LACERA

September 1, 2023

TO: Trustees – Board of Investments

FROM: Credit and Risk Mitigation Committee

Vache Mahseredjian, CFA, CAIA, FRM, ASA VM
Principal Investment Officer

FOR: September 13, 2023 Board of Investments Meeting

SUBJECT: **RISK REDUCTION AND MITIGATION STRUCTURE REVIEW**

RECOMMENDATION

Approve the initiatives and recommendations within the Risk Reduction and Mitigation Structure Review (**Attachment**) advanced by the Credit and Risk Mitigation Committee.

BACKGROUND

A structure review for the Risk Reduction and Mitigation functional asset category was presented at the August 9, 2023 meeting of the Credit and Risk Mitigation Committee ("Committee"). That review included several recommendations (summarized on page 33 of the **Attachment**), which the Committee advanced to the Board of Investments ("BOI"). The recommendations include:

Cash

- Affirm the existing role, objectives, implementation approach, guidelines, and structure

Investment Grade Bonds

- Affirm the current target mix of strategies: 70% Passive / 30% Active
- Adopt the guidelines shown on page 13 of the **Attachment**

Note: The guidelines provide additional specificity but there are no material changes

Long-Term Treasury Securities

- Affirm the current passive (indexed) implementation approach
- Adopt guidelines shown on page 19 of the **Attachment**

Note: The Long-Term Treasury allocation was introduced in the 2021 Strategic Asset Allocation. Therefore, following the 2021 structure review, a search was conducted via RFP and the BOI selected BlackRock. The guidelines shown on page 19 of the **Attachment** are "new" in the sense that they did not exist in the 2021 structure review, but they are consistent with the guidelines currently in place for the account that BlackRock was selected to manage.

Hedge Funds

- Continue the current implementation framework
- Adopt the portfolio guidelines shown on page 28 (overall program) and page 29 (emerging manager program)

Note: changes to the guidelines for the overall hedge fund program include a reduction to the lower bound of the target risk range from 3% to 2%, and clarification that risk and market sensitivity calculations will be based on trailing 3-year returns.

Changes to the emerging manager program ("EMP") guidelines include clarification on the definition of an emerging manager, as well as timing of graduation or redemption.

DELIBERATIONS AND OPINIONS EXPRESSED BY THE COMMITTEE

There were no questions from Committee members nor follow-up items for staff review.

OPTIONS AVAILABLE TO THE BOARD

The Board may wish to approve, modify, or reject the recommendation.

RISKS OF ACTION AND INACTION

If the Board approves the recommendation, there will be no material structural changes

Should the Board reject the recommendation, the structure of the Risk Reduction and Mitigation functional category would remain unchanged. Since several of the guidelines for the EMP are new, if the recommendation is rejected, there would be less clarity regarding the definition of an emerging manager and potential greater ambiguity about graduation or redemption parameters.

CONCLUSION

The Committee voted unanimously to advance the Risk Reduction and Mitigation structure review to the Board for approval.

Attachment

Noted and Reviewed:

Jonathan Grabel
Chief Investment Officer

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July 28, 2023

TO: Trustees - Credit and Risk Mitigation Committee

FROM: Vache Mahseredjian, CFA, CAIA, FRM, ASA
Principal Investment Officer VM

Chad Timko, CFA, CAIA CT
Senior Investment Officer

Krista Powell KP
Investment Officer

Quoc Nguyen, CFA QN
Investment Officer

Jason Choi, CFA JC
Senior Investment Analyst

FOR: August 9, 2023 Credit and Risk Mitigation Committee Meeting

SUBJECT: **RISK REDUCTION AND MITIGATION STRUCTURE REVIEW**

RECOMMENDATION

Advance the recommendations within the Risk Reduction and Mitigation Structure Review (**Attachment A**) to the Board of Investments for approval.

SUMMARY

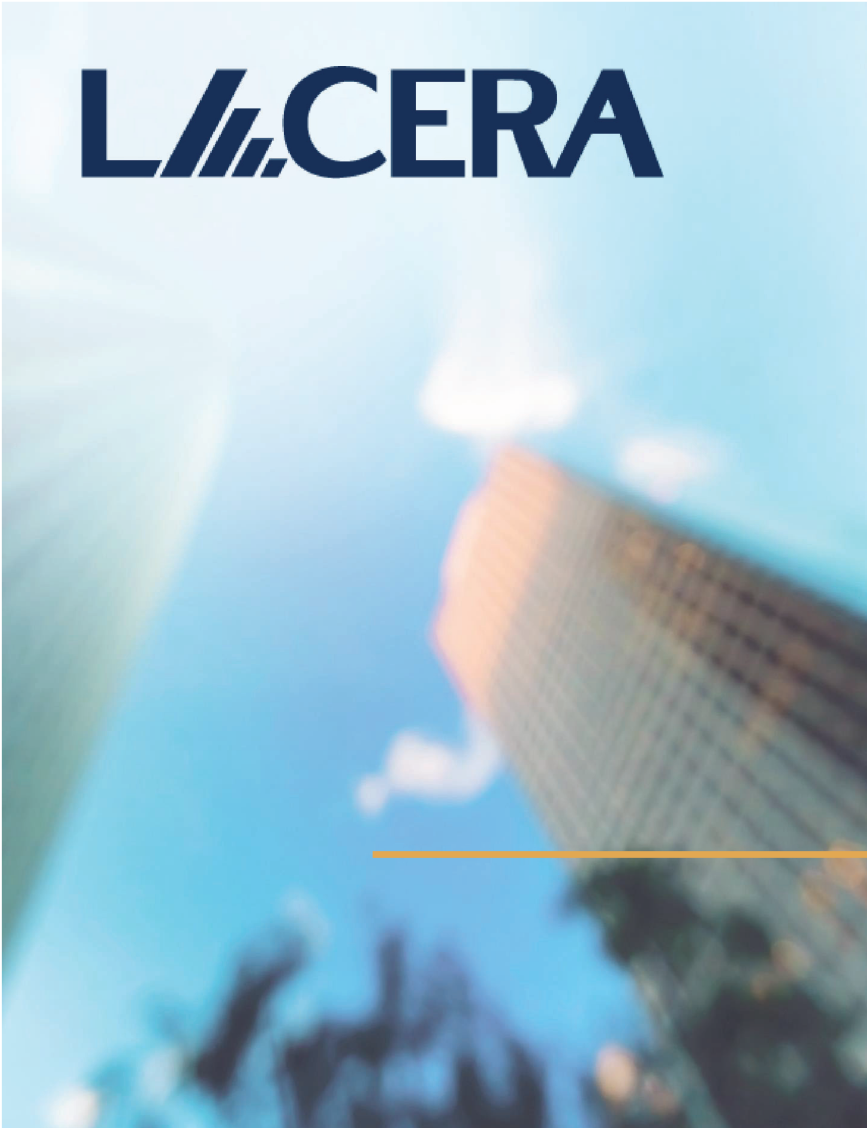
This Structure Review considers the role, implementation framework, performance, and initiatives of the Risk Reduction and Mitigation functional asset category. Additionally, it reviews structure, performance, and portfolio guidelines for portfolio components: cash, investment grade bonds, long-term government bonds, and hedge funds. The presentation consists of an introductory overview followed by sections dedicated to each of the four portfolio components. A concluding section provides a summary of recommendations (see page 34).

LACERA's consultants Meketa Investment Group and Albourne Partners reviewed the segments of the Structure Review that apply to their respective mandates and are in support. Albourne reviewed the hedge funds section and Meketa reviewed the rest. Memos from the consultants are included as **Attachments B** and **C**.

Attachments

Noted and Reviewed:

Jonathan Grabel
Chief Investment Officer



ATTACHMENT A

Risk Reduction and Mitigation

Structure Review

Credit and Risk Mitigation Committee Meeting

August 9, 2023

Table of Contents

Risk Mitigation: Role

Risk Mitigation

- Source of liquidity
- Capital preservation
- Moderate income and total return
- Low correlation to growth risks

Cash

- Primary source of total Fund liquidity
- Capital preservation
- Cash and cash equivalent exposures

Investment Grade Bonds

- Secondary source of total Fund liquidity
- Capital preservation
- Moderate duration interest rate risk exposure

Long-Term Government Bonds

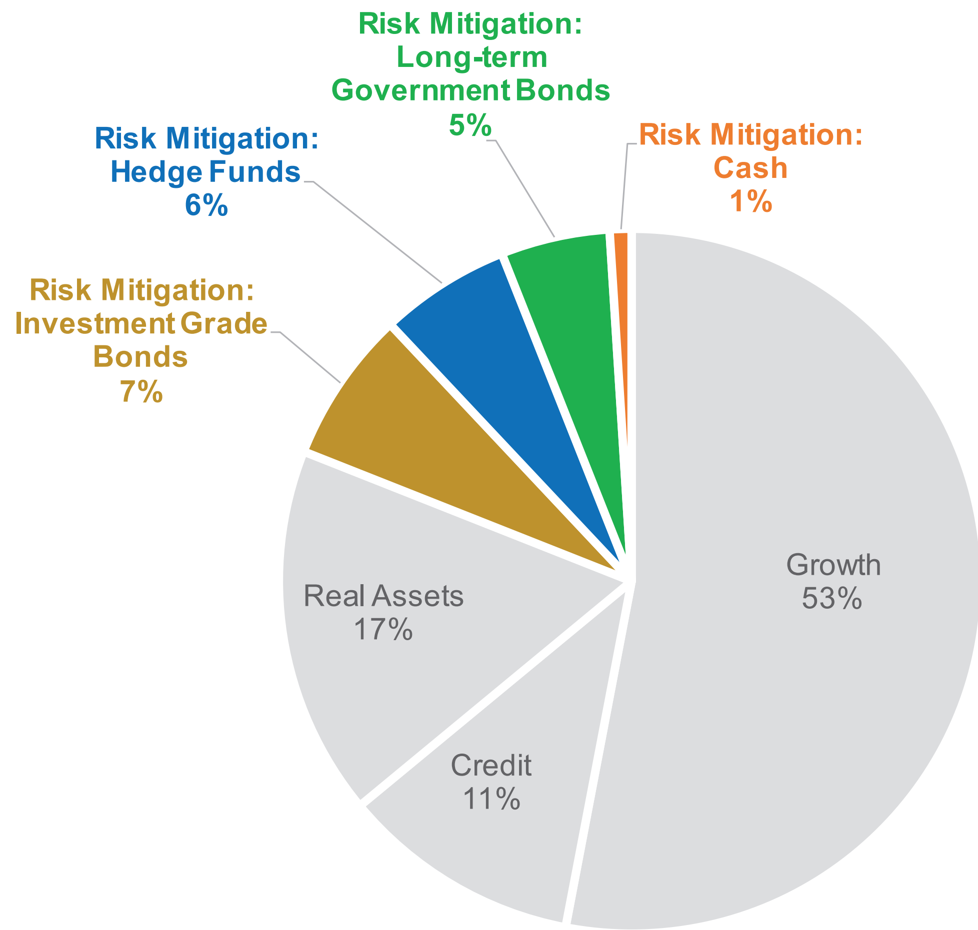
- Source of liquidity for the total Fund
- Negative historic correlation to growth assets
- Long duration interest rate risk exposure

Hedge Funds

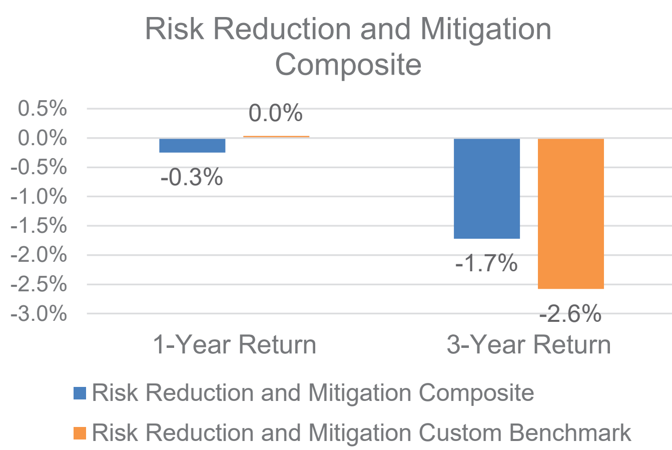
- Reduce total Fund risk
- Enhance total Fund diversification
- Downside protection
- Low sensitivity to major markets

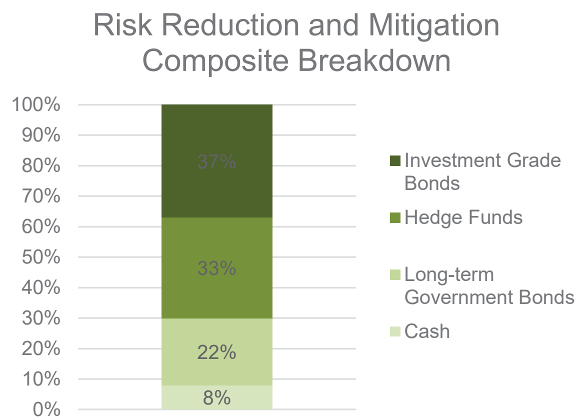
Risk Mitigation: Allocation Targets

- LACERA's Risk Mitigation portfolio has a 19% total Fund target allocation with four sub-categories
- Target allocations for the sub-categories are shown in the pie chart, totaling 19%
- Each sub-category has nuanced objectives and characteristics that are further described in this structure review

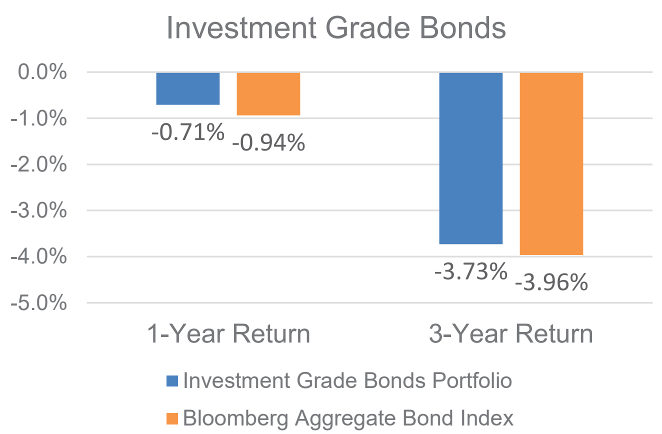


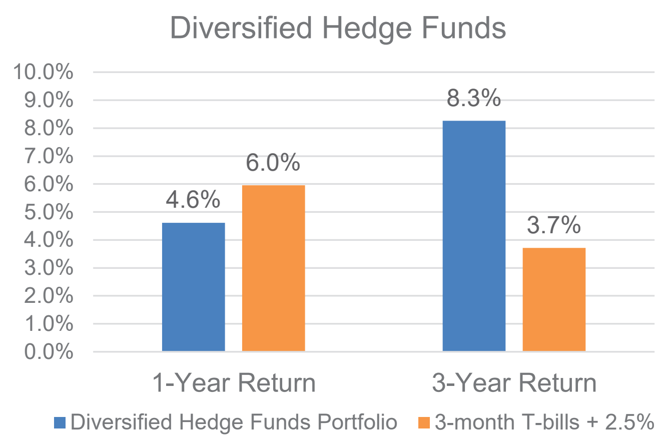
Risk Mitigation: Performance

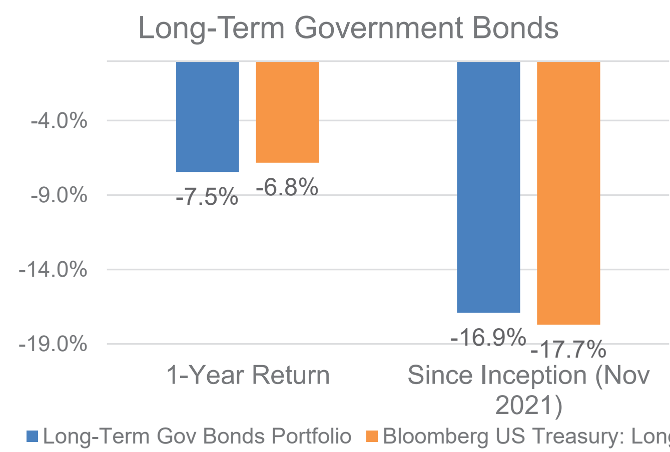




- The composite underperformed the benchmark by 30 bps over the 1-year period and outperformed by 90 bps annualized over the 3-year period
- The composite's 3-year returns were negatively impacted by investment grade and Long-Term Government Bonds
- Diversified hedge funds have delivered strong risk-adjusted returns over the 3-year period







Data is from State Street as of June 30, 2023. Diversified Hedge Fund Returns are reported on a 1-month lag

Cash

Cash: Role, Structure, Objectives, Initiatives

Role

- Primary source of total Fund liquidity
- Facilitate cash activity to fund retirement benefits payments, new investments, and expenses as well as settle redemptions

Structure

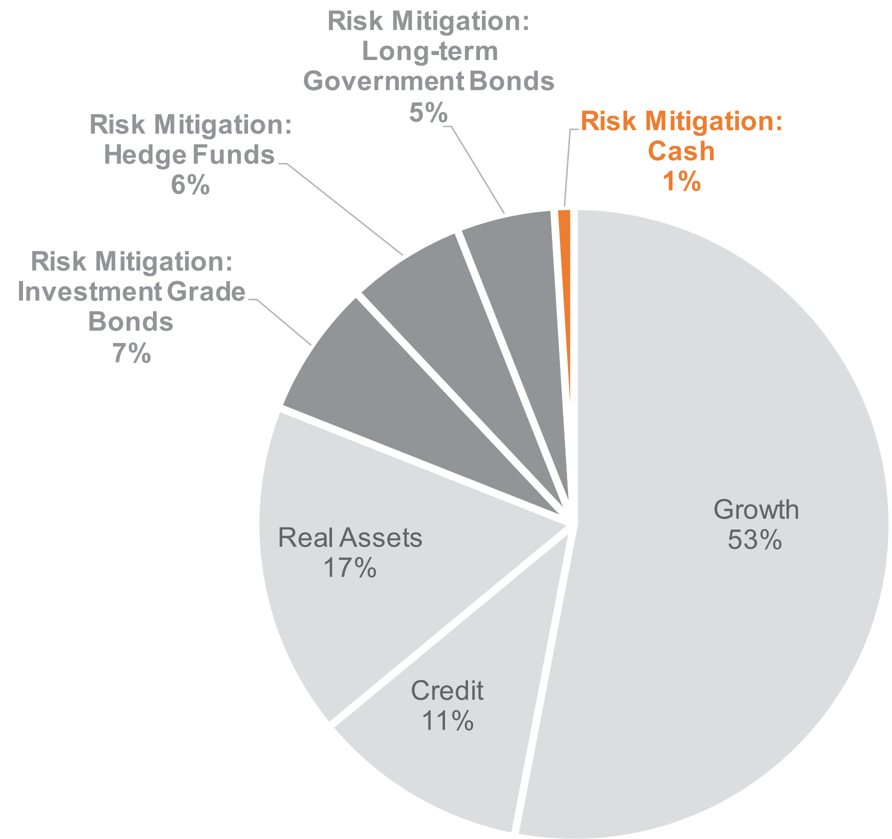
- Highly liquid to support various total Fund cash needs
- Investment universe of U.S. Treasury and U.S. Government agency issues, repurchase agreements (collateralized with treasury, agency or agency mortgage-backed securities)
- Implemented in a separate account vehicle managed by State Street

Objectives

- Paramount to LACERA's mission of providing the promised benefit
- Nexus for all rebalancing
- Capital preservation
- Prioritize liquidity over outperformance

Continuing Initiatives

- Cash management tools and broad Investments division support to monitor daily cash create projections
- Digitize, automate, and document custodian cash activity where possible
- Segregation of duties and approval protocols

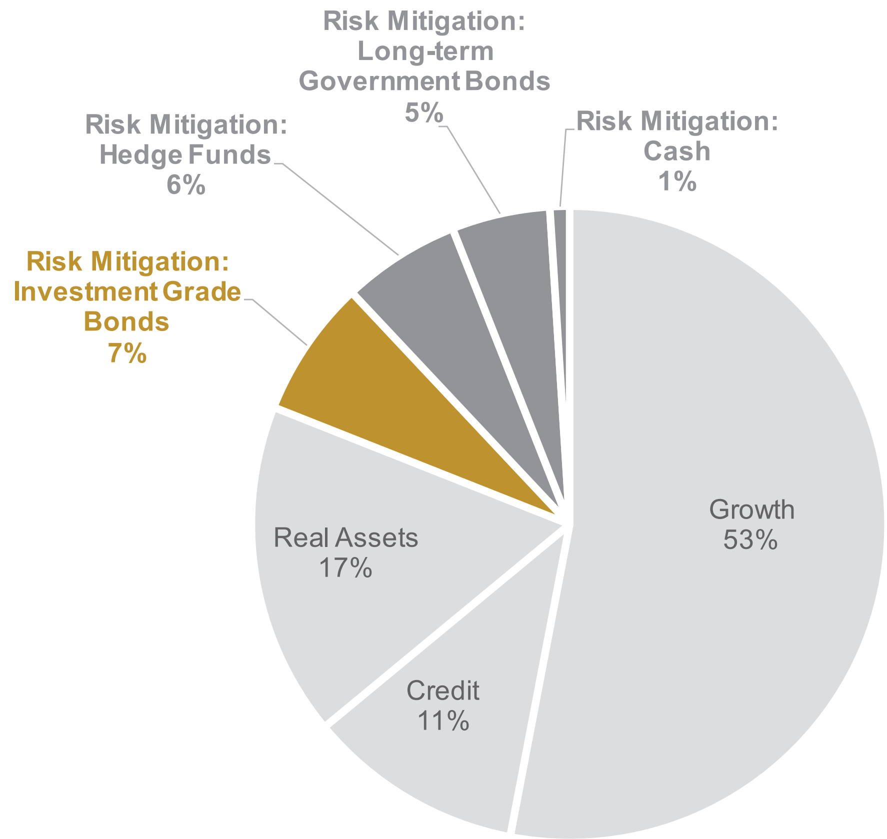


Investment Grade Bonds

Investment Grade Bonds: Role and Objectives

Role
- Secondary source of near-term liquidity for the total Fund (after cash)
- Generate income
- Gain interest rate risk exposure

Objectives
- Provide diversification by complementing economic growth risk
- Preserve capital when there is a “flight to safety” or investors otherwise seek high quality assets
- Reduce total Fund portfolio risk by having a low correlation to growth assets and low to moderate volatility



Investment Grade Bonds: Portfolio Structure

2021 Structure Review:

	Target Allocation	Allocation Ranges
Passive	70%	50% - 100%
Active	30%	0% - 50%

- Legacy core plus (risk-seeking) managers were terminated
- A 70% / 30% target structure was adopted

2023 Recommended Structure:

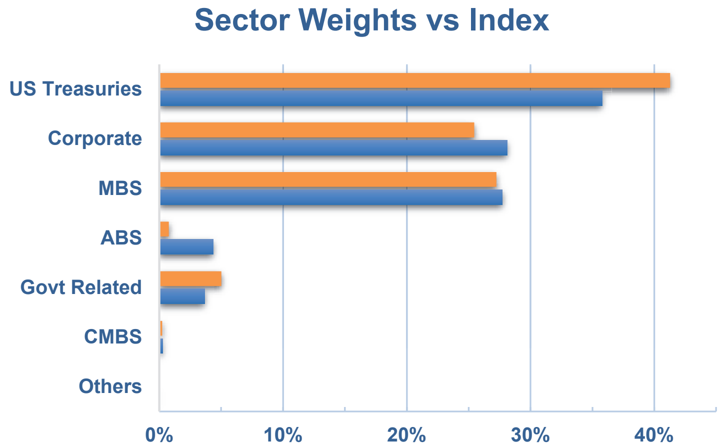
- Maintain target and allocation ranges

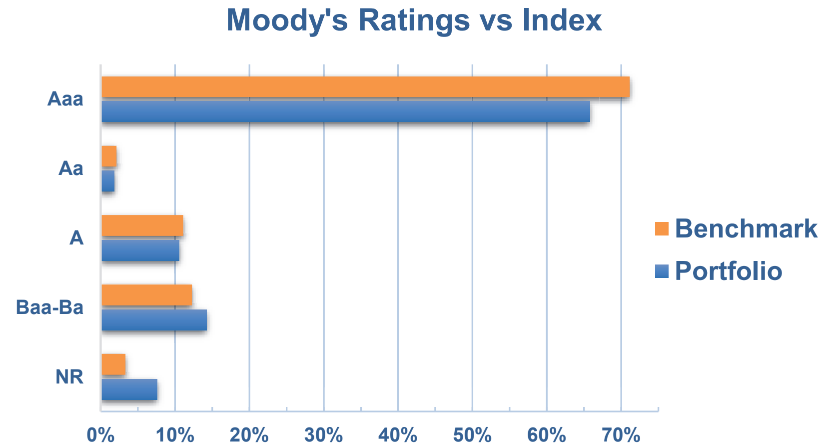
	Target Allocation	Allocation Ranges
Passive	70%	50% - 100%
Active	30%	0% - 50%

- Passive strategies closely mirror the positioning, risk, and return of a benchmark index
- Active strategies deviate from benchmark index positioning in pursuit of improved risk-adjusted returns

Investment Grade Bonds: Portfolio Composition

- Below is the positioning as of May 2023:





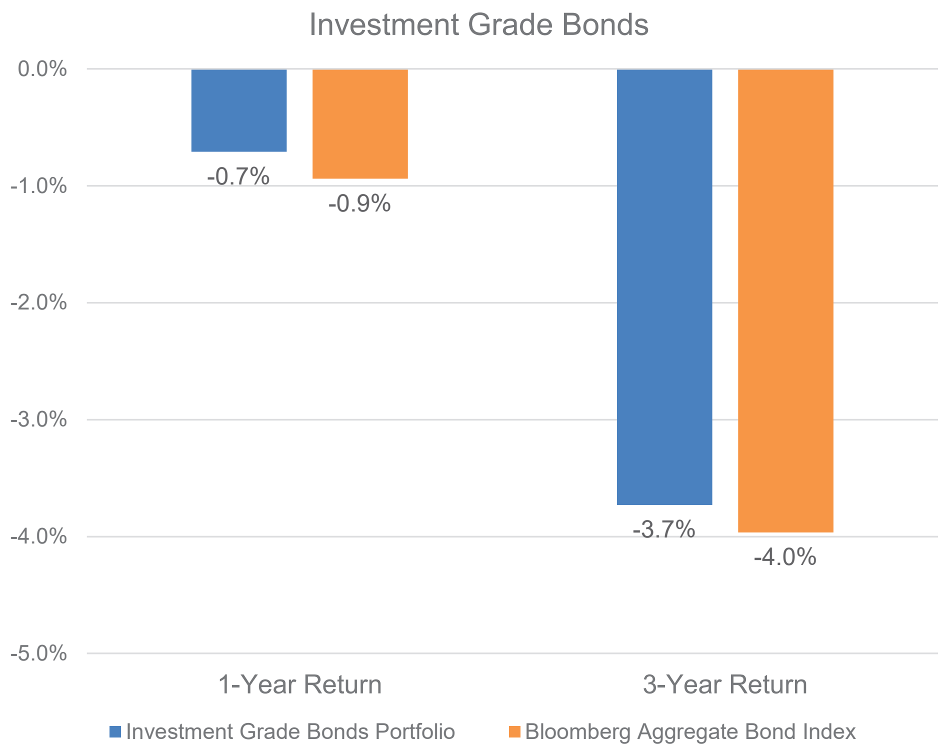
Statistic	Portfolio	Benchmark
Total Risk	6.7	6.6
Active Risk	0.2	0.0
Beta	1.0	1.0
Effective Duration	6.4	6.3
Yield (YTW; %)	4.5	4.8

- The portfolio closely tracks the benchmark with predominantly Aaa securities
- Active risk of the portfolio to be further considered within a strategic asset allocation study, risk budgeting exercise, and/or a future structure review

Portfolio exposure data is from State Street as of June 30, 2023. Risk metric data is from MSCI Barra One as of May 31, 2023. The benchmark is the Bloomberg Barclays U.S. Aggregate Bond Index

Investment Grade Bonds: Performance

Trailing 1-year and 3-year returns as of 6/30/2023



- LACERA's investment grade bonds portfolio has outperformed its benchmark over the 1-year and 3-year periods
- Investment grade bonds experienced negative returns over the 1 and 3-year periods
  - The rise in interest rates was the primary driver of negative returns

Data is from State Street as of June 30, 2023

Investment Grade Bonds: Portfolio Guidelines

- The below proposed / recommended portfolio guidelines are an evolution from existing guidelines
  - Risk considerations are incorporated into the investment objective
  - Additional specificity is added to the eligible investments

	Current	Proposed / Recommended
Investment Objective	Meet or exceed return of the benchmark net of fees	Closely achieve the total return and risk exposures of the investment grade bond market and benchmark
Benchmark	Bloomberg Barclays U.S. Aggregate Bond Index	Bloomberg Barclays U.S. Aggregate Bond Index
Sectors	Only sectors in the benchmark	[remove category; captured in Eligible Investments]
Geography	Only countries represented in the benchmark	[remove category; captured in Eligible Investments]
Currency	U.S.Dollar denominated	[remove category; captured in Eligible Investments]
Quality	Only bonds rated investment grade	[remove category; captured in Eligible Investments]
Aggregate Duration	n/a	Bechmark duration +/- 0.3 years
Eligible Investments	n/a	Investments consistent with the benchmark, which contains investment grade, U.S. dollar denominated, fixed rate taxable bonds. Index Sectors include U.S. Treasuries, government-related and corporate securities, agency Mortgage-backed securities, asset-backed securities, and commercial mortgage-backed securities. Also eligible are exchange-traded funds benchmarked to the index, U.S. Treasury bond futures, and money market instruments
Prohibited Investments	n/a	Bonds from sectors not included in the index and purchasing securities on margin
Leverage	n/a	Not permitted

Investment Grade Bonds: Summary

- Advancement and approval of this structure review would result in the following regarding the investment grade bond portfolio:
  - Affirm the implementation structure with 70% and 30% target allocations to passive and active strategies, respectively
  - Adopt revised portfolio guidelines as described

Long-Term Government Bonds

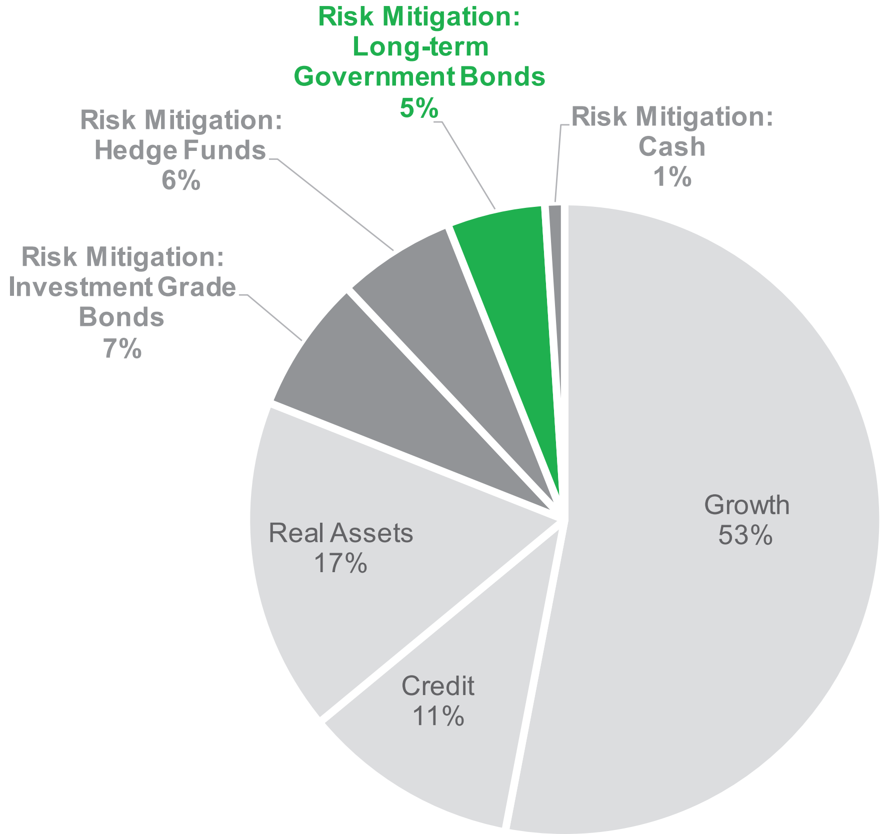
Long-Term Government Bonds: Role and Objectives

Role

- Be a source of liquidity for the total Fund
- Generate income
- Gain long duration interest rate risk exposure

Objectives

- Diversify and reduce overall risk to total Fund given its negative historic correlation to growth assets
- Preserve capital when there is a “flight to safety” or investors otherwise seek high quality assets
- Provide capital efficient way to access interest rate risk exposure



Long-Term Government Bonds: Portfolio Structure

- Long-Term Government Bonds are bonds issued by the U.S. government that have maturities longer than 10 years
- The Long-Term U.S. Treasury bond market is large ($ trillions) with a widely used benchmark that can be cost-effectively tracked by "passive" management
- LACERA implements this allocation via an indexed separate account mandate after a 2022 RFP process
- The portfolio has the following characteristics as of June 30, 2023:

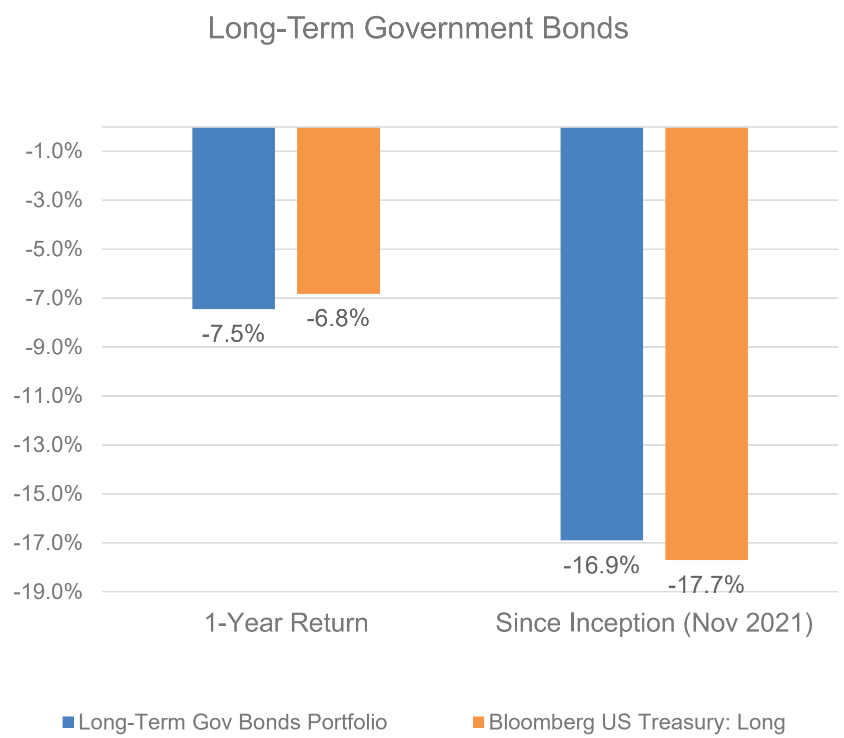
	LACERA Long-Term U.S. Treasury Bond Index Portfolio	Bloomberg U.S. Treasury 10+ Year Index
Market value ($B)	2.96	2,108.69
# Issues	77	76
Characteristics		
Coupon (%)	2.76	2.67
Yield to maturity (YTM) (%)	3.98	3.97
Weighted avg life (yrs)	22.87	22.97
Effective duration (yrs)	15.99	15.98
Convexity	3.33	3.33
Quality breakdown (mkt val %)		
AAA or above	99.79	100.00
NR	0.21	0.00

	LACERA Long-Term U.S. Treasury Bond Index Portfolio	Bloomberg U.S. Treasury 10+ Year Index
Sector breakdown (mkt val %)		
Treasury	99.79	100.00
Cash	0.21	0.00
Weighted avg life breakdown (mkt val %)		
0-1	0.21	0.00
1-2	0.00	0.00
2-3	0.00	0.00
3-5	0.00	0.00
5-7	0.00	0.00
7-10	0.00	0.00
10-20	37.25	37.88
20-30	62.54	62.12
30+	0.00	0.00

Data is from BlackRock as of June 30, 2023

Long-Term Government Bonds: Performance

Trailing 1-year and since inception returns as of 6/30/2023



- The Long-Term Government Bonds portfolio underperformed the benchmark over the 1-year period by 63 bps and outperformed the benchmark by 80 bps annualized since portfolio inception
- The negative return since inception has been due to the sharp rise in U.S. interest rates
- Long-term government bond investments still provide risk mitigation characteristics as it allows for capital efficiency for the total Fund and has historically performed positively when equity markets perform negatively, notwithstanding calendar year 2022

Data is from State Street as of June 30, 2023

Long-Term Government Bonds: Portfolio Guidelines

- The below proposed portfolio guidelines would all be newly established
- The current portfolio implementation adheres to the below guidelines

	Proposed
Investment Objective	Closely achieve the total return and risk exposures of the long duration treasury market and benchmark
Benchmark	Bloomberg Long U.S. Treasury Bond Index
Aggregate Duration	Bechmark duration +/- 0.3 years
Eligible Investments	Investments consistent with the benchmark such as: U.S. Treasury securities, U.S. Treasury futures, U.S. Treasury bond exchange traded funds, money market securities and instruments, cash, and cash equivalents
Prohibited Investments	Purchasing securities on margin and uncovered short sales
Leverage	Not permitted

Long-Term Government Bonds: Summary

- Advancement and approval of this structure review would result in the following regarding the Long-Term Government Bonds portfolio:
  - Continue with “passive” implementation that closely adheres to the benchmark
  - Adopt portfolio guidelines as described

Hedge Funds

Hedge Funds: Role and Objectives

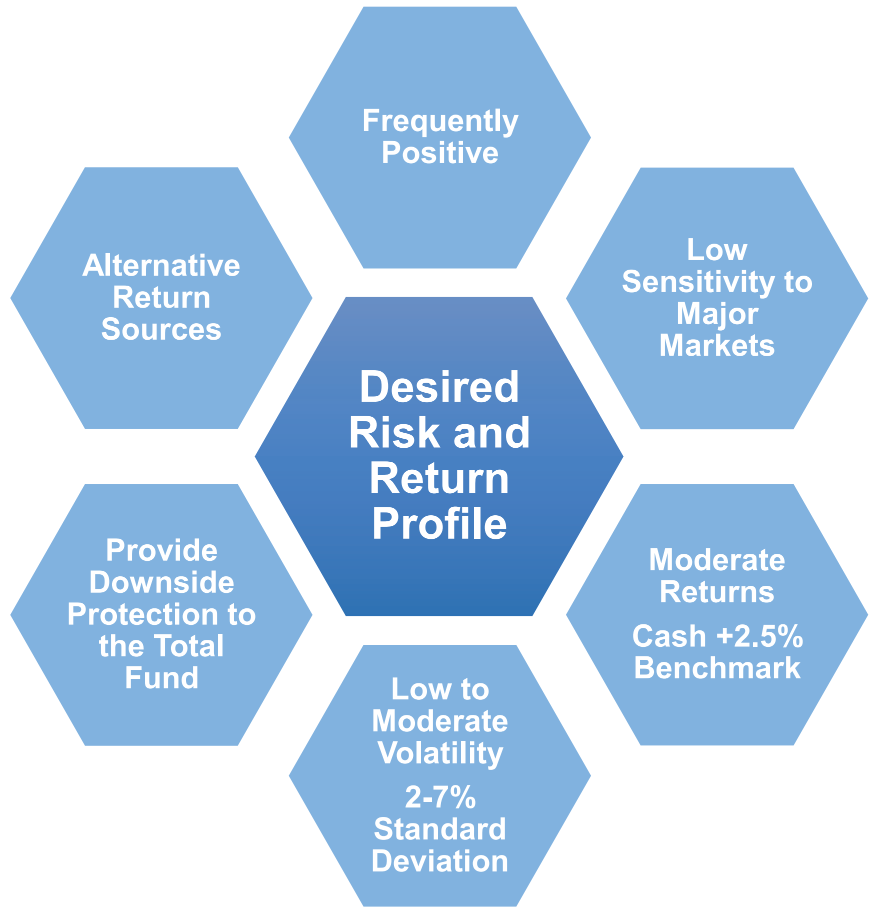
Role:

- Reduce total Fund risk
- Enhance total Fund diversification

Objective:

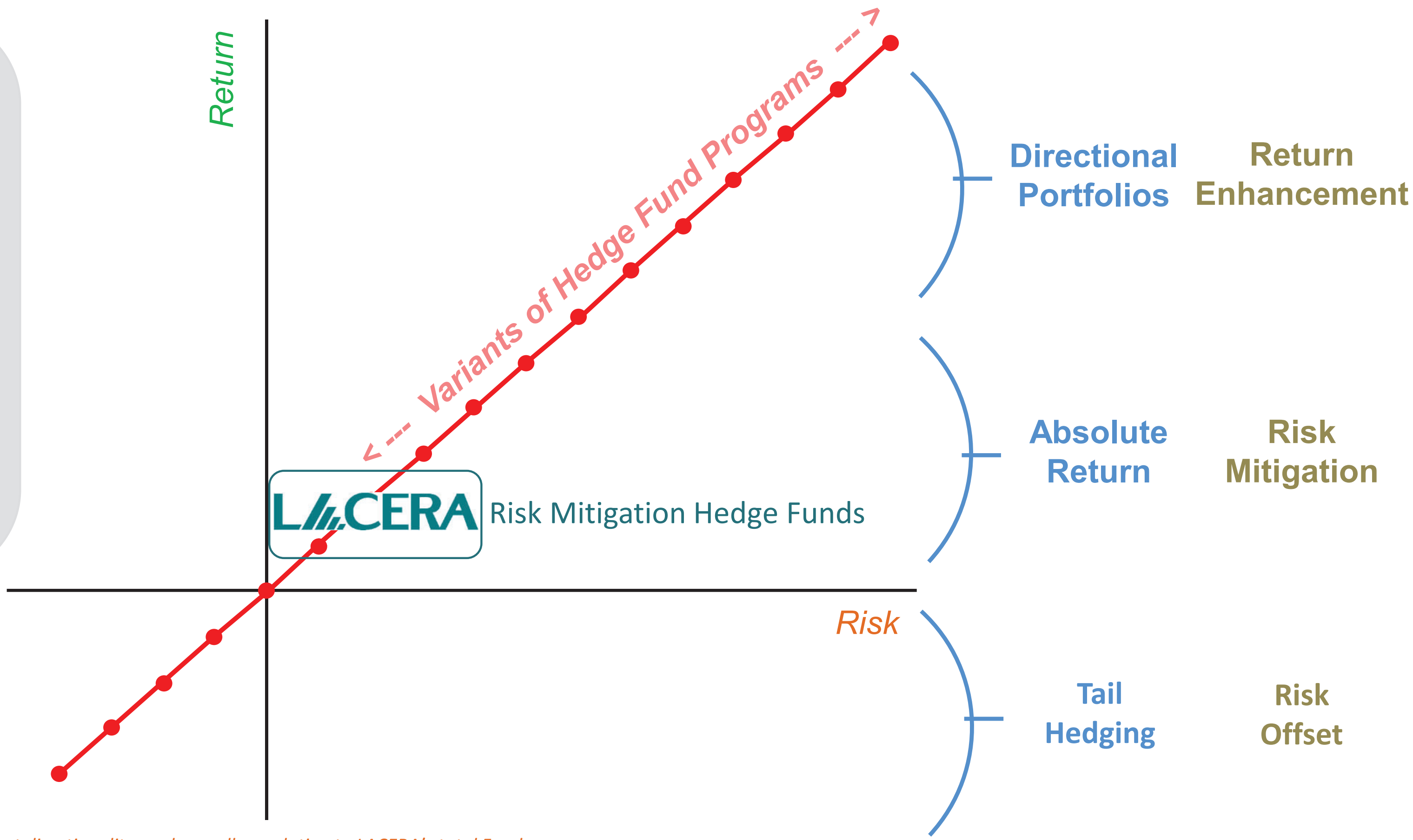
- Downside protection
- Low sensitivity to major markets
- Frequently positive
- Moderate returns
- Cash + 2.5% per year benchmark

- *Not risk offset*
- *Not tail hedging*
- *Not negative return expectations*



Hedge Funds: Portfolio Structure

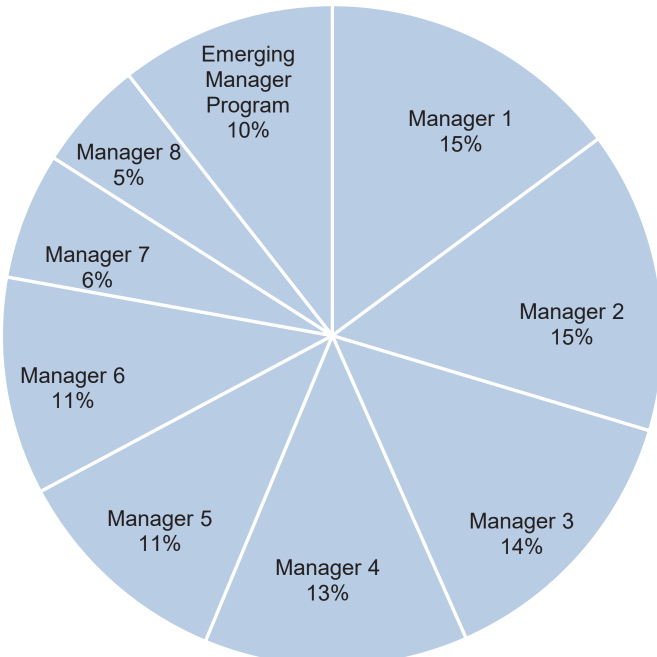
- LACERA's hedge fund portfolio:
  - Risk mitigation objectives
  - "Absolute return" approach
  - Less risky and less directional compared to many hedge fund portfolios



Risk as graphed is a measure of return volatility, market directionality, and overall correlation to LACERA's total Fund
Absolute Return and Risk Offset are further described in the glossary at the end of this presentation

Hedge Funds: Portfolio Structure

Portfolio as of 6/30/23



Portfolio in compliance with the existing hedge fund program guidelines

Initiatives Underway

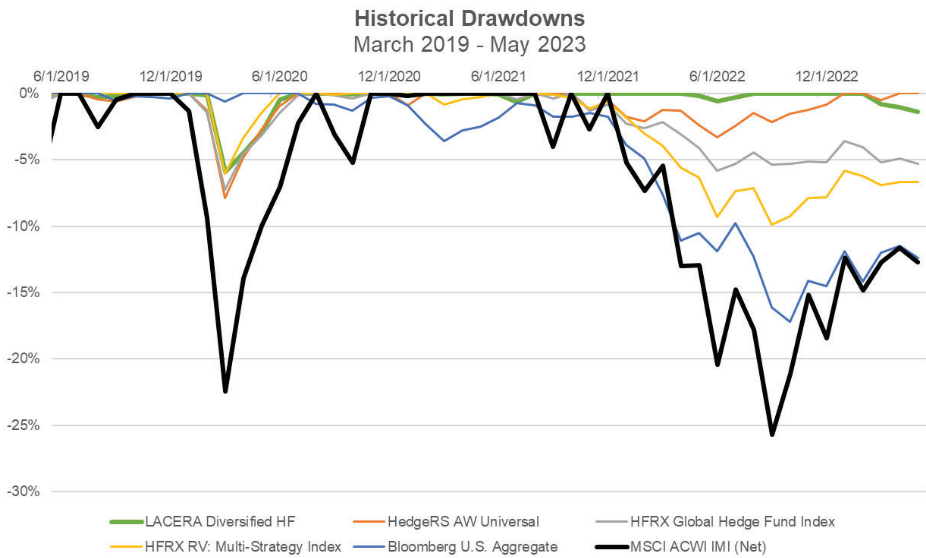
- Continue ramping the size of the emerging manager program towards the board approved target of ~15% of hedge fund portfolio
- Continue building a pipeline of potential hedge fund managers to the extent portfolio adjustments are necessary
- Continue monitoring the portfolio, managers, and underlying exposures

Initiatives That Would Require Future Approvals

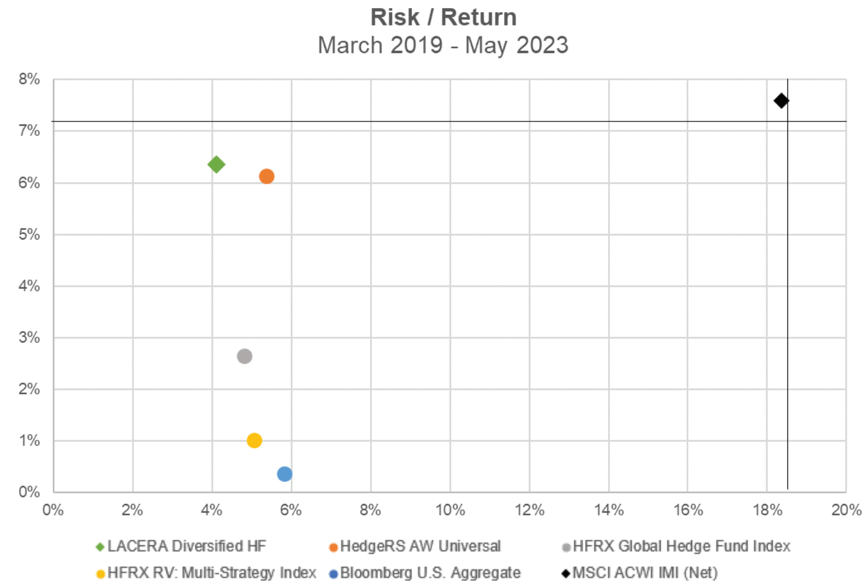
- New investments into or terminations from the main portfolio
- Graduations from the emerging manager program to the main portfolio

Hedge funds data is from State Street as of June 30, 2023 reported on a 1-month lag

Hedge Funds: Risk Composition



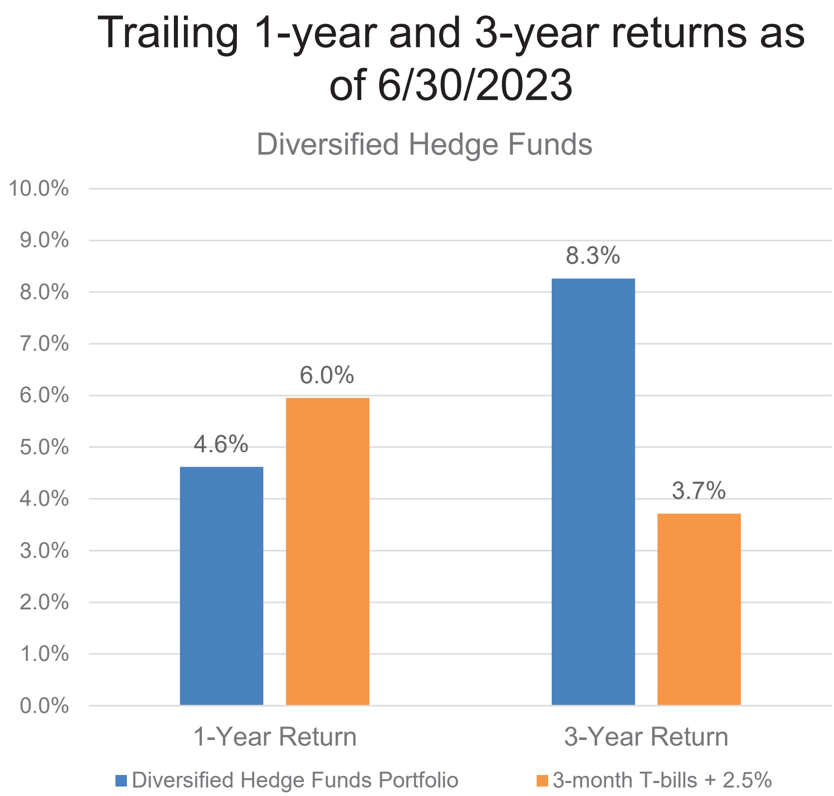
- The Diversified Hedge Funds portfolio has experienced low downside volatility as shown in the historical drawdowns and high sortino ratio.
- On a three-year trailing basis, the portfolio has low sensitivity to the equity markets with a beta of 0.04.
- On a risk adjusted basis, the portfolio is performing more efficiently relative to comparable indices.

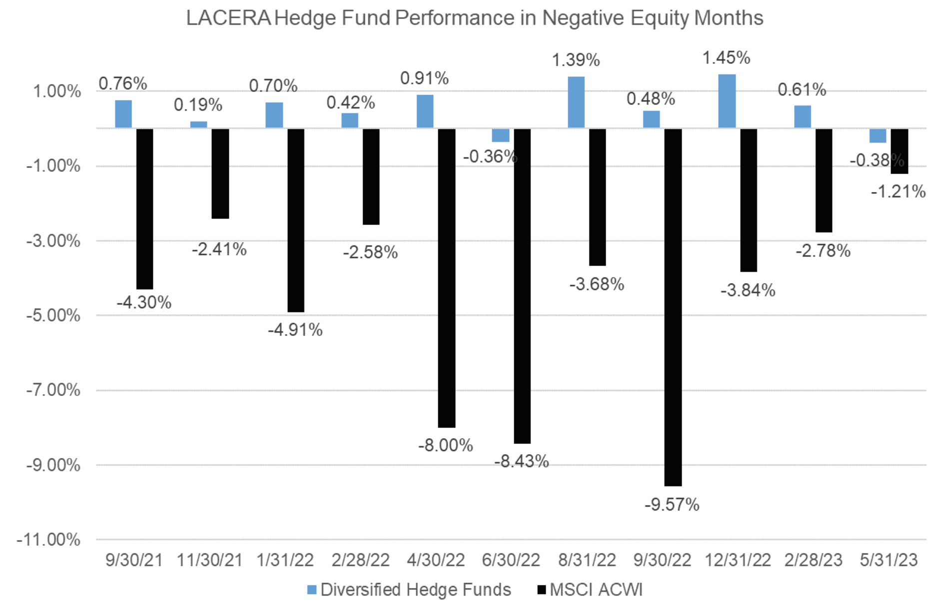


Diversified Hedge Funds vs MSCI ACWI (Net)	Jensen's Alpha	Beta	Sharpe Ratio	Sortino Ratio	Up Capture	Down Capture	Up / Down Capture Spread	% of Positive Months
12-Month	1.3%	0.00	0.2	0.4	3.2%	-14.2%	17.5%	67%
36-Month	6.7%	0.04	2.3	6.5	13.4%	-21.0%	34.4%	72%

Data as of May 31, 2023
Source of returns for LACERA Diversified Hedge Funds is State Street (unlagged by 1-month)
Source of returns for the remaining line items and risk statistics are from Zephyr
Select terms are further described in the Glossary

Hedge Funds: Performance



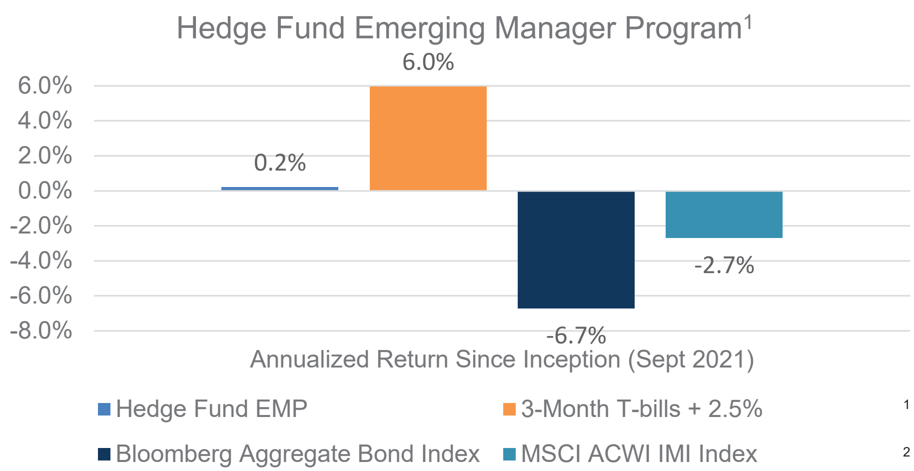


- The hedge fund portfolio underperformed its benchmark over a 1-year period but has outperformed by 460 bps annualized over a 3-year period
- The portfolio delivered a 7.3% return in 2022, when global equity markets (MSCI ACWI IMI) and the US bond market (Bloomberg US Aggregate) fell 18% and 14%, respectively, meeting its risk mitigation objectives
- The portfolio has mostly performed positively during negative equity months with a couple of exceptions, notably June 2022 and May 2023 when the portfolio was slightly negative relative to larger equity drawdowns

Trailing 1-year and 3-year returns data as of June 30, 2023 are from State Street lagged by 1-month
Source of returns for LACERA Diversified Hedge Funds is State Street (unlagged by 1-month)
Source of returns for MSCI ACWI is Zephyr

Hedge Funds: Emerging Manager Program Update

Snapshot of Program as of June 30, 2023	
Separate Account Manager	Stable Asset Management
Portfolio Net Asset Value[1]	$480 million
Portfolio Inception	2021
Emerging Managers	7
Revenue Sharing Accounts	6
Beta to Global Equities[2]	-0.05



Key Takeaways

- The Program is nearly 75% invested relative to its target allocation and inline with program guidelines
- Since inception, the Program has preserved capital while investment grade bonds and global equities have delivered negative returns, mitigating total Fund risk
- As designed, LACERA would share in the success of the emerging managers as revenue sharing is a component of most mandates
- One or several managers stand out as graduation prospects given good since inception performance and return metrics

[1] Hedge Fund EMP data and benchmark data from State Street and reported on a 1-month lag. Bloomberg Aggregate Bond and MSCI ACWI IMI Index data is from Zephyr
[2] The portfolio beta is measured since Program inception and to the MSCI ACWI IMI global equity index and is calculated by Zephyr

Hedge Funds: Program Guidelines

- **Guidelines are noted below with notes relative to existing guidelines**

	Proposed	Relative to Existing Guidelines
Return Objective & Benchmark	Cash + 2.5%; with risk mitigation objectives as guided by the IPS and structure review	No change
Risk Target	2-7% standard deviation of program monthly returns on a 3-year trailing basis	Adjusted [3-7%] to [2-7%]; added [3-year trailing]
Market Sensitivity	MSCI ACWI equity beta less than 0.2 for monthly returns on a 3-year trailing basis	Added [3-year trailing]
Geographic Exposure	Maximum of 30% invested in non-developed markets	No change
Liquidity	100% of capital within 5 years; at least 50% within 3 years	No change
Side Pockets	Allowed with the reasonable expectation that no side pocket would last beyond 5 years	No change
Leverage	10x when aggregating individual funds	No change
Manager Count	Approximately 10 for each the direct portfolio and the emerging manager portfolio	No change
Transparency	Position-level or risk-exposure data is required from managers	No change
Partnership Size Limits	Less than 35% of a commingled fund structure; does not apply to managers defined as emerging	No change

- Modifying the lower bound of the risk target range would support risk mitigation and downside protection objectives of the program
- Adding a specific time frame to measure the risk target and market sensitivity metric benefits compliance
- Additional guidelines for the emerging manager program are considered on the following page

Hedge Funds: Program Guidelines

- **Guidelines for the hedge fund emerging manager program (EMP) are below**
- **These guidelines are in addition to the program-level guidelines from the previous page**

	Proposed	Relative to Existing Guidelines
Program Framework	Evergreen separate account emerging manager program	No change
Allocation Target and Range	15% target allocation with a 10-20% range (of the hedge funds portfolio)	No change
Emerging Manager Definition	An emerging hedge fund manager meets the three following criteria at initial investment: - Organization/team has less than $500 million of assets under management; - Organization/team has managed external capital in an institutional vehicle for less than 3 years; and - Organization/team is at least 66% owned by managing principals and employees	Added "at initial investment" Added "/team" Added "/team"; "in an…vehicle" Added "/team"
Graduation Description	Graduation entails re-categorizing an investment from LACERA's emerging manager program to LACERA's primary portfolio that may adjust the size of the investment	New guideline
Graduation Target Timeframe	3 - 7 years after an initial investment noting that this guideline is a target and a goal	New guideline
Graduation Authority	Graduation would require approval like any new non-EMP investment as articulated in the IPS	New guideline
Redemption Description	Redemption entails redeeming from an investment in lieu of holding it or a graduation event	New guideline
Redemption Guideline	Absent graduation intentions for a particular investment, a redemption event should commence no later than 7 years after an initial investment noting that nuanced circumstances may delay the redemption	New guideline

- Several new guidelines added above are designed to define and frame approaches to both graduation and redemption
- Merit, objectives, strategic initiatives, context, portfolio fit, and case specifics would be evaluated for graduation or redemption decisions
- Not included in the proposed guidelines is past language that defined an existing manager would no longer be emerging if: 1) organization assets under management exceed $1 billion for the trailing 24 months and the fund has a 36-month performance track record, 2) LACERA's initial investment occurred greater than 5 years ago, or 3) the organization is not at least 66% owned by managing principals or employees

Hedge Funds: Summary

- Advancement and approval of this structure review would result in the following regarding the hedge fund portfolio:
  - Continue with the current portfolio framework
  - Adopt portfolio guidelines as described

Risk Mitigation

Risk Mitigation: Initiatives

Completed

- Terminated Core Plus manager investment management agreements Q3 2021
- Implemented a passive / active strategy mix in Investment Grade Bonds within allowable allocation ranges
- Completed manager search for Long Treasurys and invested Q2 2022
- Achieved 6% SAA Target in the direct hedge fund program

In Process

- Fund of fund allocation within hedge fund portfolio ~ 97% redeemed
- Hedge fund emerging manager program ~10% of total hedge fund allocation (approved target 15%)
- Continued buildout of direct hedge fund program pipeline of prospective managers

Upcoming

- Continue to implement the portfolio in accordance with approved guidelines and objectives
- Hedge fund emerging manager program - continue development and potential graduations
- Continue to enhance cash protocols and operational tools
- Initiate RFP search for asset category consultant(s) pending BOI approval of MQs and searches – hedge fund and credit portfolios

Risk Mitigation: Summary Recommendations

- **Summarized below are the recommendations in this structure review:**

Cash

- Affirm role and objectives
- No adjustment

Investment Grade Bonds

- Affirm role and objectives
- Adopt proposed portfolio guidelines

Long-Term Government Bonds

- Affirm role and objectives
- Adopt proposed portfolio guidelines

Hedge Funds

- Affirm role and objectives
- Adopt proposed portfolio guidelines

Appendix

Attachment 2 – Glossary of Terms

Term	Definition
Absolute Return	A strategy that is independent of traditional benchmarks such as the S&P 500 Index or the Barclays U.S. Aggregate Bond Index. These strategies tend to have lower volatility over time and may operate independently of market direction.
Active Risk	A measure of the difference relative to a benchmark. For example, if a portfolio's return is 5%, and the benchmark's return is 3%, then the portfolio's active return is 2%. A portfolio's active risk is the risk associated with the volatility of active returns. Active weight is the portfolio's weight in an asset minus the benchmark's weight in the same asset. Active exposure is the portfolio's exposure to a factor minus the benchmark's exposure to that same factor.
Beta	A measure of the sensitivity of an asset to movements in the market or other benchmark; thus, a measure of its non-diversifiable or systematic risk. A beta of one 1.0 indicates that, on average, the asset is expected to move in tandem with the market or benchmark.
Bps or bps	An acronym for basis points where one bps equals one hundredth of one percent or 0.01%.
Correlation	Correlation measures how closely related the variances of two return series are.
Down Capture	Measure of an investment's performance during down markets, calculated as the strategy's returns divided by the returns of the benchmark index during the down market. A lower down market capture ratio means an investment was less negatively impacted during market downturns.
Duration (or Effective Duration)	A measure of the price sensitivity of bonds with respect to a parallel shift of the discount curve that is particularly useful for bonds with embedded options (e.g., callable bonds, putable bonds, and mortgage-backed securities).
Jensen's Alpha	Jensen's alpha measures the risk-adjusted return a portfolio adds above and beyond a referenced benchmark after adjusting for the risk-free rate and beta of the portfolio.
Maximum Drawdown	The compounded but not annualized maximum loss over a time period.

Attachment 2 – Glossary of Terms (continued)

Term	Definition
Risk Offset	Strategies designed to perform well during a significant market downturn. These strategies are similar to buying insurance where there is a cost of premium associated with receiving a payoff when an adverse market event occurs.
Selection Risk	Risk that is specific to an asset and is uncorrelated (or negligibly correlated) with the risks of other assets. Asset selection risk is the portion of an asset's risk that is unexplained by the risk model. Also called specific, unique, idiosyncratic, or independent risk.
Sharpe Ratio	Measures risk-adjusted performance of an investment compared to a risk-free asset.
Sortino Ratio	Measures risk-adjusted performance by calculating returns per unit of downside risk (standard deviation negative returns).
Standard Deviation	Volatility of monthly returns that measures the average deviation from the mean.
Total Risk	The total (gross) risk to an asset, which is the standard deviation of the asset's total return distribution, expressed in percent. The total risk for an asset depends on the asset's exposures to the risk factors, the factor variance/covariance matrix, and the forecast selection risk of the asset.
Up Capture	Measure of an investment's performance during up markets, calculated as returns divided by the returns of the benchmark index during the up market. A high up capture ratio means an investment outperformed the index during up markets.
Up / Down Capture Spread	A measurement of the difference between up capture and down capture.

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MEMORANDUM

TO: Each Member, Credit and Risk Mitigation Committee
FROM: Tim Filla, Aysun Kilic and Imran Zahid
CC: Jon Grabel, CIO - LACERA
DATE: August 9, 2023
RE: Risk Mitigation Structure Review

The purpose of this memo is for Meketa Investment Group to formalize its support for the recommendations related to Investment Grade Bonds and Long-Term Government Bonds contained in the Risk Mitigation Structure Review.

For Investment Grade Bonds, the 2023 recommended structure remains essentially the same as the 2021 structure review, employing passive management for 70% of the allocation and active management for 30%. This mix of active and passive has allowed LACERA's Investment Grade Bond allocation to closely track and modestly outperform the benchmark (Bloomberg Barclays US Aggregate). Staff's recommendations include minor changes to the portfolio guidelines, which Meketa categorized as either clarifications or additional controls. Within clarifications there is a small wording change to the Investment Objective and a shift to the affirmative by listing Eligible Investments rather than limitations by category/characteristic. For additional controls, staff is recommending a duration positioning limit, adding specificity regarding prohibited investments, and prohibiting use of leverage. Meketa concurs with all of the recommended changes related to Investment Grade Bonds.

For Long-Term Government Bonds, staff recommends adding a set of portfolio guidelines using the same framework as Investment Grade Bonds. Meketa concurs with this recommendation as it provides consistency between asset classes and enhances LACERA's controls over the portfolio.

If you have any questions, please feel free to reach us at 760-795-3450. We thank you for your continued trust in Meketa. We look forward to speaking with you soon.

TF/AK/IZ/sf

ALBOURNE

LACERA Hedge Fund Structure Review Concurrence Memo

July 28, 2023

To: Each Member
Credit and Risk Mitigation Committee
Board of Investments

From: James Walsh, G. Stephen Kennedy
Albourne America LLC

For: August 9, 2023 Credit and Risk Mitigation Committee Meeting

Recommendation: Albourne America LLC ("Albourne") recommends that the 2023 Structure Review of LACERA's Hedge Fund Portfolio be advanced to the Board of Investments for approval.

Background: Staff has prepared the 2023 Hedge Fund Structure Review for the Credit and Risk Mitigation Committee and the Board of Investments for its consideration and ultimately its approval. Albourne has reviewed the Structure Review and agrees with the recommendations.

The Structure Review re-asserts the Investment Role and Objectives as updated in August 2021 and approved in September 2021, which emphasize diversification to overall plan, provide downside protection and to provide non-directional market risk exposures. The Structure Review notes that, with the approval the portfolio will continue to be built out to a 6% Strategic Target. The Next Phase of this build out is anticipated to be implemented over 1-3 years adding bench Managers and to continue the implementation of the Emerging Manager Program.

Conclusion: Staff's Structure Review outlines the focus on risk mitigation and expanding the size of the program, and the actions necessary to move in that direction.

Sincerely,

James Walsh
Head of Portfolio Group

G. Stephen Kennedy
Senior Analyst

LACERA Hedge Fund Structure Review Concurrence Memo