IN PERSON & VIRTUAL **BOARD** MEETING

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





TO VIEW VIA WEB



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 REGULAR MEETING OF THE REAL ASSETS 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, APRIL 9, 2025

This meeting will be conducted by the Real Assets Committee both in person and by teleconference under California Government Code Sections 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

Teleconference Location for Trustees and the Public under California Government Code Section 54953(b) Bloomberg 371 Lexington Ave New York, NY 10022

COMMITTEE TRUSTEES:

Patrick Jones, Chair Aleen Langton, Vice Chair David Ryu Debbie Martin Mike Gatto, Alternate

- 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 Real Assets Committee Meeting of December 11, 2024

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.

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. REPORT

A. Real Assets Education

Jude Perez, Deputy Chief Investment Officer Cheryl Lu, Senior Investment Officer Terra Elijah, Senior Investment Analyst Samuel Blouin, Albourne Partners (Presentation) (Memo dated April 1, 2025)

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 A REGULAR MEETING OF THE REAL ASSETS 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, DECEMBER 11, 2024

This meeting was conducted by the Real Assets Committee and Board of Investments both in person and by teleconference under California Government Code Sections 54953 (f).

PRESENT:

Patrick L. Jones, Chair

Nicole Mi, Vice Chair

Trevor G. Fay

Debbie Martin

Elizabeth Ginsberg

STAFF ADVISORS AND PARTICIPANTS

Jon Grabel, Chief Investment Officer

Jude Perez, Deputy Chief Investment Officer

Terri Herubin, Senior Investment Officer

IDR Investment Management
Garrett Zdolshek, Chief Investment Officer

CALL TO ORDER

This meeting was called to order by Chair Jones at 8:00 a.m. in the Board Room at 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 Real Assets Committee Meeting of June 12, 2024.

A motion was made by Trustee Fay, seconded by Trustee Mi, to approve the minutes of the regular meeting of June 12, 2024. The motion passed unanimously by the following roll call vote:

Yes: Fay, Jones, Martin, Mi

IV. PUBLIC COMMENT

There were no requests from the public to speak.

V. REPORT

A. Education - Real Estate Benchmark: Composition of the NFI-ODCE Index

Terri Herubin, Senior Investment Officer Garrett Zdolshek, Chief Investment Officer, IDR Investment Management. (Memo dated November 25, 2024)

Mr. Zdolshek of IDR Investment Management provided a presentation and answered questions from the Committee. This item was received and filed.

VI. ITEMS FOR STAFF REVIEW

There was nothing to report.

December 11, 2024 Page 3

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 8:54 a.m.



March 28, 2025

TO: Trustees – Real Assets Committee

FROM: Jude Perez

Deputy Chief Investment Officer

Cheryl Lu

Senior Investment Officer

Terra Elijah

Senior Investment Analyst

FOR: April 9, 2025 Real Assets Committee Meeting

SUBJECT: Real Assets Education

At the April 9, 2025 Board of Investments Real Assets Committee Meeting, LACERA's real assets advisor Albourne Partners ("Albourne") will make an educational presentation titled "Introduction to Real Assets". Albourne will cover several topics including real assets universe, asset class characteristics and benefits, performance drivers, portfolio objectives and considerations.

The presentation (Attachment) will be led by Albourne senior portfolio analyst Samuel Blouin.

Noted and Reviewed:

Sonathan Grabel

Chief Investment Officer

CW:mm





April 2025

Introduction to Real Assets



What is a Real Asset?



A Real Asset is an asset that is <u>intrinsically valued</u> based on its <u>utility</u>. It is <u>tangible</u>, <u>homogeneously produced</u>, and <u>consumed</u>. Valuation drivers include characteristics closely <u>aligned to inflation</u> and economic variables tied to supply and demand.

The combination of these factors typically create a <u>duration</u> <u>characteristic</u>, similar to that of bonds, combined with an ability to <u>participate in inflation</u> and nominal characteristics skewed to the right of inflationary measures with capital appreciation characteristics over the longer term.

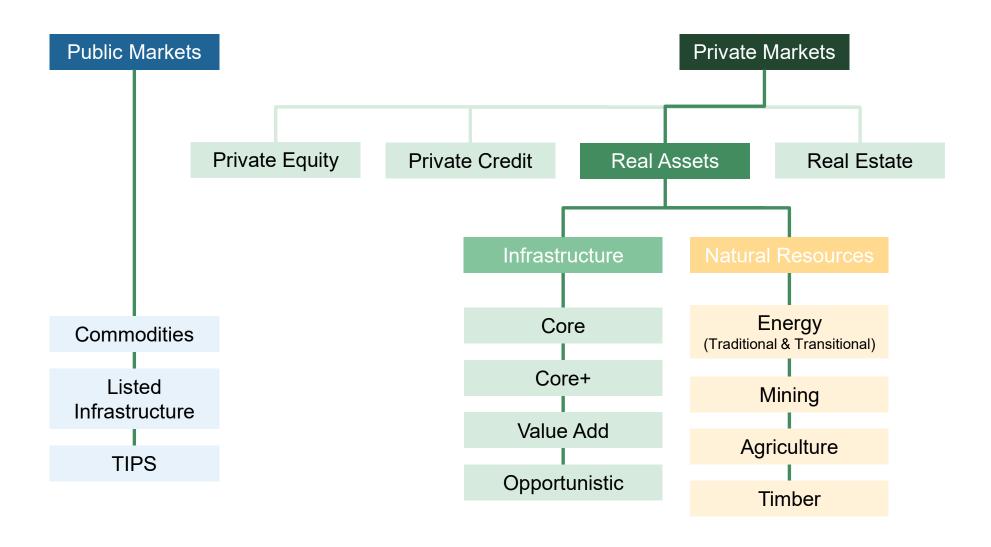
Real Assets are uniquely characterized for the development of objective oriented portfolios. Structural elements allow for investors to consider allocations at the policy, strategic, and tactical level.





Real Assets Universe



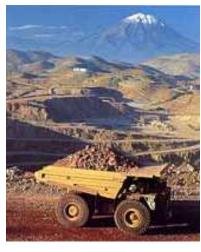


Illiquid Real Assets













Agriculture

- Row Crops
- Specialty Crops
- Permanent Crops
- Dairy
- Livestock and Poultry

Energy

- Upstream
 - Exploration and Production
- Midstream
 - Storage and Processing
- Downstream
 - Power Generation and Distribution
- Energy Transition

Mining

- Mining
 - Pre- and postfeasibility
 - Off-take agreements and financing

Infrastructure

- Transportation
- Power
- Midstream
- Social
- Utilities
- Digital

Timber

- Developed Market
- Pine Plantations
- Natural Hardwoods
- Emerging Market
 - Hardwood and softwood plantations

Liquid Real Assets









Commodities

- Passive
 - Commodity Indices
- Active
 - Enhanced Indices
 - Long Biased
 - Directional
 - Relative Value

Resource-Related Securities

- Equities
- Debt
- MLPs
- ETFs

TIPs

 Treasury Inflation-Protected Securities

Characteristics & Benefits to Portfolio



		Liquid Real Assets	Illiquid Real Assets	
	Definition & Characteristics	Financial instruments that provide immediate exposure to physical assets	Investments in or backed by physical assets, other than commercial or residential real estate Durable, immobile, tangible Finite in supply Useful to people Unique in location and composition	
	Typical benefits to portfolio	DiversificationInflation ProtectionReturnEnhancementTactical	DiversificationInflation ProtectionYield GenerationReturn Enhancement	
	Risk & return characteristics	 Commodities have historically generated equity-like returns High volatility 	 Viewed by many as a fixed income substitute due to current income and reduced volatility, but with the expectation that asset values will participate with inflation 	

Why Real Assets*?



Benefits					
Stable Cash Flows	Real Assets provide exposure to tangible investments which generate consistent income regardless of the economic cycle.				
Inflation Linkage	Real Assets include a wide range of raw materials and assets which provide inputs to fuel economic growth. Valuation drivers include characteristics closely aligned with economic variables tied to supply and demand.				
Low Correlation to Other Asset Classes	Real Assets have displayed low correlation to traditional equity and bond markets. Additionally, cash flows from private Real Assets remain differentiated from other Alternatives.				

Despite offering clear benefits, rarely are two Real Asset portfolios the same. Other unique characteristics; such as, funded status, liability duration, and location, often lead to different approaches to portfolio construction.

Portfolio Objectives



Seeking to participate in or protect against both anticipated and unanticipated inflation. Depending on the required spread, some combination of Infrastructure with long term inflation linkages and Natural Resource with higher inflation beta should be targeted.

Seeking to generate yield which is uncorrelated to Fixed Income markets. This portfolio may try to match pensions' longer-term liabilities and serve as a reliable form of distributions regardless of the economic environment.

Inflation Protection Income Generation

Diversification

GDP Sensitivity

Seeking to reduce Equity beta and enhance downside protection. Underlying asset mix will vary depending on the required rate of return necessary to justify commitments.

This may include capturing additional upside or reducing the overall GDP sensitivity. Pensions with GDP sensitive liabilities may be more likely to seek this objective.

Asset Class Characteristics



Asset Class	Income Generation	Inflation Sensitivity	GDP Sensitivity	Leverage		
Natural Resources						
Agriculture	Medium	High	Low	Low		
Energy	High	High	High	Low		
Mining	High	Medium	Medium	Low		
Timber	Low	Medium	Medium	Low		
Infrastructure						
Core	High	High	Low	High		
Core+	Medium	Medium	Low	Medium		
Value Add	Low	Medium	Medium	Medium		
Opportunistic	Low	Low	High	Low		



Target Deal Returns represent the consensus net returns that GPs collectively expect at the deal level for each respective strategy; they are not adjusted for expected losses. [Includes Albourne estimates].

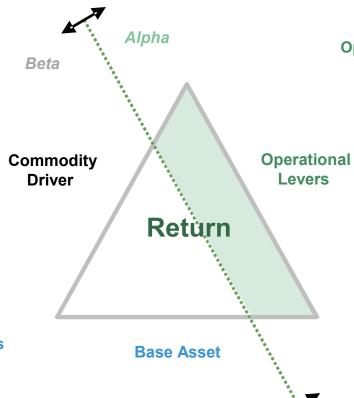
Performance Drivers



Due to the unique characteristics of Real Assets, performance drivers for Real Assets strategies differ from traditional Private Equity strategies.

The Commodity Driver

- Supply and demand
- Cyclical
- Macro
- Beta
- Uncontrollable



Operational Levers

- Dependent on the base asset and commodity driver
- Requires varying degrees of operating expertise
- Contractual experience and regulatory drivers
- Strategic, but also prone to disruption
- Encompasses ESG

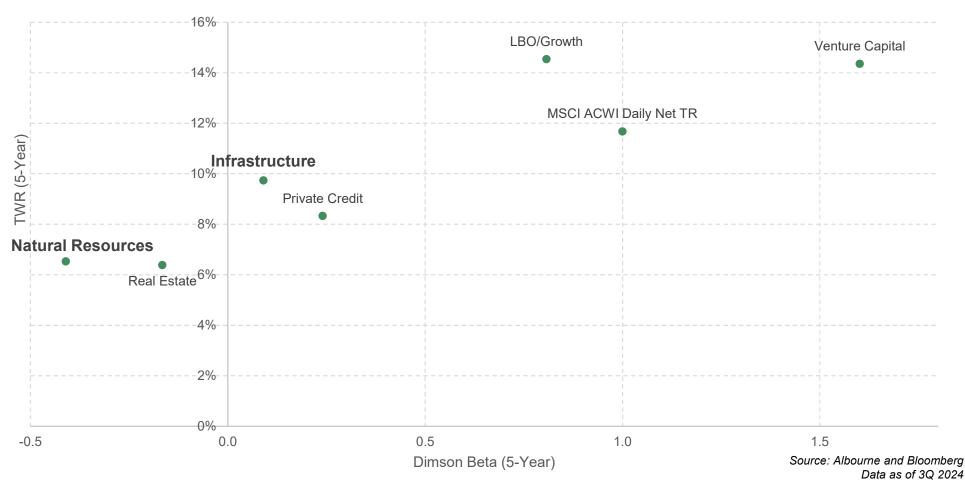
The Base Asset Analysis

- Tangible
- Value-based
- Beta
- · Limited to no control after acquisition

Equity Beta







- When accounting for lagged valuations, Private Infrastructure and Natural Resources have had differentiated equity beta when compared to other asset classes.
- Natural Resources has had negative equity beta, while Infrastructure has had equity beta below 0.1, while achieving a 9.7% return.
- Dimson Beta is an estimator of an asset's volatility or systematic risk (beta) relative to the market, taking into account potentially infrequent trading effects.

Risks



Real Assets Risks*











Market

Counterparty

Leverage

Development

Stage

Asset

Liquidity

Operational

Permitting

Regulatory

GDP — — — — — Inflation Underlying Assets

Experience Reporting

Growth

Exit Timing

Asset Management

Cycle

Restrictions

Sector

Commodity Volatility Scalability

ESG

Inflation • Commodity Volatility • Counterparty • Asset Quality • ESG • Execution

*Sample of potential risks, list is not comprehensive.

Other Policy Considerations



Some Institutions will have additional limitations or objectives for their Real Assets portfolio. These additional considerations can significantly impact the target asset mix. These considerations include, but are not limited to:

Regulatory Liquidity Investment Governance **Pacing** Prohibitions limitations requirements objectives requirements Minimum Geographic Sustainability Resource Sophistication return objectives limitations limitations requirements

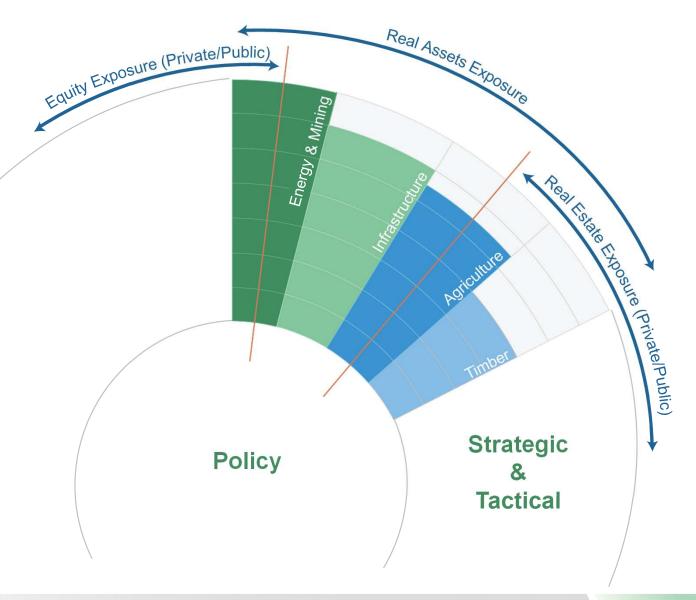
Any additional consideration should be built into the policy so one can gauge the potential contribution of each element to portfolio risk.

Multi-Dimensional Mapping



Infrastructure

Within the context of a Total Portfolio, Infrastructure fits squarely in the middle of Real Assets; whereas, areas such as Energy & Mining can carry additional PE exposure and Agriculture and Timber can carry additional RE exposure.



Disclaimer



IMPORTANT NOTICE

The information in this presentation (the "Information") is for general informational purposes only and is provided by an Albourne Group Company. For this purpose, "Albourne Group Company" means Albourne Partners Limited or one of its subsidiaries and affiliates from time to time, including Albourne America LLC, Albourne Partners (Canada) Limited, Albourne Partners Japan, Albourne Partners (Asia) Limited, Albourne Partners (Singapore) Pte. Ltd., Albourne Partners (Bermuda) Limited, Albourne Partners Deutschland AG, Albourne Partners (Cyprus) Limited and Albourne Cyprus Limited (such companies being, collectively, the "Albourne Group").

The Information is not, nor should it be construed as, an invitation, recommendation, inducement, offer or solicitation in any jurisdiction to any person or entity to acquire or dispose of, or to deal in, any security or any interest in any fund, or to engage in any investment activity, nor does it constitute any form of tax or legal advice and it must not be relied upon as such. The Information does not take into account the particular investment objectives or specific circumstances of any person or entity.

The Information is for the use of an Albourne Group Company client or potential client (the "Intended Recipient") who is (i) an "Accredited Investor" as defined in Regulation D under the U.S. Securities Act of 1933 and a "Qualified Purchaser" as defined in Section 2(a)(51) of the U.S. Investment Company Act of 1940, (ii) a "Permitted Client" within the meaning of the Canadian National Instrument 31-103, (iii) an investment professional, high net worth company or unincorporated association, high value trust or other person specified in articles 19 and 49 of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005, or (iv) where lawful in other jurisdictions, a financially sophisticated, high net worth and professional investor capable of evaluating the merits and risks of fund

investments without undue reliance on the Information. If you are not an Intended Recipient, or if in your jurisdiction it would be unlawful for you to receive the Information, the Information is not for your use and you should not use or rely on it.

Any Information is also provided subject to: (a) where you are a client of any Albourne Group Company, the provisions of your service agreements with the relevant Albourne Group Company, as supplemented by any applicable website terms and conditions of access; and (b) in all other cases, the terms and conditions of access accepted by you on Albourne's Investor Portal (as such terms and conditions are as supplemented by any non-disclosure agreement or other agreement (if any) between you and the relevant Albourne Group Company) or the terms and conditions otherwise agreed between you and the relevant Albourne Group Company, in each case such terms prevailing over the terms of this notice in the event of any conflict between such terms and those contained in this notice.

The Albourne Group makes no representations, guarantees, or warranties as to the accuracy, completeness, or suitability of the Information provided. Please note the Albourne Group does not provide legal advice to clients or potential clients or otherwise and the Information is not a comprehensive review of all legal, regulatory or such developments on the subject discussed herein. None of the Information is a substitute for seeking actual legal advice from a qualified attorney and in no circumstances should the Information be used to make any investment or other decision.

Disclaimer



This Information may not be reproduced in whole or in part and no part of this material may be reproduced, distributed, transmitted or otherwise made available to a third party or incorporated into another document or other material or posted to any bulletin board without the prior written consent of an Albourne Group Company.

To the extent that any third party (including but not limited to, any service provider or fund) is referred to in the Information, you should not necessarily view this as an endorsement by the Albourne Group of such third party. The Information may also contain information obtained from third parties which may not be independently verified. The Albourne Group makes no representations or warranties, express or implied, as to the accuracy or completeness of the Information and disclaims all liability for any loss or damage which may arise directly or indirectly from any use of or reliance upon any such data, forecasts or opinions, or from the Information generally.

To the extent that performance information or forecasts are contained in the Information, there can be no assurance or guarantee that such performance record will be achievable in the future. Past performance is not necessarily indicative of, or a guarantee of, future returns. In the United States, any funds referred to in the Information are made through private offerings pursuant to one

or more exemptions of the United States Securities Act of 1933, as amended. Such funds have not been recommended or approved by any federal or state securities commission or regulatory authority. Furthermore, none of the foregoing authorities has confirmed the accuracy or determined the adequacy of the Information.

Additionally, you should be aware that any offer to sell, or solicitation to buy, interest in any funds may be unlawful in certain states or jurisdictions.

You should carefully review the relevant offering documents before investing in any funds mentioned in the Information. You are responsible for reviewing any fund, the qualifications of its manager, its offering documents and any statements made by a fund or its manager and for performing such additional due diligence as you may deem appropriate, including consulting with your own legal, tax, and other advisers.

© 2021 Albourne Partners Limited. All rights reserved. 'Albourne' ® is a registered trade mark of Albourne Partners Limited and is used under licence by its subsidiaries.