




















November 2023 IC Meeting

Schedule	Friday, November 17, 2023 10:00 AM — 2:00 PM CST
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 Liu	1
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10:05 AM	2. Review order of business and establish meeting objectives Presented by Committee Chair Liu	3
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10:10 AM	3. Receive public comments Presented by Committee Chair Liu	6
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10:15 AM	4. Consider approval of the August 25, 2023 Investment Committee minutes Presented by Committee Chair Liu	8
	 Item #4 Summary.docx	9
	 2023 08 25 IC Minutes.docx	10
	Vote Motion to approve the August 25, 2023 Investment Committee minutes. 0 Yes 0 No 0 Abstain 5 Pending	






10:20 AM	5. Review investment performance including strategy, compliance, and delegation of authority Presented by David Stafford and RVK	15
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10:50 AM	6. Discuss and consider proposed revisions to Investment Policy Statement and Investment Implementation Policy	36
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	 06A IPS Memo.docx	38
	 06B Investment Policy Statement Redline 2023-11 DRAFT.pdf	39
	 06C Investment Implementation Policy Redline 2023-11 DRAFT.pdf	65
	Vote Move to refer to the Board for approval the Investment Policy Statement (IPS) and Investment Implementation Policy (IIP) as proposed. 0 Yes 0 No 0 Abstain 5 Pending	
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11:10 AM	7. Discuss and consider Investment Risk Framework Process	95
	 07 IRF Item Summary.docx	96
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11:25 AM	8. Discuss and consider investment implementation and Premier List for the following: A. Real Assets - Ty Sorrel and RVK B. Fixed Income - David Kushner and RVK	105
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 08A7 COAERS Premier List - Current - CONFIDENTIAL.pdf	123
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8B. Fixed Income	138
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 08B4 2023-11 - Blue Owl Diversified Lending Fund - COAERS DD Memo Short [CONFIDENTIAL].pdf	157
 08B5 Current Premier List Inc Blue Owl [CONFIDENTIAL].pdf	173

Vote Refer to the Board for approval proposed changes to the Fixed Income Premier List pending final approval by counsel on fund-related documents and the development of a funding implementation plan by Staff and RVK.
0 Yes 0 No 0 Abstain 5 Pending

12:55 PM	9. Discuss and consider investment consulting services including: A. Request for Proposal for General Investment Consultant B. Request for Information for Private Markets Consulting Services	176
	 09 Item Summary Consulting Services RFP and RFI Summary DRAFT.docx	177
	 09-1 RFP-RFI Cover Memo.docx	178
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	 09 RFP Doc.docx	180
	 Added Cover Page RFI.docx	200
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	Vote Refer to the Board for approval the proposed Request for Proposal for General Consulting Services and the Request for Information for Private Markets Consulting Services. 0 Yes 0 No 0 Abstain 5 Pending	
<hr/>		
1:25 PM	10. Discuss and consider proposed 2024 investment budget	208
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	 10B CEM Report Summary and Budget Memo.docx	210
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	 10D 2023 Investment Budget Progress.pdf	214
	Vote Refer the 2024 investment budget to the Board for approval. 0 Yes 0 No 0 Abstain 5 Pending	
<hr/>		
1:40 PM	11. Review 2023 Committee Work Plan and discuss development of 2024 Committee Work Plan Presented by Christopher Hanson	215
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	 2023 Investment Committee Work Plan 231109.docx	217
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1:45 PM	12. Review key meeting takeaways and call for future agenda items	220
	Presented by Committee Chair Liu	
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1. Call roll of Committee members

Presented by Committee Chair Liu



**COMMITTEE MEETING
Agenda Item Information Sheet**

**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 Liu



COMMITTEE MEETING Agenda Item Information Sheet

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. The Committee will review reports on quarterly investment performance including strategy, compliance, and delegation of authority.
2. The Committee will review the Investment Risk Framework.
3. The Committee will discuss and consider proposed revisions to the Investment Policy Statement and Investment Implementation Policy.
4. The Committee will discuss and consider the Premier Lists for Real Assets and Fixed Income with potential recommendations to the Board.
5. The Committee will discuss and consider the request for proposal for General Investment Consultant services and request for information for Private Markets Consulting services.
6. The Committee will discuss and consider the proposed 2024 investment budget.
7. The Committee will discuss and consider the 2024 Committee work plan.

ATTACHMENT

1. Proposed timeline of agenda items with potential time frames

Agenda Timeframes

November 17, 2023

Committee:
Investment Committee

Agenda Number	Agenda Item	Duration	Start	End
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1	Call roll of Committee members – Committee Chair Liu	0:05	10:00 AM	10:05 AM
2	Review order of business and establish meeting objectives – Committee Chair Liu	0:05	10:05 AM	10:10 AM
3	Receive public comments – Committee Chair Liu	0:05	10:10 AM	10:15 AM
4	Consider approval of the August 25, 2023 Investment Committee minutes – Committee Chair Liu	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	Discuss and consider proposed revisions to Investment Policy Statement and Investment Implementation Policy – David Stafford	0:20	10:50 AM	11:10 AM
7	Discuss and consider Investment Risk Framework Process – David Stafford	0:15	11:10 AM	11:25 AM
8	Discuss and consider investment implementation and Premier List for the following: A. Real Assets – Ty Sorrel and RVK B. Fixed Income – David Kushner and RVK	1:30	11:25 AM	12:55 PM
9	Discuss and consider investment consulting services including: – David Kushner A. Request for Proposal for General Investment Consultant B. Request for Information for Private Markets Consulting Services	0:30	12:55 PM	1:25 PM
10	Discuss and consider proposed 2024 investment budget – Christopher Hanson	0:15	1:25 PM	1:40 PM
11	Review 2023 Committee Work Plan and discuss development of 2024 Committee Work Plan – Christopher Hanson	0:05	1:40 PM	1:45 PM
12	Review key meeting takeaways and call for future agenda items – Committee Chair Liu	0:10	1:45 PM	1:55 PM

4 Hr & 0 Min

3. Receive public comments

Presented by Committee Chair Liu



COMMITTEE MEETING Agenda Item Information Sheet

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 August 25,
2023 Investment Committee minutes
Presented by Committee Chair Liu



COMMITTEE MEETING Agenda Item Information Sheet

AGENDA ITEM 4:

Consider approval of the August 25, 2023 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 August 25, 2023 Investment Committee meeting.

ATTACHMENT

1. Draft minutes of August 25, 2023 Investment Committee meeting



— CITY OF AUSTIN —
EMPLOYEES' RETIREMENT SYSTEM

Public Meeting held in person and videoconference
on August 25, 2023 at 10:00 a.m. CT

Pursuant to Texas Govt. Code 551.127
6850 Austin Center Blvd., Suite 320, Austin, TX 78731

**Committee Member
Present/(Absent)**

Yuejiao Liu, Committee Chair
Michael Granof
Amy Hunter
Dick Lavine†
Diana Thomas

Guests:

Ian Bray, RVK
Ryan Sullivan, RVK
Paige Saenz, General Counsel
Joe Ebisa, WithIntelligence*
Jie Li*

**Other Board Trustees
Present/(Absent)**

Michael Benson
(Kelly Crook)
Chris Noak†
(Leslie Pool)
(Anthony Ross)
Brad Sinclair

Others Present

Staff:

Christopher Hanson
David Kushner
David Stafford
Ty Sorrel
Kelly Doggett
Sarah McCleary
Mehrin Rahman
Jenni Bonds
Yun Quintanilla
Russell Nash

* present telephonically

† present via videoconference

1 Call roll of Committee members

Committee Chair Liu called the meeting to order at 10:01 a.m. The following Committee members were present in person: Liu, Granof, Hunter, and Thomas. Mr. Lavine was present on videoconference.

2 Review order of business and establish meeting objectives

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

3 Receive public comments

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

4 Consider approval of the May 19, 2023 Investment Committee minutes

Committee Chair Liu asked the Committee to review the Investment Committee minutes. Ms. Diana Thomas moved approval of the May 19, 2023 Investment Committee minutes. Mr. Michael Granof seconded, and the motion passed unanimously.

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

The Committee reviewed investment performance and market data from RVK through June 20, 2023. Fund investments increased 2.65% net of fees during the second quarter.

Mr. David Stafford discussed the investment strategy and the compliance dashboards. He shared data showing absolute Fund returns were lower than the assumed rate of return over the trailing 10-years but have shown improvement. Additionally, he discussed relative returns noting that realized returns were above the passive index and near to the policy index on a longer-term basis. He also noted the high variation in peer rankings, which were largely resulting from the Fund's lower allocation to private markets strategies.

Mr. Ian Bray of RVK reported that results across equities were positive, as were bonds, in contrast to the difficult end of 2022. He noted that though inflation has come down the Fed may raise rates again as unemployment remains low. Despite this, the yield curve has flattened suggesting that the market is no longer pricing in the rate increases. Mr. Bray also noted that the drivers of returns in U.S. equities were led by a narrow market rally of a few concentrated names.

Mr. Stafford also reviewed the delegation of authority report and the investment cash activity report. Additionally, he noted that Fund positioning was in the Strategic Bands across a variety of asset and sub-asset classes, as approved by the Board.

6 Discuss and consider investment strategy including Investment Risk Framework

Mr. Stafford reported that the Fund is positioned with a heavy overweight to Cash & Equivalents, heavy underweights to Multi Asset and Fixed Income, Real Assets near neutral, and Global Equities slightly overweight. Mr. Stafford suggested that in the view of Staff, this positioning in the Strategic Bands remained appropriate as the outlook had not materially changed since the Board approved this positioning. He also noted that Cash & Equivalents continue to offer an attractive risk/return profile, particularly when compared to Fixed Income.

Additionally, he discussed the significant concentration building in the US Equities benchmark and noted the more diversified approach taken by the Fund as a prudent risk-management approach despite recent underperformance.

7 Review investment implementation including Premier List for Global Equities

Mr. Ty Sorrel presented a report of the second quarter's investment program implementation activities, reviewed the manager monitoring report, and discussed investment manager fees by quarter.

Mr. Sorrel presented a report on Global Equities including the historical context and the current construction and composition of sub-asset class exposures in the United States, international developed markets, and emerging markets. He also outlined how the choice to diversify the US Equity portfolio due to the high concentration has reduced risk but also reduced returns. Additionally, he noted that active management is used primarily in developed and emerging markets, and much less so in the US.

Mr. Sorrel noted that Staff proposed two changes to the Premier List.

Ms. Thomas moved to recommend to the Board for approval the Premier Lists for Global Equities as presented. Mr. Lavine seconded, and the motion passed unanimously.

Trustees took a break from 11:40 a.m. to 12:09 p.m.

8 Receive report on updated Asset/Liability Study

Mr. Christopher Hanson presented data that compared the Asset/Liability Study completed earlier in the year to this Asset/Liability Study which incorporated the passage of SB 1444. He noted that across every metric, the System had materially better outcomes than in the previous study including that the System's unfunded actuarial accrued liabilities trend significantly lower and future net cash flows are better.

Mr. Stafford discussed the implications of this data for the investment program. He noted that the flexible actuarial determined contribution rate responds much better to portfolio volatility, that RVK capital market assumptions were below the assumed rate of return, that the study suggested that the System may be able to bear incrementally more investment risk, that somewhat better outcomes may be available through additional private markets allocations and that the study was supportive of bearing additional illiquidity risk in the Fund.

Mr. Ryan Sullivan of RVK presented updated results of the Asset/Liability Study incorporating the contribution policy changes enacted by the passage of SB 1444.

Both Staff and RVK noted that additional portfolio diversification could provide better risk-adjusted returns.

Mr. Noak left the meeting at 12:26 p.m.

- 9 Discuss and consider investment program including goals, strategy, and allocation:**
- A. Asset Allocation Study**
 - B. Private credit**
 - C. Functionally focused portfolio allocation**

9A. Asset Allocation Study

Mr. Stafford and Mr. Bray both presented on concepts related to an updated Asset Allocation Study. Mr. Stafford reported on Staff's key takeaways, including that the inclusion of Private Credit and Private Equity suggested better risk-adjusted returns than the current portfolio allocation. Additionally, he noted that the "Potential Target" portfolio had a variety of attractive attributes including higher expected return with lower expected risk, more portfolio diversification, less reliance on public equities, the elimination of multi-asset and slightly better outcomes through Monte Carlo modeling.

Mr. Bray suggested RVK was supportive of moving the System's long-term strategic allocation to the "Potential Target" portfolio and acknowledged that details associated with governance and policy updates, specific implementation plans, and general education on specific private credit strategies would be forthcoming and preempt rebalancing to this new target, should it be approved by the Board. He also presented information in the Asset Allocation Study that showed better downside scenarios modeled for allocations that include additional private markets exposures.

9B. Private credit

Mr. David Kushner reviewed with Trustees the definition and characteristics of private credit, including different strategies and implementation structures. He also discussed ongoing due diligence efforts in private credit and potential next steps. The Committee expressed support for continuing to conduct due diligence on potential private credit opportunities.

Mr. Benson left the meeting at 1:28 p.m.

9C. Functionally focused portfolio allocation

Mr. Stafford reviewed the outputs from the Asset Allocation Study through a Functionally Focused Portfolio lens and noted that this approach could be complementary to the statistical output from the study. He presented data that

suggested the Fund can bear more illiquidity, that the Fund could modestly increase exposure to a diversified set of growth assets, that private credit could diversify the sources of return for the Fund, and that more work would be done on the mix of diversifying strategies. He then reviewed Staff's key takeaways including a recommendation to move toward the "Potential Target" contingent on additional Committee and Board discussion and consideration.

Ms. Amy Hunter moved to refer to the Board for approval the "Potential Target" portfolio and directed Staff and Consultant to develop the associated policies and implementation plans, and education and governance reviews for the Board's future consideration. Mr. Lavine seconded, and the motion passed unanimously.

10 Receive update on general investment consultant RFP

Mr. Hanson reported that Staff had delayed the issuance of the RFP to better understand the scope of the needs regarding private markets and would bring the subject back to the Committee in November.

11 Receive report on custody bank

Mr. Kelly Doggett presented a report on the custody bank. Mr. Doggett reviewed Staff scoring of service levels across a variety of categories and noted that Staff rated BNYM as "satisfactory." He additionally noted that COAERS was invited to join the BNYM Client Advisory Council.

12 Receive key meeting takeaways and call for future agenda items

Committee Chair Liu 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 1:41 p.m.

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

Presented by David Stafford and RVK



COMMITTEE MEETING Agenda Item Information Sheet

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 September 30, 2023, 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 September 30, 2023:

as of 2023-Q3

	QTD	1Y	3Y	5Y	10Y
Fund return - gross of fees	-3.77	9.96	3.16	4.13	5.65
<i>* Percentile Rank vs. all peers (1=highest)</i>	95	64	83	88	84
<i>* Percentile Rank vs. small peers (1=highest)</i>	99	50	90	93	88
Fund return - net of fees	-3.82	9.73	2.91	3.87	5.33
Policy Index - gross return	-3.97	13.20	3.59	4.06	5.29
Passive Index - gross return	-3.46	13.18	1.33	3.44	4.49
Realized risk – standard deviation	<i>N/A</i>	11.10	12.17	12.67	9.99
<i>* Percentile Rank vs. all peers (1=highest)</i>	<i>N/A</i>	<i>N/A</i>	24	27	25

* Peer Return Data is provided by RVK and is as of 9/30/2023.



**COMMITTEE MEETING
Agenda Item Information Sheet**

ATTACHMENTS

1. COAERS Investment Strategy Dashboard as of 2023-Q3
2. COAERS Investment Compliance Dashboard as of 2023-Q3
3. COAERS Staff Report on Status of Delegated Authority as of 2023-Q3
4. Investment Staff Performance Memo as of 2023-Q3
5. RVK Summary of Fund Performance for 2023-Q3
6. COAERS Investment Operations Cash Activity Detail for 2023-Q3

SUPPLEMENTAL MATERIALS PROVIDED VIA CONVENE APP

1. RVK Quarterly Investment Performance Analysis for 2023-Q3
2. RVK Capital Markets Review for 2023-Q3
3. Callan Periodic Tables of Investment Returns for September 2023

COAERS Investment Strategy Dashboard

as of 2023-Q3

COAERS

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	2.91%	3.87%	5.33%
COAERS Actuarially Assumed Rate of Return	6.75%	6.75%	6.75%
Difference	-3.84%	-2.88%	-1.42%
Status	BELOW	BELOW	BELOW

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	2.91%	3.87%	5.33%
COAERS Passive Index - Gross Return	1.33%	3.44%	4.49%
Difference	1.58%	0.43%	0.84%
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	1.22%	3.33%	4.38%
Difference	1.69%	0.54%	0.95%
Status	ABOVE	ABOVE	ABOVE

- 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	2.91%	3.87%	5.33%
COAERS Policy Index - Gross Return	3.59%	4.06%	5.29%
Difference	-0.68%	-0.19%	0.04%
Status	BELOW	BELOW	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	3.48%	3.95%	5.18%
Difference	-0.57%	-0.08%	0.15%
Status	BELOW	BELOW	ABOVE

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

- 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	2.91%	3.87%	5.33%
Top Quartile Net Return - All Peers *	5.27%	5.17%	6.25%
Difference	-2.36%	-1.30%	-0.92%
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	2.91%	3.87%	5.33%
Top Quartile Net Return - Small Peers *	5.98%	5.00%	6.05%
Difference	-3.07%	-1.13%	-0.72%
Status	BELOW	BELOW	BELOW

* Peer Return Data is provided by RVK and is preliminary as of 9/30/2023.

INVESTMENT GOALS (continued)**3. Achieve these strategic objectives via fiduciary best practices that:**

- Ensure proper diversification of asset classes and factor exposures
 - Staff and Consultant continue to assess the diversification of Fund's Strategic Asset Allocation including Functionally Focused portfolio construction concepts.
 - Staff is evaluating current portfolio hedging strategies to ensure the Fund maintains appropriate diversification 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 are incorporated into IRF discussions to inform outlook.
- Adapt the asset allocation to changing market conditions
 - Staff regularly evaluates current market conditions via the Investment Risk Framework to guide recommendations to the IC/Board regarding changes to SAA parameters based upon current market conditions and their impact to return and risk expectations.
 - 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%	12.2%	12.7%	10.0%
Status				ABOVE	ABOVE	BELOW
	MIN	TARGET	MAX	3Y	5Y	10Y
COAERS Fund - Sharpe Ratio	-	0.50	-	0.18	0.25	0.49
Status				BELOW	BELOW	BELOW
RELATIVE RISK (aka TRACKING ERROR)						
	POLICY			REALIZED		
	MIN	NEUTRAL	MAX	3Y	5Y	10Y
COAERS Fund - Tracking Error	-	150	300	171	180	173
Status				WITHIN	WITHIN	WITHIN
	MIN	TARGET	MAX	3Y	5Y	10Y
COAERS Fund - Information Ratio	-	0.50	-	1.01	0.38	0.64
Status				ABOVE	BELOW	ABOVE

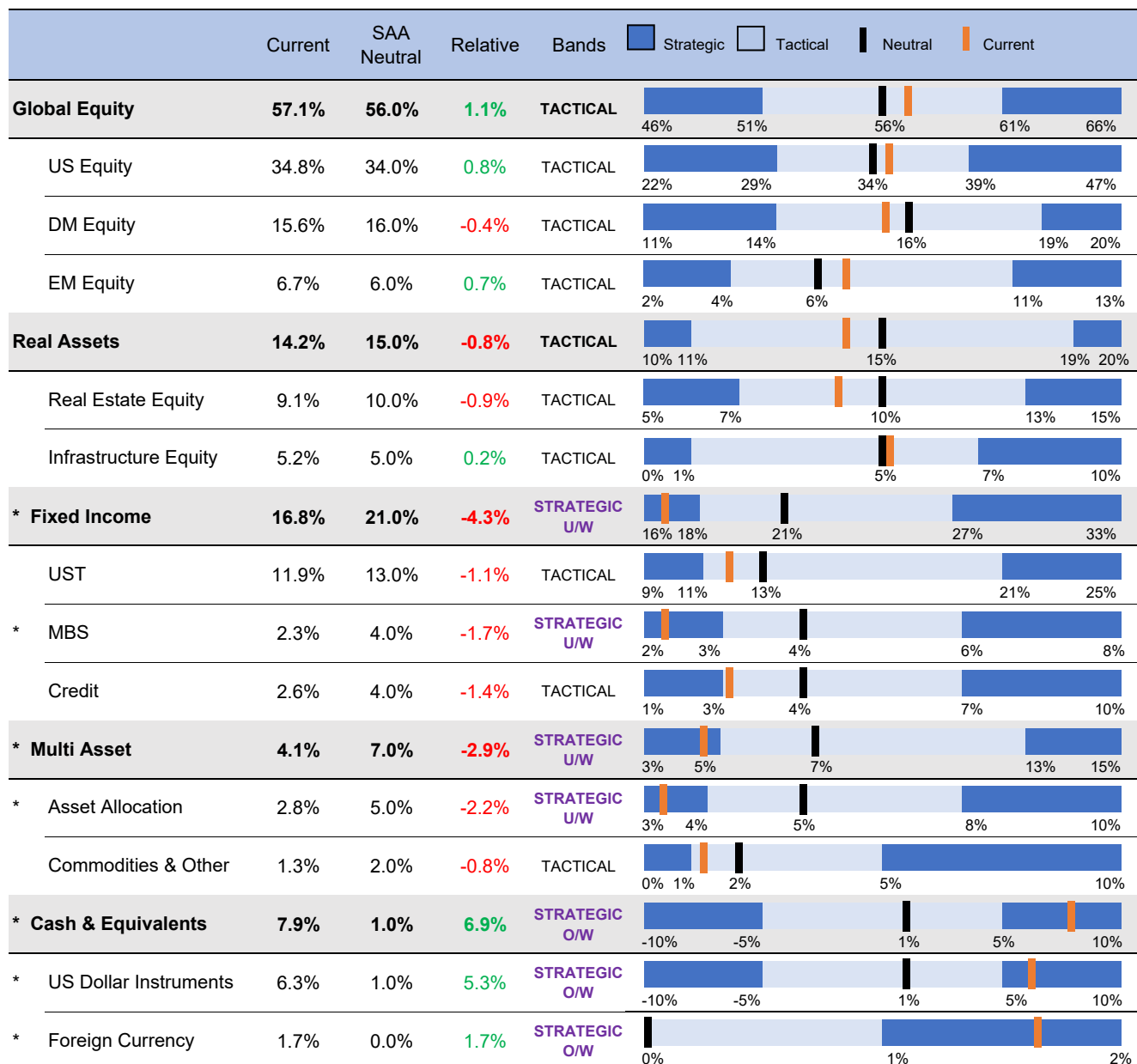
ASSET ALLOCATION

COAERS Fund Positioning

YTD Return (Net): 3.39%

as of 2023-Q3

AUM: \$2.977 Bn



* Strategic Positioning Approved at September 21, 2023 Board Meeting

COAERS Compliance Dashboard

as of 2023-Q3



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:	August 2023	December 2022	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:	August 2023	December 2022	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:	August 2023	December 2022

- 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 30, 2023	March 30, 2023
Investment Implementation Policy:	March 30, 2023	March 30, 2023

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	0.4%	OK
	5% of the Fund of any class of voting security of any one company:	EQUINIX INC	0.4%	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	8.7%	OK
	≤30% of Fund assets with any passive manager:	Agincourt	15.4%	OK
	≤20% of firm assets for any manager:	Agincourt	5.9%	OK
	≤20% of fund/vehicle assets unless a seed investment:	LGIMA MSCI USA	13.8%	OK
	Board approved Seed Investments:	PGIM IG Credit	32.9%	Seed

FUND LIQUIDITY

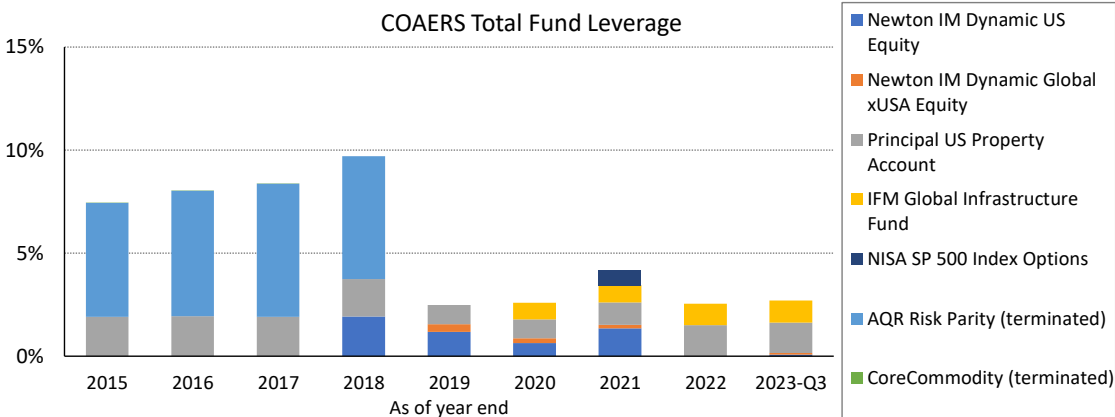
3. Ensure sufficient liquidity to meet benefit payment and other obligations by:

- Review allocation to highly liquid investments quarterly.

<u>Liquidity:</u>	<u>\$ millions</u>	<u>% of Fund</u>	<u>Accounts Included</u>
0 - 5 Days	2,325	78%	All except those listed below
5-30 Days	390	13%	1607, PGIM, DoubleLine, Fidelity, Agincourt
30+ Days	262	9%	Principal, IFM

FUND LEVERAGE

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



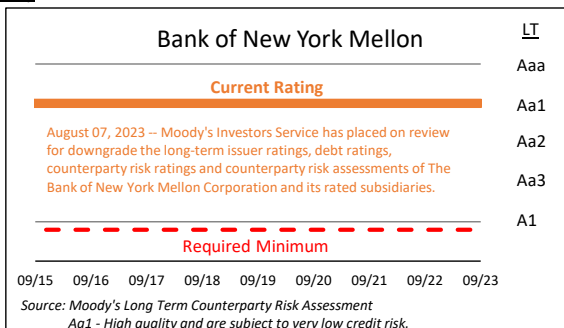
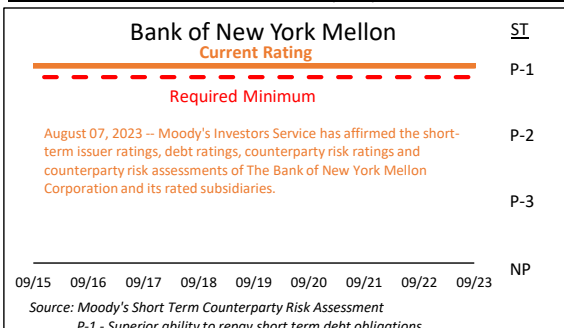
COAERS Compliance Dashboard

as of 2023-Q3

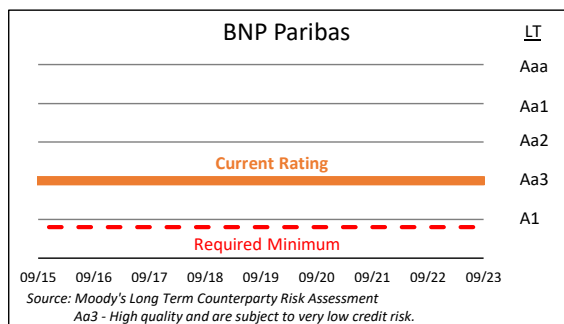
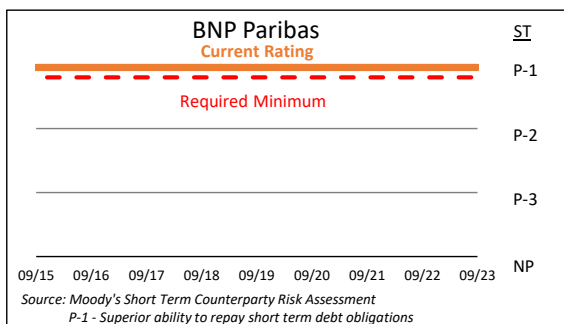
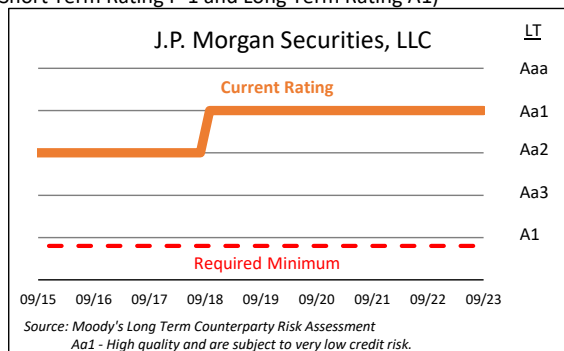
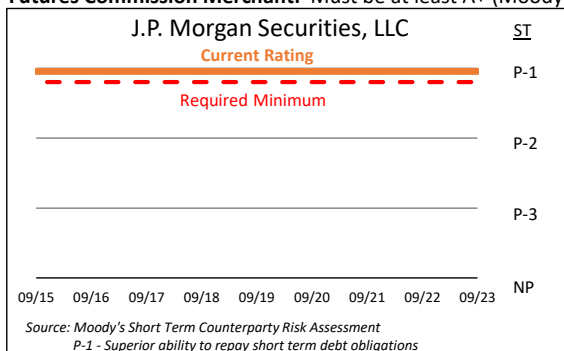


COUNTERPARTY MANAGEMENT

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 2023-Q3
IPS Section I	Executive Director may approve variances to further compliance	Unused
IPS Section I	Executive Director may update 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	Unused
IPS Section V	Fund positioning may be rebalanced for risk management	Unused
IPS Section V	Fund positioning may be rebalanced due to phased transition	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 IV	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

Status of Approved Policy Deviations

Source	Nature of Delegated Authority	Status during 2023-Q3
9/21/2023 Board Meeting	The Board approved a policy exception through the December 19, 2023 Board Meeting allowing Staff discretion to not rebalance the asset and underlying sub-asset classes for Fixed Income, and Multi-Asset for market drift.	Unused
9/21/2023 Board Meeting	The Board approved a policy exception through the December 19, 2023 Board Meeting allowing Staff discretion to rebalance the Fund for Risk Management within the Strategic Rebalancing Ranges for Cash & Equivalents	Unused

In reviewing RVK performance reporting, Staff notes the below items that have or have not worked well for the quarter:

Q3 2023

Decisions that worked well:

- The decision to overweight Cash & Equivalents (7.9% allocation versus 1.0% neutral) over Fixed Income (16.8% allocation versus 21% neutral) and Multi-Asset was additive to the total Fund. Cash & Equivalents was the only asset class that delivered positive returns during the quarter with a net return of +1.28%. Fixed Income, on the other hand, declined alongside all other asset classes and returned -3.54%. Multi-Asset declined by -3.13%. This decision contributed 0.34% to total Fund outperformance during the quarter.
- Style selection (the mix of underlying mandate types) in Real Assets added outperformance for the total Fund, primarily with private markets. The ODCE private real estate index returned -2.16% during the quarter, while the public market REIT index returned -8.33%. In Infrastructure, COAERS' private fund, IFM GIF, returned +0.37% while the public markets benchmark declined by -7.50%.

Decisions that didn't work well:

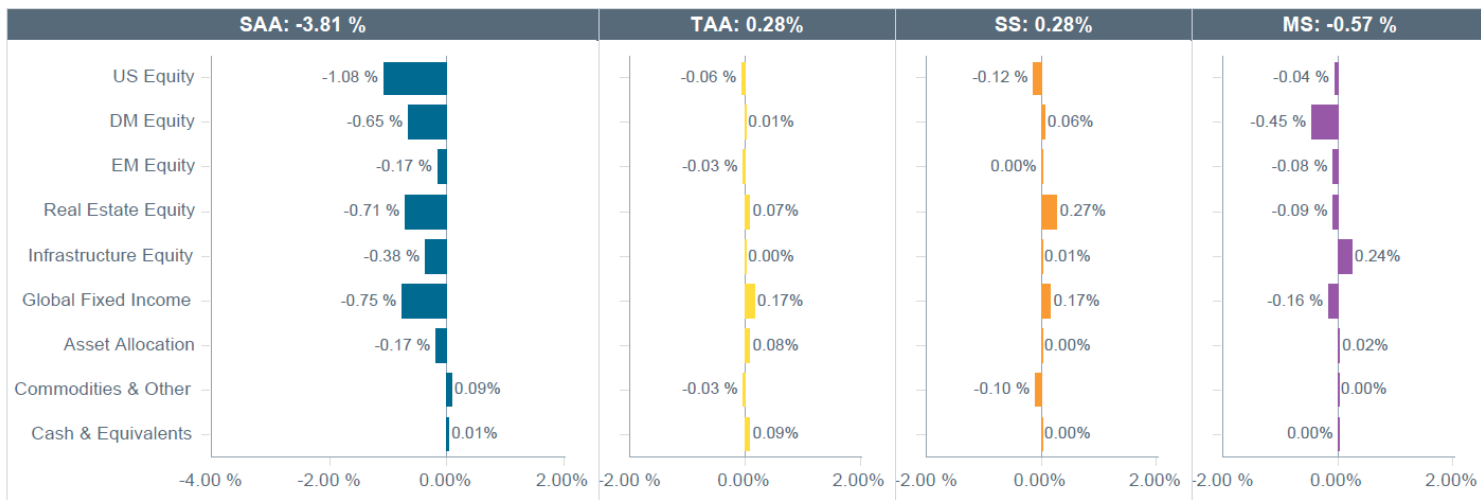
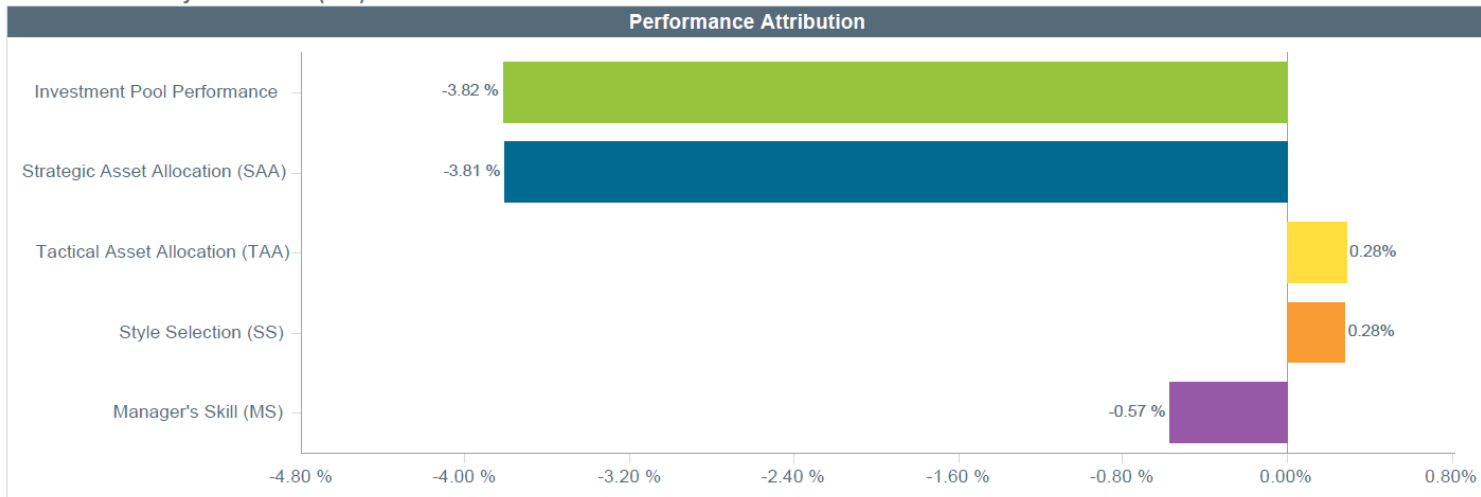
- In a continued troubling trend for diversification, every asset class declined during the quarter with the sole exception of Cash & Equivalents. Global equities declined -4.51%, Real Assets by -4.23%, Global Fixed Income by -3.54% and Multi-Asset by -3.13%.
- The use of a more diversified approach in US Equities detracted from relative performance. The MSCI USA Equal Weight Index declined 4.04% during the quarter with the capitalization weighted index declining by 3.18%. Diversified manager TOBAM continued to underperform other diversifying mandates as well.
- Manager selection detracted from performance by 57 bps, primarily driven by underperformance through active management in Developed Markets and Fixed Income. Despite being a generally attractive sub-asset class to use active management, all Developed Market Equities mandates underperformed their benchmarks during the quarter. In US Treasuries, Hoisington continues to maintain a long duration bias which significantly underperformed the broader US Treasury Index.

Appendix: RVK Attribution Exhibits

Composite: Total Fund

Quarter To Date Ending September 30, 2023

Benchmark: Policy Benchmark (IDP)



Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.





Summary of Fund Performance

City of Austin Employees' Retirement System

Period Ended: September 30, 2023



City of Austin Employees' Retirement System Executive Summary

As of September 30, 2023

Capital Markets Review						Market Performance																																																					
<ul style="list-style-type: none"> During Q3, investors grappled with mixed signals regarding the health of the economy and the direction of corporate profits. Although labor market data releases have exceeded expectations, rising energy costs and mortgage rates raised concerns about a decline in consumer spending. Rising energy prices drove the September reading of the Consumer Price Index (CPI) to 3.7%, higher than earlier in the year. The Federal Open Markets Committee (FOMC) paused rate hikes during its September meeting--marking only the second pause since March 2022--but it also indicated that an additional rate increase should be expected before the end of the year. 						<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>-3.3</td> <td>21.6</td> <td>10.2</td> <td>9.9</td> <td>11.9</td> </tr> <tr> <td>Russell 2000</td> <td>-5.1</td> <td>8.9</td> <td>7.2</td> <td>2.4</td> <td>6.6</td> </tr> <tr> <td>MSCI EAFE (Net)</td> <td>-4.1</td> <td>25.6</td> <td>5.8</td> <td>3.2</td> <td>3.8</td> </tr> <tr> <td>MSCI Emg Mkts (Net)</td> <td>-2.9</td> <td>11.7</td> <td>-1.7</td> <td>0.6</td> <td>2.1</td> </tr> <tr> <td>Bbrg US Agg Bond</td> <td>-3.2</td> <td>0.6</td> <td>-5.2</td> <td>0.1</td> <td>1.1</td> </tr> <tr> <td>Bbrg Cmnty (TR)</td> <td>4.7</td> <td>-1.3</td> <td>16.2</td> <td>6.1</td> <td>-0.7</td> </tr> <tr> <td>NCREIF ODCE (Net)</td> <td>-2.1</td> <td>-12.9</td> <td>6.2</td> <td>4.7</td> <td>7.2</td> </tr> </tbody> </table>							QTD	1 Year	3 Years	5 Years	10 Years	S&P 500 (Mkt Cap Wtd)	-3.3	21.6	10.2	9.9	11.9	Russell 2000	-5.1	8.9	7.2	2.4	6.6	MSCI EAFE (Net)	-4.1	25.6	5.8	3.2	3.8	MSCI Emg Mkts (Net)	-2.9	11.7	-1.7	0.6	2.1	Bbrg US Agg Bond	-3.2	0.6	-5.2	0.1	1.1	Bbrg Cmnty (TR)	4.7	-1.3	16.2	6.1	-0.7	NCREIF ODCE (Net)	-2.1	-12.9	6.2	4.7	7.2
	QTD	1 Year	3 Years	5 Years	10 Years																																																						
S&P 500 (Mkt Cap Wtd)	-3.3	21.6	10.2	9.9	11.9																																																						
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Bbrg Cmnty (TR)	4.7	-1.3	16.2	6.1	-0.7																																																						
NCREIF ODCE (Net)	-2.1	-12.9	6.2	4.7	7.2																																																						
Total Fund Performance																																																											
	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018																																															
Total Fund	-3.8	3.4	9.7	2.9	3.9	5.4	5.3	-15.6	13.0	10.8	20.7	-5.9																																															
Policy Benchmark	-4.0	4.7	13.2	3.6	4.1	5.4	5.3	-17.3	14.4	10.9	21.6	-6.8																																															
Excess Return	0.2	-1.3	-3.5	-0.7	-0.2	0.0	0.0	1.7	-1.4	-0.1	-0.9	0.9																																															
Total Fund Risk Metrics																																																											
	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018																																																	
Sharpe Ratio	0.5	0.2	0.2	0.4	0.5	-1.2	1.9	0.6	2.3	-0.9																																																	
Standard Deviation	11.1	12.2	11.0	12.7	10.0	14.3	6.7	17.4	7.3	8.3																																																	
Tracking Error	1.3	1.7	1.8	1.7	1.8	2.1	1.2	2.0	1.0	1.8																																																	
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 -3.8% net of fees during the quarter, outperforming the Policy Benchmark which returned -4.0%. Cash & Equivalents was the best performing asset class on an absolute basis, net of fees, returning 1.3%. Infrastructure Equity had strong relative returns, outpacing its benchmark in Q3 by 5.0%. 																																																				
Total Fund	-3.8	3.4	9.7	2.9	9.2	06/01/1982																																																					
Policy Benchmark	-4.0	4.7	13.2	3.6	N/A																																																						
Excess Return	0.2	-1.3	-3.5	-0.7	N/A																																																						
US Equity	-3.6	7.6	16.6	7.8	10.3	06/01/1988																																																					
US Equity Benchmark	-3.2	13.1	21.0	9.0	10.5																																																						
Excess Return	-0.4	-5.5	-4.4	-1.2	-0.2																																																						
Developed Markets Equity	-6.5	4.9	20.2	2.7	4.4	01/01/2008																																																					
Developed Market Equity Benchmark	-4.1	6.7	24.0	6.1	2.2																																																						
Excess Return	-2.4	-1.8	-3.8	-3.4	2.2																																																						
Emerging Markets Equity	-4.1	4.2	15.2	-3.0	0.6	03/01/2008																																																					
Emerging Market Equity Benchmark	-2.9	1.8	11.7	-1.7	1.1																																																						
Excess Return	-1.2	2.4	3.5	-1.3	-0.5																																																						
Real Estate Equity	-5.2	-5.5	-7.3	5.1	6.4	09/01/2004																																																					
Real Estate Equity Benchmark	-7.1	-2.1	3.0	5.8	7.3																																																						
Excess Return	1.9	-3.4	-10.3	-0.7	-0.9																																																						
Infrastructure Equity	-2.5	1.7	8.1	8.1	1.5	01/01/2020																																																					
Infrastructure Equity Benchmark	-7.5	-4.5	5.9	6.5	-0.5																																																						
Excess Return	5.0	6.2	2.2	1.6	2.0																																																						
Global Fixed Income	-3.5	-1.2	0.0	-6.4	4.8	02/01/1991																																																					
Global Fixed Income Benchmark	-3.6	-2.2	2.2	-6.9	4.5																																																						
Excess Return	0.1	1.0	-2.2	0.5	0.3																																																						
Asset Allocation	-2.9	6.2	13.0	3.1	5.5	05/01/2020																																																					
Multi-Asset Benchmark	-3.5	5.1	13.2	2.8	5.8																																																						
Excess Return	0.6	1.1	-0.2	0.3	-0.3																																																						
Commodities & Other	-3.7	-1.7	6.3	-1.1	N/A	07/01/2017																																																					
Commodities & Other Benchmark	4.7	-3.4	-1.3	16.2	5.7																																																						
Excess Return	-8.4	1.7	7.6	-17.3	N/A																																																						
Asset Allocation vs. Target Allocation																																																											
	Market Value (\$000)	Allocation (%)	Target (%)																																																								
US Equity	1,036,351	34.8	34.0																																																								
DM Equity	463,165	15.6	16.0																																																								
EM Equity	198,647	6.7	6.0																																																								
Real Estate Equity	270,063	9.1	10.0																																																								
Infrastructure Equity	153,467	5.2	5.0																																																								
Global Fixed Income	498,604	16.8	21.0																																																								
Asset Allocation	83,787	2.8	5.0																																																								
Commodities & Other	37,285	1.3	2.0																																																								
Cash & Equivalents	235,290	7.9	1.0																																																								
Total Fund	2,976,658	100.0	100.0																																																								
Schedule of Investable Assets																																																											
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return																																																						
CYTD	2,941,251,159	-64,721,659	100,128,452	2,976,657,953	3.39																																																						

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.

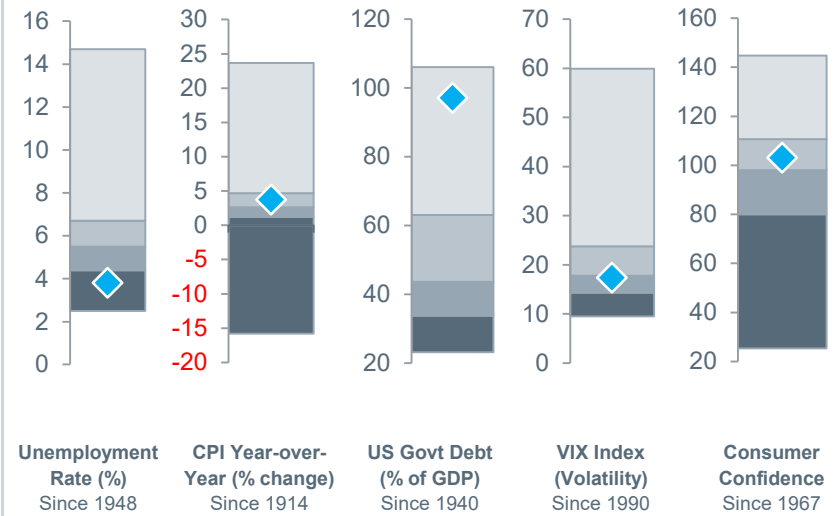


Capital Markets Review

Third Quarter Economic Environment

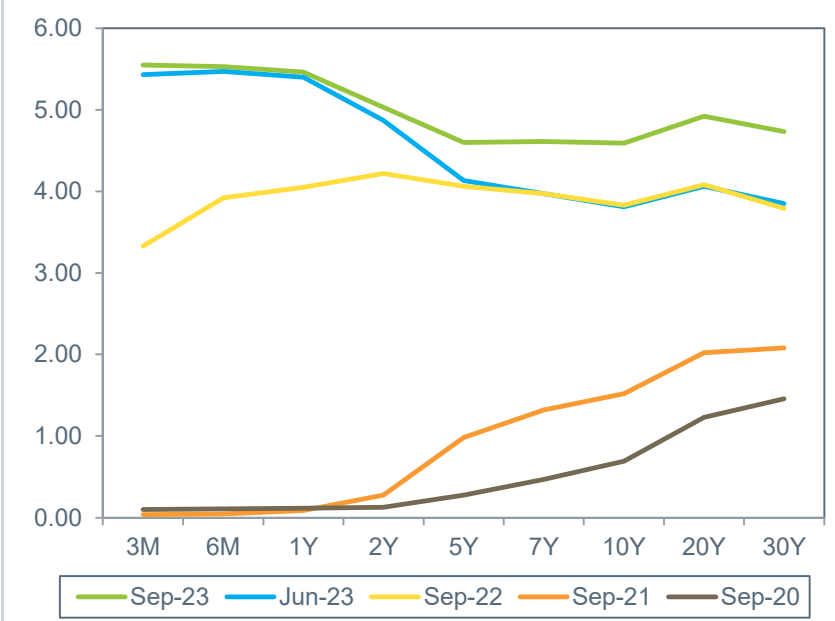
During Q3, investors grappled with mixed signals regarding the health of the economy and the direction of corporate profits. Several factors were at play, including an uptick in inflation, a downgrade to the US debt rating, ongoing labor negotiations and strikes, and uncertainty around the funding of the US government—all of which complicated the outlook for investors. As the prospect of a “higher for longer” outlook for interest rates was digested by investors, it led to increased volatility and negative equity market returns in the latter part of the quarter. Among investors, there was an increasing focus on the behavior and financial health of the US consumer. Although labor market data releases, including wage growth, have exceeded expectations, rising energy costs and mortgage rates, as well as the resumption of student loan payments following a multi-year pause, raised concerns about a decline in consumer spending. Within the US, rising energy prices drove the August and September readings of the Consumer Price Index (CPI) to 3.7% for consecutive months, higher than earlier in the year. Global central banks and policymakers have continued to focus on the balance between maintaining downward pressure on inflation and avoiding significant disruption to economic growth. The Federal Open Markets Committee (FOMC) paused rate hikes during its September meeting—marking only the second pause since March 2022—but it also indicated that an additional rate increase should be expected before the end of the year.

Key Economic Indicators



Economic Indicators	Sep-23	Jun-23	Sep-22	Sep-20	20 Yr
Federal Funds Rate (%)	5.33 ▲	5.08	3.08	0.09	1.44
Breakeven Infl. - 5 Yr (%)	2.25 ▲	2.17	2.16	1.49	1.94
Breakeven Infl. - 10 Yr (%)	2.34 ▲	2.21	2.15	1.63	2.10
CPI YoY (Headline) (%)	3.7 ▲	3.0	8.2	1.4	2.6
Unemployment Rate (%)	3.8 ▲	3.6	3.5	7.9	5.9
Real GDP YoY (%)	N/A —	2.4	1.8	-2.0	2.0
PMI - Manufacturing	49.0 ▲	46.0	50.9	55.4	53.6
USD Total Wtd Idx	122.77 ▲	119.89	127.64	116.97	103.67
WTI Crude Oil per Barrel (\$)	90.8 ▲	70.6	79.5	40.2	69.6
Gold Spot per Oz (\$)	1,872 ▼	1,906	1,661	1,886	1,219

Treasury Yield Curve (%)



Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	-3.27	13.07	21.62	9.92	11.91
Russell 2000	-5.13	2.54	8.93	2.40	6.65
MSCI EAFE (Net)	-4.11	7.08	25.65	3.24	3.82
MSCI EAFE SC (Net)	-3.51	1.82	17.90	0.76	4.30
MSCI Emg Mkts (Net)	-2.93	1.82	11.70	0.55	2.07
Bloomberg US Agg Bond	-3.23	-1.21	0.64	0.10	1.13
ICE BofAML 3 Mo US T-Bill	1.31	3.60	4.47	1.72	1.11
NCREIF ODCE (Gross)	-1.99	-7.64	-12.22	5.63	8.15
FTSE NAREIT Eq REIT (TR)	-7.13	-2.14	2.99	2.77	5.96
HFRI FOF Comp	0.51	2.81	4.59	3.38	3.28
Bloomberg Cmdty (TR)	4.71	-3.44	-1.30	6.13	-0.75



City of Austin Employees' Retirement System

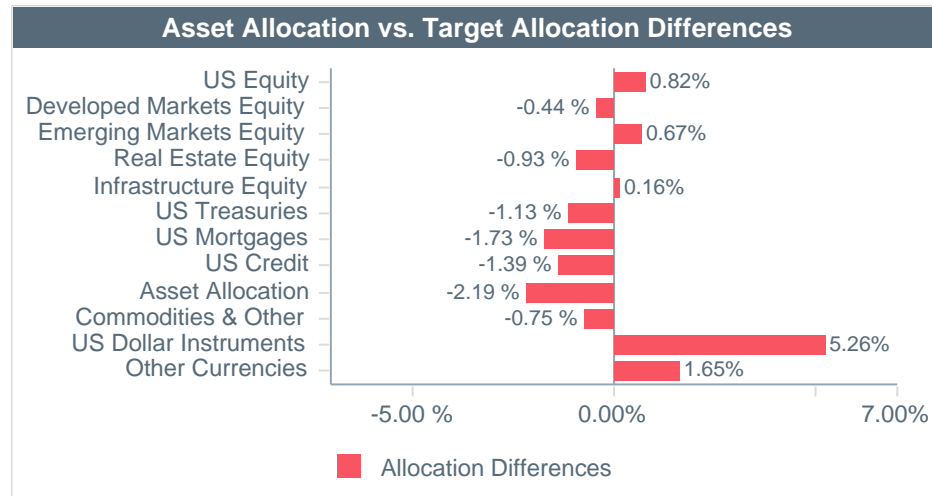
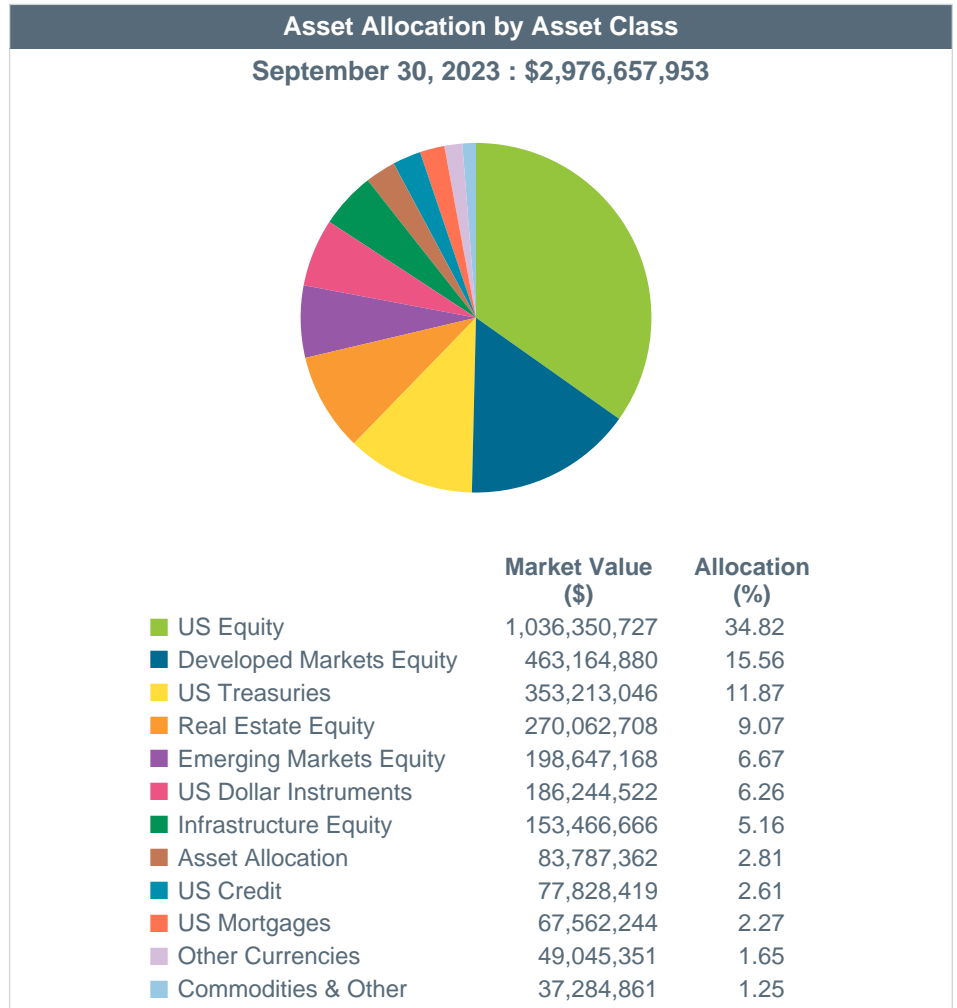
As of September 30, 2023

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	2,941,251,159	-64,721,659	100,128,452	2,976,657,953	3.39
1 Year	2,778,760,359	-72,788,184	270,685,778	2,976,657,953	9.73
3 Years	2,885,026,655	-172,831,061	264,462,359	2,976,657,953	2.91

Asset Allocation vs. Target Allocation					
	Market Value (\$)	Allocation (%)	Neutral (%)	Min. (%)	Max. (%)
Total Fund	2,976,657,953	100.00	100.00	-	-
US Equity	1,036,350,727	34.82	34.00	29.00	39.00
Developed Markets Equity	463,164,880	15.56	16.00	13.50	18.50
Emerging Markets Equity	198,647,168	6.67	6.00	4.00	10.50
Real Estate Equity	270,062,708	9.07	10.00	7.00	13.00
Infrastructure Equity	153,466,666	5.16	5.00	1.00	7.00
US Treasuries	353,213,046	11.87	13.00	11.00	21.00
US Mortgages	67,562,244	2.27	4.00	3.00	6.00
US Credit	77,828,419	2.61	4.00	2.50	7.00
Asset Allocation	83,787,362	2.81	5.00	3.50	7.50
Commodities & Other	37,284,861	1.25	2.00	1.00	5.00
US Dollar Instruments	186,244,522	6.26	1.00	0.00	5.00
Other Currencies	49,045,351	1.65	0.00	0.00	1.00

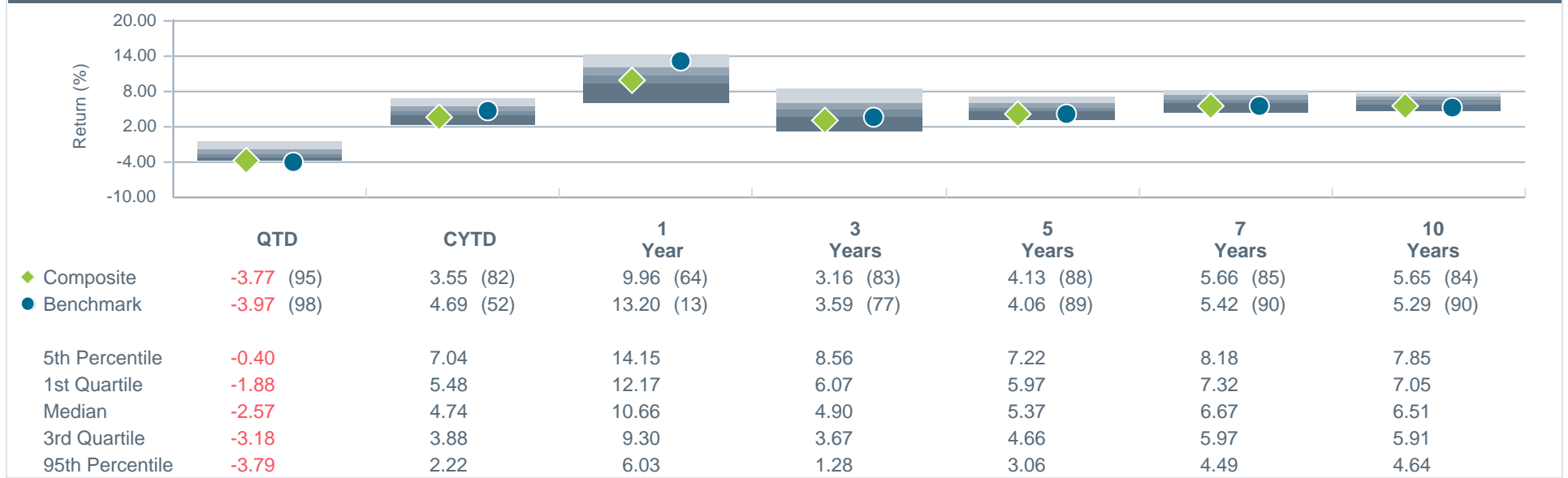


Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Performance is annualized for periods greater than one year. Total Fund market value does not include \$385,777.95 in assets remaining at Northern Trust - representing accruals, cash, tax reclaims, and some assets that were restricted from being delivered due to a liquidation or pending corporate action.

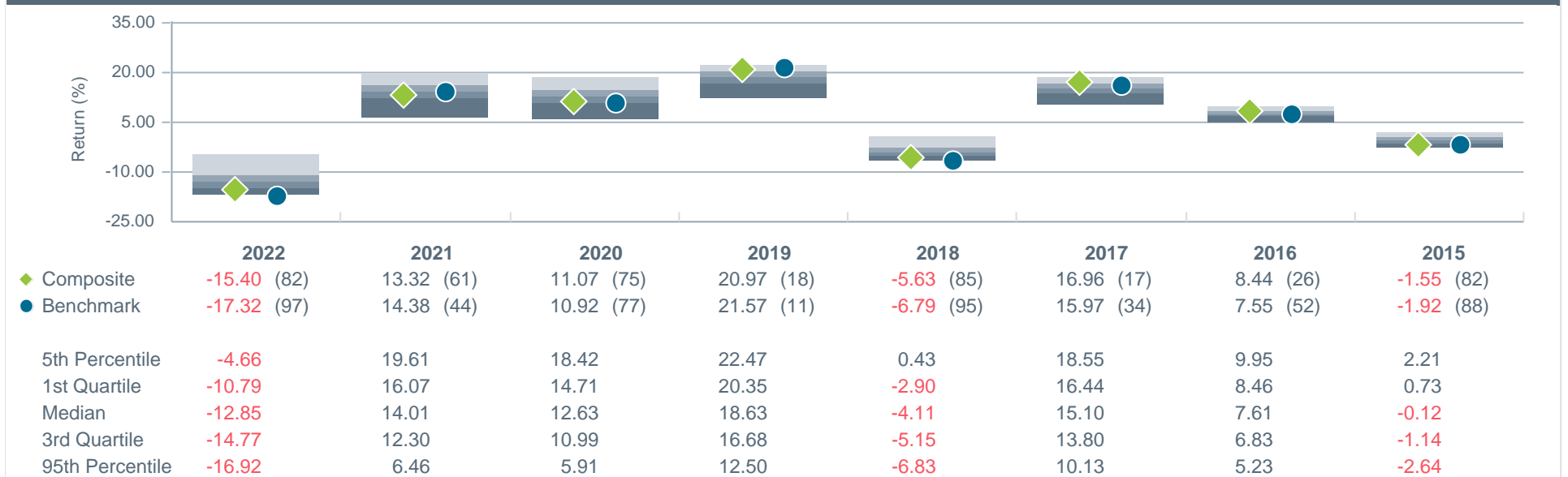


Composite: Total Fund
Benchmark: Policy Benchmark
Peer Group: All Public Plans - Total Fund

Rate of Return - Trailing



Rate of Return - Calendar

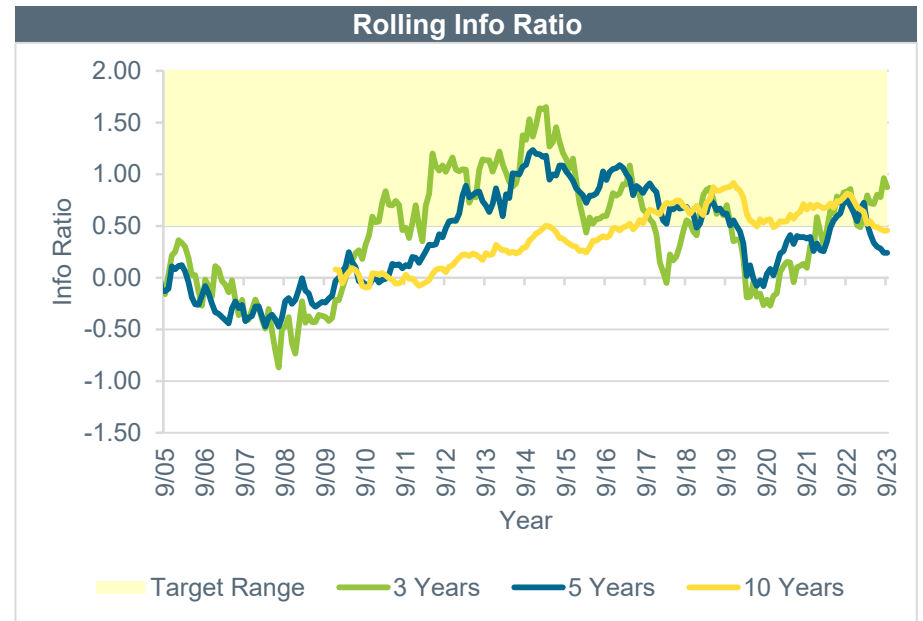
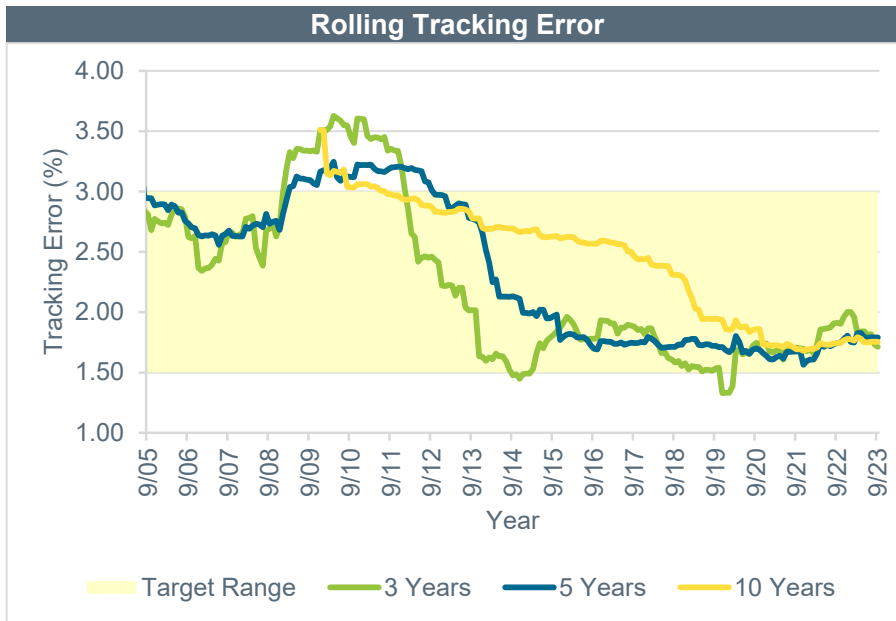
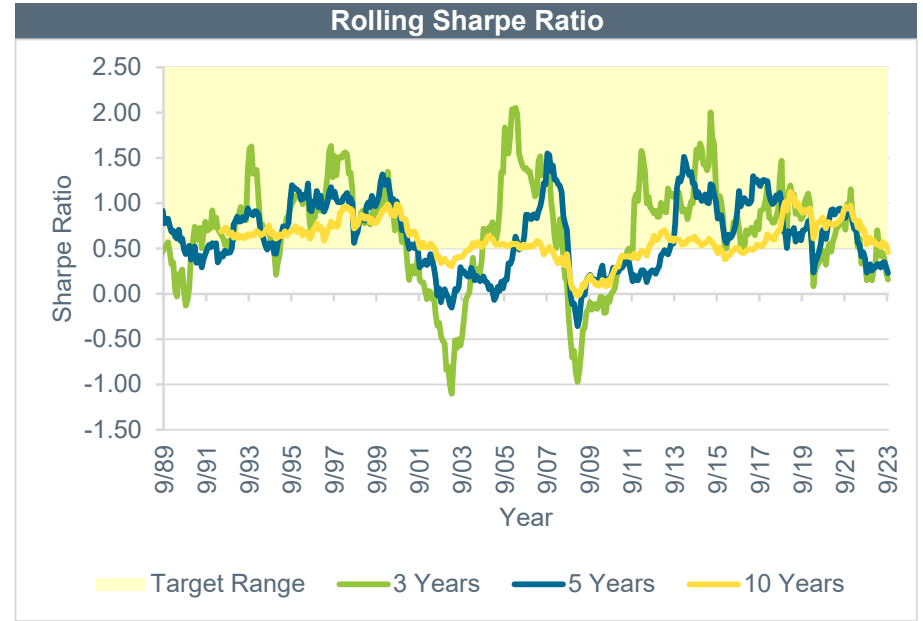
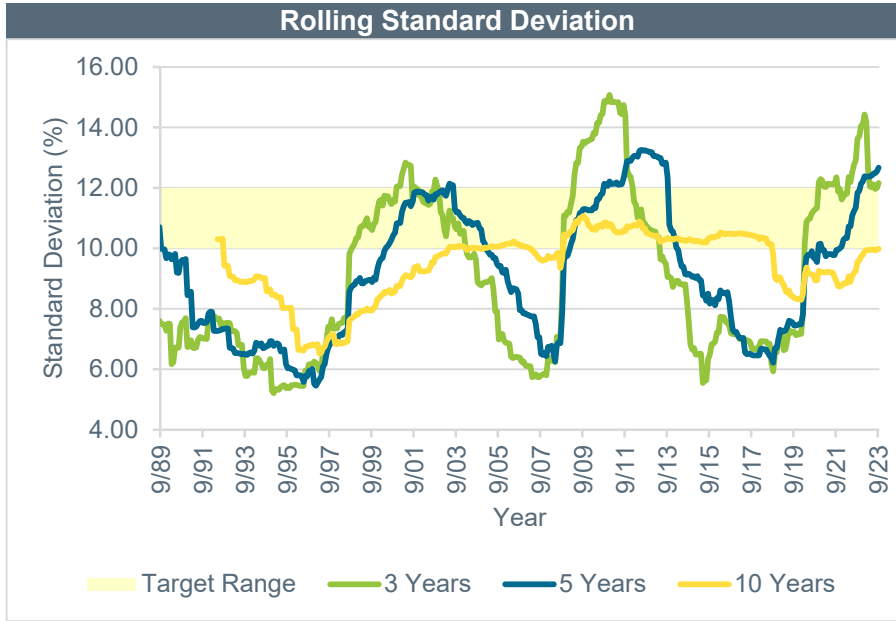


Performance shown is gross of fees and is annualized for periods greater than one year. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



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

As of September 30, 2023



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 September 30, 2023

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Total Fund	2,976,657,953	100.00	-3.82	3.39	9.73	2.91	3.87	5.33	9.18	06/01/1982
Policy Benchmark			-3.97	4.69	13.20	3.59	4.06	5.29	N/A	
Excess Return			0.15	-1.30	-3.47	-0.68	-0.19	0.04	N/A	
Passive Benchmark			-3.46	5.05	13.18	1.33	3.44	4.49	N/A	
Excess Return			-0.36	-1.66	-3.45	1.58	0.43	0.84	N/A	
Global Equity	1,698,162,775	57.05	-4.51	6.42	17.26	4.86	4.97	6.85	8.64	06/01/1988
Global Equity Benchmark			-3.40	9.39	20.16	6.88	6.09	7.39	N/A	
Excess Return			-1.11	-2.97	-2.90	-2.02	-1.12	-0.54	N/A	
US Equity	1,036,350,727	34.82	-3.65	7.59	16.55	7.84	6.98	9.57	10.33	06/01/1988
US Equity Benchmark			-3.18	13.13	21.03	9.02	9.22	11.32	10.50	
Excess Return			-0.47	-5.54	-4.48	-1.18	-2.24	-1.75	-0.17	
Developed Markets Equity	463,164,880	15.56	-6.54	4.92	20.22	2.71	3.53	4.63	4.40	01/01/2008
Developed Market Equity Benchmark			-4.10	6.73	24.00	6.07	3.44	3.84	2.18	
Excess Return			-2.44	-1.81	-3.78	-3.36	0.09	0.79	2.22	
Emerging Markets Equity	198,647,168	6.67	-4.09	4.16	15.17	-3.00	-0.37	1.57	0.58	03/01/2008
Emerging Market Equity Benchmark			-2.93	1.82	11.70	-1.73	0.55	2.07	1.14	
Excess Return			-1.16	2.34	3.47	-1.27	-0.92	-0.50	-0.56	
Real Assets	423,529,373	14.23	-4.23	-3.11	-2.49	6.09	3.70	5.99	5.78	09/01/2004
Real Assets Benchmark			-7.25	-2.85	4.07	6.17	3.04	5.51	6.98	
Excess Return			3.02	-0.26	-6.56	-0.08	0.66	0.48	-1.20	
Real Estate Equity	270,062,708	9.07	-5.19	-5.54	-7.27	5.14	3.58	7.16	6.38	09/01/2004
Real Estate Equity Benchmark			-7.13	-2.14	2.99	5.76	2.77	6.10	7.27	
Excess Return			1.94	-3.40	-10.26	-0.62	0.81	1.06	-0.89	
Infrastructure Equity	153,466,666	5.16	-2.51	1.70	8.06	8.14	1.11	N/A	1.49	01/01/2020
Infrastructure Equity Benchmark			-7.50	-4.45	5.90	6.45	3.18	4.20	-0.48	
Excess Return			4.99	6.15	2.16	1.69	-2.07	N/A	1.97	

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

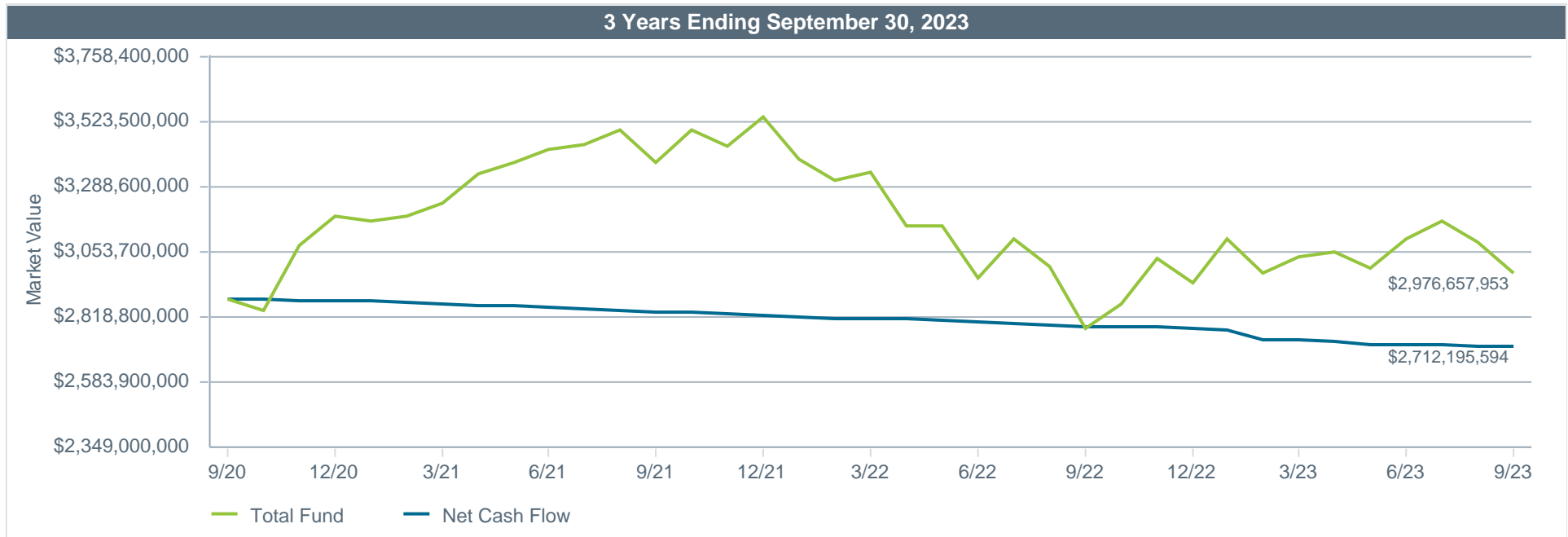
As of September 30, 2023

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Global Fixed Income	498,603,708	16.75	-3.54	-1.17	-0.01	-6.39	-0.41	0.93	4.80	02/01/1991
Global Fixed Income Benchmark			-3.59	-2.21	2.24	-6.93	-1.50	0.31	4.54	
Excess Return			0.05	1.04	-2.25	0.54	1.09	0.62	0.26	
US Treasuries	353,213,046	11.87	-3.64	-1.50	-1.03	-7.46	N/A	N/A	-0.85	05/01/2019
US Treasuries Benchmark			-3.06	-1.52	-0.81	-5.83	-0.07	0.63	-1.05	
Excess Return			-0.58	0.02	-0.22	-1.63	N/A	N/A	0.20	
US Mortgages	67,562,244	2.27	-3.56	-1.42	0.16	-4.90	N/A	N/A	-2.39	08/01/2019
US Mortgages Benchmark			-4.05	-2.26	-0.17	-5.09	-0.77	0.61	-2.47	
Excess Return			0.49	0.84	0.33	0.19	N/A	N/A	0.08	
US Credit	77,828,419	2.61	-3.03	0.56	4.25	-4.54	N/A	N/A	-0.93	08/01/2019
US Credit Benchmark			-3.01	0.03	3.47	-4.83	0.86	2.12	-1.24	
Excess Return			-0.02	0.53	0.78	0.29	N/A	N/A	0.31	
Multi-Asset	121,072,223	4.07	-3.13	3.54	10.68	4.41	4.78	N/A	4.37	02/01/2014
Multi-Asset Benchmark			-3.46	5.05	13.18	2.75	3.35	4.44	4.37	
Excess Return			0.33	-1.51	-2.50	1.66	1.43	N/A	0.00	
Asset Allocation	83,787,362	2.81	-2.87	6.19	13.03	3.13	N/A	N/A	5.55	05/01/2020
Multi-Asset Benchmark			-3.46	5.05	13.18	2.75	3.35	4.44	5.78	
Excess Return			0.59	1.14	-0.15	0.38	N/A	N/A	-0.23	
Commodities & Other	37,284,861	1.25	-3.72	-1.72	6.31	-1.12	N/A	N/A	2.36	04/01/2021
Commodities & Other Benchmark			4.71	-3.44	-1.30	16.23	6.13	-0.75	12.17	
Excess Return			-8.43	1.72	7.61	-17.35	N/A	N/A	-9.81	
Cash & Equivalents	235,289,873	7.90	1.28	3.67	4.40	1.77	1.69	N/A	1.61	07/01/2017
Cash & Equivalents Benchmark			1.34	3.71	4.63	1.75	1.71	1.09	1.65	
Excess Return			-0.06	-0.04	-0.23	0.02	-0.02	N/A	-0.04	
US Dollar Instruments	186,244,522	6.26	1.29	3.62	4.29	1.76	1.69	1.06	1.31	09/01/2015
Bloomberg US T-Bills 1-3 Mo Index			1.34	3.71	4.63	1.75	1.71	1.09	1.35	
Excess Return			-0.05	-0.09	-0.34	0.01	-0.02	-0.03	-0.04	
Other Currencies	49,045,351	1.65	1.23	3.72	4.66	N/A	N/A	N/A	2.93	12/01/2021
Bloomberg US T-Bills 1-3 Mo Index			1.34	3.71	4.63	1.75	1.71	1.09	2.85	
Excess Return			-0.11	0.01	0.03	N/A	N/A	N/A	0.08	

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
Total Fund Asset Growth Summary**

As of September 30, 2023



Schedule of Investable Assets - Quarter To Date						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
QTD	3,098,785,392	191,522	-4,257,015	-4,065,493	-118,061,946	2,976,657,953

Schedule of Investable Assets - Year To Date						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
CYTD	2,941,251,159	514,995,328	-579,716,987	-64,721,659	100,128,452	2,976,657,953

Schedule of Investable Assets - 1 Year						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
1 Year	2,778,760,359	806,212,914	-879,001,099	-72,788,184	270,685,778	2,976,657,953

Schedule of Investable Assets - 3 Years						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
3 Years	2,885,026,655	2,550,272,184	-2,723,103,245	-172,831,061	264,462,359	2,976,657,953

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 July 2023 - 30 September 2023

DATE	FROM	TO	PURPOSE	AMOUNT
BENEFIT PAYMENTS				
08/25/23	AGINCOURT 1-3M US TREASURIES	COAERS CASH	WITHDRAW TO FUND BENEFITS	\$4,000,000.00
08/25/23	COAERS CASH	CHASE OPERATING ACCOUNT	TRANSFER TO FUND BENEFITS	(\$4,000,000.00)
SUBTOTAL				\$0.00
MANAGEMENT FEES				
07/31/23	WALTER SCOTT EAFE EQ	WALTER SCOTT EAFE EQ	MANAGEMENT FEE	(\$210,537.63)
07/31/23	HOISINGTON MACROECON	HOISINGTON MACROECON	MANAGEMENT FEE	(\$52,956.70)
07/31/23	COAERS MELLON GOV SHORT TERM INV FD	COAERS LGIMA INFLATION PLUS	MANAGEMENT FEE	(\$27,831.05)
07/31/23	AGINCOURT 1-3 YR UST	AGINCOURT 1-3 YR UST	MANAGEMENT FEE	(\$18,090.82)
07/31/23	COAERS MELLON GOV SHORT TERM INV FD	COAERS LGIMA MSCI USA INDEX FUND	MANAGEMENT FEE	(\$14,136.15)
07/31/23	AGINCOURT 1-3M US TB	AGINCOURT 1-3M US TB	MANAGEMENT FEE	(\$11,284.72)
07/31/23	AGINCOURT PASSIV IND	AGINCOURT PASSIV IND	MANAGEMENT FEE	(\$9,055.15)
07/31/23	COAERS MELLON GOV SHORT TERM INV FD	COAERS NTAM INTL SMALL CAP FUND	MANAGEMENT FEE	(\$6,409.19)
07/31/23	AGINCOURT 1-5YR USTP	AGINCOURT 1-5YR USTP	MANAGEMENT FEE	(\$6,324.31)
07/31/23	AGINCOURT FTSENAREIT	AGINCOURT FTSENAREIT	MANAGEMENT FEE	(\$1,010.57)
08/01/23	COAERS MELLON GOV SHORT TERM INV FD	COAERS LGIMA MSCI EM INDEX FUND	MANAGEMENT FEE	(\$18,016.17)
08/09/23	PGIM US IG CORP BOND	PGIM US IG CORP BOND	MANAGEMENT FEE	(\$50,902.90)
08/31/23	NEWTON DYNAMIC US EQ	NEWTON DYNAMIC US EQ	MANAGEMENT FEE	(\$210,643.81)
08/31/23	1607 CAPITAL EAFE EQ	1607 CAPITAL EAFE EQ	MANAGEMENT FEE	(\$145,404.00)
08/31/23	NISA	NISA	MANAGEMENT FEE	(\$123,743.64)
08/31/23	MELLON SCIBETA US DC	MELLON SCIBETA US DC	MANAGEMENT FEE	(\$42,846.13)
08/31/23	DOUBLELINE MBS	DOUBLELINE MBS	MANAGEMENT FEE	(\$37,212.06)
08/31/23	COAERS MELLON GOV SHORT TERM INV FD	COAERS NEWTON DYNAMIC EXUS EQUITIES	MANAGEMENT FEE	(\$24,560.95)
08/31/23	SSGA MSCI USA EW IND	SSGA MSCI USA EW IND	MANAGEMENT FEE	(\$11,472.10)
08/31/23	COAERS MELLON GOV SHORT TERM INV FD	COAERS SSGA MSCI USA SC INDEX FUND	MANAGEMENT FEE	(\$4,777.90)
08/31/23	MELLON SCIBETA INFL	MELLON SCIBETA INFL	MANAGEMENT FEE	(\$249.43)
09/06/23	TOBAM MAXDIV USA	TOBAM MAXDIV USA	MANAGEMENT FEE	(\$71,018.13)
SUBTOTAL				(\$1,098,483.51)
ALLOCATION CHANGES				
SUBTOTAL				\$0.00
TOTAL EXTERNAL TRANSFERS				
BENEFIT PAYMENTS				(\$4,000,000.00)
MANAGEMENT FEES				(\$1,098,483.51)
TOTAL				(\$5,098,483.51)

6. Discuss and consider proposed revisions to Investment Policy Statement and Investment Implementation Policy



COMMITTEE MEETING Agenda Item Information Sheet

AGENDA ITEM 6:

Discuss and consider proposed revisions to Investment Policy Statement and Investment Implementation Policy

AGENDA ITEM OBJECTIVE

This item discusses proposed Investment Policy Statement (IPS) and the Investment Implementation Policy (IIP) changes based on Trustee feedback from the Board Workshop.

RELEVANCE TO STRATEGIC PLAN

This agenda item is central to **COAERS Strategic Plan Goal 1: Maintain a Sustainable Retirement System**. The Board sets guidelines through key policies in the investment program to drive results for the System.

RECOMMENDATION FOR COMMITTEE ACTION

Staff recommends that the Committee refer to the Board for approval the proposed changes to the Investment Policy Statement and Investment Implementation Policy.

BACKGROUND

Staff proposes changes to the IPS that seek to incorporate Trustee feedback from topics discussed at the October 2023 Board Workshop including feedback from the Board survey on Investment Beliefs and discussions about peer rankings. These proposed changes represent a small, incremental step before more substantive considerations by the Board over the coming quarters.

ATTACHMENTS

1. Staff Memo
2. Investment Policy Statement (IPS - Redline copy)
3. Investment Implementation Policy (IIP – Redline copy)



Investment Policy Statement Proposal Staff Memo

This summarizes the proposed changes to the Investment Policy Statement (IPS) and Investment Implementation Policy (IIP), including rationales for specific changes. These proposed changes represent a small, incremental step before more substantive considerations by the Board over the coming quarters. Specifically, these proposed changes seek to incorporate Trustee feedback from topics discussed at the October 2023 Board Workshop including feedback from the Board survey on Investment Beliefs and discussions about peer rankings.

A summary of the Staff's proposed changes can be found below:

IPS:

- **Eliminates top quartile peer rankings as an explicit goal (page 1, 23, 24):** This metric is adopted as a strategic goal in the 2022-2026 COAERS Strategic Plan and will continue to be reported on therein and through consultant performance reports.
- **Updates and adds to Investment Beliefs (page 2):**
 - Tweaks two investment beliefs by dropping a reference to equities and notes that the risk of all growth-oriented investments should be managed carefully.
 - Adds a new investment belief related to evaluating investments considering their functional portfolio role in the total Fund context.
- **Removes peer reference related to Sharpe Ratio and volatility targets (pages 9, 21):** This update instead suggests that this target ensures that the System is well rewarded for investment risks, consistent with adopted Investment Beliefs.
- **Various wording/administrative changes (pages 11, 13, 14, 17):**
 - Improves readability (pages 11, 13).
 - Clarifies market drift rebalancing guideline interpretation (page 14).
 - Clarifies allowable uses of derivative instruments (page 17)
 - Adds language requiring the Consultant to notify the Chair of the Board and General Counsel in accordance with provisions of the COAERS Fraud, Waste and Abuse Policy when there is a belief that the Executive Director or CIO are unable to objectively address concerns related to investment activity (page 7).

IIP:

- **Eliminates top quartile peer rankings as an explicit goal (page 1)** This metric is adopted as a strategic goal in the 2022-2026 COAERS Strategic Plan and will continue to be reported on therein and through consultant performance reports.

Over the coming quarters, Staff intends to lead Trustees in additional conversations with larger potential policy recommendations including topics focused on functional portfolio construction, implementation of private credit, total Fund benchmarking, and governance related to private markets manager selection.



Board Approved Policy

Subject: Investment Policy Statement

Review Committee: Investment Committee

Date Implemented: December 10, 2019

Date Updated: ~~March 30~~December 19, 2023 [effective date ~~April~~January 1, 2024~~3~~]

Signature of Chairperson:

Yuejiao Liu

DRAFT

Adopted
~~March 30, 2023~~ December 19, 2023

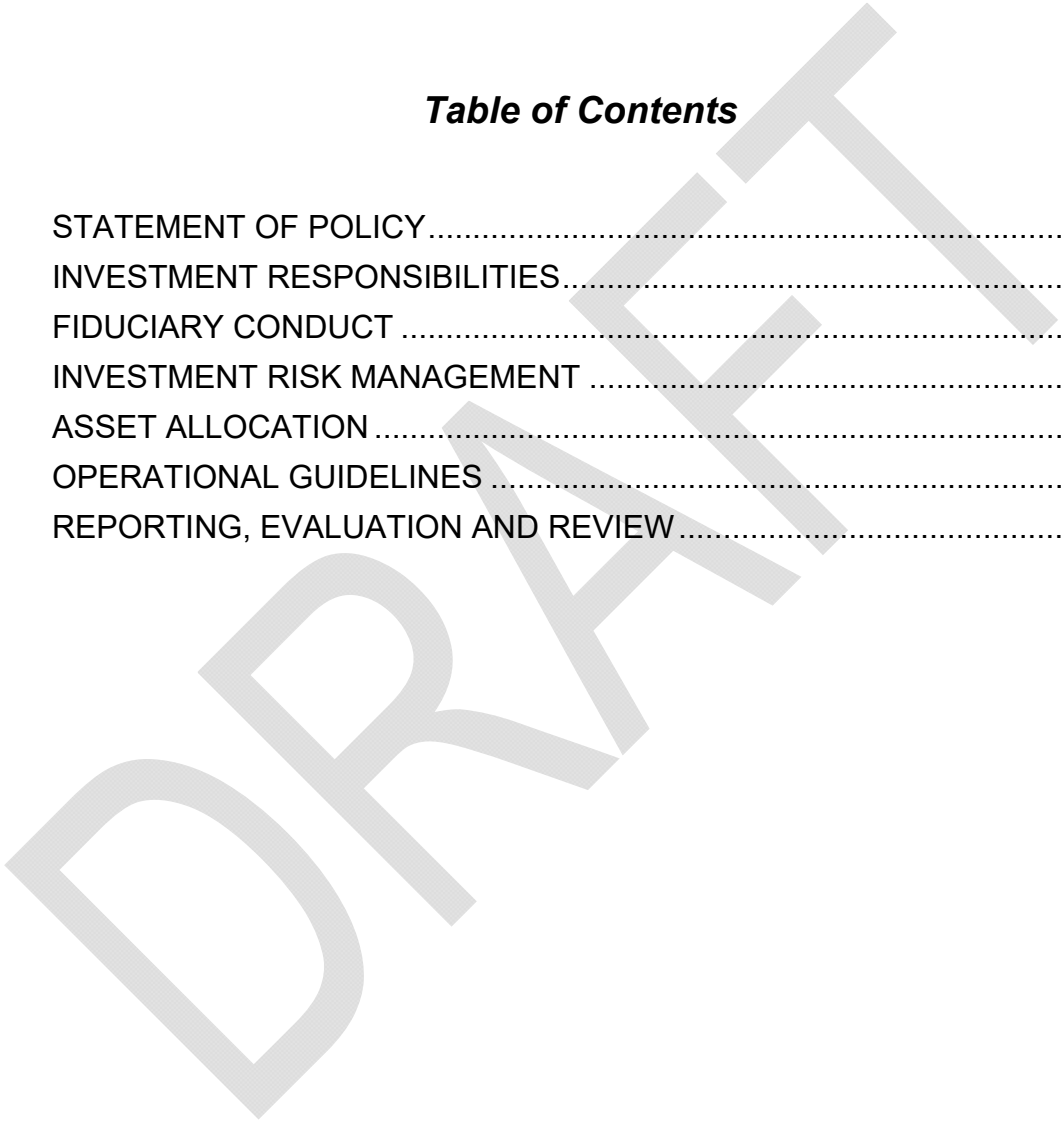
Investment Policy Statement (IPS)

for

City of Austin Employees' Retirement System (COAERS)

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Investment Policy Statement (IPS)

for

City of Austin Employees' Retirement System (COAERS)

I. STATEMENT OF POLICY

Purpose and Scope

This document is the official Investment Policy of the City of Austin Employees' Retirement System (the "System"). The policies in this document (the "Policy") have been adopted by the Board of Trustees of the System (the "Board") to establish the objectives and policies of the System's investment program. This document also articulates the policies and guidelines and procedures that are employed in the day-to-day management of System investments by Staff. No responsible party shall deviate from the terms and requirements of this policy without the prior authorization of the Board. Specific guidelines for the implementation of this policy, including contracting terms and the mandate details for each strategy/manager, are set forth in the Investment Implementation Policy, which is incorporated into and made a part of this policy by reference.

Investment Goals

The sole purpose of the Fund is to accumulate the financial reserves necessary to provide benefits to eligible members of the System and their beneficiaries. To achieve this outcome consistently and sustainably, the Fund will be structured and managed to maximize, in rank order of importance, net of all fees and expenses, the probability of achieving:

1. A long-term, annualized nominal rate of return that meets or exceeds the actuarially assumed rate of return for the System; and
2. A long-term, risk-adjusted relative rate of return that meets or exceeds the Passive Benchmark (i.e., the Reference Portfolio); and
3. A long-term, risk-adjusted relative rate of return that meets or exceeds the Policy Benchmark (i.e., the Strategic Benchmark); **and**
4. ~~A long-term, risk-adjusted relative rate of return that ranks in the top quartile of comparable peers consistently~~

The Fund will pursue achievement of these strategic objectives via fiduciary best practices that:

- Ensure proper diversification of asset classes and factor exposures; and
- Maintain appropriate long-term risk and return expectations; and
- Adapt the Fund's positioning to changing market conditions.

The Board, with consultation, advice and assistance from the System's Staff and Investment Consultant(s), will use the Fund's strategic asset allocation process and its effective implementation as the primary tools to achieve these goals. A primary emphasis of the management of the Fund is consistency of growth by seeking to

balance the risk of inadequate long-term returns against the risk of permanent impairment of capital. Taxes shall not be a consideration except that the System's tax-exempt status should be preserved.

Investment Beliefs

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.

Clear governance and decision-making structures that promote decisiveness, simplicity, efficiency, and accountability are effective and add value to the Fund.

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.

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 growth investments.

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.

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.

~~Equities are the most prudent investment vehicle for long-term growth of real values, and the associated drawdown risk of the System's growth-oriented investments~~ should be carefully managed in light of the Fund's liabilities.

Costs can significantly reduce net returns and therefore must be carefully measured and managed when making decisions regarding investment strategy and implementation.

Implementation should occur passively and in public markets unless a high likelihood of success on a risk-adjusted, net-of-fees basis can be expected from other approaches.

In pursuing a diversified portfolio, investments should be primarily considered and evaluated based on their functional role in the total Fund context.

Interpretation, Review and Revision

It is intended that this policy and all addenda hereto be construed and administered such that they comply with all applicable federal and state laws and regulations, as such may be amended from time to time to reflect best practices for prudent investors.

The Executive Director is authorized to approve variances from the policies set forth herein in furtherance of such compliance. The Executive Director is also authorized

to update this policy for strictly administrative items subject to approval by the General Counsel. Any variance approved for compliance with law shall be approved by General Counsel, Investment Counsel, or Tax Counsel as appropriate. The Executive Director shall report any such variances or updates to the Board at its next regular meeting via the Investment Committee.

All previous System investment policies and objectives are superseded by this document. The Board will formally review this Policy at least annually to determine whether it remains appropriate in light of the Board's investment philosophy and objectives. This document will also be reviewed periodically and updated as necessary to reflect changes in the capital markets and to reflect best industry practices for prudent investors. Any revisions to this document will be promptly supplied to the appropriate parties in written form.

II. INVESTMENT RESPONSIBILITIES

The System's investments (the "Fund") are held in trust for the exclusive benefit of its members, beneficiaries, and retirees and may not be diverted under any circumstances. This "exclusive benefit" rule shall be strictly followed when making, implementing and monitoring investment decisions. Specific care should also be taken to structure the System's investment relationships to maximize alignment of interests while mitigating the conflicts of interest and agency problems that often exist in the financial services industry.

Specific duties and responsibilities are set forth below for the parties that are established to act as fiduciaries regarding the investment program for the Fund in achieving its objectives.

Board of Trustees

The Board has the fiduciary duty of overseeing the management of the Fund and the associated investment process. In fulfilling this responsibility, the Board will establish, maintain, and require compliance with this policy and its stated objectives. Within this framework, the Board will select, retain, monitor, and evaluate the Investment Consultant, Investment Managers, Custodian (as defined herein), and other parties to serve the goal that actual results meet the objectives. At its discretion, the Board may delegate authority for strategic and operational aspects of the Fund to Staff, though it may not delegate overall responsibility for the program.

The Investment Committee is chartered to assist the Board of Trustees in fulfilling its fiduciary oversight responsibility for the management of the System's investments. Duties of the Investment Committee may include, but are not limited to:

- formulating and recommending to the Board the overall investment policies of the System,
- establishing and recommending to the Board investment guidelines in furtherance of those policies, all of which shall be subject to approval by the Board,

- monitoring investment performance relative to the strategic objectives and compliance with relevant investment risk guidelines set forth in policy, and
- monitoring the management of the Fund for compliance with relevant investment policies and guidelines.

Professional Staff

The Executive Director, the Chief Investment Officer, the Chief Financial Officer, and other Investment Staff will constitute the System's Professional Staff ("Staff"). Staff is responsible for rendering to the Board objective, competent, professional investment advice that is free from conflicts of interest. Staff will make recommendations to the Board regarding the Fund and will be responsible for implementing both Board decisions and applicable portions of this policy.

Executive Director

The Executive Director is appointed by the Board to manage and administer the System and its investments under the supervision and direction of the Board, and in accordance with applicable state and federal laws. In carrying out these responsibilities, the Executive Director has fiduciary responsibilities delegated by the Board under applicable law and is authorized to exercise his or her best judgment and discretion in planning, organizing, and administering the operations and investments of the System and ensuring that internal controls are in place to safeguard System assets. The Executive Director is hereby authorized by the Board to exercise his or her fiduciary responsibilities to take such action(s) as are necessary or appropriate to protect the investments of the System using his or her best judgment and discretion, based on advice of the Chief Investment Officer and Consultant(s), and as practicable and appropriate, reviewed by General Counsel, Investment Counsel, and/or Board Chair. The Executive Director is also responsible for informing the Board of any such action taken or other situation involving the investment program that merit its attention.

The Executive Director will establish procedures and controls for efficient implementation of investment programs by Investment Staff. The Executive Director may delegate to another member of Staff any right, power or duty assigned to the Executive Director in this policy. Such delegation may include, but not be limited to, the Executive Director's delegation to the Chief Investment Officer to supervise and oversee the performance of any responsibilities delegated to Investment Staff set forth in this policy, provided that the Executive Director shall be responsible for the supervision and oversight of the Staff member to whom such right, power, or duty is assigned.

Investment Staff

Investment Staff is required by the Board to provide professional investment analysis and support, to exercise a standard of care consistent with fiduciary duty, and to maintain the integrity of the investment program. Responsibilities of Investment Staff include investment analysis and research, asset allocation recommendations, risk management, manager selection and monitoring, rebalancing, trade cost analysis, and any other functions directly related to the

investment of Trust assets. Investment Staff support the investment program at the strategic and operational levels through the establishment of appropriate policies and procedures. Investment Staff are also responsible for implementation and maintenance of analytical tools to measure and monitor risk as further described in this policy and internal procedures. Investment Staff will also advise regarding the development of this policy and its implementation, and provide assistance in selection and monitoring of all Managers, Consultants, Custodians and other service providers related to the investment function.

Chief Investment Officer

The Chief Investment Officer (CIO) is part of the Investment Staff and directs the investment program consistent with Board-adopted investment goals and objectives, this policy and the Investment Implementation Policy, and within applicable state and federal laws. The CIO works with the Executive Director to ensure that adequate resources are available to implement the Board's investment policies, including custody relationships, internal procedures, qualified investment staff, and analytical and risk management tools, subject to the budget approval process. The CIO works closely with non-CIO Investment Staff and the Investment Consultant(s) to ensure that policies and procedures provide adequate controls to protect the integrity of the investment program, and oversees all investment processes including development, maintenance and modification of the System's Investment Risk Framework, and the selection and oversight of Managers.

Any reference to Investment Staff responsibilities in this policy, including any addendum to this policy, should be construed to mean that the Chief Investment Officer has supervisory and oversight authority of such delegated responsibilities. In his/her absence, all references to the CIO in this Policy and any subordinate policies shall be assumed by the Deputy Chief Investment Officer.

Non-CIO Investment Staff

The non-CIO Investment Staff report to the CIO and are primarily responsible for the daily operation and implementation of the investment program. Non-CIO Investment Staff members work with the CIO and Consultant(s) to advise the Board on investment policy and management issues. Such issues may include, without limitation, the development of investment goals and objectives, investment policies and strategies, investment risk management policies, asset allocation decisions, the hiring or termination of Managers, the establishment of investment performance benchmarks, and the development of investment management guidelines and restrictions.

Finance Staff

Finance Staff is independent of the Investment Staff and serves as the record keeper for the System's investments. The Chief Financial Officer (CFO) directs the Finance Staff and is primarily responsible for cash management as outlined in this

policy, including the monitoring of liquidity requirements to meet benefit payments. Finance Staff is also responsible for ensuring the timely payment of manager fees and tracking these fees for budgeting purposes.

Investment Consultant(s)

The Board may obtain the services of one or more qualified firms or individuals to assist and advise the Board and Staff regarding the structure, strategy, management, and investment of the Fund (a “General Investment Consultant”). The duty of a General Investment Consultant is to render objective, competent, professional advice and assistance that is free from conflicts of interest and to work with the Board and Staff regarding the investment process. This responsibility includes meeting regularly with the Board to provide perspective on the Fund’s goals, strategy, structure, and risk as well as the progress toward fulfilling the Fund’s long-term objectives.

A General Investment Consultant will advise, consult and work with the Board and Investment Staff to develop and maintain a well-diversified portfolio of investments for the Fund. Fund positioning and performance will be reviewed regularly, and recommendations will be made as appropriate. A General Investment Consultant will assist the Board and Staff in manager selection and monitoring as needed, including informing the Board promptly of material changes to portfolio investments. Within this process, a General Investment Consultant assumes fiduciary responsibility for advice given regarding the management of the investment process. A General Investment Consultant will perform its duties and obligations in conformance with generally accepted industry standards and its contract with the System.

The Board may also hire one or more qualified firms or individuals to assist and advise the Board and Staff regarding specialized mandates such as selection of managers and/or investments (a “Specialized Investment Consultant”). For example, should the Board consider making direct investments, it may obtain the services of one or more qualified firms or individuals to assist and advise the Board and Staff regarding the selection of specific investments (a “Direct Investments Consultant”). Within this context direct investments are defined for the purpose of this policy as investments that are not invested or managed by an investment manager appointed by the Board pursuant to Section 802.204, Texas Government Code.

The Specialized Investment Consultants are hired by, and report to, the Board to assist in the management of the specialized portfolio. The Specialized Investment Consultants provide advice to the Board on specific asset class policies, recommend pacing commitments, Manager selection and terminations, Manager guidelines and restrictions, participate in the due diligence process and ongoing monitoring of Managers including policy compliance, provide analysis of investment performance, and provide advice on other investment-related issues. Specialized Investment Consultants work closely with Staff in all aspects of the specialized investment portfolio including its relationship to the Fund as a whole.

It is imperative that Consultants have the independence and ability to inform the Board in the event of any concerns related to investment activity. If any Consultant learns of a material issue regarding deviation from prudence, objectivity, policy or

parameter adherence or any other matter of concern involving the investment program, the Consultant has a duty to express that concern in writing to the Executive Director and CIO while also recommending any action to be taken as deemed necessary. Should the Consultant believe that the Executive Director or CIO are unable to objectively address such concerns, the Consultant shall notify the Chair of the Board and/or the General Counsel in accordance with the provisions of the COAERS Fraud, Waste and Abuse Policy. The Consultant shall also contact the Board if it concludes that further immediate action is required and is beyond the authority granted to the Executive Director or Investment Staff. In any event, all such material matters will be reported to the Board at its next regularly scheduled meeting.

Investment Managers

Except for direct investments, investments for the Fund shall be made and managed by one or more investment managers (“Managers”) who meet the requirements of Sections 802.203(d) and 802.204, Texas Government Code. Managers will construct and manage a portfolio of investments (the “Portfolio”) consistent with the investment philosophy and strategy they are hired to implement in compliance with this policy and/or any agreement(s) they execute with the System. The Board’s Investment Implementation Policy sets out specific processes and procedures with respect to manager selection, contracting, monitoring, and retention.

Custodian(s)

Custodian bank(s) (“Custodian” or “Custodians”) will maintain custody of the cash, securities, commingled funds and other investments of the Fund. The Custodian(s) will be responsible for safekeeping, clearing and settling securities as appropriate for the accounts they are assigned. The Custodian(s) will regularly value, list and summarize these holdings for review by the Board, Staff and Consultant. In addition, a bank or trust depository arrangement with the Custodian(s) may be utilized to invest cash in liquid, interest-bearing instruments.

A Master Custodian will be designated to accurately record all transactions affecting the Fund. The audited entries from the Master Custodian shall constitute the official book of record for the Fund. All Custodians will be directed to provide timely and accurate information to the Master Custodian.

III. FIDUCIARY CONDUCT

An investment fiduciary includes, but is not limited to, a person who exercises discretionary authority or control in the investments of the System or who renders, for a fee, advice to the System. The term investment fiduciary includes, but is not limited to, the members of the Board, the General Counsel of the System, the System’s Staff, Investment Consultant(s), Managers, and the Custodian.

An investment fiduciary shall discharge his or her duties exclusively in the interest of the participants in the System and their beneficiaries and shall:

1. Act with the same care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with those matters would use in the conduct of a similar enterprise with similar aims;
2. Act with due regard for the management, reputation, and stability of the issuer and the character of the particular investments being considered;
3. Act in accordance with this Policy and ensure that the Fund is invested in a manner consistent with this Policy;
4. Make investments for the sole purpose of providing benefits to participants and participants' beneficiaries, and of defraying reasonable expenses of supervising, safeguarding, and investing the assets of the System; and
5. Give appropriate consideration to those facts and circumstances that an investment fiduciary knows or should know are relevant to the particular investment or investment course of action involved, including the role which the investment or investment course of action plays in that portion of the investments for which an investment fiduciary has responsibility. For purposes of this subdivision, "appropriate consideration" shall include, but is not necessarily limited to, a determination by an investment fiduciary that a particular investment or investment course of action is reasonably designed, as part of the investments of the System, to further the purposes of the System, taking into consideration the risk of loss and the opportunity for gain or other return associated with the investment or investment course of action. Trustees shall give consideration of the following factors as they relate to System's investment strategy:
 - (a) the diversification of the investments of the System;
 - (b) the liquidity and income profile of the investments of the System relative to the anticipated cash requirements of the System; and
 - (c) the projected return of the investments of the System relative to the funding objectives of the System.

Every investment will be subject to thorough due diligence, which shall be conducted by Staff with assistance from the Investment Consultant and reviewed by the Investment Committee. Notwithstanding the performance of such due diligence, the determination of whether prudence has been exercised with respect to an investment decision shall be made by taking into consideration the overall diversification of the Fund within the context of its investment strategy rather than evaluating the merits of a single investment in isolation.

In adopting this Policy, the Board requires all Trustees and Staff involved in the investment of Fund assets to make all investment decisions in the best interest of the System and to abide by the System's Ethics Policy. This Policy states that no covered person may solicit, accept, or agree to accept any gifts, personal benefits, or personal favors offered to them because of their position with the System.

Within this context, the acceptance by Staff of invitations to seminars, conferences, receptions and business meals when (1) such event has a presentation or discussion

of topics pertinent to the investment of Fund assets or relates to the official duties of the individual and (2) the sponsor or a representative of the sponsor is present are permitted if not otherwise prohibited by law. This exception also applies to the acceptance of transportation, lodging and meals in connection with conferences, seminars, and advisory committee meetings where the services rendered by Staff are more than merely perfunctory as in accordance with applicable laws. In all cases, Staff should use reasonable care and judgment to not place themselves in a situation that might cause, or be perceived to cause, a loss of independence or objectivity.

IV. INVESTMENT RISK MANAGEMENT

Purpose and Scope

The Board recognizes that bearing prudent levels of compensated investment risk is critical in meeting the Fund's long-term return objectives, which are in turn essential to the sustainable provision of adequate benefits.

- Market Risk (i.e., Volatility or Absolute Risk):** Market risk is associated with making investments in the pursuit of long-term capital gains while facing the potential for infrequent but significant losses. Market risk is typically defined in terms of market volatility, which is often expressed as the standard deviation of monthly returns over three or more years. Given the System's purpose, liquidity requirements, absolute return objective and predictability of contributions, the Board elects to assume levels of market risk, defined as realized long-term volatility, of approximately 10%-12% on an annualized basis. ~~Based on this philosophy, the Board expects that market risk will likely rank in the second or third quartile of its comparable peers over the long term, but notes that differences in asset mix and risk regimes may cause risk to be higher or lower than these peer rankings.~~
- Active Risk (i.e., Tracking Error or Relative Risk):** Active Risk refers to the amount of risk in the portfolio that is attributable to the management decisions made by its fiduciaries. A common measure of active risk is commonly called tracking error, which can be best estimated within portfolios of tradable liquid securities.

Tracking error budgets relative to the assigned benchmarks are established for the total Fund and its actively managed public market portfolios as follows:

	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

These figures shall be measured on both a realized and prospective basis using rolling three- and five-year horizons. Deviations from these risk ranges will be

reviewed with the Board via the Investment Committee along with the justification and recommended remedy.

- **Mission Risk.** Risk for the System should also be viewed more broadly to include the probability of not meeting its primary investment objective, which is to enable the provision of promised benefits in perpetuity. To this end, the Investment Risk Management effort seeks (1) to identify the key sources of uncertainty with the greatest potential impact on Fund performance, (2) to identify potential regime changes in market conditions that could have significant impact on the long-term performance of the Fund (such as economic growth and inflation) or affect the appropriateness of its asset allocation parameters and/or implementation approach, and (3) to measure, monitor and manage those risks in view of the level of compensation that has been realized and is expected for bearing those risks.

This risk budgeting framework defines the Board's tolerance for volatility and tracking error at the Fund level and provides a transparent, measurable methodology for allocating risk to implementation efforts in pursuit of the System's investment objectives. To ensure that this Risk Budget continues to be appropriate it will be reviewed at least annually concurrent with the Strategic Asset Allocation review and formal asset allocation study. A more in-depth review will be done at least every five years and coincide with the formal Asset/Liability Study.

Other Types of Investment Risk

The Board takes several steps throughout the investment process to identify, measure, and report on investment risk at a variety of different levels. The key risks that are to be identified and addressed in the internal processes of the Investment Staff include:

- **Strategy Risk:** Strategy risk is the risk of pursuing an inferior investment strategy due to lack of clarity in investment beliefs, objectives, and/or risk tolerance. To the extent any of these decision components change, the parameters established in the Strategic Asset Allocation may no longer be appropriate and require review. To ensure that the Strategic Asset Allocation process and parameters remain appropriate:
 - A formal pension financial (asset/liability) study will be conducted at least every five years, or whenever there have been material changes to the contribution or benefit policy.
 - A formal asset allocation study will be conducted at least every three years to validate or amend the SAA parameters.
 - The Strategic Asset Allocation process and parameters will be reviewed at least annually for reasonableness relative to significant economic and market changes and to changes in the Board's long-term goals and objectives.
- **Asset Allocation Risk:** The Board uses a number of critical assumptions to set the Strategic Neutral Allocations and Rebalancing Ranges for the Fund as part of the SAA process. This effort is in support of its goal of establishing an investment program that will allow the System to meet its long-term liabilities through investment returns as well as contributions, but faulty assumptions can

jeopardize this aim. The Board via the Investment Committee will monitor these assumptions as well as Fund positioning relative to SAA parameters set forth elsewhere in this Policy at least quarterly.

- **Implementation Risk:** Implementation Risk is the risk of losses or unmet expectations due to either poorly designed investment guidelines or Managers not delivering on the expectations that are embedded in well-designed guidelines. These risks are managed through proper and timely initial and ongoing due diligence programs, portfolio oversight and monitoring, and a willingness to make timely changes when appropriate.
- **Liquidity Risk:** The Board acknowledges that sufficient liquidity must be maintained to meet benefit payment and other obligations. The allocation to highly liquid investments will be monitored on a quarterly basis, as will the Fund's anticipated contributions, benefit payments, and any capital calls or other investment or operational commitments. Liquid investments may be used to meet short-term cash needs and due consideration will be given to transaction costs when raising cash to meet benefit payments and other commitments.
- **Currency Risk:** ~~†~~To the extent that the Fund invests extensively in international markets, a negative currency return may result from adverse movements in foreign exchange rates. Over long periods of time, currency movements are not expected to add significant returns to the portfolio but may add to its volatility. As such, the Board may authorize Staff to hedge this risk or seek return from this risk by employing active currency management at the Fund level. The Fund utilizes unhedged benchmarks and does not require its Managers to hedge the currency exposure in their portfolios.
- **Leverage Risk:** Leverage is an exposure to an asset class that is not fully collateralized by cash or an exposure to an asset that has been acquired without being fully funded. There are two primary types of leverage: financial leverage and economic leverage. Leverage by itself does not necessarily create additional market risk or variation in market returns, and in fact can be used to deliver greater diversification and better risk-adjusted returns than an unlevered but concentrated portfolio.

The Fund has exposure to leverage through different structures and vehicles and that leverage is inherent in some investment strategies as a means to achieve their target market exposures. The use of leverage will be monitored in portfolios where derivatives or other forms of leverage are employed (such as in Real Estate and Infrastructure) and also at the Fund level.

- **Statutory Risk:** The Board will track compliance with any and all statutes or laws related to the investment program.
- **Solvency Risk:** Trends that could serve to erode the long-term funded status of the System (such as low investment returns, weak global growth, and poor demographics) are to be identified, considered, and evaluated on a regular basis.

V. ASSET ALLOCATION

Strategic Asset Allocation

The Board, with advice from Investment Staff and Investment Consultant, is responsible for establishing the Strategic Asset Allocation (SAA) process and parameters for the Fund. SAA refers to the establishment of neutral weights and suitable ranges for the appropriate asset types (i.e., financial instruments sharing certain fundamental and risk-based characteristics) that determine the distribution of investments within the Fund. The SAA process will seek to optimize expected return net of fees for the Fund within the established risk budget over a long-term horizon by maintaining a highly efficient portfolio at all times. Key parameters of the SAA in this regard will include the Strategic Neutral Allocations, Strategic Rebalancing Ranges, and Tactical Rebalancing Ranges as described further below.

Since the Fund is designed to benefit both current and future generations of beneficiaries, its time horizon is long. More specifically, the Board should calibrate the SAA process toward the aim of meeting the System's investment objectives and risk budget over a time horizon of ten years or more. However, since the benefit payment obligations of the System must be met on a timely and regular basis, cash flow considerations (including the potential for a sustained period of net outflows) will generally be given precedence over the long-term liability stream when setting the SAA parameters and the associated risk budget.

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. These periodic studies will provide the primary basis for significant changes to the Fund's strategic asset allocation parameters.

The primary objective of the Asset/Liability Study shall be the development, through statistical modeling techniques and the use of capital market assumptions, of a highly diversified portfolio structure that specifies a long-term neutral position for each asset class and sub-asset class (the "Strategic Neutral Allocation") as well as prudent maximum and minimum ranges ("Rebalancing Ranges") of portfolio exposures around those neutral weights. These SAA parameters represent the policy weights on a market value basis that, under current assumptions and when effectively implemented by Staff, are expected to maximize the probability of meeting the Board's investment objectives.

Experience has shown that the long-term performance of the SAA process depends greatly on the accuracy of the assumptions used to establish its key parameters. As such, this information should be monitored continually and revisited regularly by Investment Staff with the results reported to the Board each quarter via the Investment Committee. Formal reviews of the adopted SAA parameters using updated capital market assumptions and other market-related inputs shall also be conducted at least annually.

Asset Class Diversification

The Board has found it prudent to diversify both across and within the major asset classes in order to construct a highly efficient portfolio (i.e., one that delivers strong compound returns on a long-term, risk-adjusted basis). Each of the major asset classes outlined below provides a distinct and purposeful role within the Fund, and careful attention should be paid to the changing correlations between them. The sub-asset class categories within each major asset class and their proportion of the total are shown below.

Asset Class/Sub-Asset Class Policy Weights & Rebalancing Ranges						
	Asset Class	Min ^S	Min ^T	Neutral	Max ^T	Max ^S
Growth-Oriented Assets	Global Equity	46.0%	51.0%	56.0%	61.0%	66.0%
	US Equity	22.0 %	29.0 %	34.0 %	39.0 %	47.0 %
	DM Equity	11.0 %	13.5 %	16.0 %	18.5 %	20.0 %
	EM Equity	2.0 %	4.0 %	6.0 %	10.5 %	13.0 %
	Real Assets	10.0%	11.0%	15.0%	19.0%	20.0%
	Real Estate Equity	5.0%	7.0%	10.0%	13.0%	15.0%
	Infrastructure Equity	0.0%	1.0%	5.0%	7.0%	10.0%
Liquidity & Diversifying Assets	Fixed Income	16.0%	18.0%	21.0%	27.0%	33.0%
	US Treasuries	9.0%	11.0%	13.0%	21.0%	25.0%
	US Mortgages	2.0%	3.0%	4.0%	6.0%	8.0%
	US Credit	1.0%	2.5%	4.0%	7.0%	10.0%
	Multi-Asset	2.5%	4.5%	7.0%	12.5%	15.0%
	Asset Allocation	2.5%	3.5%	5.0%	7.5%	10.0%
	Commodities & Other	0.0%	1.0%	2.0%	5.0%	10.0%
	Cash & Equivalents	-10.0%	-5.0%	1.0%	5.0%	10.0%
	US Dollar instruments	-10.0%	-5.0%	1.0%	5.0%	10.0%
	Other currencies	0.0%	0.0%	0.0%	1.0%	2.0%

T: Tactical Rebalancing Range S: Strategic Rebalancing Range

While proper diversification is prudent and central to the System's investment strategy of bearing prudent levels of well-compensated risk, over-diversification can be detrimental to the Fund. Therefore, the Board will not typically consider a sub-asset class for inclusion in the SAA framework that does not warrant a maximum weight of least 4%, with Cash & Equivalents and Commodities & Other being the standing exceptions.

Based on its most current determination of the appropriate risk tolerance of the Fund and its long-term return expectations, the Board in consultation with the Staff and Investment Consultant has established the Strategic Neutral Allocations, Strategic Rebalancing Ranges, and Tactical Rebalancing Ranges as percentages of the Fund's asset classes and sub-asset classes shown ~~below~~^{above}. These prescribed ranges for the policy weights allow for the fluctuations in Fund positioning that are

inherent in market values of portfolio investments and for prudent risk management for the Fund in pursuit of an efficient portfolio.

These rebalancing ranges are established according to the following philosophy and criteria:

- Tactical Rebalancing Ranges are calibrated to reflect the diversity of asset mix among peers with second or third quartile allocations as determined by investment consultant data. These ranges aim to delineate the typical operating range of the actual positioning of the Fund under normal market conditions.
- Strategic Rebalancing Ranges are calibrated to reflect the diversity of asset mix among peers with first quartile and fourth quartile allocations excluding those peers in the top or bottom five percent as determined by investment consultant data. These ranges aim to delineate the less typical operating range of the actual positioning of the Fund under unusual market conditions.

Fund positioning shall in all cases conform to the prescribed ranges unless otherwise authorized at a regular or called meeting of the Board.

Rebalancing

The goal of rebalancing is to ensure that the long-term investment objectives of the System are achieved by allowing Investment Staff the flexibility to adjust for market movements and to adapt Fund positioning to current market conditions. The Board has chosen to adopt a rebalancing policy that allows Investment Staff to rebalance the portfolio between major asset classes as well as within the sub-asset classes, a framework that is governed by the Board-approved risk budget and ranges rather than fixed allocations or time periods. These ranges are specified in the table above and are a function of the volatility of each asset class and sub-asset class relative to the proportion of the Fund allocated to each.

The Strategic Rebalancing Ranges serve to establish the outer bounds for the allocation of the Fund and to allow for flexibility during times of market stress or dislocation. The Tactical Rebalancing Ranges allow for routine fluctuations that are inherent in market values of portfolio investments and establish Board-approved parameters for management of the Fund's risk exposures and overall diversification level by Investment Staff.

Staff is authorized to effect rebalancing under any of the following three conditions:

- **Market drift:** Market movements and cash draws for benefit payments may cause current Fund positioning to drift away from neutral positioning and potentially beyond the prescribed ranges above.
 - When a month-end report shows that Fund positioning has drifted outside the Strategic Rebalancing Ranges at either the asset class or sub-asset class level, rebalancing shall be effected to increase/decrease its positioning at least to the midpoint of the Strategic Rebalancing Ranges but no more than to the Tactical bands by the end of the next month. This shall be interpreted as exceeding the highest or lowest boundary. The

Executive Director may grant in writing a temporary deviation to not effect rebalancing if best-available custodian data indicates that positioning has drifted back to within the Strategic Rebalancing Ranges during the next month.

- When two consecutive month end reports show that Fund positioning has drifted from within to outside the Tactical Rebalancing Ranges at either the asset class or sub-asset class level, rebalancing shall be effected to increase/decrease its positioning at least to the Tactical band but no more than to the neutral allocation by the end of the next month unless a temporary deviation until the next Investment Committee meeting is granted in writing by the Executive Director.
- Determinations made under this authority shall include adjustments as needed to account for notional exposures beyond the market values shown in reports from the custodian and/or investment consultant. Any rebalancing under this authority shall be carried out by Investment Staff after prior notification to the Executive Director and in consultation with the Investment Consultant.
- **Risk management:** Changing market conditions may cause the risk-return profile of the Fund to deviate from the risk budget prescribed in this document. Changing market conditions may also cause the near-term risk/return characteristics of one or more asset classes or sub-asset classes to diverge from its long-term absolute fundamentals or from its peers on a relative basis. In such cases, one or more deviations from neutral positioning may be desirable to improve the risk-return profile (i.e., the diversification level) of the Fund overall.

When the analytical framework employed by Investment Staff, which for the purposes of this Policy shall be referred to as the Investment Risk Framework (IRF), leads to a determination that one or more deviations is likely to be advantageous to the Fund's risk-return profile, Staff is authorized to rebalance the Fund within the Tactical Rebalancing ranges for both asset class and sub-asset classes. Such rebalancing authority under this provision shall be distinct from any authority to reallocate between managers granted by this Policy or the IIP.

The IRF, including its underlying philosophy and key inputs, will be approved by the Board prior to deployment and its outputs reported at regular meetings of the Investment Committee and more frequently if market conditions warrant. The Executive Director shall be responsible for ensuring that rebalancing undertaken under this authority is based on the consistent application of the IRF.

Rebalancing activities under this authority shall result in Fund positioning that falls within the Tactical Rebalancing ranges and conforms to the risk guidelines set forth elsewhere in this Policy unless otherwise authorized by a regular or called meeting of the Board.

- **Phased transition:** During times of phased transition to a new set of SAA parameters, interim rebalancing weights and procedures may be chosen until the implementation of the new parameters can be prudently completed. In addition, Staff and Consultant may each recommend to the Board temporary deviations from these weights if it is believed that doing so can be reasonably expected to further the investment objectives set forth in this Policy or to more effectively implement the program. During the transition towards the new parameters, certain asset classes may exceed prescribed limits and will serve as either a funding source for new strategies or portfolios, or as a proxy pending implementation of certain allocations.

Investment Staff is responsible for developing and overseeing all portfolio rebalancing activities, and is authorized to carry out these activities in accordance with this section. All rebalancing activities permitted by this section must be authorized by the Executive Director in the form of approved instructions to the investment manager(s) and/or custodial bank.

In all cases the potential benefits of rebalancing must be weighed against the costs, including explicit transaction costs such as commissions and market impact as well as opportunity costs such as Staff time and focus. Investment Staff will report the results of rebalancing activity to the Executive Director and Investment Consultant upon completion of the rebalance. The Board shall be notified of any such changes (1) by email within one business day of initiating the rebalancing with the Custodian and/or Manager(s) and (2) in writing at the next regular meeting of the Investment Committee.

VI. OPERATIONAL GUIDELINES

For the purposes of operational risk management, investment activities shall also be subject to the following guidelines:

- **Diversification.** Fund investments will be broadly diversified in order to minimize the risk of large losses from individual securities. The Fund will have beneficial ownership (as determined pursuant to Rule 13d-3 of the Securities Exchange Act of 1934) of no more than:
 - 3% of its investments at market value in the securities of any one corporation;
 - 5% of any class of voting securities of any one public corporation; and
 - 20% of a single commingled investment vehicle, based on market values, except as explicitly approved by the Board as a seed investment.
- **Counterparty Requirements.** Counterparty creditworthiness will be monitored closely, and the following restrictions shall apply:
 - The Custodian(s) shall maintain a credit rating of at least A+ or equivalent
 - Futures Commission Merchants shall maintain a credit rating of at least A+ or equivalent
 - Broker/dealers shall be selected by Investment Managers in accordance with their internal trading policies as reviewed during the due diligence process

Credit ratings criteria should be met on both a long-term and short-term basis as rated by at least one nationally recognized statistical ratings organization (NRSRO) such as Moody's, S&P, and Fitch.

- **Leverage.** In addition to gross notional exposure, net exposure levels will be monitored at the asset class level and at the Fund level. Financial leverage is restricted at the Fund level to risk management purposes as described further in this section. Financial leverage is permitted under this Policy as a result of the following permissible activities:
 - Derivative overlay strategies used to carry out the System's investment strategy and deployed within the parameters of the Strategic Asset Allocation;
 - Derivative overlay strategies used to implement currency hedging;
 - Embedded leverage within commingled fund structures; and
 - Collateralized funding including securities lending activities.
- **Derivative Instruments.** The only authorized uses of derivative instruments are (1) to efficiently manage portfolios and risk and (2) to implement investment strategies authorized by this Policy more effectively and at a lower cost. The following derivative instruments are allowable, subject to the constraints listed below: futures, forwards, structured notes, and options. At the Fund level, purchases or short sales, or both, of appropriate derivatives may be used to:
 - Manage the total Fund more efficiently by altering its market (systematic) exposure in lieu of trading the underlying cash market securities;
 - Hedge and control risks so that the risk-return profile of the total Fund is more closely aligned with its target risk-return profile; and
 - Facilitate transition trading when rebalancing or reallocating among permissible investments as a result of policy changes.

Managers may only engage in derivatives transactions that are consistent with their investment guidelines as well as applicable laws and regulations.

~~Specifically, these instruments may be used for constructing portfolios with risk and return characteristics that could not be created with cash market securities consistently with the objectives in this Policy and in compliance with applicable law.~~

- **Cash Management.** As a mature pension plan, cash disbursements of the System are expected to exceed cash receipts for the medium term. As such, sufficient funds must be made available for transfer from the System's investments to meet the operating needs of the System. On at least a quarterly basis, Finance Staff will project the cash flow needs of the System based on the amount budgeted for administrative expenses and projected benefit payments, including retiree payroll. Cash draws should generally be made from asset classes and individual portfolios that are overweight relative to their strategic neutral weight, with those funds then transferred to the System's cash account at the Custodian Bank. A standing direction may be issued for monthly transfers from managed investments to address projected cash flow needs.

Each month, the Chief Financial Officer will review the anticipated disbursements, and will compare the disbursement requirements to funds available at the Operating Bank. A recommendation of the amount of cash draw required from the Custodian Bank will be made to the Executive Director, who will authorize the Custodian Bank to transfer the required funds to the Operating Bank on a specified date. Each quarter Staff will provide to the Board via the Investment Committee a report detailing all cash movements from the prior quarter that are related to investment program operations.

- **Securities Lending:** The Board may select a Securities Lending Agent(s) to generate incremental income by making term loans of eligible securities. Any such program shall not inhibit the trading activities of Managers and should not run counter to the investment strategy of the Fund overall. The agent(s) or its parent organization must:
 - be experienced in the operation of a fully secured securities lending program;
 - indemnify the System against any loss resulting from borrower default or from its own failure to properly execute its responsibilities under the lending agreement;
 - maintain a SSAE18 or ISAE 3402, as updated by the American Institute of Certified Public Accountants (AICPA) or International Auditing and Assurance Standards Board (IAASB) respectively, compliant report to reflect appropriate internal risk controls involved in financial reporting and outlining procedures for the ongoing monitoring and evaluation of those controls;
 - maintain a rating of at least “A” by two NRSROs; and
 - maintain Tier 1 and Total Capital Ratios of at least 7% and 10%, respectively.

The agent(s) shall have full discretion over the selection of borrowers and shall continually review credit worthiness of potential borrowers through adequate analysis of all relevant information. The agent must act as a fiduciary in the management of the account and manage the market risk of the reinvestment of cash collateral through careful monitoring and consideration of the maturity structure of the reinvested cash collateral relative to the System’s outstanding loans.

The securities lending program shall utilize a high-quality and reasonably conservative cash collateral re-investment program that safeguards the return of principal and maintains adequate daily liquidity to support trade settlement activity and portfolio restructuring activities. Cash collateral or US Government securities must be received by the Securities Lending Agent, and should be held in a fully paid segregated account invested according to approved guidelines described below:

- All loans shall be fully collateralized with cash, government securities or irrevocable bank letters of credit. Collateralization of such loans shall be at least 102% domestic/105% international of the market value of the loaned securities plus accrued income for U.S. and non-U.S. loans, respectively.

Such collateralization procedures should be marked-to-market daily by the agent.

- The securities lending agent must have written/internal guidelines for the investment of cash collateral, which shall be reviewed and incorporated into the System's agreement with the securities lending agent. A copy of the agent's cash collateral investment policy shall be sent to the System at least annually and any time a material change is made to the document.
- Income earned from securities lending in separate accounts will be deposited monthly in an account specified by Staff and invested in short-term instruments until allocated or used as needed to meet the liquidity requirements of the System.
- The agent will be responsible for in-depth ongoing credit review of borrowers, independent of the agent's securities lending decision-makers. Staff may work with the securities lending agent to create and maintain a custom approved borrower list.

Should a violation of these guidelines occur, the Agent will notify Investment Staff within 3 business days who will promptly notify the CIO of the guidelines breach and appropriate steps to remedy the breach (if any), accompanied by a recommendation. However, a breach will not in itself cause the suspension or termination of the lending program.

Cash collateral may also be reinvested through a pooled fund managed by the Securities Lending Agent. Investment Staff shall evaluate and may recommend the use of a commingled pool by considering any liquidity benefits a pooled structure may offer along with its investment objectives, guidelines, restrictions, and strategy. Such analysis will also consider transparency of the investment process and internal controls.

For commingled funds where securities lending is performed by the Manager, Staff is authorized to adjust the allocation between lending and non-lending share classes to manage the risk profile of the program. The Board shall be notified of any such changes (1) by email within one business day of initiating the transaction with the Custodian and/or Manager(s) and (2) in writing at the next regular meeting of the Investment Committee.

- **Securities Litigation:** As a large institutional investor, the Fund frequently holds securities that are the subject of individual and class action securities litigation. The Custodian and other parties (the "Claims Processor") may be appointed by the Board to monitor such lawsuits, report to the Executive Director and Investment Staff, and file notice of claim or other necessary documentation. The Claims Processor shall notify Managers of any potential or pending legal action.

In its role as a fiduciary, the Board may, with the advice and assistance of the System's General Counsel, determine that the Fund should pursue litigation where it has been harmed due to securities fraud or other bad acts. In most cases, the Funds' interest in securities litigation claims will be adequately addressed solely through participation as a class member, rather than taking a lead plaintiff role in

such litigation. The following sections outline the process and delegated authority for pursuing lead plaintiff or a separate prosecution of claims.

Screening: The Board has set a "Threshold Value" to determine when the estimated financial loss to the System may warrant pursuing lead plaintiff status in a class action or separate prosecution of claims. The Threshold Value is defined as an estimated financial loss that exceeds 0.03% of Fund assets as of the most recent quarter end. Investment Staff shall promptly notify General Counsel and Executive Director of potential claims that exceed the Threshold Value. In certain rare cases, General Counsel and Executive Director may determine that the materiality of the financial loss to the Fund is exceptional and/or that the Trustee's fiduciary obligation requires active participation as lead or co-lead plaintiff in a class action or separate prosecution of claims.

Designated Authority: In those circumstances that the General Counsel and Executive Director determine that active participation as lead plaintiff in a class action or separate prosecution of claims is advisable, the Executive Director will generally present to the Board a filing recommendation. Notwithstanding the foregoing, the Executive Director is granted authority to make a filing decision in the event that any exigent circumstances require such a decision to be made quickly to preserve or protect any claim or right of the System. The Executive Director shall confer with the General Counsel and notify the Chair of the Board prior to exercising such authority. In all circumstances the Executive Director has authority to not pursue or not recommend a filing. The Executive Director will report any such actions taken in this paragraph at the next regularly scheduled meeting of the Board.

Case Management: The General Counsel or designee bears the primary responsibility for the management of all litigation matters and coordination with the Claims Processor. The authority granted in this paragraph shall be exercised, as warranted, in consultation with the Executive Director and Chief Investment Officer. The General Counsel and Executive Director will report on any ongoing case management matters regularly to the Board throughout any litigation process under this section.

VI. REPORTING, EVALUATION AND REVIEW

Regular performance evaluation of the Fund by the Board is designed to monitor the effectiveness of the investment process in meeting the long-term objectives of the System. The purpose is to test the continued validity of the associated decisions and to prompt a review of underperformance or excessive risk. All performance measurement should be based on total returns, net of fees, adjusted for risk, as measured over a sufficient time period to reflect the benefits of any active decisions (typically a minimum of three years and preferably over five or more years and/or a full market cycle).

Investment Staff and Consultant, in consultation with the Executive Director, shall provide to the Board via the Investment Committee a written summary of the Fund's performance each quarter. This report shall include a comparison to performance benchmark objectives as well as the investment performance of other appropriate funds. The Consultant will conduct an in-depth performance attribution analysis, which will quantify the extent to which specific allocations, strategies, and/or managers added or detracted from overall Fund performance.

Strategic Objectives

The central strategic criteria for Fund performance will be the ability of the Fund's returns to fully fund the liabilities of the System over time. That is, the investment program overall should be oriented toward the outcome of achieving a long-term, annualized absolute rate of return that meets or exceeds the assumed actuarial rate of return for the System.

On a regular basis (typically quarterly but not less than annually) the Board will review actual investment results achieved and the attribution of those results to determine whether:

- the Fund meets or exceeds its long-term target rates of return;
- the extent to which Fund risk remains within budget in the pursuit of these objectives;
- the Fund's Strategic Asset Allocation process and parameters remain reasonable and appropriate in light of the long-term goals of the system (including its funding objectives and projected liabilities) and the prevailing conditions in the capital markets.

These assessments should also regularly consider the potential effects of past realized returns on future expected performance, such as whether high recent returns imply lower returns in the future or vice versa. Investment Staff shall report annually to the Investment Committee on the status and performance of delegated responsibilities including rebalancing, manager selection, and risk management.

Investment Risk

Widely accepted quantitative measures of risk such as volatility (i.e., standard deviation of returns) shall be regularly measured and monitored. The risk management efforts of the program are also to consider other statistical measures of historical and projected absolute risk such as Value-at-Risk (VaR) and maximum drawdown. While acknowledging that investment risk cannot be eliminated but can instead be managed through appropriate diversification, the Board seeks to ensure that investment risks are adequately rewarded over time and that return expectations are consistent with the risk budget established by the SAA process. The program should target a long-term Sharpe Ratio of at least 0.5 for the Fund overall to ensure a level of investment efficiency in risk taking that is on par with its best-in-class peers the System is well rewarded for the investment risks it chooses to bear.

Risk monitoring activities should also consider downside risk, which for these purposes is considered to be the permanent impairment of capital. However, since many risk models assume normality of returns and thus often fail to anticipate the

severity of drawdowns, it is imperative to monitor the Fund's downside risk using forward-looking techniques such as scenario analysis and stress testing. These techniques can provide insight into potential future downside risks by utilizing historical market dislocations and potential future events to consider the resulting impacts on the portfolio. As such, these approaches will be incorporated into the Asset/Liability Studies and should also be incorporated into regular reporting where possible.

For actively managed strategies, the investment program should target an Information Ratio of at least 0.5 to ensure that the associated risk is adequately compensated. However, when relying on relative measures of risk such as tracking error, it is critical to note that the tracking error calculation does not distinguish between strategies that increase absolute risk from those that reduce it. As such, relative measures should be evaluated in conjunction with the absolute level of risk borne by that asset class or investment strategy. For example, when an asset class or investment strategy is outperforming its stated benchmark, if it does so with substantially more absolute risk than the benchmark that investment may in some cases be deemed unsuccessful. Likewise, the underperformance of a stated benchmark with substantially less risk may in some cases be deemed a success.

Fund/Asset Class/Sub-Asset Class Performance

Each asset class is to be benchmarked by an associated index that describes, in general terms, the opportunity set and return characteristics associated with the asset class. For certain private or more complex asset classes the index should serve as a proxy for expected returns rather than an approximation of the actual investments that will characterize that component of the portfolio. Within each asset class, the Chief Investment Officer, in consultation with the Executive Director, shall adopt portfolio implementation strategies and investment styles to meet the overall investment objective of each asset class. Investment Staff shall report to the Board via the Investment Committee quarterly on the current status and historical performance of these implementation decisions.

The relative performance objectives for the Fund are to obtain risk adjusted net returns equal to or greater than the stated benchmark, including incremental returns that are proportionate to the amount of additional risk (tracking error or other appropriate risk metric) assumed. Benchmark returns for composite allocations are weighted according to the Neutral Weights set forth in the SAA parameters. Specifically, the Fund's net return shall aim to meet or exceed the:

- **Passive Benchmark:** This benchmark is intended to reflect the investment mix prevailing among institutional peer portfolios as implemented via low-cost passive investable indices. Outperformance relative to this benchmark should represent the value added through decisions made in the Strategic Asset Allocation process and should be evaluated on a risk-adjusted basis. As such, this can be interpreted to show the value of pursuing an investment program and the Board's adoption of a highly diversified portfolio structure. The Passive Benchmark will be set as outlined below.

Major Asset Classes

Asset Class	Weight	Benchmark Index	Bloomberg Ticker
Global Equities	60%	MSCI All Country World Net Total Return USD Unhedged	NDUEACWF
Global Fixed Income	40%	Bloomberg Global Aggregate Total Return USD Unhedged	LEGATRUU

- Policy Benchmark:** This benchmark is intended to reflect a passive implementation of the neutral weights established by the Board during the SAA process, and outperformance should represent the value added by investment implementation and risk management activities. As such, this can be interpreted to show the value gained while implementing this Policy through a variety of activities including, but not limited to, manager selection, index selection and Fund positioning. The Policy Benchmark is a neutral weighted composite of the benchmarks selected to track the major asset classes in the Strategic Asset Allocation and as such shall also be known as the Fund's Strategic Benchmark. The Strategic Benchmark will be set as outlined below.

Asset Class/Sub-Asset Class Benchmarks		
Asset Class	Benchmark Index	Bloomberg Ticker
Global Equity	MSCI All Country World IMI Net TR	MIMUAWON
US Equity	MSCI USA Net TR	NDDUUS
DM Equity	MSCI World ex-US Net TR	M1WOU
EM Equity	MSCI Emerging Markets Net TR	NDUEEGF
Real Assets	Neutral weighted blend of sub-asset class benchmarks	
Real Estate	FTSE NAREIT Equity REITS TR	FNRETR
Infrastructure	S&P Global Infrastructure Net TR	SPGTINNT
Fixed Income	Bloomberg Global Aggregate Bond TR	LEGATRUU
US Treasuries	Bloomberg US Treasuries TR USD	LUATTRUU
US Mortgages	Bloomberg US MBS TR USD	LUMSTRUU
US Credit	Bloomberg US Credit TR USD	LUACTRUU
Multi-Asset	COAERS Passive Benchmark	
Asset Allocation	COAERS Passive Benchmark	
Commodities & Other	Bloomberg Commodity TR Index	BCOMTR
Cash	Bloomberg 1-3 Month US T-Bill	LD12TRUU
US Dollars	Bloomberg 1-3 Month US T-Bill	LD12TRUU
Other currencies	Bloomberg 1-3 Month US T-Bill	LD12TRUU

- ~~Top Quartile of comparable peers, which is to be used as a measure of the performance realized from the prevailing opportunity set within the global capital markets.~~

The baseline time period for achieving these objectives is three years, though shorter and longer time periods should also be considered. These benchmarks should be reviewed annually for potential adjustment, with attention paid to the selection of the constituent indices for continued relevance, applicability, and investability. These benchmarks are not expected to change except to reflect substantial changes in either long-term market opportunities and/or asset allocations by the System or its institutional peers.

Similar to the total Fund, the performance objective for asset class and sub-asset class composites is to obtain risk-adjusted returns in excess of those of stated objectives and peer results. Active returns relative to the adopted benchmark returns are expected to exceed the cost of management and be proportionate to the amount of risk assumed.

DRAFT



Board Approved Policy

Subject: Investment Implementation Policy

Review Committee: Investment Committee

Date Implemented: December 11, 2018

Date Updated: ~~March 30~~December 19, 2023 [effective ~~April~~January 1, 2023~~2024~~]

Signature of Chairperson: _____

Yuejiao Liu



Revised
~~March 30~~December 19, 2023

Investment Implementation Policy (IIP)

for

City of Austin Employees' Retirement System (COAERS)

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CITY OF AUSTIN EMPLOYEES' RETIREMENT SYSTEM INVESTMENT IMPLEMENTATION POLICY (IIP)

I. PURPOSE, SCOPE AND REVISION

This Policy aims to support the ability of the Board of Trustees and Investment Staff of the City of Austin Employees' Retirement System (the "System") to carry out their responsibilities with respect to selection, contracting, monitoring, and retention of Managers. This Policy is intended to complement the Investment Policy Statement (IPS) and is hereby incorporated into that document by reference. The Board will formally review this Policy at least annually to determine whether it remains appropriate considering the Board's investment philosophy and objectives, changes in the capital markets, and/or Fund structure. Any revisions to this document will be supplied to the appropriate parties promptly in written format.

This Policy and all addenda hereto are to be construed and administered such that they comply with all applicable federal, state, laws and regulations, as such may be amended from time to time. The Executive Director is authorized to approve variances from the policies set forth herein in furtherance of such compliance. The Executive Director is also authorized to update this Policy for strictly administrative items subject to approval by the General Counsel. The Executive Director shall report any variances or updates to the Board via the Investment Committee at its next quarterly meeting.

II. STRATEGY AND PHILOSOPHY

The Board has granted authority to the Investment Committee to oversee Managers and make recommendations to the Board regarding the System's Premier List. The Board believes that a superior process for developing and maintaining these relationships is critical to achieving the System's strategic goals ~~of consistently delivering results that are in the top quartile of peers~~. In this regard, the Board intends this process to deliver long-term performance that is superior to the traditional approach to manager selection that focuses heavily on recent returns relative to a benchmark.

The Fund will develop long-term, mutually beneficial partnerships with Managers that meet or exceed the objectives of their specific mandates. To that end, the Board supports disciplined and rigorous processes for selection, monitoring, and retention of Managers, processes that are to be set forth in greater detail within internal Investment Staff procedures.

Implementation decisions should be made with particular attention to the Board's stated Investment Beliefs regarding the potential benefits of diversification and the significant impact of costs. Within that context, implementation of the investment strategy and Strategic Asset Allocation parameters set forth in the IPS may be carried out through:

- both public and private market vehicles, with public markets representing the default given their lower cost structure and greater liquidity. Specifically, private markets investments should be expected to add meaningful amounts of diversification to the Fund and/or earn returns that compensate at least fairly for the incremental risks (such as illiquidity, governance, etc.) that such structures typically entail.
- through both active and passive strategies, with passive strategies representing the default option given their lower cost structure and greater liquidity. Specifically, active management should be expected to add meaningful amounts of diversification to the Fund and/or earn returns that compensate at least fairly for the incremental risks (including tracking error, turnover, etc.) that active strategies typically entail.
- through both pooled vehicles and separate accounts, with separate accounts representing the default option given their greater transparency, customization, and liquidity. However, it is recognized that in some strategies and geographies (such as emerging markets) pooled vehicles may offer significant advantages over separate accounts such that they become the preferred implementation approach.

While the System may find great strategic benefit and economies of scale in concentrating its assets with certain managers, such concentration also carries potential risks. In active strategies no more than 15% of the System's investments shall be managed on a permanent basis by a single investment firm and for passive index strategies no more than 30%. Under no circumstance may any Manager oversee more than 30% of the System's investments. The System's investments shall not permanently constitute more than 20% of any firm's assets under management within the asset class managed for the System. Quarterly reporting on these restrictions shall be provided by Managers and presented by Investment Staff to the Board via the Investment Committee.

III. FIDUCIARY CONDUCT

In all cases, relationships with Managers should seek to mitigate agency problems and conflicts of interest that prevail in the financial services industry. Specifically, the use of performance-based contracts should be considered whenever possible. Conflicts of interest shall be disclosed at least annually or as required in accordance with the System's Ethics Policy. The process for selecting, monitoring, and terminating Managers shall protect against improper and/or unethical behavior including bribery, corruption and other contact between System representatives and Managers intended to influence the outcome inappropriately. Direct inquiries by Managers to individual Trustees regarding the System's investment program will be referred to Investment Staff.

IV. MANAGER RESPONSIBILITIES

The Board, acting through its Investment Committee and with advice from Investment Staff and its Investment Consultant(s), hires Managers to carry out its duties to implement the System's investment program. The terms, provisions, and

requirements set forth in this Policy, the IPS, applicable laws (which shall include US sanctions programs), relevant fund documents, and the agreement(s) executed by the Manager with the System (sometimes referred to herein as the “IMA”) establish the requirements governing the investment of System assets. Such requirements are sometimes collectively referred to as the “Guidelines” hereinafter.

The execution and delivery of an Investment Management Agreement (IMA) or other agreement approved by the Board by the Manager is an acknowledgement by the Manager that it has received the IPS and this policy, and that it will fully comply with the applicable terms and provisions therein as well as those of the IMA and all other Guidelines. No deviation or exemption from these requirements is permitted unless specifically authorized by the Board.

Within these Guidelines, Managers with live mandates are granted full discretion to manage the assigned Portfolio(s) by selecting specific investments as appropriate, either in a pooled vehicle or separate account as agreed with the System. Within this context of the strategy or strategies it is assigned, each Manager is expected to:

- maintain a consistent philosophy and strategy,
- perform well on a risk-adjusted basis versus peers pursuing a similar strategy,
- add value net of all costs, and
- provide investment management in accordance with the Guidelines.

Each Manager with a live mandate shall comply with all Annual and Quarterly Reporting Requirements set forth in Appendix III. Each Manager shall promptly inform the Investment Staff and Investment Consultant regarding all significant matters pertaining to its assigned mandate(s).

Each Manager with a live mandate shall maintain the insurance coverage established in their IMA with the System. If this insurance coverage lapses or violates established minimums, the Manager shall promptly notify the Investment Staff and Investment Consultant.

Each Manager with a live mandate is responsible for monitoring transaction costs and settlement processes. Each Manager is hereby authorized and empowered to vote proxies unless this delegation is revoked by the System, and all such voting shall be performed in good faith and for the exclusive benefit of the System participants and beneficiaries.

The Board via the Investment Committee shall be kept informed by the Investment Staff and Investment Consultant of major changes in investment strategy, portfolio structure, market value, strategy/fund assets, and other matters. The Board via the Investment Committee shall also be informed regularly of significant changes in the ownership, affiliation, organizational structure, financial condition, or professional staffing of the Manager’s organization.

V. MANAGER SELECTION

The Board believes that developing long-term relationships with a small group of high potential managers allows for a more thoughtful and robust evaluation of potential candidates than starting each search from scratch. As such, the

Investment Staff, in coordination with the Investment Consultant, will develop and maintain a “Premier List” of 3-4 viable managers (including at least one passive index option, which for Multi-Asset shall include allocating back to the Fund) for potential inclusion within each sub-asset class of the Fund. Doing so is intended to allow for (1) ongoing competitive benchmarking of existing managers and (2) rapid, effective replacement of any Manager that may be deemed by the Board to no longer be able to accomplish its mandate(s), including an emergency termination by the Executive Director as described in this Policy.

Mandate specification. The evaluation of potential Premier List candidates will begin with Investment Staff working with the Consultant to outline the specific needs of the particular mandate for which a Manager would be considered. Key characteristics to be articulated include the portfolio role, potential mandate size, and an evaluation of the likelihood of success for active managers within these mandates. For example, Investment Staff should evaluate the median universe returns within an asset class or strategy to determine whether a typical manager adds value net of all costs, which can in turn inform the extent to which active managers should even be considered.

Initial diligence. Once the specifications of the mandate have been established, available managers should be sourced and filtered from a variety of sources, including:

- Direct sourcing from inbound inquiries, conferences, etc.
- Commercial databases such as eVestment, Preqin, Bloomberg, etc.
- Investment Consultant diligence materials and research

This pool of managers should be screened on minimum performance metrics using performance analysis, Investment Consultant analytics, and philosophical agreement on investment style. Strategies that look promising will be subject to more detailed analysis, including via the use of statistical tools to the maximum extent possible to capture all quantitative information from the available data. For example, the analysis should look beyond the simple time period performance data and consider the trajectory of those returns over time using techniques such as CUSUM analysis. Managers should also be evaluated for fit within the existing portfolio using historical analysis of performance, risk measures, factor exposures, etc.

Finalist evaluation. Potential finalists should complete a strategy-specific Due Diligence Questionnaire (DDQ) on matters that shall include, but not be limited to:

- | | |
|------------------------------|--------------------------|
| • Investment style/process | • Organization/personnel |
| • Historical risk and return | • Fees and other costs |
| • Factor exposures | • Trading capabilities |
| • Assets under management | • Conflicts of interest |

Onsite diligence with potential finalists shall be conducted according to the policies set forth in Appendix II and as supplemented by internal policies. Following the completion of onsite diligence that it deems successful, Investment Staff is authorized to negotiate an Investment Management Agreement (or other fund

documents as appropriate) for the potential mandate as a means to establish the fees and other terms under which an investment could be made by the System.

Review by IC/Board. Investment Staff shall propose successful candidates for the Premier List to the Investment Committee for potential recommendation to the Board, with all proposals including a proposed neutral and maximum allocation. Once approved by the Board, transitions between managers on a Premier List will typically occur with prior notification to the Investment Committee except in the cases of risk management or an emergency as determined by the Executive Director on the advice of Investment Staff and in consultation with the Investment Consultant. If the allocation to a manager breaches the maximum approved by the Board on a quarter end report, Staff shall report this variance to the Investment Committee at its next regularly scheduled meeting as well as any recommendations to bring the allocation to within guidelines. In the event of a transition, the Executive Director will notify the Board (1) by email within one business day of initiating the transition and (2) in writing at the next quarterly meeting of the Investment Committee. In all cases the potential benefits of transition must be weighed against the costs, including explicit transaction costs such as commissions and market impact as well as opportunity costs such as Staff time and focus.

Investment Staff shall also propose any removals from the Premier List to the Investment Committee for potential recommendation to the Board. The Premier List for each asset class shall be presented to the Investment Committee for ongoing review at least annually.

VI. MANAGER CONTRACTING

General investment guidelines are described within the asset class guidelines contained in this Policy and the IPS. In addition, guidelines more specific to a Manager's mandate may be appropriate and will be documented in the Manager's contract, side letter, or other agreements with the System. The Board may delegate to the Executive Director authority to contract with Managers subject to approval of the General Counsel and/or Investment Counsel regarding the form of the agreement and its consistency with Board intent.

In advance of funding, consensus should be reached among the Investment Staff, Investment Counsel, and the Manager regarding specific parameters to be contained in the Manager's contract which will include:

- authority of the Manager
- specific descriptions of the mandate
- relevant restrictions reflecting the risk management policies
- benchmarks and performance standards
- communication and reporting requirements
- proxy voting responsibilities
- fees
- termination clauses

The IPS, IIP and subsequent revisions must be referenced and become a part of all agreements related to separately managed accounts.

While managers will typically be compensated based on assets under management, the System may also enter into performance-based fee agreements with managers as a means to enhance alignment. While each specific contract will be the ultimate authority regarding the actual compensation arrangement, the following features should be consistent in any such contract unless otherwise determined to be favorable to the System:

- A **base fee** will be paid quarterly to the manager regardless of performance.
- A **percentage sharing formula** shall calculate the dollar amount of manager's net outperformance (net of the base fee) over the assigned benchmark for the determined period subject to a highwater mark, hurdle rate and/or loss carryforward as appropriate.
- A **performance fee ceiling** expressed in basis points that will not be exceeded regardless of performance.
- A rolling **time horizon** period for which the returns of both the Portfolio and the benchmark will serve as the basis for the performance calculation.

The Custodian's pricing of the Portfolio will serve as the primary basis for calculation of the specific Portfolio's market value for fee calculations and performance by Investment Staff and Investment Consultant. If such data from the custodian is unavailable or unreliable, verifiable manager data may instead be used as the basis for these calculations. Publisher data will determine the performance of the benchmark. If a Manager has a dispute with the Custodian's pricing, the Manager will express the discrepancy in writing to the Custodian, Investment Staff, and the Investment Consultant. Investment Staff will work with the Manager to resolve any fee calculation disputes.

VII. PORTFOLIO GUIDELINES

All portfolios will be invested exclusively as described here and in the Permissible Investments section. Managers are expected to avoid market-timing decisions by being fully invested at all times except as noted below. Managers will acknowledge that the effects of cash holdings on performance will be included for evaluation purposes.

Strategy Consistency

The most important feature any individual manager brings to the multi-manager diversification approach of the Fund is strategy adherence. Fundamental portfolio characteristics and strategy benchmark comparisons will be continually monitored for adherence to the Manager's assigned strategy.

For equity managers, the market capitalization of each stock in the portfolio shall be within the market capitalization range of the assigned benchmark (e.g., large cap, small cap, etc.) at the time of purchase. If more than 10% of aggregate holdings of the portfolio on a market value basis fall outside the capitalization range of the assigned benchmark for a period of over 30 days, written notification and justification shall be provided to Investment Staff and Investment Consultant.

For portfolios managed within a commingled or mutual fund structure, special reporting and notification arrangements may be granted by the Board on a case-by-case basis (e.g., notification of exception as of quarter-end, etc.).

Currency management within individual portfolios is at the discretion of the active managers with international exposure wherever permitted by the Guidelines.

Diversification

Appropriate diversification of the securities held in the Portfolio among sectors and issuers within the context of the mandate is the responsibility of the Manager. The Manager shall comply with the concentration limitations as presented in this Policy and the Guidelines. SEC Rule 144(a) securities shall be limited to no more than 5% of the portfolio at market value of any manager's portfolio.

Eligible Holdings

Managers shall not initiate any transaction that is in violation of this Policy or the Investment Policy Statement. In the event that changes in market conditions beyond the control of the Manager (e.g., changes in benchmark construction, change in credit rating, and change in security prices) occur that cause the Manager's Portfolio to violate these guidelines, the Manager shall promptly notify Investment Staff and the Investment Consultant.

If the Manager (as a fiduciary) deems it in the best interest of the Fund to remain in violation of the guidelines, the Manager shall prepare a written recommendation to Investment Staff stating as such. Following the receipt of the written Manager recommendation, Investment Staff shall accept, amend, or reject the recommendation and provide notification to the Board via the next quarterly meeting of the Investment Committee. The Manager shall be notified whether the recommendation has been accepted, and if it is not accepted the Manager will be provided with written instructions. During the period between the occurrence of the violation and the notification of the determination, the Manager (as a fiduciary) shall act as it deems appropriate in the sole interest of the System.

Equity Portfolios

Equity portfolios will be invested in publicly traded equity securities or via strategies that otherwise seek to achieve equity-like levels of risk. Initial Public Offerings are permissible investments, but restricted or letter stock are not permitted. Portfolios invested in publicly traded equities are to be fully invested (defined as less than 5% in cash equivalents) at all times, though cash may be held briefly between the time when a security is sold and a decision is made as to which new security should be purchased. If a manager remains less than fully invested for more than 30 days, the manager shall notify Investment Staff and the Investment Consultant in writing.

Fixed Income Portfolios

Fixed income portfolios will be invested in publicly traded fixed income securities unless otherwise authorized by the Board. Fixed income Managers may be exempted from the requirement to not have cash exceed 5% of the Portfolio value to allow the use of "barbell" strategies in constructing a fixed income Portfolio.

Fixed income securities shall not be rated lower than investment grade (Baa3 by Moody's or BBB- by Standard & Poor's or Fitch) by any of the three designated rating agencies unless authorization is granted to a Manager by the Board or the mandate provided to a Manager specifies otherwise. Split-rated securities in which the middle rating is below investment grade shall not comprise more than 5% of the market value of any Manager's Portfolio unless specific authority has been granted.

The issues of individual entities rated AAA to Aa3 (Moody's) or AA- (S&P, Fitch) may have a 7% position at market value. Issues of individual entities rated below Aa3 (Moody's) or AA- (S&P, Fitch) may have a 3% position at market value.

The ratings criteria and percentage limit requirements do not apply to direct obligations of the U.S. Government and its agencies (including GNMA, FNMA and FHLMC) as defined in the Permissible Investments section of this Policy, but the securities issued by any one issuer shall not otherwise, in the aggregate, exceed the foregoing limitations.

If specific Managers are given latitude to invest in securities issued by non-U.S. entities, the same quality restrictions shall apply.

Money market instruments shall have a minimum quality rating comparable to an A3 (Moody's) or A- (Standard & Poor's and Fitch) bond rating and commercial paper shall be rated A1/P1 unless held in a diversified short-term commingled fund.

VIII. **PERMISSIBLE INVESTMENTS**

Commingled vehicles including mutual funds and limited partnerships must always be invested in accordance with the relevant fund documents such as the prospectus, limited partnership agreement, etc. Managers of such investments must also comply with side letters or other such agreements with the System and promptly notify Investment Staff of any deviations.

For portfolios that are implemented in the public markets, the investments listed below are specifically permitted under this Policy. They are categorized according to the asset allocation guidelines in this Policy and the Investment Policy Statement.

Unless given authorization in writing, managers of public markets portfolios are allowed to invest only in the investments listed below for the asset classes for which they have been retained and, when included in this Investment Policy or the relevant agreement with the System, the assigned benchmark.

Global Equities

- Common Stocks
- Preferred Stocks
- Exchange Traded Funds (ETFs)
- Equity Futures
- Options on Equity Indices, Futures and ETFs

Fixed Income

- Domestic and Yankee Bonds
- Mortgages and Mortgage-Backed Securities
- Asset-Backed Securities
- Global Corporate Bonds
- Global Sovereign Debt
- Fixed Income Futures
- Interest Rate Futures

Cash & Equivalents

- Cash on deposit
- Cash-Equivalent Securities
- Money Market Funds, Bank STIF and STEP Funds
- Foreign currency deposits or futures

Real Assets

- Real Estate Investment Trusts
- Infrastructure Equities
- Options on Fixed Income Indices, Interest Rates, Futures and ETFs
- Digital currencies backed by a sovereign entity

Multi-Asset

- Assets allowable in other asset classes
- Commodity Futures

1. The above asset types may be held in separately managed accounts as well as commingled funds. If held in a Board-approved commingled fund or mutual fund, the prospectus, organizational document, or Declaration of Trust (including the associated list of permissible investments) takes precedence over this document solely to the extent of any conflict with this document, unless provided otherwise in a written agreement between COAERS and the Manager. If held in a collective investment trust, the terms of the relevant group trust governing such collective investment trust shall be incorporated by this reference and become a part of the System's plan solely with respect to the management of the assets held by such collective investment trust.
2. No investment may be made that is prohibited by the Internal Revenue Service, the Department of Labor, or other federal, state, law.
3. SEC Rule 144(a) fixed income securities are allowable but private placement bonds are not.
4. Cash equivalent securities are defined as any fixed income investment with less than one year to maturity or reset date and may also include fully collateralized cash & carry futures strategies with a duration of less than one year.
5. Staff is authorized to select Money Market Funds that offer a constant net asset value (CNAV) and a minimum quality rating comparable to A3 (Moody's) or A- (S&P or Fitch).
6. The following portfolio concentration limitations will apply.
 - The securities representing equity of any one company shall not exceed 6% of the market value of any manager's Portfolio.
 - Fixed income securities of any corporate issuer may not exceed 6% of the Portfolio at market. This restriction also applies to asset-backed securities, non-agency mortgage-backed securities (including commercial mortgage-backed securities) and taxable municipals. This restriction does not apply to any agency mortgage-backed securities (including agency commercial mortgage-backed securities).
 - The total holdings of a federal agency-issued mortgage-backed security of the same coupon and maturity series of the same agency (i.e., issuance by issuance as identified by the same CUSIP) shall not exceed 20% of the Portfolio at market (such securities include, but are not limited to GNMA's, FNMA, and FHMLC).

- The direct debt of the US government (Treasury bonds, TIPS, bills and notes) and its agencies (including any mortgage-backed securities issued or guaranteed by GNMA, FNMA and FHLMC) shall not be restricted as a percentage of the Portfolio.
7. Quantitative or Enhanced Index strategies may deviate from the above concentration limitations provided the manager is following a pre-established process and relative position limitation (i.e., index weight plus 1%) authorized in the IMA or specifically granted as an exception within this Policy. The manager of passive index replication strategies may also deviate from the above concentration limitations to the extent the underlying index does. The Manager shall monitor the account and shall promptly inform Investment Staff and Investment Consultant if the concentration restriction noted above is exceeded regardless of authorization or specifically granted exception.
 8. Equity managers may invest in depository receipts if the underlying security is permissible within these guidelines and the investment does not expose the Fund to any greater risk than the risk from holding the underlying security.
 9. Domestic equity managers can invest in dollar-denominated, SEC registered stock of foreign domiciled companies traded on the NYSE, AMEX or OTC markets. Concentration restrictions for these securities are the same as for any other equity security.
 10. Managers may be hired to invest primarily in closed-end and open-end funds as approved by the Board. In such accounts, closed-end and open-end funds are permissible holdings.
 11. Derivatives are permissible for the purpose of equitizing cash (e.g., an overlay program, reducing cash exposure, or in Portfolio transitions and rebalancing activities).
 12. Managers may be authorized to manage portfolios that gain exposure to asset classes by investing in futures and other derivative instruments.
 13. Securities are not allowed that use any form of leverage in which interest or principal position is tied to anything not specifically allowed in this Investment Policy or the IMA unless otherwise specifically authorized by the Board.
 14. The use of futures to invest in commodities shall include the ability to take delivery of warrants (i.e., legal document of title) as may be advantageous to the Fund.

IX. REPORTING, EVALUATION AND MONITORING

Manager Reporting

Managers with live mandates are required to assist the System in monitoring the Portfolio(s) and applicable data for compliance with the Guidelines. The form, content, and organization of the required report(s) for each Manager shall be presented as detailed in Appendix III. Managers shall immediately notify Investment Staff and the Investment Consultant of any changes in the primary personnel assigned to the

Portfolio, who shall in turn provide notification to the Board via the Investment Committee.

Managers that do not currently have live mandates will assist the System in monitoring the performance of the relevant strategy by proactively supplying regular updates to Investment Staff and Investment Consultant.

All Premier List Managers may be required to provide additional information as may be deemed necessary by the Board, the Investment Committee or Investment Staff.

Valuation Practices

Liquid assets (e.g., publicly traded securities held in SMAs) shall be valued using custodian pricing based on public market data unless an alternative pricing source has been documented in the agreement(s) executed by the Manager with the System.

Less liquid assets (e.g., commingled funds with daily NAVs, etc.) shall be valued using custodian pricing based on third-party sources unless an alternative pricing source has been documented in the agreement(s) executed by the Manager with the System.

Illiquid assets (e.g., limited partnerships and other funds that do not strike a daily NAV, etc.): shall be valued consistent with industry best practices and reported by funds on at least a quarterly basis. The scope of the valuation work must be sufficient to demonstrate that the value of the underlying assets has been appropriately determined. These practices should include but are not limited to:

- Documenting and following their internal written valuation policies.
- Using appropriate, established, industry-specific valuation techniques.
- Notifying Investment Staff and Investment Consultant of any changes to internal valuation policies.
- Ensuring oversight, review, and approval is independent of the portfolio manager.
- Reconciling any significant variance(s) from the prior appraisals.
- Providing sufficient documentation for auditors to re-compute key calculations

If an external valuation firm is used to conduct any part of the appraisal process, they must be performed in accordance with the appropriate authoritative standard for the country in which the asset is domiciled. Any material differences between external valuation and the valuation used in reporting by the Funds, as well the reason for the differences, must be disclosed to Investment Staff and Investment Consultant.

Investment Staff is required to confirm compliance by such funds with appropriate valuation procedures on an annual basis.

Performance Evaluation

Performance evaluation is designed to monitor the process of making manager selection decisions, to test the continued validity of the resulting decisions, and to develop a well-informed assessment of the results achieved related to the risks taken.

Comprehensive reviews will include an appraisal of the Manager's historical performance, current investment strategy or style, and other issues related to the

Manager's organization, personnel, investment philosophy and process. Evaluations may be made using the criteria below and other applicable standards:

- Against appropriate benchmark indices on both a risk-adjusted and nominal basis,
- Against peers within their style groups if data is available,
- Adherence to their stated investment styles,
- Adherence to the IPS, IIP and relevant Guidelines, and
- Against the specific expectations attributed to them within the framework of the System's Strategic Asset Allocation process and parameters.

Passive strategies are expected to produce gross of fees returns that match those of their assigned benchmark (and before accounting for any securities lending income) with low amounts of tracking error.

For actively managed strategies, the total return of portfolios should rank above the peer median on a risk-adjusted absolute and relative basis. Such mandates are to exceed, after fees and long-term on a risk-adjusted basis, the total return of the assigned benchmark. Actively managed mandates should target an Information Ratio of at least 0.5 to ensure that the associated risk is adequately compensated.

When relying on relative measures of risk to evaluate actively managed strategies, it is critical to note that tracking error calculations do not distinguish between strategies that increase absolute risk from those that reduce it. As such, relative measures should be evaluated in conjunction with the absolute level of risk incurred by that strategy. For example, a strategy that has outperformed its stated benchmark with substantially more absolute risk than the benchmark may in some cases be deemed unsuccessful. Likewise, underperforming a stated benchmark with substantially less risk may in some cases be deemed a success.

When performance or organizational issues arise for a specific mandate or Manager, Investment Staff should be in contact with the Manager on a regular basis until the issues are resolved. On a timely basis, normally quarterly, but not less than annually, the Board via the Investment Committee will review actual investment results achieved by each live mandate to determine whether:

1. Each Manager's strategy remains consistent with the Guidelines and the process represented by the Manager.
2. Managers performed in accordance with the Guidelines and objectives set forth herein and satisfactorily when compared with peers and assigned benchmark indices.
3. On an annual basis, Investment Staff and Consultant will review the Manager proxy voting procedures and proxy voting records as submitted in accordance with this Policy; and
4. On an annual basis the Investment Staff and Consultant will review commissions paid, commission rates incurred, and brokerage firms used by Managers. Compliance with specific directives regarding commission cost management will be regularly reviewed.

Shorter term examinations of the performance of each mandate will focus on strategy adherence, peer comparisons and assigned performance benchmarks.

Investment Staff and Investment Consultant, in consultation with the Executive Director, shall on a quarterly basis provide to the Board in writing a summary of the Fund's performance at the mandate level. This report shall include a comparison to performance benchmark objectives as well as the investment performance of other appropriate funds. Both absolute and relative results will be considered in the evaluation of the investment performance by Managers in the execution of the mandates they are assigned.

Staff Reporting

At least annually Investment Staff shall provide a report to the Board via the Investment Committee regarding compliance with the provisions regarding manager assets under management with this Policy. Investment Staff shall also provide a report to the Board via the Investment Committee of investment costs including management fees and commission costs not less than annually.

A comprehensive review of each Premier List Manager, both with and without live mandates, is to be conducted and documented at least annually. These reviews shall include quantitative as well as qualitative factors and should incorporate an onsite visit at least once every three years. The results of these reviews, any ad hoc review, and any resulting recommendations will be reported to the Board via the Investment Committee.

X. RETENTION

Manager retention decisions can have the same potential impact on performance as the initial selection of the Manager, and as such should be afforded the same degree of attention. As in the search process, a discipline is needed which will minimize the probability of retaining an underperforming Manager that will continue to underperform (i.e., a Type 1 error) or terminating a currently underperforming Manager just before a period of strong performance (i.e., a Type 2 error). Statistical methods shall be employed to maximize the probability of making sound decisions, recognizing that such decisions are probabilistic in nature and rooted in inherent uncertainty across all feasible time horizons.

Investment Staff shall maintain a Manager Watch List for the purpose of ensuring that concerns regarding any Manager with a live mandate are appropriately recognized, addressed, and resolved. At the discretion of the CIO based on written internal procedures and in consultation with the Investment Consultant, a Manager may be included on the Manager Watch List. The contents of this list will be reported to the Investment Committee at each regular meeting. Performance for each of these Managers will be subject to additional scrutiny until either (1) the Investment Staff removes the Manager from the Watch List, or (2) a recommendation to terminate the mandate(s) assigned to the Manager and/or remove the Manager from the Premier List is made to the Board via the Investment Committee.

In addition to quantitative factors, adverse qualitative events may be considered a reason to include a Manager on the Manager Watch List. Examples include, but are not limited to:

- Significant changes in firm ownership and/or structure,
- Loss of one or more key personnel,
- Significant loss of clients and/or assets under management,
- Shifts in the firm's philosophy or process,
- Lack of adherence to best execution policies,
- Significant and persistent lack of responsiveness to client requests,
- Chronic violations of this IPS or guidelines, or
- Any other material issue of which Investment Staff and/or Consultant become aware.

Each situation should be handled on a case-by-case basis. Under certain circumstances, the Executive Director may exercise the authority granted within this Policy and the IPS (see Roles and Responsibilities) and act to terminate the mandate(s) assigned to a Manager in accordance with this section and transfer those assets to other manager(s) on the Premier List.

Investment Staff and Consultant shall provide notice to the Board via the Investment Committee when it is judged unlikely that a Manager will achieve the System's performance objectives for its mandate(s). The Board shall then require further action which may include, but not be limited to, special reporting, onsite diligence, or termination. Investment Staff shall notify the Custodian of potential action prior to termination of any live mandate(s), and upon termination shall notify the Custodian as soon as possible to eliminate the Manager's authority to trade the account(s) as appropriate.

Managers are expected to maintain a robust compliance system that tests compliance with the Guidelines on a daily basis, and ideally to do so on a pre-trade basis to ensure that they are in accordance with the Guidelines at all times. However, in the event of a violation of any Guideline(s), Managers must notify Investment Staff within one business day of detection of the violation and must provide a written plan for curing that violation or request an exception specific to the violation, subject to approval by the CIO.

To the extent the criteria above are not met, Managers may be removed from the Premier List and the associated mandate(s) terminated. Notice shall be given pursuant to any agreements between the Manager and the System.

In rare cases where it would be imprudent to delay termination of a Manager's mandate(s) pending formal approval, the Board delegates to the Executive Director the authority to terminate a Manager's mandate(s) and/or initiate redemption from a Fund in which the System is invested. Such termination(s) or withdrawal(s) must be based on recommendation by both the CIO and Investment Consultant, supported by proper documentation and, at the discretion of the Executive Director, reviewed by Investment Counsel and/or General Counsel.

If a Manager is terminated in accordance with this section, the Executive Director is authorized to act on the following, as appropriate, based on recommendation by the Investment Staff and Consultant:

- Transfer assets from the terminating Manager to another Premier List Manager under contract with the System; or
- Transfer authority to manage the assets to another Premier List Manager under contract pending selection of the replacement Manager.

If necessary, the Executive Director is authorized to negotiate a contract with the Manager receiving the assets to reflect the revised scope of their responsibility and related fees in regard to the assets. In determining the proper course of action, consideration will be given to the actual asset and sub-asset allocations relative to target allocations, impending portfolio structure changes, and Investment Manager exposure. If any such action affects Board-approved asset and sub-asset allocation targets, the Board will ratify this action or otherwise direct Investment Staff at the next scheduled Board meeting.

If the Executive Director terminates a Manager's mandate(s) or initiates a redemption process under these circumstances, the Executive Director will immediately notify the Board regarding such action and provide a full report on the matter at the next scheduled Board meeting.

XI. TRANSITION MANAGEMENT

One or more Transition Managers (TMs) may be retained by COAERS to assist in the transfer of assets from one mandate to another. In this capacity TMs may serve as a liaison between the Investment Staff, the Custodian, the Manager distributing assets, and the Manager receiving assets. A key role of TMs is to facilitate clear communication between all parties, work to minimize market impact, trading costs, and opportunity cost. Transitions may occur either within an asset class or between asset classes.

The Executive Director and CIO, with advice from the Investment Consultant, will determine the most efficient and prudent manner to perform the transition, including determining whether to use a Transition Manager, the legacy Manager(s), or the target Manager(s) to effect the contemplated asset restructuring. If the use of TMs is deemed appropriate, Investment Staff will select a Transition Manager from the Board's pre-approved list of TMs after review of pre-trade analysis submitted by the TMs, as well as each Transition Manager's expertise for the asset class(es) to be transitioned.

The Executive Director is authorized to engage a Transition Manager on the Board's pre-approved list of Transition Managers under the terms of a master agreement executed with each such Transition Manager. Such agreements shall require that TMs:

- be a registered investment advisor under the Investment Advisers Act of 1940 as amended (unless properly exempted from registration by the SEC) or

- otherwise regulated by an appropriate governmental regulatory oversight organization (unless exempt from such registration requirement),
- act as a fiduciary to the System and not delegate such fiduciary responsibility, and
 - provide agency-only execution services.

TMs are specifically authorized to utilize derivatives to manage exposures and risks efficiently in any transition.

Following the completion of each transition event, Investment Staff will report to the Board on the results of the selection process as well as the estimated and actual costs of the transition. The Transition Manager will provide a detailed post-trade analysis to Investment Staff, which Investment Staff will summarize for the Board as needed. On a periodic and as-needed basis, Investment Staff and Investment Consultant will provide analysis and a written opinion to the Board as to the status of the Board's pre-approved list of Transition Managers, the qualifications and performance of its members, and other relevant information.

XII. PROXY VOTING

Active voting of proxies is an important part of the investment program and a key fiduciary responsibility of the System. For separately managed accounts, proxy voting is generally delegated to Managers and will be authorized via the Manager's contract to represent COAERS prudently on issues of corporate governance regarding the portfolio. Records of proxy votes will be maintained by the Managers and submitted to Investment Staff and/or external service providers on request or at specified intervals. In representing the System, external managers and proxy voting agents are to consider only those pecuniary factors that relate to the economic value of System investments and are not to subordinate the interests of the System's participants and beneficiaries to unrelated objectives. Should the Board decide that the interests of the Fund are best suited by voting according to a different set of rules, it may revoke this delegation at its discretion.

Investment Staff will monitor the proxy voting practices of the Managers. External service providers may be retained by the Board to assist Investment Staff in its monitoring efforts. This monitoring will be coordinated with each Manager to reasonably assure the Investment Staff that Managers are fulfilling their fiduciary responsibilities with respect to proxy voting. Investment Staff will provide a proxy voting summary report for separately managed accounts to the Executive Director, on an annual basis as soon as practical after fiscal year-end. At a minimum, the summary report will contain, for each applicable Manager, the number of ballots cast, the number of issues voted upon, and percent of issues voted with management, against management and designated as abstaining.

Appendix I: Summary of Specific Manager Guidelines

For the purposes of performance evaluation, current COAERS Investment Managers are assigned benchmark indices and peer universes. They are also given tracking error budgets to achieve target levels of excess return above the assigned benchmark net of fees. These guidelines are to be described in the relevant Premier List document that is reviewed by the Board at least annually.

Managers are permitted to deviate from the Guidelines of the IPS and this Policy only if the Board approves the deviation in writing. Below is a current listing of such approvals:

1607 Capital Partners – International Equity

In that 1607 invests in listed closed-end funds which are typically diversified equity portfolios, the portfolio concentration limits for individual holdings shall be 20% at both cost and market. Index exchange-traded funds (ETFs) used for the purpose of achieving international equity market exposure (limited to country, region, or overall index trackers) as part of the initial funding of the account or subsequent additions to the account shall not be subject to portfolio concentration limitations.

Additionally, due to the need to own such funds at times when opportunities within the closed-end fund universe are limited, the portfolio concentration limit for individual ETFs shall be 10% at cost. In extreme cases where the manager feels the necessity to have more than 10% in any single ETF, approval by Staff (as delegated by the Board) would be required. If aggregate ETF exposure reaches greater than 30% of the market value of the portfolio, 1607 will provide timely written notification to COAERS.

Furthermore, in recognition that some of the closed-end funds in which 1607 invests may employ leverage in their process, the 5% cash limitation is raised to 10%.

Finally, in recognition that the market capitalization of the underlying holdings of closed-end funds may not be timely available to 1607, requirements relating to market capitalizations shall be modified to require monthly estimates of capitalization ranges.

Mellon – Dynamic US Equity (DUSE) and Dynamic Equity ex-US (DEXUS)

These strategies are authorized to invest in futures and other derivative instruments to carry out the strategy as described in the relevant fund documents.

Appendix II: Onsite Diligence

Onsite diligence is considered a key part of the System's investment decision making process to ensure that proper initial and ongoing due diligence is conducted with respect to investment related service providers and to fulfill the fiduciary responsibilities of the System's fiduciaries. The purpose of onsite diligence is to provide a means for these fiduciaries to assess the current state of the process, personnel, operations and facilities of both retained and prospective investment service providers including, but not limited to, investment managers, custodians, and investment consultants.

A primary goal of these visits is to provide valuable due diligence information and insights, which are often best gathered by an onsite examination of the offices of Managers, Custodians, and other service providers. While meetings conducted in the System's offices may provide some level of information regarding current or prospective investment service providers, full due diligence is best achieved by conducting onsite diligence to verify information received and to inform the investment process further. Though onsite diligence is best conducted in person and at the location of the vendor, virtual diligence may be substituted as necessary during times of emergency such as pandemics or other extenuating circumstances.

Common examples of areas of onsite appraisal would include consistency of investment philosophy, management's ongoing commitment to the business, staffing levels and turnover, technology infrastructure, and the suitability of facilities. Communications with principals and staff may also seek to determine the degree of consistency between what has been stated in any representations made to the System's representatives and what the diligence may reveal, including compliance with Investment Policy.

Routine onsite diligence will be conducted with each retained service provider every five years, or more frequently if necessary. These visits will be planned at the convenience of the diligence team. Onsite diligence will be conducted to allow the team to review the firm's office procedures and practices. It is to be understood by all involved parties that these visits are for the purpose of conducting formal due diligence rather than providing a venue for receiving marketing presentations.

Other basis for onsite diligence would include diligence on a prospective service provider and to assess concerns and/or problems with performance, staffing, or other significant issues. Onsite diligence may also be conducted when traveling, for any reason, when nearby a service provider's office(s).

Common areas of inquiry during onsite diligence would include:

- visit with all persons involved with the COAERS portfolio
- visit with all firm principals in the office at time of diligence
- visit with custodian bank liaison
- evaluate the firm's current client roster
- meet trading staff and review trading process
- attend a meeting of the firm's investment committee
- review current issues in markets and their impact on the COAERS portfolio

- discuss other products available through the firm
- examine the firm's other lines of business

The Chief Investment Officer and the Investment Consultant should be included on all onsite diligence to provide continuity. Investment Staff shall prepare a written report summarizing the diligence findings for review at future Investment Committee meetings and for future reference. The Executive Director may participate in any diligence at his or her discretion, and Trustees will generally not participate in such diligence. No decision-making authority is vested with the onsite diligence team. Funding for upcoming onsite diligence will be considered by the Board during the annual investment budget process, and onsite diligence shall be conducted in accordance with the System's Code of Ethics.

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Appendix III: Reporting Requirements for Investment Managers

Annual Reporting Requirements

Each Manager who complies with the CFA Institute Trade Management Guidelines and CFA Institute Soft Dollar Standards will annually provide COAERS attestation of compliance and all required disclosures. If a Manager determines that it is no longer in compliance with either the CFA Institute Trade Management Guidelines or the CFA Institute Soft Dollar Standards, the Manager shall promptly notify COAERS and, without waiting for annual reporting deadlines, promptly provide COAERS with disclosures as described in the following paragraph.

Each Manager who does not claim compliance with the CFA Institute Trade Management Guidelines and the CFA Institute Soft Dollar Standards shall annually disclose to COAERS the areas of non-compliance in particular noting and detailing the extent to which any area of non-compliance impacts trading for the investment product in which COAERS is invested.

Each Manager shall:

- provide information and documentation on specific broker transactions as requested.
- keep accurate records of proxy voting of and provide such information upon request.
- report annually to the Board in writing as to actions taken regarding proxy voting issues in cases where the Manager votes in opposition to company management.
- furnish the System and the Investment Consultant a current copy of the approved Manager's SEC ADV Form annually when filed, and thereafter as and when amended.
- furnish documentation of the Manager's valuation methodology.
- furnish audited financial statements at least annually.
- report in writing any information required under the Board Approved Policy C-3 "Code of Ethics" Section VI.C.

All portions of Annual Reporting are to be combined and submitted as an attachment to the 4th quarter reporting materials.

Quarterly Reporting Requirements

Quarterly Reporting Requirements for Managers with live mandates have both general (applicable to all managers) and specific (applicable only to managers described herein) requirements. Specific reporting requirements are dependent on investment vehicle, investment strategy and asset class.

General Quarterly Reporting Requirements (All Managers):

1. **Current Market Values & Investment Performance:** Provide Portfolio returns and composite performance. Disclose the highest performing and the lowest performing account for all time periods. If there is a dispersion of returns among the accounts, what is the source of dispersion? How is dispersion controlled among accounts? Use tables *Market Value and Asset Growth Summary*, and *Total Fund Rates of Return*, to provide this information.

2. **Market Environment:** In this section, include information on the market environment, market analysis, sector analysis or other items deemed appropriate regarding your strategy. It is not necessary for the Manager to compare its strategy of management to others unless it impacts the investment strategy. Focus this section on the market environment applicable to the Portfolio. Provide a brief discussion of market liquidity for the portfolio during the quarter, including a basis point estimate of the cost to liquidate 10% of the portfolio.
3. **Investment Process:** Please detail any changes to the investment process (i.e., change(s) in geographic focus, addition/removal of investment factors, benchmark changes, etc.)
4. **Stewardship:** Please detail any changes to the stewardship process or philosophy (i.e., change(s) to proxy voting guidelines, compliance with sustainability reporting standards or organizations, etc.)
5. **Organizational Issues:** Discuss the progress and the changes of your firm over the last three years.
 - Complete the *Organizational Issues* table.
 - What are the major initiatives planned for the firm over the next 3, 5 & 10 years?
 - List all personnel departures from the group responsible for the management and investment of the Portfolio and the responsibilities of each departing person.
 - Discuss the growth in capabilities on a firm-wide basis as well as within the Product group. List new Products offered in the last 3 years and if the additional capabilities for these new Products were developed internally or purchased?
 - How are the Portfolio management, administration, research, firm management and marketing efforts separated within the firm? Identify the key decision makers in each of the above areas. What percentage of the Manager's time is spent in each area (total must add to 100%).
 - Has a cap been placed on assets under management in this product? Why or why not?
 - The percentage of strategy assets and firm assets represented by the account.
6. **Reconciliation of Assets and Returns:** Provide a brief discussion of your process for reconciling portfolio assets with our Custodian and portfolio returns with our Investment Consultant.
7. **Regulatory Compliance Reporting:** combine with your quarterly report a copy of any regulatory or compliance-related reporting you have provided the System during the quarter.
8. **Most Favored Nation (MFN) Provision Certification:** If applicable, certify that more favorable pricing has not been given to a similar account as described by applicable policy documents.
9. List for each of the last quarter, the calendar year-to-date, and last year the total commissions generated in the Portfolio. For each full commission broker, separately list

the amount spent each year with that broker, the soft dollar total, and a description of benefits received for the commissions paid.

Specific Reporting Requirements:

By Investment Vehicle:

- **Separate Accounts:** On the first page of the report, the guidelines, objectives and other measurements from the Investment Policy and any pertinent items from the IMA will be listed. Verify compliance status on a point-by-point basis. The Manager may also summarize this section to explain the Manager's position on compliance. Sign and date this page. If the Manager recommends any change be made to the Guidelines, each suggested change and the rationale behind each change shall be listed.
- **Commingled Funds:** On the first page of the report, the guidelines, objectives, and other measurements from any pertinent items from the side letter agreement (if applicable) will be listed. Verify compliance status on a point-by-point basis. The Manager may also summarize this section to explain the Manager's position on compliance. Additionally, certify that the Manager is in compliance with governing fund documents. Sign and date this page. If the Manager recommends any change be made to the Guidelines, each suggested change and the rationale behind each change shall be listed.

By Asset Class:

- **Equity Strategies:**
 1. **Portfolio Appraisal:** Provide an asset statement to include the following for each security: Name, Number of Shares, Current Market Value Per Share, Total Market Value for Security, % of Total Market Value, Gain/Loss for each Security, Categorize by Sector, Totals.
 2. **Transactions (active strategies only):** List all purchases and sales for the period. Show the sales price per share, total proceeds from sale, and gain/loss for each transaction. If a security was held in the portfolio for less than 30 days, explain the rationale for both the purchase and sale of the security.
 3. **Brokerage:** broker used, and commission charged per share for both purchases and sales. Total by brokerage firms all transactions traded with each firm.
 4. **Proxy Voting:** domestic equity managers shall report and list, on a quarterly basis, the proxy votes by security that your firm voted against management.
- **Real Estate Strategies:** Portfolio Appraisal: include the following information: a full portfolio appraisal, a summary of any transactions, a summary of all valuation changes, and a summary of fund income.
- **Multi Asset Strategies:** Include the following information: a full portfolio net asset value, a summary of the net asset value changes, a description of whether there have

been any impairments in liquidity necessary to meet participant redemptions during the quarter (if such an impairment occurs).

Tables:

Organizational Issues

Assets Under Management (firm-wide)	
Assets Under Management (in this Product)	
Number of Accounts in this Product	
Accounts Gained in Last Quarter (firm-wide)	
Accounts Gained in Last Quarter (in this Product)	
Accounts Lost in Last Quarter (firm-wide)	
Accounts Lost in Last Quarter (in this Product)	

Market Value and Asset Growth Summary for Periods Ended MM/DD/YYYY

	Calendar Year-to-Date	1 Year	3 Year	Inception-to-Date
Beginning Market Value				
Contributions				
Withdrawals				
Manager Fee Paid				
Return on Investment				
Ending Market Value				

Present the portfolio balance as reconciled with the Custodian's data. Complete market value reconciliation with the Custodian in writing and an explanation must be provided if your market value does not match.

Total Fund Rates of Return for Periods Ended MM/DD/YYYY

	Current Quarter	Calendar YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Rate of Return Gross of Fees							
Rate of Return Net of Fees							
Benchmark Return							
Value added/detracted vs. Return net of Fees*							
Composite Performance							
Highest returning account within composite							

Lowest returning account within composite							
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The Value-Added column above may be footnoted to explain your rationale to value added/lost to the benchmark.

Appendix IV: Policies Regarding Third Party Marketing; Political Contributions; Improper Influence; Placement Agents and Finders

1. Scope.

This Appendix applies to all COAERS investment transactions in which a Placement Agent or third-party marketer or revenue sharing agreement or Finder is or may be involved, including new agreements (inclusive of follow-on and co-investments), extension of existing agreements, increase in funding or capital commitment to an existing relationship or Investment Manager, or an amendment that increases management fees or compensation under an Investment Management Agreement.

This Appendix IV also applies to attempts to influence COAERS investment decisions through contacts with Trustees, or contacts with, or a political contribution made for the benefit of, one or more Texas Elected Officials, and also applies to contacts with persons employed by any such Texas Elected Official.

If any provision of this Appendix conflicts with a provision of another policy adopted by the Board, the stricter provision shall apply.

In addition to all other requirements of this Appendix, all persons, firms, corporations and legal entities contacting any member of the Board or any office or employee of the System for the purpose of soliciting business with, or providing any service or Product to, the System, shall fully comply with Chapter 176, Tex. Loc. Gov't Code. Links to Chapter 176, Tex. Loc. Gov't Code and a copy of the Vendor Conflict of Interest Questionnaire can be found at [CIQ.pdf \(coaers.org\)](#).

2. Purpose.

The purpose of this Appendix is to safeguard the integrity of all COAERS investment transactions and conformity with the highest fiduciary, ethical, and legal standards by all parties involved. All investment decisions made by the Board and the Staff must be based solely on the merits in conformity with fiduciary standards and applicable law. All recommendations made regarding any Fund, Manager Party or investment, and all recommendations by the Investment Consultant, Investment Managers, and advisers, must be based solely on the merits after the necessary due diligence. All investment decisions and recommendations must be free of impropriety or improper influence and the appearance of either.

3. Philosophy.

The Board requires the Staff to obtain full disclosure regarding all known or suspected matters having the potential to harm COAERS's reputation or the integrity of COAERS's investment processes, or that could constitute unethical or unlawful conduct during the investment due diligence process.

4. Required disclosures.

At a minimum, all external Fund, Manager Party(s) and Investment Managers shall provide detailed written responses to the questionnaire attached to this Appendix as Exhibit "A" as early as reasonably possible in the due diligence process for a COAERS investment transaction. The Board may revise this Appendix or Exhibit "A" from time to time as it deems to be in the best interest of COAERS and consistent with the purpose and intent of this Appendix.

In addition, all Investment Managers, and all Funds and Manager Parties negotiating or dealing with COAERS regarding proposed investment services, shall provide a detailed description of the services to be performed by the Placement Agent and how the Placement Agent is used (e.g., with all prospects, or only with a subset of prospects). The System shall obtain a copy or summary of the terms of an agreement to compensate a Placement Agent for the due diligence file. The System shall provide all prospective Investment Managers with a copy of this Appendix upon commencement of due diligence.

5. Contractual representations warranties and covenants.

Each Investment Manager shall represent and warrant to COAERS in the executed Investment Management Agreement that its responses in Exhibit "A" to this Appendix IV and to all questions or enquiries presented by the System, and in any supplemental responses are true, correct, and complete in all material respects, and shall also covenant to update any such information within 10 business days of any change in the information in the responses.

In addition, each Placement Agent shall fully disclose the terms of its arrangement with a Fund, or Manager Party, or Investment Manager for payment of a Placement Fee and any political contributions by the Placement Agent to any Texas Elected Officials and shall certify as to the matters addressed in this Appendix, as applicable, to COAERS in a writing executed by an authorized officer that the disclosures required by this policy are true and complete in all material respects.

Each Investment Management Agreement shall provide COAERS with the option to receive a reimbursement of management or advisory fees equal to the amount of Placement Fees to be paid to any and all Placement Agents, and, in addition and not in the alternative, the right to terminate the Investment Management Agreement or withdraw without penalty from the investment vehicle or vehicles if any certificates or contractual representations, warranties or covenants relating to this Appendix have been breached.

6. Prohibitions.

No COAERS investment may be made if the Board, in consultation with legal counsel, determines that a disclosed contact with a COAERS Board member or Texas Elected Official, or a contribution to a Texas Elected Official, has created an unacceptable risk to the integrity and reputation of the COAERS investment program or has been made in violation of a COAERS policy or applicable law. A contact-based referral, without more, by a Trustee of either an investment opportunity or a prospective Investment Manager or Fund contact to the Executive Director or Chief Investment Officer does not constitute such a risk or a violation of this Appendix.

7. Reporting.

The System staff shall compile all responses to the questionnaire and report the results to the Board at least annually. Reports shall include the amounts and recipients of any political contribution or Placement Fee and the relationship of the recipients to the Placement Agent or Texas Elected Official, as applicable.

8. Definitions applicable to this Policy.

Affiliate – means a person or entity controlled by or under common control with another person or entity.

Fund or Manager Party – includes, (a) as to a private investment fund, a fund sponsor, the general partner, managing member, or its equivalent with respect to a fund, fund sponsor, or fund management firm, (b) as to an external, separate account investment manager, the asset management entity and the parent of such asset management entity, and (c) as to (a) and (b), any Affiliate, principal, owner, officer, shareholder, director, managing member, or employee having authority to act on behalf of such fund or firm.

Placement Agent – includes any third party, whether or not affiliated with a Fund or Manager Party, that is a party to an agreement or arrangement (whether oral or written) with a Fund or Manager Party for the direct or indirect payment of a Placement Fee or revenue sharing arrangement in connection with a COAERS investment. Any other person or entity who claims a Placement Fee or who by agreement with a Placement Agent will share in a Placement Agent's Placement Fee is deemed to be a Placement Agent whether or not the person or entity is an Affiliate, principal, owner, officer, shareholder, director, managing member, or employee of a Placement Agent. A "finder" is a Placement Agent.

Placement Fee – includes any compensation or payment, directly or indirectly, of a commission, finder's fee, or any other consideration or benefit to be paid to a Placement Agent.

Relative – means a spouse (including an ex-spouse), parent, child (including adopted), sibling, niece, nephew, aunt, or uncle.

Texas Elected Official – includes a member of United States Congress or Senate that is elected from the State of Texas, the City of Austin or the County of Travis, including but not limited to the governor, lieutenant governor, comptroller of public accounts, attorney general, and any member of the Texas Legislature, the mayor, member of the city council, county judge or county commissioner and also includes a campaign fund or political action committee, or PAC for an elected official, and a Relative of a Texas elected official.

COAERS Person – means any person listed on Exhibit No. 1 attached to Exhibit “A” to Appendix IV to this Policy or to any other due diligence document, and includes without limitation any current or former COAERS board member, the Executive Director, the Chief Financial Officer, the Chief Investment Officer, the General Counsel, or any Investment Consultant or actuary, any other outside counsel engaged by COAERS, and any Relative of a COAERS Person, whether or not listed on Exhibit A, COAERS Persons. The Executive Director shall cause a current list of COAERS Persons to be kept on file with the System and shall cause the current list to be provided to persons required to complete the Questionnaire.

DRAFT

Appendix IV: Exhibit "A" -- Questionnaire

Third Party Marketing; Political Contributions; Improper Influence; Placement Agents and Finders *Capitalized terms are defined in main text of policy.*

- A) Contacts with State or City Officials; Political Contributions.** Has any person lobbied, communicated with, or made political contributions during the past three years on behalf of the Fund or Manager Party to a Texas Elected Official in connection with a prospective investment transaction with a Texas state or City of Austin affiliated investment entity, including COAERS?
- 1) If the answer is "yes," please provide a complete list of the name(s) of the entities and individual(s) involved, the approximate dates of the contributions, the amounts of the contributions, a summary of the contacts or communications, and the nature of the discussion in regard to the investment with any Texas state investment entity, including COAERS.
- B) Contacts with COAERS Board Members.** Has any person lobbied or otherwise communicated on behalf of the Fund or Manager Party with a current or former member of the COAERS Board of Trustees during the past two years for the purpose of asking the current or former member to seek to influence a decision by the COAERS investment staff or a COAERS advisor or Investment Consultant to recommend that COAERS invest?
- 1) If the answer is "yes," please provide a complete listing of the name(s) of the entities and individual(s) involved, the approximate dates of the contacts or communications, and the nature of the discussion in regard to this investment.
- C) Placement Agents and Placement Fees.** Is or was the Fund or Manager Party a party to any agreement or arrangement (whether oral or written) to pay a Placement Fee to or for the benefit of any Placement Agent in connection with COAERS's prospective investment in a fund or engagement of an external manager?
- 1) If the answer is "yes," please provide a copy of the written agreement or agreements creating the obligation to pay a Placement Fee. If the agreement is not written, please provide a written summary of the agreement. Additionally, please state the amount of the Placement Fee (or the formula for its determination if the amount is not yet determined) and the date of its payment or anticipated payment.
 - 2) If the answer is "yes," please list the name(s) of the person or entity. If the party to the agreement is an entity, please also list the names of the principal owners, officers, directors, and managing members of the Placement Agent and any employees or third parties who had contact or involvement with the COAERS prospective investment and provide a resume for each such person.
 - 3) If the answer is "yes," state whether the Placement Agent, or any of its Affiliates, is registered as a lobbyist with any state government or the federal government and identify the registrants and the applicable jurisdictions where registered.
 - 4) Will or did any COAERS Person or any Relative of a COAERS Person receive, has any such person received, or might any such person receive, any compensation or payment, directly or indirectly, of a commission, finder's fee, or any other consideration or benefit to be paid to a Placement Agent (a "Placement Fee") in connection with COAERS's investment? If the answer is "yes," please list the name or names of the COAERS Person or Relative of a COAERS Person and provide details about the terms of the Placement Fee.
 - 5) Will or did any Texas Elected Official or a Relative of a Texas Elected Official receive a Placement Fee in connection with COAERS's investment? If the answer is "yes," please list the name or names of the official(s) and provide details about the terms of the Placement Fee, including the amounts and timing of payments.

-
- 6) Did (or will) any third-party person or entity who is not employed or otherwise affiliated with a Placement Agent, including a current or former COAERS Person, either (a) recommend the Placement Agent or (b) receive a share of a Placement fee or any other economic benefit in connection with COAERS's investment, whether directly or indirectly through a Placement Agent engaged by you?
 - 7) If the answer to 6) is "yes," please list the name of the person or entity, the relationship of the person or entity to the Placement Agent and your firm and provide a description of the arrangement and the reason for the payment.
 - 8) State whether the Placement Agent or any of its Affiliates is registered with the Securities and Exchange Commission or the Financial Industry Regulatory Association, or a similar agency outside the United States. Provide details about registration or explain why registration is not required.

The undersigned certifies, represents and warrants on behalf of the Fund or Manager Party that, to the best of its knowledge after due inquiry, (a) the foregoing responses to this questionnaire are true and correct and do not omit any statement or fact necessary to make any statement made not misleading in any material respect, and (b) no prior statements or representations, if any, whether oral or written, made on behalf of the Fund or Manager Party relating to the subject matter of this questionnaire in connection with COAERS's due diligence inquiries and a prospective investment management agreement or subscription to the fund, as the case may be, including any side letter agreements, were untrue or misleading in any material respect when they were made.

[Signature block for Fund or Manager Party]

Attachment: Exhibit No. 1, COAERS Persons

7. Discuss and consider Investment Risk Framework Process



COMMITTEE MEETING Agenda Item Information Sheet

AGENDA ITEM 7:

Discuss and consider Investment Risk Framework process

AGENDA ITEM OBJECTIVE

The Committee will receive a report from Staff on the Investment Risk Framework (IRF) as well as 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

At the Committee's discretion.

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 Investment Risk Framework Memo 2023-11 (CONFIDENTIAL)
2. Investment Risk Framework Dashboard 2023-10-31 (CONFIDENTIAL)
3. Investment Manager Strategy Update (CONFIDENTIAL)

SUPPLEMENTAL MATERIALS PROVIDED VIA CONVENE APP

1. IRF Detailed Dashboard 2023-10-31 (CONFIDENTIAL)

8. Discuss and consider investment implementation and Premier List for the following:

A. Real Assets - Ty Sorrel and RVK

B. Fixed Income - David Kushner and RVK

8A. Real Assets



COMMITTEE MEETING Agenda Item Information Sheet

AGENDA ITEM 8:

Discuss and consider investment implementation and Premier List for the following:

A. Real Assets

AGENDA ITEM OBJECTIVE

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

At Committee's discretion.

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 Real Assets allocations, including the associated Premier Lists.

ATTACHMENTS

1. Investment Implementation Update 2023-Q3 [CONFIDENTIAL]
2. Investment Implementation Dashboard 2023-Q3
3. Investment Manager Monitoring Dashboard 2023-Q2 [CONFIDENTIAL]
4. Investment Manager Monitoring Report 2023-Q3 [CONFIDENTIAL]
5. Investment Manager Fees by Quarter 2023-Q3
6. RVK Summary of Manager Performance 2023-Q3
7. Current COAERS Premier List 2023-Q3 [CONFIDENTIAL]
8. Real Assets Market & Portfolio Review 2023-Q3



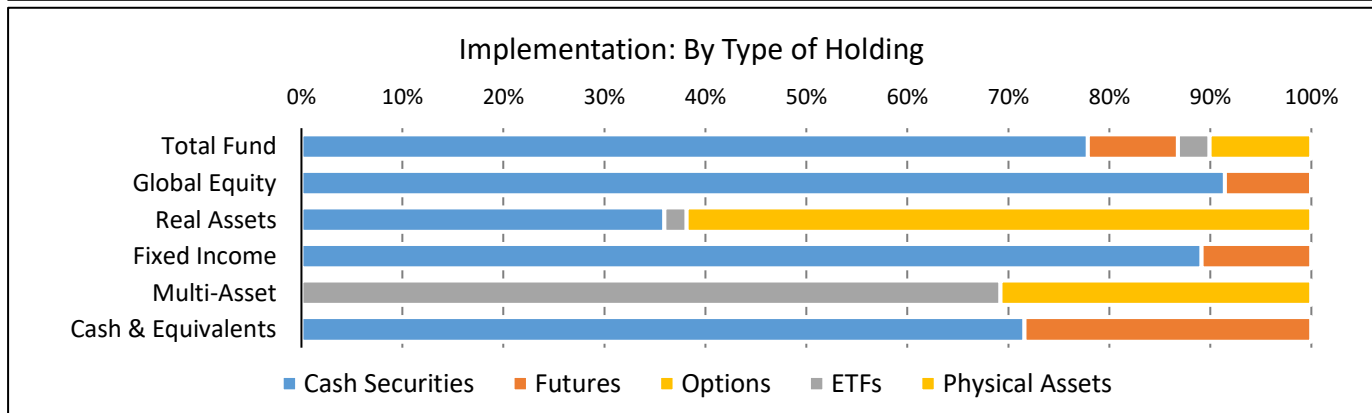
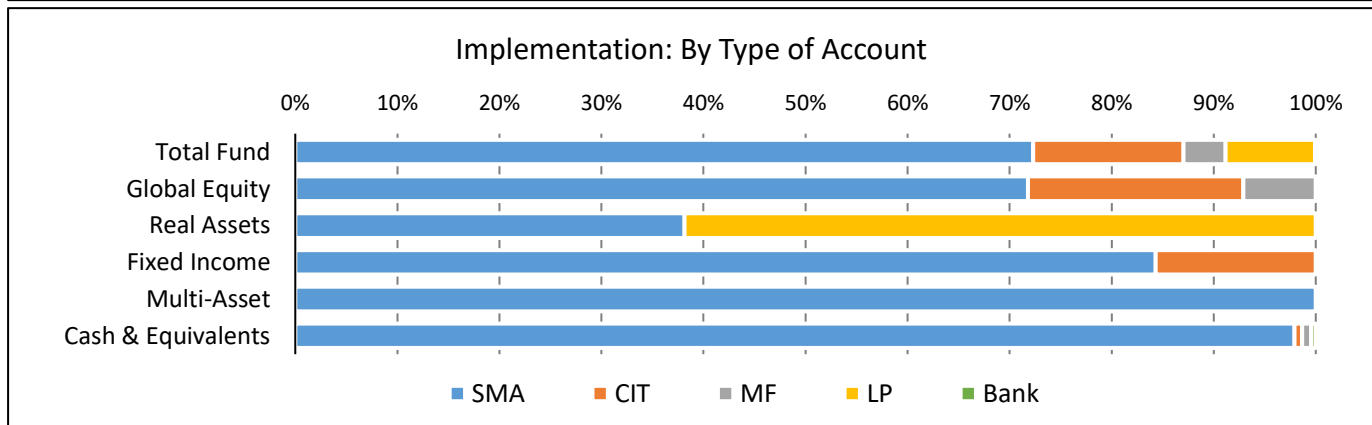
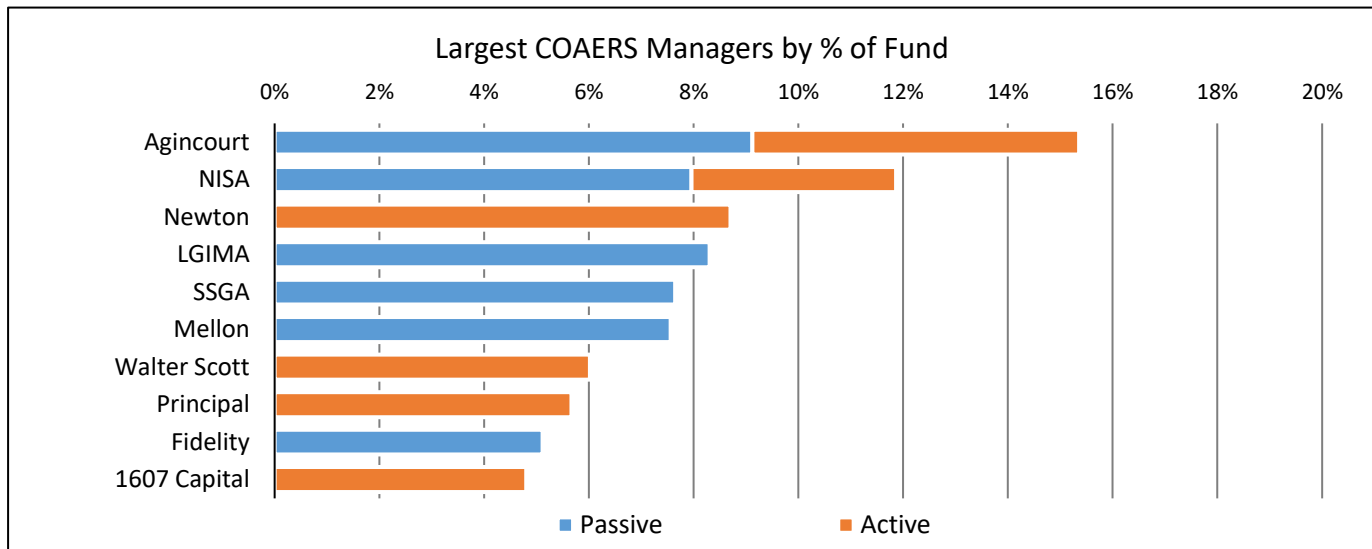
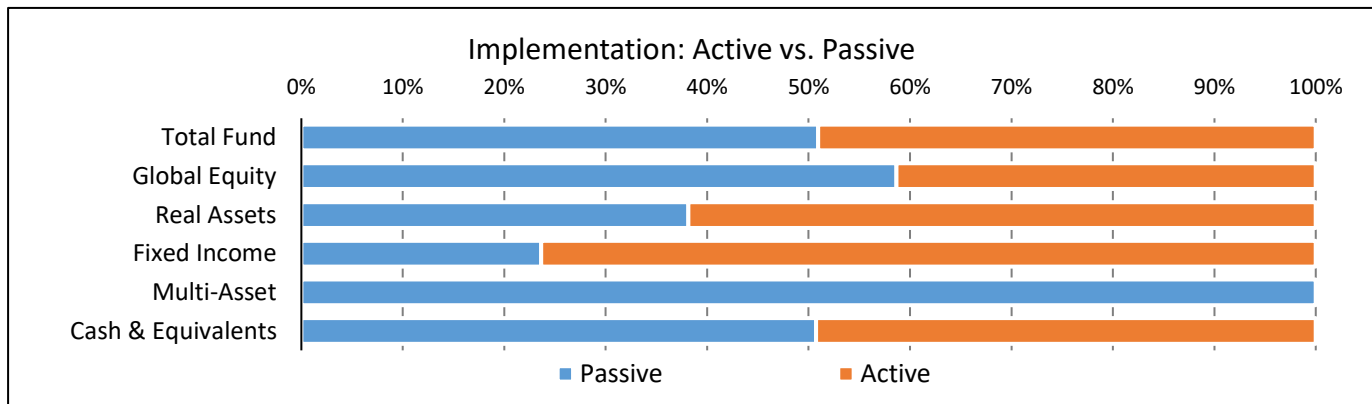
COMMITTEE MEETING
Agenda Item Information Sheet

SUPPLEMENTAL INFORMATION PROVIDED VIA CONVENE APP

1. RVK COAERS Investment Manager Compliance Reports
2. COAERS Funded Investment Manager Strategy Summaries
3. COAERS Proprietary Due Diligence Materials [CONFIDENTIAL]

COAERS Implementation Dashboard

As of 9/30/2023



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

COAERS Investment Manager Fees For 3Q-2023

DIRECT FEE PAYMENTS & ACCRUALS					
Earned In	2Q22	3Q22	4Q22	1Q23	2Q23
Paid In	3Q22	4Q22	1Q23	2Q23	3Q23
1607 Capital Intl Equities	247,143	203,452	143,007	225,530	145,404
Agincourt: 1-3M US Treasuries	3,215	4,812	4,531	5,789	11,285
Agincourt: 1-3Y US Treasuries	15,301	15,282	15,391	15,615	18,091
Agincourt: 10Y US Treasuries	5,038	4,723	4,239		
Agincourt: 1-5Y TIPS	6,362	6,158	6,236	6,384	6,324
Agincourt Passive Index	9,812	10,073	10,722	11,316	9,055
Agincourt FTSE NAREIT Equity	1,872	915	962	985	1,011
Doubleline MBS	51,215	50,339	48,341	49,874	37,212
Fidelity DJ Brookfield	43,852	14,714	14,053	14,560	9,614 *
Fidelity US REITs	60,069	23,109	21,723	22,784	11,662 *
Hoisington	73,401	66,967	66,514	69,721	52,957
LGIMA 5 15YR US TIPS	1,583	1,494	1,292		
LGIMA Inflation Plus	26,127	15,688	26,880	27,831	
LGIMA - MSCI USA	14,551	14,303	13,854	14,136	9,317 *
LGIMA - MSCI EM	18,853	17,852	16,890	18,016	12,619 *
Newton DEXUS	21,851	19,756	22,577	23,710	24,561
Newton DUSE	178,840	172,714	184,198	192,691	210,644
Mellon Scibeta US Max Decorr	38,358	36,937	40,527	41,055	42,846
Mellon Scibeta Inflation Plus					249
NISA Futures	45,542	46,037	49,188	53,212	70,532
NT Dev Intl Small Cap Fund ¹	7,007	5,827	5,244	6,102	6,409
SSGA MSCI USA Equal Weight	11,532	11,501	11,460	11,384	11,472
SSGA MSCI USA SmallCap	4,718	4,749	4,790	4,866	4,778
TOBAM Max Decorrrelation	70,371	67,341	70,471	71,386	71,018
Walter Scott Intl Equities	191,449	183,744	185,458	199,995	210,538
TOTAL DIRECT PAYMENTS	1,148,062	998,488	968,548	1,086,945	977,599
INDIRECT FEE PAYMENTS					
Earned In	3Q22	4Q22	1Q23	2Q23	3Q23
Paid In	3Q22	4Q22	1Q23	2Q23	3Q23
Baillie Gifford Emerging Market	180,407	183,574	188,839	189,656	203,055
IFM Infrastructure	164,742	168,173	170,204	175,768	180,213
PGIM US Credit	63,479	63,177	61,349	62,084	50,902
Principal US Property	394,559	387,031	359,798	355,039	349,525
SUBTOTAL INDIRECT	803,186	801,955	780,190	782,547	783,696
TOTAL FEES	1,951,248	1,800,443	1,748,738	1,882,702	1,761,295
% of AUM	0.07%	0.06%	0.06%	0.06%	0.06%

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

* Accrual



Summary of Manager Performance

City of Austin Employees' Retirement System

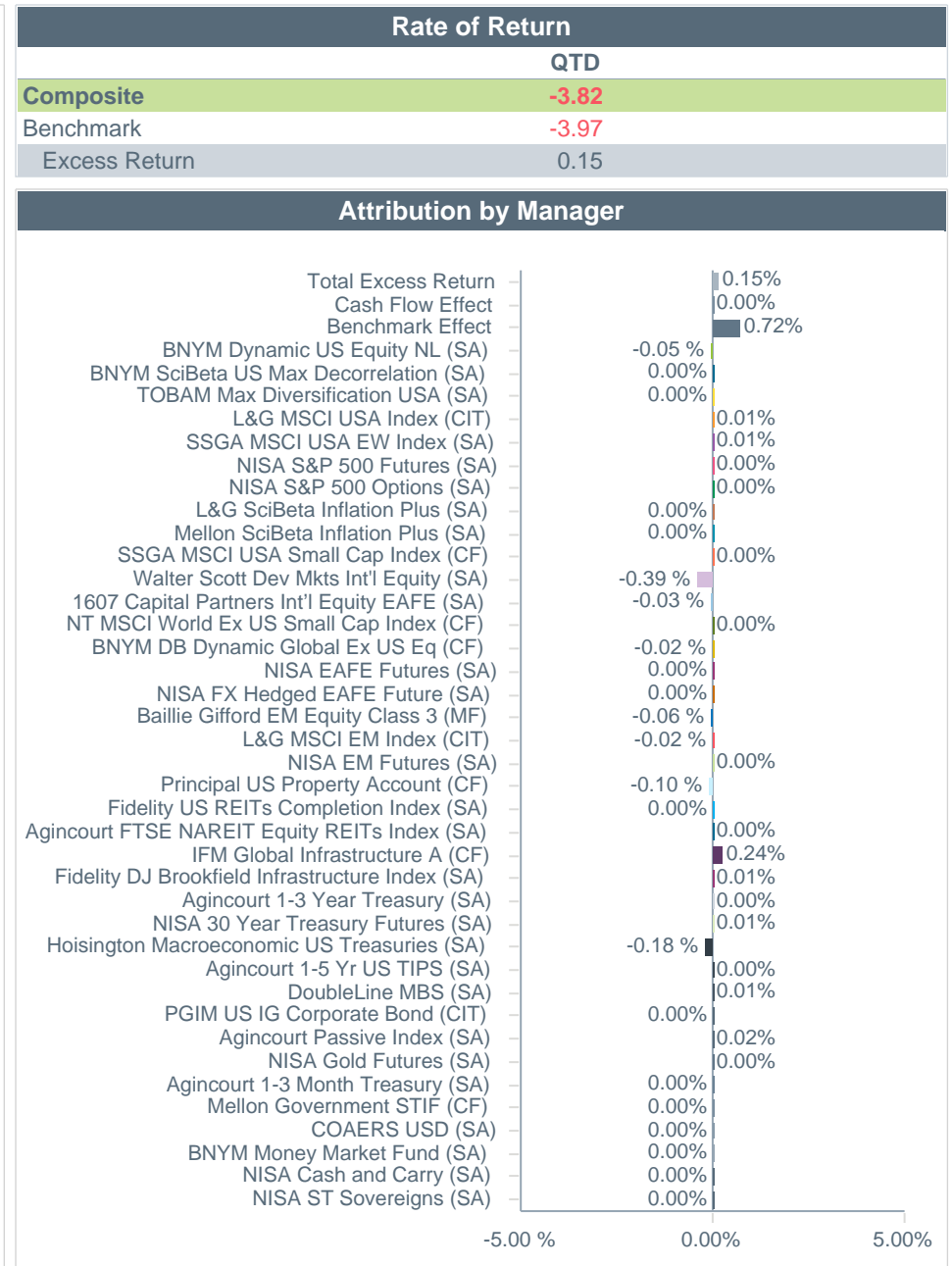
Period Ended: September 30, 2023



As of September 30, 2023

Composite: Total Fund
Benchmark: Policy Benchmark

	Market Value (\$)	Allocation (%)
BNYM Dynamic US Equity NL (SA)	231,860,033	7.79
Agincourt 1-3 Year Treasury (SA)	186,555,582	6.27
SSGA MSCI USA EW Index (SA)	184,465,464	6.20
Walter Scott Dev Mkts Int'l Equity (SA)	181,176,307	6.09
L&G MSCI USA Index (CIT)	175,835,213	5.91
Principal US Property Account (CF)	168,300,792	5.65
1607 Capital Partners Int'l Equity EAFE (SA)	143,091,355	4.81
BNYM SciBeta US Max Decorrelation (SA)	130,769,057	4.39
Baillie Gifford EM Equity Class 3 (MF)	120,200,232	4.04
Agincourt 1-3 Month Treasury (SA)	114,460,965	3.85
TOBAM Max Diversification USA (SA)	109,366,163	3.67
Mellon SciBeta Inflation Plus (SA)	93,912,455	3.15
IFM Global Infrastructure A (CF)	93,199,633	3.13
Fidelity US REITs Completion Index (SA)	92,370,480	3.10
Agincourt Passive Index (SA)	83,787,362	2.81
PGIM US IG Corporate Bond (CIT)	77,828,419	2.61
L&G MSCI EM Index (CIT)	70,798,881	2.38
DoubleLine MBS (SA)	67,562,244	2.27
NISA S&P 500 Futures (SA)	67,160,427	2.26
NISA Cash and Carry (SA)	66,871,519	2.25
Agincourt 1-5 Yr US TIPS (SA)	63,439,756	2.13
Fidelity DJ Brookfield Infrastructure Index (SA)	60,267,032	2.02
NISA 30 Year Treasury Futures (SA)	54,203,898	1.82
NISA ST Sovereigns (SA)	49,045,351	1.65
Hoisington Macroeconomic US Treasuries (SA)	49,013,810	1.65
SSGA MSCI USA Small Cap Index (CF)	42,914,262	1.44
NT MSCI World Ex US Small Cap Index (CF)	41,424,743	1.39
NISA FX Hedged EAFE Future (SA)	38,013,059	1.28
NISA Gold Futures (SA)	37,284,861	1.25
NISA EAFE Futures (SA)	32,837,441	1.10
BNYM DB Dynamic Global Ex US Eq (CF)	26,621,975	0.89
Agincourt FTSE NAREIT Equity REITs Index (SA)	9,391,435	0.32
NISA EM Futures (SA)	7,648,056	0.26
BNYM Money Market Fund (SA)	2,099,031	0.07
Mellon Government STIF (CF)	1,797,197	0.06
COAERS USD (SA)	1,015,809	0.03
NISA S&P 500 Options (SA)	64,219	0.00
L&G SciBeta Inflation Plus (SA)	3,434	0.00



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. Market value shown for L&G SciBeta Inflation Plus (SA) represents residual cash from liquidation.

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

As of September 30, 2023

	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)	231,860,033	7.79	-3.95	11.05	18.43	8.16	9.44	N/A	10.99	05/01/2018
S&P 500 Index (Cap Wtd)			-3.27	13.07	21.62	10.15	9.92	11.91	11.24	
Excess Return			-0.68	-2.02	-3.19	-1.99	-0.48	N/A	-0.25	
IM U.S. Large Cap Core Equity (SA+CF) Median			-3.02	10.88	19.95	9.08	8.53	10.97	9.58	
Rank			83	49	61	68	29	N/A	24	
BNYM SciBeta US Max Decorrelation (SA)	130,769,057	4.39	-3.05	4.07	14.92	9.32	N/A	N/A	9.32	10/01/2020
SciBeta Max Decorrelation Index			-3.00	4.17	15.07	9.48	7.66	10.45	9.48	
Excess Return			-0.05	-0.10	-0.15	-0.16	N/A	N/A	-0.16	
IM U.S. Large Cap Core Equity (SA+CF) Median			-3.02	10.88	19.95	9.08	8.53	10.97	9.08	
Rank			51	86	79	48	N/A	N/A	48	
TOBAM Max Diversification USA (SA)	109,366,163	3.67	-5.01	-2.12	7.97	1.02	N/A	N/A	1.02	10/01/2020
TOBAM Max Diversification Index			-4.93	-2.14	8.10	1.16	3.88	8.74	1.16	
Excess Return			-0.08	0.02	-0.13	-0.14	N/A	N/A	-0.14	
IM U.S. Large Cap Core Equity (SA+CF) Median			-3.02	10.88	19.95	9.08	8.53	10.97	9.08	
Rank			94	99	99	99	N/A	N/A	99	
L&G MSCI USA Index (CIT)	175,835,213	5.91	-3.07	13.38	21.45	9.61	N/A	N/A	9.61	10/01/2020
MSCI USA Index (Net)			-3.18	13.13	21.03	9.02	9.32	11.19	9.02	
Excess Return			0.11	0.25	0.42	0.59	N/A	N/A	0.59	
IM U.S. Large Cap Core Equity (SA+CF) Median			-3.02	10.88	19.95	9.08	8.53	10.97	9.08	
Rank			52	22	29	44	N/A	N/A	44	
SSGA MSCI USA EW Index (SA)	184,465,464	6.20	-4.04	4.35	14.46	N/A	N/A	N/A	9.30	11/01/2020
MSCI USA Equal Weighted Index (Net)			-4.16	3.96	13.90	8.34	6.28	8.87	8.78	
Excess Return			0.12	0.39	0.56	N/A	N/A	N/A	0.52	
IM U.S. Large Cap Core Equity (SA+CF) Median			-3.02	10.88	19.95	9.08	8.53	10.97	10.27	
Rank			84	85	80	N/A	N/A	N/A	68	
SSGA MSCI USA Small Cap Index (CF)	42,914,262	1.44	-4.91	3.98	12.31	N/A	N/A	N/A	9.26	11/01/2020
MSCI US Sm Cap Index (USD) (Net)			-4.99	3.65	11.81	9.43	4.36	7.83	8.80	
Excess Return			0.08	0.33	0.50	N/A	N/A	N/A	0.46	
IM U.S. Small Cap Equity (SA+CF) Median			-4.69	3.83	11.77	10.40	4.35	7.84	10.07	
Rank			55	49	48	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 September 30, 2023

	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)	67,160,427	2.26	-3.23	12.24	19.98	9.72	N/A	N/A	9.41	02/01/2020
S&P 500 Index (Cap Wtd)			-3.27	13.07	21.62	10.15	9.92	11.91	9.86	
Excess Return			0.04	-0.83	-1.64	-0.43	N/A	N/A	-0.45	
IM U.S. Large Cap Core Equity (SA+CF) Median			-3.02	10.88	19.95	9.08	8.53	10.97	8.66	
Rank			60	36	50	43	N/A	N/A	34	
Mellon SciBeta Inflation Plus (SA)	93,912,455	3.15	-2.10	N/A	N/A	N/A	N/A	N/A	-2.10	07/01/2023
SciBeta Inflation Plus Index			-2.10	9.01	17.67	N/A	N/A	N/A	-2.10	
Excess Return			0.00	N/A	N/A	N/A	N/A	N/A	0.00	
IM U.S. Large Cap Core Equity (SA+CF) Median			-3.02	10.88	19.95	9.08	8.53	10.97	-3.02	
Rank			25	N/A	N/A	N/A	N/A	N/A	25	
Developed Markets Equity										
Walter Scott Dev Mkts Int'l Equity (SA)	181,176,307	6.09	-10.14	4.87	19.56	0.38	5.01	5.88	7.92	10/01/1992
MSCI EAFE Index (USD) (Net)			-4.11	7.08	25.65	5.75	3.24	3.82	5.53	
Excess Return			-6.03	-2.21	-6.09	-5.37	1.77	2.06	2.39	
IM All EAFE (SA+CF) Median			-4.48	6.95	24.65	5.10	3.08	4.08	7.13	
Rank			95	74	82	89	13	7	26	
1607 Capital Partners Int'l Equity EAFE (SA)	143,091,355	4.81	-4.68	3.98	21.18	4.07	3.38	4.57	6.51	08/01/2010
90% MSCI EAFE/10% MSCI EM Index			-3.99	6.57	24.26	5.05	3.02	3.70	5.04	
Excess Return			-0.69	-2.59	-3.08	-0.98	0.36	0.87	1.47	
IM International Core Equity (SA+CF) Median			-4.48	5.58	21.31	4.00	2.84	4.15	5.87	
Rank			51	67	53	49	27	33	27	
BNYM DB Dynamic Global Ex US Eq (CF)	26,621,975	0.89	-5.50	3.75	18.48	1.92	N/A	N/A	2.81	09/01/2019
MSCI ACW Ex US Index (USD) (Net)			-3.77	5.34	20.39	3.74	2.58	3.35	4.13	
Excess Return			-1.73	-1.59	-1.91	-1.82	N/A	N/A	-1.32	
IM ACWI Ex US Core (SA+CF) Median			-4.48	5.26	20.66	3.01	2.90	3.57	4.23	
Rank			76	79	75	70	N/A	N/A	84	
NISA EAFE Futures (SA)	32,837,441	1.10	-4.54	6.68	24.31	5.41	N/A	N/A	2.98	02/01/2020
MSCI EAFE Index (USD) (Net)			-4.11	7.08	25.65	5.75	3.24	3.82	3.20	
Excess Return			-0.43	-0.40	-1.34	-0.34	N/A	N/A	-0.22	
IM All EAFE (SA+CF) Median			-4.48	6.95	24.65	5.10	3.08	4.08	3.08	
Rank			51	55	53	44	N/A	N/A	52	

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 September 30, 2023

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
NT MSCI World Ex US Small Cap Index (CF)	41,424,743	1.39	-3.47	1.80	18.42	2.10	1.64	N/A	1.31	08/01/2018
MSCI Wrld Ex US Sm Cap Index (USD) (Net)			-3.48	1.83	17.32	1.85	1.28	4.13	0.96	
Excess Return			0.01	-0.03	1.10	0.25	0.36	N/A	0.35	
IM International Small Cap Equity (SA+CF) Median			-3.94	3.62	19.15	1.44	1.65	4.46	1.37	
Rank			42	63	54	45	51	N/A	51	
NISA FX Hedged EAFE Future (SA)	38,013,059	1.28	-0.90	11.96	20.57	N/A	N/A	N/A	3.11	01/01/2022
MSCI EAFE Index (USD) (Net) (Hedged)			-0.54	13.17	24.15	12.98	7.81	8.17	4.47	
Excess Return			-0.36	-1.21	-3.58	N/A	N/A	N/A	-1.36	
IM All EAFE (SA+CF) Median			-4.48	6.95	24.65	5.10	3.08	4.08	-5.82	
Rank			10	6	76	N/A	N/A	N/A	5	
Emerging Markets Equity										
Baillie Gifford EM Equity Class 3 (MF)	120,200,232	4.04	-4.47	6.15	18.41	-3.81	1.59	N/A	5.18	10/01/2016
MSCI Emerging Markets Index (USD) (Net)			-2.93	1.82	11.70	-1.73	0.55	2.07	3.22	
Excess Return			-1.54	4.33	6.71	-2.08	1.04	N/A	1.96	
IM Emerging Markets Equity (MF) Median			-3.79	3.16	13.05	-2.37	0.77	1.88	2.94	
Rank			61	21	16	63	36	N/A	15	
L&G MSCI EM Index (CIT)	70,798,881	2.38	-3.57	1.18	10.97	-2.03	N/A	N/A	-2.03	10/01/2020
MSCI Emerging Markets Index (USD) (Net)			-2.93	1.82	11.70	-1.73	0.55	2.07	-1.73	
Excess Return			-0.64	-0.64	-0.73	-0.30	N/A	N/A	-0.30	
IM Emerging Markets Equity (SA+CF) Median			-3.29	4.07	14.01	-1.06	1.66	2.71	-1.06	
Rank			56	71	67	58	N/A	N/A	58	
NISA EM Futures (SA)	7,648,056	0.26	-2.82	1.98	10.87	-2.29	N/A	N/A	-0.45	02/01/2020
MSCI Emerging Markets Index (USD) (Net)			-2.93	1.82	11.70	-1.73	0.55	2.07	-0.44	
Excess Return			0.11	0.16	-0.83	-0.56	N/A	N/A	-0.01	
IM Emerging Markets Equity (SA+CF) Median			-3.29	4.07	14.01	-1.06	1.66	2.71	0.37	
Rank			45	64	67	63	N/A	N/A	60	

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 September 30, 2023

	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)	168,300,792	5.65	-3.87	-8.65	-14.32	5.94	4.84	7.81	6.72	09/01/2004
NCREIF ODCE Index (AWA) (Net)			-2.10	-8.14	-12.88	6.19	4.72	7.19	6.56	
Excess Return			-1.77	-0.51	-1.44	-0.25	0.12	0.62	0.16	
Fidelity US REITs Completion Index (SA)	92,370,480	3.10	-7.31	-0.92	4.03	5.04	N/A	N/A	0.55	01/01/2020
Fidelity REITs Completion Index			-7.31	-0.87	4.10	5.12	N/A	N/A	0.61	
Excess Return			0.00	-0.05	-0.07	-0.08	N/A	N/A	-0.06	
Agincourt FTSE NAREIT Equity REITs Index (SA)	9,391,435	0.32	-7.07	-2.42	2.66	N/A	N/A	N/A	-3.92	05/01/2021
FTSE NAREIT Eq REITs Index (TR)			-7.13	-2.14	2.99	5.76	2.77	5.96	-4.22	
Excess Return			0.06	-0.28	-0.33	N/A	N/A	N/A	0.30	
Infrastructure Equity										
IFM Global Infrastructure A (CF)	93,199,633	3.13	0.37	5.55	9.80	11.65	N/A	N/A	10.84	04/01/2020
S&P Gbl Infrastructure Index (Net)			-7.50	-4.45	5.90	6.45	3.18	4.20	9.86	
Excess Return			7.87	10.00	3.90	5.20	N/A	N/A	0.98	
Fidelity DJ Brookfield Infrastructure Index (SA)	60,267,032	2.02	-6.67	-3.73	5.48	6.43	N/A	N/A	0.36	01/01/2020
DJ Brookfield Gbl Infra Comp Index			-6.93	-4.46	4.50	5.79	2.97	4.20	-0.31	
Excess Return			0.26	0.73	0.98	0.64	N/A	N/A	0.67	
US Treasuries										
Agincourt 1-3 Year Treasury (SA)	186,555,582	6.27	0.74	1.70	2.42	-0.93	N/A	N/A	0.59	05/01/2019
Bloomberg US Trsy 1-3 Yr Index			0.71	1.69	2.44	-0.92	1.03	0.79	0.60	
Excess Return			0.03	0.01	-0.02	-0.01	N/A	N/A	-0.01	
IM U.S. Short Term Treasury/Govt Bonds (MF) Median			0.52	1.36	2.03	-1.50	0.54	0.48	0.16	
Rank			31	30	28	26	N/A	N/A	17	
Agincourt 1-5 Yr US TIPS (SA)	63,439,756	2.13	0.31	1.73	3.02	1.56	N/A	N/A	2.41	01/01/2020
Bloomberg US TIPS 1-5 Yr Index			0.24	1.52	2.84	1.45	2.67	1.63	2.26	
Excess Return			0.07	0.21	0.18	0.11	N/A	N/A	0.15	
IM U.S. TIPS (MF) Median			-2.21	-0.59	1.44	-2.04	1.94	1.39	0.70	
Rank			10	10	17	16	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 September 30, 2023

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
NISA 30 Year Treasury Futures (SA)	54,203,898	1.82	-12.15	-9.53	-17.10	-16.37	N/A	N/A	-15.04	05/01/2020
Bloomberg US Trsy Bellwethers 30 Yr Index			-12.72	-9.68	-12.05	-18.04	-3.73	0.28	-16.87	
Excess Return			0.57	0.15	-5.05	1.67	N/A	N/A	1.83	
IM U.S. Long Term Treasury/Govt Bond (MF) Median			-3.36	-2.55	-1.67	-5.96	-0.78	0.43	-5.23	
Rank			92	93	99	94	N/A	N/A	95	
Hoisington Macroeconomic US Treasuries (SA)	49,013,810	1.65	-13.13	-9.69	-10.48	-17.75	N/A	N/A	-5.14	05/01/2019
Bloomberg US Trsy Index			-3.06	-1.52	-0.81	-5.83	-0.07	0.63	-1.05	
Excess Return			-10.07	-8.17	-9.67	-11.92	N/A	N/A	-4.09	
IM U.S. Long Term Treasury/Govt Bond (MF) Median			-3.36	-2.55	-1.67	-5.96	-0.78	0.43	-1.67	
Rank			96	94	93	96	N/A	N/A	93	
US Mortgages										
DoubleLine MBS (SA)	67,562,244	2.27	-3.56	-1.42	0.16	-4.90	N/A	N/A	-2.39	08/01/2019
Bloomberg US MBS Index (Unhgd)			-4.05	-2.26	-0.17	-5.09	-0.77	0.61	-2.47	
Excess Return			0.49	0.84	0.33	0.19	N/A	N/A	0.08	
IM U.S. Mortgage Backed Bonds (SA+CF) Median			-2.84	-1.09	0.30	-3.41	-0.33	1.25	-1.96	
Rank			65	56	52	67	N/A	N/A	82	
US Credit										
PGIM US IG Corporate Bond (CIT)	77,828,419	2.61	-3.03	0.56	4.25	-4.54	N/A	N/A	-0.71	08/01/2019
Bloomberg US Crdt Index			-3.01	0.03	3.47	-4.83	0.86	2.12	-1.24	
Excess Return			-0.02	0.53	0.78	0.29	N/A	N/A	0.53	
IM U.S. Corporate Bonds (SA+CF) Median			-3.01	0.25	3.40	-4.85	1.07	2.61	-1.02	
Rank			52	39	20	37	N/A	N/A	35	
Asset Allocation										
Agincourt Passive Index (SA)	83,787,362	2.81	-2.87	6.19	13.03	N/A	N/A	N/A	-0.50	01/01/2021
Passive Benchmark			-3.46	5.05	13.18	1.33	3.44	4.49	-2.05	
Excess Return			0.59	1.14	-0.15	N/A	N/A	N/A	1.55	
Commodities & Other										
NISA Gold Futures (SA)	37,284,861	1.25	-3.72	-1.72	6.31	-1.12	N/A	N/A	1.68	05/01/2020
Bloomberg Gold Sub Index (TR)			-3.88	1.29	10.87	-1.38	8.06	2.55	1.42	
Excess Return			0.16	-3.01	-4.56	0.26	N/A	N/A	0.26	

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 September 30, 2023

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
US Dollar Instruments										
Agincourt 1-3 Month Treasury (SA)	114,460,965	3.85	1.30	3.64	4.51	1.68	N/A	N/A	1.57	05/01/2019
Bloomberg US T-Bills 1-3 Mo Index			1.34	3.71	4.63	1.75	1.71	1.09	1.63	
Excess Return			-0.04	-0.07	-0.12	-0.07	N/A	N/A	-0.06	
Mellon Government STIF (CF)	1,797,197	0.06	1.31	3.64	4.53	N/A	N/A	N/A	1.90	02/01/2021
Bloomberg US T-Bills 1-3 Mo Index			1.34	3.71	4.63	1.75	1.71	1.09	1.96	
Excess Return			-0.03	-0.07	-0.10	N/A	N/A	N/A	-0.06	
COAERS USD (SA)	1,015,809	0.03	0.37	1.07	1.34	0.52	N/A	N/A	0.46	05/01/2020
Bloomberg US T-Bills 1-3 Mo Index			1.34	3.71	4.63	1.75	1.71	1.09	1.55	
Excess Return			-0.97	-2.64	-3.29	-1.23	N/A	N/A	-1.09	
BNYM Money Market Fund (SA)	2,099,031	0.07	1.27	3.49	4.35	N/A	N/A	N/A	2.80	01/01/2022
Bloomberg US T-Bills 1-3 Mo Index			1.34	3.71	4.63	1.75	1.71	1.09	2.99	
Excess Return			-0.07	-0.22	-0.28	N/A	N/A	N/A	-0.19	
NISA Cash and Carry (SA)	66,871,519	2.25	1.28	3.79	3.93	N/A	N/A	N/A	5.78	09/01/2022
Bloomberg US T-Bills 1-3 Mo Index			1.34	3.71	4.63	1.75	1.71	1.09	4.46	
Excess Return			-0.06	0.08	-0.70	N/A	N/A	N/A	1.32	
Other Currencies										
NISA ST Sovereigns (SA)	49,045,351	1.65	1.23	3.72	4.66	N/A	N/A	N/A	3.07	01/01/2022
Bloomberg US T-Bills 1-3 Mo Index			1.34	3.71	4.63	1.75	1.71	1.09	2.99	
Excess Return			-0.11	0.01	0.03	N/A	N/A	N/A	0.08	

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

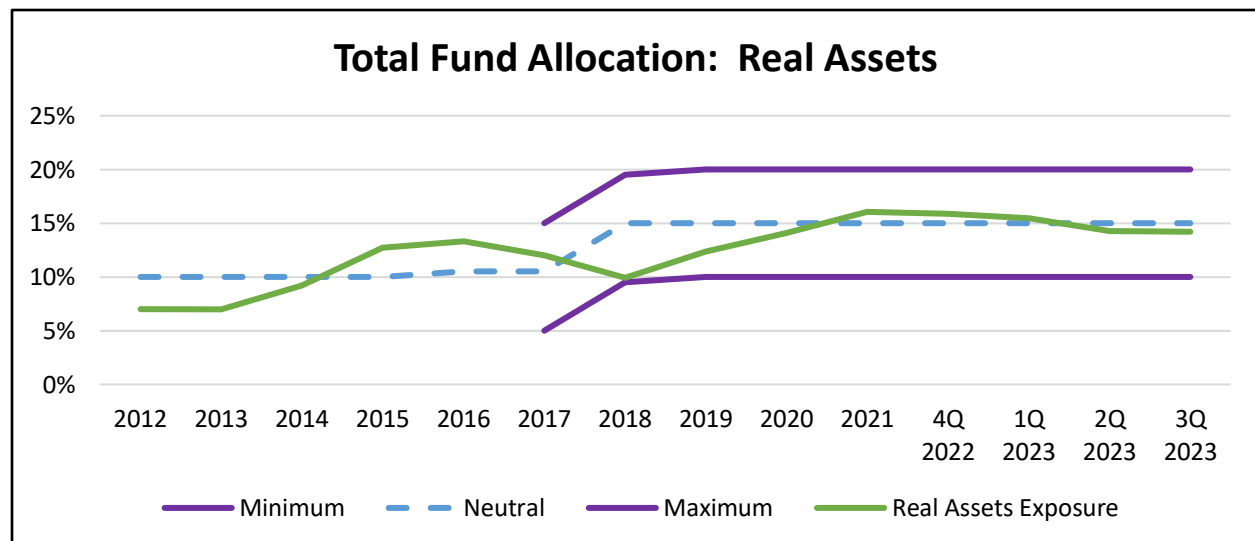


Real Assets Functional Role and Expectations

History

The Fund has long maintained exposure to Real Assets strategies in varying forms over the years. In 2004, a single line-item allocation to Real Estate was the entire asset class. Then in 2012, the Board added an asset class called Alternatives, where Real Assets served as a sub-asset class. This new sub-asset class would hold commodities, master limited partnerships (MLPs), and private energy. Finally, Real Assets was established as a standalone major asset class in the Strategic Asset Allocation (SAA) in 2017, with Real Estate and Infrastructure as its sub-asset classes. Initial allocations to new managers would not be made until the first half of 2020. The below chart shows the target and allocation to Real Assets over time.

In the Strategic Asset Allocation, Real Assets has a 15% neutral weight with sub-asset class exposures to Real Estate (10%) and Infrastructure (5%). As of Q2 2023, positioning at the asset and sub-asset class levels was near neutral and/or very slightly underweight due to market drift.



Role of Real Assets

Real Assets generally provide underlying exposure to hard assets, such as buildings or infrastructure assets, which can provide a different risk and return profile than many other investments in the Fund. Given that many Fund investments are in financial assets, like stocks and bonds, the performance of Real Assets strategies tend to be driven by differentiated underlying return sources. Historically, Real Assets have outperformed other asset classes during periods of heightened inflation. Notably, rising inflationary environments are typically headwinds for Global Equities which represent the primary source of risk and returns for the total Fund. Many Real Assets investments are also still sensitive to interest rate changes, particularly real estate, or changes in economic conditions, particularly infrastructure, which are also impactful to the prices of Global Equities and Fixed Income. As a result, Real Assets investments still tend to share some characteristics with Global Equities and Fixed Income.

In the total Fund context, Real Assets investments are expected to:

- serve as a Growth asset as a compliment to Global Equities,
- enhance diversification by providing positive long-term real returns and outperform Global Equities during inflationary periods,
- and exhibit characteristics that are a mix of equities (some capital appreciation) and fixed income (higher current income).

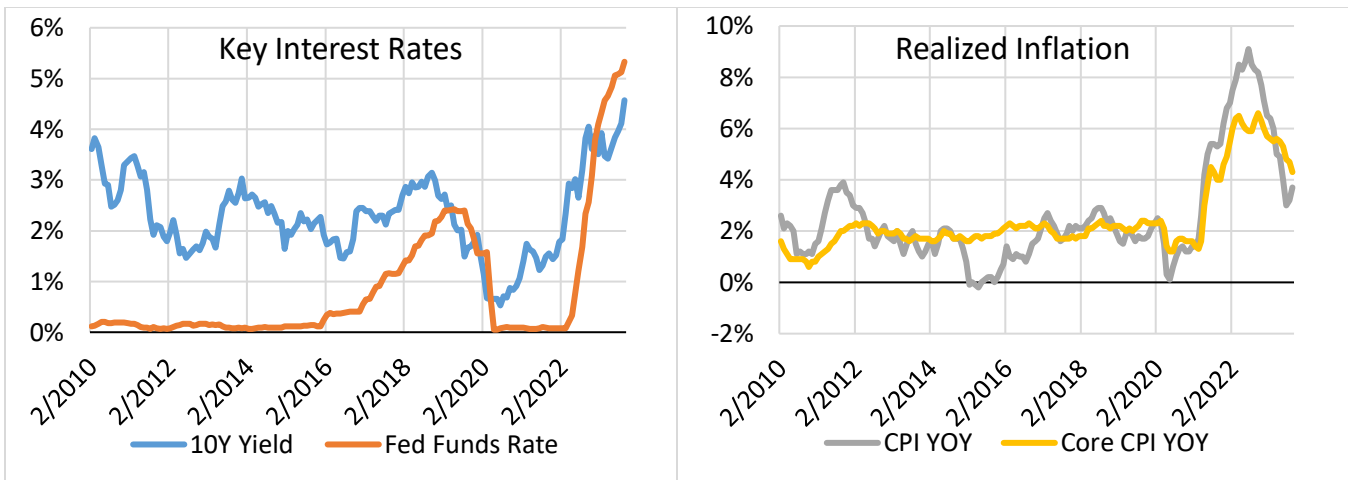
Staff would note below expectations and status of characteristics for this asset class.

Additionally, we would note that most of our assessments for this asset class focus on the past 3-years which incorporates the significant restructuring of both Real Estate and Infrastructure and excludes some of the distortions from COVID-19, and that a longer time horizon of 10+ years is required to fully assess success.

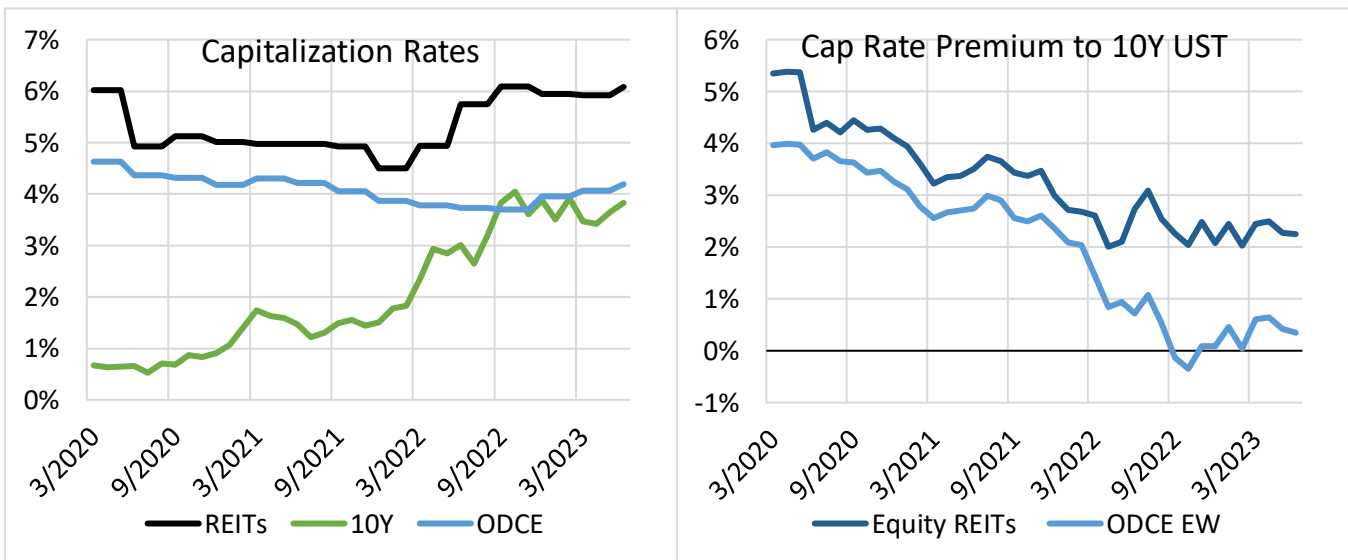
Topic	Expectation	Status
Functional Role	Growth	Mixed/Too early to tell
Return Expectations	75 to 100 bps below Global Equities	Slightly below
Return Characteristics	Mix of equities (some appreciation) and fixed income (higher income)	Meets Expectations
Risk Expectations	Half of Global Equities volatility	Meets Expectations
Correlation Expectations	0.75 to Global Equities, 0.00 to Fixed Income	Mixed
Preferred Regimes	Outperform Global Equities during inflationary regimes	Mixed

Market Backdrop

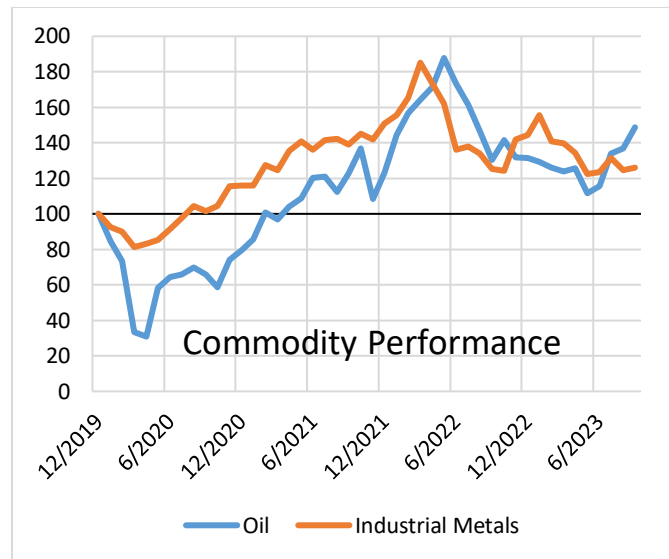
Since early 2020, the economic and financial backdrop has significantly changed in key areas including the arrival of high inflation, a cut and subsequent increase in the effective federal funds rates, and multi-decade lows and highs in long interest rates. Market distortions of the COVID-19 pandemic and subsequent fiscal and monetary responses have made what were once more stable economic relationships more volatile.



The rise in interest rates and higher inflation has caused capitalization rates in Real Estate to increase recently in public REITs. Private markets strategies in the ODCE index, however, have not been as quick to adjust to this changing dynamic as managers and valuation firms have been more hesitant to mark losses in their portfolios. Cap rate premiums over UST yields have dropped over the past few years to below average for public REITs and to negative levels for the ODCE index. These valuations represent a headwind for Real Estate over the near to medium term. Should cap rates normalize to their longer-term premium over 10Y US Treasury yields, we estimate that valuations could decrease by approximately 16% in REITs and 36% for ODCE.



Additionally, after a global growth shock from pandemic induced lockdowns, GDP has by and large avoided many of the expected slowdowns across the globe. On a forward-looking basis, however, the effects of higher interest rates are likely to flow through the economy in the form of slower growth. Infrastructure investments also tend to have higher exposures to commodity prices, which could be significantly impacted by ongoing geopolitical tensions and wars.



Current Structuring

Real Estate:

Overall, this portfolio uses a mix of private and public markets mandates to outperform the public REITs benchmark over longer periods of time (10+ years). Core, private markets managers are expected to add value in managing underlying real estate investments more effectively than public REITs. To achieve property exposures near to the benchmark, which includes a broad set of real estate property types in the US, passive REIT strategies are used.

The Real Estate portfolio currently is structured with approximately 60% of assets in a core, open ended, private markets real estate fund with the Principal US Property Account (USPA). This strategy invests primarily in US office, apartment, industrial, and retail properties (i.e., “core” properties) and is a long-standing mandate for COAERS since 2004. Staff analysis has suggested that private markets managers in these core property types tend to add value over time compared to public, passive mandates. As such, this mandate serves as a core allocation to what have historically been the largest property types in the US.

This mandate is complemented by passive real estate investment trust (REIT) strategies. This structuring is intended to provide exposure to the broad property types that are included in the benchmark at a low cost and provide increased liquidity for the sub-asset class. The largest allocation of these is to a REIT completion index which allocates to public markets REITs across the property types which are not included in Principal USPA’s mandate but are included in the broader Real Estate REIT benchmark (i.e., “non-core” properties). This includes properties such as data centers, cell towers and a myriad of other property types that have grown in importance over the past 20 years. The final, and smallest, mandate in this sub-asset class gives exposure to a REIT ETF which represents a legacy position from a terminated Multi-Asset mandate and tracks the sub-asset class benchmark.

Recent market moves have caused the mix between core and non-core (i.e., completion) exposures to differ from the benchmark. As a result of swift moves down in public markets (where the portfolio has a larger exposure to “non-core” properties) relative to private markets which have a smoother return profile (where the portfolio has a larger exposure to “core” properties), the portfolio is positioned with an overweight to “core” properties, as shown above. The Principal USPA account has stopped allowing redemptions and cannot be used as a rebalancing source at this time, limiting the ability to rebalance these exposures nearer to benchmark exposures.

REIT Sector	Portfolio	Benchmark	Difference
Core Sectors	65%	50%	15%
Multi-Family	21%	12%	9%
Office	12%	6%	6%
Industrial	21%	16%	5%
Retail	10%	16%	-6%
Non-Core Sectors	35%	50%	-15%

Current Allocations

MANAGER	MANDATE	AUM (\$)	% OF FUND
Principal	US Property Account	168,300,792	5.7%
Fidelity	US REITs Completion Index	92,370,480	3.1%
Agincourt	FTSE NAREIT Equity REITs ETF	9,391,435	0.3%

Infrastructure:

Overall, this portfolio uses a mix of private and public markets mandates intended to outperform the public markets benchmark, which consists of listed infrastructure companies, over longer periods of time (10+ years). Private markets strategies in Infrastructure are similarly expected to add value by more effectively sourcing investment opportunities and managing infrastructure assets. In order to achieve exposure to the broad opportunity set globally, private markets exposures are complemented with passive, public mandates.

The Infrastructure portfolio is similarly structured with a 60% allocation to a core, private markets, open ended infrastructure fund called IFM Global Infrastructure Fund (GIF). This strategy provides exposure to core infrastructure projects in North American and European OECD countries. It invests in mid and large cap transactions where assets exhibit stable regulatory environments, high barriers to entry, limited demand elasticity, and long lives. Staff analysis has shown that this mandate has exhibited high returns over longer periods of time due to strong alignment of interest and structural access to better infrastructure projects.

Sector	Portfolio	Benchmark	Difference
Transportation	21%	12%	9%
Energy	26%	21%	5%
Utilities	26%	39%	-13%
Communications	10%	0%	10%
Ports/Airports	14%	27%	-12%
Other	3%	0%	3%

Similar to Real Estate, this core private markets strategy is complemented with passive, public markets exposure to listed infrastructure companies. This structuring is intended to complement the core exposure through private markets by providing broad market exposure through liquid, low cost passive exposures and has resulted in a more diversified

exposure to thematic infrastructure company types, as shown in the table. This complementary public markets exposure is through the Dow Jones Brookfield Global Infrastructure Index

managed by Fidelity. The underlying index selects companies for inclusion using a bottom-up process to identify companies which exhibit stable cash flows as expected for infrastructure investments.

Current Allocations

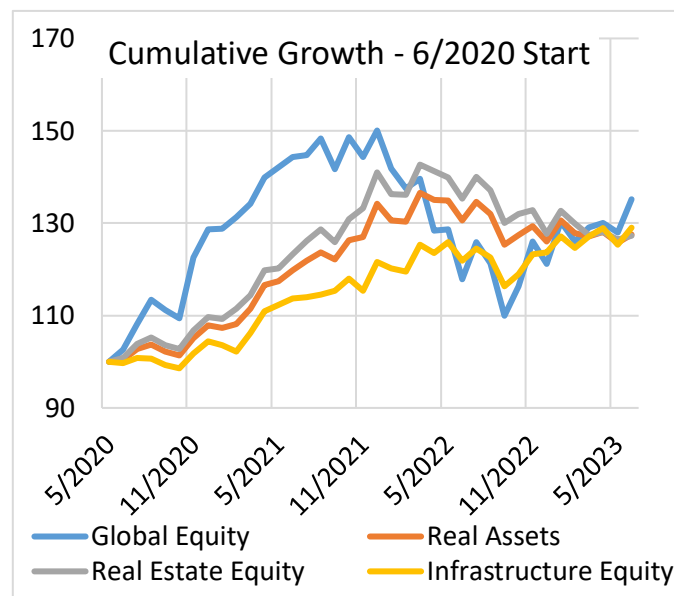
MANAGER	MANDATE	AUM (\$)	% OF FUND
IFM	Global Private Infrastructure Fund	93,199,633	3.1%
Fidelity	DJ Brookfield Global Infrastructure Index	60,267,032	2.0%

Return Expectations: Mixed

The Real Assets asset class is expected to earn returns near to, but 75-100 bps below, Global Equities over the longer time periods (10+ years). Over the prior 3-years as of 6/30/2023, the Real Assets portfolio and each of its sub-asset classes has performed near to or in line with this expectation:

- Global Equities: 9.4%
- Real Assets: 8.2%
- Real Estate: 8.0%
- Infrastructure: 8.9%

Given the shorter measurement period, it is too early to tell if this asset class is meeting its return expectations and Staff would note that the market environment has been highly unusual since early 2020.



As of 6/2023	Yield
Real Assets	4.2%
Real Estate	3.6%
Completion Index	4.3%
Agincourt REIT	4.2%
Principal	3.2%
Infrastructure	5.1%
IFM	5.4%
DJBI	4.6%
Equities and Bonds	
US Agg	4.8%
UST Index	4.4%
Global Agg	3.8%
MSCI ACWI	2.3%

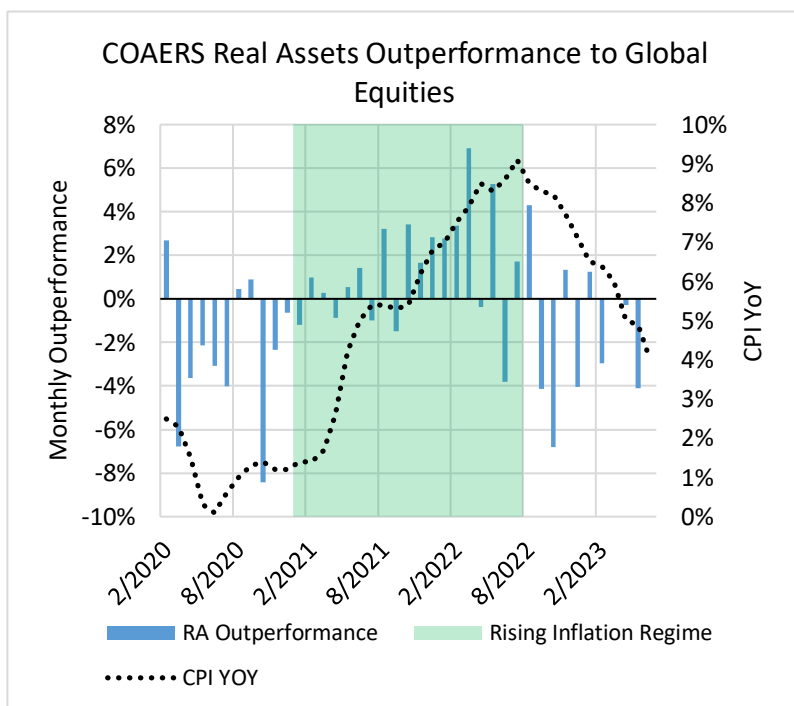
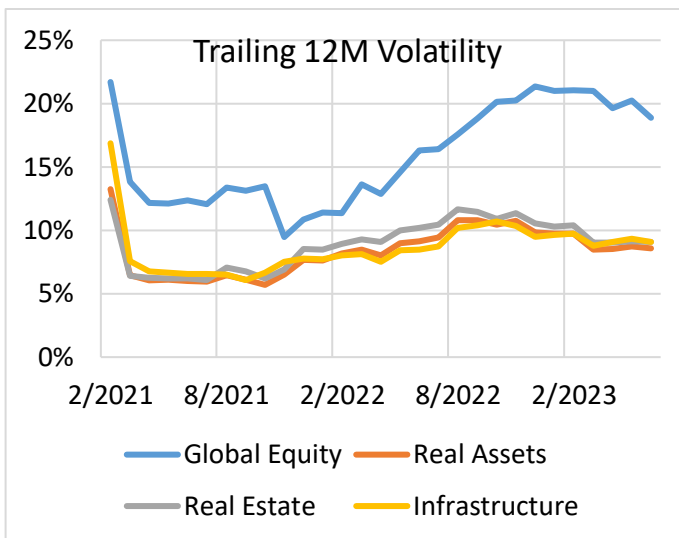
Return Characteristics: Meets Expectation

Return characteristics of this asset class should exhibit a mix of equities (some capital appreciation) and fixed income (higher current income). As is currently constructed the asset class does indeed exhibit yields (4.6%) that are in between public US fixed income (4.8%) and global equities (2.3%). It is particularly notable that yields on this asset class are above those seen in global bonds (3.8%). RVK CMAs assume 7.1% total returns for this asset class, implying more than half of expected returns can be attained through income for the asset class in the current market environment.

*Yields for public markets strategies/indices are current yields, Principal is annualized based on Q3, and IFM is since inception

Risk Expectations: Meets Expectations

Realized volatility for this asset class is expected to be approximately half of public equities, given the large allocation (~60%) to private markets strategies. Private Markets strategies show nearly no observed volatility (<5%). Public markets Real Assets strategies, however, exhibit volatility approximately equal to public equities. In total, the Real Assets portfolio has indeed exhibited roughly half the volatility (8.5% annualized) of Global Equities (17.0% annualized) over the trailing 3-years as of 6/30/2023.



Preferred Regime: Mixed

Given the struggles of equities during inflationary times, Real Assets are expected to outperform Global Equities during times of high and/or rising inflation. US inflation rose precipitously and has since started to decline, though it remains high. Staff analyzed this performance expectation and found that in rising inflationary times, the Real Assets portfolio outperformed Global Equities as seen in the area shaded green in the chart. During high inflation times (>4% YoY CPI), however, the results were much more mixed and below expectations.

Correlation Expectations: Mixed

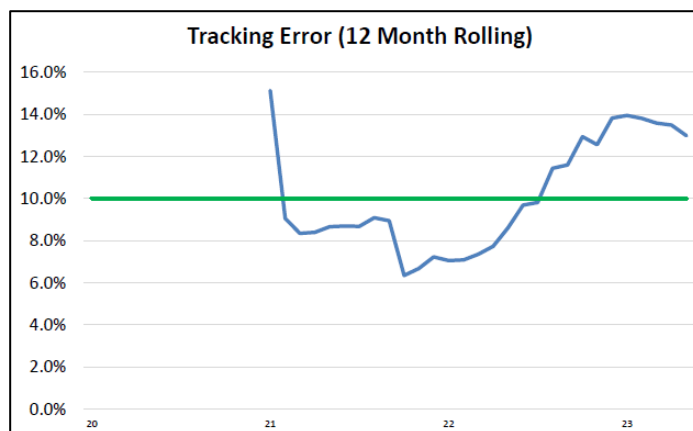
Expectations for this asset class are that realized correlations for Real Assets should be approximately +0.75 to equities and +0.00 to Global Fixed Income. Over the previous three years, realized correlations have measured +0.84 to Global Equities, slightly higher than our expectation and in line with RVK CMAs. Correlations to Global Fixed Income, however, were +0.66 – materially higher than expectations. Correlations to Fixed Income have increased across most asset classes as inflation and interest rates increased and have pushed this figure outside of expectations.

Realized Correlations: 3/31/20 to 6/30/23														
	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	Total Fund	1.00	1.00	0.87	0.84	-0.15	0.93	0.90	0.82	0.06	0.89	0.66	0.96	-0.09
2	Global Equity	1.00	1.00	0.84	0.81	-0.19	0.91	0.88	0.80	0.03	0.89	0.61	0.96	-0.08
3	Real Assets	0.87	0.84	1.00	0.98	0.18	0.96	0.94	0.92	0.24	0.90	0.43	0.83	-0.23
4	Real Estate Equity	0.84	0.81	0.98	1.00	0.26	0.95	0.92	0.83	0.13	0.83	0.41	0.79	-0.28
5	Principal US Property	-0.15	-0.19	0.18	0.26	1.00	-0.02	-0.05	0.00	-0.02	-0.03	-0.23	-0.17	-0.53
6	Fidelity US REITs	0.93	0.91	0.96	0.95	-0.02	1.00	0.99	0.87	0.14	0.89	0.52	0.88	-0.15
7	Agincourt FTSE NAREIT Eq REITs	0.90	0.88	0.94	0.92	-0.05	0.99	1.00	0.80	0.17	0.84	0.63	0.82	-0.11
8	Infrastructure Equity	0.82	0.80	0.92	0.83	0.00	0.87	0.80	1.00	0.41	0.93	0.39	0.81	-0.10
9	IFM Global Infrastructure Fund	0.06	0.03	0.24	0.13	-0.02	0.14	0.17	0.41	1.00	0.11	0.07	0.01	-0.01
10	Fidelity DJ Brookfield GI Infr	0.89	0.89	0.93	0.83	-0.03	0.89	0.84	0.93	0.11	1.00	0.48	0.87	-0.16
11	Global Fixed Income	0.66	0.61	0.43	0.41	-0.23	0.52	0.63	0.39	0.07	0.48	1.00	0.61	0.05
12	Multi Asset	0.96	0.96	0.83	0.79	-0.17	0.88	0.82	0.81	0.01	0.87	0.61	1.00	-0.07
13	Cash and Equivalents	-0.09	-0.08	-0.23	-0.28	-0.53	-0.15	-0.11	-0.10	-0.01	-0.16	0.05	-0.07	1.00

Benchmarking

Per the COAERS IPS: “Each asset class is to be benchmarked by an associated index that describes, in general terms, the opportunity set and return characteristics associated with the asset class. For certain private or more complex asset classes the index should serve as a proxy for expected returns rather than an approximation of the actual investments that will characterize that component of the portfolio.”

The benchmark for Real Assets consists of a neutral-weighted blend of the two sub-asset class benchmarks and is comprised of 67% Real Estate and 33% Infrastructure. Both sub-asset class benchmarks consist solely of publicly traded securities, which have high correlations to equities. The use of approximately 60% private investments in both sub-asset classes creates a mismatch between underlying assets and valuation methodologies, which leads to significant levels of tracking error. The chart to the right shows the rolling 1-year tracking error between the Real Assets portfolio and its benchmark with this figure commonly exceeding 10%.



Real Estate Equity Benchmark

FTSE NAREIT Equity REITS Index is a market capitalization weighted index of US equity REITs excluding timber and infrastructure REITs. The structure of US REITs, which require investing at least 75% of assets in real estate and paying out at least 90% of income, reasonably ensures that these securities do represent the return characteristics of real estate investments.

Infrastructure Equity Benchmark

S&P Global Listed Infrastructure Index is a market capitalization weighted index of developed and emerging markets infrastructure companies in the energy, utilities and transportation sub-industries. This index has 75 constituents and allocates across the US, DM and EM markets of infrastructure companies.

In considering the extent to which these public benchmarks represent the opportunity set and return expectations in private markets strategies, Staff notes the below benchmarks which could be discussed and considered alongside potential updates to the Strategic Asset Allocation:

The NCREIF ODCE Index represents a peer benchmark of open-end, core US real estate strategies. This index significantly reduces tracking error for Principal USPA, exhibits a correlation of +0.96 and is currently used as the manager benchmark for this mandate.

The Burgiss Global Infrastructure Funds Index similarly represents a peer benchmark of private markets infrastructure funds. This benchmark similarly reduces tracking error (to 3.5%) and increases correlations to (+0.64) for IFM, compared to the use of a public markets benchmark.

Portfolio Performance Monitoring

To assess the effectiveness of the portfolio as currently structured, Staff focused the performance review on the trailing 3-year period which incorporates the significant restructuring of both Real Estate and Infrastructure and excludes some of the distortions from COVID-19.

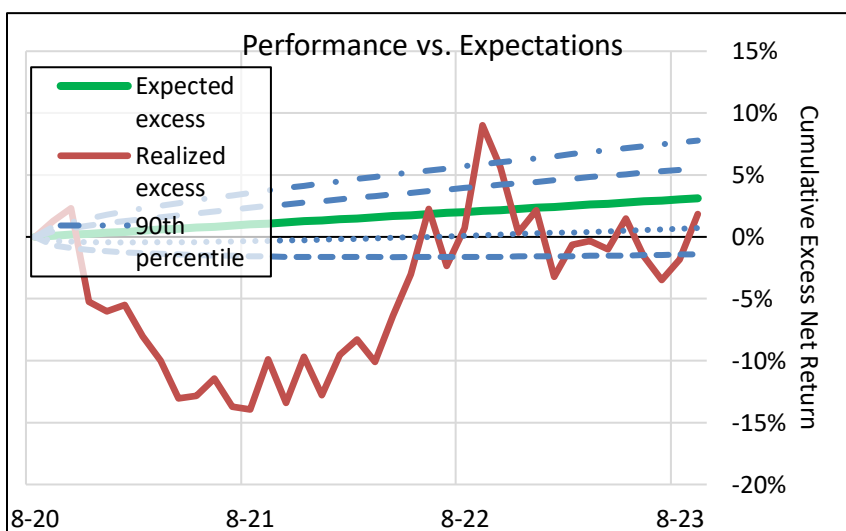
Given the public markets benchmark alongside private markets exposures, relative performance for this asset class has varied widely over this

period. In the post-COVID rally during 2020 and 2021, this portfolio significantly lagged its benchmark as private markets exposures lagged the public markets rally. Conversely in 2022, when public markets struggled, this asset class significantly outperformed its benchmark as private markets exposures were slower to experience portfolio losses.

Key decisions in this asset class include the use of active private markets strategies, a completion index in Real Estate, and a different passive exposure in Infrastructure. On balance these decisions have been mixed with the use of private markets additive and index selection detractive over the trailing 3-year period as of 9/30/2023:

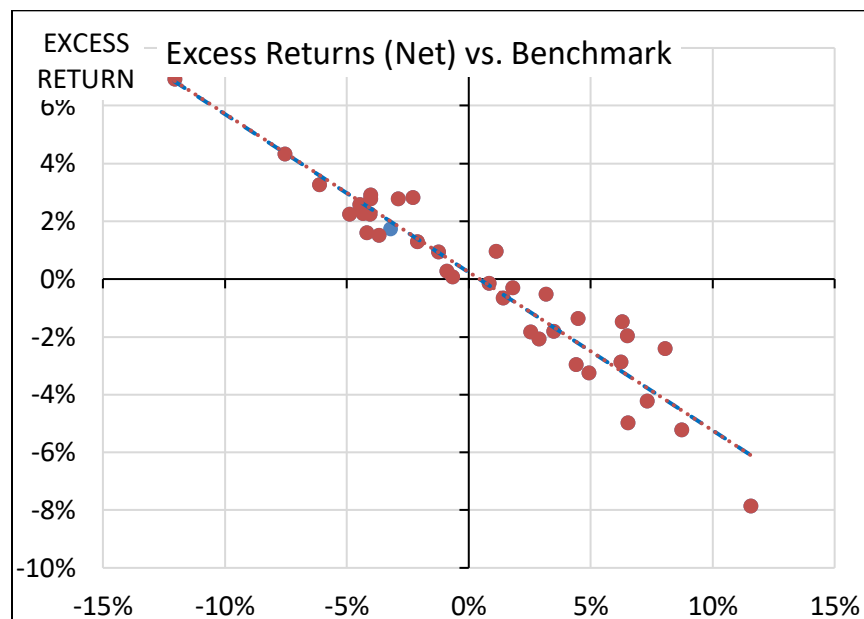
The use of private markets has been additive to the portfolio:

- IFM's private Infrastructure mandate (+11.65%) has outperformed the public S&P Global Infrastructure Index (+6.45%) by over 5%, annualized
- Principal's USPA (+5.94%) has outperformed the public FTSE NAREIT Equity REITs index (+5.76%) by ~0.2%, annualized



Index selection has been detractive to the portfolio:

- The US REITs Completion portfolio (+4.97%) has underperformed the FTSE NAREIT REITs Equity Index (5.76%) by ~0.8%, annualized
- Fidelity's DJ Brookfield Global Infrastructure Composite Index (+6.18%) has trailed the S&P Global Infrastructure Index (+5.79%) by ~0.3%, annualized



The use of private markets strategies in this asset class with a public markets benchmark has also led to very high levels of tracking error (10.5%). This tracking error has produced positive convexity in the portfolio with higher up capture (52%) than down capture (41%) ratios. Given the System's sensitivity to poor actuarial outcomes from large drawdowns, structuring this asset class to produce significant amounts of positive tracking error during market drawdowns is a very attractive portfolio attribute.

Active vs. Passive Management

Active management does appear likely to add value, in varying forms, in both Real Estate and Infrastructure.

- Staff's research shows that the average active ODCE (private markets) manager outperformed passive REITs of similar property types (smoothed data for comparability) over the last 17 years with the exception of residential (housing)
- Staff's analysis also compared the historical returns of active REIT managers and concluded that long-term outperformance was eroded by fees. The average annual excess return of an active REITs manager was 68 basis points, and the average annual fee was 70 basis points.
- Regarding infrastructure, Staff found active management, on a net-of-fees basis, is more likely to add value. The average manager outperformed the index by 207 basis points per year on a gross basis over the last five years, with average annual fees of 85 basis points, representing net outperformance of 122 basis points.

Summary and Looking Forward

On balance, the Real Assets asset class has had mixed results in fulfilling its role in the total Fund context. The highly unusual market environment over the prior years combined with a shorter track record make a definitive assessment of these results difficult. The portfolio has worked reasonably well when inflation increases but hasn't performed as well when inflation is high at an absolute level. Staff is investigating other diversifying strategies that could enhance the risk-return profile of the Real Assets asset class. Staff also continues to evaluate the appropriateness of the current benchmarks given the tracking error induced by the current allocations.

Appendix

Real Assets: Real Estate Equity (Strategic Benchmark: FTSE NAREIT Equity REITS TR Index)

- **Principal US Property Account:** this strategy owns US core commercial property which includes fully leased high quality office buildings, apartments, industrial parks, and retail. The institutional commingled vehicle is currently structured as an insurance company group annuity separate account sponsored by Principal Life Insurance Company and managed by Principal Real Estate Investors. The manager's performance benchmark is the NCREIF Open End Diversified Core Equity (ODCE) Index, which is a composite index of peer funds that is capitalization-weighted based on each fund's net invested capital.
- **Fidelity US REITs Completion Index:** this passive strategy seeks to replicate a customized index that is comprised of the FTSE NAREIT All Equity REITS Index but excludes REITs of property types that are included in Principal USPA including shopping centers, malls, office, industrial, apartments, and infrastructure assets. The mandate is managed by Fidelity Institutional Asset Management ("Fidelity"), who is based in Boston, MA. The strategy is structured as a separately managed account (SMA).
- **Agincourt FTSE NAREIT:** this strategy seeks to track the total return of the FTSE NAREIT Equity REITs Index by using one or more exchange traded funds (ETFs). The FTSE NAREIT Equity REITs Index is the index for COAERS' Real Estate sub asset class. The index is a market cap weighted REITs index that captures equity REITs not designated as timber or infrastructure REITs. The investment is managed by Agincourt Capital Management, which is based in Richmond, Virginia. The ETF may employ securities lending.

Real Assets: Infrastructure Equity (Strategic Benchmark: S&P Global Infrastructure Net TR Index)

- **IFM Global Infrastructure Fund:** this strategy provides exposure to core infrastructure projects in North American and European OECD countries. It invests in mid and large cap transactions where assets exhibit stable regulatory environments, high barriers to entry, limited demand elasticity, and long lives. The fund is structured as an open-ended limited partnership and is managed by IFM Investors, which is owned by a consortium of Australian superannuation funds and based in Melbourne, Australia.
- **Fidelity Global Infrastructure Index:** this passive strategy seeks to replicate the Dow Jones Brookfield Global Infrastructure Composite Index. This index is market cap weighted and seeks to invest in listed infrastructure companies. The mandate is managed by Fidelity Institutional Asset Management ("Fidelity"), which is based in Boston, MA. The strategy is structured as a separately managed account (SMA).

Glossary

- Capitalization Rate (cap rate): in real estate, the cap rate is the annual net operating income (NOI) divided by the property's market value.
- Collective investment trust (CIT): COAERS owns shares in a pooled fund that is sponsored by a bank or trust company and is open only to institutional investors. As such, it is not considered a security under US law and is governed instead by federal and/or state banking laws.
- Exchange Traded Fund (ETF): COAERS owns shares in a pooled fund that is sponsored by a bank or trust company. ETFs are traded on an exchange, and as such they offer intraday liquidity since they can be bought and sold intraday through a brokerage firm.
- Futures: COAERS owns futures on stock indices and bonds. Ownership of a future represents a contractual obligation to take delivery of the underlying stock index, bond, gold warrant, etc., at an agreed upon price and at a future date.
- Limited partnership (LP): COAERS is a limited partner in a legal entity that invests according to a pre-determined strategy and is managed by a general partner (GP).
- Mutual fund (MF): COAERS owns shares in a pooled fund of both institutional and retail investors that is managed by a registered investment advisor according to US securities laws.
- REIT: COAERS invests in real estate investment trusts that are publicly traded securities and offer daily liquidity. In order to maintain their REIT designation, the trust must distribute 90% of its taxable income to shareholders annually in the form of dividends.
- Separately managed account (SMA): the underlying shares are owned directly by COAERS, and the manager has authorization to trade that account.
- Warrant: COAERS owns warrants on gold bars. The warrants are registered with the Commodity Exchange Inc. (COMEX) and are claims on individual gold bars stored in vaults throughout the United States.

8B. Fixed Income



COMMITTEE MEETING Agenda Item Information Sheet

AGENDA ITEM 8:

Discuss and consider investment implementation
including Premier List for the following:

B. Fixed Income

AGENDA ITEM OBJECTIVE

The Committee will review proposed updates to the System's Fixed Income investment strategy to reflect inclusion of items recently approved as part of the Strategic Asset Allocation Study.

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 Fixed Income Premier List pending final approval by counsel on fund-related documents and the development of a funding implementation plan by Staff and RVK.

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 present a recommendation for an update to the Fixed Income Premier List.

ATTACHMENTS

1. Staff Investment Recommendation Memo [CONFIDENTIAL]
2. Staff Due Diligence Summary [CONFIDENTIAL]
3. RVK Due Diligence Memo [CONFIDENTIAL]
4. Proposed COAERS Premier List [CONFIDENTIAL]

SUPPLEMENTAL INFORMATION PROVIDED VIA CONVENE APP

5. Staff Due Diligence Report [CONFIDENTIAL]
6. RVK Due Diligence Report [CONFIDENTIAL]

9. Discuss and consider investment consulting services including:

A. Request for Proposal for General Investment Consultant

B. Request for Information for Private Markets Consulting Services



COMMITTEE MEETING Agenda Item Information Sheet

AGENDA ITEM 9:

Discuss and consider investment consulting services including:

- A. Request for Proposal for General Investment Consultant
- B. Request for Information for Private Markets Consulting Services

AGENDA ITEM OBJECTIVE

This item is for the Committee to review the Request for Proposal (RFP) for General Investment Consulting Services and Request for Information for Private Markets Consulting Services, and consider recommending both for Board approval.

RELEVANCE TO STRATEGIC PLAN

This agenda item is central to **COAERS Strategic Plan Goal 4: Identify and implement leading practices in Board governance, pension administration, and investment management**. It is considered a best practice to periodically review major service providers, including consulting relationships.

RECOMMENDATION FOR COMMITTEE ACTION

Staff recommends that the Committee refer to the Board for approval the proposed Request for Proposal for General Consulting Services and the Request for Information for Private Markets Consulting Services.

BACKGROUND

COAERS' contract with RVK, the Fund's General Investment Consultant, expires in June, 2024. With the recent addition of Private Credit to the Strategic Asset Allocation Staff believes this is a good opportunity to gather information regarding Private Markets consulting capabilities for both General Consultants and Private Markets specialist consultants.

ATTACHMENTS

1. Staff Memo
2. Components for a General Investment Consultant RFP
3. Components for a Private Markets Specialist Consultant RFI



General Consultant Request for Proposal Private Markets Consultant Request for Information

RVK, COAERS' General Consultant, was initially selected in 2017 for a three-year term. COAERS has subsequently signed two two-year extensions, the maximum allowed under the original contract. As such, it is incumbent upon the organization to seek bids and review services and pricing available in the marketplace prior to the expiration of the current contract on June 30, 2024.

Additionally, the COAERS Board recently approved a new Strategic Asset Allocation which includes new, dedicated Private Markets exposures. This new addition to the portfolio requires a somewhat different set of consulting skills than those found only with General Consulting capabilities. As COAERS will be building a Private Markets program over the next several years, consideration should be given to a review of both a General Consultant's capabilities in Private Markets, as well as the services and capabilities of organizations that focus exclusively on Private Markets.

Staff recommends that COAERS issue a Request for Proposal (RFP) for General Consulting Services which will include high-level capabilities related to building a Private Markets program. These services include development of Policies and Procedures, Strategic Planning, Pricing Analysis, and education of Board and Staff.

As the research requirements for investment strategies and managers in Private Markets differ significantly from those in Public Markets, Staff believes that surveying the landscape for these capabilities through issuance of a Request for Information (RFI) for Private Markets Specialist Consultants is prudent at this time. Organizations providing General Consulting Services will also be encouraged to respond to this RFI.

Attached are the components of the recommended RFP and RFI. Once approved by the Board, Staff will incorporate these items into the appropriate documents for each. These components include:

Request for Proposal

1. Contract Term
2. Scope of Services
3. Schedule of Events
4. Consultant Pricing Matrix
5. Proposed Evaluation Criteria
6. Minimum Qualifications
7. Questions

Request for Information

1. Scope of Services
2. Questions

Staff recommends the Investment Committee refer these components to the Board for consideration and approval.



———— CITY OF AUSTIN ————
EMPLOYEES' RETIREMENT SYSTEM

Request for Proposal

General Investment Consultant

City of Austin Employees' Retirement System
6850 Austin Center Blvd, Suite 320
Austin, TX 78731
(512) 458-2551

Term of Contract

The services requested shall be provided for an initial term of three years and may be renewed for two additional two-year terms upon mutual agreement of the parties evidenced in writing.

Schedule of Events

The solicitation process for this RFP will proceed according to the following schedule:

RFP Approval	December 19, 2023
Issuance	January 2, 2024
Deadline for Submission of Questions	January 12, 2024
Pre-Proposal Conference	January 19, 2024
Deadline for Submission of Proposals	February 9, 2024
Public Proposal Opening	February 12, 2024
Due Diligence Site Visits	April – May 2024
Committee Finalist Review	May 2024
Selection	June 2024
Contract Execution	July 1, 2024

Pricing Matrix

Provide your pricing information below and attach a sample contract as a separate exhibit as Section **XX** of your response. Prices should include all services in the scope of work and requirements in this RFP.

Performance-based fee structures will not be considered. List any additional services not listed in the fee proposal that would incur additional fees as special or other services. For any proposed renewal adjustments please be specific as to whether the increase would be a fixed dollar amount, a fixed percentage, or linked to a particular index.

PRICES WILL BE FIXED FOR THE INITIAL 5-YEAR TERM, AND THE TWO 2-YEAR RENEWAL TERMS IF EXERCISED MAY CONTAIN ADJUSTMENT(S).

Consulting Pricing Matrix	
Initial Term, Per Annum	\$
First Renewal Term, Per Annum	\$
Second Renewal Term, Per Annum	\$
Additional Services (if any, list in detail, per annum)	\$

Describe your organization's terms for consultant travel to the COAERS offices in Austin.

Provide additional services detail, assumptions, exclusions, proposed adjustments, and desired payment terms.

Proposal Evaluation Criteria

(a) COAERS may consider any and all information related to the Respondent and its Proposal.

(b) While cost will be an important consideration, COAERS is not required to award service engagements solely on the basis of quoted fees.

(c) COAERS also expects to consider a multitude of factors that will be evident to bidders from the questions contained in this RFP document, information provided during the pre-bid conference, and questions posed during the finalist selection process. Key factors that will be evaluated during this selection process to evaluate a Proposal in determining which Respondent provides the services at the best value for COAERS will include, but are not limited to:

- Dedication to exemplary standards of transparency, objectivity, and alignment
- Alignment of the firm's core investment beliefs with those of COAERS
- Transparency of organizational business activities and management of potential conflicts of interest
- Success in developing client-focused allocation strategies and portfolio design/structures
- Ability to assist in development of investment policies, reporting, strategic planning and pricing analysis for private markets investment activities
- Ability to adjust portfolio structures proactively amid evolving market conditions
- Ability to secure lower fees for clients through portfolio design and negotiation
- Portfolio risk management analytics, recommendations and strategies
- Investment performance of comparable clients after adjusting for key parameters
- Overall fee structure and portfolio efficiency of comparable public pension clients
- Ability to help Trustees and Staff discern major secular investment and economic trends
- Historical alpha of active managers selected by public pension clients
- Rigor and usefulness of performance analytics and performance reports
- Success in identifying managers with strong performance after selection by clients
- Professional reputation as evidenced by references, thought leadership, and other sources
- Success in timely eliminating unstable and underperforming managers
- Ability to strengthen, reinforce and challenge the CIO and investment staff in a collegial, professional manner
- Focus, reliability, responsiveness, and professionalism of client services team
- Industry thought leadership as evidenced by white papers or other forms of advocacy
- Depth of experience with the challenges facing public pension plans similar to COAERS
- Ability to communicate clearly and succinctly in both written and oral formats
- Client education, both at meetings and through sponsored events/conferences/symposia
- Proven ability to admit error or misjudgments and to make necessary adjustments
- Quality of relevant references for several different competencies described above
- Depth, expertise and track record of research teams/personnel
- Ability to quantify results and claims made in RFP responses and oral presentations
- Compliance with all the minimum required qualifications

(d) Staff will consider the extent to which the above criteria and all related claims are demonstrated, documented, and substantiated in the Proposal and subsequent presentations.

(e) Staff may qualitatively benchmark and/or provide nominal or ordinal ratings of certain responses that are strategic, tactical, or technical.

(f) While these data points may be considered by Trustees, there is no predetermined mechanical formula contemplated for weighing fees against other criteria.

Minimum Qualifications

The proposer must meet all of the following minimum qualifications to be given further consideration. Please state and explain any exceptions or lack thereof at the end of the document.

1. Be a registered investment advisor under the Investment Company Act of 1940.

YES NO

2. The firm must contractually agree to (i) serve as a fiduciary with respect to its services and (ii) defend, indemnify and hold harmless COAERS (and its indemnified parties) for claims, expenses, losses, damages, etc. related to acts or omissions by the firm that are not consistent with the fiduciary standard of care, breaches of representations and warranties, and material misrepresentations.

YES NO

3. The firm must carry, or be able and willing to obtain if selected, errors and omissions, fiduciary liability and general liability insurance in amounts reasonably competitive with other semi-finalists as identified in Section XXX of the RFP.

YES NO

4. The firm must have at least two U.S. public pension fund clients, each with assets in excess of one billion U.S. dollars as of December 31, 2023.

YES NO

5. As of December 31, 2023 have been in business for a minimum of five years providing services similar to those described in the Scope of Services section; if the firm has not been in business for at least five years, the senior principals of the firm must have at least ten years of experience with institutional clients at an investment consulting firm or with an institutional investor similar in nature to COAERS.

YES NO

6. The primary consultant assigned to the COAERS relationship must have a minimum of five years of client-facing experience providing investment consulting services to public and/or private pension fund plans, the last three years of which must have been with the present firm or team. At least one of those clients must be a public pension fund comparable to COAERS.

YES NO

7. Have provided similar investment consulting services, including asset liability modeling and asset allocation studies, to other public retirement systems of similar asset size to COAERS.

YES NO

8. The firm must maintain, or have unrestricted access to, a database of sufficient size and scope to complete the analysis of the returns of a significant number of investment funds by strategy, structure, size, geography, and type.

YES NO

9. Employ a professional team or department dedicated to investment manager research and analysis.

YES NO

10. The firm must be able to maintain a data processing interface with the System's custodian bank by electronic means (preferably an online connection).

YES NO

11. Disclose all conflicts of interest, all sources of revenue, and all affiliations related to, but not limited to, investment managers recommended by the firm both initially and on an ongoing basis.

YES NO

12. Respondent must warrant that all information and statements in this RFP are complete and true. Any statement or claim found to be incomplete, misleading or false will be grounds for immediate disqualification or dismissal and may be subject to legal action.

YES NO

The determinations of whether a Proposer satisfies the minimum qualifications is solely and exclusively within the judgment of Assigned Staff. Any proposal that does not demonstrate that the Proposer meets these minimum requirements by the deadline for submittal of proposals will be considered non-responsive and will not be eligible for award of the contract.

Scope of Services

COAERS is seeking the services described in this section. Note that this RFP is for non-discretionary full-service general investment consulting, including private markets strategic planning and analysis.

COAERS will consider only Proposals for the services described below. Responses submitted for other services such as an OCIO or discretionary consultant will not be considered.

COAERS is seeking the services of an investment consulting firm to provide independent, unbiased, proactive research, information, and advice to the Board and Staff in regard to the COAERS fund. The Board views the consultant(s) as an independent extension of Staff, and the optimal working relationship is a collaborative one with Staff and the Consultant working together to develop and implement policy.

The general responsibilities of the investment consulting firm include, but are not limited to:

2.1. ASSIST THE BOARD IN FULFILLING ITS FIDUCIARY OBLIGATIONS

- Provide services as a fiduciary and in accordance with all applicable federal and state laws and regulations as well as with all applicable professional codes and regulations.
- Provide unbiased, transparent, conflict-free advice and opinions to the Investment Committee on all investment recommendations.
- Assist in the development of strategic and tactical asset allocation recommendations which are approved by the Board.
- Assist in development of investment policies, reporting, strategic planning and pacing analysis for private markets investment activities.
- Conduct asset/liability studies every three to five years, or as needed with changes in benefit or funding policies, or significant deviations from actuarial assumptions (experience study), as a means to help gauge the long-term health of the plan and the desired investment strategies.
- Report in person to the Investment Committee and Board meetings and as otherwise needed on the status of the COAERS fund and its multi-period, net of fee performance.
- Assist in the development and amendment of investment related policies, procedures, guidelines, and performance measurement standards, including Private Markets, that will aid both the Board and Staff in developing the strategic objectives of the COAERS fund.
- Provide objective research, information, and advice on investment topics and strategies when requested by the Board or when considered relevant by the consultant or Staff.
- Prepare and conduct overview presentations or educational workshops on private markets sub-strategies that include a macro view of key managers, types of investments, trends, strategies, and key success factors.
- Monitor, evaluate, and communicate investment portfolio and manager performance as appropriate on an ongoing basis including written monthly and quarterly reports.

- Recommend to the Board and Staff the retention, additional investment in, redemption, or discharge of investment managers.

2.2. SUPPORT STAFF IN DEVELOPMENT AND IMPLEMENTATION OF STRATEGY

- Provide access to a robust suite of investment manager research and other such tools that are helpful in constructing portfolios and managing the COAERS fund.
- Conduct style factor analysis to support manager selection, portfolio construction and asset allocation decisions.
- Conduct risk budgeting analyses at the portfolio, asset class and fund level.
- Provide input on key implementation decisions related to carrying out the decisions of the Board.
- Respond quickly to requests for research reports or bespoke analysis.
- Conduct fee analysis to help Staff ascertain the best possible fee terms.
- Appraise Staff of ongoing developments in the portfolio related to markets, asset classes and/or investment managers.
- Collaborate with Staff on the due diligence of potential or existing investment managers.
- Deliver useful and informative written updates on economic and capital markets conditions at least monthly or more frequently as appropriate.
- Provide analysis and other support as required to assist in the production of the Annual Comprehensive Financial Report (ACFR).
- Support reconciliation of manager performance with fee invoices to ensure accuracy.

The specific duties of the COAERS General Investment Consultant are as follows:

2.3. INVESTMENT POLICIES AND ASSET ALLOCATION STRUCTURE

- Work with Staff and actuary to understand the System's liabilities and prepare asset liability and asset allocation studies.
- Conduct an annual comprehensive review and analysis of the System's investment policies including the Strategic Asset Allocation and recommend changes, if appropriate.
- Assist in developing an appropriate investment management structure for the fund and each asset class, considering the role of active versus passive management, management styles, and the advisability of various management structures under differing market conditions.
- Provide assistance in analyzing the investment characteristics of available asset classes and the risk/return potential of alternative asset mixes.
- Provide information on new investment ideas and assess the application of these ideas with regard to the risk/return targets.
- Assist Staff with preparing an annual strategic plan for the COAERS' Private Markets portfolio, including a discussion of target sub-strategies and markets and long-term objectives for COAERS' Private Markets portfolio, risk management policies and procedures, pacing analysis and investment and asset management procedures.

2.4. MANAGER SELECTION AND MONITORING

- Assist in establishing appropriate qualitative and quantitative selection criteria for reviewing potential candidates and conducting manager searches.
- Provide monitoring and ongoing due diligence for the System's pre-approved list of managers on the Premier List.
- Identify and screen potential investment managers.
- Perform comprehensive due diligence including onsite investment and operational due diligence.
- Monitor and advise the Board and Staff of any compliance rule violations or other operational concerns related to existing managers.

2.5. PERFORMANCE EVALUATION AND ANALYSIS

- Facilitate the development and selection of appropriate performance benchmarks and policy benchmarks for each asset class and each manager.
- Provide timely, comprehensive quarterly performance analysis, attribution analysis, risk analysis and peer analysis of the individual managers, composites and total fund.
- Evaluate manager performance and consistency relative to peers, mandate, the investment guidelines and established benchmarks.
- Conduct ongoing discussions with managers on investment performance and organizational issues (such as changes in ownership, staff, new products, etc.).
- Assist in enhancing the existing manager review process and advise on manager surveillance, retention and termination.
- Help evaluate any underperformance or irregular performance of managers.

2.6. ATTENDANCE AT PERIODIC MEETINGS

- Attend Investment Committee (8 per year in Austin, Texas) and Board meetings (4 per year in Austin, Texas) to review performance, assess investment program and make recommendations. In addition, attendance is typically required for Board Workshops (1 per year in Austin, Texas).
- Meet with COAERS Staff, as needed, to provide information and investment insights/strategies and assure completion of tasks. Most of this function is performed virtually.
- Assist Staff and the Investment Committee with education on various investment issues.



———— CITY OF AUSTIN ————
EMPLOYEES' RETIREMENT SYSTEM

Appendix A

General Investment Consultant Questionnaire and Document Request

City of Austin Employees' Retirement System
6850 Austin Center Blvd, Suite 320
Austin, TX 78731
(512) 458-2551
www.coaers.org/gic-rfp

EXECUTIVE SUMMARY

Please address the following items in five pages or less and include as part of your response to the RFP.

- I. Overview: Please summarize the key elements of your proposal including:
 - A. Your firm, its location, lines of business, number of employees in each area of investment consulting (including any OCIO activities), and institutional clients (total and all public pension plans);
 - B. A high-level summary of your fee proposal;
 - C. The consulting team that will work with COAERS, including biographies limited to a few sentences each and the number of other clients they serve; and
 - D. The top three reasons COAERS should retain your firm.

- II. Specialties, strengths, and limitations: Please summarize the following:
 - E. Your specialties, strengths and limitations in the areas of client interaction, research, asset allocation, investment strategy, efficient portfolio design, performance evaluation, and manager searches and monitoring;
 - F. Your philosophy and key policies regarding transparency, disclosure and communication with clients; and
 - G. The elements of your firm that you believe distinguish it most from its competitors.

- III. Key metrics: Please identify the following for the last three years:
 - H. Total number of research and consulting staff by each area;
 - I. The number of asset allocation and asset liability studies completed for public pension funds;
 - J. The number of investment manager searches completed by asset class; and
 - K. The number of operational due diligence reviews, by asset class.

SPECIFIC GENERAL INVESTMENT CONSULTANT CAPABILITIES

PLEASE CLEARLY LABEL ALL EXHIBITS THAT YOU PROVIDE WITH (1) SUFFIXES SUCH AS A-16, A-31 OR A-42 THAT ARE IDENTICAL TO THE APPLICABLE QUESTION NUMBER, AND (2) A SHORT TITLE SUCH AS “CODE OF CONDUCT” OR “RISK BUDGET MODEL” THAT IS READILY ASSOCIATED WITH THE QUESTION’S SUBJECT MATTER OR CONTENTS OF THE EXHIBIT.

ORGANIZATION

1. Please list your firm’s complete name, address, voice telephone and fax numbers. Include the name and title of your proposed primary consultant and the location from which the consulting work will be done.
2. Please provide a brief history of your firm and parent organization (if any) going back to inception. Describe any significant developments in your organization, such as changes in ownership, restructuring, or personnel reorganizations within the past five years. Please indicate the nature of any prospective changes your firm anticipates in its corporate structure, ownership, organization structure, leadership, location, or professional staffing.
3. Describe the ownership structure of your organization giving specific details with regard to your parent and any affiliated companies. Include an ownership organizational chart showing this structure. Show and describe the distinct lines of business of your firm and your parent (if any) which are in addition to your investment consulting line of business.
4. Is your firm, its parent, or affiliate a registered investment advisor with the SEC under the Investment Advisors Act of 1940? If not, what is your fiduciary classification?
5. Describe any circumstances specifically related to your investment consulting activities under which your firm, its officers, or employees receive direct or indirect compensation from investment managers.
6. Does your firm, its parent, or affiliate sell information, data or any other services to investment managers? If so, describe in detail.
7. Based on the criteria identified in Section XXX of the RFP, which three features in this Proposal are the most compelling reasons for COAERS to select you? Explain why.
8. Please describe your Firm’s financial stability, overall business objectives with respect to future growth, and provide the most recent audited financial statements. What portion of the Firm’s revenue (if any) is generated by each of the below sources (should equal 100%) for each of the last three year-ends?
 - a. Non-discretionary advisory services
 - b. Discretionary advisory services
 - c. OCIO services
 - d. Brokerage activity
 - e. Investment management organizations

f. Other sources (please specify)

9. Describe the firm's compensation arrangements for senior management, consultants and other professionals, including any incentive and other bonuses and how and for what they are awarded. What incentives are provided to attract and retain superior individuals and to ensure key professionals do not leave the firm either as a group or individually? Does staff participate in equity ownership? If ownership is not available, is there a specific arrangement for sharing in the profits earned by the enterprise? How does the firm tie client performance and satisfaction to a consultant's compensation?

CLIENTS

10. Please list the number of clients you serve within the following plan-type categories for each of the past three years:

Client Plan Type	2022	2021	2020
Retirement Systems in Texas			
Other Public Employee/Government			
Union/Taft-Hartley			
Corporate			
Endowment and Foundation			
Other			

11. Please list the number of clients you serve within the following size categories:

Client Size (total assets at market)	Number of Clients	Number of Public Plans
<\$1 billion		
\$1 billion to \$5 billion		
\$5 billion to \$20 billion		
\$20 billion to \$50 billion		
Over \$50 billion		

12. Please list the number of clients with portfolio-wide AUM over \$1 billion for these specific specialized consulting mandates:

Type of Relationship	Number of Clients
Real Estate	
Infrastructure	
Private Equity	
Private Credit	
Hedge Funds	

Other Alternatives	
Risk Management	

PERSONNEL

13. Provide (in this response, not an exhibit) an organizational chart across all offices of the investment consulting portion of your firm's business. List the number of employees, professional and support, in each function and/or location. Please provide your employee breakdown:

Staffing Group	Number of Employees
Field Consultants	
Risk Management	
Performance Analysts	
Manager Selection	
Other Research	
Administrative and Support Staff	
Other	
Total	

14. For the Primary (P), Secondary (S), and Primary Backup (B) personnel assigned to the COAERS account:
- a. Provide the names, their titles, and their biographies including educational qualifications, professional affiliations, and their investment performance of pension plans, for which they provided consulting services. Disclose the office location to which they primarily are assigned. Also, provide additional information using the format below:

Role	Name	Title	Current # of Accounts Assigned, ex COAERS	Years with Firm	Years of Institutional Consulting Experience
P:					
S:					
B:					

- b. Provide client names, plan type (such as: Defined Benefit, Defined Contribution, Endowment, etc.), length of relationship, and asset size using the format below:

Role	Client Name	Plan Type	Length of Relationship (in years)	Client's Asset Size (\$M)
P:				
S:				
B:				

15. Describe the firm's policy on changing staff assigned to a client. The COAERS contract will specify that the replacement of client-facing staff on the account will require our pre-approval. For which personnel including strategists will your engagement agreement provide "key person" rights for COAERS to cancel the engagement if the individual(s) terminates or suspends employment with you? Explain any "substitution policy" that would apply to the above personnel, and the limits you will impose on substitutions.
16. List senior staff hires and departures over the last three years, and for departures indicate the reason for termination or departure.
17. Across the firm, how many relationships on average does each consultant have? What is the maximum limit of relationship per consultant?
18. Please provide any other roles and responsibilities any consulting personnel hold within your parent organization, firm, and/or affiliates.

STANDARDS OF CONDUCT AND COMPLIANCE/REGULATORY MATTERS

19. Describe your compliance function and staffing. Describe your compliance processes as they relate to research personnel and your field consultants serving COAERS.
20. Does your firm have a written Code of Conduct, Ethics Policy and/or a set of standards for professional behavior? (Identify as an Exhibit Appendix.) If so, how are they monitored and enforced?
21. Does your firm follow the CFA Institute's Code of Ethics & Standards of Professional Conduct? If so, how is employee compliance monitored?
22. How are consultants' recommendations to clients reviewed and monitored by your organization for compliance? How does your firm maintain consistency in consultant recommendations while facilitating customization?
23. Within the last five years, has your organization or an officer or principal been involved in litigation or other legal proceedings relating to your business activities? If so, please provide an explanation and indicate the current status.

24. Other than broad industry sweeps, has the firm or any of its employees been investigated, disciplined or censured by any regulatory body in the past twenty years? If so, please describe.

ETHICAL PRACTICES AND CONFLICTS OF INTEREST

25. How does your firm identify and manage conflicts of interest? Are there any potential conflicts of interest issues your firm, affiliates or parent company would have in servicing COAERS? If so, please describe them.
26. Based on the list of investment managers (refer to the exhibits provided at www.coaers.org/gic-rfp) currently managing assets for COAERS, please disclose any business your firm, affiliates, or parent company does with any of our investment managers including funds sponsored by your firm that are sub-advised by them.
27. Under what circumstances are employees allowed to own stock or otherwise hold an economic interest in managers or funds the firm recommends?
28. Does your firm or any affiliates provide investment management, brokerage, trust or actuarial services? If yes, how does your firm protect against conflicts of interest? Would your organization notify a client of any apparent or potential conflict of interest, regardless of whether it was required by regulations?
29. What is your firm's policy on soft dollar payments? What percentage of your clients have soft dollar arrangements with your firm?
30. Describe any potential conflicts in your business model for public funds manager selection and oversight, and how you manage those.
31. Other than your own client-conference meals and multi-vendor-sponsored pension-conference meals, have you or anyone in your firm provided any gifts, travel and room expenses, entertainment or meals to any COAERS Trustee or Staff during the past twelve months? If yes, please describe the amount of any expenses and what they were for.
32. Are there any circumstances under which your firm or any individual in your firm receives compensation, finder's fees, soft dollars, direct or indirect services or any other benefit from investment managers or third parties? If yes, please describe in detail.
33. Does your firm maintain and enforce an ethics code that prohibits employees from front-running or leveraging client decisions for personal inurement? If so, describe the compliance process and provide an excerpt from your applicable policy.

INSURANCE, LIABILITY AND DISASTER RECOVERY

34. What limitation(s) on liability, if any, do you seek to secure through your proposed form of contract or engagement agreement? Be as specific as possible.
35. In light of your non-discretionary fiduciary responsibility to the fund, please describe the limits, provisions or requirements with respect to indemnification of COAERS on which you would insist if your firm is engaged. If you have sample contract language, please provide it here or provide a copy as an Exhibit Appendix.
36. Please confirm that your organization maintains the insurance coverages required in Section XX of this RFP. Is the coverage on a per client basis, or is the dollar figure applied to the firm as a whole? List the insurance carriers by category, and their policy limits both aggregate and per client. Explain any issues you would have in obtaining such insurance or a rider at levels competitively comparable to coverage that would be offered by other finalists.
37. What client, investment-manager or employment-practice claims been made to or paid by your insurance carriers in the last five years? Provide an explanation and indicate the current status.
38. Describe your disaster recovery (DR) plan, capabilities and facilities. When did you last test your DR plans and what did you learn/fix?

RESEARCH CAPABILITY AND PROCESSES

39. Describe your firm's information technology capabilities and resources. Please list any 3rd party vendors that are used for critical processes in your general investment consulting practices.
40. Describe the firm's research organization and your division of labor. What is the process for identifying investment manager candidates, qualifying/vetting them, and providing manager research to your client's professional staff?
41. Other than databases you explain elsewhere, do you outsource or partner for any research function that would regularly be used in a COAERS relationship? If so, explain.
42. What ongoing metrics do you systematically maintain to measure useful post-hoc performance results of managers that your clients select and terminate? What are your capabilities and methodologies to evaluate quality of manager selection and/or errors in manager selection and de-selection?
43. Describe the manner in which external resources and sources of information are used in the research process. How does your firm integrate internal and external research? Outline your process for monitoring and reporting on market trends.
44. Do you provide any customized computer-based analytical tools or databases to your clients? Describe the services the firm provides clients over the Internet that would be available to COAERS.

INVESTMENT STRATEGY, ASSET ALLOCATION AND MODELING

45. Please review the COAERS Investment Policy Statement and Investment Implementation Policy and provide general thoughts, especially as it relates to asset allocation, manager selection process, and rebalancing.
46. Has your firm articulated a set of investment beliefs or other guiding principles that underpin its approach? If so, please provide a copy.
47. Please describe the firm's experience and capability for performing asset allocation and asset/liability studies for a defined benefit plan.
48. Describe your firm's view on risk budgeting. Have you created a risk budget model that is actually used by your clients? If so, please attach an Exhibit Appendix.
49. COAERS presently indexes a substantial portion of the portfolio, retaining active management for less efficient sectors such as international equity and domestic fixed income. What changes in these macro portfolio strategies would you recommend (e.g. more, less or different kinds of implementation, and where)? Explain your rationale.

PERFORMANCE ANALYTICS AND REPORTING

50. What databases and search/analytical engines do you routinely use for performance analysis and reporting?

The next five questions are optional for the incumbent consultant, and mandatory for all other respondents.

51. Describe the content and format of your firm's quarterly performance reports for the total fund, major asset classes, and individual investment managers. Provide a sample report for one of your firm's clients that is structured similarly to COAERS (cross-reference as an Exhibit Appendix).
52. Can these reports be customized to accommodate COAERS-specific information needs? Are there charges for these additional information requests? Within what time frames can these requested changes be implemented?
53. What is the anticipated turnaround time in calendar days for each performance report after COAERS' custodian submits individual and consolidated returns to your firm?
54. Describe your firm's source of comparable plan sponsor returns. Indicate the size (#'s and \$'s), composition (#'s and \$'s), and data compilation method.

55. Based on your review of the materials provided, describe what information COAERS does not currently receive in our consultant performance reports that you will provide as clear, useful improvements for both Staff and Trustees.

MANAGER SELECTION, MONITORING AND TERMINATION

56. What is the firm's fundamental view of active management? Do you believe that managers that can consistently add value over the long-term can be reliably identified in advance?
57. Please describe the firm's experience and capability for sourcing and conducting manager searches. Describe the firm's process from beginning to end. Include the resources the firm would use and the individuals that would be involved in the process.
58. Does your firm maintain a "top tier", "recommended list", "premier list" or other designation of managers and/or issue formal buy/sell recommendations? If so, describe the process by which managers are added to and removed from the respective lists. By what means is that information communicated to clients and how timely are the notifications?
59. Please discuss the firm's criteria for recommending an investment manager be placed on surveillance or probation, removed from probation/watch or terminated.
60. Does your firm maintain an in-house database of investment managers? If not, what vendor do you purchase the database from? How many managers are contained in the database? What asset classes are covered? Can clients access the database?
61. Please discuss the firm's criteria for recommending the selection of investment managers. Is there any unique information or process your firm uses that assists you in identifying managers that will perform well going forward, other than those that have performed well in the recent past? What evidence do you have of your ability to identify a superior investment manager? What reports will you present to COAERS to demonstrate whether managers sourced by your firm have added value?
62. Describe components of the operational due diligence (ODD) services you will perform in manager selections as a part of your base fee. Discuss your experience in performing operational due diligence and outline your resources and capabilities. Identify what you consider the 3-5 most important factors that cause you to reject an otherwise attractive manager. Do you outsource any ODD services? If so, to whom? What due diligence reports on prospective or incumbent managers will you provide to our Staff for confidential internal review?
63. If the Staff were to source one or more managers who are not familiar to your firm or already vetted, how would you go about providing independent due diligence for finalist firms if they become a CIO recommendation? Please provide guidance on limitations for the number of managers on which you would be willing to provide independent due diligence in this fashion.

64. Please describe your process for monitoring a client's pre-existing managers. Will a client's pre-existing managers outside your client base be assigned to the research staff that normally covers that asset class for monitoring?
65. If you maintain an in-house manager database, do you sell it to third parties? How do you receive compensation? Do you provide clients with access to any such database?
66. Please explain your firm's strategy for client-level fee management and mitigation and suggest how you envision COAERS participating in your strategies.
67. Please provide examples of two written recommendations each 1) to hire an investment manager and 2) to terminate an investment mandate within the last 24 months.

Private Markets Capabilities

68. Please describe your firm's experience assisting organizations similar to COAERS with developing a Private Markets program. Please provide specific examples.
69. Is your organization willing to assist in training and supporting COAERS staff in building internal capabilities for private markets (both front and back office)? Please describe your experience and approach in doing so, and samples of associated educational materials.
70. Please describe your firm's process for development of investment policies, strategic plans and pricing analysis for private markets investment activities. Please provide specific examples.
71. How does your firm recommend modeling risk for private markets exposures? Please provide examples.
72. What are your organization's capabilities in private markets top-down research?
73. What are your organization's capabilities in private markets manager research?

OUTSOURCED CIO (OCIO) ACTIVITIES

The next 6 questions are required for all respondents with an OCIO business.

74. Describe the history, legal structure, and current scope of your firm's OCIO business including the inception date, the size (in terms of assets under management and/or advisement), and the number of personnel assigned.
75. What conflicts does your firm believe that the OCIO business creates with respect to the traditional consulting business? How does it manage those conflicts?
76. Does your firm sponsor investment vehicles aimed to help smaller clients aggregate their investments? If so, please list these and state the assets under management as well as the number of clients invested.
77. To what extent are performance fees used in your OCIO business? In your opinion does this create an incentive to favor performance-based clients over those who do not have such arrangements, and if so how is this conflict managed by your firm?
78. Describe any differences between the compensation of employees either partially or wholly employed by this line of business and the traditional consulting model.
79. Describe your firm's disclosure policy regarding the conflicts that arise in this business. Are potential conflicts disclosed out of an abundance of caution or must clients ask?



———— CITY OF AUSTIN ————
EMPLOYEES' RETIREMENT SYSTEM

Request for Information

Private Markets Consultant

City of Austin Employees' Retirement System
6850 Austin Center Blvd, Suite 320
Austin, TX 78731
(512) 458-2551

I. Scope of Work

The general scope of work for this mandate is to provide full-service non-discretionary professional investment consulting services for Private Markets. COAERS is in the nascent stages of building a Private Markets program, initially focused on Private Credit. Potential Private Credit strategies include direct lending, asset backed lending, distressed debt, mezzanine, specialty finance, and other areas of credit. COAERS anticipates that in time allocations will be made to private equity strategies including buyouts, growth capital, venture capital, and restructuring/turnaround investing. Other investment strategies that may be pursued on an opportunistic basis include co-investments, direct investments, secondary transactions, and other strategies that may fall under the Private Markets classification. Specifically, the successful firm must demonstrate superior experience and capability in the areas described below. The following are examples of the duties that COAERS is seeking:

A. Private Markets Portfolio Oversight Duties

1. Assist Staff with the review and implementation of asset class goals and objectives, asset allocation, cash flow forecasting, and investment pacing.
2. Assist Staff with preparing an annual strategic plan for the COAERS' Private Markets portfolio, including a discussion of target sub-strategies and markets and long-term objectives for COAERS' Private Markets portfolio, risk management policies and procedures, and investment and asset management procedures.
3. Provide on-going monitoring, reporting, and analysis of existing managers' portfolio attributes and characteristics, including monitoring changes in personnel, ownership, and the investment process.
4. Assist Staff with the creation, review and periodic updates to COAERS' Private Markets investment policies and procedures.
5. Prepare and conduct overview presentations or educational workshops on private markets sub-strategies that include a macro view of key managers, types of investments, trends, strategies, and key success factors.
6. Provide topical research and education on private market investment subjects that are relevant to COAERS.
7. Other tasks as requested by the Board or Staff consistent with the function served by the Private Markets Consultant(s).

B. Private Markets Investment Duties

1. Assist Staff in identifying and sourcing investment opportunities consistent with the Private Markets portfolio strategy and initiatives.
2. Evaluate investment opportunities, including meeting with investment managers and reviewing their qualifications and track records, key investment terms, and identifying any significant issues (including investment risks and concerns) and present Staff with a recommendation to commence due diligence.
3. Conduct full and independent operational due diligence for potential investments Staff designates as high priority opportunities likely to be presented to the Board. Due diligence should be performed in a timely manner and complete, written records of all due diligence

items and procedures should be maintained and provided to COAERS immediately upon request.

4. Provide Staff access to a database of private markets managers that includes data on investment strategies, firm organization, investors and performance; manager information should be available for a wide range of private markets strategies and for both domestic and international firms.
5. When requested by Staff, conduct a full due diligence review of potential investments (including, but not limited to commingled funds, co-investments, direct investments, and separately managed accounts). This may include opportunities which either cannot be scaled or will not be available to other clients.
6. Customize each review to address the pertinent issues concerning the particular investment opportunity and how it would fit within COAERS' existing and prospective portfolio.
7. Conduct due diligence procedures to include but not be limited to: reviewing the investment manager's investment strategy and organizational resources for the successful execution of the strategy; evaluating the quality, depth, and stability of the investment manager's team, including conducting interviews with the key principals; assessing the investment manager's investment sourcing, due diligence, structuring, value-add, monitoring, and reporting capabilities; reviewing and evaluating the investment manager's compensation and incentive structure as well as economic commitment to the investment fund; visiting and touring the investment manager's key offices; reviewing relevant documents, including offering materials, the fund agreement, and financial statements; requesting and reviewing other information, supplied in writing, relevant to the investment review that might otherwise not be provided by the investment manager, such as data supporting portfolio valuations, investment performance, and relevant investment experience; analyzing and independently verifying investment performance and track record; conducting extensive third party due diligence, including reference checks on key principals and interviews with prior and present investors and former employees; interviewing senior executives of past portfolio companies to gauge their assessment of the investment manager's strengths and weaknesses; comparing the investment merits and concerns of the investment opportunity with relevant alternatives to determine whether COAERS is investing in the best available opportunity; reviewing and evaluating the proposed terms, conditions and structure of the investment opportunity, and identifying, if appropriate, any terms or provisions that can or should be improved; and maintaining complete, written records of all due diligence items and procedures.
8. When requested by Staff, prepare and furnish to Staff a written investment report that includes an investable/not investable designation and documents the results of the due diligence review, which shall contain a summary of the proposed investment and describe: the general partner's background, track record, and organization; the proposed investment strategy; the terms of the investment; the expected rate of return; the merits of the investment; any issues and concerns surrounding the investment and how they might be resolved; issues and provisions that should be subject to negotiation; and appropriateness of the investment for COAERS, potentially in a short time window.
9. When requested, assist COAERS Staff in developing and refining due diligence processes for analyzing prospective investment opportunities.

10. When requested, advise COAERS Staff on the key business terms of investment opportunities and assist with terms negotiations, both for initial investments as well as proposed amendments to partnership agreements.
11. When requested, assist in training of Staff in the process of screening , evaluating, performing investment and operational due diligence, analyzing and reporting on private markets investments.

C. Performance Measurement Duties:

1. Present investment performance results, including all relevant metrics, to Staff quarterly and when requested, to include:
 - a. Total private markets portfolio relative to policy benchmark and peers,
 - b. Each sub-asset class relative to appropriate benchmarks and peers, and
 - c. Each investment relative to appropriate benchmarks and peers.
2. Respond to questions from the external auditor and actuary, as necessary.
3. Provide benchmark evaluation, implementation, and analysis.
4. Conduct asset value, performance, and cash flow reconciliations with COAERS' reporting consultant, custodian, and Staff, as necessary.
5. Provide access to portfolio management software (or cloud-based equivalents).

D. Ad Hoc Duties:

1. Attend Investment Committee (8 per year in Austin, Texas) and Board meetings (4 per year in Austin, Texas) to review performance, assess investment program and make recommendations. In addition, attendance is typically required for Board Workshops (1 per year in Austin, Texas).
2. Meet with COAERS Staff, as needed, to provide information and investment insights/strategies and assure completion of tasks. Most of this function is performed virtually.
3. Assist Staff and the Investment Committee with education on various investment issues.
4. Provide strategic direction and evaluation of COAERS' investment decisions and their implementation.
5. Undertake a strategic portfolio review at least annually.
6. Assist on special projects, as needed.
7. Participate in ad hoc workshops on specific issues designated by Staff.
8. Respond to inquiries from Staff in an appropriate and timely manner.
9. Report any significant changes in the firm's organizational structure and staffing in a timely manner.
10. Make no changes in the assigned consultant team without COAERS' approval.
11. Perform any and all other services which may be required by COAERS to ensure a successful private markets program.

COAERS is in the nascent stages of building a Private Markets program, with the expectation that in time allocations will be made to Private Credit, Private Equity, Venture Capital and other Private Markets strategies. Please provide answers to the following questions:

1. Please provide an overview of your firm's history and experience in private markets.
2. Please attest that your organization will meet the insurance requirements found in Section XX of the RFI, and such limits will remain in effect throughout the term of a contract should your organization be chosen.
3. Please describe the ownership structure of your organization.
4. Please describe the business structure of your organization, outlining parent company and all subsidiaries, including where the consulting business with which COAERS might engage falls in this structure.
5. Please confirm your organization will serve in a fiduciary capacity to COAERS.
6. Describe your organization's experience in assisting funds of COAERS size in building a program from the start.
7. Please describe a typical consulting engagement for a fund similar to COAERS.
8. Review the Scope of Services in Section 3F, and provide a narrative demonstrating your firm's ability to provide the services requested and, where applicable, disclose where your firm would not be able to provide the services in Section 3F. Feel free to list other services your organization provides.
9. Please provide a comprehensive fee schedule, identifying all services included. If your organization offers an "a la carte" pricing menu for services, please include.
10. Will your organization consider scaling fees as the program develops?
11. Does this fee schedule include in-person attendance at Investment Committee and Board Meetings and associated travel costs? Please identify any additional costs COAERS may incur if your organization is chosen.
12. Please identify the team that will be assigned to COAERS account, including:
 - A. Years with your organization
 - B. Years of experience in Private Markets
 - C. Years of experience in institutional investing
 - D. Years of experience consulting to Institutional Investors in Private Markets
13. Does your organization maintain its own database of private markets managers and funds?
 - A. If not, what database(s) are used?
 - B. Do clients have access to the database(s) used by the organization? Is there an additional charge for this access?
 - C. Does your organization have access to, and permit client access to, a comprehensive database of past, current, and expected future opportunities across different sectors of private markets?
 - D. Do these databases have access to extensive performance information to evaluate funds under consideration relative to similar types of managers?
 - E. Please describe the information maintained in these databases (i.e., breadth, time series, performance, information maintained on managers, etc.)
 - F. How is manager information entered into the database?

14. Please complete the table in Schedule A:
15. What additional resources will be dedicated or available to COAERS?
16. Does your organization provide OCIO, Fund of Funds, or similar services?
- If yes, please detail what services are available.
 - Please address conflicts of interest between your non-discretionary consulting services and your other businesses.
 - How does your firm allocate limited capacity deals across its various platforms and clients?
17. Does your firm sponsor investment vehicles aimed to help smaller clients aggregate their investments? If so, please list these and state the assets under management as well as the number of clients invested.
18. To what extent are performance fees used in your OCIO business, Fund of Funds, or similar services? In your opinion does this create an incentive to favor performance-based clients over those who do not have such arrangements, and if so how is this conflict managed by your firm?
19. Please identify your organization's capabilities in the following areas:
- Private Credit
 - Private Equity
 - Venture Capital
 - Real Estate
 - Infrastructure
 - Fund of Funds
 - Secondaries
20. Please list the number of clients with portfolio-wide AUM over \$1 billion for these specific specialized consulting mandates:

Type of Relationship	Number of Clients
Real Estate	
Infrastructure	
Private Equity	
Private Credit	
Venture Capital	
Secondaries	
Hedge Funds	
Other Alternatives	

21. Please identify your organization's experience and capabilities in performing Operational Due Diligence on private markets managers.

22. Is your organization willing to assist in training and supporting COAERS staff in building internal capabilities for private markets (both front and back office)? Please describe your experience and approach in doing so, and samples of associated educational materials.
23. Please provide samples of Investment Committee and Board reports.
24. Please identify if and how your organization can assist COAERS in the following areas:
 - A. Educating Board and Staff on Private Markets
 - B. Development of policy decisions
 - C. Development of an appropriate governance structure, including development of decision making framework and delegation(s) of authority
 - D. Constructing an appropriate internal due diligence process
 - E. Record keeping and administration of private market investments
 - F. Performance measurement
 - G. Development of strategic plans for the asset class(es)
 - H. Development of investment policy for the asset class(es)
 - I. Pricing analysis
 - J. Sourcing, performing due diligence, recommending, and executing investment opportunities
25. Does your organization share legal and other administrative expenses across clients? How are these allocated?
26. Does your organization provide market information and insights in different sectors of private markets? Please provide a sample report.
27. Are you able to educate the Board and assist in development of public disclosure policies and reporting?
28. Is your organization willing to evaluate and perform due diligence on opportunities that cannot be scaled across other clients? Provide examples.
29. Please provide three client references, including at least one from each of the following categories:
 - A. A client for whom your organization assisted in building a private markets program
 - B. A client of similar size to COAERS
 - C. A client for whom your organization assisted in setting up a Private Markets program
30. Please provide a sample contract for a private markets consulting engagement.

	Private Credit	Private Equity	Venture Capital	Fund of Funds	Real Estate	Infrastructure	Secondaries
# of employees dedicated to each							
# of managers in database							
# of funds in database							
Earliest vintage year in database							
Most recent vintage year in database							
# of SMAs monitored on behalf of clients							
For the three year period ended 12/31/2023:							
# of funds recommended							
# of onsite manager meetings							
# of manager due diligence reports							
# of operational due diligence reports							
# of direct investments reviewed on behalf of clients							
# of co-investments reviewed on behalf of clients							
# of direct investments executed on behalf of clients							
# of co-investments executed on behalf of clients							
# of first or second funds recommended to clients							
# of unique opportunities where only one or a few clients had access							

10. Discuss and consider proposed 2024 investment budget



COMMITTEE MEETING Agenda Item Information Sheet

AGENDA ITEM 10: Discuss and consider proposed 2024 Investment Budget

AGENDA ITEM OBJECTIVE

This item supports the Board's fiduciary oversight of the Fund, including defraying reasonable expenses of administering the system.

RELEVANCE TO STRATEGIC PLAN

This item allows the Committee to review investment costs and is a specific 2023 action item for **COAERS Strategic Plan Goal 4: Identify and implement leading practices in board governance, pension administration, and investment management.**

RECOMMENDATION FOR COMMITTEE ACTION

Staff recommends that the Committee refer the 2024 investment budget to the Board for approval.

BACKGROUND

COAERS embarked on a multi-year transformation of its approach to investment governance and strategy. The effort supported the System's mission of providing reliable retirement benefits and its vision of being recognized as the standard of excellence in public pension plans.

As part of the COAERS Strategic Plan, CEM Benchmarking performed a full cost analysis of the investment program and showed that the Fund remains low-cost relative to peers. This full report can be found in the supplemental materials. This analysis, as of year-end 2022, shows that the COAERS investment program ranked in the bottom quartile (i.e., lowest cost) among peers and the total US public pension universe.

Staff has developed a proposed investment resource budget for 2024 that is aligned with the organization's mission, vision, and goals. Notably, this proposed budget includes additional resources related to the build-out of additional private markets capabilities. Staff will review these figures and items for consideration in 2024.

ATTACHMENTS

1. Staff Memo "CEM Benchmarking and Proposed Budget"
2. Proposed 2024 Investment Budget
3. 2023 Investment Budget Progress

SUPPLEMENTAL MATERIALS:

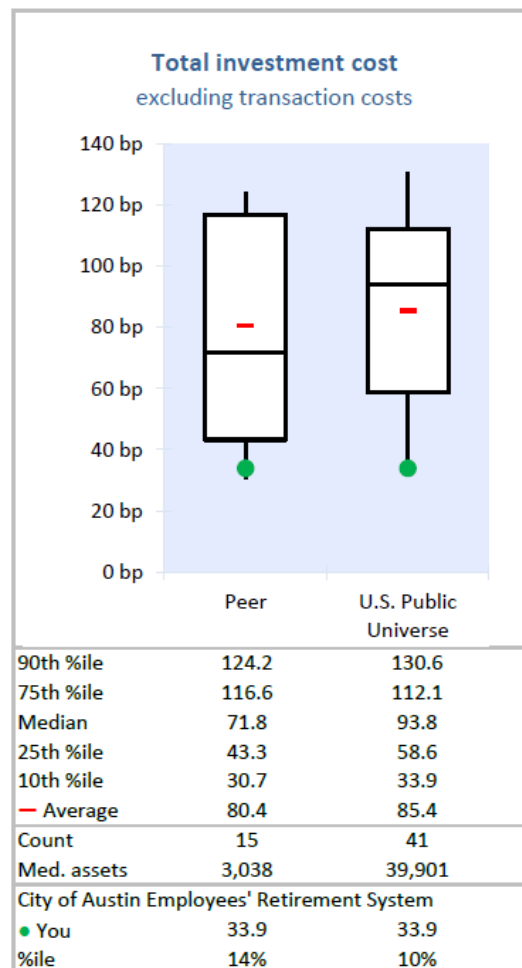
1. CEM Cost Benchmarking Analysis



CEM Benchmarking & Proposed Budget Staff Memo

CEM Benchmarking Results

The System has a strong history of defraying reasonable costs through its budgeting process for the investment program and has historically focused on optimizing costs for value received. As part of the COAERS Strategic Plan, CEM Benchmarking performed a full cost analysis of the investment program and showed that the Fund remains low-cost relative to peers. This full report can be found in the supplemental materials. This analysis, as of year-end 2022, shows that the COAERS investment program ranked in the bottom quartile (i.e., lowest cost) among peers and the total US public pension universe.



Interestingly, this analysis also evaluates a benchmark cost to account for differences in asset mix among different pensions. The benchmark cost is an estimate of what the cost would be given COAERS' actual asset mix and the median costs that peers pay for similar services. It represents the cost COAERS' peers would incur if they had COAERS' actual asset mix. This analysis showed that the COAERS investment program was 10.5 basis points less expensive than would be expected should a peer plan run the Fund. This efficiency in implementing the program represents a cost savings of approximately \$3.4 million per year, meaningful by any measure.

Your cost versus benchmark

	\$000s	basis points
Your total investment cost	11,093	33.9 bp
Your benchmark cost	14,514	44.4 bp
Your excess cost	(3,421)	(10.5) bp

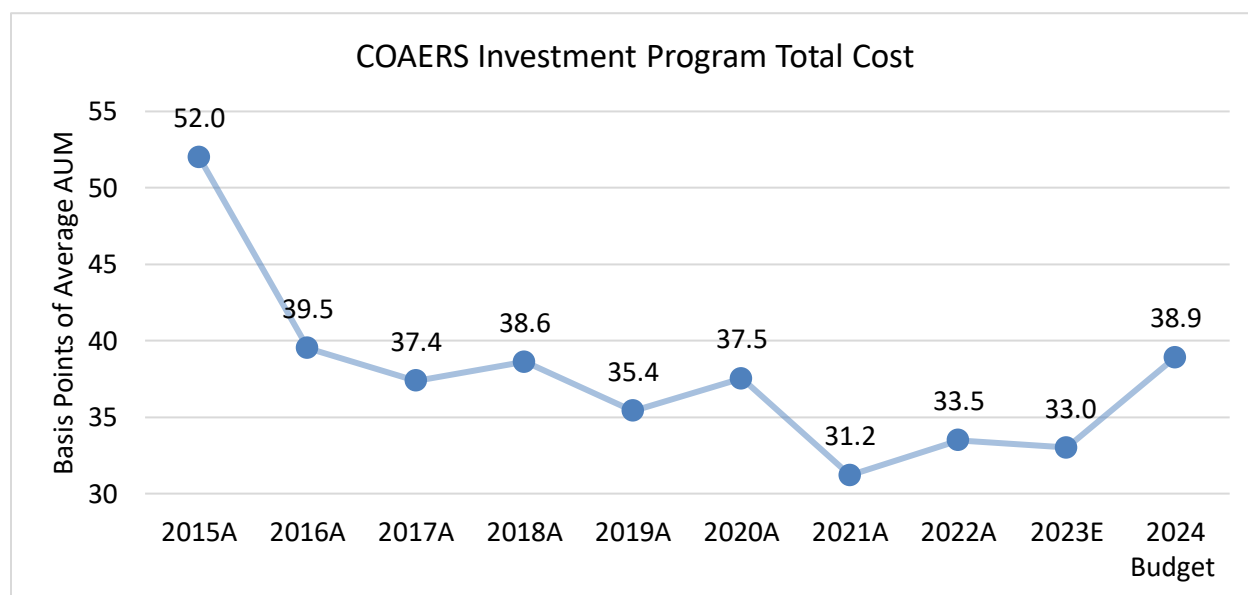
The reasons for this cost effectiveness are noted as using less active management, the use of evergreen strategies in private markets, and paying less than peers for similar investment management approaches. We believe this is a strong testament to the value of a consistent approach to implementing the program and the use of well aligned investment Staff.

Reasons for your low cost status

	Excess Cost/ (Savings)	
	\$000s	bps
1. Lower cost implementation style		
• Less active management, more lower cost passive	(1,152)	(3.5)
• Use of external management vs. lower cost internal	2	0.0
• Less LPs as a percentage of external	(1,691)	(5.2)
• More overlays	124	0.4
	(2,717)	(8.3)
2. Paying less than peers for similar services		
• External investment management costs	(1,417)	(4.3)
• Oversight, custodial & other costs ¹	713	2.2
	(704)	(2.2)
Total savings	(3,421)	(10.5)

Proposed 2024 Investment Budget

The proposed 2024 Investment Budget continues this history of strong stewardship and incrementally increases capabilities related to private markets. Staff are requesting increased budgets for general and private markets consulting, additional personnel (included for reference, approved through the administrative budget), and investment systems.



We believe these items are all necessary in helping the program allocate to private markets strategies and represent good value for fees spent. Measured as a percentage of Fund assets, this budget increases to 38.9 basis points from estimated expenses of 33.0 basis points in 2023. Despite the marginal increase in total costs measured in basis points, this budget still represents a bottom quartile ranking in costs when considering CEM Benchmarking data.

CEM Costs		
Percentile	Peer Plans bps	Peer Plans \$
90th	124.2	38,898,193
75th	116.6	36,517,950
Median	71.8	22,487,039
25th	43.3	13,561,125
10th	30.7	9,614,932
Average	80.4	25,180,473
2023E	33.0	9,956,148
2024 Proposed	38.9	12,184,506

*Difference between CEM and Staff reported 2022 fees measured in basis points (33.9 vs. 33.5) are primarily attributable to methodology differences in calculating AUM and cash/accruals manager fees methodology.

Proposed 2024 Investment Budget

	2024 Proposed Budget	2023 Budget	Change	Notes
Variable Cost Estimates ¹	8,613,160	7,714,281	+898,879	
Investment Manager Fees	8,243,160	7,394,281	+848,879	
Total	8,243,160	7,394,281	+848,879	
Basis Points of Average AUM (estimated)	26.3	25.3	+1.0	Assumes Private Credit ramp up to \$100M by YE with a 1% fee
Other Variable Investment Costs	370,000	320,000	+50,000	
Investment Legal Counsel	100,000	50,000	+50,000	Additional costs for Private Credit ramp up
Commissions & Other Transaction Costs	220,000	220,000	0	
Transition & Other Fees	50,000	50,000	0	
Budgeted Costs	3,571,346	2,673,733	+897,613	
Investment Consulting	355,713	410,908	-55,195	
General Investment Consultant - Base Fees ²	325,713	310,908	+14,805	Retainer for general investment consulting
Investment Consultant - Project Fees	30,000	100,000	-70,000	IPPE cost rolls into new year
Investment Personnel	1,825,633	1,397,825	+427,808	
Total Personnel Costs ³	1,825,633	1,397,825	+427,808	Adds 2 FTEs and annualizes full salary/benefits costs
Travel and Training	125,000	100,000	+25,000	
Due Diligence & Site Visits	75,000	50,000	+25,000	Existing and prospective manager diligence, consultant site visits
Staff Continuing Education	50,000	50,000	0	Professional designations, conferences, annual general meetings
Staff Investment Resources	940,000	455,000	+485,000	
Investment Systems	775,000	300,000	+475,000	Adds private markets resources for due diligence, manager databases, and accounting/performance needs; adds additional seats for new FTEs; adds risk management/optimization resources
Investment Research	125,000	125,000	0	GaveKal, Variant Perception, Preqin, etc.
Memberships & Licenses	25,000	20,000	+5,000	ILPA, The Conference Board, index licenses
Subscriptions	15,000	10,000	+5,000	Financial Times, Journal of Portfolio Management
Other Fixed Investment Costs	325,000	310,000	+15,000	
Custodial Fees	275,000	260,000	+15,000	Custody services, includes additional costs for drawdown funds
Reporting & Monitoring	50,000	50,000	0	Segal Marco, Abel Noser, daily custodian pricing
Total Investment Costs	12,184,506	10,388,014	+1,796,492	
Basis Points of Average AUM (estimated)	38.9	35.5	3.4	

¹ Variable costs are provided for informational purposes and are based on Staff estimates. These items will fluctuate due to AUM based agreements and per transaction/mandate costs.

² RVK contract expires mid-year, assumes a roll forward of existing cost

³ Included for informational purposes and are included in the COAERS Administrative Budget.

2023 Budget Progress

	2023 Budget	Estimated 2023 Expenses	Variance from 2023 Budget
Variable Cost Estimates ¹	7,714,281	7,511,958	-202,323
Investment Manager Fees	7,394,281	7,241,305	-152,976
Total	7,394,281	7,241,305	-152,976
Basis Points of Average AUM (estimated)	25.3	23.1	-2.2
Other Variable Investment Costs	320,000	270,653	-49,347
Investment Legal Counsel	50,000	27,729	-22,271
Commissions & Other Transaction Costs	220,000	196,378	-23,622
Transition & Other Fees	50,000	46,546	-3,454
Budgeted Costs	2,673,733	2,444,190	-229,543
Investment Consulting	410,908	339,544	-71,364
General Investment Consultant - Base Fees ²	310,908	300,544	-10,364
Investment Consultant - Project Fees	100,000	39,000	-61,000
Investment Personnel	1,397,825	1,397,825	0
Total Personnel Costs ³	1,397,825	1,397,825	0
Travel and Training	100,000	33,707	-66,293
Due Diligence & Site Visits	50,000	16,838	-33,162
Staff Continuing Education	50,000	16,869	-33,131
Staff Investment Resources	455,000	383,446	-71,554
Investment Systems	300,000	263,682	-36,318
Investment Research	125,000	94,475	-30,525
Memberships & Licenses	20,000	16,643	-3,357
Subscriptions	10,000	8,647	-1,353
Other Fixed Investment Costs	310,000	289,667	-20,333
Custodial Fees	260,000	260,000	0
Reporting & Monitoring	50,000	29,667	-20,333
Total Investment Costs	10,388,014	9,956,148	-431,866
Basis Points of Average AUM (estimated)	35.5	33.0	(2.5)

¹ Variable costs are provided for informational purposes and are based on Staff estimates. These items will fluctuate due to AUM based agreements and per transaction/mandate costs.

² Includes a mid-year inflation adjustment based on CPI.

³ Included for informational purposes and are included in the COAERS Administrative Budget.

11. Review 2023 Committee Work Plan and discuss development of 2024 Committee Work Plan

Presented by Christopher Hanson



COMMITTEE MEETING Agenda Item Information Sheet

AGENDA ITEM 11:
Review 2023 Committee Work Plan and
discuss development of 2024 Committee Work Plan

AGENDA ITEM OBJECTIVE

This agenda item is for the Committee to review the work done by the Committee in 2023 and discuss the development of the 2024 Committee Work Plan.

RELEVANCE TO STRATEGIC PLAN

This agenda item meets **COAERS Strategic Plan Goal 4: Identify and Implement Best Practices**. It is an industry best practice to establish and review Committee work plans.

RECOMMENDATION FOR COMMITTEE ACTION

At the Committee's discretion.

ATTACHMENTS

1. 2023 Committee Work Plan
2. Draft 2024 Committee Work Plan

2023 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 Policy Statement (IPS)/Investment Implementation Policy (IIP)
 - ✓ Annual review of investment goals, assumptions, guidelines, and policies
 - ✓ Annual review of Premier List for Multi-Asset
 - ✓ Discuss and consider Asset/Liability Study
 - ✓ PRB Investment Practices and Performance Evaluation: Scope and RFI
2. April meeting (new)
 - ✓ Discuss and consider Asset Allocation Study
 - ✓ (new) Education on Functionally Focused Asset Allocation
 - ✓ (new) Education on Private Markets
3. 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
 - ✓ (moved to August) Discuss and consider investment program goals and strategy, including policies and governance (Education on Functionally Focused Asset Allocation)
 - ✓ Annual review of Investment Consultant
 - ✓ PRB Investment Practices and Performance Evaluation: Consultant options
4. 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 Asset/Liability Study
 - ✓ Discuss and consider Asset Allocation Study
 - ✓ Discuss and consider investment program goals and strategy, including policies and governance
 - ~~Discussion and consideration of General Consultant RFP and timeline~~
 - ✓ Review of Custody Bank
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 and consider investment program goals and strategy, including policies and governance

Investment Committee 2023 Work Plan

- ✓ CEM Benchmark report
- ~~PRB Investment Practices and Performance: Evaluation Report~~
- ✓ Discussion and consideration of General Consultant RFP and timeline
- ✓ Discuss Committee work plan for 2024

Investment Committee Proposed 2024 Work Plan

1. January meeting
 - Strategic Asset Allocation preliminary review
 - Measuring success including benchmarking philosophy
 - Private markets program discussion
2. February meeting
 - Global Equities strategic review, Premier List, and implementation
 - Private markets program discussion
 - Consultant RFP progress report
 - PRB Investment Practices and Performance: Evaluation Report
 - Quarterly review of investment performance, positioning, strategy, implementation, delegated authority, manager fees, and cash movements
3. April meeting
 - Consultant RFP initial evaluation
 - Strategic Asset Allocation review and benchmarking discussion
4. Consultant RFP Site Visits (week of either April 22 or April 29)
5. May meeting
 - Consultant RFP recommendation
 - Fixed Income, Real Assets, Cash & Equivalents strategic review, Premier Lists and implementation
 - Private markets program discussion
 - Quarterly review of investment performance, positioning, strategy, implementation, delegated authority, manager fees, and cash movements
6. August meeting
 - Review of Investment Policy Statement and Investment Implementation policy including strategic asset allocation, guidelines, and goals
 - Private markets program discussion
 - Quarterly review of investment performance, positioning, strategy, implementation, delegated authority, manager fees, cash movements, and Premier List
7. October Workshop
 - Private markets program discussion
8. November meeting
 - Private markets program discussion
 - Annual review of investment budget
 - Quarterly review of investment performance, positioning, strategy, implementation, delegated authority, manager fees, cash movements, and Premier List
 - Develop 2025 Committee Work Plan

12. Review key meeting takeaways and call for future agenda items

Presented by Committee Chair Liu



COMMITTEE MEETING Agenda Item Information Sheet

AGENDA ITEM 12:

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.