IN PERSON & VIRTUAL BOARD MEETING

AUGUST 9, 2023 AT 8:00 AM*

CREDIT AND RISK MITIGATION COMMITTEE MEETING

*The Committee meeting will be held prior to the Board of Investments meeting scheduled prior.

TO VIEW VIA WEB

https://lacera.com/leadership/board-meetings

TO PROVIDE PUBLIC COMMENT

Members of the public may address the Committee orally and in writing. To provide Public Comment, you should visit the above link and complete the request form by selecting whether you will provide oral or written comment from the options located under Options next to the Committee meeting.

Attention: If you have any questions, you may email PublicComment@lacera.com. If you would like to make a public comment during the committee meeting, review the Public Comment instructions.

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
300 N. LAKE AVENUE, SUITE 650, PASADENA, CA

AGENDA

A SPECIAL MEETING OF THE CREDIT AND RISK MITIGATION

COMMITTEE AND THE BOARD OF INVESTMENTS*

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

300 N. LAKE AVENUE, SUITE 810, PASADENA, CALIFORNIA 91101

8:00 A.M., WEDNESDAY, AUGUST 9, 2023

This meeting will be conducted by the Credit and Risk Mitigation Committee and Board of Investments both in person and by teleconference under California Government Code Section 54953 (f).

Any person may view the meeting in person at LACERA's offices or online at https://lacera.com/leadership/board-meetings

The Committee may take action on any item on the agenda, and agenda items may be taken out of order.

I. CALL TO ORDER

II. PROCEDURE FOR TELECONFERENCE MEETING ATTENDANCE UNDER AB 2449, California Government Code Section 54953(f)

A. Just Cause
B. Action on Emergency Circumstance Requests
C. Statement of Persons Present at AB 2449 Teleconference Locations

III. APPROVAL OF MINUTES

A. Approval of the Minutes of the Regular Credit and Risk Mitigation Committee Meeting of May 10, 2023.

IV. PUBLIC COMMENT

Members of the public may address the Committee orally and in writing. To provide Public Comment, you should visit https://LACERA.com/leadership/board-meetings and complete the request form by selecting whether you will provide oral or written comment from the options located under Options next to the Committee meeting.

IV. PUBLIC COMMENT (Continued)

If you select oral comment, we will contact you via email with information and instruction as to how to access the meeting as a speaker. You will have up to 3 minutes to address the Committee. Oral comment request will be accepted up to the close of the Public Comment item on the agenda.

If you select written comment, please input your written public comment or documentation on the above link as soon as possible and up to the close of the meeting. Written comment will be made part of the official record of the meeting. If you would like to remain anonymous at the meeting without stating your name, please leave the name field blank in the request form. If you have any questions, you may email PublicComment@lacera.com.)

V. NON-CONSENT ITEMS

A. **Credit Structure Review**
Recommendation as submitted by Vache Mahseredjian, Principal Investment Officer; Chad Timko, Senior Investment Officer; Krista Powell, Investment Officer; Quoc Nguyen, Investment Officer; and Jason Choi, Senior Investment Analyst: That the Committee advance the Credit Structure Review to the Board of Investments for approval.
(Memo dated July 28, 2023)

B. **Risk Reduction and Mitigation Structure Review**
Recommendation as submitted by Vache Mahseredjian, Principal Investment Officer; Chad Timko, Senior Investment Officer; Krista Powell, Investment Officer; Quoc Nguyen, Investment Officer; and Jason Choi, Senior Investment Analyst: That the Committee advance the Risk Reduction and Mitigation Structure Review.
(Memo dated July 28, 2023)

VI. ITEMS FOR STAFF REVIEW
(This item summarizes requests and suggestions by individual trustees during the meeting for consideration by staff. These requests and suggestions do not constitute approval or formal action by the Board, which can only be made separately by motion on an agendized item at a future meeting.)

VII. ITEMS FOR FUTURE AGENDAS
(This item provides an opportunity for trustees to identify items to be included on a future agenda as permitted under the Board's Regulations.)

VIII. GOOD OF THE ORDER
(For information purposes only)

IX. ADJOURNMENT

The Board of Investments has adopted a policy permitting any member of the Board to attend a standing committee meeting open to the public. In the event five or more members of the Board of Investments (including members appointed to the Committee) are in attendance, the meeting shall constitute a joint meeting of the Committee and the Board of Investments. Members of the Board of Investments who are not members of the Committee may attend and participate in a meeting of a Committee but may not vote, make a motion, or second on any matter discussed at the meeting. The only action the Committee may take at the meeting is approval of a recommendation to take further action at a subsequent meeting of the Board.

Documents subject to public disclosure that relate to an agenda item for an open session of the Board of Investments that are distributed to members of the Board of Investments less than 72 hours prior to the meeting will be available for public inspection at the time they are distributed to a majority of the Board of Investments Members at LACERA's offices at 300 N. Lake Avenue, Suite 820, Pasadena, CA 91101, during normal business hours of 9:00 a.m. to 5:00 p.m. Monday through Friday.

Requests for reasonable modification or accommodation of the telephone public access and Public Comments procedures stated in this agenda from individuals with disabilities, consistent with the Americans with Disabilities Act of 1990, may call the Board Offices at (626) 564-6000, Ext. 4401/4402 from 8:30 a.m. to 5:00 p.m. Monday through Friday or email PublicComment@lacera.com, but no later than 48 hours prior to the time the meeting is to commence.

MINUTES OF THE REGULAR MEETING OF THE CREDIT AND RISK

MITIGATION COMMITTEE AND THE BOARD OF INVESTMENTS

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

300 N. LAKE AVENUE, SUITE 810, PASADENA, CALIFORNIA 91101

8:00 A.M., WEDNESDAY, May 10, 2023

This meeting was conducted by the Credit and Risk Mitigation Committee and Board of Investments both in person and by teleconference under California Government Code Section 54953 (f).

COMMITTEE TRUSTEES

PRESENT: Joseph Kelly, Chair (In-Person)

David Ryu (In-Person)

David Green (In-Person)

ABSENT: Onyx Jones

Jason Green

OTHER BOARD OF INVESTMENT TRUSTEES:

Keith Knox (In-Person)

Gina Sanchez (In-Person)

STAFF, ADVISORS, PARTICIPANTS:

Jonathan Grabel, Chief Investment Officer

Santos Kreimann, Chief Executive Officer

Steven P. Rice, Chief Counsel

Vache Mahseredjian, Principal Investment Officer

STAFF, ADVISORS, PARTICIPANTS (Continued):

Albourne
James Walsh, Partner, Head of Portfolio Group
Stephen Kennedy, CFA, Partner/Senior Analyst
Kristen Jones, Senior Credit Analyst

I. CALL TO ORDER

The meeting was called to order by Chair Kelly at 8:00 a.m. in the Board Room of Gateway Plaza.

II. PROCEDURE FOR TELECONFERENCE MEETING ATTENDANCE UNDER AB 2449, California Government Code Section 54953(f)

A. Just Cause
B. Action on Emergency Circumstance Requests
C. Statement of Persons Present at AB 2449 Teleconference Locations

There was nothing to report. No trustees participated under Section 54953(f).

III. APPROVAL OF MINUTES

A. Approval of the Minutes of the Regular Credit and Risk Mitigation Committee Meeting of August 10, 2022.

A motion was made by Trustee Kelly, seconded by D. Green, to approve the Minutes of the Credit and Risk Mitigation Committee meeting of August 10, 2022. The motion passed by the following roll call vote:

Yes: Kelly, D. Green, Ryu

No: None

Absent: J. Green, O. Jones

IV. PUBLIC COMMENT

There were no requests from the public to speak.

V. REPORT

A. Private Credit Overview
Vache Mahseredjian, Principal Investment Officer
James Walsh, Partner, Head of Portfolio Group, Albourne
Stephen Kennedy, CFA, Partner/Senior Analyst
Kristen Jones, Senior Credit Analyst, Albourne
(Presentation) (Memo dated April 28, 2023)

Mr. Kennedy and Ms. Jones of Albourne provided a presentation and answered questions from the Board.

VI. ITEMS FOR STAFF REVIEW

There was nothing to report.

VII. ITEMS FOR FUTURE AGENDAS

There was nothing to report.

VIII. GOOD OF THE ORDER
(For information purposes only)

There was nothing to report.

IX. ADJOURNMENT

There being no further business to come before the Committee, the meeting was adjourned at approximately at 8:40 a.m.

L///.CERA

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: **CREDIT STRUCTURE REVIEW**

RECOMMENDATION

Advance the recommendations within the Credit Structure Review (**Attachment A**) to the Board of Investments for approval.

SUMMARY

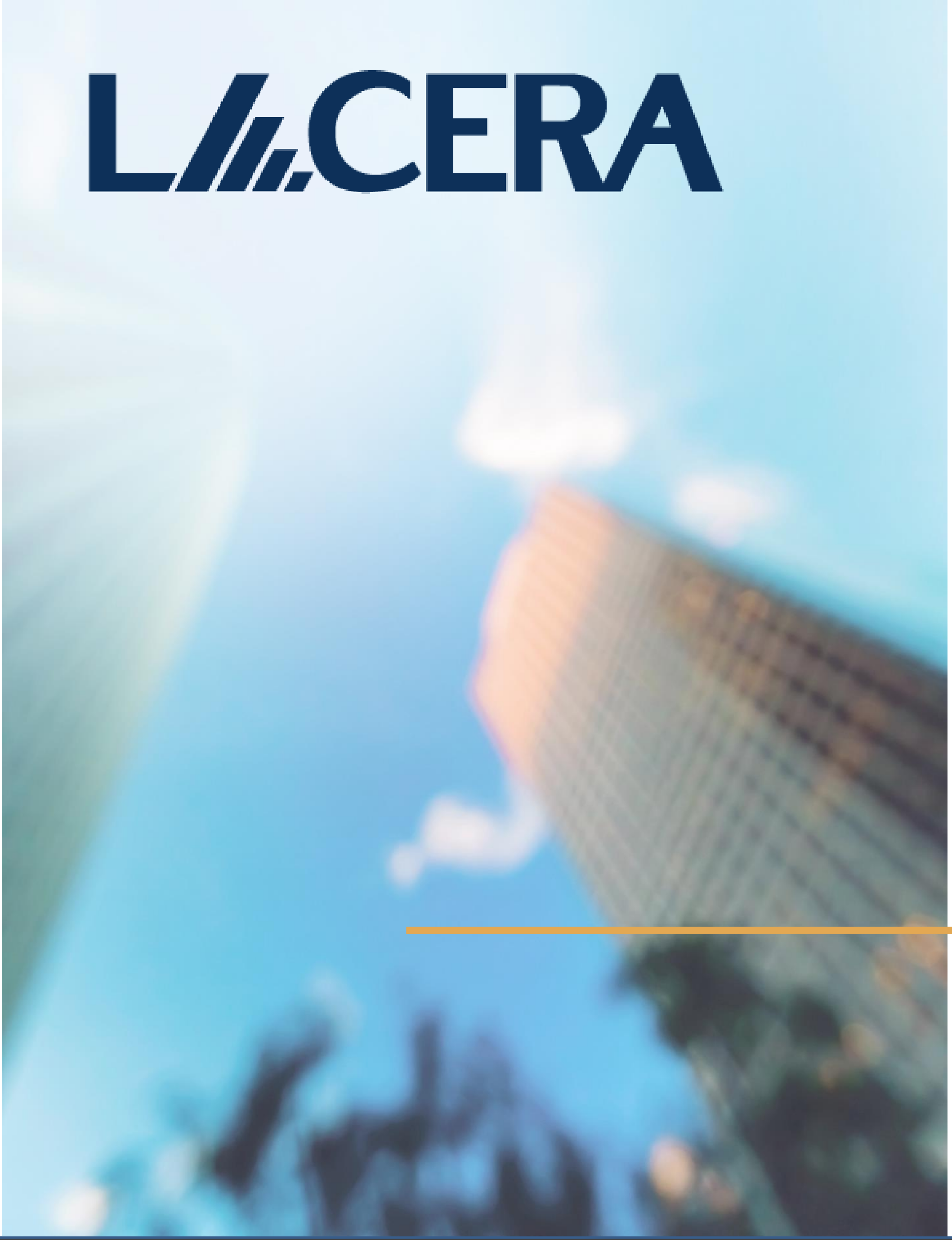
This Structure Review considers the role, implementation framework, performance, and initiatives of the Credit functional asset category. Additionally, it reviews structure, performance, and portfolio guidelines for portfolio components: liquid credit and illiquid credit. The presentation consists of an introductory overview followed by sections dedicated to each of the two portfolio components. A concluding section provides a summary of recommendations (see page 35).

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 illiquid credit 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

Credit

Structure Review

Credit and Risk Mitigation Committee Meeting

August 9, 2023

Table of Contents

Credit: Role

Role of Credit:

Moderate Implementation and Moderate Outcomes

Moderate Current Income

Moderate Long-Term Total Returns

Moderate Levels of Risks

Moderate Liquidity

The role summary articulated above is consistent with LACERA's Investment Policy Statement, which states "LACERA expects assets categorized as Credit to produce current income and moderate long-term total returns"

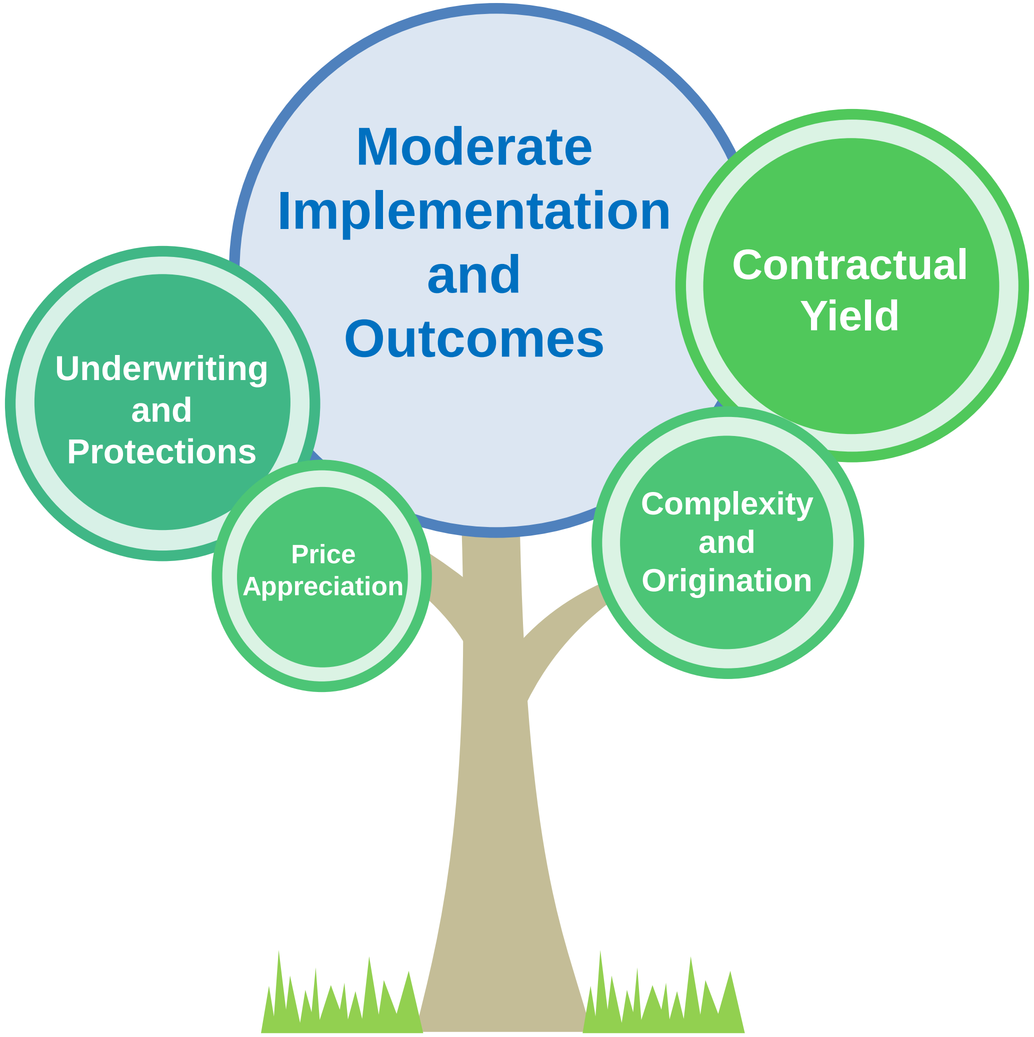
Credit: Role and Objectives

Role

- Moderate Implementation
- Moderate Outcomes

Objectives

- Collect contractual yield
- Emphasize fundamental underwriting and creditor protections
- Profit from complexity and upside optionality
- Be compensated for selective private sourcing or direct origination
- Have limited price appreciation expectations

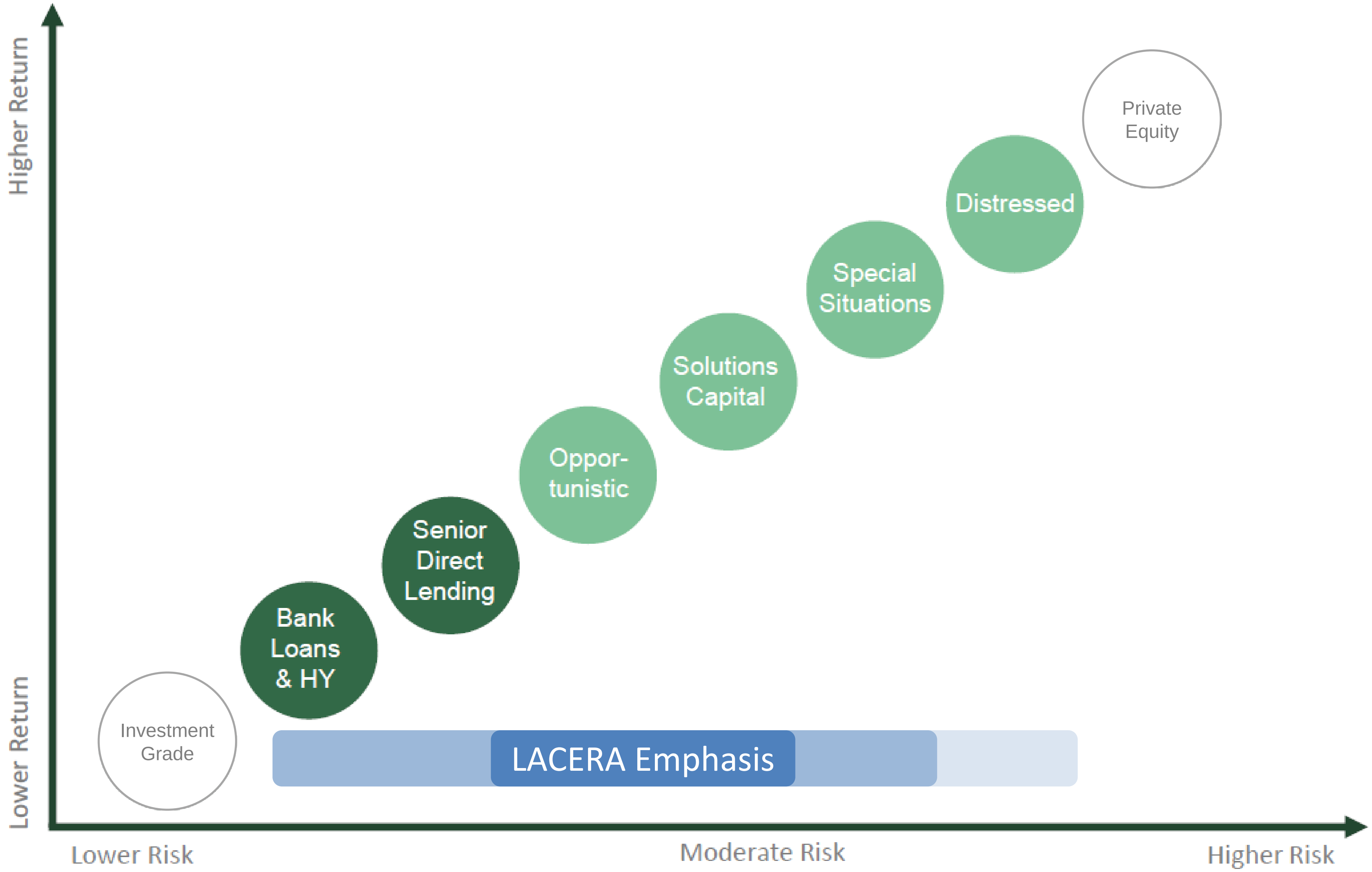


LACERA's Credit Role and Objectives

Credit: Moderate and Broad Implementation

LACERA's credit portfolio implementation would:

- Exhibit moderate risk and return
- Emphasize yield-generating strategies
- Have considerable breadth across types of credit assets and strategies
- Opportunistically invest across risk spectrums
  - Security seniority
  - Geography
  - Borrower profile



HY is an abbreviation for high yield bonds. Return and risk levels are imprecise and shown for illustration purposes. Categories of credit shown are examples and may not be comprehensive or adhere to other listings of credit categories

Credit: Desired Implementation Attributes

Evergreen Mandates

We will not be forced sellers based on fund terms

Hard Hurdle Fee Structures

Only paying performance fees for above-expectation returns

Single-Investor Portfolios

Other investor actions do not impact LACERA; includes dedicated managed accounts

Complementary Exposures

Beyond corporate credit, which is a dominant exposure in LACERA's Growth portfolio

Scale Value

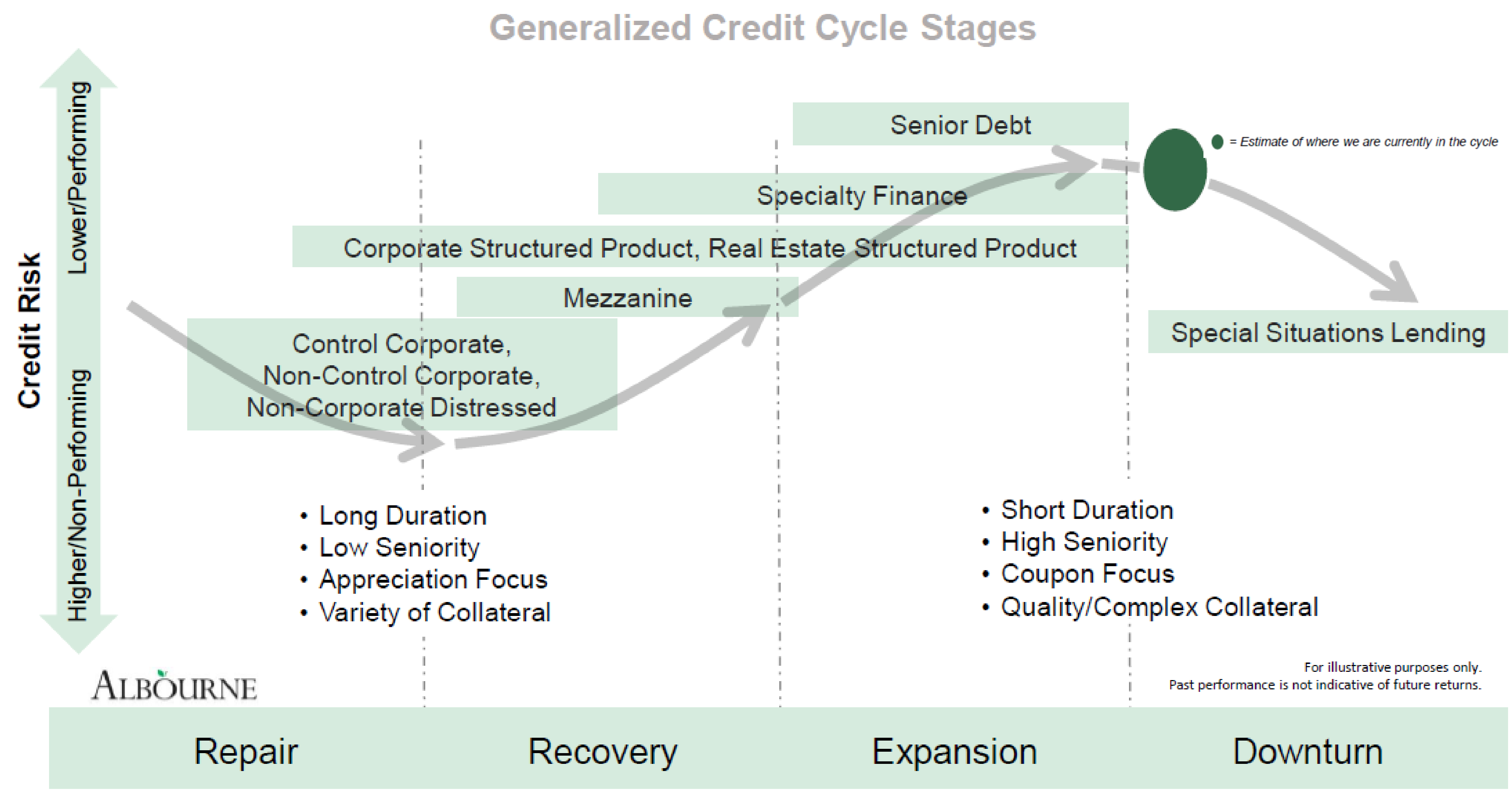
Benefit from LACERA's larger size: fees, transparency, and other terms

Multi-Dimensional and Dynamic

Credit markets are dynamic and inefficient and proper active management can add value

Credit: Multi Dimensional and Dynamic

- Credit markets are dynamic
- Relative best value for new investments changes over time
- Different expertise may shine at different times
- Credit investors can benefit from flexible and adaptive implementations
- Being an enduring investor in credit does not have to be via static buy and hold



Credit: Summary Timeline

- Below is a summary timeline of the credit functional category at LACERA

2018

- **2018 Strategic Asset Allocation**
- Functional framework adopted
- New category for Credit and four subcategories
  - High yield
  - Bank loans
  - Emerging market debt
  - Illiquid credit
- Moved legacy mandates to credit from prior asset categories
  - Fixed income
  - Private equity
  - Real estate
  - Hedge funds

2019

- **2019 Credit Structure Review**
- Approval of LACERA's first new investment for the illiquid credit category

2020

- **2020 Credit Structure Review**
- Refinements of the emerging market debt portfolio to better align it with the benchmark

2021

- **2021 Strategic Asset Allocation**
- Combined high yield, bank loans, and emerging market debt into a new category named liquid credit
- Kept a category for illiquid credit
- **2021 Credit Structure Review**

2022

- Established an emerging manager program in illiquid credit
- Implementation of LACERA's first dedicated managed account investment
- Approval of LACERA's first credit mandate with a co-investment sleeve

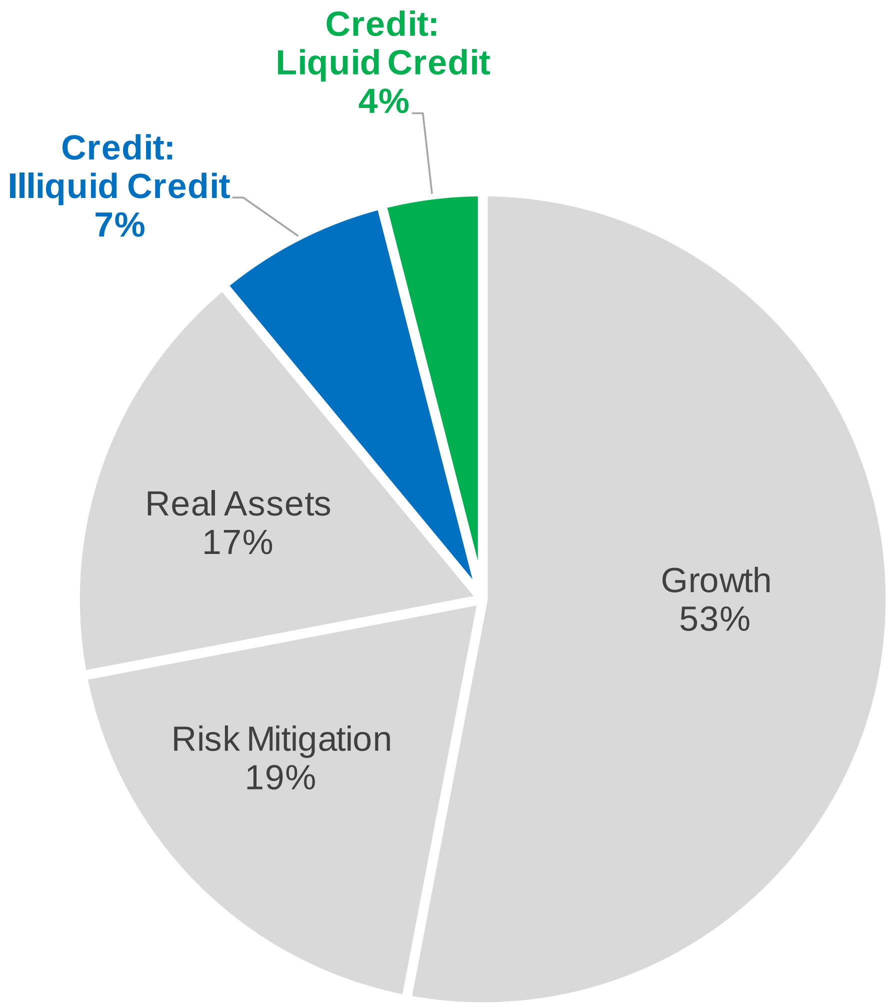
2023

- **2023 Credit Structure Review**

⟵ Ongoing implementation of initiatives consistent with the strategic asset allocation, strategic initiatives and credit structure reviews ⟶

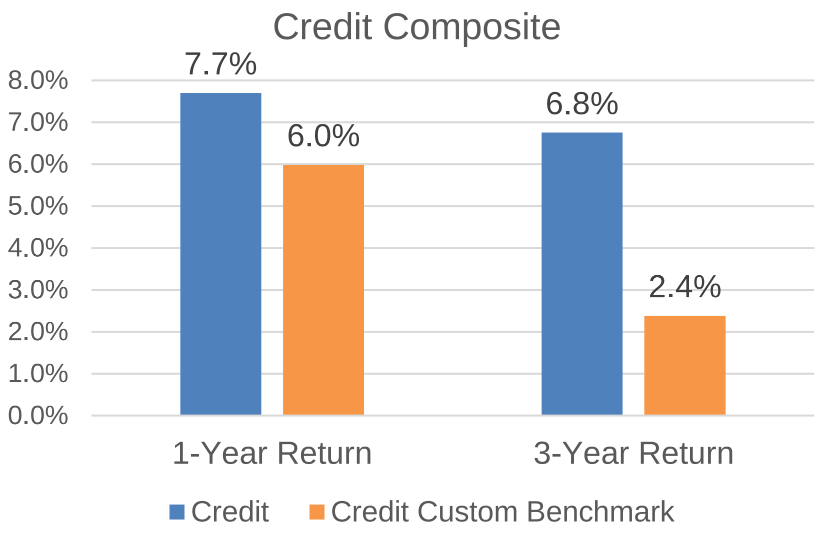
Credit: Allocation Targets

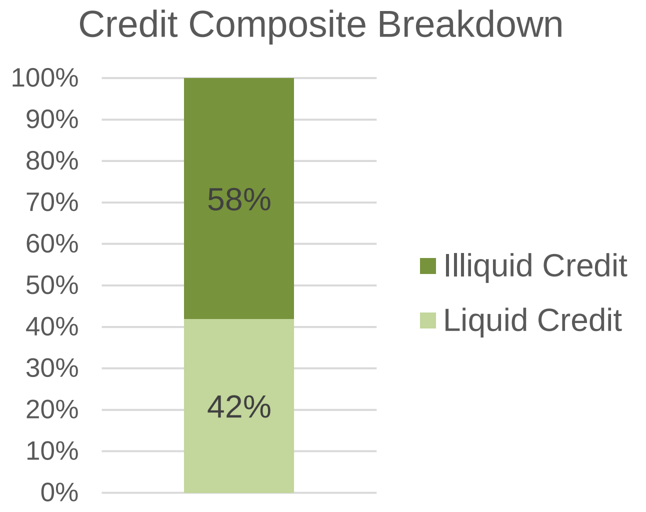
- LACERA's Credit portfolio has an 11% total Fund target allocation with two sub-categories
- Target allocations for the sub-categories are shown in the pie chart, totaling 11%
  - Illiquid Credit has a 7% target allocation with a 4-10% range
  - Liquid Credit has a 4% target allocation with a 1-7% range



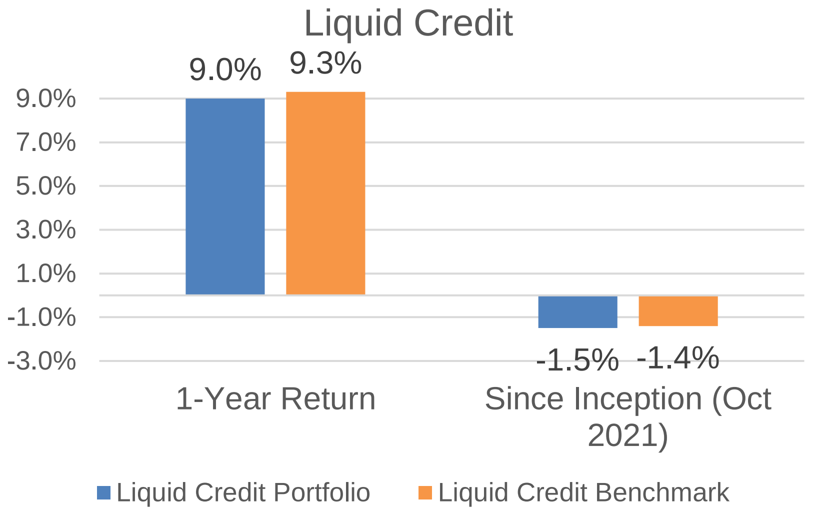
The allocation ranges and targets shown above were established at a strategic asset allocation study that concluded in 2021. LACERA's next strategic asset allocation study is scheduled to conclude in 2024

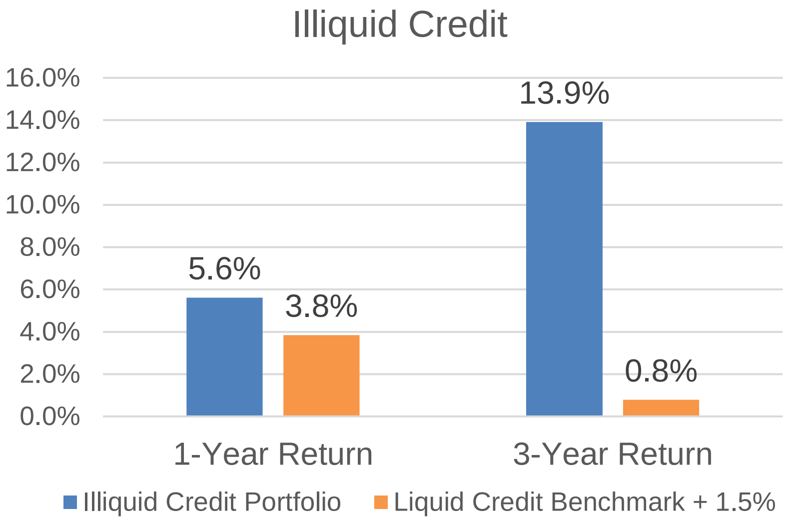
Credit: Performance





- 1 and 3-year overall credit composite returns have outperformed the benchmark
- Composite outperformance was driven by illiquid credit results
- The illiquid credit portfolio has grown in recent years and is now larger than the liquid credit sub-category





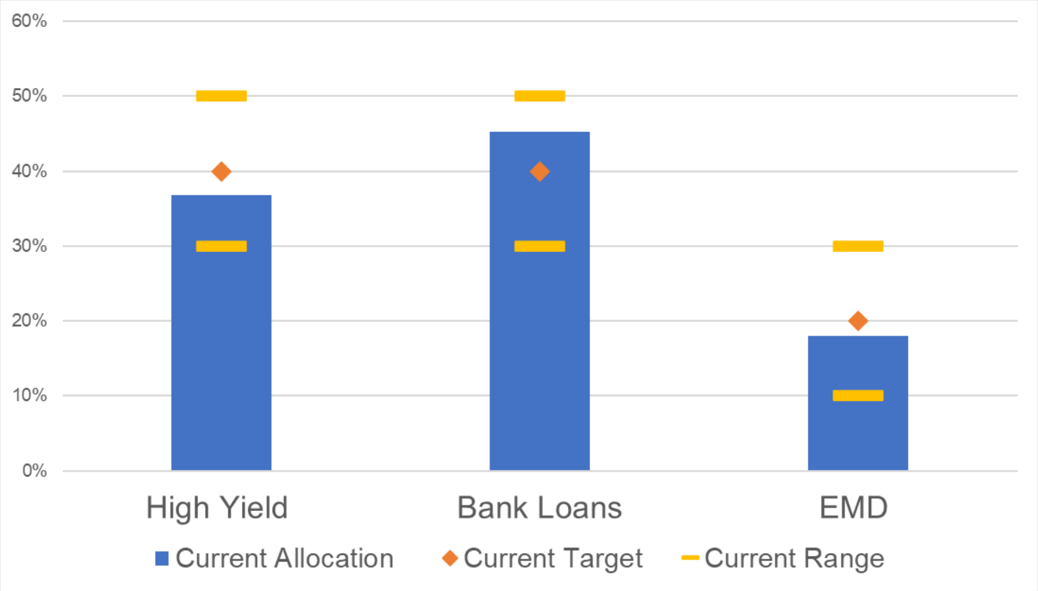
- The liquid credit portfolio has slightly underperformed its benchmark over the 1-year and since inception periods
- The illiquid credit portfolio outperformed its 1 and 3-year benchmark returns by 180 bps and 1310 bps annualized, respectively

Data is from State Street as of June 30, 2023 and is net of fees. Illiquid Credit returns and its benchmark returns are reported on a 1-month lag. Returns beyond 1-year are annualized

Liquid Credit

Liquid Credit: Portfolio Structure

	High Yield (HY)	Bank Loans (BL)	Emerging Market Debt (EMD)
Benchmark	Bloomberg Barclays US Corporate HY Index	CS Leveraged Loan Index	50% J.P. Morgan EMBI GD 25% J.P. Morgan CEMBI BD 25% J.P. Morgan GBI-EM GD
Exposures	Corporate bonds rated below investment grade	Floating rate instruments	Sovereign and corporate bonds issued by developing countries
Implementation	3 Active Mandates	3 Active Mandates	2 Active Mandates



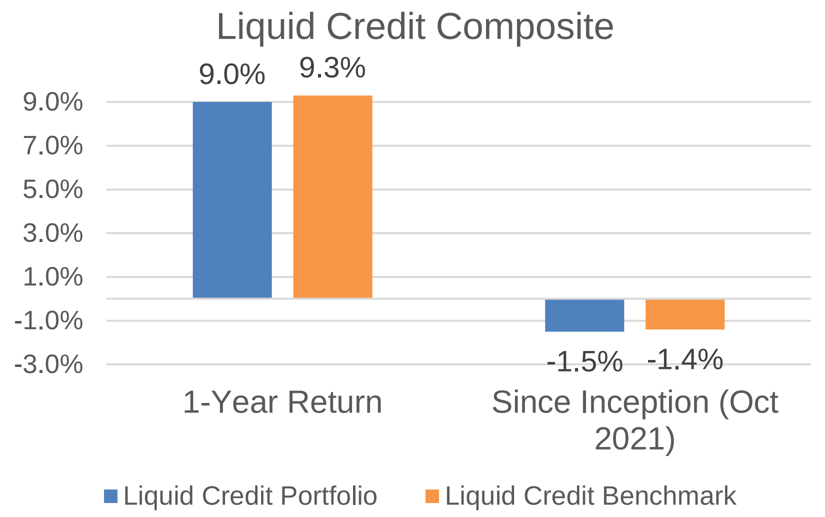
The Board-approved Liquid Credit benchmark is 40% / 40% / 20% (HY / BL / EMD)

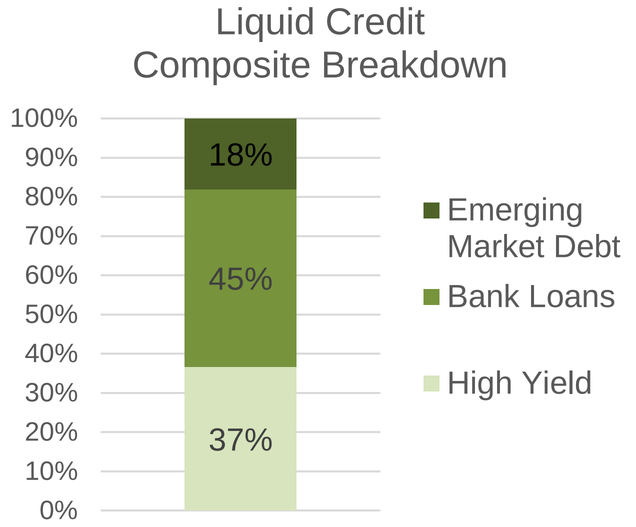
- 20% EMD is split into:
  - 50% J.P. Morgan EMBI GD – U.S. Dollar Sovereign Debt
  - 25% J.P. Morgan CEMBI BD – U.S. Dollar Corporate Debt
  - 25% J.P. Morgan GBI-EM GD – Local Currency Debt

- The current portfolio complies with the liquid credit program guidelines

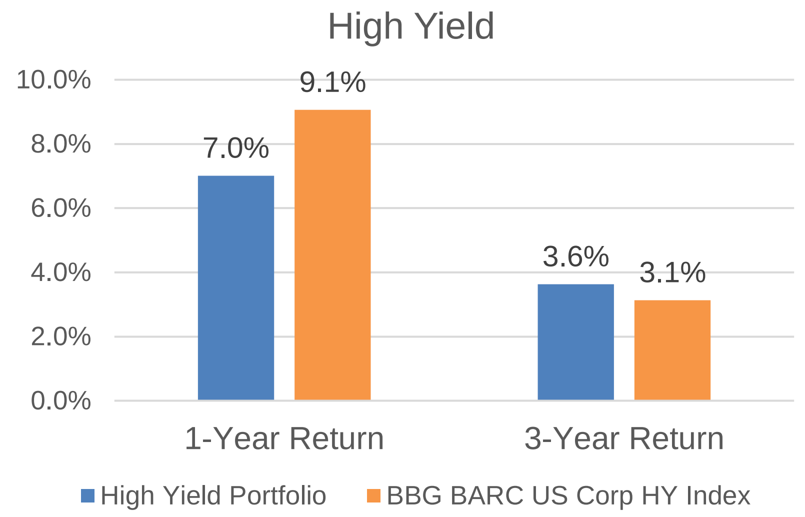
Index descriptions are in the Glossary

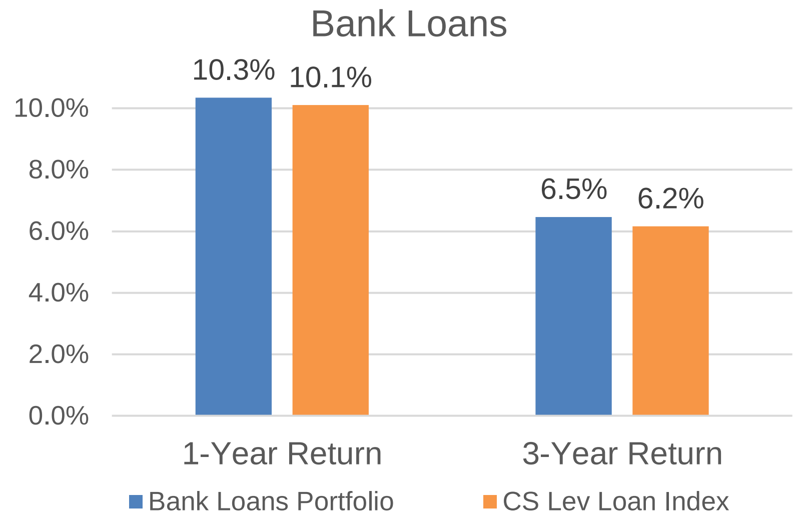
Liquid Credit: Performance

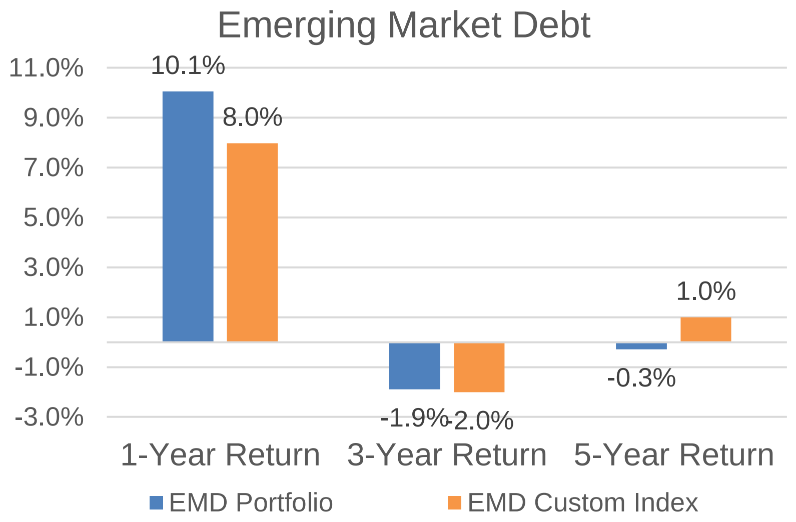




- The high yield portfolio has underperformed its benchmark over the trailing 1-year period and outperformed over the trailing 3-year period
- The bank loan portfolio has outperformed its benchmark over the trailing 1 and 3-year periods and returns have been positive
- EMD has positive performance in the recent trailing 1-year period but has delivered negative returns over longer term periods, underperforming the benchmark on an annualized basis over the trailing 5-year period

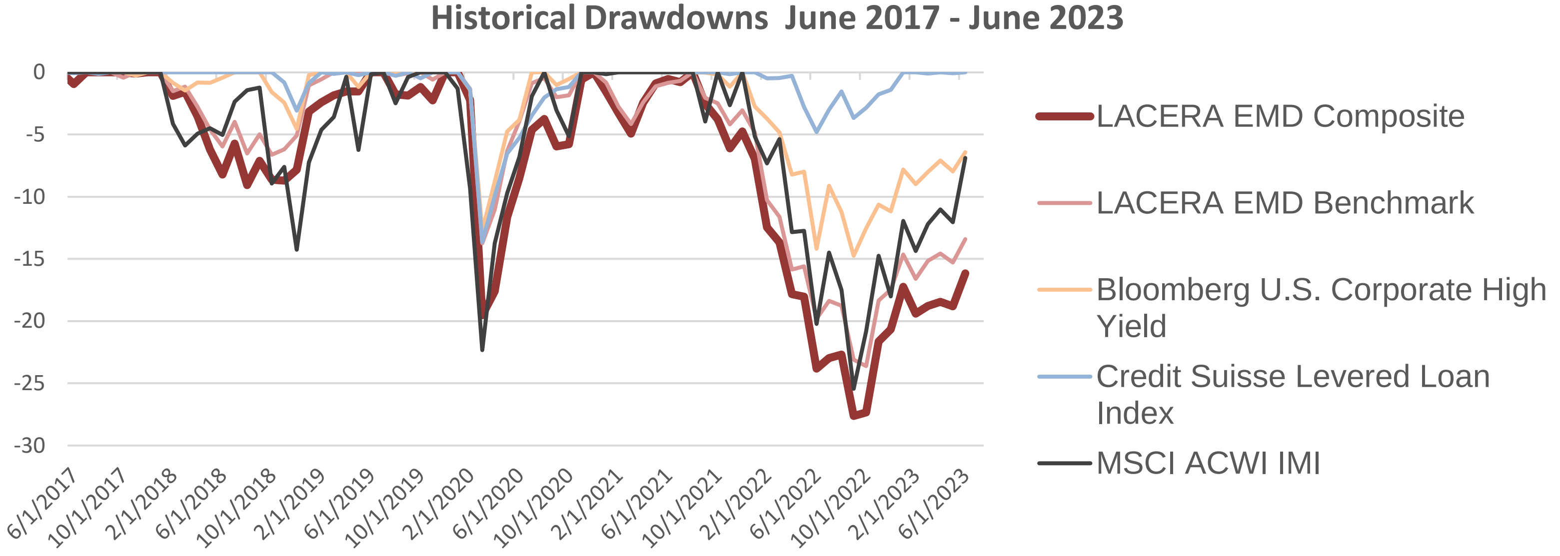






Data is from State Street as of June 30, 2023 and is net of fees. Returns beyond 1-year are annualized. EMD is an abbreviation for Emerging Market Debt
Due to prior Board approved Credit structural changes, the only composite that has a 5-year return history within Credit is EMD

Liquid Credit – EMD: Performance & Risk



RETURN METRICS SINCE EMD PORTFOLIO INCEPTION (JUNE 2017 – JUNE 2023)	ANNUALIZED RETURN	STANDARD DEVIATION	SHARPE RATIO	MAXIMUM DRAWDOWN LOSS VALUE	MAXIMUM DRAWDOWN LENGTH	CORRELATION TO MSCI ACWI IMI INDEX	NUMBER OF DOWN MONTHS (72 TOTAL)	INTEREST RATE DURATION (AS OF 6/30/23)
LACERA EMD Composite	**(0.7)**	**12.0**	**(0.19)**	**(27.6)**	**13**	**0.75**	**33**	**5.8**
LACERA EMD Benchmark	0.6	9.4	(0.10)	(23.6)	14	0.75	28	5.7
Bloomberg U.S. Corporate High Yield	3.2	8.5	0.20	(14.7)	9	0.86	25	3.5
Credit Suisse Leveraged Loan Index	4.1	6.6	0.39	(13.7)	2	0.68	20	0.1
MSCI ACWI IMI Index	8.2	16.8	0.40	(25.7)	9	1.00	24	N/A

LACERA EMD Composite and Benchmark returns data is from State Street and is net of fees. All other index returns data is from Zephyr and/or the index itself
Return metrics calculations are from Zephyr. Interest rate duration data comes from LACERA's managers. EMD is an abbreviation for Emerging Market Debt

- **Key Takeaways**
  - LACERA has not been compensated for the incremental risks incurred from and associated with EMD investments
  - The risk and return profiles of the EMD portfolio and EMD benchmark are not consistent with the moderate risk and return objectives of Credit
  - A majority of EMD's 2022 negative returns were due to the rise in US interest rates for hard currency EMD and foreign currency risk for local currency EMD
  - The EMD portfolio experienced deeper since inception drawdowns than equities (MSCI ACWI IMI Index)
  - The EMD portfolio has delivered negative annualized returns since inception and has underperformed its benchmark
  - The EMD portfolio and EMD benchmark produced negative since inception risk adjusted returns as measured by the Sharpe ratio

Liquid Credit - EMD: 10-Year Expected Returns

MEKETA

2023 Capital Markets Expectations

10-year Geometric Expected Returns
Credit

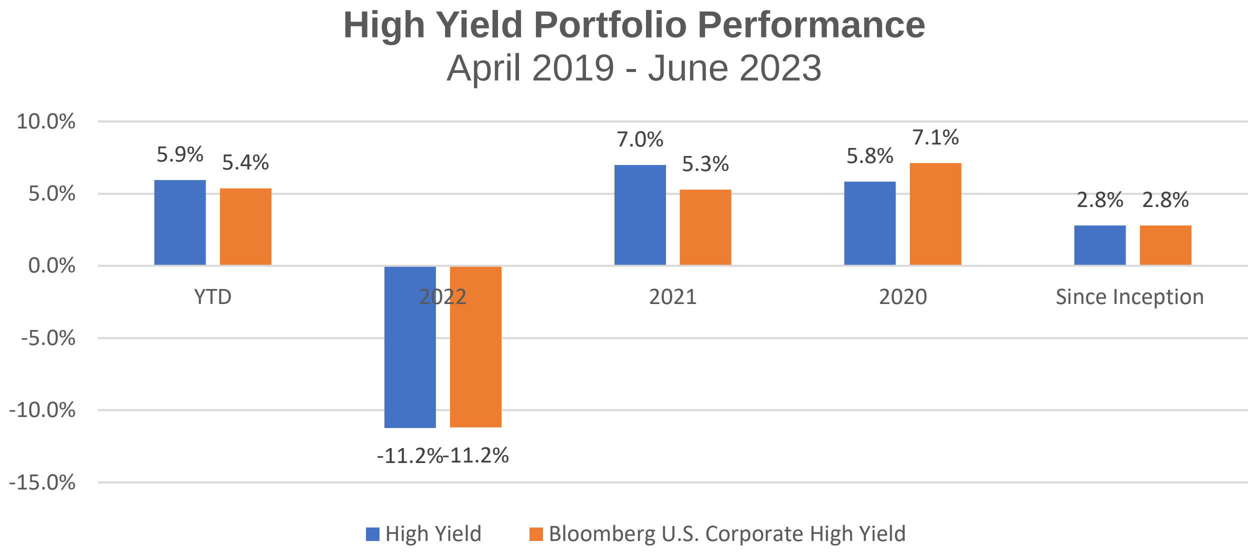
	2023 E(R) (%)	2022 E(R) (%)	Δ From 2022 (%)	Notes
High Yield Bonds	8.0	3.3	4.7	Higher yields
Higher Quality High Yield	7.1	3.0	4.1	Higher yields
Bank Loans	7.6	2.7	4.9	Higher yields
Collateralized Loan Obligations (CLOs)	8.0	3.2	4.8	Higher yields
Convertible Bonds	6.1	2.2	3.9	Higher yields
Emerging Market Bonds (major)	6.7	3.6	3.1	Higher yields
Emerging Market Bonds (local)	6.4	5.0	1.4	Higher yields
Private Debt	9.4	6.7	2.7	Higher yields
Direct Lending	8.5	6.5	2.0	Higher yields
Asset Based Lending	9.4	6.8	2.6	Higher yields
Special Situations Lending	10.8	NA		*New*

- **Key Takeaways based on Meketa's 2023 Credit Capital Market Expectations**
  - The 10-year expected returns for EMD have previously been higher than high yield bonds and bank loans, indicating that investors may be compensated for incremental risks
  - EMD no longer looks attractive relative to other areas of Credit from a 10-year expected return perspective, especially considering EMD's higher level of expected risk

LACERA's BOI is undergoing a strategic asset allocation study planned to conclude in 2024. The BOI has yet to adopt capital market expectations for this study and accordingly, this slide is indicative

Liquid Credit – HY: Performance & Risk

Risk Summary	
Total Risk	7.4
Active Risk	1.0
Portfolio Beta	1.0
Effective Duration	3.5
Yield to Worst (%)	9.0



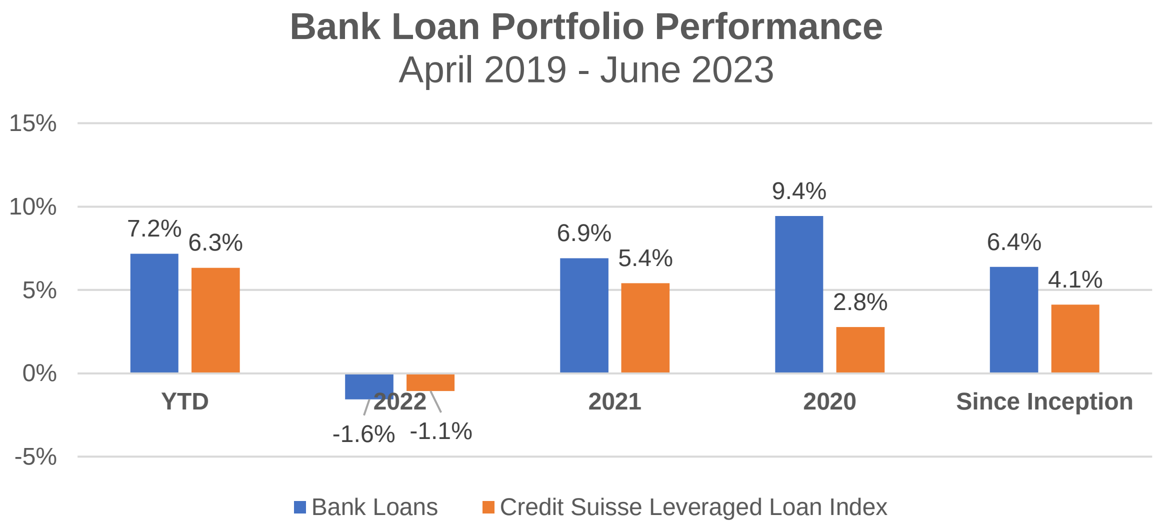
Return Metrics Since Portfolio Inception (April 2019 - June 2023)	Annualized Return (%)	Sharpe Ratio	Standard Deviation (%)	Maximum Drawdown (%)
High Yield Composite	2.8	0.1	9.8	14.2
Bloomberg U.S. Corporate High Yield	2.8	0.1	9.7	14.7

- The high yield portfolio is actively managed with limited flexibility to deviate from the benchmark.
- In shorter term periods, the portfolio has demonstrated some out/(under)performance, however in longer term periods, performance and risk is in line with the benchmark.

LACERA High Yield Composite and Benchmark returns data is from State Street and is net of fees. All other index returns data is from Zephyr and/or the index itself
Return metrics calculations are from Zephyr. Risk Summary metrics are from MSCI Barra One as of May 31, 2023. HY is an abbreviation for high yield

Liquid Credit – BL: Performance & Risk

Risk Summary	
Total Risk	4.8
Active Risk	0.7
Portfolio Beta	0.9
Effective Duration	0.4
Yield to Worst (%)	7.7



Return Metrics Since Portfolio Inception (April 2019 - June 2023)	Annualized Return (%)	Sharpe Ratio	Standard Deviation (%)	Maximum Drawdown (%)
Bank Loans	6.4	1.1	4.4	5.0
Credit Suisse Leveraged Loan Index	4.1	0.4	7.7	13.7

- 2020 performance is impacted by lagged data and the funding of a new mandate
- Beyond 2020, the bank loan portfolio appropriately tracks the benchmark

LACERA Bank Loans Composite and Benchmark returns data is from State Street and is net of fees. All other index returns data is from Zephyr and/or the index itself
Return metrics calculations are from Zephyr. Risk Summary metrics are from MSCI Barra One as of May 31, 2023. BL is an abbreviation for bank loans

Liquid Credit: Portfolio Guidelines

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

	Proposed	Relative to Existing Guidelines
Return Objective	Meet or exceed the return of the aggregate Board approved benchmark	Replaced "each" with "the aggregate"
Benchmark	40% Bloomberg US Corporate High Yield Index 40% Credit Suisse Leveraged Loan Index 20% of a custom blend of emerging market debt indices (50% J.P. Morgan EMBI GD, 25% J.P. Morgan CEMBI BD, 25% J.P. Morgan GBI-EM GD)	Added specificity to the language while benchmarks themselves remain unchanged
Risk Target	Target tracking error of 2% over 5 years	No change
Sectors	Benchmark weight +/- 10%	No change
Geography	Maximum of 40% non-U.S. exposure	Removed "Target non-U.S. 35%"
Currency	Maximum of 7.5% non-U.S. dollar exposure	Removed "Target non-U.S. dollar 5%"
Credit Quality	Benchmark weight +/- 10%	No change
Leverage	None	No change
Allocation Targets and Ranges	High yield: 40% target +/- 10% Bank loans: 40% target +/- 10% Emerging market debt: 20% +/- 10%	No change No change No change

- The adjustments regarding geography and currency are intended to not impose specific target exposures via these guidelines and instead rely on benchmark exposures and allocation ranges while maintaining geography and currency maximum exposure levels for control and compliance

Index descriptions are in the Glossary

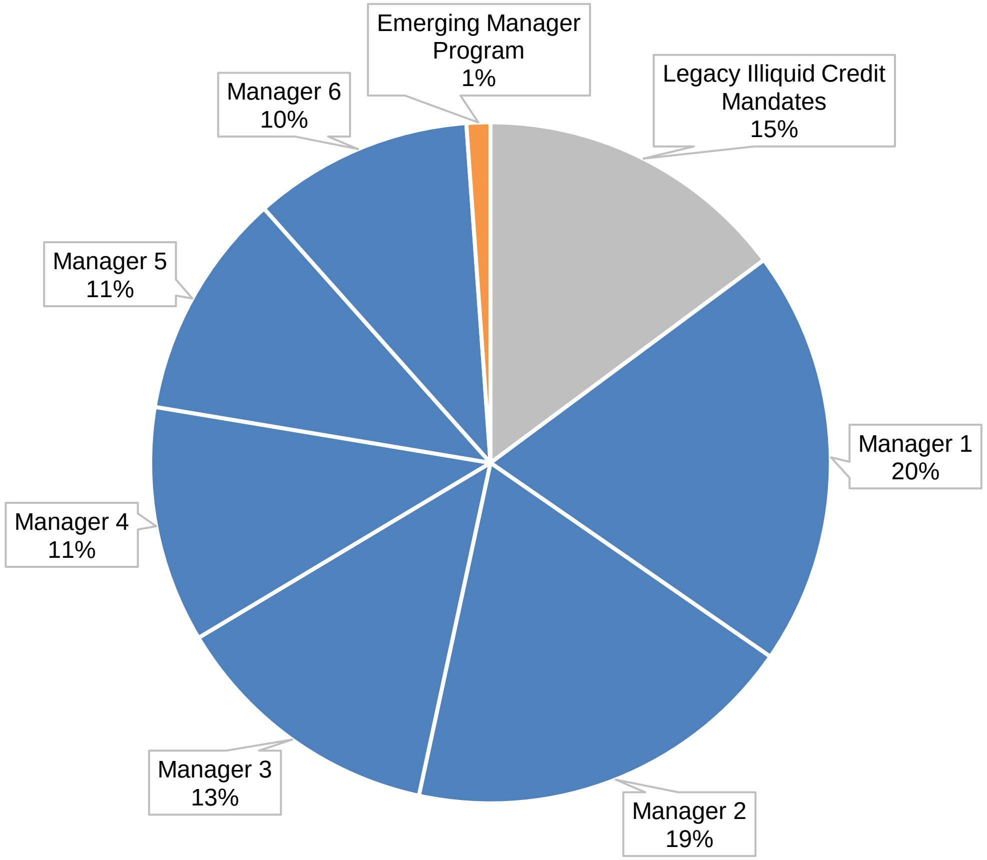
Liquid Credit: Summary

- Advancement and approval of this structure review would result in the following regarding the liquid credit portfolio:
  - Adopt portfolio guidelines as described

Illiquid Credit

Illiquid Credit: Portfolio Structure

Portfolio as of 6/30/23



- The current portfolio complies with the Illiquid Credit program guidelines

Initiatives Underway

- Continue utilizing the board approved Dedicated Management Account ("DMA") platform. Recent new mandates were structured in a DMA designed to increase transparency, benefit expense management, prevent forced selling, and enhance oversight
- Continue tailoring economics to benefit LACERA's membership. Recent new mandates have been implemented with LACERA's hard hurdle fee structure to better align interests and not pay performance fees for average outcomes
- Continue building out emerging manager program towards the board approved target of ~15% of the Illiquid Credit portfolio
- Continue monitoring the portfolio, managers, and underlying exposures

Initiatives That Would Require Future Approvals

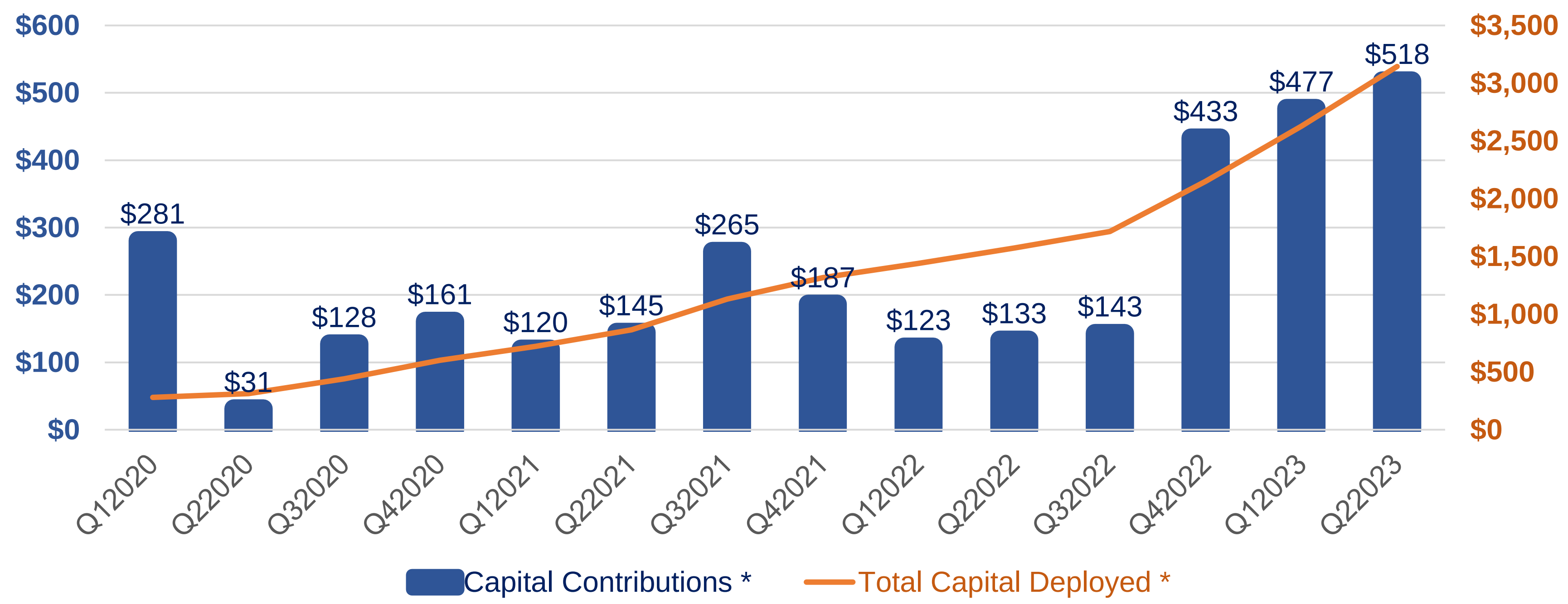
- New investments into or terminations from the main portfolio
- Graduations from the emerging manager program to the main portfolio

Illiquid Credit: Capital Deployment

The Illiquid Credit Portfolio has grown meaningfully since 2019, steadily deploying capital in a prudent manner.

	2019	2020	2021	2022	June 30, 2023
YE NAV	$0.9b	$1.6b	$3.1b	$3.7b	$4.8b
Total Plan Allocation	1.5%	2.4%	4.0%	5.3%	6.6%

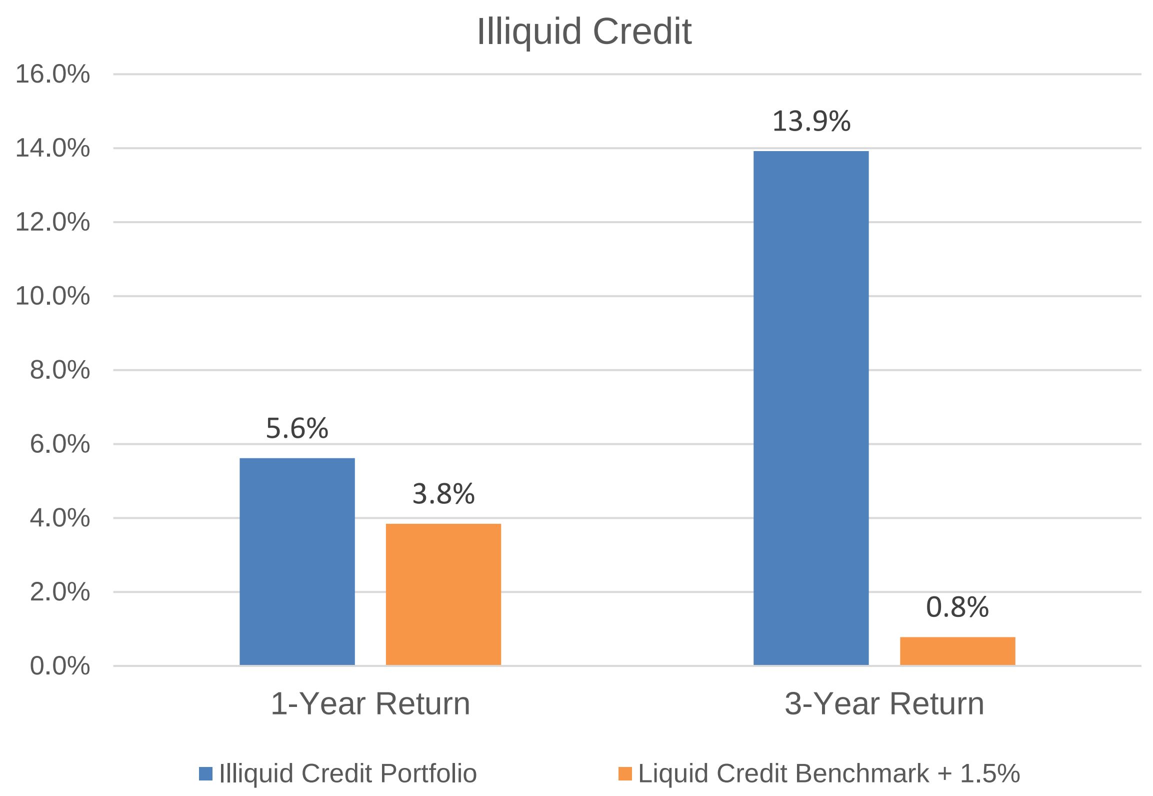
Quarterly Illiquid Credit Deployment since Q12020



* $ in millions
Data is from State Street as of June 30, 2023

Illiquid Credit: Performance

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



- Outperformance over the 1 and 3-year periods
- The flexible illiquid credit mandates in the portfolio have maneuvered well over recent years and in 2022, which was a challenging year for the broad public credit and growth markets
- LACERA's Board-approved dedicated managed account evergreen structures and tailored economic terms have benefited performance
- Considering LACERA's illiquid credit mandates and terms:
  - $50 - $70 million of estimated annual return optimization from fee efficiency compared to conventional fund structures and fee terms*

Data is from State Street as of June 30, 2023 and is net of fees. Illiquid Credit returns and its benchmark returns are reported on a 1-month lag. Returns beyond 1-year are annualized

* The annual fee efficiency estimate represents 1.2% to 1.6% of incremental net return. The annual fee efficiency estimate considers fund expenses, management fees, and performance fees applicable to the five most recently established mandates in LACERA's illiquid credit portfolio compared to commingled fund alternatives in a year with a 9% gross return. The low end of the savings range compares LACERA to commingled direct lending funds with a 1.1% management fee and a 13.1% performance fee, as compiled from a survey of 49 firms conducted by Cliffwater in 2022. This universe of direct lending funds may have lower complexity than LACERA's subject mandates. The high end of the savings range compares LACERA to commingled funds with a 1.5% management fee and a 15% performance fee. Additional savings from co-investments are not considered. Indirect or non-economic benefits of the dedicated managed account structure such as increased transparency and influence on reimbursable expenses are not quantified in the fee efficiency estimate

Illiquid Credit Co-investment: Performance

Summary of Illiquid Credit Co-investment Program as of May 31, 2023	
Number of Co-investments	3
Net Asset Value	$39 million
BOI Approved Maximum Amount	$175 million
Co-investment Portfolio Inception	2022 (approved by BOI in 2021 as a sleeve of an illiquid credit investment)
Inception to Date Return[1]	17.7%
Fees on Co-investments	None

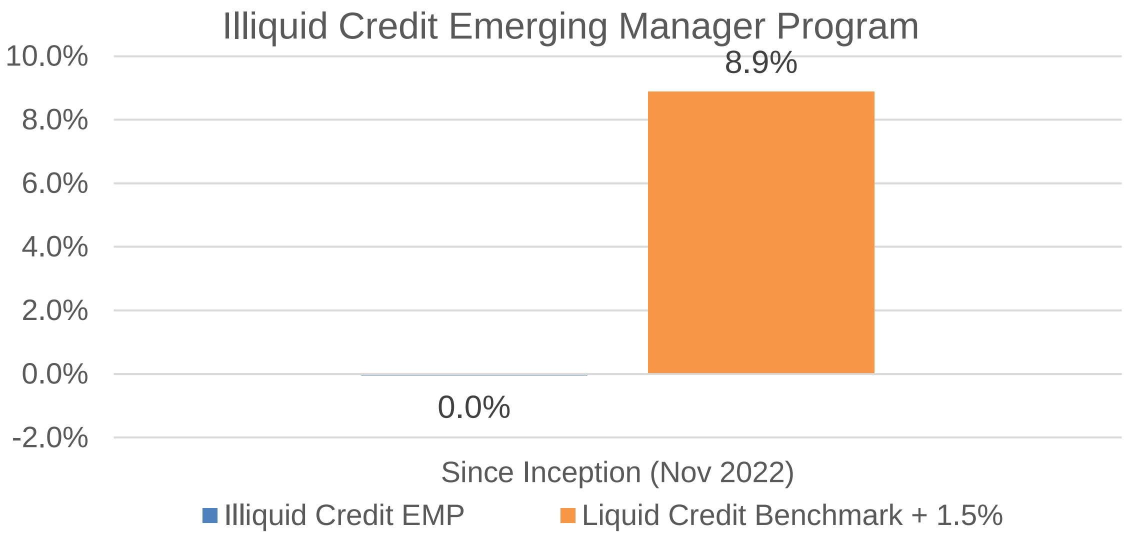
Key takeaways:

- The illiquid credit co-investment framework has worked well, specifically with regard to performance, execution timing, guideline adherence, reducing overall fees, and LACERA's strategic objectives
- Staff will seek additional co-investment opportunities in a similar framework for future consideration

[1] Returns data is net of fees and from Citco Fund Services with an inception date of September 1, 2022, the independent administrator of the subject illiquid credit investment account

Illiquid Credit: Emerging Manager Program Update

Snapshot of Program as of June 30, 2023	
Separate Account Manager	Stable Asset Management
Portfolio Net Asset Value	$55 million
Portfolio Inception	2022
Emerging Managers	1
Revenue Sharing Accounts	1



Key Takeaways

- The Program launched in November 2022 and has made one investment in a music royalties fund, committing $100m to the strategy
  - Given the early stage and closed-end fund structure of the first investment, strategy performance is impacted by the J-curve and a reporting lag
- The Program is expected to have ~10 emerging manager line items and a net asset value of around $750m when fully ramped
- Revenue sharing is likely a component in several of the mandates, where LACERA would share in the success of the emerging managers

Data is from State Street as of June 30, 2023 and is net of fees. Illiquid Credit EMP returns and its benchmark returns are reported on a 1-month lag

Illiquid Credit: Co-Investment & Contingent Capital

With the backdrop of LACERA's strategic initiatives, credit markets being dynamic, credit investing benefitting from adaptive flexibility, and market dislocations being short-lived, co-investment and contingent capital strategies can add value. Below is a framework to add both co-investment and contingent capital options for a good-standing credit manager.

- Credit manager in good standing
- Guideline compliance
- LACERA strategic initiative alignment
- LACERA consent right via team committee and CIO

Co-Investment Capital

- Upsize to an existing credit investment
- Co-investment not to exceed 20% of the investment manager's mandate (maximum single position size at time of investment)
- Co-investment not to exceed 3% of the credit portfolio (maximum single position size at time of investment)
- Fee savings or fee netting with the broad mandate

Contingent Capital

- Capital that may be available to fund compelling opportunities; different from the strategic allocation target of a mandate
- Compelling case for available but temporary outsized risk-adjusted returns, such as:
  - Broad market dislocation
  - Rushed portfolio transaction from a non-economic seller
  - Opportunity related to a right of first refusal
- Fee savings or fee netting with the broad mandate

- When considering whether to exercise its consent right, LACERA would evaluate available funding, portfolio fit, exposure concentrations, the manager's portfolio construction and credit underwriting capabilities, the manager's LACERA scorecard evaluations, and LACERA's strategic initiatives
- LACERA has one credit mandate with a co-investment sleeve and one credit mandate with a contingent capital component, each of which the BOI approved as part of an individual investment recommendation. The contingent capital component of the existing credit mandate is a specified commitment without a LACERA consent right
- If approved, the above framework could be applied to prospective or existing mandates in good standing to further advance several of LACERA's strategic initiatives
- LACERA's dedicated managed account platform can track performance of co-investments separately and may be the preferred structure for mandates with this feature

Illiquid Credit: Portfolio Guidelines

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

	Proposed	Relative to Existing Guidelines
Return Objective	Greater than liquid credit markets; more than compensating for incremental risk	No change
Benchmark	LACERA's Custom Liquid Credit Benchmark plus 1.5% per year	No change
U.S. Exposure	Minimum of 50% invested in the U.S. market	No change
Geographic Exposure	Maximum of 15% invested in non-developed markets	No change
Currency Exposure	Minimum of 90% invested in assets that are denominated in or hedged to the U.S. dollar	No change
Manager Count	~ 10 direct portfolio and ~ 10 emerging manager portfolio	No change
Emerging Manager Program	Evergreen separate account emerging manager program 15% target allocation with a 10-20% range (of the Illiquid Credit portfolio)	No change
Co-investments	Permitted for managers in good standing; not to exceed 20% of a manager's mandate or 3% of the credit portfolio with LACERA maintaining a portfolio fit veto	New guideline
Contingent Capital	Permitted for managers in good standing with LACERA maintaining a portfolio fit veto	New guideline

- The new guidelines added above are designed to frame scalable approaches for co-investments and contingent capital deployment within illiquid credit, as described on the preceding page

Illiquid Credit: Portfolio Guidelines

- **Guidelines for the illiquid credit 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 illiquid credit portfolio)	No change
Emerging Manager Definition	An emerging illiquid credit manager meets the three following criteria at initial investment: - Organization/team has less than $1 billion of assets under management; - Organization/team has managed external capital in an institutional vehicle for less than 5 years; and - Organization/team is at least 66% owned by managing principals and employees	Added "at initial investment" Added "/team" Added "/team" 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 - 12 years after an initial investment or within 2 years of a subject closed-end fund coming to the end of its life 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 open ended investment in lieu of holding it or a graduation event; closed end fund vehicles may have a natural wind-down process that is not initiated by a fund investor	New guideline
Redemption Guideline	Absent graduation intentions for an open ended investment, a redemption event should commence no later than 12 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 an existing manager would no longer be emerging if: 1) organization assets under management exceed $2 billion for the trailing 24 months and the fund has a 60-month performance track record, 2) LACERA’s initial investment occurred greater than 7 years ago, or 3) the organization is not at least 66% owned by managing principals or employees

Illiquid Credit: Summary

- Advancement and approval of this structure review would result in the following regarding the illiquid credit portfolio:
    - Adopt portfolio guidelines as described
    - Approve a co-investment and contingent capital framework

Credit

Credit: Initiatives

Completed

- Establishment of an emerging manager program in the illiquid credit portfolio with a 15% target allocation
- Implementation of LACERA's first dedicated managed account investment
- Material portfolio adjustments in response to LACERA's 2021 strategic asset allocation study

In Process

- Wind down of select legacy credit mandates as consistent with prior approvals and structure reviews
- Capital deployment into the illiquid credit emerging manager program
- Rebalancing activity and new investments to support asset allocation targets within credit
- Investment due diligence on credit strategies that are best suited with LACERA strategic initiatives and goals

Upcoming

- Continue to implement the portfolio in accordance with approved guidelines and objectives
- Illiquid Credit Emerging Manager Program development and potential graduations
- As part of a strategic asset allocation study, consider the credit portfolio's framework, discrete components, liquidity, and benchmarking
- Initiate RFP search for asset category consultant(s) pending BOI approval of MQs and searches – hedge fund and credit portfolios

Credit: Summary Recommendations

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

Credit

- Affirm role, moderate implementation approach, and desired implementation attributes

Liquid Credit

- Adopt proposed portfolio guidelines

Illiquid Credit

- Adopt proposed portfolio guidelines
- Approve a co-investment and contingent capital framework

Appendix

Attachment 1 – Glossary of Terms

Term	Definition
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.
Bloomberg Barclays US Corporate HY Index	A commonly used benchmark index for high yield, fixed-rate corporate bonds.
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.
Credit Suisse Leveraged Loan Index	A commonly used benchmark index for high yield, floating-rate corporate bonds.
Dedicated Managed Account Platform	A DMA platform allows an investor such as LACERA to invest in a single-investor structure where assets within the account are held in custody for the sole benefit of the investor. Benefits include the potential for: increased options for control of assets, reduction of investment and non-investment related costs, and increased transparency. A DMA platform manager, such as Innocap for LACERA, acts as a fiduciary, has oversight responsibilities, and administers day-to-day functions of the account.
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).

Attachment 1 – Glossary of Terms (continued)

Term	Definition
Floating rate instruments	A financial debt instrument that has a variable coupon rate.
Hard Currency Debt	Sovereign currency debt issued in U.S. dollars.
Hard Hurdle Performance Fee Structure	A fee structure where performance fees are paid to the manager only on a percentage of the profits that exceed a negotiated hurdle rate.
J.P. Morgan CEMBI BD	J.P. Morgan Corporate Emerging Market Bond Index Broad Diversified is an index of emerging market corporate bonds issued in U.S. dollars.
J.P. Morgan EMBI GD	J.P. Morgan EMBI Emerging Market Bond Index is an index of emerging market sovereign bonds issued in U.S. dollars.
J.P. Morgan GBI-EM GD	J.P. Morgan Government Bond Index-Emerging Markets Global Diversified is an index of emerging market government bonds issued in local currency.
J-Curve	Used to describe the shape of a fund's anticipated performance, as plotted on a graph, from inception through to exit. This shape represents low expected returns at the start, followed by a gradual expected increase and recovery to a point that is higher than at the start.
Local Currency Debt	Fixed income debt that is issued by countries with developing economies as well as by corporations within those nations.
Maximum Drawdown	The compounded but not annualized maximum loss over a time period.
MSCI ACWI IMI Index	A global equity market index that captures large, mid and small cap representation across developed and emerging market countries.
Sharpe Ratio	Measures risk-adjusted performance of an investment compared to a risk-free asset.

Attachment 1 – Glossary of Terms (continued)

Term	Definition
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.
Tracking Error	Tracking error is the difference in actual performance between a portfolio and its corresponding benchmark.
Yield to Worst	The lowest expected potential yield that a bondholder could receive on a callable bond or portfolio.

ATTACHMENT B

MEKETA
INVESTMENT GROUP

5796 Armada Drive
Suite 110
Carlsbad, CA 92008

760.795.3450
Meketa.com

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: Credit Structure Review

The purpose of this memo is for Meketa Investment Group to formalize its support for staff's recommendation to adopt the updated portfolio guidelines contained in LACERA's 2023 Credit Structure Review.

We reviewed staff's observations related to near term and longer term performance from High Yield, Bank Loans, and Emerging Markets Debt segments and agree that LACERA has not been compensated for the inherent risks associated with investing in the Emerging Markets Debt asset class. This view is also consistent with Meketa's 2023 10-Year Capital Market Return Expectations where the asset class appears less attractive from a risk/return standpoint when compared to other areas of public credit markets including Bank Loans and High Yield. Meketa plans to further address LACERA's Emerging Markets Debt allocation during the Strategic Asset Allocation Review.

Meketa agrees with the proposed guidelines contained in the presentation related to the various categories within Liquid Credit including return objective, benchmark, geography, and currency. We are supportive of the added specificity to the language contained in the updated guidelines. Meketa concurs with the recommendation related to managing LACERA's liquid credit portfolio more closely to benchmark exposures and LACERA's allocation ranges while maintaining geography and currency maximum exposure levels for control and compliance reasons. We believe a benchmark centric approach is a prudent way to manage risk in the Liquid Credit category.

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

ATTACHMENT C

ALBOURNE

LACERA Illiquid Credit 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 Illiquid Credit Portfolio be advanced to the Board of Investments for approval.

Background: Staff has prepared the 2023 Illiquid Credit 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 September 2021 and approved in October 2021, which emphasize current income, moderate returns, to profit from complexity, illiquidity and upside optionality. The Structure Review notes that, with the approval the portfolio will continue to be built out to a 7% Strategic Target. The Next Phase of this build out is anticipated to be implemented over 1-3 years adding bench Core 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,

G. Stephen Kennedy

James Walsh
Head of Portfolio Group

G. Stephen Kennedy
Senior Analyst

LACERA Illiquid Credit Structure Review Concurrence Memo

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LACERA

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

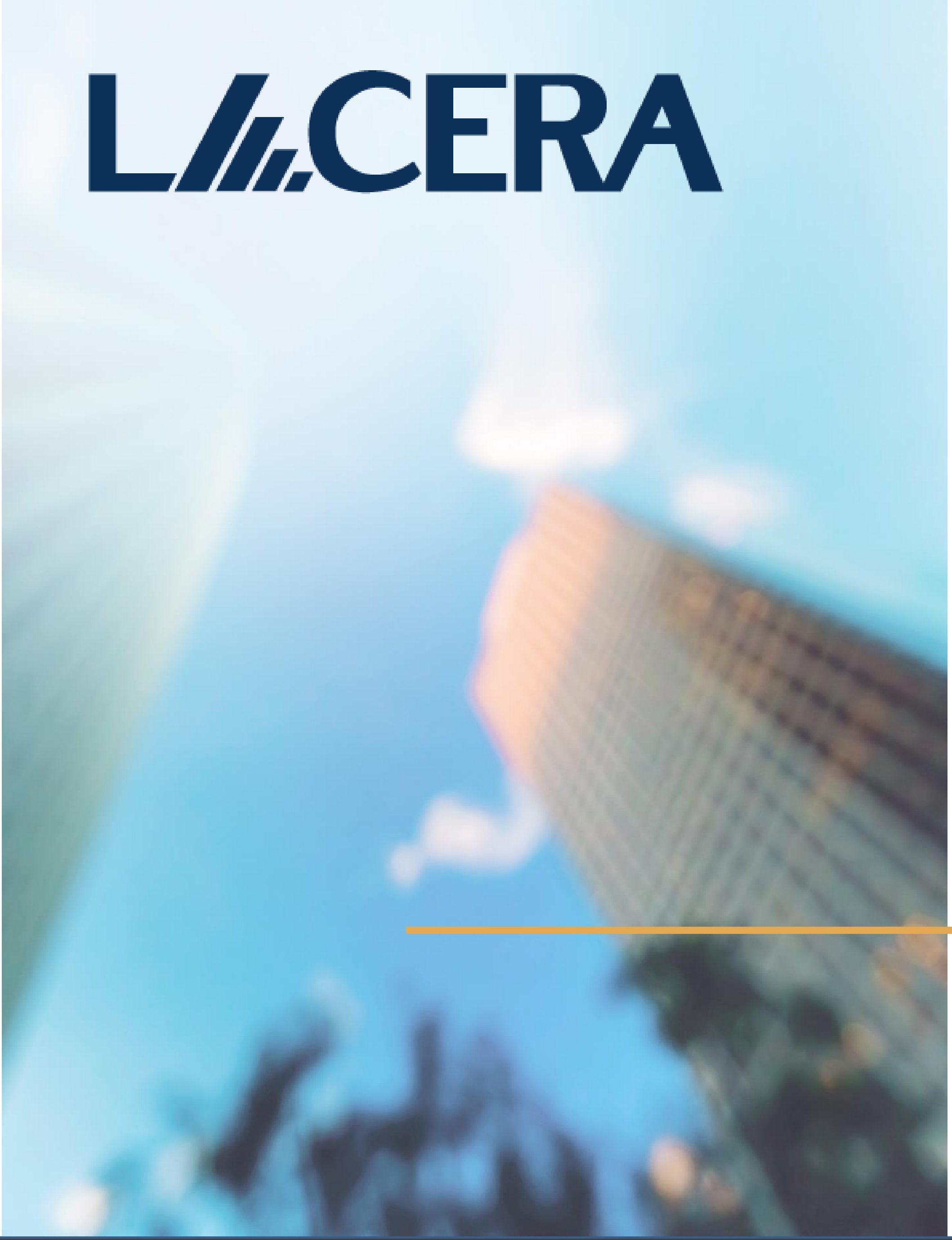
This Structure Review considers the role, implementation framework, performance, and initiatives of the Risk Reduction and Mitigation functional asset category. Additionally, it reviews structure, performance, and portfolio guidelines for portfolio components: cash, investment grade bonds, long-term 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

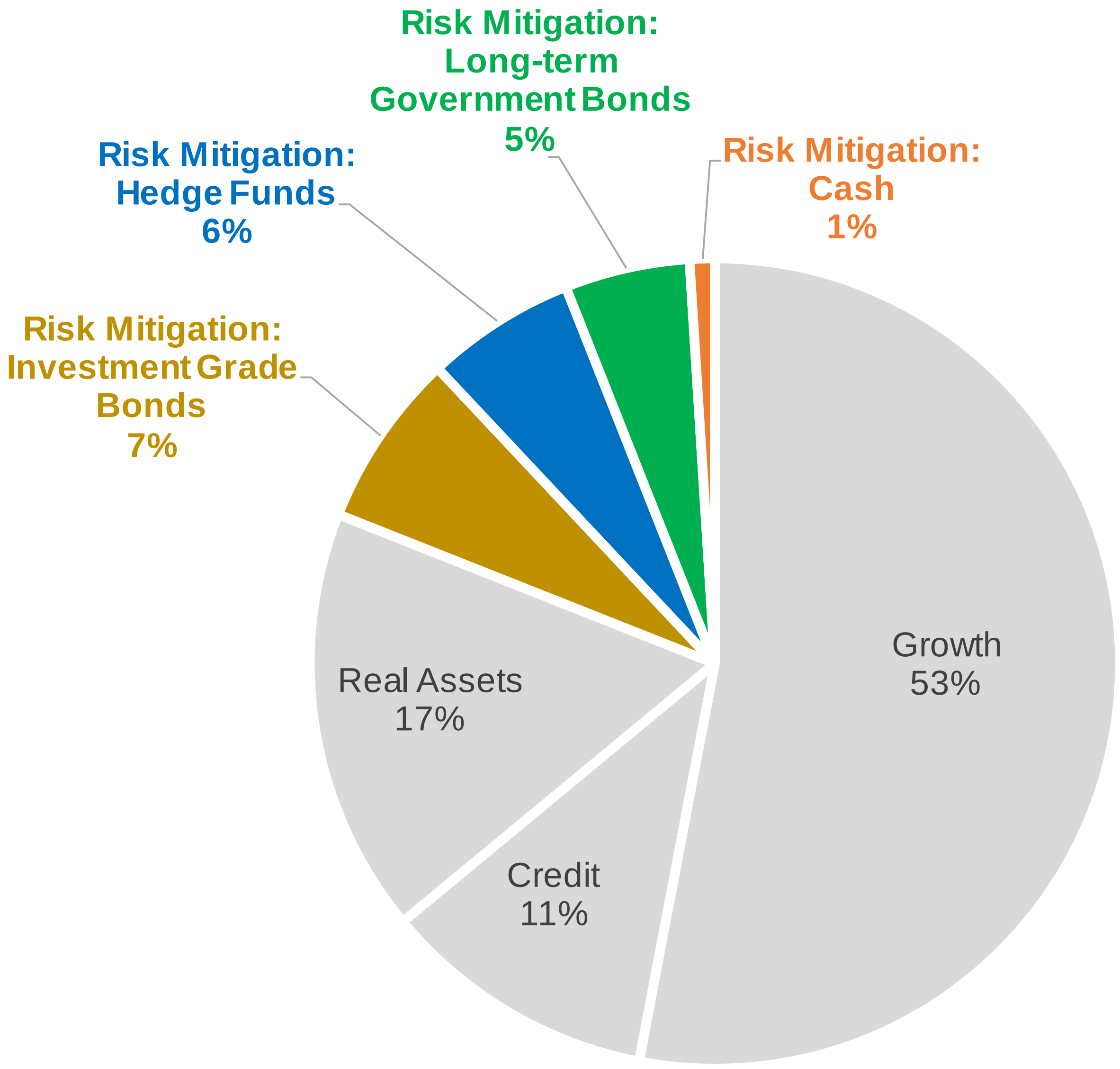
- Reduce total Fund risk
- Enhance total Fund diversification
- Downside protection
- Low sensitivity to major markets

Risk Mitigation: Allocation Targets

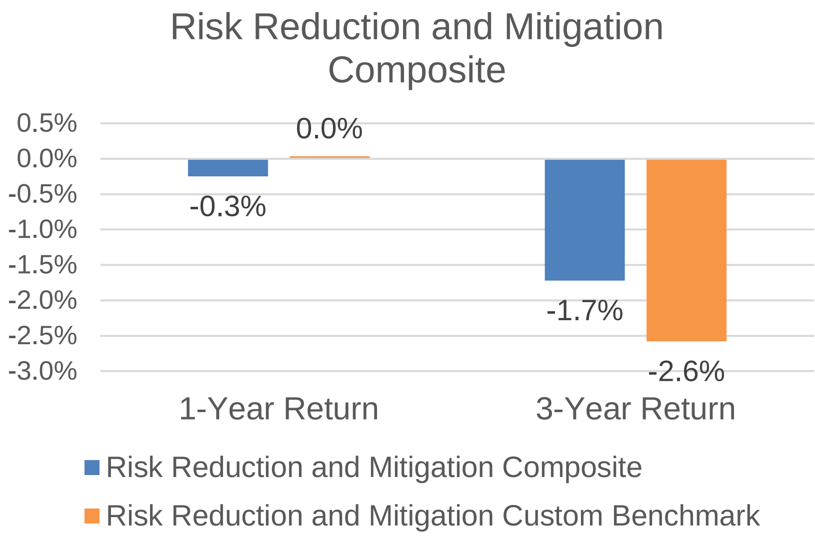
- LACERA's Risk Mitigation portfolio has a 19% total Fund target allocation with four sub-categories

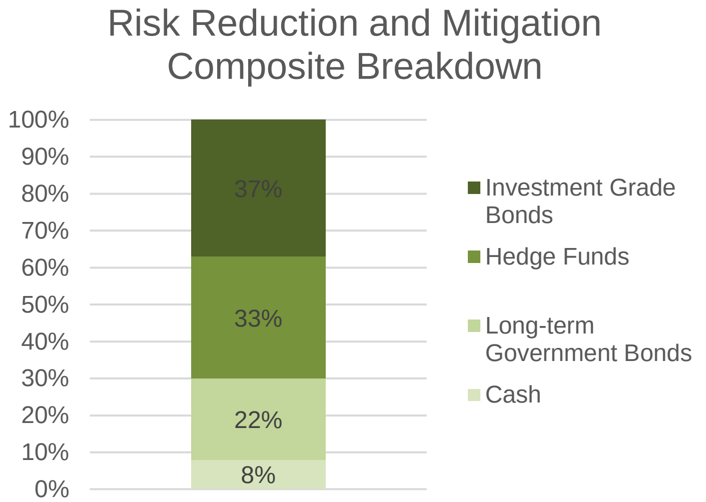
- Target allocations for the sub-categories are shown in the pie chart, totaling 19%

- Each sub-category has nuanced objectives and characteristics that are further described in this structure review

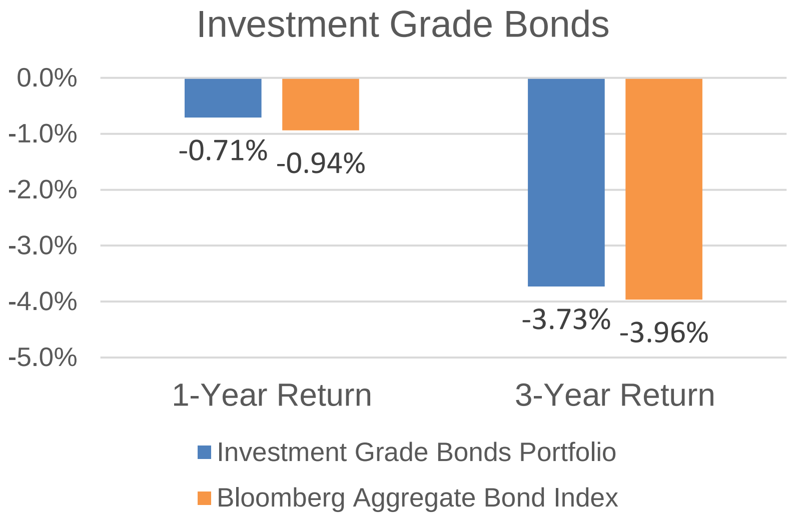


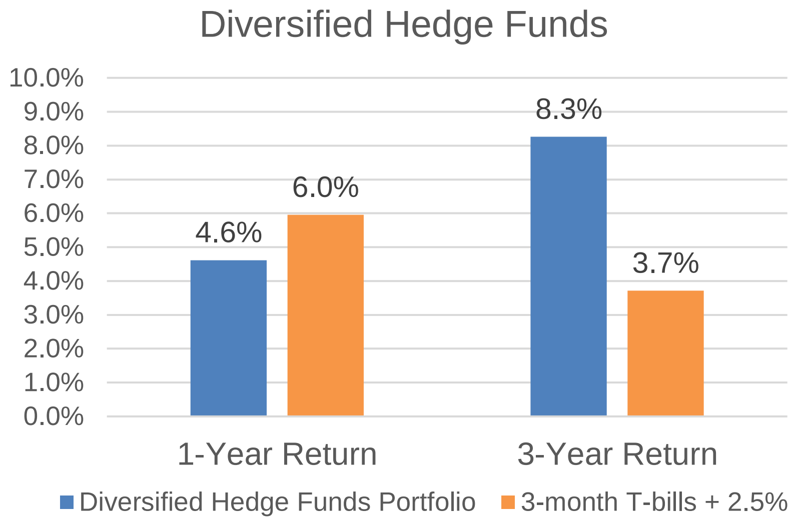
Risk Mitigation: Performance

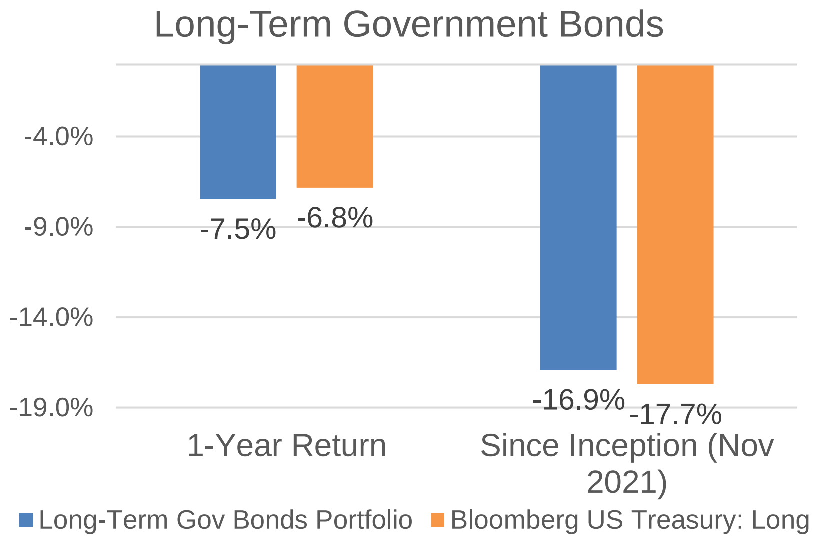




- The composite underperformed the benchmark by 30 bps over the 1-year period and outperformed by 90 bps annualized over the 3-year period
- The composite's 3-year returns were negatively impacted by investment grade and Long-Term Government Bonds
- Diversified hedge funds have delivered strong risk-adjusted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

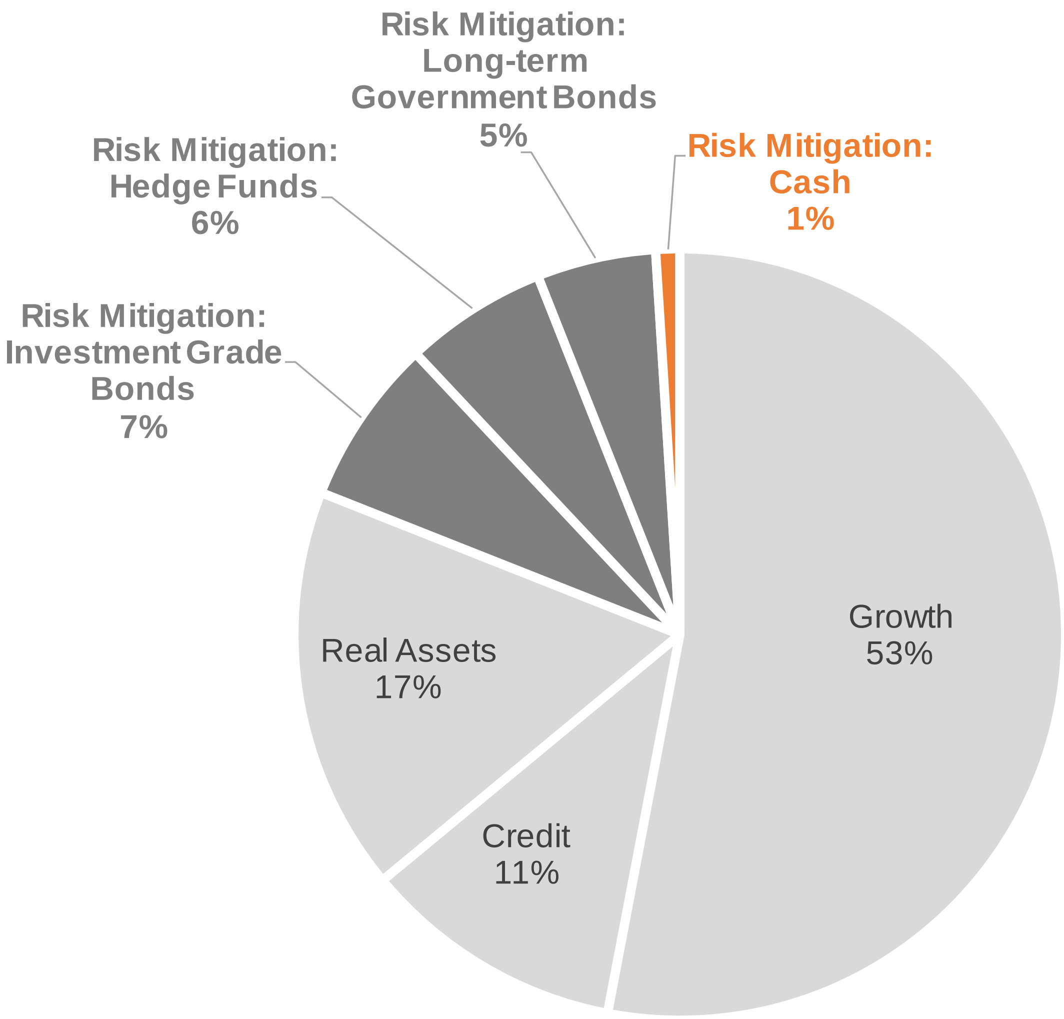
- Highly liquid to support various total Fund cash needs
- Investment universe of U.S. Treasury and U.S. Government agency issues, repurchase agreements (collateralized with treasury, agency or agency mortgage-backed securities)
- Implemented in a separate account vehicle managed by State Street

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

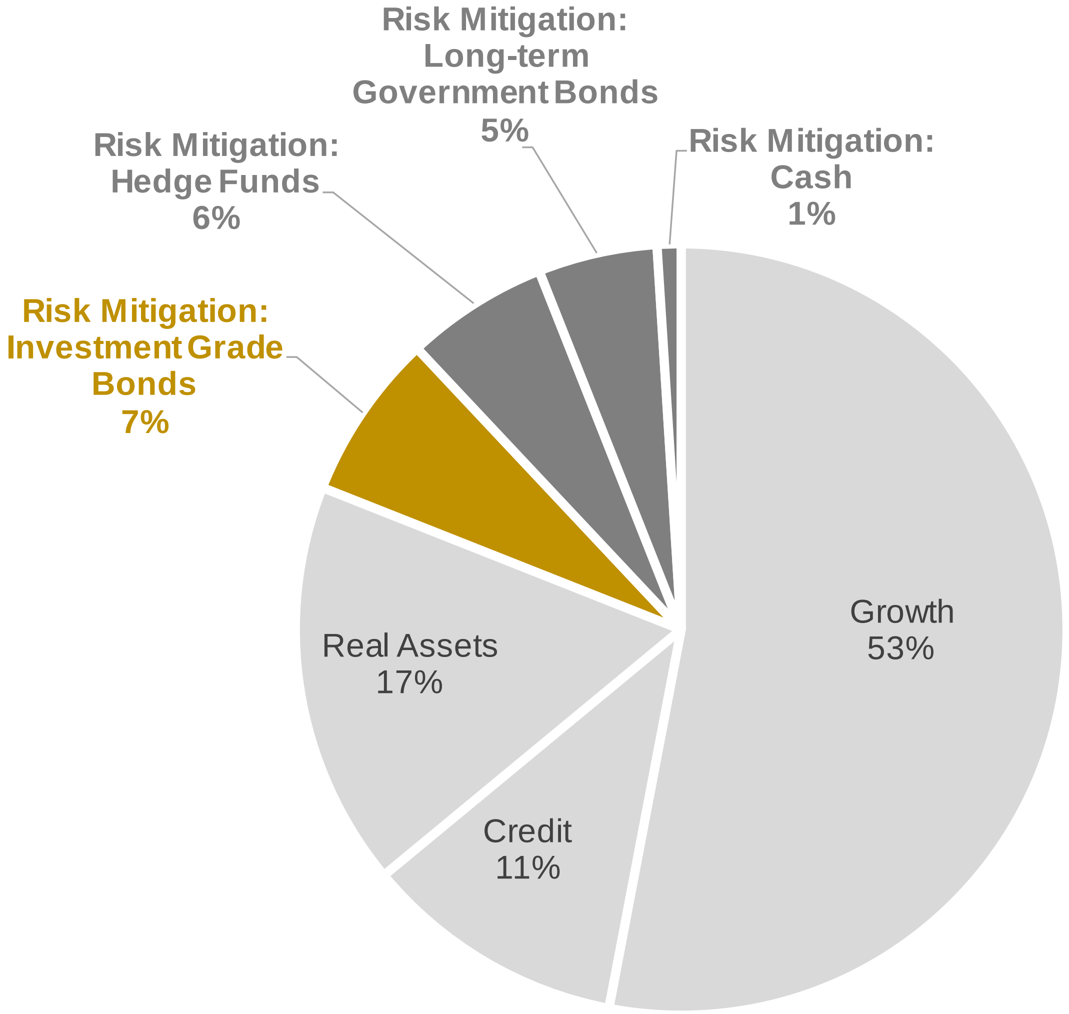
Investment Grade Bonds: Role and Objectives

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:

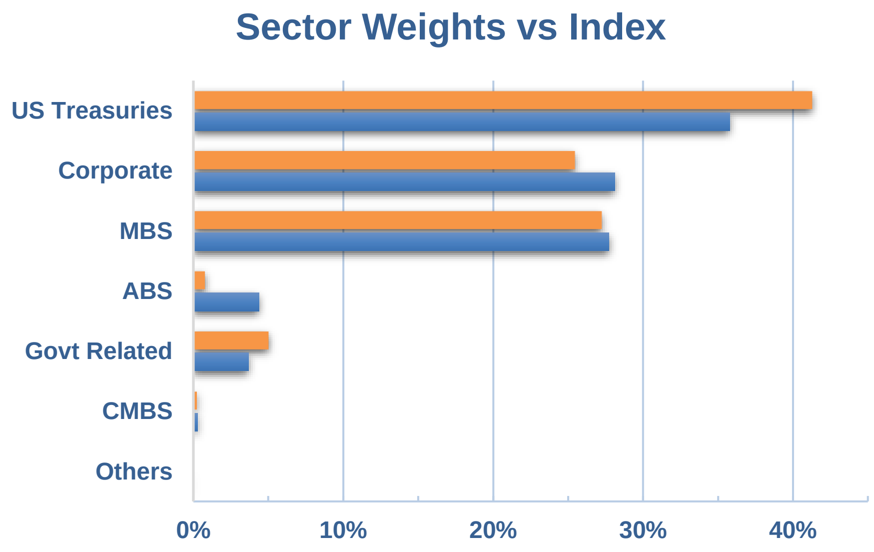
- Maintain target and allocation ranges

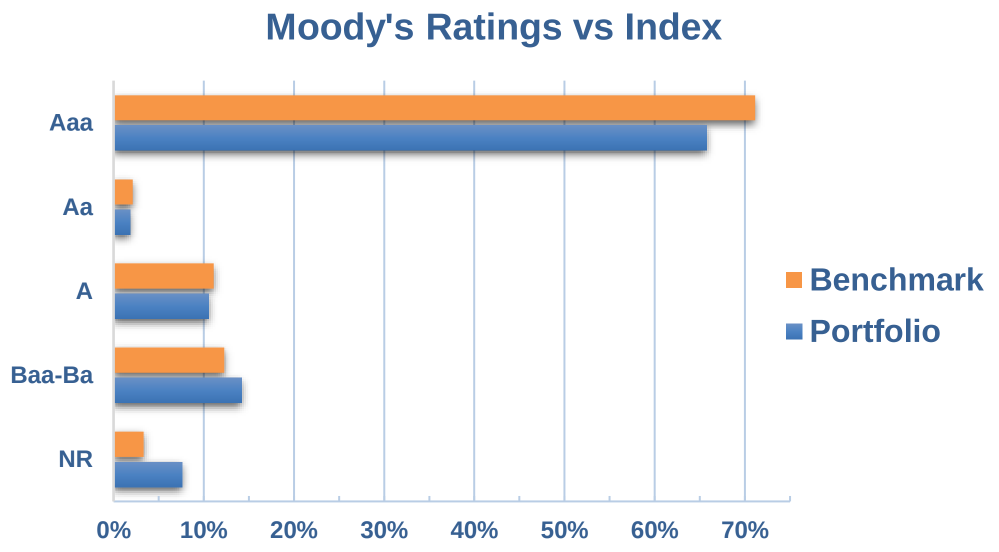
	Target Allocation	Allocation Ranges
Passive	70%	50% - 100%
Active	30%	0% - 50%

- 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:





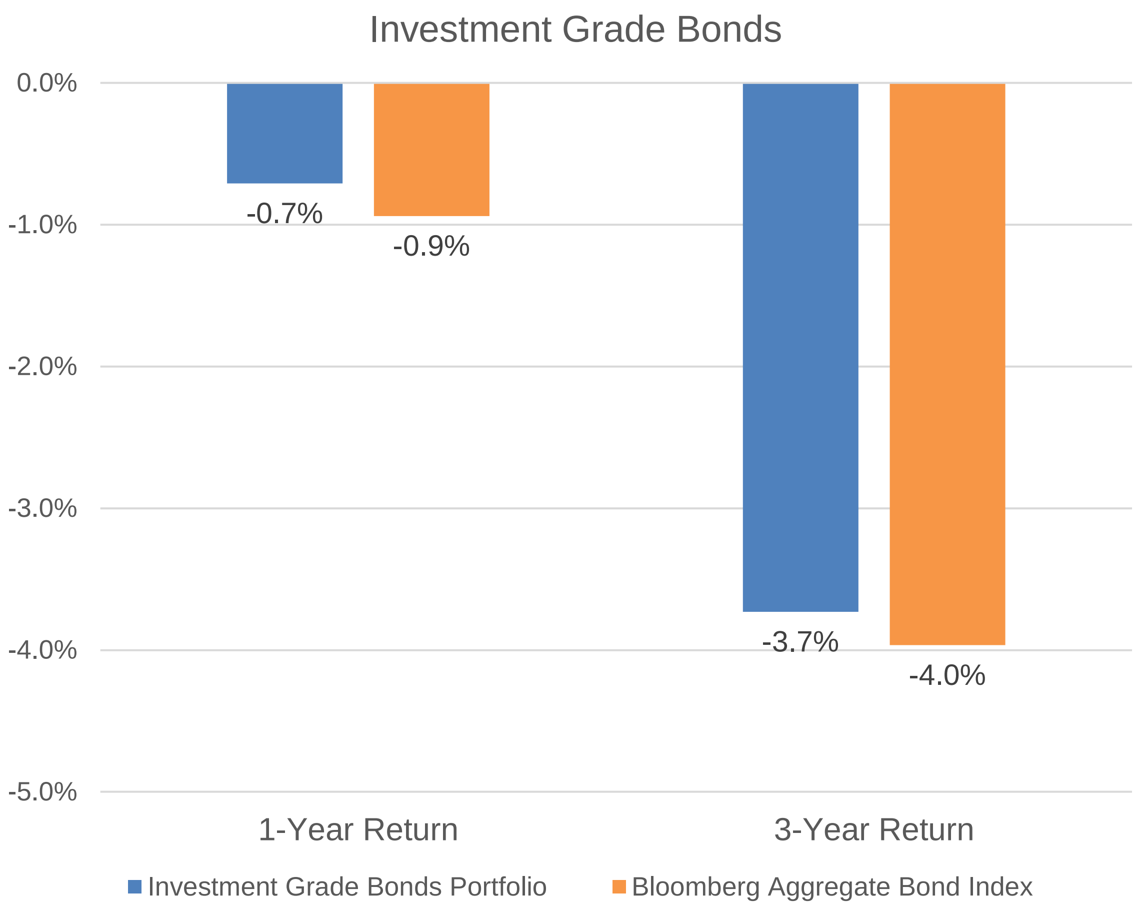
Statistic	Portfolio	Benchmark
Total Risk	6.7	6.6
Active Risk	0.2	0.0
Beta	1.0	1.0
Effective Duration	6.4	6.3
Yield (YTW; %)	4.5	4.8

- 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



Data is from State Street as of June 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

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

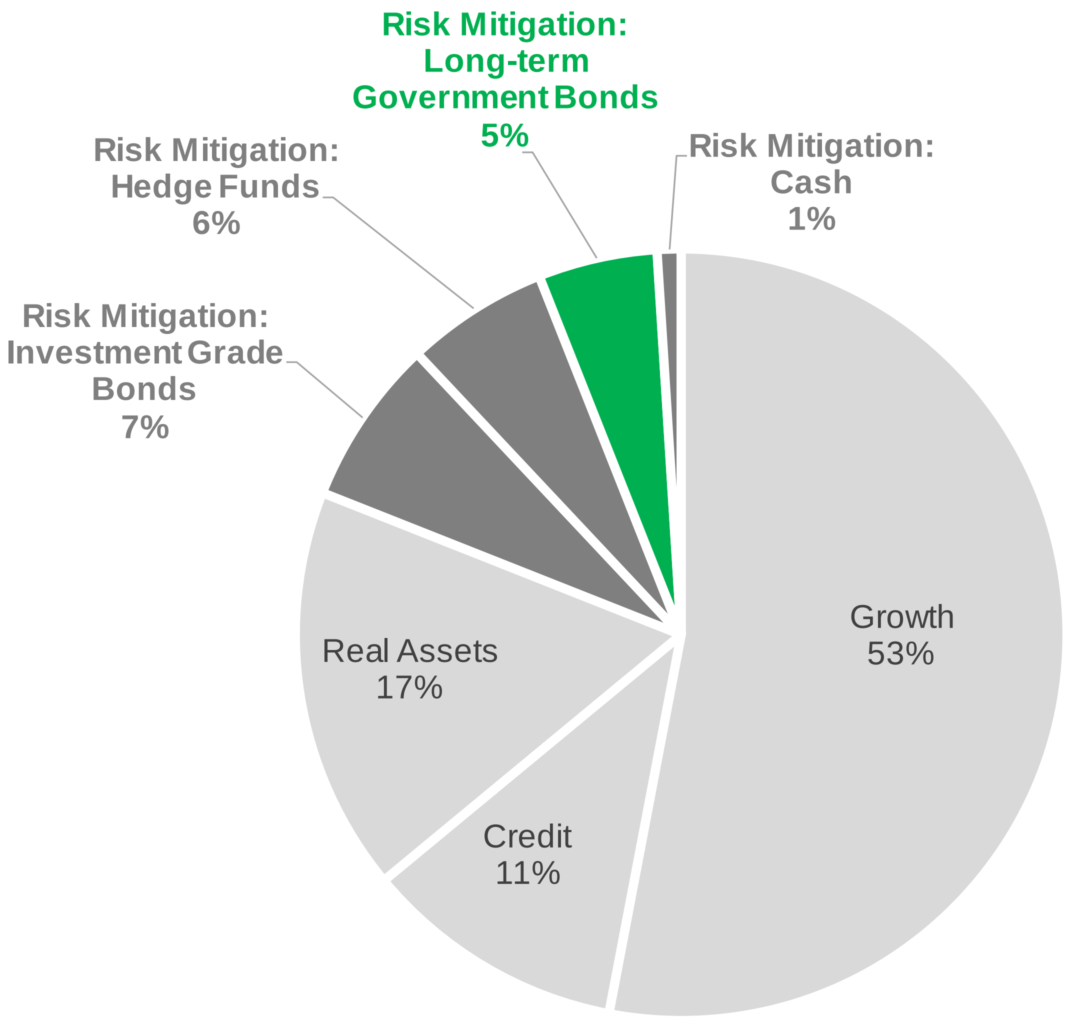
Long-Term Government Bonds: Role and Objectives

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:

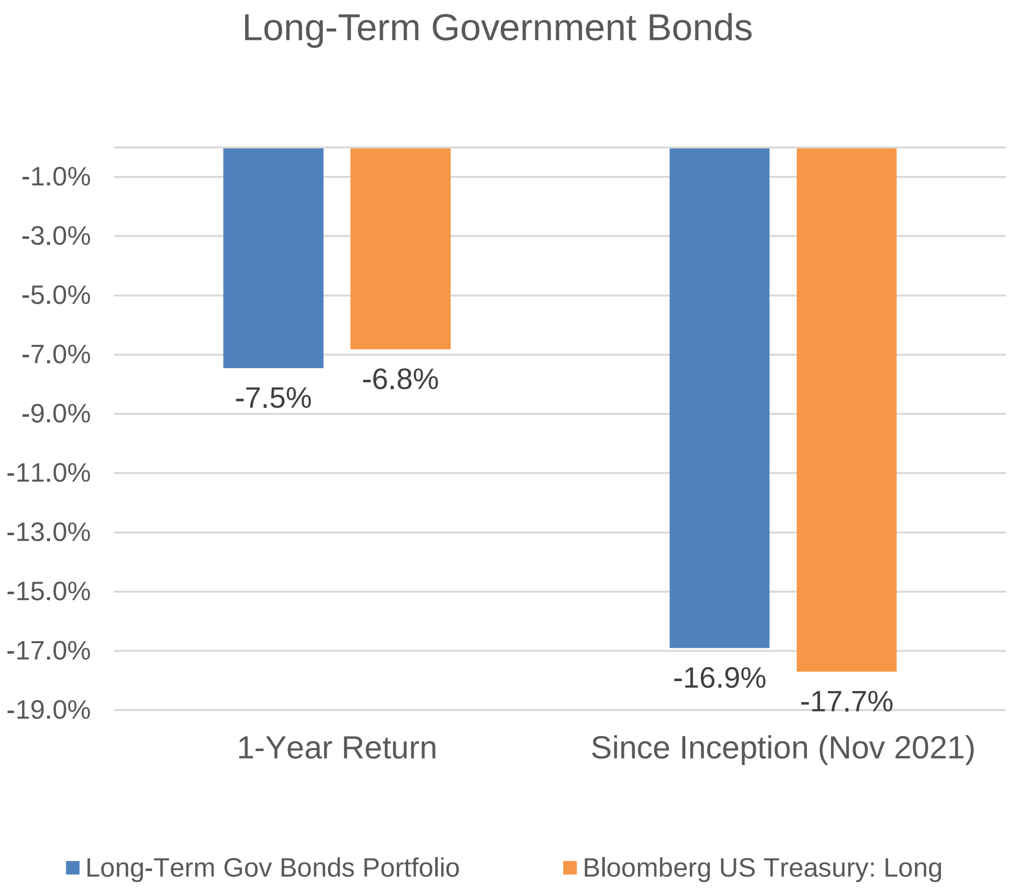
	LACERA Long-Term U.S. Treasury Bond Index Portfolio	Bloomberg U.S. Treasury 10+ Year Index
Market value ($B)	2.96	2,108.69
# Issues	77	76
Characteristics		
Coupon (%)	2.76	2.67
Yield to maturity (YTM) (%)	3.98	3.97
Weighted avg life (yrs)	22.87	22.97
Effective duration (yrs)	15.99	15.98
Convexity	3.33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

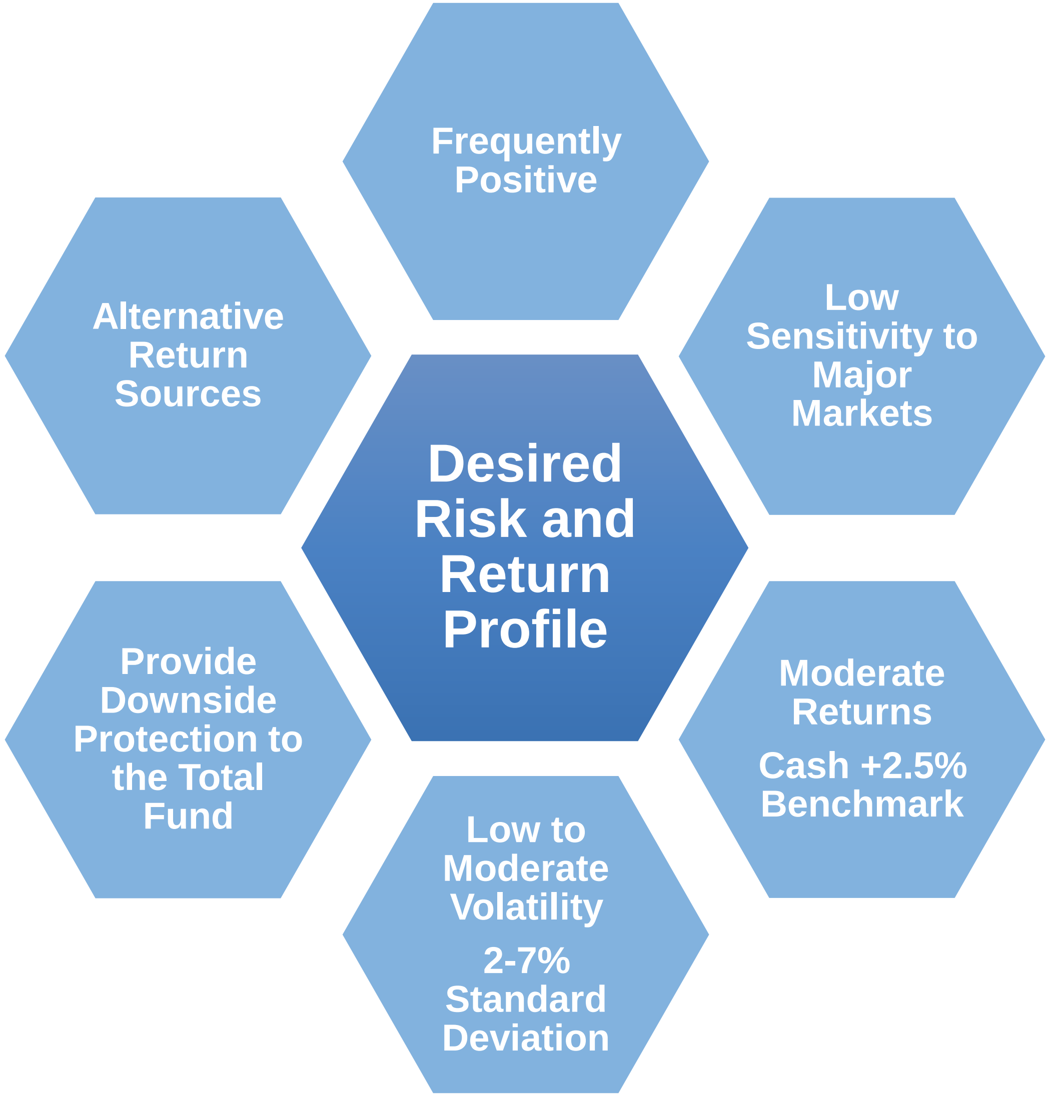
Role:

- Reduce total Fund risk
- Enhance total Fund diversification

Objective:

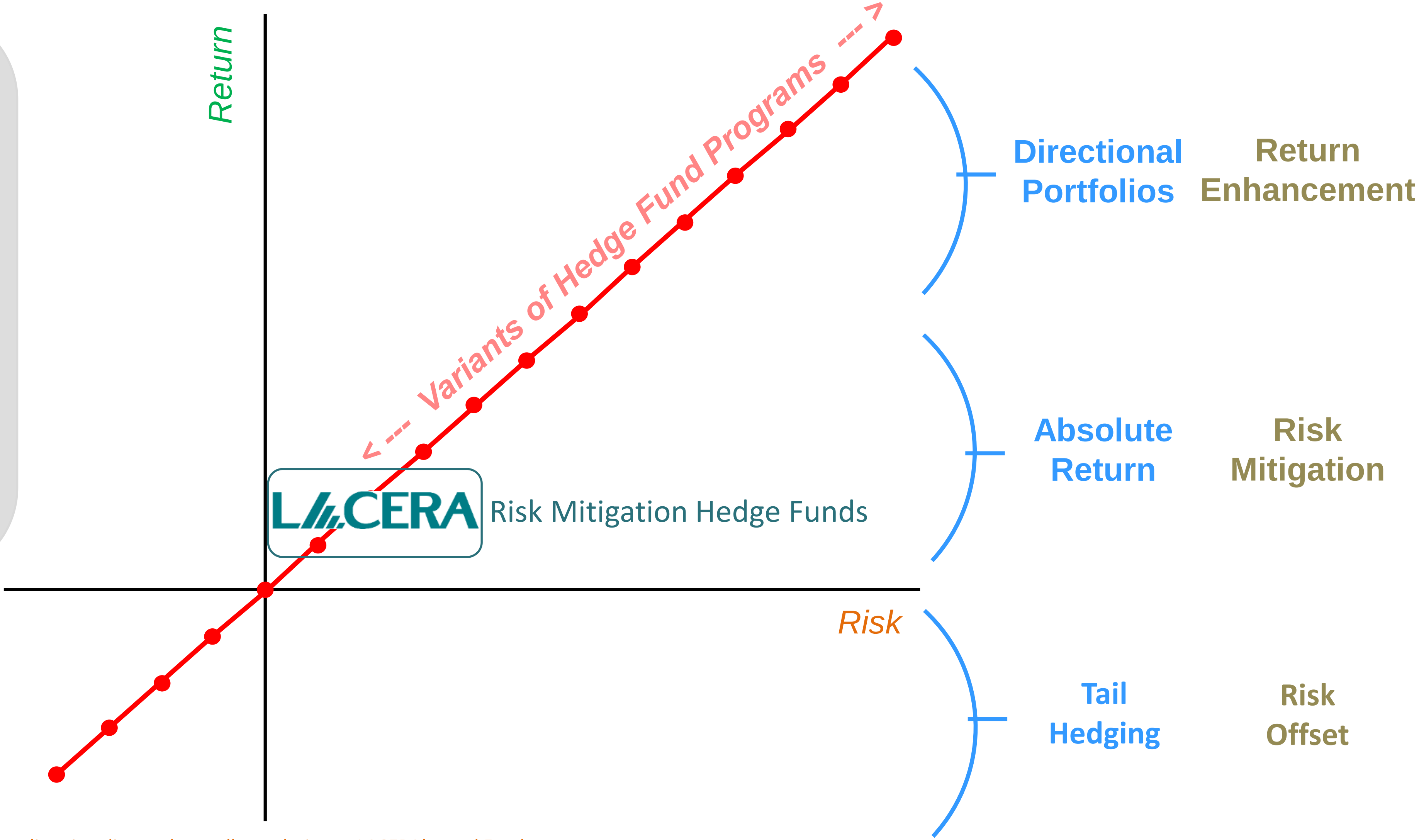
- Downside protection
- Low sensitivity to major markets
- Frequently positive
- Moderate returns
- Cash + 2.5% per year benchmark

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



Hedge Funds: Portfolio Structure

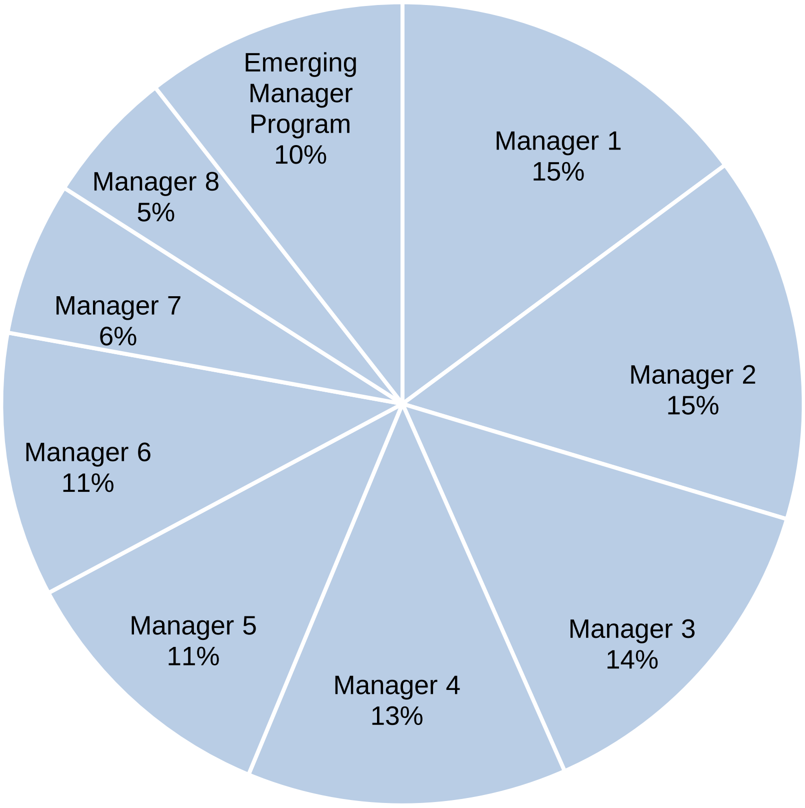
- LACERA's hedge fund portfolio:
  - Risk mitigation objectives
  - "Absolute return" approach
  - Less risky and less directional compared to many hedge fund portfolios



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

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

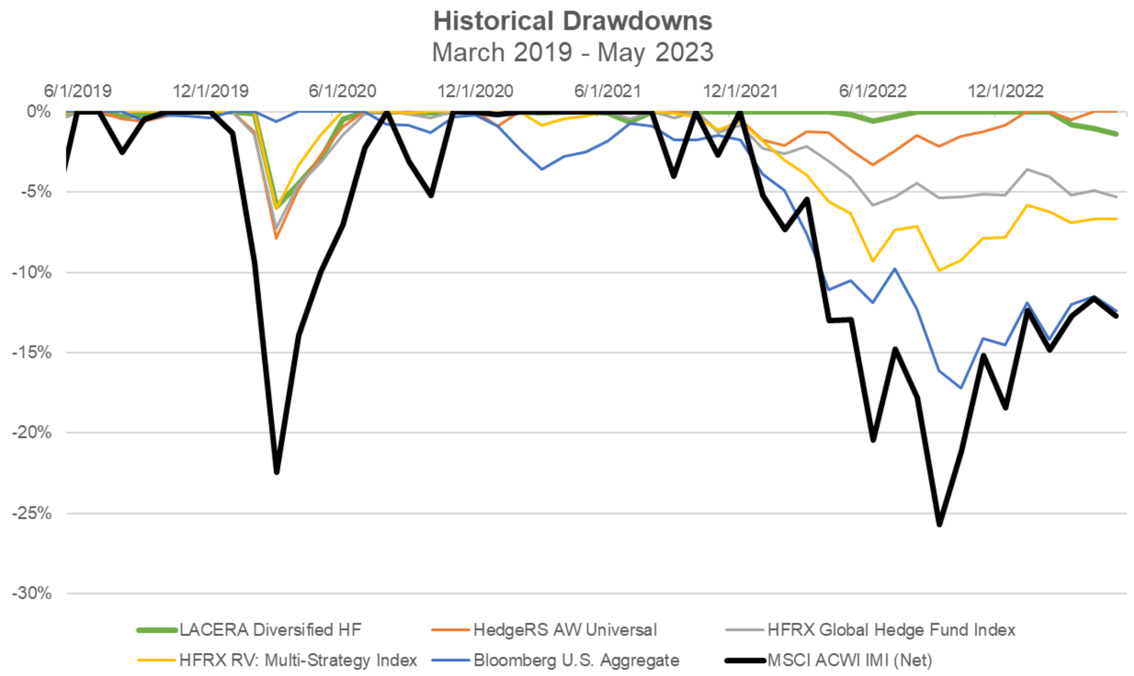
Initiatives Underway

- 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

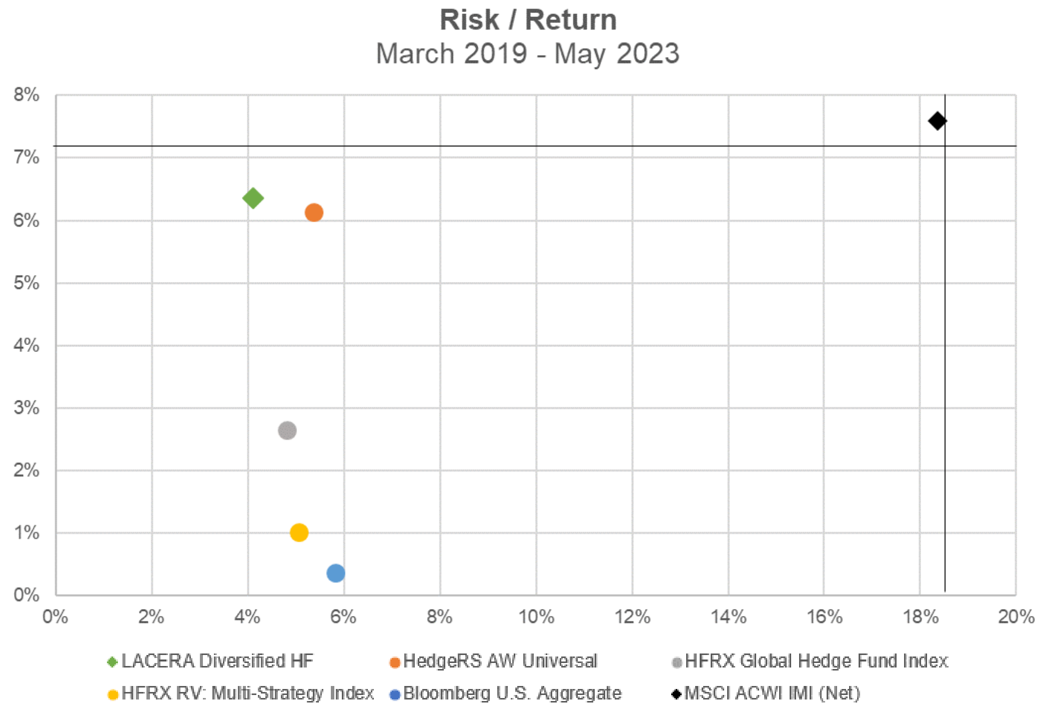
- New investments into or terminations from the main portfolio
- Graduations from the emerging manager program to the main portfolio

Hedge Funds: Risk Composition



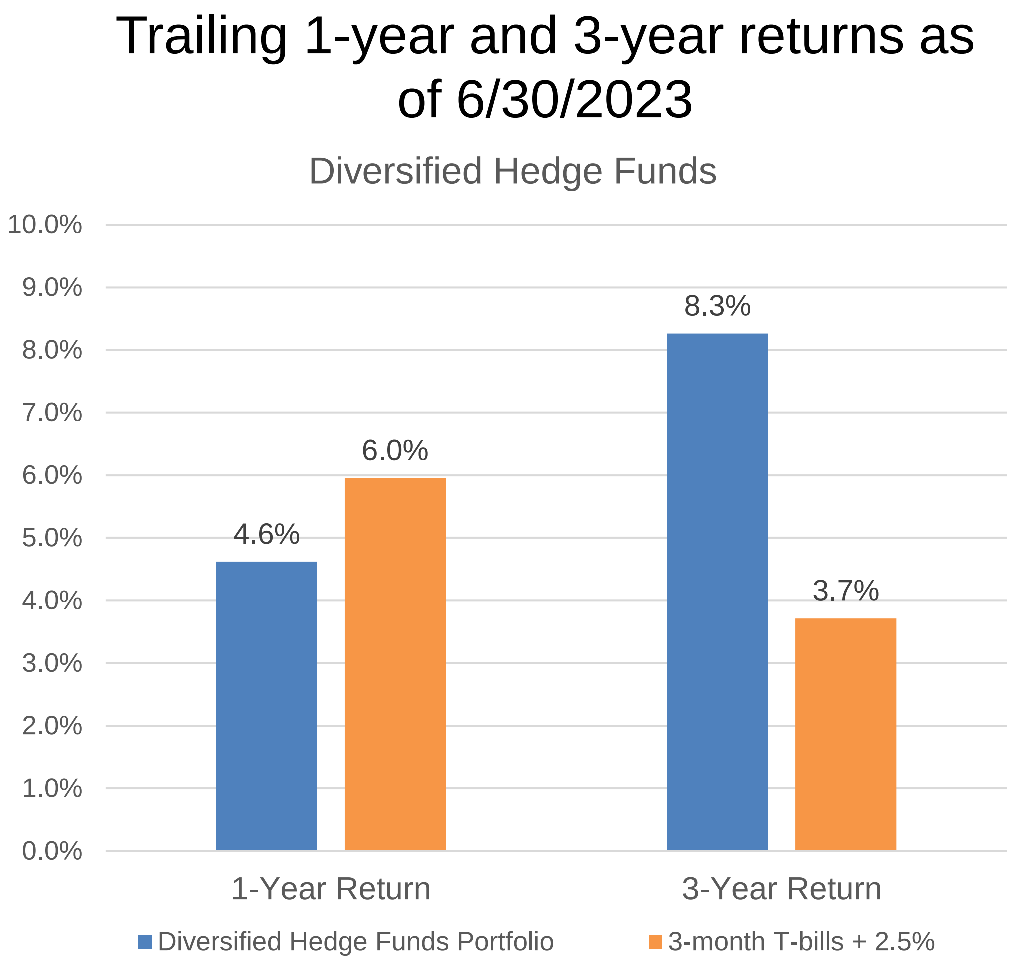
- The Diversified Hedge Funds portfolio has experienced low downside volatility as shown in the historical drawdowns and high sortino ratio.
- On a three-year trailing basis, the portfolio has low sensitivity to the equity markets with a beta of 0.04.
- On a risk adjusted basis, the portfolio is performing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

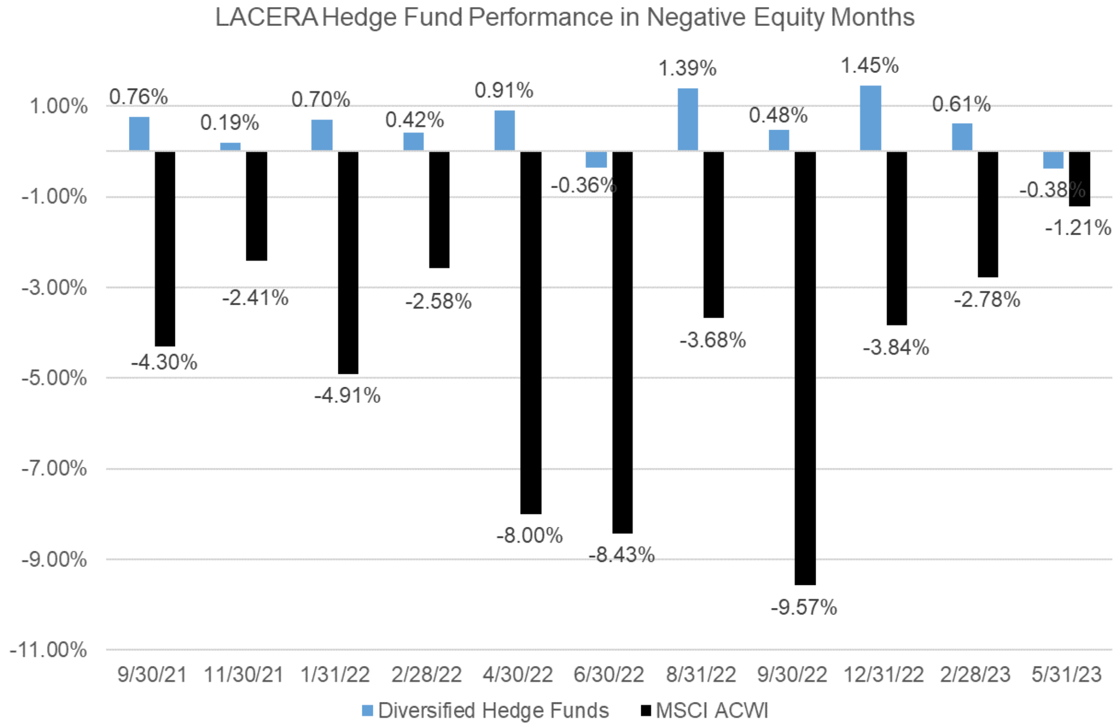
Diversified Hedge Funds vs MSCI ACWI (Net)	Jensen's Alpha	Beta	Sharpe Ratio	Sortino Ratio	Up Capture	Down Capture	Up / Down Capture Spread	% of Positive Months
12-Month	1.3%	0.00	0.2	0.4	3.2%	-14.2%	17.5%	67%
36-Month	6.7%	0.04	2.3	6.5	13.4%	-21.0%	34.4%	72%



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



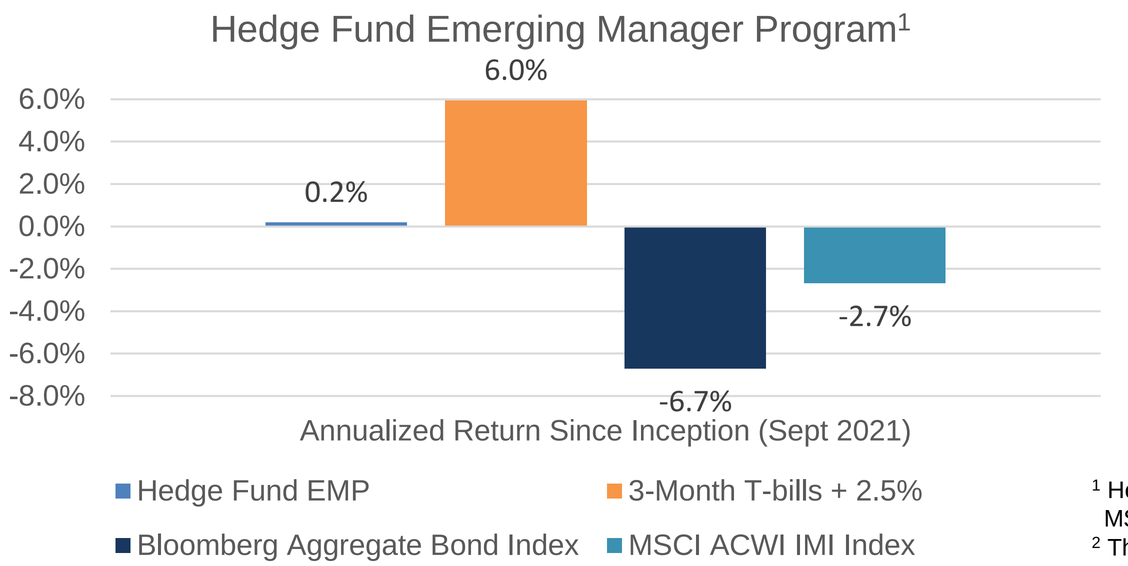


- The hedge fund portfolio underperformed its benchmark over a 1-year period but has outperformed by 460 bps annualized over a 3-year period
- The portfolio delivered a 7.3% return in 2022, when global equity markets (MSCI ACWI IMI) and the US bond market (Bloomberg US Aggregate) fell 18% and 14%, respectively, 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	Investment Grade Bonds	Long-Term Government Bonds	Hedge Funds
• Affirm role and objectives • No adjustment	• Affirm role and objectives • Adopt proposed portfolio guidelines	• Affirm role and objectives • Adopt proposed portfolio guidelines	• 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