high quality consulting services and recommended renewing the RVK contract for a final 2-year extension. Considering the significant progress that COAERS and the City of Austin working group have been making, Staff recommended an investment budget amendment to fund an asset liability study in 2022 rather than waiting until 2023.

Mr. Lavine moved to refer to the Board Amendment No. 3 to the Service Agreement between RVK and the System, and an amendment to the investment budget to add funding of \$55,000 in 2022 for an asset liability study. Dr. Granof seconded, and the motion passed 4-0.

12 Review key meeting takeaways and call for future agenda items

Chair Noak summarized the actions taken and information discussed at the meeting and provided an opportunity to add future agenda items.

As there were no further items to address, the meeting adjourned at 2:00 p.m.

5. Review investment performance including strategy, compliance, and delegation of authority

Presented by David Stafford and RVK

AGENDA ITEM 5:

Review investment performance including strategy, compliance, and delegation of authority

AGENDA ITEM OBJECTIVE

This agenda item is for the Committee to review the Fund’s performance through June 30, 2022, as well as receive reports on the investment program related to strategy, compliance, delegation of authority, and cash management.

RELEVANCE TO STRATEGIC PLAN

This item allows the Committee to review Fund performance and assess the extent to which the System is meeting **COAERS Strategic Plan Goal 1: Achieve and maintain a funding level that ensures the long-term sustainability of the retirement system** since long-term investment performance consistent with the investment program’s goals is central to long-term system sustainability. Additionally, the agenda item allows the Committee to review the approved risk parameters and compliance requirements to ensure the System is fulfilling **COAERS Strategic Plan Goal 2: Responsibly Manage the Risks of the System.**

BACKGROUND

Staff and Consultant will review the performance of the Fund and major asset classes through the most recent quarter, which is summarized below for the period ended June 30, 2022:

	QTD	1Y	3Y	5Y	10Y
Fund return - gross of fees	-11.03	-11.82	4.36	5.50	7.09
<i>Percentile Rank vs. all peers (1=highest)</i>	74	73	84	80	73
<i>Percentile Rank vs. small peers (1=highest)</i>	87	87	87	82	69
Fund return - net of fees	-11.08	-12.04	4.09	5.21	6.75
Policy Index - gross return	-13.59	-13.89	3.65	4.93	6.52
Passive Index - gross return	-12.74	-15.41	2.63	4.18	5.41
Realized risk – standard deviation	<i>N/A</i>	<i>N/A</i>	12.52	11.08	9.10
<i>Percentile Rank vs. all peers (1=highest)</i>	<i>N/A</i>	<i>N/A</i>	27	30	26

ATTACHMENTS

1. COAERS Investment Strategy Dashboard as of 2022-Q2
2. COAERS Investment Compliance Dashboard as of 2022-Q2
3. COAERS Staff Report on Status of Delegated Authority as of 2022-Q2
4. RVK Summary of Fund Performance for 2022-Q2
5. COAERS Investment Operations Cash Activity Detail for 2022-Q2

SUPPLEMENTAL MATERIALS PROVIDED VIA CONVENE APP

1. RVK Quarterly Investment Performance Analysis for 2022-Q2
2. RVK Capital Markets Review for 2022-Q2
3. Callan Periodic Tables of Investment Returns for June 2022

INVESTMENT GOALS

1. Achieve long-term, annualized nominal rate of return net of fees that meets or exceeds the assumed actuarial rate of return for the System.

	3Y	5Y	10Y
COAERS Fund - Net Return	4.09%	5.21%	6.75%
COAERS Actuarially Assumed Rate of Return	6.75%	6.75%	6.75%
Difference	-2.66%	-1.54%	0.00%
Status	BELOW	BELOW	ABOVE

2. Achieve a long-term, risk-adjusted relative rate of return net of fees that meets or exceeds the Passive Index (i.e. the Reference Portfolio).

Passive Index: 60% MSCI ACWI Net USD Unhedged/40% Bloomberg Global Agg USD Unhedged

	3Y	5Y	10Y
COAERS Fund - Net Return	4.09%	5.21%	6.75%
COAERS Passive Index - Gross Return	2.63%	4.18%	5.41%
Difference	1.46%	1.03%	1.34%
Status	ABOVE	ABOVE	ABOVE

Incorporating fee levels for the Passive Index that are consistent with best COAERS Premier List fees (11 bps)

	3Y	5Y	10Y
COAERS Passive Index - Net Return	2.52%	4.07%	5.30%
Difference	1.57%	1.14%	1.45%
Status	ABOVE	ABOVE	ABOVE

3. Achieve a long-term, risk-adjusted relative rate of return net of fees that meets or exceeds the Policy Index (i.e. the Strategic Benchmark).

Policy Index: Target weighted composite of the benchmarks for the major asset classes in the SAA

	3Y	5Y	10Y
COAERS Fund - Net Return	4.09%	5.21%	6.75%
COAERS Policy Index - Gross Return	3.65%	4.93%	6.52%
Difference	0.44%	0.28%	0.23%
Status	ABOVE	ABOVE	ABOVE

Assuming fee levels for the Policy Index that are consistent with best COAERS Premier List fees (11 bps)

	3Y	5Y	10Y
COAERS Policy Index - Net Return	3.54%	4.82%	6.41%
Difference	0.55%	0.39%	0.34%
Status	ABOVE	ABOVE	ABOVE

4. Achieve a long-term, risk-adjusted relative rate of return net of fees that ranks in the top quartile of peer comparisons consistently.

*Versus **all plans** and incorporating fee levels equal to the CEM Benchmarking median of 80 bps*

	3Y	5Y	10Y
COAERS Fund - Net Return	4.09%	5.21%	6.75%
Top Quartile Net Return - All Peers	6.08%	6.43%	7.56%
Difference	-1.99%	-1.22%	-0.81%
Status	BELOW	BELOW	BELOW

*Versus **small plans** and incorporating fee levels equal to the CEM Benchmarking median of 99 bps*

	3Y	5Y	10Y
COAERS Fund - Net Return	4.09%	5.21%	6.75%
Top Quartile Net Return - Small Peers	6.28%	6.28%	7.40%
Difference	-2.19%	-1.07%	-0.65%
Status	BELOW	BELOW	BELOW

Investment returns are presented in an annualized net basis unless otherwise noted

INVESTMENT GOALS (continued)

5. Achieve these strategic objectives via fiduciary best practices that:

- **Ensure proper diversification of asset classes and factor exposures.**
 - Fund is well-diversified across global markets, asset types, and implementation styles.
 - Diversification is being enhanced further through hedges against adverse regimes.
- **Maintain appropriate long-term risk and return expectations.**
 - CMAs reviewed each year with IC/Board to assess outlook and market conditions.
 - Key Investment Manager views and asset allocation strategies analyzed to inform outlook.
- **Adapt the asset allocation to changing market conditions.**
 - Asset/Liability study underway to assess risk budget and asset allocation.
 - Delegated authority to implement strategy within SAA parameters approved by Board.
 - Investment Risk Framework approved by Board, regular reporting provided to IC.

RISK BUDGET

ABSOLUTE RISK (aka VOLATILITY)						
	POLICY			REALIZED		
	MIN	TARGET	MAX	3Y	5Y	10Y
COAERS Fund - Volatility	10%	-	12%	12.5%	11.1%	9.1%
Status				ABOVE	WITHIN	BELOW
	MIN	TARGET	MAX	3Y	5Y	10Y
COAERS Fund - Sharpe Ratio	-	0.50	-	0.35	0.44	0.73
Status				BELOW	BELOW	ABOVE
RELATIVE RISK (aka TRACKING ERROR)						
	POLICY			REALIZED		
	MIN	NEUTRAL	MAX	3Y	5Y	10Y
COAERS Fund - Tracking Error	-	150	300	187	173	172
Status				WITHIN	WITHIN	WITHIN
	MIN	TARGET	MAX	3Y	5Y	10Y
COAERS Fund - Information Ratio	-	0.50	-	0.92	0.75	0.94
Status				ABOVE	ABOVE	ABOVE

ASSET ALLOCATION

	STRATEGIC GUIDELINES <i>as of Apr-2022</i>					ACTUAL FUND POSITIONING		
	MIN ^S	MIN ^T	TARGET	MAX ^T	MAX ^S	CURRENT	STATUS ^T	STATUS ^S
Major Asset Class Policy Weights & Rebalancing Ranges								
Global Equity	46.0%	51.0%	56.0%	61.0%	66.0%	53.4%	WITHIN	WITHIN
Real Assets	10.0%	11.0%	15.0%	19.0%	20.0%	18.3%	WITHIN	WITHIN
Fixed Income	16.0%	18.0%	21.0%	27.0%	33.0%	22.3%	WITHIN	WITHIN
Multi-Asset	2.5%	4.5%	7.0%	12.5%	15.0%	4.9%	WITHIN	WITHIN
Cash	-10.0%	-5.0%	1.0%	5.0%	10.0%	1.1%	WITHIN	WITHIN
Sub-Asset Class Policy Weights & Rebalancing Ranges								
US Equity	22.0%	29.0%	34.0%	39.0%	47.0%	32.4%	WITHIN	WITHIN
Developed Market Equity	11.0%	13.5%	16.0%	18.5%	20.0%	13.7%	WITHIN	WITHIN
Emerging Market Equity	2.0%	4.0%	6.0%	10.5%	13.0%	7.3%	WITHIN	WITHIN
Real Estate	5.0%	7.0%	10.0%	13.0%	15.0%	12.3%	WITHIN	WITHIN
Infrastructure & Other	0.0%	1.0%	5.0%	7.0%	10.0%	6.0%	WITHIN	WITHIN
US Treasuries	9.0%	11.0%	13.0%	21.0%	25.0%	15.2%	WITHIN	WITHIN
US Mortgages	2.0%	3.0%	4.0%	6.0%	8.0%	3.4%	WITHIN	WITHIN
US Credit	1.0%	2.5%	4.0%	7.0%	10.0%	3.6%	WITHIN	WITHIN
Asset Allocation	2.5%	3.5%	5.0%	7.5%	10.0%	3.6%	WITHIN	WITHIN
Commodities & Other	0.0%	1.0%	2.0%	5.0%	10.0%	1.3%	WITHIN	WITHIN
Cash & Equivalents (USD)	-10.0%	-5.0%	1.0%	5.0%	10.0%	1.1%	WITHIN	WITHIN
Other Currencies	0.0%	0.0%	0.0%	1.0%	2.0%	0.1%	WITHIN	WITHIN

INVESTMENT STRATEGY

1. Pursue a superior investment strategy by conducting:

- Formal Asset/Liability Study every 5 years or upon major changes to contributions, benefits, or capital markets.

	<u>Completion Date</u>	<u>As of Date</u>	<u>Service Provider</u>
Asset/Liability Study:	May 2018	December 2017	RVK

- Formal Asset Allocation Study every 3 years.

	<u>Completion Date</u>	<u>As of Date</u>	<u>Service Provider</u>
Strategic Asset Allocation Study:	February 2021	December 2020	RVK

- Review of Strategic Asset Allocation parameters at least every 1 year.

	<u>Completion Date</u>	<u>As of Date</u>
Strategic Asset Allocation Review:	February 2022	December 2021

- Review of IPS and IIP at least annually or upon major changes in capital markets or industry practices.

	<u>Last Review Date</u>	<u>Last Revision Date</u>
Investment Policy Statement:	March 31, 2022	March 31, 2022
Investment Implementation Policy:	March 31, 2022	March 31, 2022

ASSET DIVERSIFICATION

2. Maintain proper diversification of assets by:

- Reviewing investment concentration levels in any single public corporation.

	<u>Individual Holding Concentration Limits:</u>	<u>Company Name</u>	<u>Level</u>	<u>Status</u>
3% of the Fund in the securities of any one company:		EQUINIX INC	0.6%	OK
5% of the Fund of any class of voting security of any one company:		EQUINIX INC	0.6%	OK

- Reviewing investment concentration levels in any single investment manager or investment vehicle.

	<u>Investment Manager Concentration Limits:</u>	<u>Manager/Vehicle</u>	<u>Level</u>	<u>Status</u>
≤15% of Fund assets with any active manager:		Newton IM	7.8%	OK
≤30% of Fund assets with any passive manager:		Agincourt	13.9%	OK
≤20% of firm assets for any manager:		Agincourt	5.3%	OK
≤20% of vehicle assets unless a seed investment:		LGIMA MSCI USA	9.4%	OK
Board approved Seed Investments:		PGIM IG Credit	41.9%	Seed

FUND LIQUIDITY

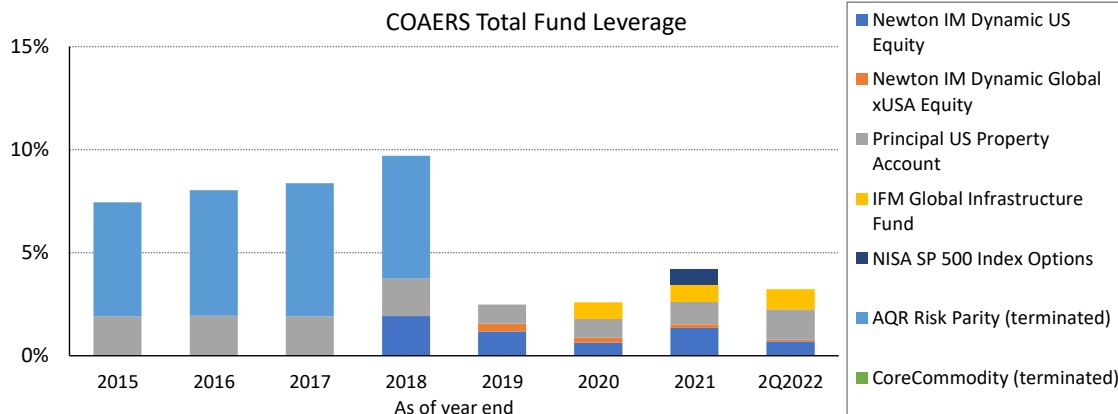
3. Ensure sufficient liquidity to meet benefit payment and other obligations by:

- Review allocation to highly liquid investments quarterly.

Liquidity:	\$ millions	% of Fund	Accounts Included
0 - 5 Days	2,190	74%	All except those listed below
5-30 Days	491	17%	1607, PGIM, DoubleLine, Fidelity, Agincourt
30+ Days	280	9%	Principal, IFM

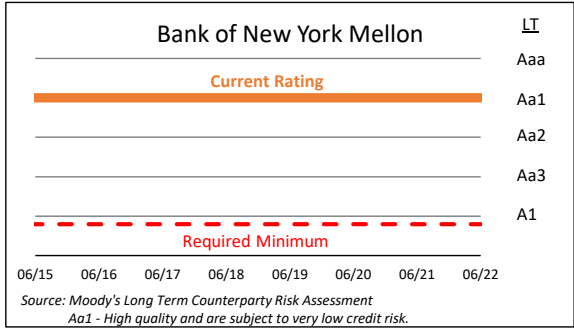
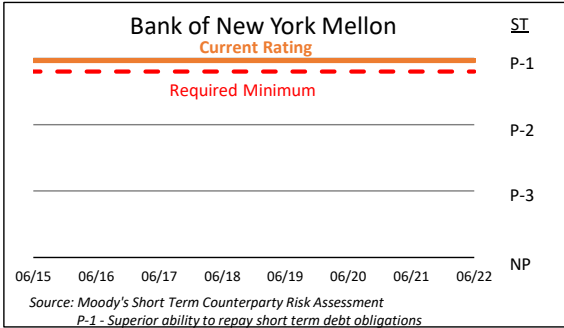
FUND LEVERAGE

4. Monitor level of risk associated with leverage at the Fund level and within portfolios.

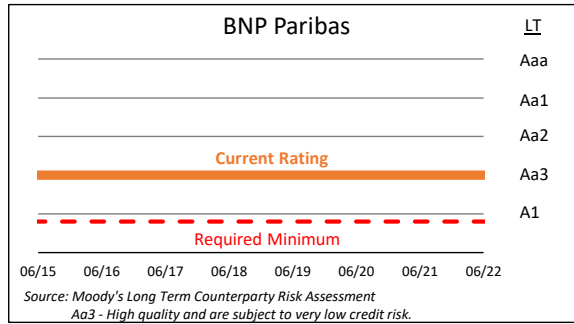
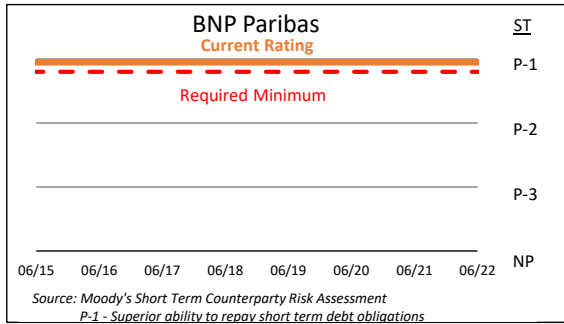
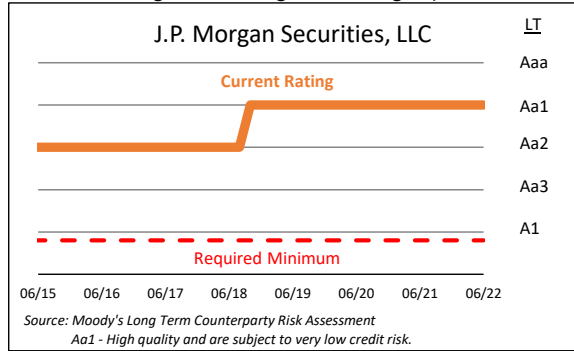
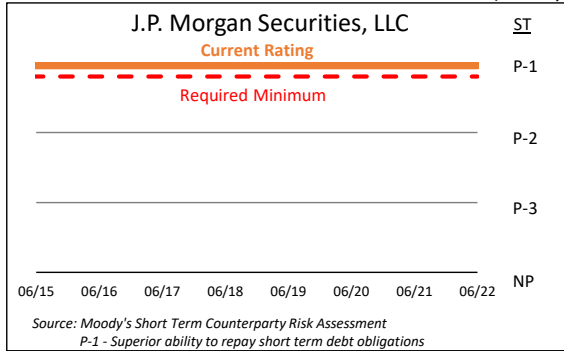


COUNTERPARTY MANAGEMENT

5. Monitor risk of loss from counterparty default and/or insolvency



Futures Commission Merchant: Must be at least A+ (Moody's Short Term Rating P-1 and Long Term Rating A1)



Status of Authority Delegated To COAERS Staff

Source	Nature of Delegated Authority	Status during 2022-Q2
IPS Section I	Executive Director may approve variances from the IPS to further compliance.	Unused
IPS Section I	Executive Director may update IPS policies for administrative items.	Unused
IPS Section II	Executive Director may act to protect System assets.	Unused
IPS Section V	Fund positioning may be rebalanced due to market drift.	Used. Staff increased Multi-Asset sub-asset class which had drifted below approved tactical allocation ranges.
IPS Section V	Fund positioning may be rebalanced for risk management.	Unused
IPS Section V	Fund positioning may be rebalanced due to phased transition to new SAA parameters.	Unused
IPS Section VI	Staff may move between lending and non-lending shares to manage risk.	Unused
IIP Section I	Executive Director may update policies for administrative items	Unused
IIP Section V	Staff may transition between approved Premier List managers.	Unused
IIP Section V	Emergency termination of managers by Executive Director.	Unused
IIP Section VIII	Staff may select Money Market Funds for cash investments.	Unused



Summary of Fund Performance

City of Austin Employees' Retirement System

Period Ended: June 30, 2022



Capital Markets Review						Market Performance																																																					
<ul style="list-style-type: none"> Inflation continued to rise in the US as the Consumer Price Index rose to 9.1% at the end of June. Central banks continued to tighten monetary policy with the Federal Open Market Committee raising the federal funds rate by .75% in June. Forecasters are increasingly citing a rising risk of a recession in the US, however the data is less clear. 						<table border="1"> <thead> <tr> <th></th> <th>QTD</th> <th>1 Year</th> <th>3 Years</th> <th>5 Years</th> <th>10 Years</th> </tr> </thead> <tbody> <tr> <td>S&P 500 (Mkt Cap Wtd)</td> <td>-16.1</td> <td>-10.6</td> <td>10.6</td> <td>11.3</td> <td>13.0</td> </tr> <tr> <td>Russell 2000</td> <td>-17.2</td> <td>-25.2</td> <td>4.2</td> <td>5.2</td> <td>9.4</td> </tr> <tr> <td>MSCI EAFE (Net)</td> <td>-14.5</td> <td>-17.8</td> <td>1.1</td> <td>2.2</td> <td>5.4</td> </tr> <tr> <td>MSCI Emg Mkts (Net)</td> <td>-11.4</td> <td>-25.3</td> <td>0.6</td> <td>2.2</td> <td>3.1</td> </tr> <tr> <td>Bbrg US Agg Bond</td> <td>-4.7</td> <td>-10.3</td> <td>-0.9</td> <td>0.9</td> <td>1.5</td> </tr> <tr> <td>Bbrg Cmdty (TR)</td> <td>-5.7</td> <td>24.3</td> <td>14.3</td> <td>8.4</td> <td>-0.8</td> </tr> <tr> <td>NCREIF ODCE (Net)</td> <td>4.5</td> <td>28.3</td> <td>11.7</td> <td>9.6</td> <td>10.2</td> </tr> </tbody> </table>							QTD	1 Year	3 Years	5 Years	10 Years	S&P 500 (Mkt Cap Wtd)	-16.1	-10.6	10.6	11.3	13.0	Russell 2000	-17.2	-25.2	4.2	5.2	9.4	MSCI EAFE (Net)	-14.5	-17.8	1.1	2.2	5.4	MSCI Emg Mkts (Net)	-11.4	-25.3	0.6	2.2	3.1	Bbrg US Agg Bond	-4.7	-10.3	-0.9	0.9	1.5	Bbrg Cmdty (TR)	-5.7	24.3	14.3	8.4	-0.8	NCREIF ODCE (Net)	4.5	28.3	11.7	9.6	10.2
	QTD	1 Year	3 Years	5 Years	10 Years																																																						
S&P 500 (Mkt Cap Wtd)	-16.1	-10.6	10.6	11.3	13.0																																																						
Russell 2000	-17.2	-25.2	4.2	5.2	9.4																																																						
MSCI EAFE (Net)	-14.5	-17.8	1.1	2.2	5.4																																																						
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Bbrg Cmdty (TR)	-5.7	24.3	14.3	8.4	-0.8																																																						
NCREIF ODCE (Net)	4.5	28.3	11.7	9.6	10.2																																																						
Total Fund Performance																																																											
	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017																																															
Total Fund	-11.1	-15.7	-12.0	4.1	5.2	5.4	6.7	13.0	10.8	20.7	-5.9	16.6																																															
Policy Benchmark	-13.6	-17.7	-13.9	3.7	4.9	5.1	6.5	14.4	10.9	21.6	-6.8	16.0																																															
Excess Return	2.5	2.0	1.9	0.4	0.3	0.3	0.2	-1.4	-0.1	-0.9	0.9	0.6																																															
Total Fund Risk Metrics																																																											
	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017																																																	
Sharpe Ratio	-1.2	0.3	0.4	0.5	0.7	1.9	0.6	2.3	-0.9	7.8																																																	
Standard Deviation	10.7	12.5	10.2	11.1	9.1	6.7	17.4	7.3	8.3	1.8																																																	
Tracking Error	1.7	1.9	1.7	1.7	1.7	1.2	2.0	1.0	1.8	1.0																																																	
Asset Class Performance						Performance Commentary																																																					
	QTD	CYTD	1 Year	3 Years	Since Inception	Inception Date	<ul style="list-style-type: none"> The Total Fund returned -11.1% net of fees in the first quarter, overperforming the Policy Benchmark which returned -13.6%. Infrastructure Equity was the best performing asset class on an absolute net of fees returning -2.7%. Real Estate Equity had strong relative returns, outpacing its benchmark in Q2. 																																																				
Total Fund	-11.1	-15.7	-12.0	4.1	9.4	06/01/1982																																																					
Policy Benchmark	-13.6	-17.7	-13.9	3.7	N/A																																																						
Excess Return	2.5	2.0	1.9	0.4	N/A																																																						
US Equity	-16.7	-21.0	-14.4	7.4	10.4	06/01/1988																																																					
US Equity Benchmark	-16.9	-21.3	-13.2	9.9	10.4																																																						
Excess Return	0.2	0.3	-1.2	-2.5	0.0																																																						
Developed Markets Equity	-14.8	-22.9	-20.4	2.8	4.1	01/01/2008																																																					
Developed Market Equity Benchmark	-14.7	-18.8	-16.8	1.7	1.5																																																						
Excess Return	-0.1	-4.1	-3.6	1.1	2.6																																																						
Emerging Markets Equity	-12.3	-21.5	-30.9	-2.4	0.5	03/01/2008																																																					
Emerging Market Equity Benchmark	-11.4	-17.6	-25.3	0.6	1.3																																																						
Excess Return	-0.9	-3.9	-5.6	-3.0	-0.8																																																						
Real Estate Equity	-5.2	-4.0	9.7	8.6	7.5	09/01/2004																																																					
Real Estate Equity Benchmark	-17.0	-20.2	-6.3	4.0	8.3																																																						
Excess Return	11.8	16.2	16.0	4.6	-0.8																																																						
Infrastructure Equity	-2.7	0.2	7.2	0.8	1.0	01/01/2020																																																					
Infrastructure Equity Benchmark	-7.7	-0.9	4.8	2.7	1.1																																																						
Excess Return	5.0	1.1	2.4	-1.9	-0.1																																																						
Global Fixed Income	-5.4	-11.2	-10.2	-1.6	5.2	02/01/1991																																																					
Global Fixed Income Benchmark	-8.3	-13.9	-15.2	-3.2	4.9																																																						
Excess Return	2.9	2.7	5.0	1.6	0.3																																																						
Asset Allocation	-10.4	-15.1	-12.9	N/A	4.7	05/01/2020																																																					
Multi-Asset Benchmark	-12.7	-17.7	-15.4	2.5	6.6																																																						
Excess Return	2.3	2.6	2.5	N/A	-1.9																																																						
Commodities & Other	-6.3	0.5	2.8	N/A	N/A	07/01/2017																																																					
Commodities & Other Benchmark	-5.7	18.4	24.3	14.3	8.4																																																						
Excess Return	-0.6	-17.9	-21.5	N/A	N/A																																																						
Asset Allocation vs. Target Allocation																																																											
	Market Value (\$000)	Allocation (%)	Target (%)																																																								
US Equity	959,157	32.4	34.0																																																								
DM Equity	404,434	13.7	16.0																																																								
EM Equity	216,324	7.3	6.0																																																								
Real Estate Equity	364,455	12.3	10.0																																																								
Infrastructure Equity	178,642	6.0	5.0																																																								
Global Fixed Income	660,396	22.3	21.0																																																								
Asset Allocation	106,691	3.6	5.0																																																								
Commodities & Other	38,045	1.3	2.0																																																								
Cash & Equivalents	33,506	1.1	1.0																																																								
Total Fund	2,961,650	100.0	100.0																																																								
Schedule of Investable Assets																																																											
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return																																																						
CYTD	3,538,734,335	-25,145,011	-551,939,211	2,961,650,113	-15.66																																																						

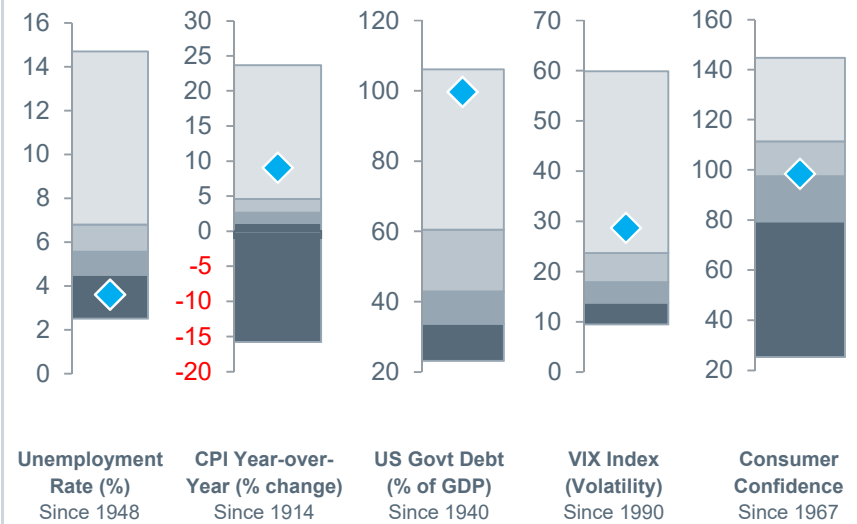
Performance shown is net of fees. Allocations shown may not sum up to 100% exactly. Tracking Error shown is relative to the Passive Benchmark. Risk statistics shown are less meaningful for periods less than one year. Please see the addendum for custom benchmark definitions.



Second Quarter Economic Environment

Continued rising inflation, accelerated tightening of global monetary policy and falling economic growth estimates led to most major indices ending negative in Q2. Inflation continued to rise in the US as the Consumer Price Index (CPI) rose to 9.1% at the end of June, spurred on by supply chain disruptions tied with the war in Ukraine and China's zero-COVID policy. The OECD's June Economic Outlook report now forecasts global inflation to end the year near 9%. Central banks continued to tighten monetary policy with the Federal Open Market Committee raising the federal funds rate by 0.75% in June which followed a 0.50% increase in May. Following the June CPI release, a 1.0% increase at the FOMC meeting in July is now the most likely scenario based on probabilities implied by traders. Forecasters are increasingly citing a rising risk of a recession in the US however the data is less clear. The Atlanta Fed's GDP Nowcast indicates a modest contraction of growth in Q2, with declining residential investment and private inventory overhang as key negative effects. However, manufacturing and services Purchasing Managers' indexes (PMIs) indicate expansion. The unemployment rate ended June at 3.6% as non-farm payroll growth averaged just under 375k per month. According to the latest JOLTS survey, the US currently has roughly two job openings for every unemployed individual. The Atlanta Fed's wage tracker also lists average annual wage growth at 6.7% based on a 3-month moving average.

Key Economic Indicators



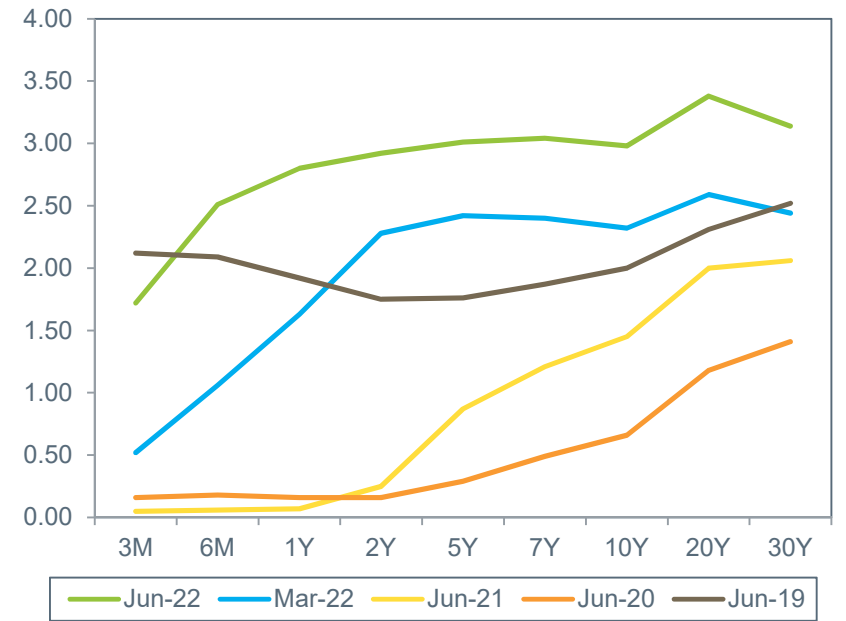
Economic Indicators

	Jun-22	Mar-22	Jun-21	Jun-19	20 Yr
Federal Funds Rate (%)	1.58 ▲	0.33	0.08	2.40	1.30
Breakeven Infl. - 5 Yr (%)	2.62 ▼	3.43	2.50	1.54	1.86
Breakeven Infl. - 10 Yr (%)	2.34 ▼	2.83	2.34	1.70	2.04
CPI YoY (Headline) (%)	9.1 ▲	8.5	5.4	1.6	2.2
Unemployment Rate (%)	3.6 —	3.6	5.9	3.6	6.1
Real GDP YoY (%)	1.6 ▼	3.5	12.2	2.1	1.9
PMI - Manufacturing	53.0 ▼	57.1	60.9	51.5	53.5
USD Total Wtd Idx	121.05 ▲	115.22	112.61	114.58	103.10
WTI Crude Oil per Barrel (\$)	105.8 ▲	100.3	73.5	58.5	64.4
Gold Spot per Oz (\$)	1,807 ▼	1,937	1,770	1,410	1,086

Market Performance (%)

	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	-16.10	-19.96	-10.62	11.31	12.96
Russell 2000	-17.20	-23.43	-25.20	5.17	9.35
MSCI EAFE (Net)	-14.51	-19.57	-17.77	2.20	5.40
MSCI EAFE SC (Net)	-17.69	-24.71	-23.98	1.72	7.18
MSCI Emg Mkts (Net)	-11.45	-17.63	-25.28	2.18	3.06
Bloomberg US Agg Bond	-4.69	-10.35	-10.29	0.88	1.54
ICE BofAML 3 Mo US T-Bill	0.11	0.15	0.17	1.11	0.64
NCREIF ODCE (Gross)	4.77	12.49	29.51	10.54	11.16
FTSE NAREIT Eq REIT (TR)	-16.97	-20.20	-6.27	5.30	7.39
HFRI FOF Comp	-3.88	-6.53	-5.45	3.63	3.75
Bloomberg Cmdty (TR)	-5.66	18.44	24.27	8.39	-0.82

Treasury Yield Curve (%)

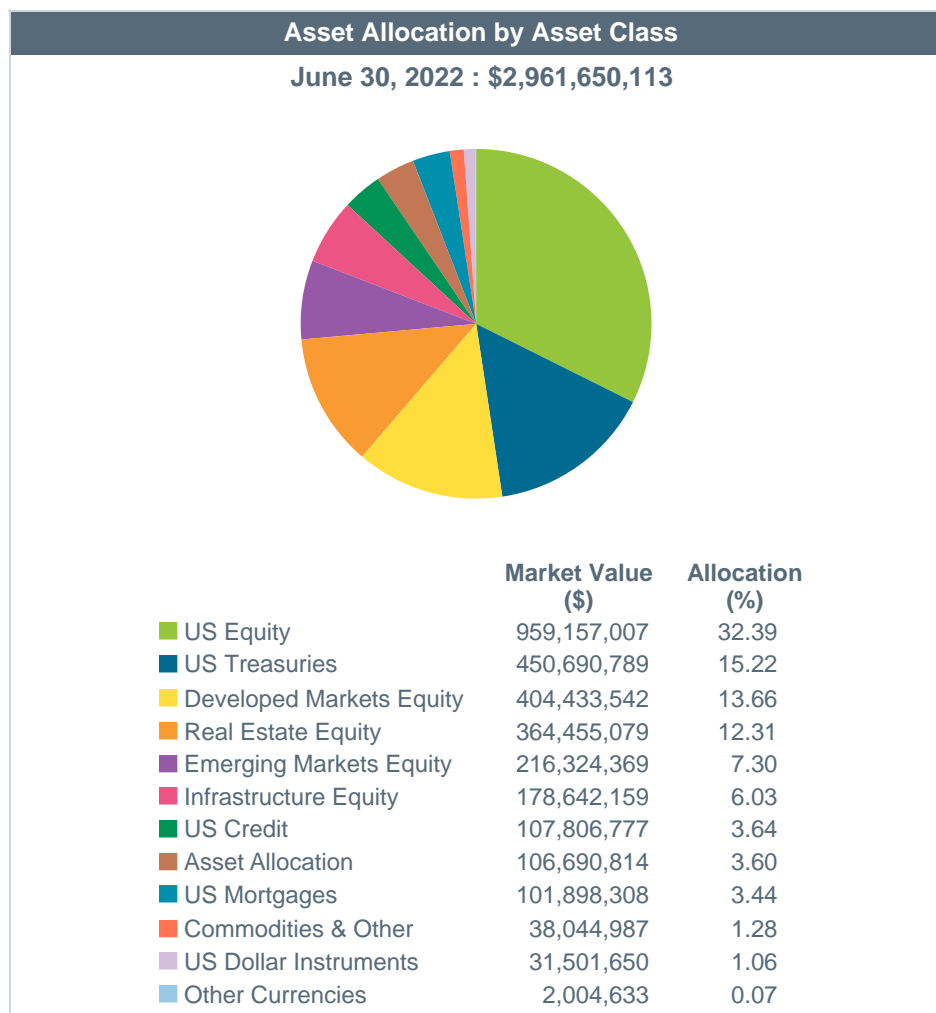
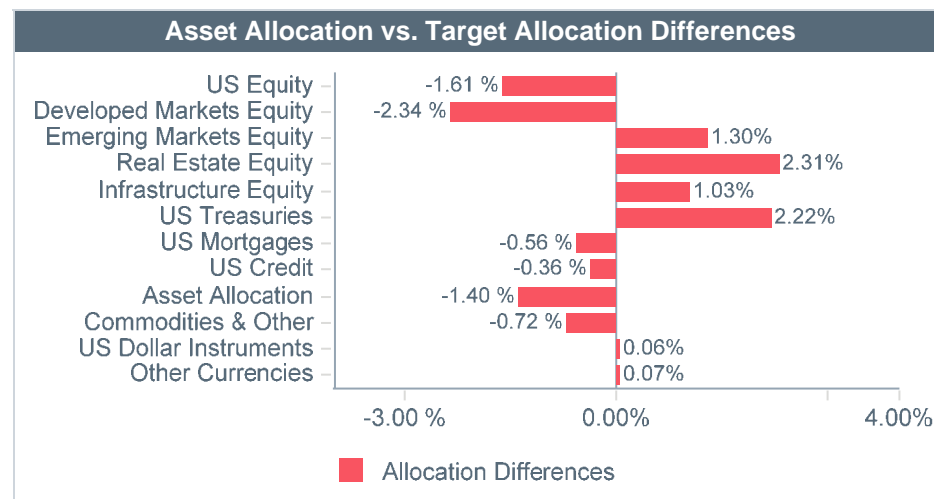


Composite: Total Fund

Asset Alloc. by Asset Class, Asset Alloc. vs. Target, and Schedule of Investable Assets

Schedule of Investable Assets					
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
CYTD	3,538,734,335	-25,145,011	-551,939,211	2,961,650,113	-15.66
1 Year	3,422,486,262	-54,995,604	-405,840,545	2,961,650,113	-12.04
3 Years	2,744,772,371	-135,966,071	352,843,812	2,961,650,113	4.09

Asset Allocation vs. Target Allocation					
	Market Value (\$)	Allocation (%)	Neutral (%)	Min. (%)	Max. (%)
Total Fund	2,961,650,113	100.00	100.00	-	-
US Equity	959,157,007	32.39	34.00	29.00	39.00
Developed Markets Equity	404,433,542	13.66	16.00	13.50	18.50
Emerging Markets Equity	216,324,369	7.30	6.00	4.00	10.50
Real Estate Equity	364,455,079	12.31	10.00	7.00	13.00
Infrastructure Equity	178,642,159	6.03	5.00	1.00	7.00
US Treasuries	450,690,789	15.22	13.00	11.00	21.00
US Mortgages	101,898,308	3.44	4.00	3.00	6.00
US Credit	107,806,777	3.64	4.00	2.50	7.00
Asset Allocation	106,690,814	3.60	5.00	3.50	7.50
Commodities & Other	38,044,987	1.28	2.00	1.00	5.00
US Dollar Instruments	31,501,650	1.06	1.00	0.00	5.00
Other Currencies	2,004,633	0.07	0.00	0.00	1.00



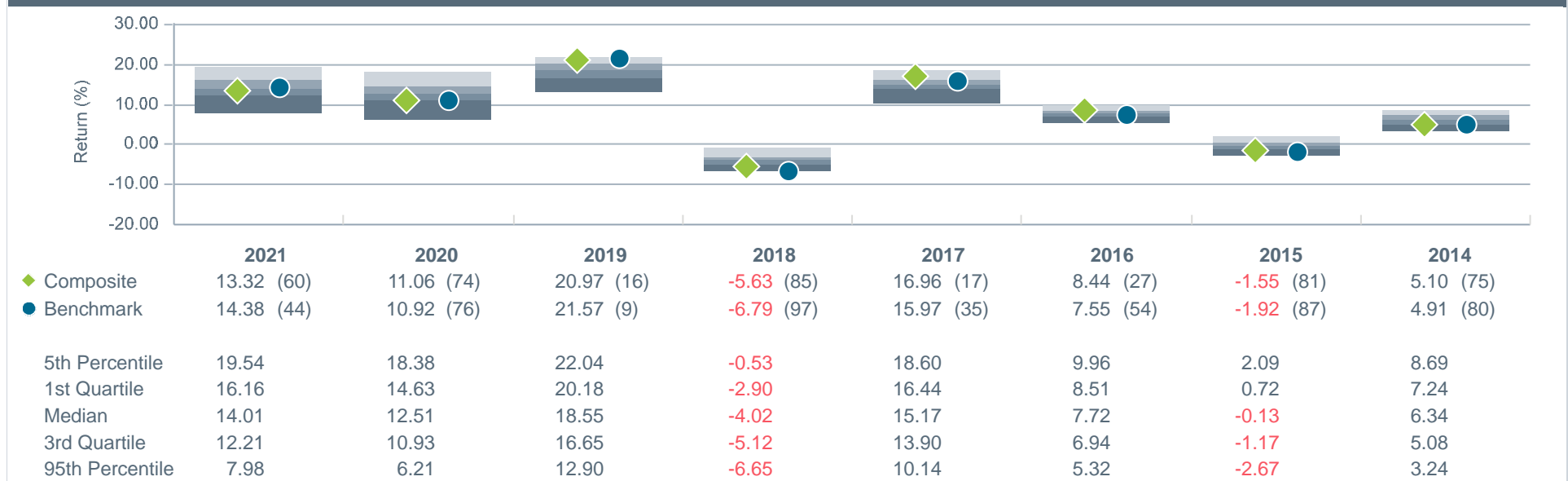
Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Performance is annualized for periods greater than one year. Total Fund market value does not include \$823,978.74 in assets remaining at Northern Trust - representing accruals, cash, tax reclaims, and some assets that were restricted from being delivered due to a liquidation or pending corporate action.



Rate of Return - Trailing



Rate of Return - Calendar

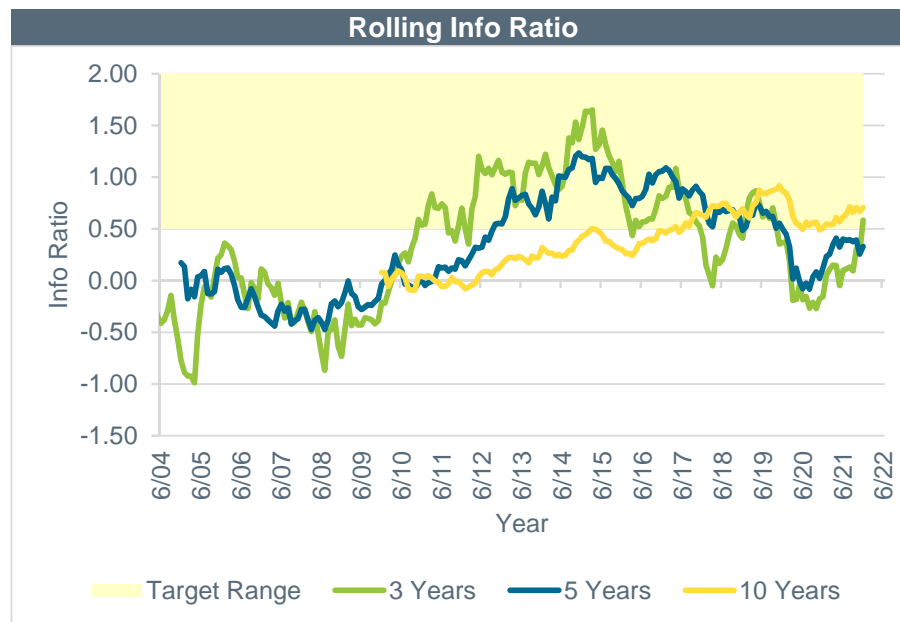
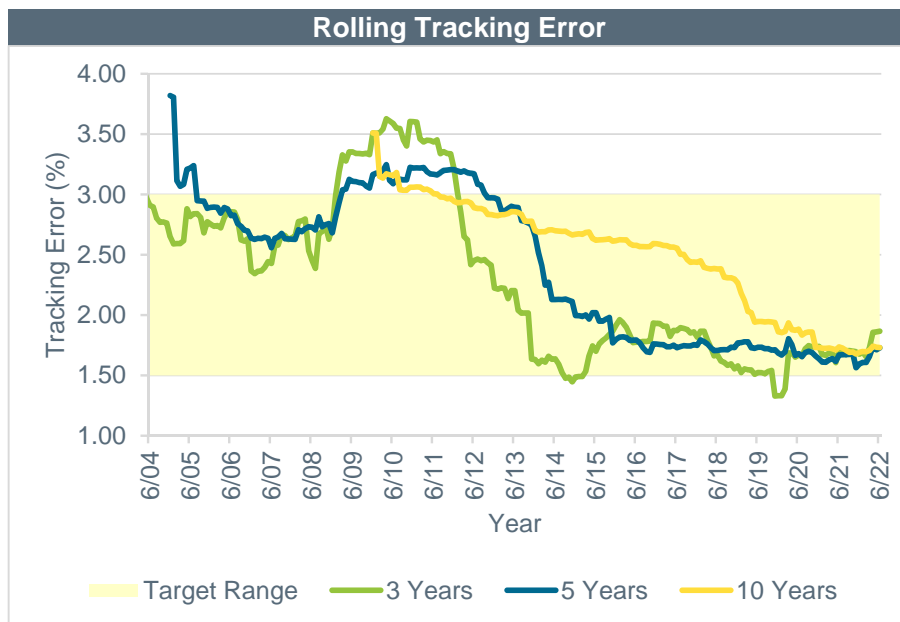
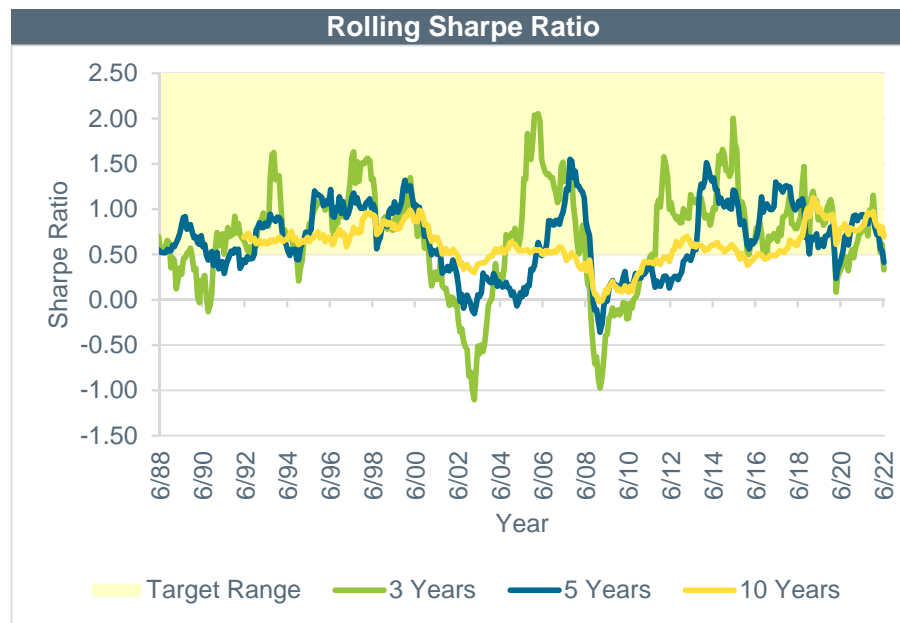
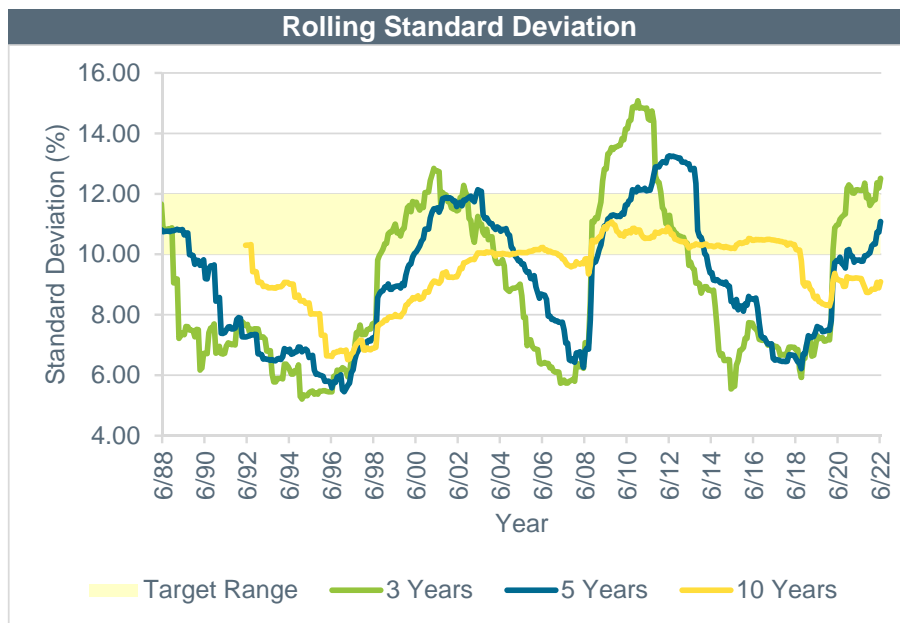


Performance shown is gross of fees and is annualized for periods greater than one year. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Composite: Total Fund
Rolling Risk Statistics (Net of Fees)

As of June 30, 2022



Performance shown is net of fees. Tracking Error and Info Ratio shown are relative to the Passive Benchmark.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Total Fund	2,961,650,113	100.00	-11.08	-15.66	-12.04	4.09	5.21	6.75	9.39	06/01/1982
Policy Benchmark			-13.59	-17.70	-13.89	3.65	4.93	6.52	N/A	
Excess Return			2.51	2.04	1.85	0.44	0.28	0.23	N/A	
Passive Benchmark			-12.74	-17.66	-15.41	2.63	4.18	5.41	N/A	
Excess Return			1.66	2.00	3.37	1.46	1.03	1.34	N/A	
Global Equity	1,579,914,918	53.35	-15.63	-21.59	-18.56	4.68	6.05	8.42	8.69	06/01/1988
Global Equity Benchmark			-15.83	-20.44	-16.52	5.98	6.70	8.71	N/A	
Excess Return			0.20	-1.15	-2.04	-1.30	-0.65	-0.29	N/A	
US Equity	959,157,007	32.39	-16.70	-21.05	-14.38	7.40	8.74	11.30	10.39	06/01/1988
US Equity Benchmark			-16.87	-21.29	-13.17	9.87	10.65	12.60	10.44	
Excess Return			0.17	0.24	-1.21	-2.47	-1.91	-1.30	-0.05	
Developed Markets Equity	404,433,542	13.66	-14.79	-22.88	-20.42	2.77	3.73	6.26	4.15	01/01/2008
Developed Market Equity Benchmark			-14.66	-18.76	-16.76	1.70	2.66	5.37	1.53	
Excess Return			-0.13	-4.12	-3.66	1.07	1.07	0.89	2.62	
Emerging Markets Equity	216,324,369	7.30	-12.27	-21.49	-30.93	-2.39	0.51	2.44	0.54	03/01/2008
Emerging Market Equity Benchmark			-11.45	-17.63	-25.28	0.57	2.18	3.06	1.33	
Excess Return			-0.82	-3.86	-5.65	-2.96	-1.67	-0.62	-0.79	
Real Assets	543,097,238	18.34	-4.39	-2.70	8.90	7.10	6.76	8.05	6.45	09/01/2004
Real Assets Benchmark			-13.81	-13.95	-2.39	3.71	4.98	7.17	7.88	
Excess Return			9.42	11.25	11.29	3.39	1.78	0.88	-1.43	
Real Estate Equity	364,455,079	12.31	-5.18	-4.03	9.72	8.61	8.26	10.02	7.53	09/01/2004
Real Estate Equity Benchmark			-16.97	-20.20	-6.27	4.00	6.10	8.27	8.26	
Excess Return			11.79	16.17	15.99	4.61	2.16	1.75	-0.73	
Infrastructure Equity	178,642,159	6.03	-2.71	0.22	7.20	0.81	-0.52	N/A	0.98	01/01/2020
Infrastructure Equity Benchmark			-7.66	-0.94	4.77	2.69	3.93	6.31	1.13	
Excess Return			4.95	1.16	2.43	-1.88	-4.45	N/A	-0.15	

Performance shown is net of fees and is annualized for periods greater than one year. Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.



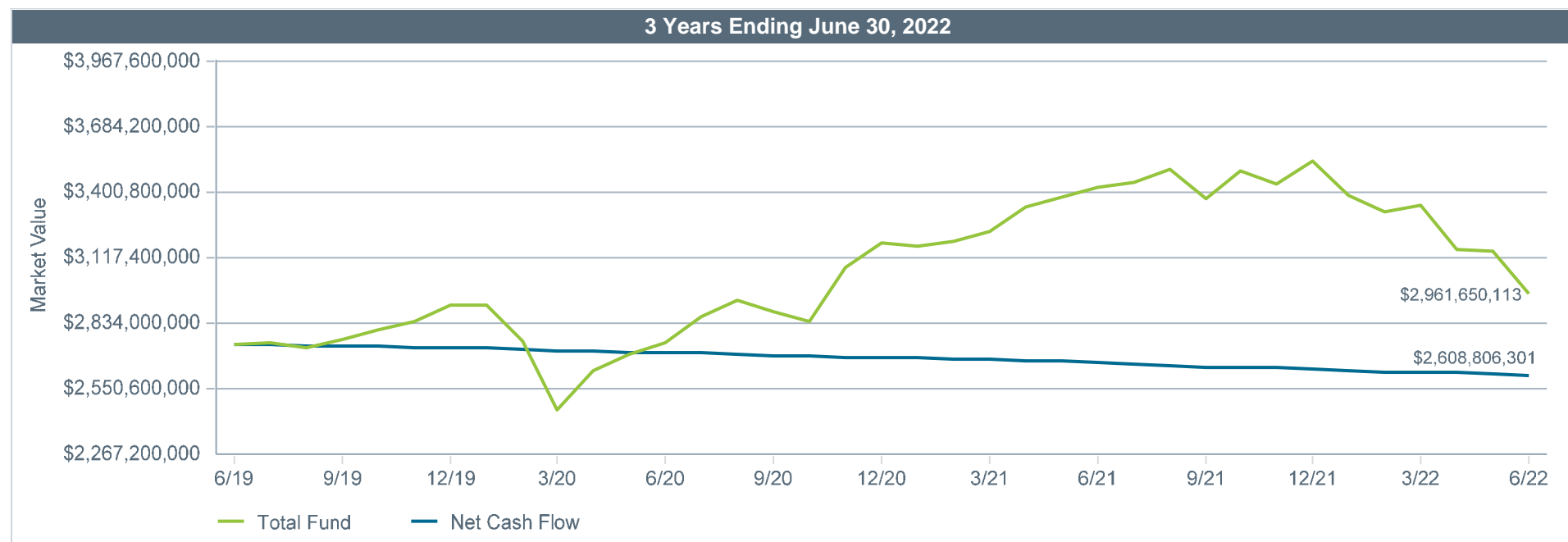
Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Global Fixed Income	660,395,874	22.30	-5.38	-11.17	-10.19	-1.61	0.62	1.49	5.17	02/01/1991
Global Fixed Income Benchmark			-8.26	-13.91	-15.25	-3.22	-0.59	0.80	4.89	
Excess Return			2.88	2.74	5.06	1.61	1.21	0.69	0.28	
US Treasuries	450,690,789	15.22	-5.18	-10.84	-9.31	-0.36	N/A	N/A	0.76	05/01/2019
US Treasuries Benchmark			-3.78	-9.14	-8.90	-0.88	0.74	1.01	0.18	
Excess Return			-1.40	-1.70	-0.41	0.52	N/A	N/A	0.58	
US Mortgages	101,898,308	3.44	-3.43	-8.11	-8.68	N/A	N/A	N/A	-1.49	08/01/2019
US Mortgages Benchmark			-4.01	-8.78	-9.03	-1.44	0.36	1.18	-1.62	
Excess Return			0.58	0.67	0.35	N/A	N/A	N/A	0.13	
US Credit	107,806,777	3.64	-7.96	-15.17	-14.93	N/A	N/A	N/A	-1.00	08/01/2019
US Credit Benchmark			-6.90	-13.81	-13.64	-1.00	1.24	2.45	-1.21	
Excess Return			-1.06	-1.36	-1.29	N/A	N/A	N/A	0.21	
Multi-Asset	144,735,801	4.89	-9.39	-11.69	-9.45	4.58	6.01	N/A	4.54	02/01/2014
Multi-Asset Benchmark			-12.74	-17.66	-15.41	2.48	4.09	5.36	4.38	
Excess Return			3.35	5.97	5.96	2.10	1.92	N/A	0.16	
Asset Allocation	106,690,814	3.60	-10.45	-15.09	-12.88	N/A	N/A	N/A	4.73	05/01/2020
Multi-Asset Benchmark			-12.74	-17.66	-15.41	2.48	4.09	5.36	6.62	
Excess Return			2.29	2.57	2.53	N/A	N/A	N/A	-1.89	
Commodities & Other	38,044,987	1.28	-6.32	0.53	2.81	N/A	N/A	N/A	6.48	04/01/2021
Commodities & Other Benchmark			-5.66	18.44	24.27	14.34	8.39	-0.82	31.49	
Excess Return			-0.66	-17.91	-21.46	N/A	N/A	N/A	-25.01	
Cash & Equivalents	33,506,282	1.13	0.11	0.12	0.12	0.52	0.98	N/A	0.98	07/01/2017
Cash & Equivalents Benchmark			0.12	0.16	0.18	0.57	1.05	0.60	1.05	
Excess Return			-0.01	-0.04	-0.06	-0.05	-0.07	N/A	-0.07	
US Dollar Instruments	31,501,650	1.06	0.10	0.11	0.11	0.51	0.97	N/A	0.79	09/01/2015
Bloomberg US T-Bills 1-3 Mo Index			0.12	0.16	0.18	0.57	1.05	0.60	0.86	
Excess Return			-0.02	-0.05	-0.07	-0.06	-0.08	N/A	-0.07	
Other Currencies	2,004,633	0.07	0.19	0.23	N/A	N/A	N/A	N/A	0.23	12/01/2021
Bloomberg US T-Bills 1-3 Mo Index			0.12	0.16	0.18	0.57	1.05	0.60	0.16	
Excess Return			0.07	0.07	N/A	N/A	N/A	N/A	0.07	

Performance shown is net of fees and is annualized for periods greater than one year. Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.





Schedule of Investable Assets - Quarter To Date						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
QTD	3,341,635,687	138,355,682	148,433,841	-10,078,159	-369,907,414	2,961,650,113

Schedule of Investable Assets - Year To Date						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
CYTD	3,538,734,335	154,135,071	179,280,082	-25,145,011	-551,939,211	2,961,650,113

Schedule of Investable Assets - 1 Year						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
1 Year	3,422,486,262	675,719,008	730,714,612	-54,995,604	-405,840,545	2,961,650,113

Schedule of Investable Assets - 3 Years						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
3 Years	2,744,772,371	5,300,636,217	5,436,602,288	-135,966,071	352,843,812	2,961,650,113

Cash flows shown are net of fees. Net cash flow shown in the line chart represents the beginning market value, adjusted for cash flows. Contributions and withdrawals detail shown includes intra-portfolio cash flows.



Cash Activity - Investment Operations

01 April 2022 - 30 June 2022

DATE	FROM	TO	PURPOSE	AMOUNT
BENEFIT PAYMENTS				
05/25/22	AGINCOURT 1-3M US TREASURIES	COAERS CASH	WITHDRAW TO FUND BENEFITS	\$5,000,000.00
05/25/22	COAERS CASH	CHASE OPERATING ACCOUNT	TRANSFER TO FUND BENEFITS	(\$5,000,000.00)
06/24/22	AGINCOURT 1-3M US TREASURIES	COAERS CASH	WITHDRAW TO FUND BENEFITS	\$5,000,000.00
06/24/22	COAERS CASH	CHASE OPERATING ACCOUNT	TRANSFER TO FUND BENEFITS	(\$5,000,000.00)
SUBTOTAL				\$0.00
MANAGEMENT FEES				
04/29/22	AGINCOURT 10 YR UST	AGINCOURT 10 YR UST	MANAGEMENT FEE	(\$5,298.71)
04/29/22	AGINCOURT 1-3 YR UST	AGINCOURT 1-3 YR UST	MANAGEMENT FEE	(\$12,595.45)
04/29/22	AGINCOURT 1-3M US	AGINCOURT 1-3M US	MANAGEMENT FEE	(\$2,119.27)
04/29/22	AGINCOURT 1-5YR USTP	AGINCOURT 1-5YR USTP	MANAGEMENT FEE	(\$6,463.08)
04/29/22	AGINCOURT FTSENAREIT	AGINCOURT FTSENAREIT	MANAGEMENT FEE	(\$2,443.24)
04/29/22	AGINCOURT PASSIV IND	AGINCOURT PASSIV IND	MANAGEMENT FEE	(\$10,865.14)
04/29/22	DOUBLELINE MBS	DOUBLELINE MBS	MANAGEMENT FEE	(\$53,876.97)
04/29/22	HOISINGTON MACROECON	HOISINGTON MACROECON	MANAGEMENT FEE	(\$80,343.10)
04/29/22	MELLON DYNAMIC US EQ	MELLON DYNAMIC US EQ	MANAGEMENT FEE	(\$215,546.83)
04/29/22	COAERS CASH	MELLON DYNAMIC XUSEQ	MANAGEMENT FEE	(\$25,346.95)
04/29/22	MELLON SCIBETA US DC	MELLON SCIBETA US DC	MANAGEMENT FEE	(\$43,988.96)
05/11/22	PGIM US IG CORP BOND	PGIM US IG CORP BOND	MANAGEMENT FEE	(\$67,548.98)
05/31/22	1607 CAPITAL EAFE EQ	1607 CAPITAL EAFE EQ	MANAGEMENT FEE	(\$332,341.00)
05/31/22	LGIMA 5 15 YR US TIP	LGIMA 5 15 YR US TIP	MANAGEMENT FEE	(\$1,688.56)
05/31/22	LGIMA INFLATION PLUS	LGIMA INFLATION PLUS	MANAGEMENT FEE	(\$29,635.76)
05/31/22	COAERS CASH	LGIMA MSCI EM INDEX	MANAGEMENT FEE	(\$20,822.17)
05/31/22	COAERS CASH	LGIMA MSCI USA INDEX	MANAGEMENT FEE	(\$15,672.02)
05/31/22	NISA 10 YR UST FUTUR	NISA 10 YR UST FUTUR	MANAGEMENT FEE	(\$5,626.65)
05/31/22	NISA 30 YR UST FUTUR	NISA 30 YR UST FUTUR	MANAGEMENT FEE	(\$6,837.53)
05/31/22	NISA FX HEDGED EAFE	NISA FX HEDGED EAFE	MANAGEMENT FEE	(\$5,222.39)
05/31/22	NISA GOLD FUTURES	NISA GOLD FUTURES	MANAGEMENT FEE	(\$5,427.80)
05/31/22	NISA MSCI EAFE FUTUR	NISA MSCI EAFE FUTUR	MANAGEMENT FEE	(\$5,020.88)
05/31/22	NISA MSCI EM FUTURES	NISA MSCI EM FUTURES	MANAGEMENT FEE	(\$4,886.84)
05/31/22	NISA S&P 500 FUTURES	NISA S&P 500 FUTURES	MANAGEMENT FEE	(\$10,086.76)
05/31/22	NISA SP 500 INDEX OP	NISA SP 500 INDEX OP	MANAGEMENT FEE	(\$5,649.46)
05/31/22	NISA ST SOVEREIGNS	NISA ST SOVEREIGNS	MANAGEMENT FEE	(\$258.06)
05/31/22	SSGA MSCI USA EW IND	SSGA MSCI USA EW IND	MANAGEMENT FEE	(\$11,386.98)
05/31/22	COAERS CASH	SSGA MSCI USA SC IND	MANAGEMENT FEE	(\$4,863.02)
05/31/22	WALTER SCOTT EAFE EQ	WALTER SCOTT EAFE EQ	MANAGEMENT FEE	(\$207,632.86)
06/30/22	COAERS CASH	NTAM INTL SMALL CAP	MANAGEMENT FEE	(\$7,612.38)
07/01/22	TOBAM MAXDIV USA	TOBAM MAXDIV USA	MANAGEMENT FEE	(\$77,020.90)
SUBTOTAL				(\$1,284,128.70)
ALLOCATION CHANGES				
04/07/22	NISA 30 YR UST FUTUR	COAERS CASH	DECREASE ALLOCATION TO ACCOUNT	(\$30,000,000.00)
04/07/22	COAERS CASH	AGINCOURT 1-3 YR UST	INCREASE ALLOCATION TO ACCOUNT	\$30,000,000.00
04/07/22	BAILLIE GIFFORD MULTIASSET	COAERS CASH	TERMINATE ACCOUNT	(\$12,076,689.01)
04/07/22	GMO GLOBAL ASSET ALLOCATION	COAERS CASH	TERMINATE ACCOUNT	(\$12,063,992.54)
04/07/22	COAERS CASH	AGINCOURT 1-3M US TB	INCREASE ALLOCATION TO ACCOUNT	\$24,140,681.55
05/16/22	GMO GLOBAL ASSET ALLOCATION	COAERS CASH	TERMINATE ACCOUNT	(\$2.35)
06/17/22	AGINCOURT FTSENAREIT	COAERS CASH	DECREASE ALLOCATION TO ACCOUNT	(\$10,000,000.00)
06/17/22	COAERS CASH	AGINCOURT PASSIV IND	INCREASE ALLOCATION TO ACCOUNT	\$10,000,000.00
SUBTOTAL				(\$2.35)
TOTAL EXTERNAL TRANSFERS				
BENEFIT PAYMENTS				(\$10,000,000.00)
MANAGEMENT FEES				(\$1,284,128.70)
TOTAL				(\$11,284,128.70)

6. Review investment strategy including Investment Risk Framework

Presented by David Stafford

AGENDA ITEM 6:
Review investment strategy including Investment Risk Framework

AGENDA ITEM OBJECTIVE

The Committee will receive a report from Staff on insights from the IRF related to the Fund's investment strategy.

RELEVANCE TO STRATEGIC PLAN

This item meets **COAERS Strategic Goal 2: Responsibly Manage the Risks of the System**. Maintaining appropriate risk and return expectations is critical to meeting strategic goals, and failure to do so raises the risk of large drawdowns and the risk of subpar long-term returns for the Fund.

RECOMMENDATION FOR COMMITTEE ACTION

For discussion and informational purposes only, no action required.

BACKGROUND

The Investment Policy Statement (IPS) requires Staff to develop and maintain the Investment Risk Framework (IRF) to determine when deviations from neutral policy weights are expected to be advantageous to the Fund. The IPS requires that the outputs be reported at regular meetings of the IC and more frequently if needed. The IPS empowers Staff to act upon the outputs of the IRF to rebalance the Fund to further the Board's strategic goals. Any such rebalancing is required to be (1) approved by the Executive Director, (2) reported to the Board within one business day, and (3) reviewed with the IC at its next regular meeting.

Staff will review insights from the current Investment Risk Framework (IRF) dashboard to help inform Fund positioning for the current market environment. This review will include discussion of key questions facing the Fund such as strategic positioning, expected returns, and the potential for regime changes.

ATTACHMENTS

1. Staff Presentation: "IRF Insights" (CONFIDENTIAL)
2. IRF Summary Dashboard 2022-08-05 (CONFIDENTIAL)
3. Investment Manager Strategy Update (CONFIDENTIAL)

SUPPLEMENTAL MATERIALS PROVIDED VIA CONVENE APP

1. IRF Detailed Dashboard 2022-08-05 (CONFIDENTIAL)

7. Discussion of Asset/Liability Study

Presented by David Kushner

AGENDA ITEM 7:
Discussion of Asset/Liability Study

AGENDA ITEM OBJECTIVE

The Committee will receive a presentation on the upcoming asset/liability study.

RELEVANCE TO STRATEGIC PLAN

This agenda item is central to **COAERS Strategic Plan Goal 1: Achieve and maintain a funding level that ensures the long-term sustainability of the retirement system.** The asset/liability study is one of the action items included in this goal.

RECOMMENDATION FOR COMMITTEE ACTION

For discussion and informational purposes only, no action required.

BACKGROUND

The Investment Policy Statement requires the Board to conduct an Asset/Liability Study (ALM) at least every five years. Staff will lead a brief educational discussion on the process for completing the upcoming ALM Study.

ATTACHMENT

1. Staff presentation "Discussion of Asset/Liability Study"

SUPPLEMENTAL MATERIALS PROVIDED VIA CONVENE APP

1. Investment Beliefs Survey Summary



Discussion of Asset/Liability Study

David Kushner, CFA

Chief Investment Officer

August 26, 2022

Current Beliefs

Key results of the Survey of the System's Investment Beliefs relating to Asset Allocation and Private Markets are shown here.

Current Investment Beliefs		Total Responses						Average Response				Dispersion of Responses
Question	Statement	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know/NMI	All Respondents	Trustees Only	Staff Only	RVK Only	
1	The Fund is a permanent entity with long-lived liabilities and, as such, it should strive to be a thoughtful, analytical, and patient investor that is focused on achieving successful outcomes.	11	5	0	0	0	0	4.69	4.44	5.00	5.00	0.46
3	To the extent possible, investment decision-making should be driven by data and analysis , including the findings of relevant research on financial markets and investment management.	13	3	0	0	0	0	4.81	4.67	5.00	5.00	0.39
4	Strategic asset allocation is the most critical aspect of the investment process , with the level of risk assumed by the Fund driven primarily by its allocation to equity investments.	8	6	1	0	0	1	4.47	4.25	4.75	4.67	0.62
5	The Fund should seek to be well compensated for the investment risks it chooses to bear, risks that should be articulated at the time of investment and revisited regularly.	10	6	0	0	0	0	4.63	4.33	5.00	5.00	0.48
6	Diversification across asset classes and risk factors is central to the System's investment strategy, and investments that may improve the Fund's risk/return profile will be considered .	11	4	1	0	0	0	4.63	4.33	5.00	5.00	0.60
15	A long-time horizon enables the Fund to invest in private market strategies which may provide diversification and/or enhanced returns, provided Fund liquidity is carefully managed.	8	5	0	1	0	2	4.43	3.86	5.00	5.00	0.82

What is an ALM Study?

Asset Liability Modeling (ALM) assists the Fund with determining how different asset mixes affect the liability and cash flow needs of the Fund under varied scenarios by analyzing the nature of the Fund's liabilities & cash flow requirements

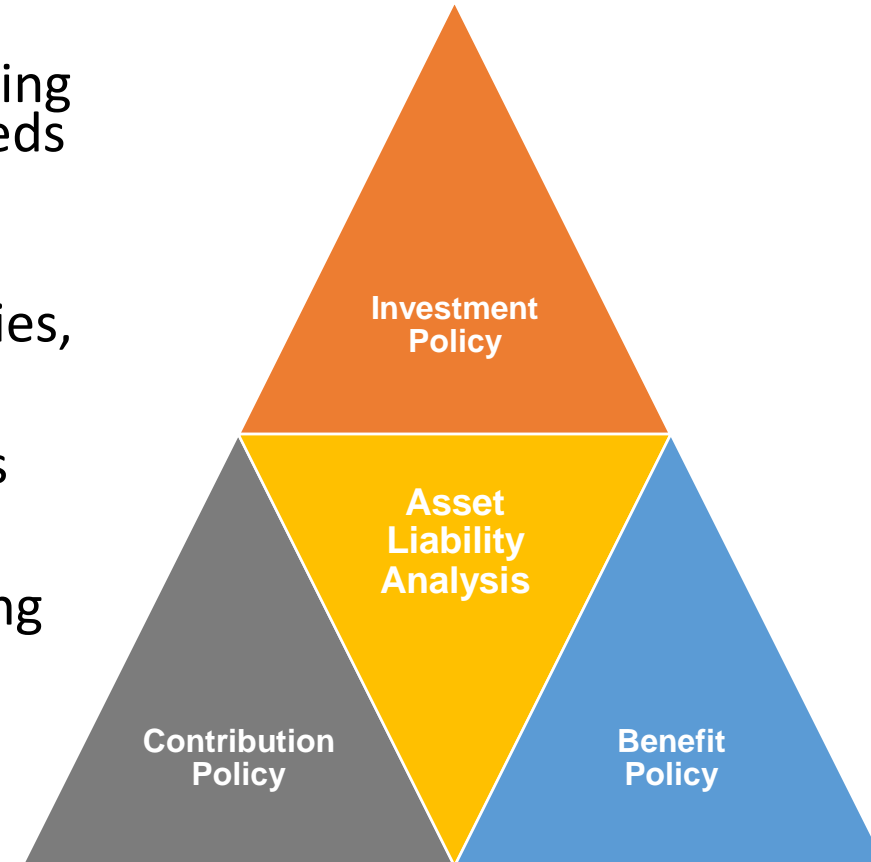
The ALM process considers the contribution and benefit policies, and how these might influence the investment policies

This includes "stress tests" to determine potential drawdowns under various asset mixes and economic scenarios

Including asset classes not currently used assists in determining how these exposures might benefit the Fund

The ALM seeks to create asset portfolios that closely match liability and cash flow characteristics of the Fund

The results of these studies may be used to determine future resource requirements



Source: RVK

Asset Liability Study Requirements



The Investment Policy Statement (IPS) articulates:

“At least every five years (or more frequently if warranted by a material event in either the liability structure of the Fund, the contribution policy, and/or the capital markets) the Board will conduct a formal Asset/Liability Study to review asset classes, risk-return assumptions, and correlation of returns, and implementation styles using applicable benchmarks and other relevant data.”

Additionally, State Law requires public retirement systems to conduct an Asset/Liability Study at least every five years.

The last study was conducted in 2018, therefore Staff had been preparing for one to be conducted in 2023.

Long-Term Sustainability

With the recent long-term sustainability initiatives nearing completion, the Fund anticipates a change in cash flow assumptions and modeling those assumptions in 2022 through Asset/Liability (ALM) provides additional data to support the legislative proposal

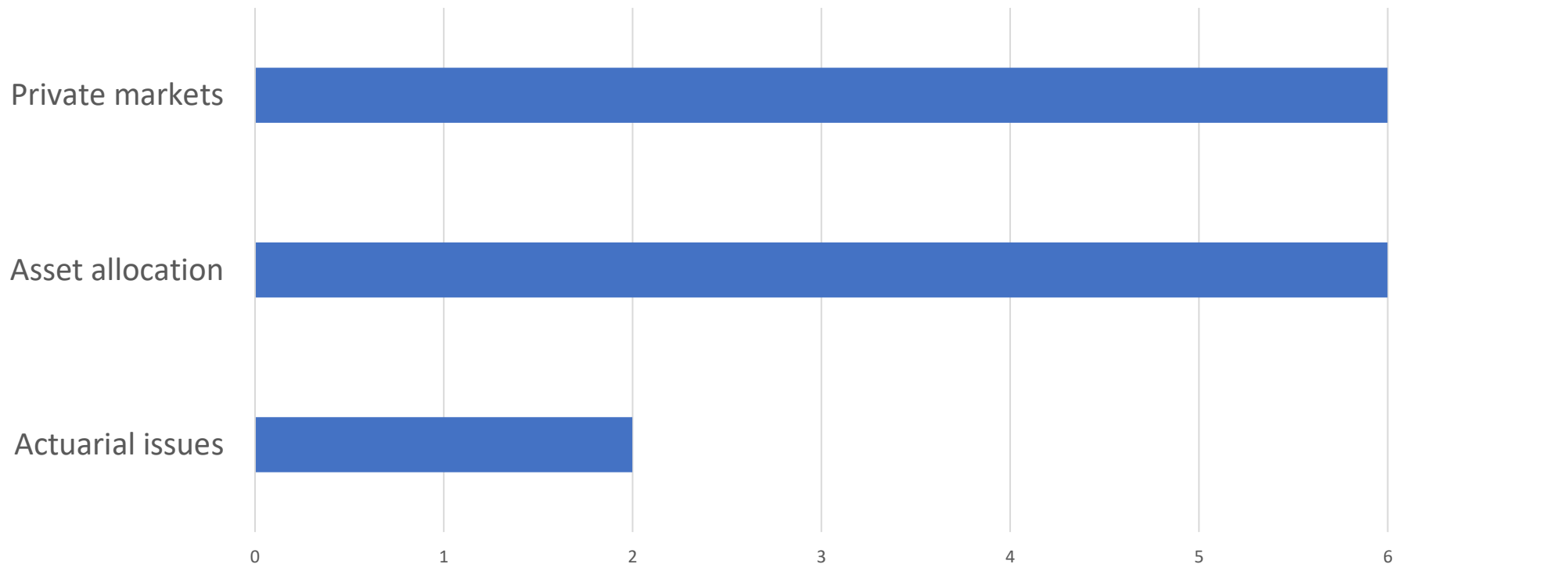
These studies will include a broad range of asset classes including those not currently within the Strategic Asset Allocation (SAA) to provide the Board the best range of options for consideration with the portfolio's risk-return profile

Beginning in 2022 also provides COAERS more time to conduct training and education sessions for Trustees, many of which align with the results of Investment Belief survey conducted earlier this year

Future Educational Areas

- Educational interest in private markets, asset allocation and emerging asset classes are popular among Trustees

I am interested in the below future educational ideas:



What is an Asset Allocation Study?

The results of the ALM provide direction on how different asset mixes impact the Fund's liabilities and funded status

The Asset Allocation (AA) Study uses these results to further define the specific assets to be used and the optimal allocation of these assets to achieve desired results

Similar to the ALM, the AA analyzes and develops expected return, risk and correlation statistics

The AA seeks to maximize return, while minimizing risk, optimizing the trade-offs in risk and return using differing asset mixes



Asset Liability Modeling (ALM)/Asset Allocation (AA) Process

1. Education: What is an ALM Study
2. Additional education and discussion on ALM Process
3. Review Initial Draft of ALM Study
4. Formal ALM and AA Presentation
5. Present AA Scenario results
6. Discussion of Policy Implications for different portfolio scenarios
7. Asset Allocation Approval
8. Discussion of Investment Beliefs and Policy Updates
9. Approval of Investment Beliefs and Policy Updates

8. Receive education on Global Equities asset class including role in the Strategic Asset Allocation and private markets considerations

Presented by David Stafford and RVK

AGENDA ITEM 8:

Receive education on Global Equities asset class including role in the Strategic Asset Allocation and private markets considerations

***This agenda item is considered in-house training provided by COAERS, an accredited sponsor of Minimum Educational Training (MET) for purposes of fulfilling the Pension Review Board's MET Program requirements.*

AGENDA ITEM OBJECTIVE

The Committee will receive presentations discussing the role of Global Equities in the Fund and considerations for private equity.

RELEVANCE TO STRATEGIC PLAN

This agenda item is central to **COAERS Strategic Plan Goal 2: Responsibly Manage the Risks of the System**. Pursuing a highly diversified portfolio is a central tenet of the Strategic Asset Allocation process and Global Equities contribute meaningfully to the expected risk of the Fund such that managing this risk is crucial to successful outcomes over time.

RECOMMENDATION FOR COMMITTEE ACTION

For discussion and informational purposes only, no action required.

BACKGROUND

RVK and Staff will lead a review of the need for diversification and risk management due to the characteristics Global Equities in the total Fund context. In this discussion, Staff will present on the role of Global Equities in contributing returns and risk to the Fund. RVK will then provide an educational overview of the different types of private equity mandates as well as the current market environment for these strategies.

ATTACHMENTS

1. Staff Presentation: "Assessing the Role of Global Equities"
2. RVK Presentation: "Introduction to Private Equity"
3. Course evaluation form for continuing education



Assessing the Role of Global Equities

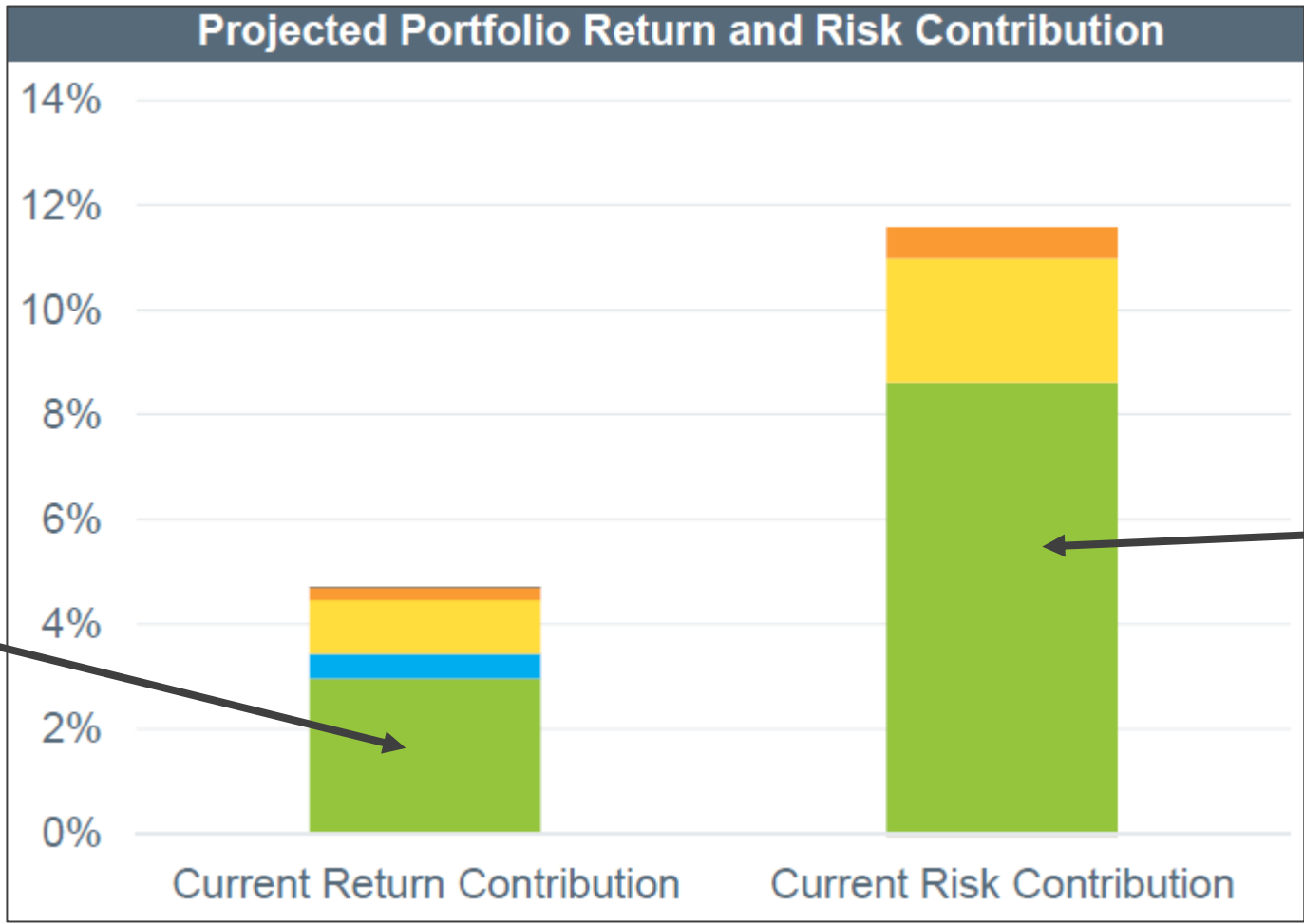
David Stafford

Deputy Chief Investment Officer

August 26, 2022

Role of Global Equities in the Total Fund

- Global Equities represent the largest allocation in the Strategic Asset Allocation parameters at a neutral weight of 56% and effective structuring is key to successful outcomes for the total Fund
- Despite their weighting at just over half of Fund assets, Global Equities contribute to approximately ~65% of expected returns and ~80% of expected risk

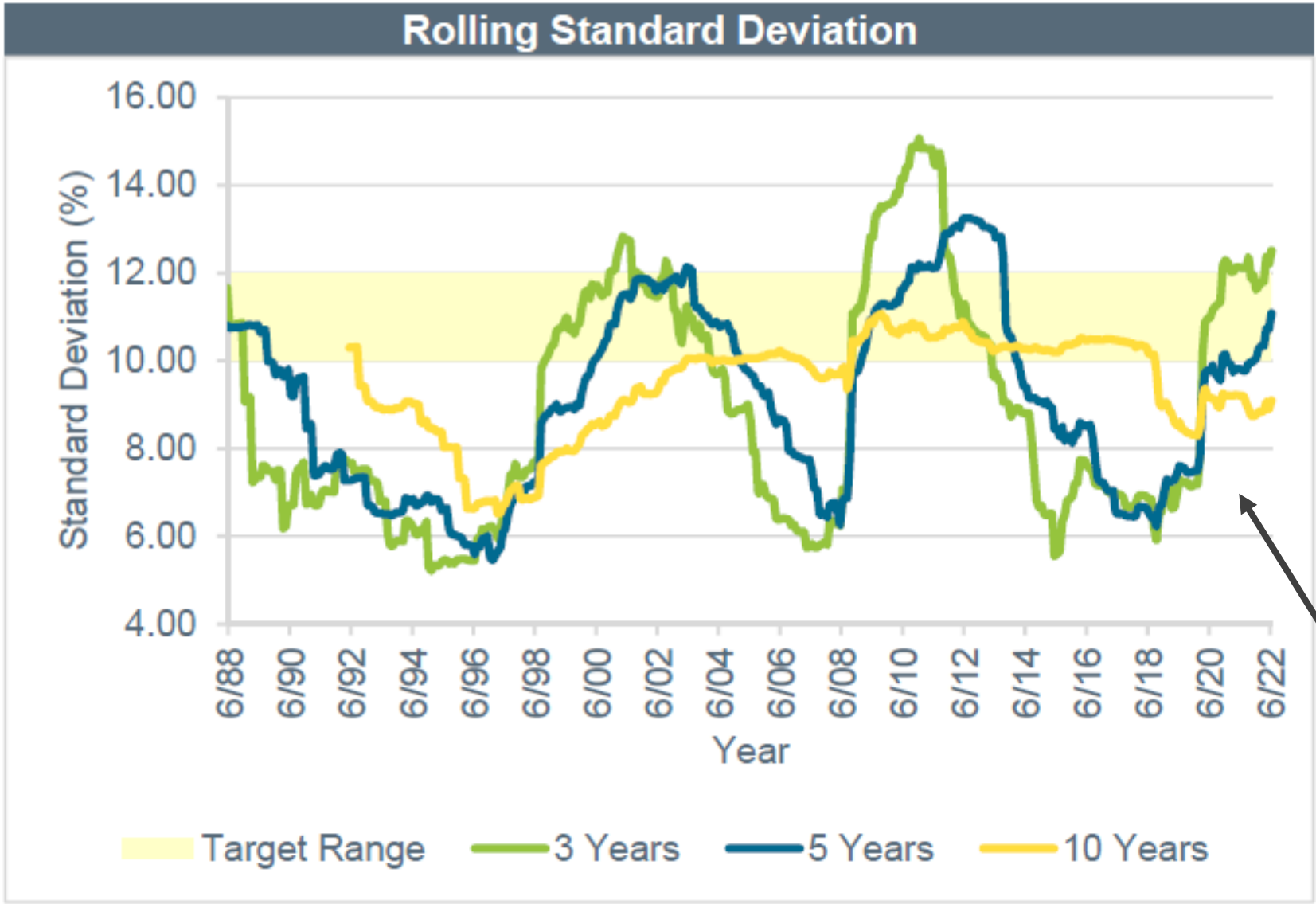


Using RVK capital market assumptions, equities contribute the vast majority of expected returns for the total Fund

This is even more so when considering Fund risk, as equities contribute **nearly all of the expected risk** when taking into account the equity beta inherent in Real Assets and Multi-Asset

■ Global Equity ■ Fixed Income ■ Real Assets ■ Multi-Asset ■ Cash

Need for Risk Management



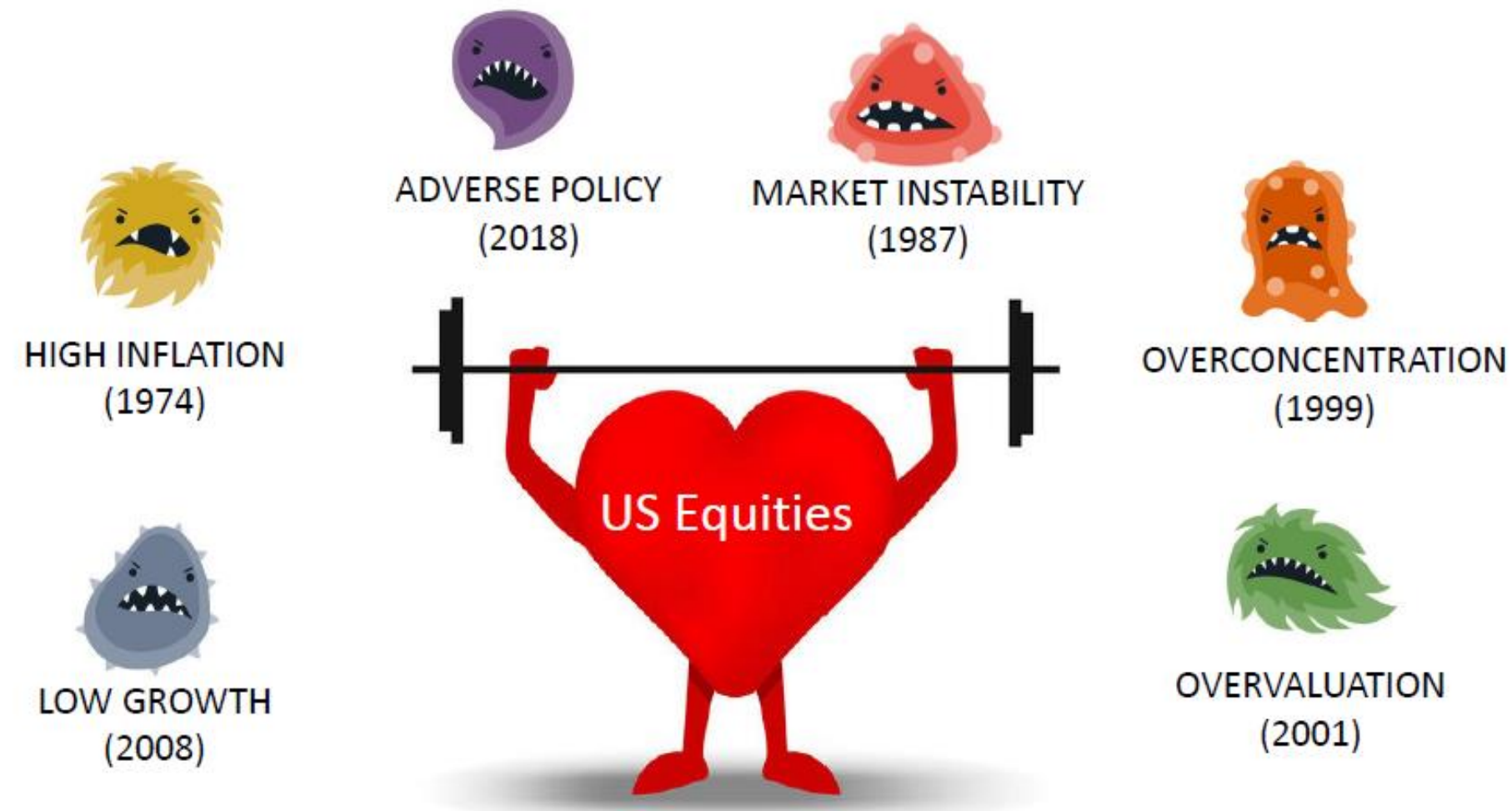
- Given the large volatility contribution from Global Equities, the IPS requires that Staff maintain a risk framework to inform the total Fund profile
- This **Investment Risk Framework** helps inform the right mix of asset classes (Strategic Asset Allocation) and the right types of strategies to employ within Global Equities (implementation choices such as DM, EM, etc.)
- A key component of this framework and the Fund’s overall strategy is **maintaining prudent levels of diversification** in order to increase returns and reduce risk

Given the potential for large drawdowns (below) and higher standard deviation, equity exposures cause total Fund volatility (above) to fluctuate significantly

Notable Equity Drawdowns	Drawdown (%)	Duration (months)
COVID Pandemic	-34%	1
Global Financial Crisis	-56%	17
Dot-Com Bubble	-51%	31

Maintaining Diversification within Equities

- Passive, publicly listed US equities are the core of the Fund since they provide long-term growth to help fund the System's liabilities, consistent with adopted investment beliefs
- In addition to allocating across different asset classes, other equity exposures seek to **complement and/or diversify that core**, such as current implementations in international developed markets equities and emerging markets equities



Select Risk Management and Diversification Examples

- Considering this, the Fund implements diversifying exposures within Global Equities including:



International Developed and Emerging Market exposures help mitigate geographic risk of US equities and US economic growth



Diversified indices, such as equal weight, in US equities limit exposure to the tech-heavy, market capitalization weighted benchmark



Active Management in international equities where there is a higher probability of successfully outperforming on a net of fees, risk-adjusted basis



Currency Hedged mandate in developed markets equities limits the foreign currency risk that comes along with these investments

Looking Beyond Public Markets Diversification

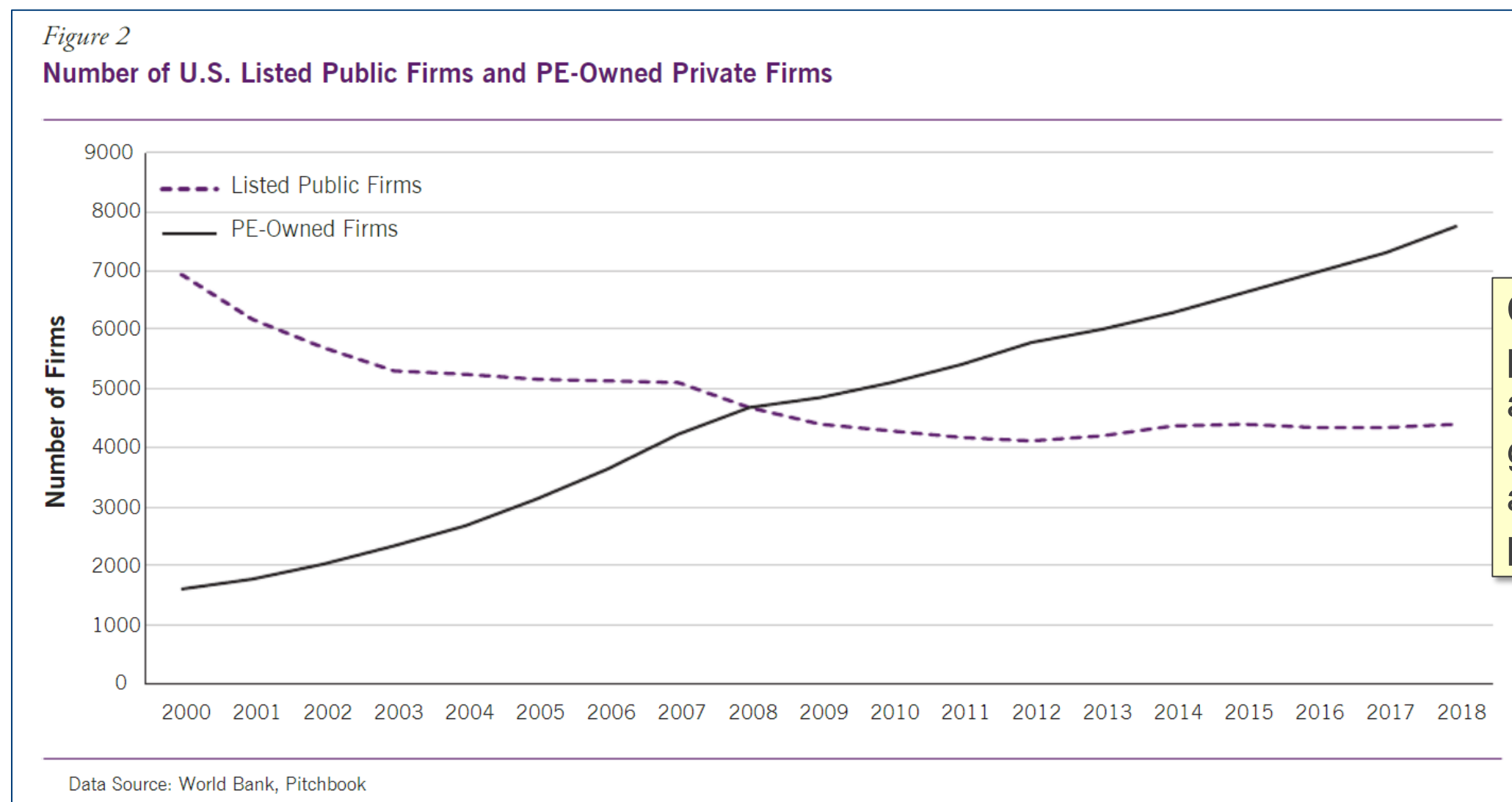
- Different than many peers, current Global Equity exposure is **fully implemented via public equity markets** for the Fund and is highly diversified across these securities
- Despite this, these diversified approaches in public markets **may fall short during large drawdowns** as they are only expected to add value on the margins as evidenced by the budgeted tracking error written into policy
- As such, testing the assumptions underpinning this approach is a best practice to ensure that the Fund is well positioned to fulfill its goals by seeking out **truly diversified sources of return**

Could private markets be used in equities to enhance the diversification or return profile of the Fund?



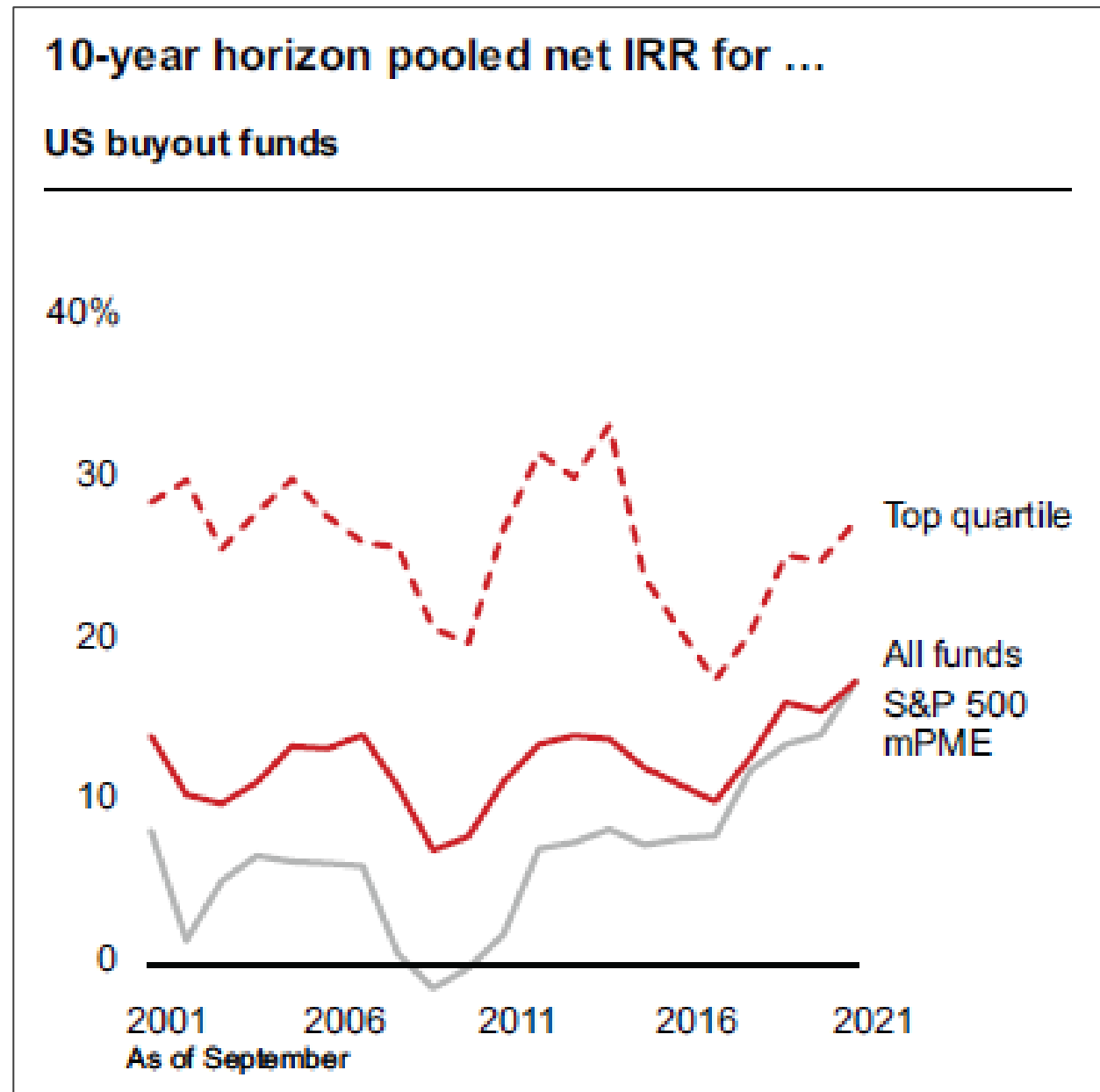
Growth of Private Markets

- Private Equity and Venture Capital have grown into an estimated \$6.3 trillion market segment and many investors use these strategies to increase Fund level diversification and expected returns
- In private markets, there may be meaningful sectors or company types that the Fund does not have exposure to as **both the size and number of private companies has increased**



Companies continue to stay private for longer as they can avoid the regulatory burden of going public while still accessing capital through private market fundraising

What's Driving Interest in These Strategies?

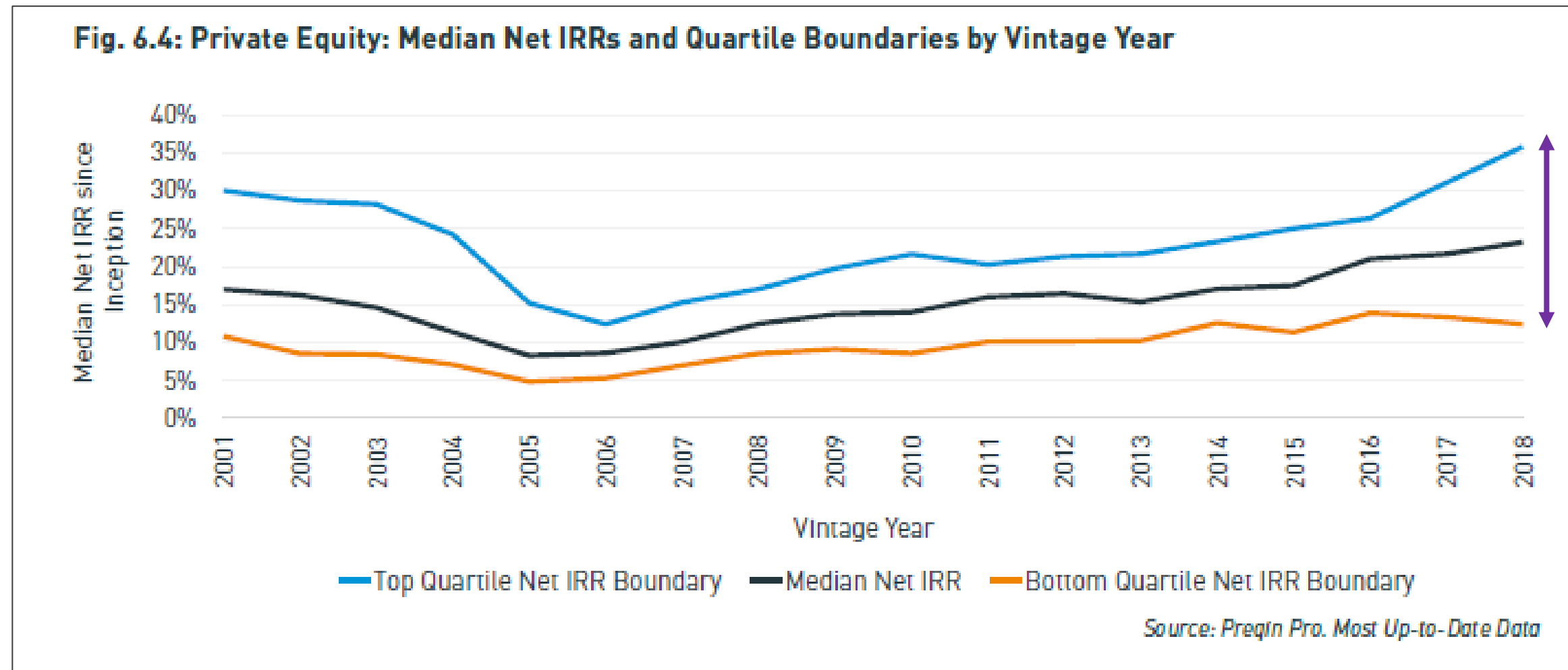


Institutional investors generally see two important benefits in pursuing private equity strategies:

- **Returns expectations** tend to be higher, particularly for above median and top quartile funds as private markets strategies may be able to drive more value creation for companies earlier in their lifecycle
- **Risk reduction** through diversifying exposures to new companies and smoother returns (though these benefits are often overstated due to valuation timing differences)

Beware the Dispersion of Outcomes

- Unlike in public equities, outcomes in private equity have a very large dispersion of returns as the difference between top quartile, median and bottom quartile funds is very large
- As such, a thoughtful, data-driven approach to evaluating the benefits (returns, diversification) in light of the risks (dispersion of returns, governance, resources, cost) is needed to appropriately evaluate these opportunities



There is a nearly 30% annualized return difference between the performance of top and bottom quartile funds in private equity



Applying Key Tenants of the “Austin Model” to Private Equity

- Consistent with the investment beliefs adopted in the IPS, a forward-looking approach to evaluating the possible benefits and concerns of private equities is warranted:
 - **Diversification** benefits may be available through private companies to which the system does not have current exposure
 - **Higher returns** may be available for above median programs, though the risk of poor results is elevated
 - **Alignment and high costs** remain challenges to building out a program of best-in-class managers
 - **Program design** remains a very important consideration as different PE strategies require different resources and have different risk/return profiles (i.e. Buyouts vs. Venture Capital vs. Secondaries)
- Staff will arrange additional training on these topics, and plans to include these strategies in the Asset/Liability Study to help evaluate them in the context of portfolio construction.

Follow up from the Investment Beliefs Survey

Current Investment Beliefs		Total Responses					
Question	Statement	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know/NMI
4	Strategic asset allocation is the most critical aspect of the investment process, with the level of risk assumed by the Fund driven primarily by its allocation to equity investments.	8	6	1	0	0	1
7	Equities are the most prudent investment vehicle for long-term growth of real values, and the associated drawdown risk should be carefully managed in light of the Fund's liabilities.	6	8	0	0	0	2
Prospective Investment Beliefs		Total Responses					
10	Risk is multi-faceted and robust risk management enhances our ability to achieve our mandates.	10	5	1	0	0	0
15	A long-time horizon enables the Fund to invest in private market strategies which may provide diversification and/or enhanced returns, provided Fund liquidity is carefully managed.	8	5	0	1	0	2

- Responses from the investment beliefs survey suggest that for both current and prospective investment beliefs, many respondents agreed or strongly agreed on the importance of some key topics:

- ❖ Risk Management
- ❖ Asset Allocation
- ❖ Equity Returns and Risk
- ❖ Private Markets

- Over time, it may be prudent to consider combining/adopting new investment beliefs on these topics



August 26, 2022



Introduction to Private Equity

City of Austin Employees' Retirement System



What is Private Equity?

Private equity is comprised of multiple strategies that all invest in equity positions of private (i.e., non-public) companies.

Attributes of private equity include:

- **Direct value add to portfolio companies:** investors can affect change at companies they own (new CEO, new product line, etc.) in ways that are unavailable to public markets investors.
- **Size and leverage:** Private equity companies are generally smaller and more highly leveraged than public companies.
- **Global:** private equity is increasingly global, with ~40% of capital raised currently invested outside the United States.
- **Illiquidity:** funds typically have a 12-to-20-year life before fully returning investor capital.

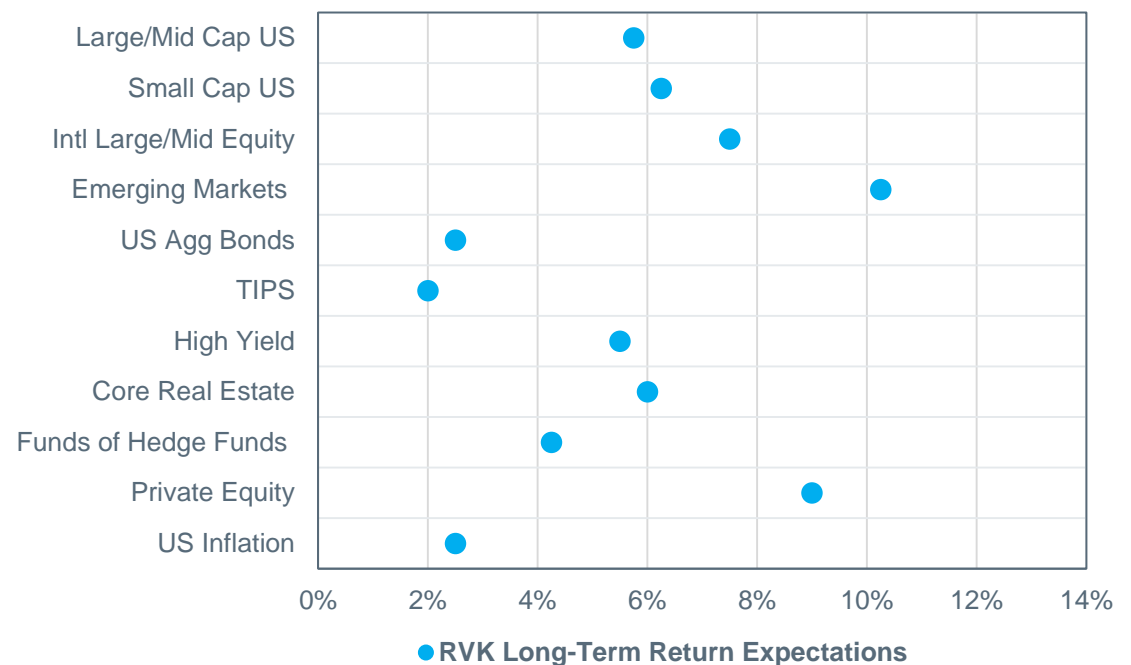
Why Invest In Private Equity?

The primary goal of private equity is enhancing total portfolio return

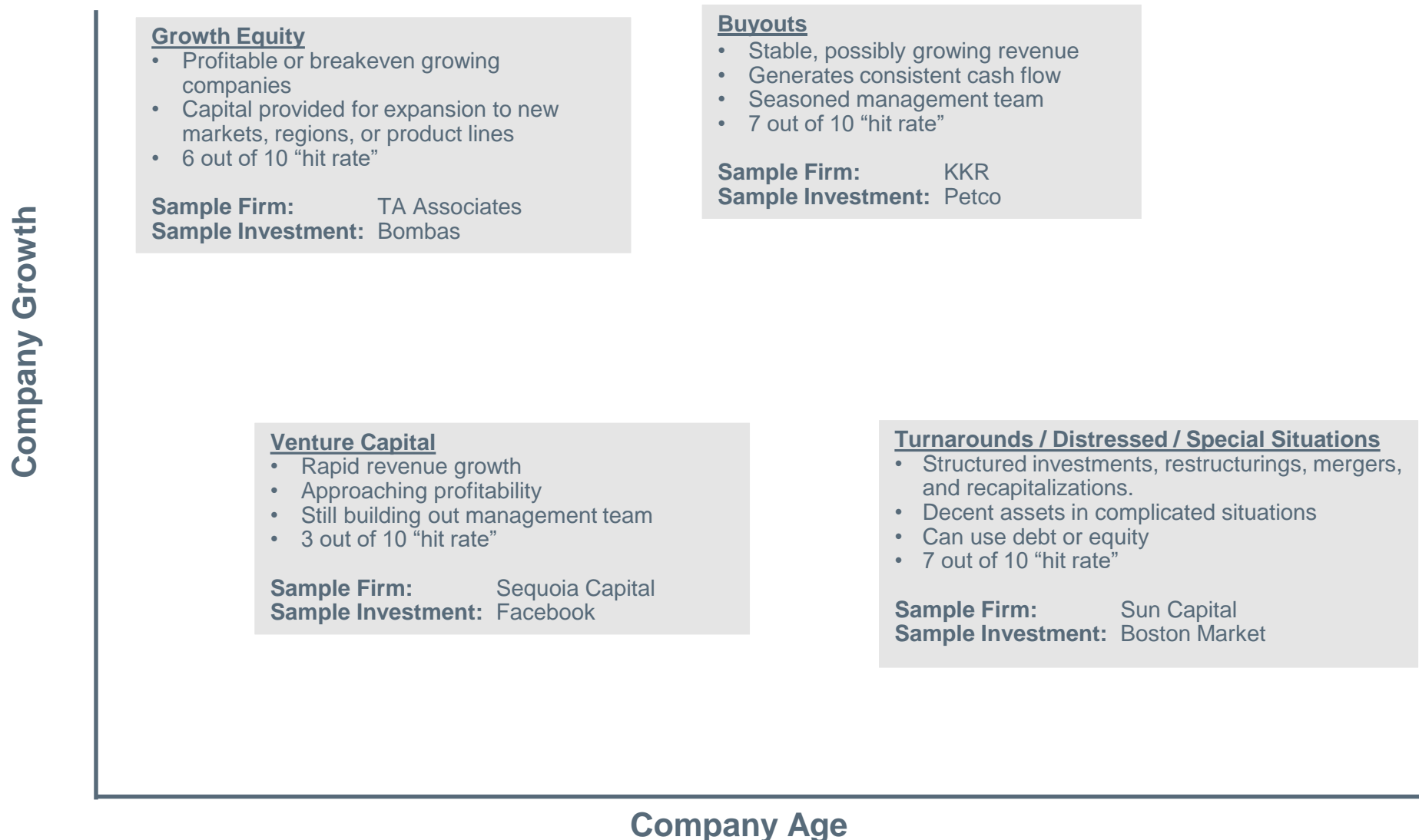
- RVK currently estimates that median private equity will return a premium of 275 basis points over public market returns on an arithmetic basis
- **Observed** volatility of the asset class has been lower than large cap equity markets but actual risk is certainly higher, given private equity companies tend to be smaller and more highly leveraged than public companies.

Private equity also offers some unique attributes:

- Private equity can access investments in some sectors not readily available to public markets
- Private equity investing allows skilled managers to effect meaningful change to businesses, thus improving value



Private Equity Strategies



Outside of venture capital, individual funds may overlap multiple strategies.

Unique Considerations to Private Equity

Illiquidity

- Private equity investments consist of holdings in privately held businesses with limited marketability prior to an exit (typically via an IPO or acquisition)

Long Investment Horizon

- Private equity fund investments are considered long term, with a horizon of 10 years to 20 years

Cash Flow Uncertainty

- Cash flows are dependent upon market dynamics and can be difficult to forecast
- Capital calls depend upon the availability of investment opportunities, while distributions depend on the availability of investment exits

Lower Transparency

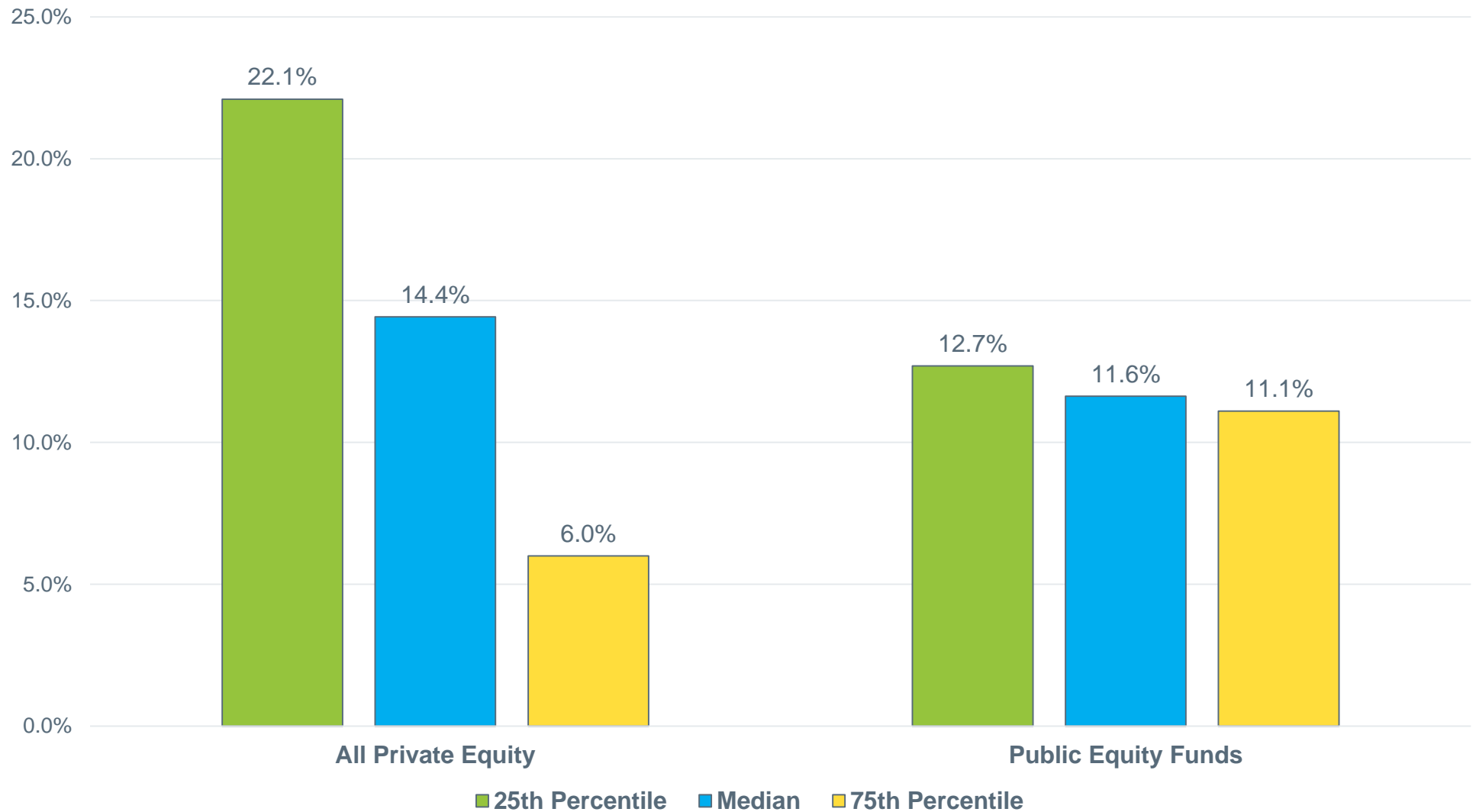
- Private equity firms typically raise capital with limited insight into the actual investments that will be included with the fund
- Developing comfort with managers' skill, as opposed to underlying investments, is essential

Higher Fees

- Typical fees to underlying managers include management fees and carried interest, or incentive fee on the investment gains
- Fees are typically based on committed capital, regardless of the amount of capital called

The Importance of Manager Selection

Annualized Performance Differential
(25th – 75th Percentile)
January 1, 1980 – December 31, 2021



Summary

Private Equity has historically helped investors generate significant value by enhancing total fund returns.

However, the asset class introduces additional considerations:

Risk in the portfolio is increased, among several vectors, including:

- Illiquidity
- Cash flow uncertainty
- Manager selection
- Execution

Private equity is perhaps the most time intensive asset class, and as such requires:

- Committee education and governance
- Staff time for diligence and monitoring
- Additional resource requirements

From RVK's perspective, clients can best mitigate the additional risks of private equity through meaningful planning and consistent execution through a steady deployment of capital.

PORTLAND

CHICAGO

NEW YORK



Minimum Required Educational Training (MET)

Course Name: Assessing the Role of Global Equities

You have completed a Minimum Educational Training (MET) program offered by the City of Austin Employees' Retirement System (COAERS), a Pension Review Board accredited sponsor. All accredited sponsors must provide participants a process for evaluating the quality of the course.

Course Objectives:

The objective of this course was to examine the role of Global Equities in the total Fund and to provide an introduction to Private Equity as an investment opportunity.

Evaluation:

Please take some time to provide a rating on the items below. You may also leave any additional comments that you think may be helpful for future courses.

Please provide a rating on these items	I strongly agree	I agree	I disagree	I strongly disagree
1. These course objectives were met.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The facilities and technology were satisfactory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The instructor was effective.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The program content was relevant and up-to-date.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Additional Comments:

Thank you for your feedback.

9. Discuss and consider investment implementation including Premier List for Global Equities

Presented by Ty Sorrel and David Stafford

AGENDA ITEM 9:

Discuss and consider investment implementation including Premier List for Global Equities

AGENDA ITEM OBJECTIVE

The Committee will conduct the required quarterly review of the implementation of the System's investment strategies and the status of System's funded investment managers.

RELEVANCE TO STRATEGIC PLAN

This agenda item is part of the core competency set forth in the **COAERS Strategic Plan "Prudent Investment Management: Fulfilling fiduciary duty through monitoring performance within adopted process and stated goals."** Committee review of the implementation of the investment program ensures that Trustees monitor the performance of the portfolio.

RECOMMENDATION FOR COMMITTEE ACTION

Staff recommends that the Committee refer to the Board for approval proposed changes to the Global Equities Premier List.

BACKGROUND

The Investment Implementation Policy (IIP) requires Staff to develop and maintain a Premier List of viable managers for potential inclusion within each allocation of the Fund. The IIP also requires the Premier List for each asset class to be reviewed with the Board via the Investment Committee on an annual basis.

Staff will lead the required annual review of the current construction and composition of the Global Equities allocations, including the associated Premier Lists.

ATTACHMENTS

1. Investment Implementation Update 2022-Q2 [CONFIDENTIAL]
2. Investment Implementation Dashboard [PORTIONS CONFIDENTIAL]
3. Investment Manager Monitoring Report 2022-Q2 [CONFIDENTIAL]
4. Investment Manager Fees by Quarter 2022-Q2
5. Current COAERS Premier Lists 2022-Q2 [CONFIDENTIAL]
6. RVK Summary of Manager Performance 2022-Q2
7. Staff Presentation "Annual Review of Global Equities" [PORTIONS CONFIDENTIAL]
8. Proposed COAERS Premier List [CONFIDENTIAL]

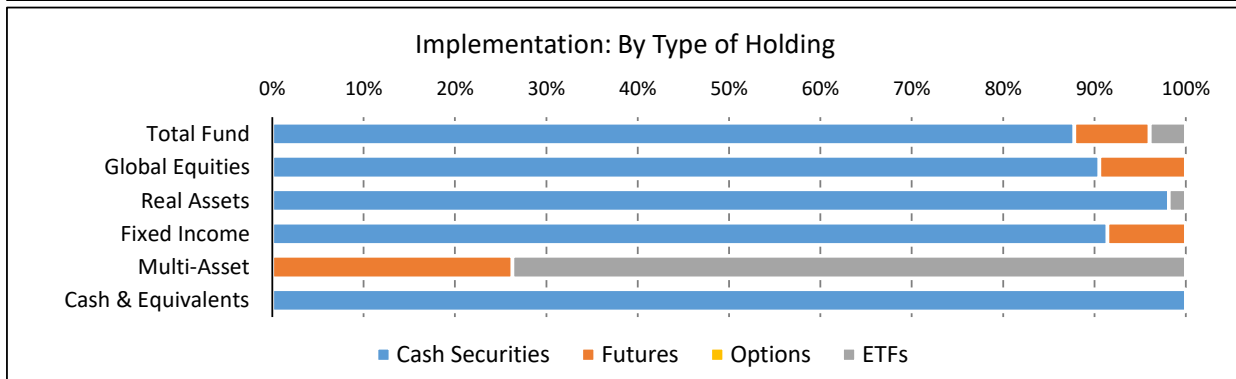
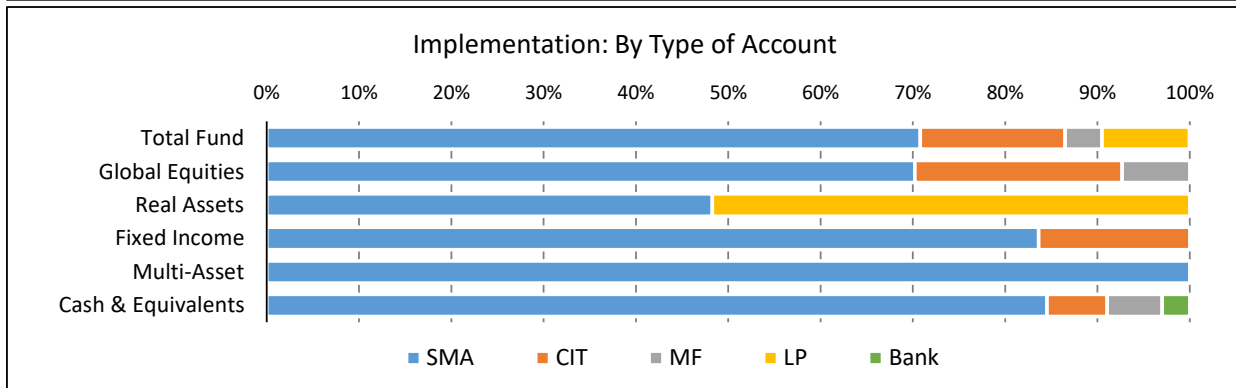
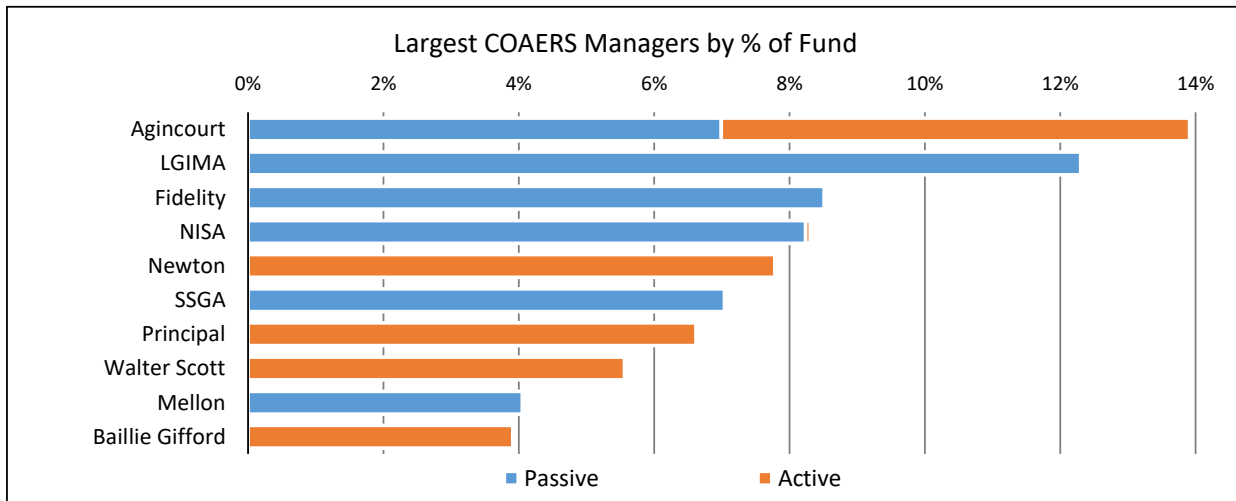
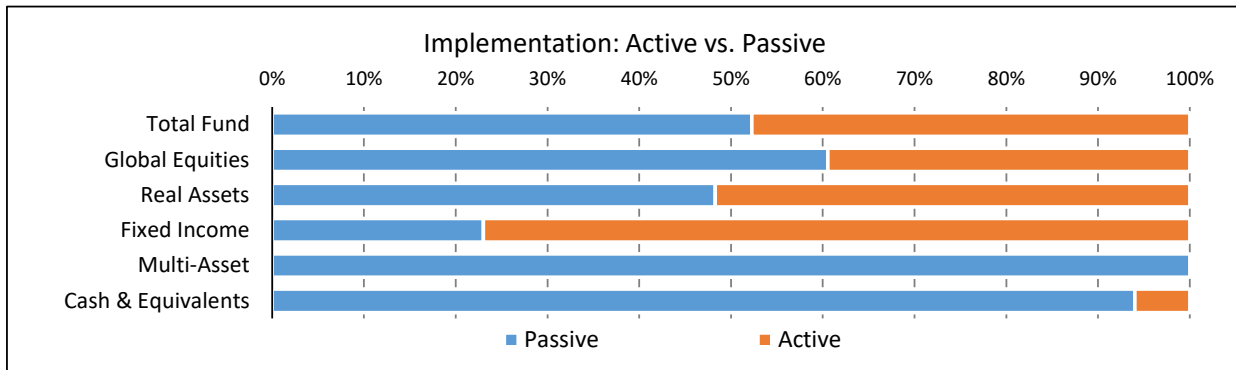
SUPPLEMENTAL INFORMATION PROVIDED VIA CONVENE APP

1. RVK COAERS Investment Manager Compliance Reports

2. COAERS Funded Investment Manager Strategy Summaries

COAERS Implementation Dashboard

As of 6/30/2022



SMA = Separately Managed Account, CIT = Commingled Investment Trust, MF = Mutual Fund, LP = Limited Partner

COAERS Investment Manager Fees

DIRECT FEE PAYMENTS & ACCRUALS				
Earned In	2Q21	3Q21	4Q21	1Q22
Paid In	3Q21	4Q21	1Q22	2Q22
1607 Capital Intl Equities	361,755	469,546	482,562	332,341
Agincourt: 1-3M US Treasuries	2,661	1,330	3,614	2,119
Agincourt: 1-3Y US Treasuries	9,014	9,518	12,907	12,595
Agincourt: 10Y US Treasuries	5,654	5,640	5,685	5,299
Agincourt: 1-5Y TIPS	5,845	6,390	6,461	6,463
Agincourt Passive Index	10,427	11,034	11,451	10,865
Agincourt FTSE NAREIT Equity	1,871	2,191	2,544	2,443
Doubleline MBS	55,920	55,871	55,521	53,877
Fidelity DJ Brookfield	19,760	20,660	21,070	22,100 *
Fidelity US REITs	28,630	30,055	31,269	29,347 *
Hoisington	84,098	84,115	85,788	80,343
LGIMA 5 15YR US TIPS	-	-	1,736	1,689
LGIMA Inflation Plus	-	-	19,633	29,636
LGIMA - MSCI USA	17,666	18,915	16,628	15,672
LGIMA - MSCI EM	23,566	23,019	22,365	20,822
LGIMA - S&P 500	2,771	2,974	1,596	-
Mellon DEXUS	58,689	27,240	27,840	25,347
Mellon DUSE	205,756	208,550	233,169	215,547
Mellon Scibeta US Max Decorr	43,254	43,340	46,363	43,989
NISA Futures	44,607	52,915	47,141	49,016
NT Dev Intl Small Cap Fund ¹	7,169	7,529	7,557	7,612
SSGA MSCI USA Equal Weight	22,344	11,243	11,251	11,387
SSGA MSCI USA SmallCap	10,156	5,007	4,999	4,863
TOBAM Max Decorrelation	81,539	83,678	83,343	77,021
Walter Scott Intl Equities	235,014	246,420	241,362	207,633
TOTAL DIRECT PAYMENTS	1,338,166	1,427,181	1,483,856	1,268,027

¹NTAM Management Fees are paid in the quarter they are earned.

INDIRECT FEE PAYMENTS				
Earned In	3Q21	4Q21	1Q22	2Q22
Paid In	3Q21	4Q21	1Q22	2Q22
Baillie Gifford Emerging Market	265,402	247,437	210,970	191,599
Baillie Gifford Multi-Asset	4,865	5,096	4,628	279 *
GMO Global Asset Allocation	19,132	18,786	17,883	990 *
IFM Infrastructure	148,298	155,237	154,925	160,334
PGIM US Credit	70,067	72,601	72,083	67,549
Principal US Property	313,652	338,889	358,093	385,248
SUBTOTAL INDIRECT	821,416	838,046	818,582	805,999
TOTAL FEES	2,159,582	2,265,227	2,302,438	2,074,025

* Estimated



Summary of Manager Performance

City of Austin Employees' Retirement System

Period Ended: June 30, 2022

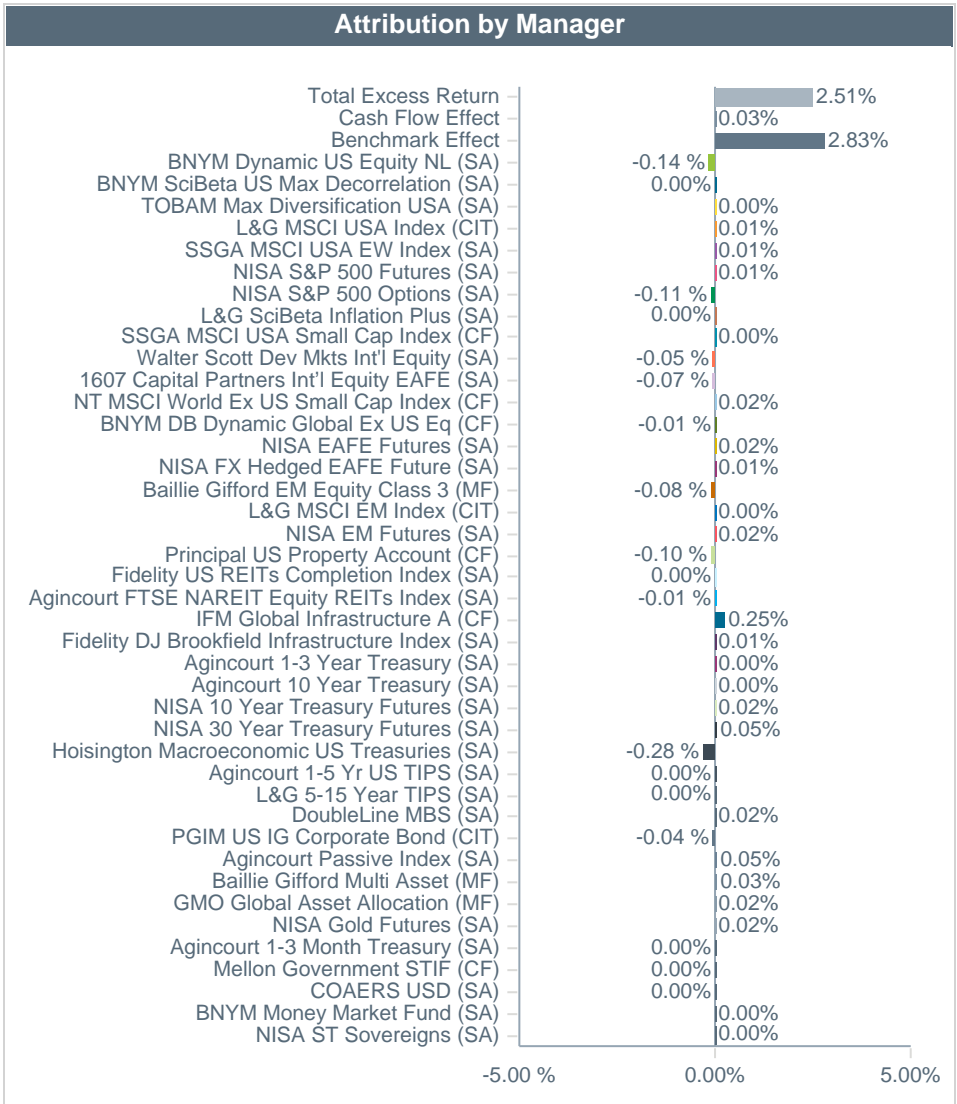


Composite: Total Fund
Benchmark: Policy Benchmark

As of June 30, 2022

	Market Value (\$)	Allocation (%)
BNYM Dynamic US Equity NL (SA)	204,950,478	6.92
Principal US Property Account (CF)	195,527,641	6.60
L&G MSCI USA Index (CIT)	179,043,091	6.05
SSGA MSCI USA EW Index (SA)	169,131,451	5.71
Walter Scott Dev Mkts Int'l Equity (SA)	166,101,164	5.61
Fidelity US REITs Completion Index (SA)	158,779,683	5.36
Agincourt 1-3 Year Treasury (SA)	155,313,929	5.24
BNYM SciBeta US Max Decorrelation (SA)	119,876,889	4.05
Baillie Gifford EM Equity Class 3 (MF)	115,622,850	3.90
1607 Capital Partners Int'l Equity EAFE (SA)	112,646,349	3.80
PGIM US IG Corporate Bond (CIT)	107,806,777	3.64
TOBAM Max Diversification USA (SA)	107,371,954	3.63
Agincourt Passive Index (SA)	106,690,814	3.60
DoubleLine MBS (SA)	101,898,308	3.44
Fidelity DJ Brookfield Infrastructure Index (SA)	93,914,982	3.17
Hoisington Macroeconomic US Treasuries (SA)	93,416,036	3.15
IFM Global Infrastructure A (CF)	84,727,177	2.86
L&G SciBeta Inflation Plus (SA)	80,887,289	2.73
L&G MSCI EM Index (CIT)	72,130,055	2.44
Agincourt 1-5 Yr US TIPS (SA)	63,615,336	2.15
NISA S&P 500 Futures (SA)	58,736,506	1.98
Agincourt 10 Year Treasury (SA)	50,373,413	1.70
NISA 10 Year Treasury Futures (SA)	42,835,941	1.45
SSGA MSCI USA Small Cap Index (CF)	39,097,261	1.32
NT MSCI World Ex US Small Cap Index (CF)	38,847,870	1.31
NISA Gold Futures (SA)	38,044,987	1.28
NISA FX Hedged EAFE Future (SA)	32,492,223	1.10
L&G 5-15 Year TIPS (SA)	31,652,317	1.07
NISA EAFE Futures (SA)	29,304,279	0.99
NISA EM Futures (SA)	28,571,465	0.96
Agincourt 1-3 Month Treasury (SA)	26,310,868	0.89
BNYM DB Dynamic Global Ex US Eq (CF)	25,041,657	0.85
NISA 30 Year Treasury Futures (SA)	13,483,817	0.46
Agincourt FTSE NAREIT Equity REITs Index (SA)	10,147,755	0.34
Mellon Government STIF (CF)	2,187,664	0.07
NISA ST Sovereigns (SA)	2,004,633	0.07
BNYM Money Market Fund (SA)	2,002,665	0.07
COAERS USD (SA)	1,000,452	0.03
NISA S&P 500 Options (SA)	62,087	0.00

Rate of Return	
QTD	
Composite	-11.08
Benchmark	-13.59
Excess Return	2.51



Performance shown is net of fees. Calculation is based on monthly periodicity. Allocations shown may not sum up to 100% exactly due to rounding. See glossary for calculation definitions. During 05/2022, Baillie Gifford Multi Asset (MF) and GMO Global Asset Allocation (MF) were liquidated.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
US Equity										
BNYM Dynamic US Equity NL (SA)	204,950,478	6.92	-17.94	-23.15	-13.08	10.29	N/A	N/A	11.18	05/01/2018
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	10.60	11.31	12.96	10.91	
Excess Return			-1.84	-3.19	-2.46	-0.31	N/A	N/A	0.27	
IM U.S. Large Cap Core Equity (MF) Median			-15.79	-20.40	-12.54	9.58	10.51	12.13	10.00	
Rank			93	88	61	33	N/A	N/A	18	
BNYM SciBeta US Max Decorrelation (SA)	119,876,889	4.05	-14.58	-17.30	-12.01	N/A	N/A	N/A	10.85	10/01/2020
SciBeta Max Decorrelation Index			-14.55	-17.24	-11.90	9.45	9.71	12.43	11.03	
Excess Return			-0.03	-0.06	-0.11	N/A	N/A	N/A	-0.18	
IM U.S. Large Cap Core Equity (MF) Median			-15.79	-20.40	-12.54	9.58	10.51	12.13	7.01	
Rank			28	13	45	N/A	N/A	N/A	5	
TOBAM Max Diversification USA (SA)	107,371,954	3.63	-13.79	-19.57	-20.01	N/A	N/A	N/A	0.69	10/01/2020
TOBAM Max Diversification Index			-13.82	-19.60	-19.98	5.78	8.01	12.04	0.87	
Excess Return			0.03	0.03	-0.03	N/A	N/A	N/A	-0.18	
IM U.S. Large Cap Core Equity (MF) Median			-15.79	-20.40	-12.54	9.58	10.51	12.13	7.01	
Rank			19	37	98	N/A	N/A	N/A	99	
L&G MSCI USA Index (CIT)	179,043,091	6.05	-16.78	-21.12	-12.42	N/A	N/A	N/A	7.67	10/01/2020
MSCI USA Index (Net)			-16.87	-21.29	-13.17	9.91	10.63	12.24	6.96	
Excess Return			0.09	0.17	0.75	N/A	N/A	N/A	0.71	
IM U.S. Large Cap Core Equity (MF) Median			-15.79	-20.40	-12.54	9.58	10.51	12.13	7.01	
Rank			74	66	50	N/A	N/A	N/A	40	
SSGA MSCI USA EW Index (SA)	169,131,451	5.71	-16.43	-20.57	-15.25	N/A	N/A	N/A	10.90	11/01/2020
MSCI USA Equal Weighted Index (Net)			-16.56	-20.77	-15.65	7.16	8.04	11.23	10.43	
Excess Return			0.13	0.20	0.40	N/A	N/A	N/A	0.47	
IM U.S. Large Cap Core Equity (MF) Median			-15.79	-20.40	-12.54	9.58	10.51	12.13	9.17	
Rank			65	54	88	N/A	N/A	N/A	29	
SSGA MSCI USA Small Cap Index (CF)	39,097,261	1.32	-16.56	-21.48	-20.94	N/A	N/A	N/A	10.46	11/01/2020
MSCI US Sm Cap Index (USD) (Net)			-16.66	-21.66	-21.26	5.75	6.72	10.30	10.01	
Excess Return			0.10	0.18	0.32	N/A	N/A	N/A	0.45	
IM U.S. Small Cap Equity (MF) Median			-15.54	-20.70	-18.35	5.47	5.93	9.48	12.04	
Rank			59	54	59	N/A	N/A	N/A	57	

Performance shown is net of fees and is annualized for periods greater than one year.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
NISA S&P 500 Futures (SA)	58,736,506	1.98	-15.68	-19.42	-9.89	N/A	N/A	N/A	8.43	02/01/2020
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	10.60	11.31	12.96	8.58	
Excess Return			0.42	0.54	0.73	N/A	N/A	N/A	-0.15	
IM U.S. Large Cap Core Equity (MF) Median			-15.79	-20.40	-12.54	9.58	10.51	12.13	7.63	
Rank			48	35	25	N/A	N/A	N/A	32	
NISA S&P 500 Options (SA)	62,087	0.00	-98.55	-99.00	-98.29	N/A	N/A	N/A	-98.29	07/01/2021
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	10.60	11.31	12.96	-10.62	
Excess Return			-82.45	-79.04	-87.67	N/A	N/A	N/A	-87.67	
IM U.S. Large Cap Core Equity (MF) Median			-15.79	-20.40	-12.54	9.58	10.51	12.13	-12.54	
Rank			100	100	100	N/A	N/A	N/A	100	
L&G SciBeta Inflation Plus (SA)	80,887,289	2.73	-17.82	-20.10	N/A	N/A	N/A	N/A	-16.88	12/01/2021
SciBeta Inflation Plus Index			-17.82	-20.07	N/A	N/A	N/A	N/A	-16.85	
Excess Return			0.00	-0.03	N/A	N/A	N/A	N/A	-0.03	
IM U.S. Large Cap Core Equity (MF) Median			-15.79	-20.40	-12.54	9.58	10.51	12.13	-16.78	
Rank			92	44	N/A	N/A	N/A	N/A	52	
Developed Markets Equity										
Walter Scott Dev Mkts Int'l Equity (SA)	166,101,164	5.61	-15.38	-25.78	-21.68	3.27	5.96	7.18	7.95	10/01/1992
MSCI EAFE Index (USD) (Net)			-14.51	-19.57	-17.77	1.07	2.20	5.40	5.30	
Excess Return			-0.87	-6.21	-3.91	2.20	3.76	1.78	2.65	
IM All EAFE (MF) Median			-13.19	-19.38	-18.37	1.48	1.94	5.05	6.34	
Rank			83	86	74	12	1	7	9	
1607 Capital Partners Int'l Equity EAFE (SA)	112,646,349	3.80	-15.98	-23.08	-21.23	2.87	3.23	6.93	6.48	08/01/2010
90% MSCI EAFE/10% MSCI EM Index			-14.21	-19.37	-18.52	1.07	2.24	5.20	4.55	
Excess Return			-1.77	-3.71	-2.71	1.80	0.99	1.73	1.93	
IM International Core Equity (MF) Median			-13.40	-19.18	-18.56	1.28	1.87	5.04	4.35	
Rank			92	92	81	14	9	5	5	
BNYM DB Dynamic Global Ex US Eq (CF)	25,041,657	0.85	-14.82	-20.80	-20.99	N/A	N/A	N/A	2.01	09/01/2019
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	1.35	2.50	4.83	3.00	
Excess Return			-1.09	-2.38	-1.57	N/A	N/A	N/A	-0.99	
IM ACWI Ex US Core (MF) Median			-12.91	-19.97	-19.86	1.70	2.43	4.98	3.07	
Rank			84	67	68	N/A	N/A	N/A	75	

Performance shown is net of fees and is annualized for periods greater than one year.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
NISA EAFE Futures (SA)	29,304,279	0.99	-12.62	-18.16	-16.94	N/A	N/A	N/A	-0.26	02/01/2020
MSCI EAFE Index (USD) (Net)			-14.51	-19.57	-17.77	1.07	2.20	5.40	-0.60	
Excess Return			1.89	1.41	0.83	N/A	N/A	N/A	0.34	
IM All EAFE (MF) Median			-13.19	-19.38	-18.37	1.48	1.94	5.05	-0.17	
Rank			39	33	29	N/A	N/A	N/A	53	
NT MSCI World Ex US Small Cap Index (CF)	38,847,870	1.31	-16.85	-23.48	-22.66	2.35	N/A	N/A	0.09	08/01/2018
MSCI Wrld Ex US Sm Cap Index (USD) (Net)			-17.94	-23.87	-23.02	1.97	2.16	6.70	-0.28	
Excess Return			1.09	0.39	0.36	0.38	N/A	N/A	0.37	
IM International SMID Cap Equity (MF) Median			-16.38	-24.33	-23.50	1.22	1.59	6.06	-0.86	
Rank			56	47	39	29	N/A	N/A	32	
NISA FX Hedged EAFE Future (SA)	32,492,223	1.10	-6.17	-9.81	N/A	N/A	N/A	N/A	-9.81	01/01/2022
MSCI EAFE Index (USD) (Net) (Hedged)			-7.28	-10.53	-5.39	5.83	6.05	9.31	-10.53	
Excess Return			1.11	0.72	N/A	N/A	N/A	N/A	0.72	
IM All EAFE (MF) Median			-13.19	-19.38	-18.37	1.48	1.94	5.05	-19.38	
Rank			1	2	N/A	N/A	N/A	N/A	2	
Emerging Markets Equity										
Baillie Gifford EM Equity Class 3 (MF)	115,622,850	3.90	-13.41	-24.84	-35.37	-1.11	3.07	N/A	5.63	10/01/2016
MSCI Emerging Markets Index (USD) (Net)			-11.45	-17.63	-25.28	0.57	2.18	3.06	4.16	
Excess Return			-1.96	-7.21	-10.09	-1.68	0.89	N/A	1.47	
IM Emerging Markets Equity (MF) Median			-11.91	-20.54	-28.03	0.13	1.56	2.75	3.44	
Rank			72	74	88	68	21	N/A	12	
L&G MSCI EM Index (CIT)	72,130,055	2.44	-11.44	-17.63	-25.34	N/A	N/A	N/A	-2.36	10/01/2020
MSCI Emerging Markets Index (USD) (Net)			-11.45	-17.63	-25.28	0.57	2.18	3.06	-2.25	
Excess Return			0.01	0.00	-0.06	N/A	N/A	N/A	-0.11	
IM Emerging Markets Equity (MF) Median			-11.91	-20.54	-28.03	0.13	1.56	2.75	-4.27	
Rank			40	28	33	N/A	N/A	N/A	38	
NISA EM Futures (SA)	28,571,465	0.96	-9.59	-16.29	-24.22	N/A	N/A	N/A	0.48	02/01/2020
MSCI Emerging Markets Index (USD) (Net)			-11.45	-17.63	-25.28	0.57	2.18	3.06	-0.16	
Excess Return			1.86	1.34	1.06	N/A	N/A	N/A	0.64	
IM Emerging Markets Equity (MF) Median			-11.91	-20.54	-28.03	0.13	1.56	2.75	-0.66	
Rank			13	18	27	N/A	N/A	N/A	34	

Performance shown is net of fees and is annualized for periods greater than one year.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Real Estate Equity										
Principal US Property Account (CF)	195,527,641	6.60	3.05	10.61	27.84	12.12	10.35	11.07	8.11	09/01/2004
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	11.66	9.55	10.15	7.85	
Excess Return			-1.49	-1.39	-0.47	0.46	0.80	0.92	0.26	
Fidelity US REITs Completion Index (SA)	158,779,683	5.36	-12.07	-15.46	-4.63	N/A	N/A	N/A	3.52	01/01/2020
Fidelity REITs Completion Index			-12.07	-15.45	-4.60	N/A	N/A	N/A	3.59	
Excess Return			0.00	-0.01	-0.03	N/A	N/A	N/A	-0.07	
Agincourt FTSE NAREIT Equity REITs Index (SA)	10,147,755	0.34	-15.98	-19.32	-5.44	N/A	N/A	N/A	-1.62	05/01/2021
FTSE NAREIT All Eq REITs Index (TR)			-14.66	-19.17	-5.89	5.34	6.75	8.34	-2.13	
Excess Return			-1.32	-0.15	0.45	N/A	N/A	N/A	0.51	
Infrastructure Equity										
IFM Global Infrastructure A (CF)	84,727,177	2.86	2.54	3.79	12.85	N/A	N/A	N/A	12.50	04/01/2020
S&P Gbl Infrastructure Index (Net)			-7.66	-0.94	4.77	2.69	3.93	6.31	18.14	
Excess Return			10.20	4.73	8.08	N/A	N/A	N/A	-5.64	
Fidelity DJ Brookfield Infrastructure Index (SA)	93,914,982	3.17	-7.01	-2.80	2.57	N/A	N/A	N/A	2.83	01/01/2020
DJ Brookfield Gbl Infrastructure Comp Idx			-7.21	-3.16	1.83	3.51	4.67	6.97	2.11	
Excess Return			0.20	0.36	0.74	N/A	N/A	N/A	0.72	
US Treasuries										
Agincourt 1-3 Year Treasury (SA)	155,313,929	5.24	-0.46	-2.86	-3.37	0.23	N/A	N/A	0.58	05/01/2019
Bloomberg US Trsy 1-3 Yr Index			-0.52	-3.01	-3.51	0.18	0.90	0.77	0.57	
Excess Return			0.06	0.15	0.14	0.05	N/A	N/A	0.01	
IM U.S. Short Term Treasury/Govt Bonds (MF) Median			-0.96	-3.28	-3.91	-0.17	0.60	0.56	0.20	
Rank			15	25	28	23	N/A	N/A	19	
Agincourt 1-5 Yr US TIPS (SA)	63,615,336	2.15	-1.57	-1.54	0.88	N/A	N/A	N/A	3.76	01/01/2020
Bloomberg US TIPS 1-5 Yr Index			-1.50	-2.14	0.38	3.45	2.99	1.64	3.57	
Excess Return			-0.07	0.60	0.50	N/A	N/A	N/A	0.19	
IM U.S. TIPS (MF) Median			-6.09	-8.61	-5.34	2.89	2.87	1.37	2.73	
Rank			7	6	8	N/A	N/A	N/A	11	

Performance shown is net of fees and is annualized for periods greater than one year.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Agincourt 10 Year Treasury (SA)	50,373,413	1.70	-4.93	-11.39	-10.90	-1.32	N/A	N/A	0.24	05/01/2019
Bloomberg US Trsy Bellwethers 10 Yr Index			-5.20	-11.71	-11.18	-1.54	0.51	0.82	0.02	
Excess Return			0.27	0.32	0.28	0.22	N/A	N/A	0.22	
IM U.S. Intermediate Government (MF) Median			-3.64	-8.56	-8.60	-0.87	0.47	0.79	0.00	
Rank			100	100	100	81	N/A	N/A	32	
NISA 10 Year Treasury Futures (SA)	42,835,941	1.45	-3.91	-9.28	-8.67	N/A	N/A	N/A	-6.21	05/01/2020
Bloomberg US Trsy Bellwethers 10 Yr Index			-5.20	-11.71	-11.18	-1.54	0.51	0.82	-7.97	
Excess Return			1.29	2.43	2.51	N/A	N/A	N/A	1.76	
IM U.S. Intermediate Government (MF) Median			-3.64	-8.56	-8.60	-0.87	0.47	0.79	-4.55	
Rank			57	87	53	N/A	N/A	N/A	100	
L&G 5-15 Year TIPS (SA)	31,652,317	1.07	-6.27	-8.81	N/A	N/A	N/A	N/A	-6.90	10/01/2021
Bloomberg US TIPS 5-15 Year Index			-6.06	-9.11	-5.35	2.95	3.30	1.78	-7.25	
Excess Return			-0.21	0.30	N/A	N/A	N/A	N/A	0.35	
IM U.S. TIPS (MF) Median			-5.98	-8.31	-4.93	3.44	3.31	1.89	-6.58	
Rank			74	73	N/A	N/A	N/A	N/A	78	
NISA 30 Year Treasury Futures (SA)	13,483,817	0.46	-8.91	-18.03	-15.35	N/A	N/A	N/A	-12.92	05/01/2020
Bloomberg US Trsy Bellwethers 30 Yr Index			-13.73	-23.57	-19.67	-3.49	0.26	1.24	-16.61	
Excess Return			4.82	5.54	4.32	N/A	N/A	N/A	3.69	
IM U.S. Long Term Treasury/Govt Bond (MF) Median			-3.91	-9.15	-9.30	-1.30	0.45	0.92	-5.50	
Rank			79	79	80	N/A	N/A	N/A	80	
Hoisington Macroeconomic US Treasuries (SA)	93,416,036	3.15	-13.14	-23.48	-20.54	-3.00	N/A	N/A	-0.18	05/01/2019
Bloomberg US Trsy Index			-3.78	-9.14	-8.90	-0.88	0.74	1.01	0.18	
Excess Return			-9.36	-14.34	-11.64	-2.12	N/A	N/A	-0.36	
IM U.S. Long Term Treasury/Govt Bond (MF) Median			-3.91	-9.15	-9.30	-1.30	0.45	0.92	-0.25	
Rank			96	95	96	89	N/A	N/A	46	
US Mortgages										
DoubleLine MBS (SA)	101,898,308	3.44	-3.43	-8.11	-8.68	N/A	N/A	N/A	-1.49	08/01/2019
Bloomberg US MBS Index (Unhgd)			-4.01	-8.78	-9.03	-1.44	0.36	1.18	-1.62	
Excess Return			0.58	0.67	0.35	N/A	N/A	N/A	0.13	
IM U.S. Mortgage Backed Bonds (MF) Median			-3.82	-8.19	-8.83	-1.33	0.25	0.92	-1.46	
Rank			31	48	47	N/A	N/A	N/A	54	

Performance shown is net of fees and is annualized for periods greater than one year.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
US Credit										
PGIM US IG Corporate Bond (CIT)	107,806,777	3.64	-7.96	-15.17	-14.93	N/A	N/A	N/A	-0.69	08/01/2019
Bloomberg US Crdt Index			-6.90	-13.81	-13.64	-1.00	1.24	2.45	-1.21	
Excess Return			-1.06	-1.36	-1.29	N/A	N/A	N/A	0.52	
IM U.S. Corporate Bonds (MF) Median			-7.60	-14.25	-14.14	-0.98	1.12	2.46	-1.17	
Rank			67	71	66	N/A	N/A	N/A	28	
Asset Allocation										
Agincourt Passive Index (SA)	106,690,814	3.60	-11.18	-15.72	-13.26	N/A	N/A	N/A	-5.12	01/01/2021
Passive Benchmark			-12.74	-17.66	-15.41	2.63	4.18	5.41	-7.08	
Excess Return			1.56	1.94	2.15	N/A	N/A	N/A	1.96	
Commodities & Other										
NISA Gold Futures (SA)	38,044,987	1.28	-6.32	0.53	2.81	N/A	N/A	N/A	3.63	05/01/2020
Bloomberg Gold Sub Index (TR)			-7.62	-1.53	1.31	6.95	6.55	0.33	1.27	
Excess Return			1.30	2.06	1.50	N/A	N/A	N/A	2.36	
US Dollar Instruments										
Agincourt 1-3 Month Treasury (SA)	26,310,868	0.89	0.10	0.11	0.11	0.53	N/A	N/A	0.63	05/01/2019
Bloomberg US T-Bills 1-3 Mo Index			0.12	0.16	0.18	0.57	1.05	0.60	0.68	
Excess Return			-0.02	-0.05	-0.07	-0.04	N/A	N/A	-0.05	
Mellon Government STIF (CF)	2,187,664	0.07	0.12	0.12	0.12	N/A	N/A	N/A	0.08	02/01/2021
Bloomberg US T-Bills 1-3 Mo Index			0.12	0.16	0.18	0.57	1.05	0.60	0.13	
Excess Return			0.00	-0.04	-0.06	N/A	N/A	N/A	-0.05	
COAERS USD (SA)	1,000,452	0.03	0.04	0.04	0.04	N/A	N/A	N/A	0.02	05/01/2020
Bloomberg US T-Bills 1-3 Mo Index			0.12	0.16	0.18	0.57	1.05	0.60	0.12	
Excess Return			-0.08	-0.12	-0.14	N/A	N/A	N/A	-0.10	
BNYM Money Market Fund (SA)	2,002,665	0.07	0.13	0.13	N/A	N/A	N/A	N/A	0.13	01/01/2022
Bloomberg US T-Bills 1-3 Mo Index			0.12	0.16	0.18	0.57	1.05	0.60	0.16	
Excess Return			0.01	-0.03	N/A	N/A	N/A	N/A	-0.03	
Other Currencies										
NISA ST Sovereigns (SA)	2,004,633	0.07	0.19	0.23	N/A	N/A	N/A	N/A	0.23	01/01/2022
Bloomberg US T-Bills 1-3 Mo Index			0.12	0.16	0.18	0.57	1.05	0.60	0.16	
Excess Return			0.07	0.07	N/A	N/A	N/A	N/A	0.07	

Performance shown is net of fees and is annualized for periods greater than one year.





Annual Review of Global Equity Portfolio

Ty Sorrel

Director of Investment Implementation

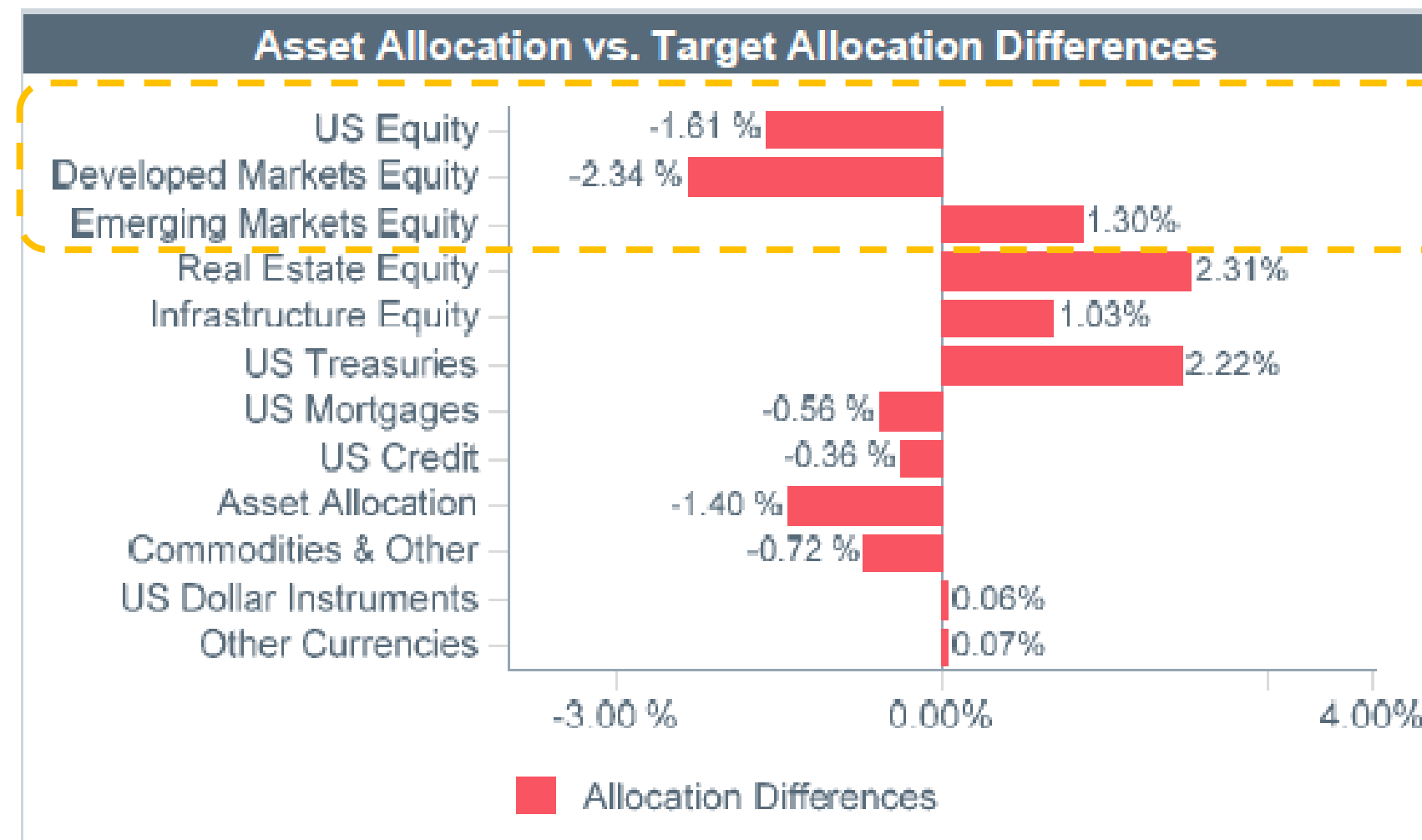
August 26, 2022



Global Equities: Current Implementation and Performance

Global Equity – Current Allocation

- After a strong showing in 2021, Global Equities have struggled in 2022 with most markets entering “bear market territory” during Q2 with drawdowns near 20%
- This performance alongside Board approved rebalancing during the year has resulted in Fund positioning that is modestly underweight (-2.6%) target

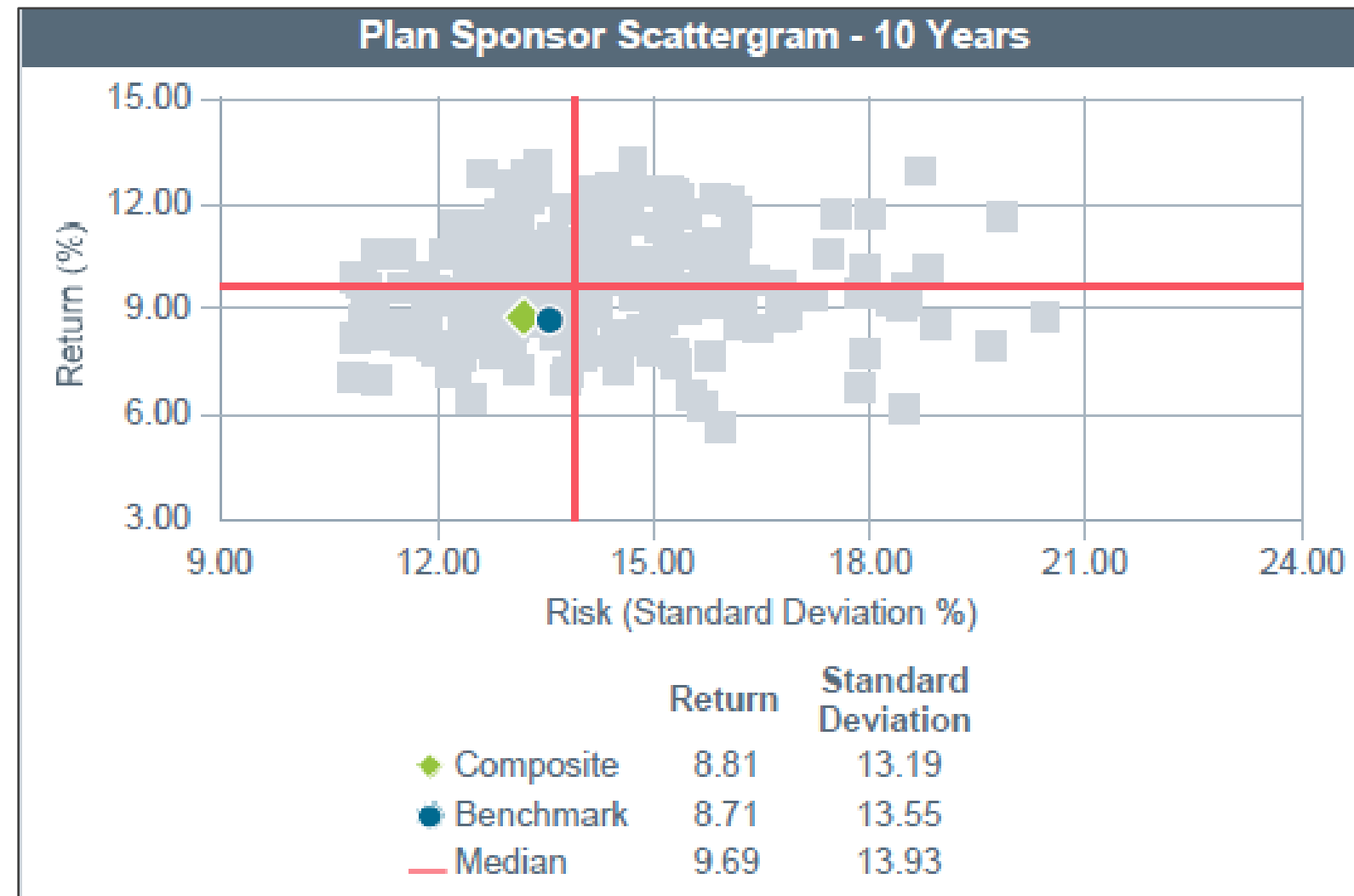


Source: RVK June 2022 Monthly Report

Overall Global Equity Performance

- Investment goals in the IPS focus on earning high risk-adjusted returns as opposed to only focusing on absolute return numbers
- On a risk adjusted basis, Global Equities have performed slightly better than the benchmark while the peer median equity program had slightly higher returns alongside more risk

While the dispersion of results for both risk and return may seem high in public equities, outcomes tend to be even wider in private markets





US Equities: Current Implementation and Performance

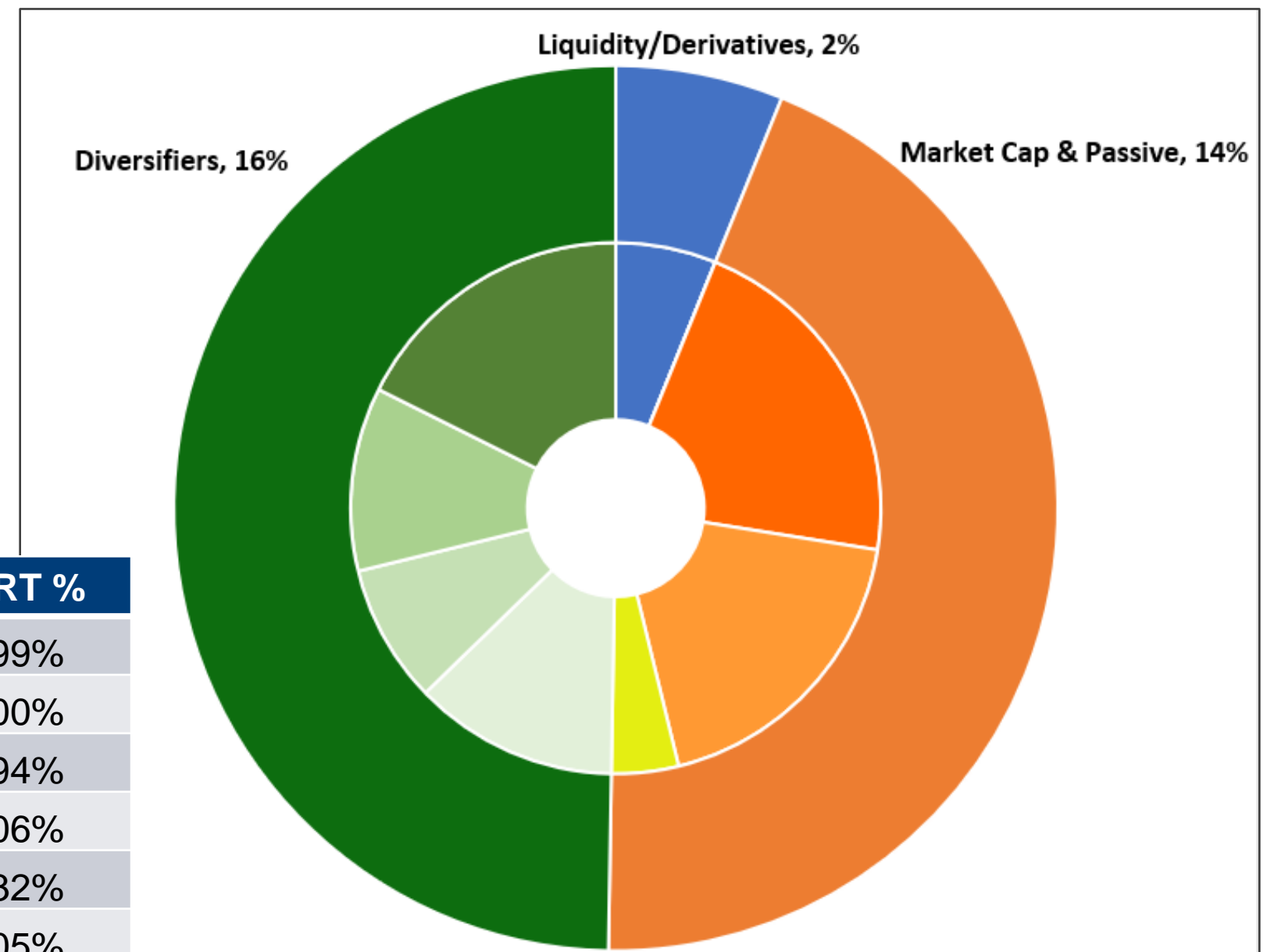
US Equities Performance

- US Equities has experienced strong absolute performance over longer periods, but has struggled on a relative basis over the same time period
- Over the past 3 years, the Board has restructured most of this portfolio including adding diversifying equity strategies as a risk mitigation effort when US equity markets began reaching record concentration levels in 2020

	Rate of Return						
	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
Composite	-16.70	-21.05	-14.38	7.40	8.74	8.63	11.30
Benchmark	-16.87	-21.29	-13.17	9.87	10.65	10.47	12.60
Excess Return	0.17	0.24	-1.21	-2.47	-1.91	-1.84	-1.30

US Equity Mandate Categories

- **Liquidity/Derivatives** provide low cost, passive exposure and leverage when appropriate
- **Market Cap & Passive** mandates provide exposure to the underlying benchmark
- **Diversifiers** offer diversification to the benchmark and control for concentration and overvaluation risks



MANDATE	CATEGORY	MKT VAL (\$)	PORT %
NISA - S&P 500 INDEX FUTURES	Liquidity/Derivatives	58,721,614	1.99%
NISA - S&P 500 INDEX OPTIONS	Liquidity/Derivatives	62,037	0.00%
NEWTON - DYNAMIC US EQUITY (DUSE)	Market Cap & Passive	204,945,287	6.94%
LGIMA - MSCI USA INDEX	Market Cap & Passive	179,043,091	6.06%
SSGA - MSCI USA SM CAP INDEX	Market Cap & Passive	39,097,261	1.32%
MELLON - SCIBETA US MAX DECORR INDEX	Diversifiers	119,750,746	4.05%
LGIMA - SCIBETA INFLATION PLUS	Diversifiers	80,812,620	2.73%
TOBAM - MAX DIVERSIFICATION INDEX	Diversifiers	107,253,313	3.63%
SSGA - MSCI USA EW INDEX	Diversifiers	168,945,729	5.72%

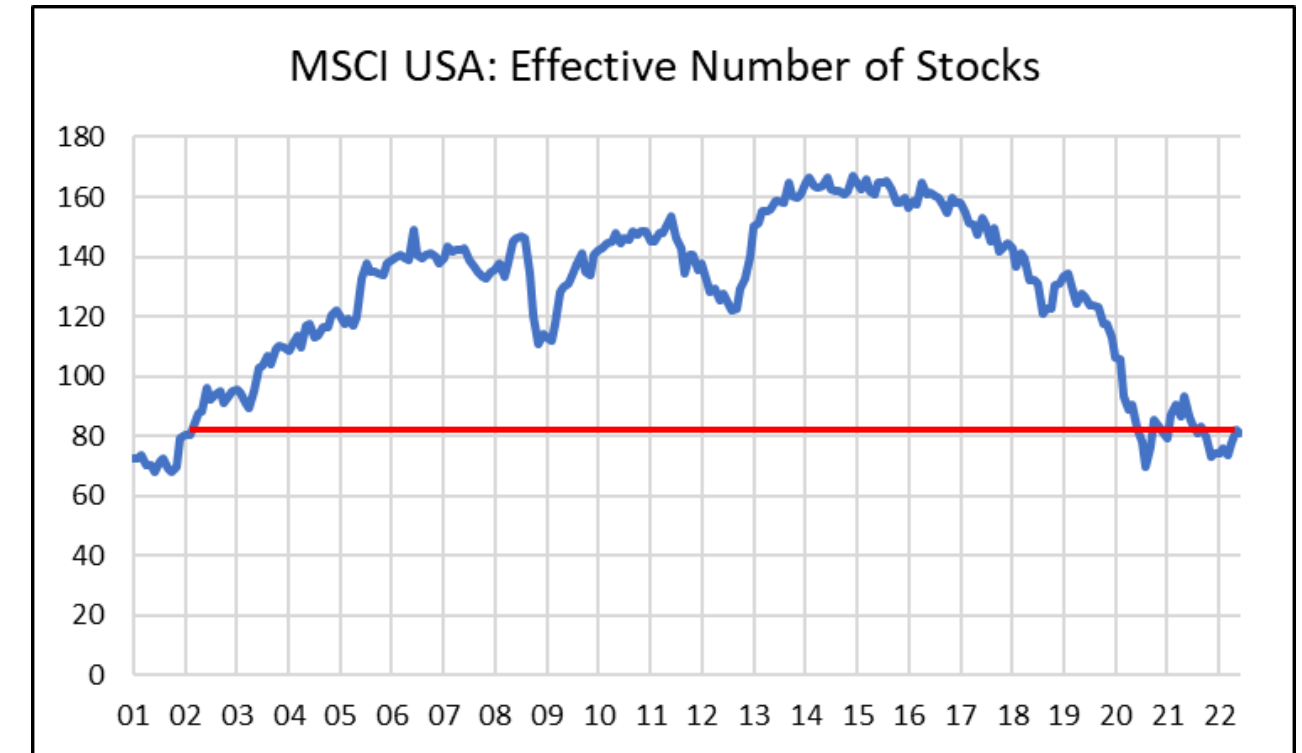
US Equities Implementation: 50% Diversifiers

- Diversifying strategies build their portfolios using the stocks in either the S&P 500 index or in the MSCI USA index but use different weighting schemes than the market capitalization benchmark
- COAERS began adding diversifying strategies to the US Equity portfolio in 2020 as benchmarks began experiencing historic concentration which has yet to reverse



Austin Model of Diversification in US Equities

- Currently, benchmarks are as concentrated as they were during the Tech Bubble of the early 00's, prompting Staff and the Board to pursue a more diversified approach
- This is accomplished through a suite of strategies which are expected to provide diversification across sectors, correlations and individual stocks
- As such, these strategies are generating tracking error afforded by policy to reduce idiosyncratic stock risk



HISTORICAL CORRELATIONS (SINCE JAN 2000) OF EXCESS RETURN VERSUS MSCI USA NET TR

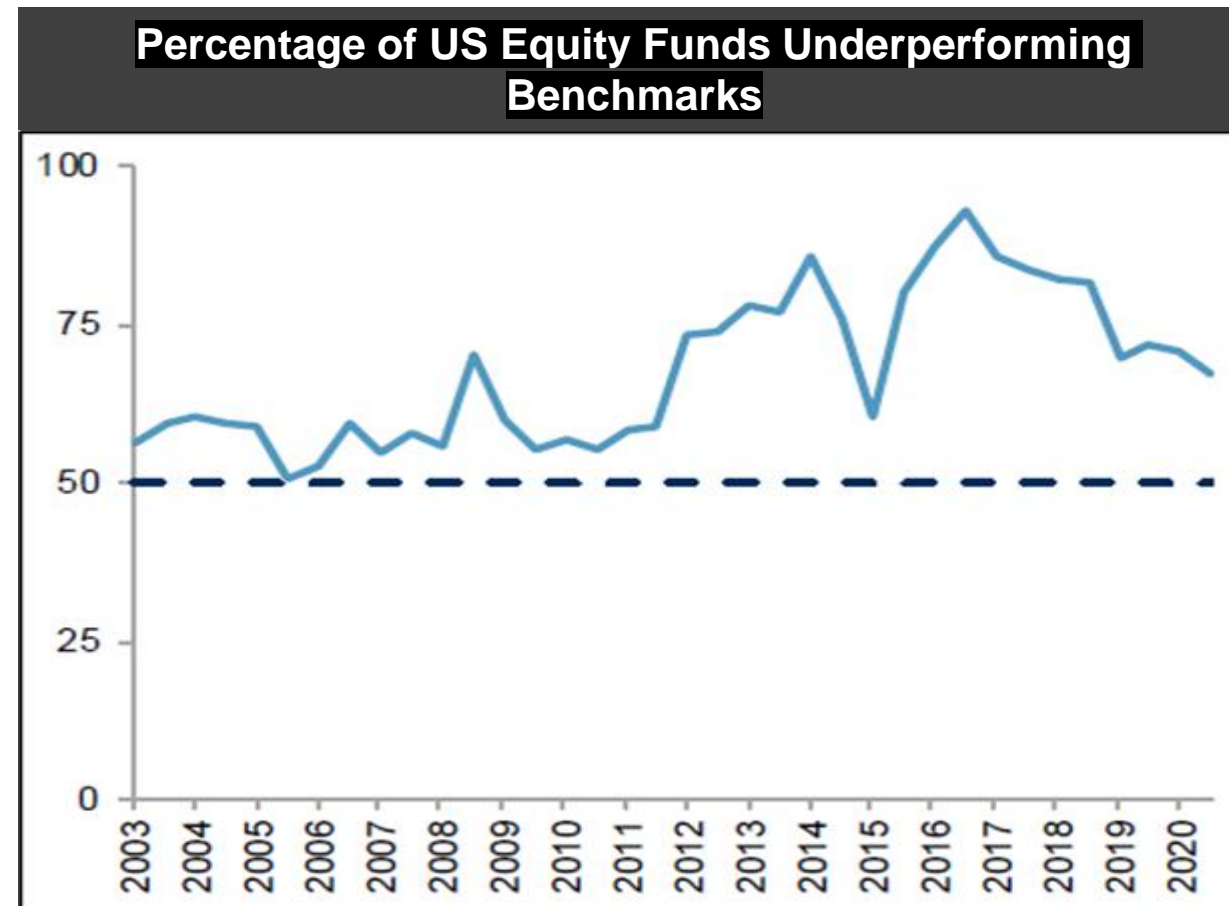
	Neutral	Maximum
TOTAL FUND	150 bps	300 bps
US Equity	200 bps	500 bps
Developed Market Equity	400 bps	700 bps
Emerging Market Equity	500 bps	800 bps
Fixed Income	150 bps	300 bps
Real Assets	350 bps	500 bps
Multi-Asset	300 bps	600 bps

	Sci Beta Inflation+ *	TOBAM Max Div	Sci Beta Max Decorr	MSCI USA Equal Weight
Sci Beta Inflation+	1.00			
TOBAM Max Div	(0.00)	1.00		
Sci Beta Max Decorr	0.40	0.54	1.00	
MSCI USA Equal Weight	0.35	0.27	0.62	1.00

* Inflation+ data begins in Jan 2009

Active vs Passive in US Equities

- Given the difficulty of outperforming US benchmarks, most of the Fund's US equity allocation is managed in passive mandates (including diversifying mandates)
- The only "active" US strategy is Mellon DUSE, which does not pick stocks but dynamically weights its allocation across stocks, bonds, and cash to achieve a more efficient portfolio



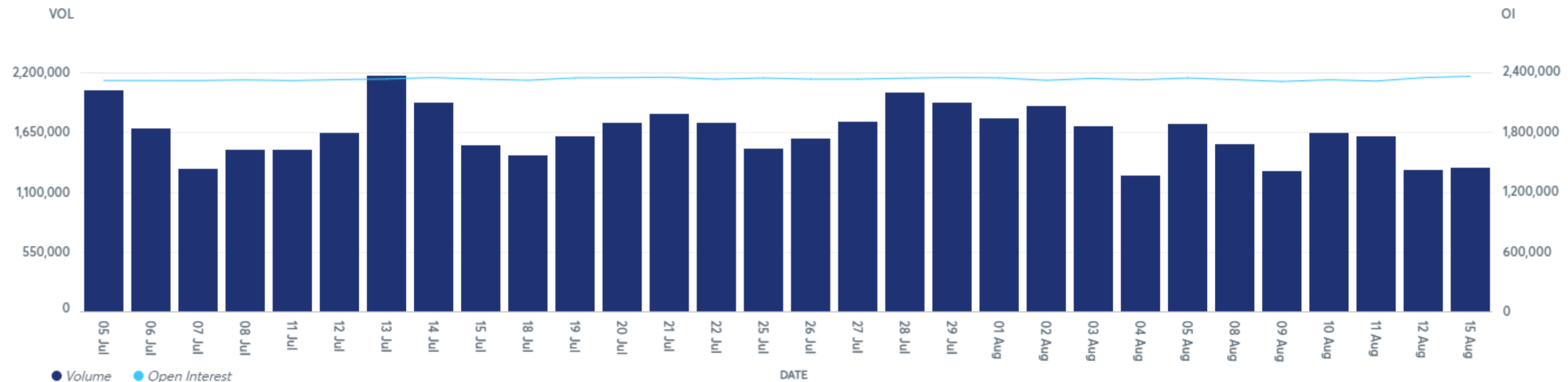
History illustrates how difficult it is for active management to add value in US Equities on a net of fees, risk-adjusted basis

Derivatives Management

- Currently, 2% of the Fund is implemented through fully collateralized S&P 500 futures which provide low-cost, highly liquid exposure to the cap-weighted S&P 500 index
- Options exposures provide modest leverage, but also naturally reduce exposure when the markets sell off

E-MINI S&P 500 FUTURES - VOLUME & OPEN INTEREST

[View Equity Index Asset Class Volume and Open Interest](#)

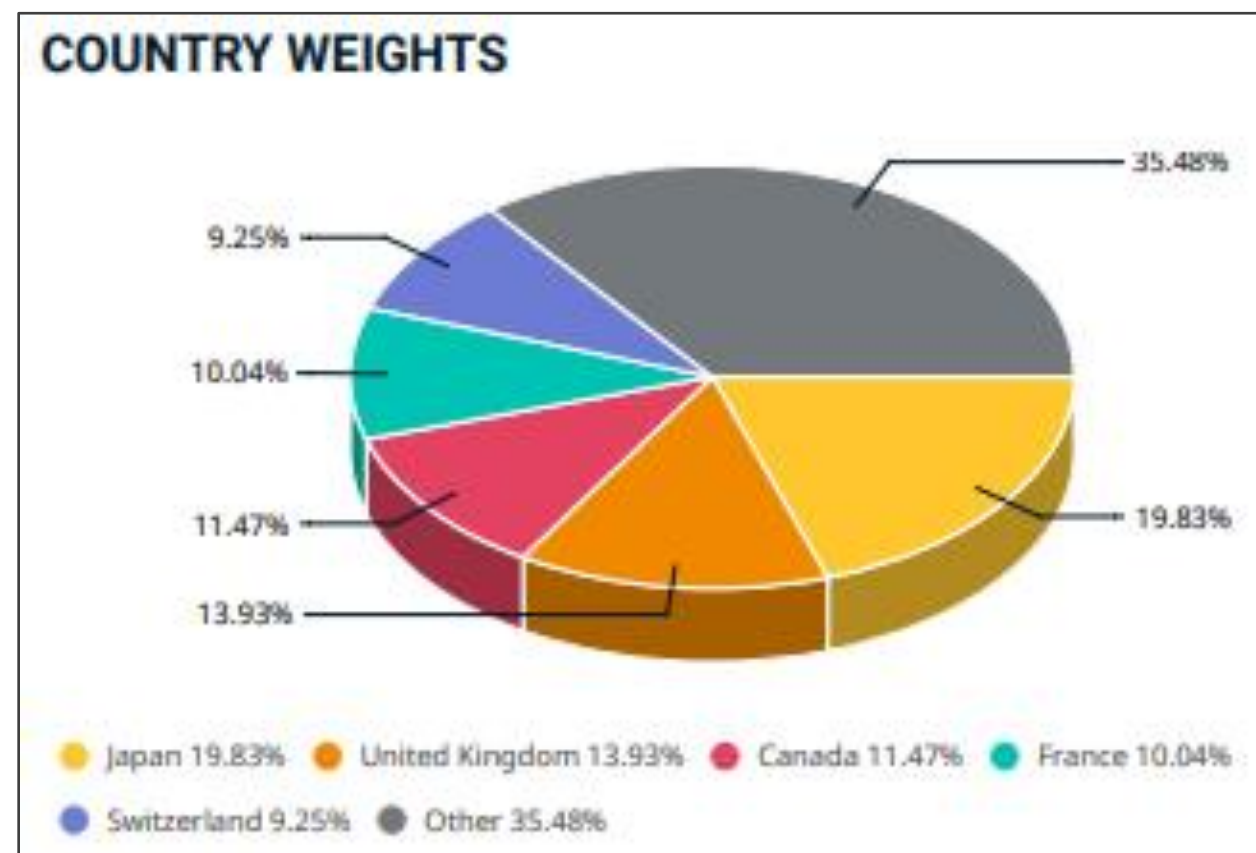




DM Equities: Current Implementation and Performance

Active Management in Developed Markets (DM) vs US

- Unlike US Equities, the actively managed mandates in DM (and Emerging Markets) equities involve stock selection and portfolio management in over 20 global markets
- Given the higher likelihood of success, this approach is consistent with the System's investment beliefs in using active management only where the System is compensated for the additional risk



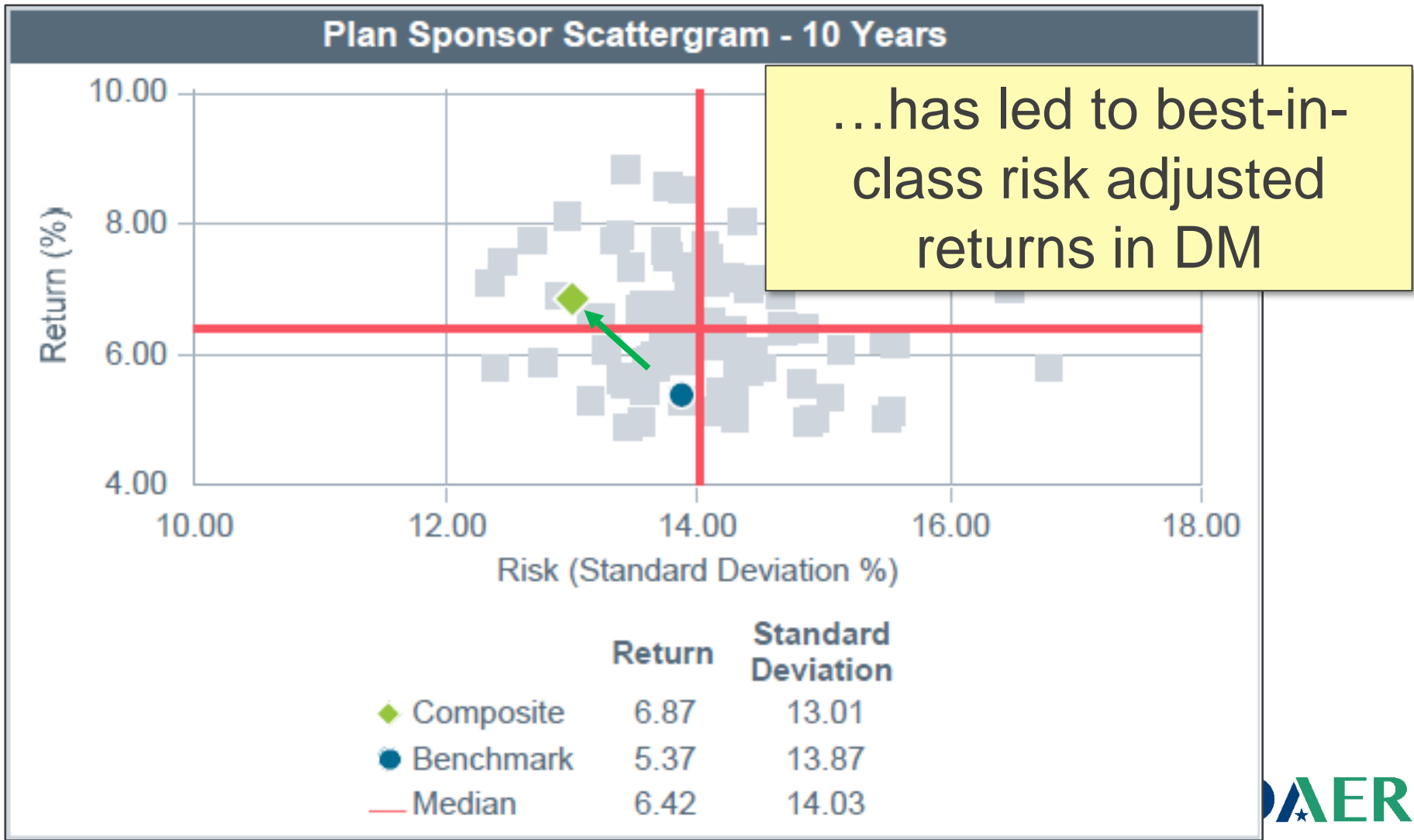
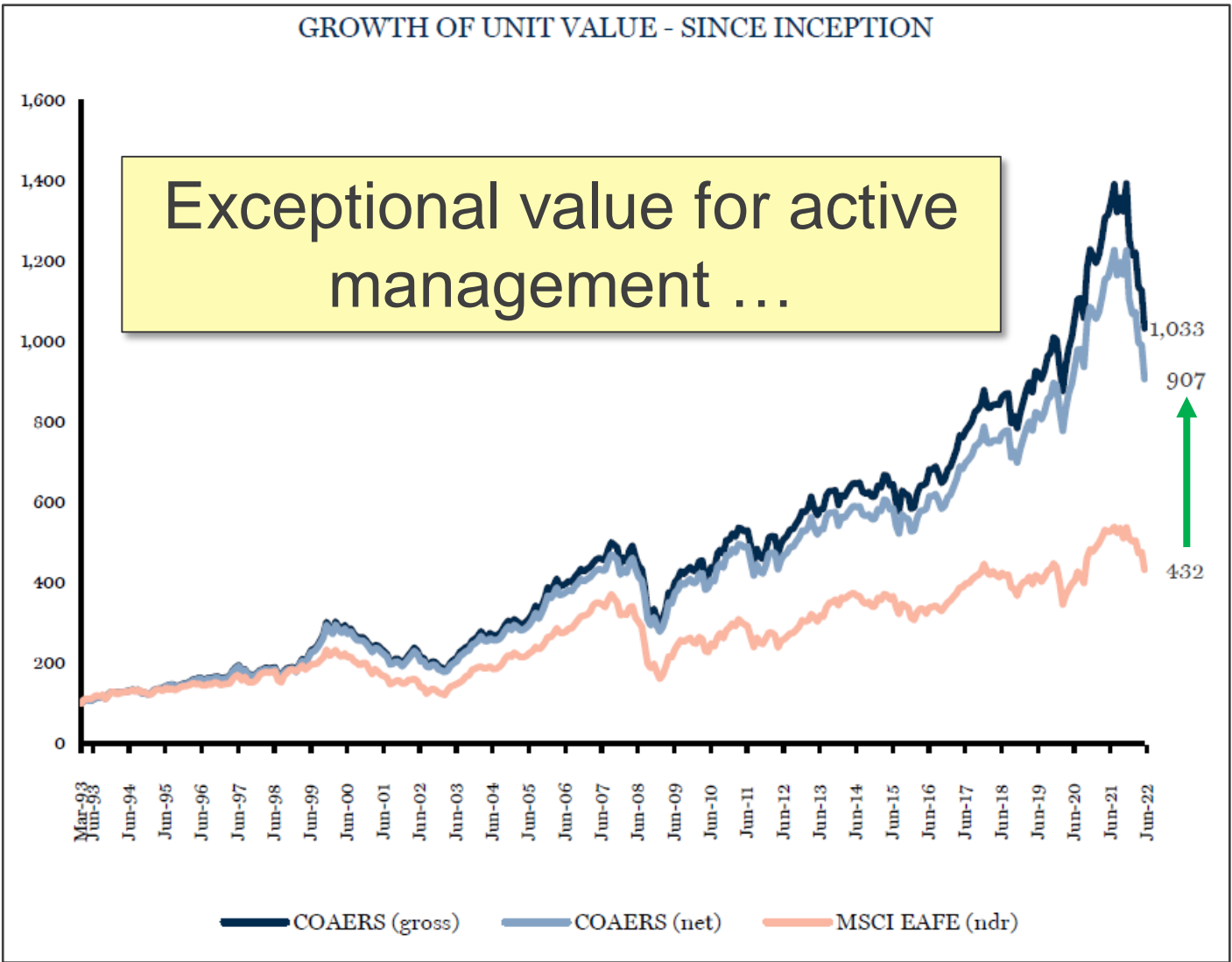
Report 8: Average International Equity Fund Performance

CATEGORY	10-YEAR (ANNUALIZED, %)
S&P/IFCI Composite	4.20
Emerging Market Funds	4.80
S&P Global 1200	10.34
Global Funds	10.49
S&P International 700	6.12
International Funds	6.36
S&P Developed Ex-U.S. Small-Cap	7.64
International Small-Cap Funds	8.92

The average of international manager has outperformed over the past 10 years, however the trend in this data has deteriorated over time

Developed Markets Equities Implementation: Mostly Active

- Given the higher probability of success, most DM mandates are actively managed, and fees paid have provided significant value
- Walter Scott and 1607, both active mandates, are the largest allocations in DM Equities and have provided significant value on a net of fees basis (2X the benchmark for Walter Scott)



Developed Markets Equities Implementation: Liquidity

- Implementing with futures in DM Equities provides better liquidity than investing in only the underlying securities and mitigates forced selling of active positions
- Approximately 15% of the DM Equities sub-asset class implementation is through futures, in a hedged currency mandate and in an unhedged currency mandate
- The foreign currency risk associated with DM Equities provides varying levels of diversification and hedging this has reduced risk significantly within DM Equities since the mandate's launch

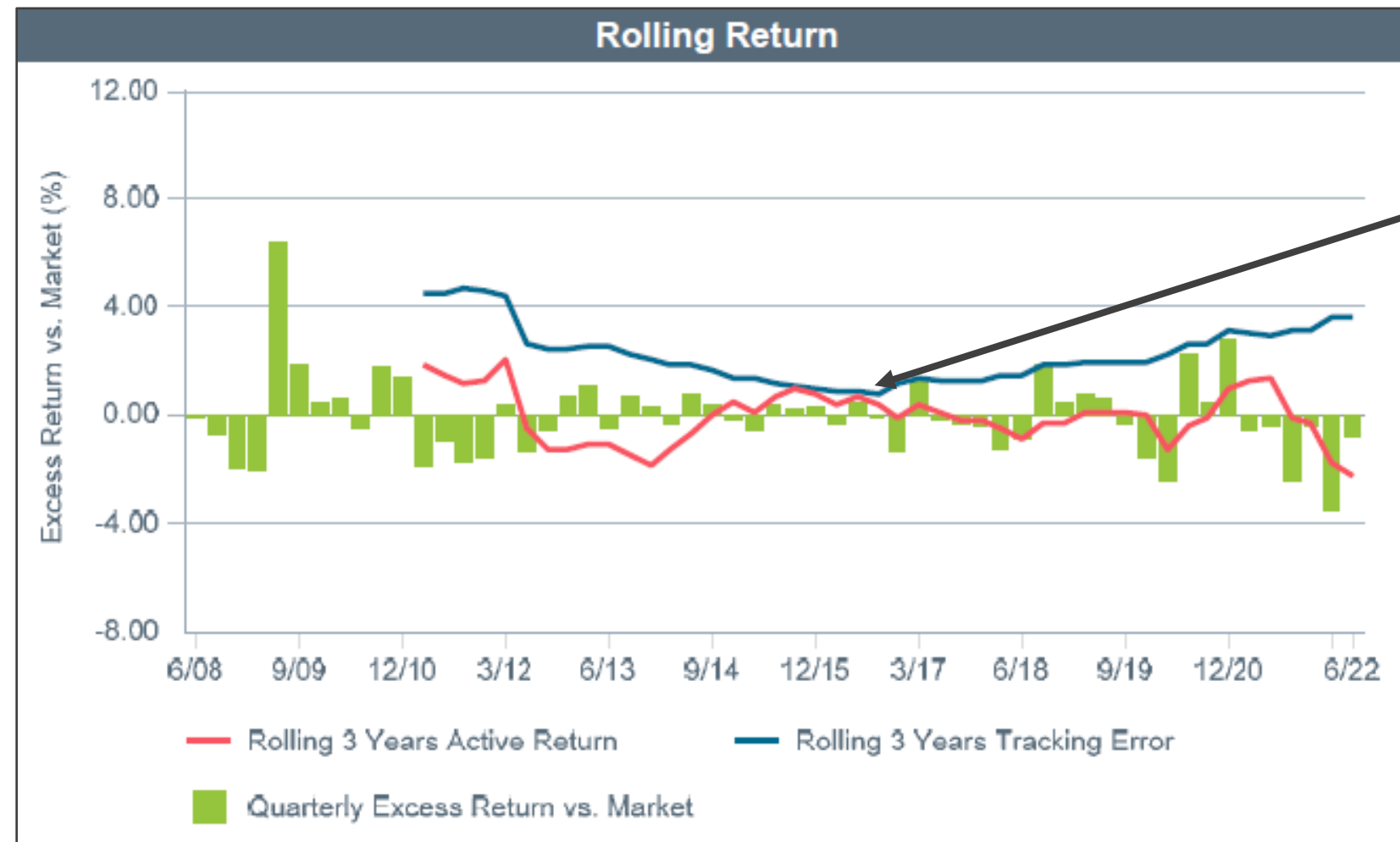
	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
NISA EAFE Futures (SA)	29,304,279	0.99	-12.62	-18.16	-16.94	N/A	N/A	N/A	-0.26	02/01/2020
MSCI EAFE Index (USD) (Net)			-14.51	-19.57	-17.77	1.07	2.20	5.40	-0.60	
Excess Return			1.89	1.41	0.83	N/A	N/A	N/A	0.34	
IM All EAFE (MF) Median			-13.19	-19.38	-18.37	1.48	1.94	5.05	-0.17	
Rank			39	33	29	N/A	N/A	N/A	53	
NISA FX Hedged EAFE Future (SA)	32,492,223	1.10	-6.17	-9.81	N/A	N/A	N/A	N/A	-9.81	01/01/2022
MSCI EAFE Index (USD) (Net) (Hedged)			-7.28	-10.53	-5.39	5.83	6.05	9.31	-10.53	
Excess Return			1.11	0.72	N/A	N/A	N/A	N/A	0.72	
IM All EAFE (MF) Median			-13.19	-19.38	-18.37	1.48	1.94	5.05	-19.38	
Rank			1	2	N/A	N/A	N/A	N/A	2	



EM Equities: Current Implementation and Performance

EM Equities Implementation: ... Young and Active

- Baillie Gifford's active mandate is the largest allocation in Emerging Markets Equity and is the oldest of the three EM mandates
- The other two mandates are a passively implemented EM commingled fund and EM futures
- EM equity tracking error of 269 bps on a 10-year basis is below the IPS neutral target (500 bps), so there is still room to add relative risk via additional active mandates

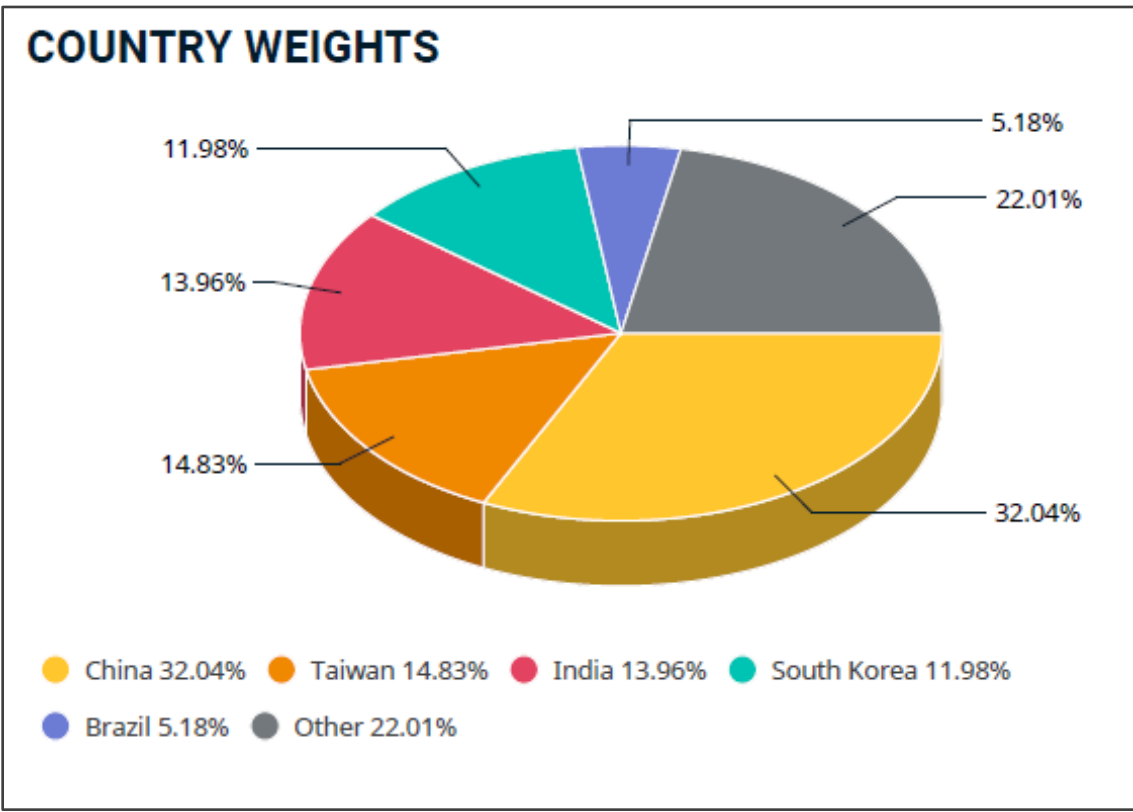


Baillie Gifford was funded in 2016 and has added 1.47% net of fees over the index since inception despite recent underperformance

EM Equity Futures

- Similar to DM equities, implementing via futures in emerging markets provides a cost-effective means of replicating the MSCI Emerging Markets index with a much better liquidity profile
- The MSCI EM index is difficult to replicate given the number of markets and the currency considerations

MSCI Emerging Markets Index		
Emerging Markets		
Americas	EMEA	Asia
Brazil →	Czech Republic →	China →
Chile →	Egypt →	India →
Colombia →	Greece →	Indonesia →
Mexico →	Hungary →	Korea →
Peru →	Kuwait →	Malaysia →
	Poland →	Philippines →
	Qatar →	Taiwan →
	Saudi Arabia →	Thailand →
	South Africa →	
	Turkey →	
	United Arab Emirates →	



COAERS

Summary

Summary

- Given the upcoming Asset/Liability Study, Staff feels that maintaining the low-cost approach to the Global Equities portfolio remains appropriate:
 - Maintaining high levels of diversification in US Equities remains prudent given persistent concentration levels of the benchmark
 - Active management in DM Equities remains the preferred approach and short-term volatility is to be expected from time to time
 - EM Equities managers have added value net of fees since inception, but Staff will continue to explore diversifying strategies and other ways to prudently use active risk budget

**10. Receive key meeting takeaways and
call for future agenda items**

Presented by Committee Chair Benson

AGENDA ITEM 10:
Review key meeting takeaways and call for future agenda items

AGENDA ITEM OBJECTIVE

This standing agenda item provides Trustees the opportunity to review the key takeaways from the meeting.

RELEVANCE TO STRATEGIC PLAN

This agenda item meets **COAERS Strategic Plan Goal 4: Identify and implement leading practices in board governance, pension administration, and investment management**. It is an industry best practice to review key meeting takeaways to summarize what was accomplished at the meeting as well as ensure Staff has clear direction on further work and future agenda items.

RECOMMENDATION FOR COMMITTEE ACTION

Trustees will review key meeting takeaways and delineate next steps including proposed updates to the 2022 committee work plan.

ATTACHMENTS

1. Proposed 2022 Investment Committee Work Plan

2022 Investment Committee Work Plan

Scheduled Quarterly Meetings

1. February meeting
 - ✓ Quarterly review of investment performance, positioning, strategy, and implementation
 - ✓ Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - ✓ Annual review of Investment Risk Framework process
 - ✓ Annual review of investment goals, assumptions, guidelines, and policies
 - ✓ Annual review of Investment Policy Statement (IPS)/Investment Implementation Policy (IIP)
 - ✓ Annual review of Premier List for Multi-Asset
2. May meeting
 - ✓ Quarterly review of investment performance, positioning, strategy, and implementation
 - ✓ Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - ✓ Annual review of Premier Lists for Fixed Income and Cash and Equivalents
 - ✓ Annual review of Investment Consultant
 - ✓ Discuss and consider investment beliefs, investment program goals and strategy
3. August meeting
 - ✓ Quarterly review of investment performance, positioning, strategy, and implementation
 - ✓ Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - ✓ Annual review of Premier List for Global Equities
 - ✓ Discuss and consider investment program goals and strategy
4. Board workshop
 - [Initial results of Asset/Liability Study](#)
 - [Discussion of investment beliefs, goals, strategy, and governance](#)
 - [Private Markets education and considerations](#)
5. November meeting
 - Quarterly review of investment performance, positioning, strategy, and implementation
 - Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - Annual review of Premier List for Real Assets
 - Annual review of Investment budget
 - Discuss Committee work plan for 2023
 - Discuss and consider investment program goals and strategy
 - [Discuss and consider ALM/AA Study](#)