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Attention: Public comment requests must be submitted via email to PublicComment@lacera.com no later than 5:00 p.m. the day before the scheduled meeting.

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, CA

8:00 A.M., WEDNESDAY, OCTOBER 14, 2020

This meeting will be conducted by the Board of Retirement by teleconference under the Governor's Executive Order No. N-29-20.

Any person may view the meeting online at
https://members.lacera.com/lmpublic/live_stream.xhtml

*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. APPROVAL OF MINUTES

A. Approval of the Minutes of the Real Assets Committee Meeting of
July 8, 2020.

III. PUBLIC COMMENT

(**You may submit written public comments by email to PublicComment@lacera.com. Please include the agenda number and meeting date in your correspondence. Correspondence will be made part of the official record of the meeting. Please submit your written public comments or documentation as soon as possible and up to the close of the meeting.

You may also request to address the Boards. A request to speak must be submitted via email to PublicComment@lacera.com no later than 5:00 p.m. the day before the scheduled meeting. Please include your contact information, agenda item, and meeting date so that we may contact you with information and instructions as to how to access the Board meeting as a speaker.)

October 14, 2020

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IV. REPORT

- A. Real Assets and Inflation Hedges 2020 Mid-Cycle Structure Review
Jim Rice, Principal Investment Officer
John McClelland, Principal Investment Officer
(Memo dated September 29, 2020)

V. ITEMS FOR STAFF REVIEW

- VI. GOOD OF THE ORDER
(For information purposes only)

VII. 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 Retirement that are distributed to members of the Board of Retirement 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 Retirement 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 REAL ASSETS COMMITTEE
AND BOARD OF INVESTMENTS

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

300 NORTH LAKE AVENUE, SUITE 810, PASADENA, CA 91101

8:00 A.M., WEDNESDAY, JULY 8, 2020

*This meeting was conducted by teleconference pursuant to the Governor's
Executive Order N-29-20*

PRESENT: David Muir, Chair

Alan Bernstein, Vice Chair

Wayne Moore

Gina V. Sanchez

David Green, Alternate

MEMBERS AT LARGE:

Herman Santos

Keith Knox

Elizabeth Greenwood

STAFF, ADVISORS, PARTICIPANTS

Jonathan Grabel, Chief Investment Officer

John McClelland, Principal Investment Officer

Steven Rice, Chief Counsel

July 8, 2020

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I. CALL TO ORDER

The meeting was called to order by Mr. Muir at 8:45 a.m., in the Board Room of Gateway Plaza.

II. APPROVAL OF THE MINUTES

- A. Approval of the Minutes of the Regular Real Assets Committee Meeting of June 10, 2020.

Mr. Moore made a motion, Mr. Bernstein seconded, to approve the minutes of the regular meeting of June 10, 2020. The motion passed (roll call) with Messrs. Green, Moore, Muir, Bernstein and Ms. Sanchez voting yes.

III. PUBLIC COMMENT

There were no requests from the public.

IV. NON-CONSENT ITEM

- A. Recommendation as submitted by John McClelland, Principal Investment Officer: That the Committee advance the proposed Minimum Qualifications, Evaluation Criteria and Scope of Work for a Real Estate Consultant to the Board of Investments for approval. (Memo dated June 23, 2020)

Messrs. Grabel and McClelland were present and answered questions from the Committee.

Mr. Green made a motion, seconded by Ms. Sanchez, to advance the proposed recommendation and for the Chair of Board of Investments to appoint a Trustee to the Search Committee for Phase 2 of the process. The motion passed (roll call) with Messrs. Bernstein, Moore, Muir and Ms. Sanchez voting yes.

July 8, 2020

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V. REPORT ON STAFF ACTION ITEMS

There was nothing to report.

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


There was nothing to report.

VII. ADJOURNMENT

There being no further business to come before the Committee, the meeting was adjourned at 9:08 a.m.

September 29, 2020

TO: Trustees – Real Assets Committee

FROM: John McClelland 
Principal Investment Officer

Jim Rice 
Principal Investment Officer

FOR: October 14, 2020 Real Assets Committee Meeting

SUBJECT: **REAL ASSETS AND INFLATION HEDGES 2020 MID-CYCLE STRUCTURE REVIEW**

Attached please find the Real Assets and Inflation Hedges 2020 Mid-Cycle Structure Review for your review.

BACKGROUND

This is the first real assets structure review combining all the real assets and hedge funds asset categories together.

Real estate presented Part 1 of the mid-cycle review, which focused on operations, at the June 10, 2020 meeting of the Real Assets Committee. Part 2 for real estate is included in the attached review and focuses on strategy. Addressing strategies later in the year allowed both the real estate and other real assets teams greater clarity and analysis of current market conditions and opportunities resulting from the pandemic.

Another structure review for the Real Assets category excluding real estate was advanced by the Real Assets Committee at the September 2019 meeting and approved by the Board of Investments at a meeting in November 2019. The attached presentation also includes an update to the structure review of LACERA's assets in that category.

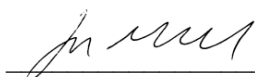
The benefit of a consolidated structure review at the functional level is the specific role each functional category plays in the Fund. For example, Real Assets and Inflation Hedge's role in the portfolio is to generate income, hedge against unexpected inflation and diversify from public equities.

CONCLUSION

ATTACHMENT 1 is the update in the form of a PowerPoint presentation.

Attachment

Noted and Reviewed:



Jonathan Grabel
Chief Investment Officer

Real Assets 2020 Mid-Cycle Structure Review

Real Assets Committee Meeting

October 14, 2020

James Rice – Principal Investment Officer

John McClelland – Principal Investment Officer

Amit Aggarwal – Investment Officer

Noah Damsky – Senior Investment Analyst

Cindy Rivera – Senior Investment Analyst



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Real Assets – Introduction

LACERA's Asset Category is recently formed

1.0 Real Estate: Historical Structure

1. Emphasis on wholly owned assets
2. Diversification in sectors and regions through funds

2.0 Real Assets Asset Category Created

Initial tasks:

1. Inclusion of historical Real Estate and Commodities programs
2. Inclusion of new assets for Natural Resources, Infrastructure and TIPS

3.0 Real Assets Future

Existing initiatives:

1. Consideration of changes to Real Estate structure
2. Implementation of private program for Infrastructure and Natural Resources

Next Phase Portfolio

1. Evaluate Real Estate structure changes and implementation
2. Considerations of correlations to other asset classes
3. Continue to build private asset program in Infrastructure and Natural Resources

We are here

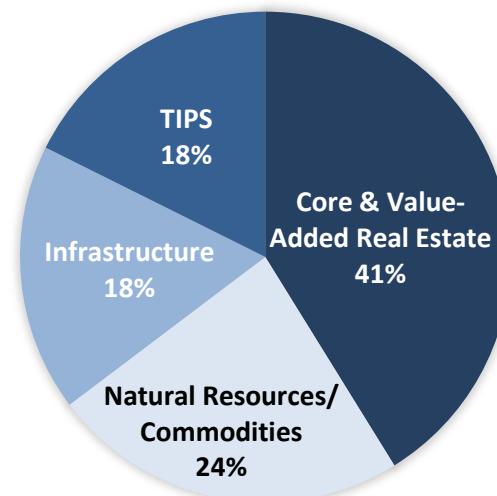
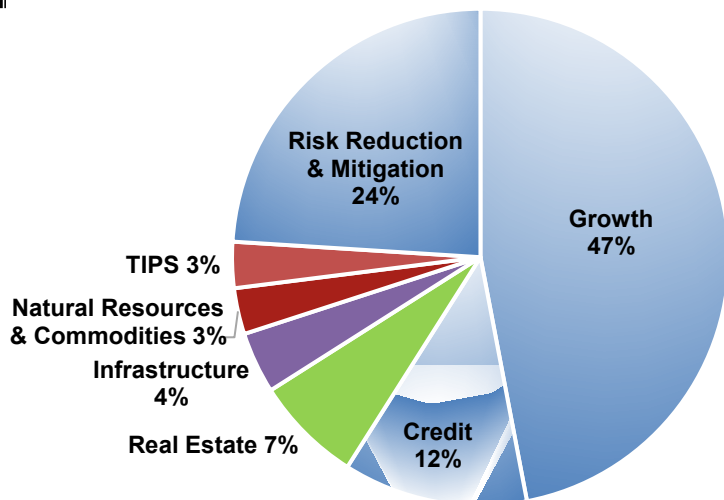
2018 Strategic Asset Allocation Study and Implementation

2019 Structure Review and Initiatives

2020 Mid-Cycle Structure Review



Portfolio Composition



Asset Class	Allocation	Target	Difference	Target Range	Benchmark
Real Assets & Inflation Hedges	16.0%	17%	(1.0)%	+/- 3%	Custom Blend
Core & Value-Added Real Estate	7.6%	7%	0.6%	+/- 3%	NFI ODCE + 50 bps (3-month lag)
Natural Resources/Commodities	3.7%	4%	(0.3)%	+/- 2%	50% Bloomberg Commodity/ 50% S&P Global Large MidCap Commodity & Resources
Infrastructure	2.8%	3%	(0.2)%	+1/-3%	Dow Jones Brookfield Global Infrastructure
TIPS	1.8%	3%	(1.2)%	+2/-3%	Bloomberg Barclays U.S. TIPS

Asset weights are as of August 31, 2020; Real estate valuation is as of June 30, 2020 with a quarter lag.



Role of Real Assets

Core & Value-Added Real Estate

Natural Resources & Commodities

Infrastructure

TIPS

Income Generation

Returns mainly come from yield generated by Real Estate, Infrastructure, Natural Resources, and TIPS

Inflation Hedge

Provides portfolio protection when inflation increases

Diversification

Provides returns that are moderately correlated to global equities and GDP growth

Portfolio Components

Real Estate

- **Capital preservation and reliable yield from rents**
- **Hard assets provide inflation protection**
- **Diversified sources of returns less correlated with growth assets**

Infrastructure

- **Focus on capital preservation while generating consistent yield**
- **Diversified assets that are less linked to GDP growth**
- **Secular growth opportunities in areas such as telecom infrastructure**

Natural Resources & Commodities

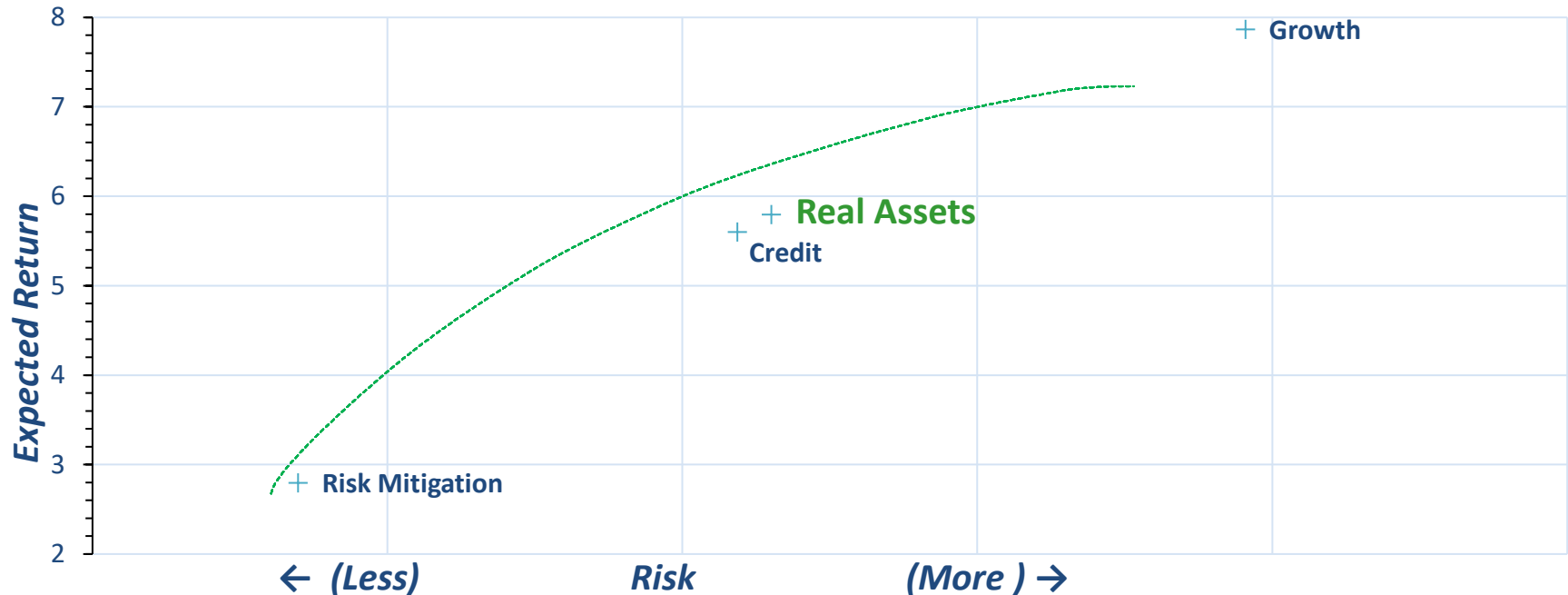
- **Diversified exposure to other asset categories**
- **Generate income from investments in energy, agriculture, timber, and mining**
- **Hedges the broader portfolio from inflation with public and private market opportunities**

TIPS

- **Inflation hedge through public market investments**
- **Diversification benefits with inflation-linked and interest rate exposure**
- **Generates modest income**



Portfolio Role



- **Diversifies** exposure to growth assets to mitigate portfolio downside risk
- Provide consistent **yield** for the broader portfolio
- **Hedge the risk of inflation** with investments in hard or inflation-linked assets

Data from the 2018 Board-approved asset allocation study.



Real Assets Role in Total Fund

Real Estate has a historically low correlation with Global Equities

Completion Portfolio of Natural Resources and Infrastructure has mid-to-high correlation with Global Equities:

- Has participated in downturn as correlations increased
- Private Portfolio to replace these assets will have less measured correlation

Natural Resources and Infrastructure equities also have high correlation with High Yield:

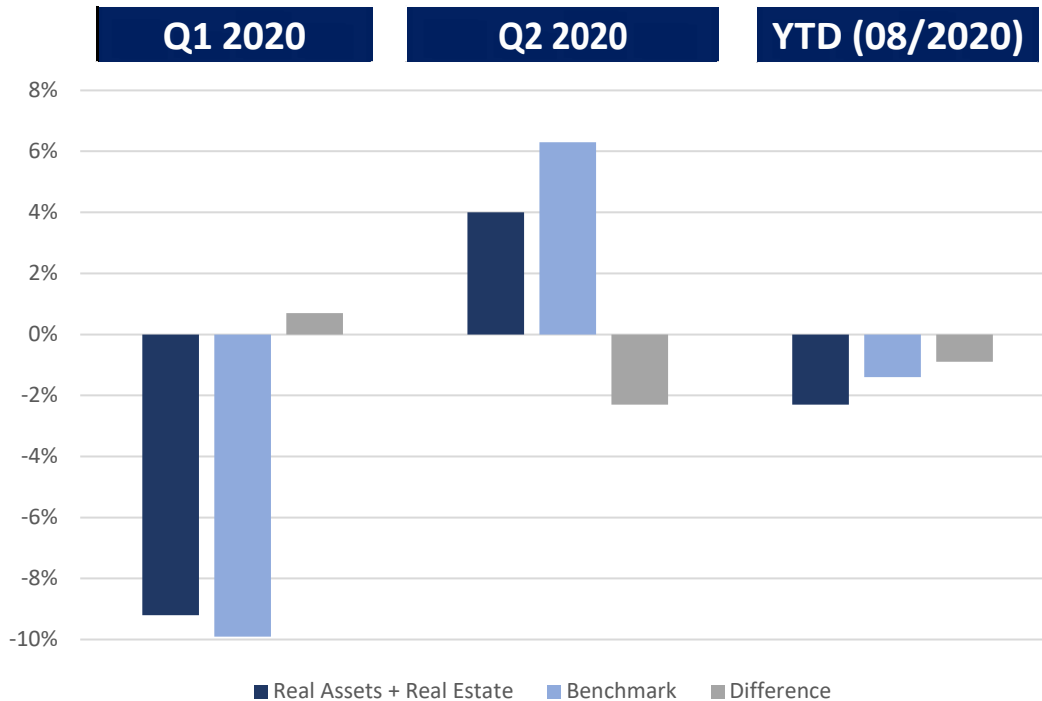
- Energy is increasingly a material factor of liquid Credit exposure

Commodities have varied in their diversifying role to Global Equities

TIPS: Are linked to changes in unexpected inflation but also to nominal treasuries in Risk Mitigation



Real Assets Performance



Performance Commentary

- Negative Returns in 1Q, but outperforming benchmark in 1Q
- Positive returns in 2Q, though below policy benchmark
- Negative YTD through August and below benchmark
- Private Real Estate performance lags by one quarter
- Public market strategy correlations with global equities have risen
- Public market portfolios more correlated than private assets which will replace them over time

Mid-Cycle Structure Review Framework

Real Estate: Changes to the Structure

- Core and Value-Add Real Estate role and objective is unchanged, but proactive effort underway to achieve benchmark allocation
- Real Estate strategy updated

Real Assets: Correlation with other Assets in Total Fund

- Public Market real assets portfolios have moderate to high correlation to other Total Fund Assets
- Public Market portfolios to be replaced by more diversifying private portfolio

Performance

- How asset categories performed during the COVID-19 environment

Inflation

- Inflation hedging role is heightened given asymmetric interest rate and increasing inflation expectations

Environmental, Social, and Governance Factors

LACERA Mission

“Produce, Provide and Protect the Promised Benefits”

ESG

Approach includes using a framework to provide a sustainable rate of return over the long-term life of private investments

Manager Assessment

Will be evaluated and monitored on:

- Assessment of material ESG factors in their own investment process
- Resources dedicated to ESG monitoring
- Management ability to operate assets responsibly to high ESG standards
- Transparency of reporting which fosters visibility into ESG considerations

Evaluation tools include questionnaires and dialogue during diligence process

ESG results incorporated into manager scorecard

Future Initiative for ESG in Real Assets

Additional Tools and Resources to improve understanding

- Continued expansion of LACERA specific DDQ and manager engagement pre and post commitment
- Development of side letters term related to ESG issues
- Use LPAC role to monitor
- Additional role of Sustainability Accounting Standards Board information in evaluating impact of ESG factors in portfolio companies
- ESG risk measures in new LACERA risk system
- Use of additional entities with Industry certifications e.g. forestry
- Evaluate continued participation in GRESB
- Work with organizations comprised of like-minded investors

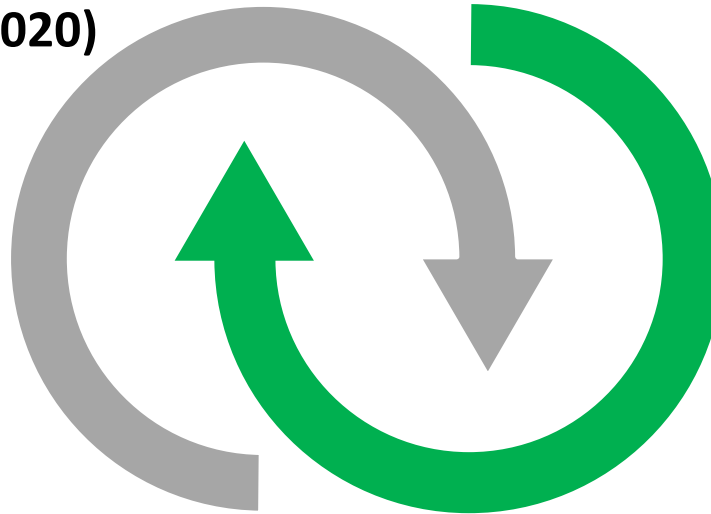
Real Estate



Overview – Structure Review Framework

Part 1: Operations (presented in June 2020)

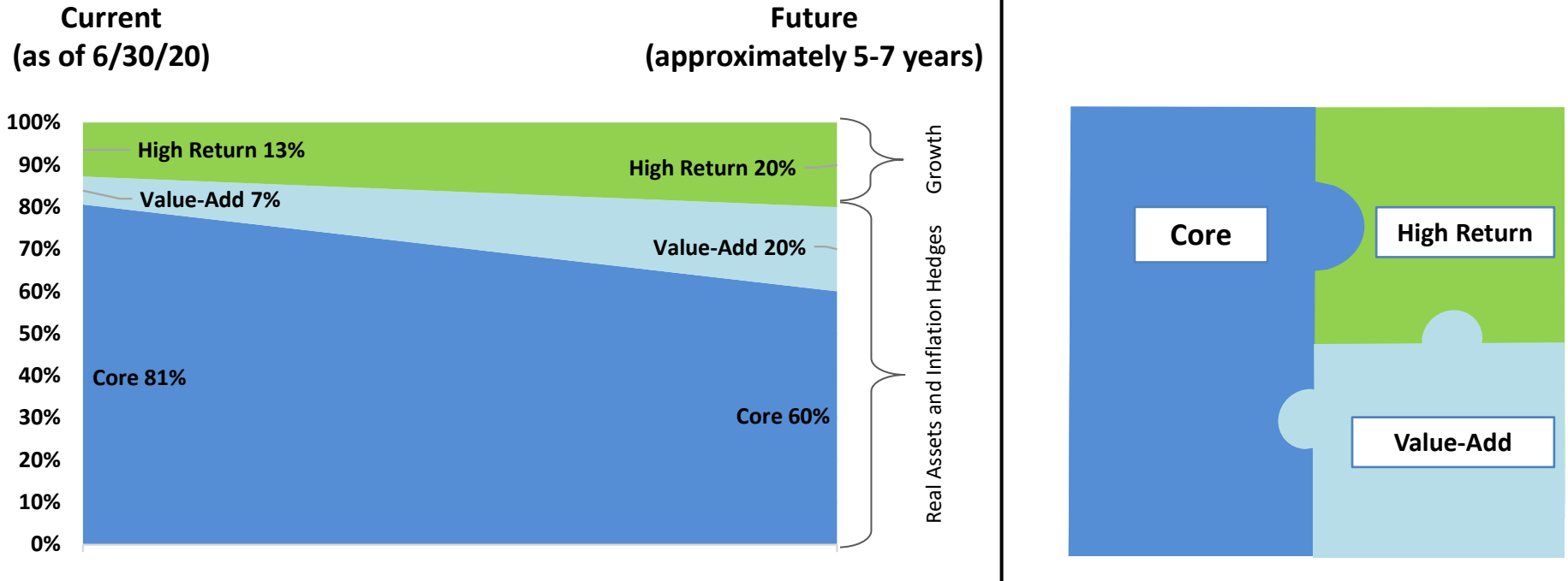
- Structure and practices
- Implementation approach
- Uncompensated risks



Part 2: Strategy and Portfolio (this presentation)

- Portfolio characteristics and structure
 - Make greater use of commingled funds
- Investment strategy
 - Overweight industrial and apartments
- Successes and areas for continued improvement

Investment Structure – Rebalancing



- Decrease Real Assets & Inflation Hedges to 80% by decreasing Core to 60% and increasing Value-Add to 20%
- Increase Growth/High Return to 20%
- Consider proper functional category for Value-Add as part of the Strategic Asset Allocation study

Data is as of June 30, 2020 with a quarter lag. Real estate debt, which is part of the Credit functional asset class, is excluded from this presentation. Current percentages do not add up to 100% due to rounding.



Investment Strategy

Beta Exposure

Use **Core** commingled funds for “beta” exposure to the benchmark

Alpha Exposure

Commingled Funds

Use **non-Core** commingled funds for “alpha seeking” returns (+200 bps from value add and +300 bps from high return) in traditional and niche strategies

Separate Accounts

Separate accounts may be used after comprehensive analysis with new consultant

Evaluation of Manager Performance

Critically evaluate underperforming managers and terminate relationships as necessary

International Portfolio

Increase exposure to international investing through commingled funds

Property Types

Overweight industrial and apartments
Underweight office and retail



Strategy – Property Types and Geography

Over-Weight:

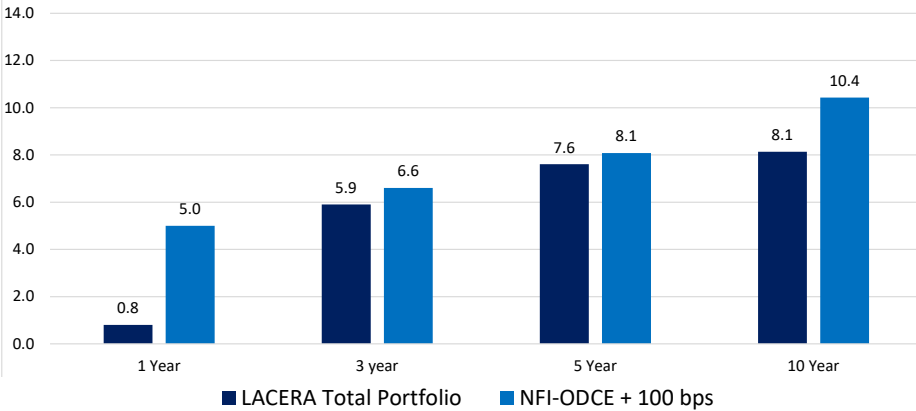
- **Industrial** - Benefiting from continued growth in e-commerce and increased need for storage capacity. Favor strategies at the entry and end points of the U.S. supply chain.
- **Apartments** - Demand for housing persists and new construction (i.e., supply) has declined. Favorable long-term growth.
- **West and South** - Expected net population and job growth to continue to drive rent growth and space needs.

Under-Weight:

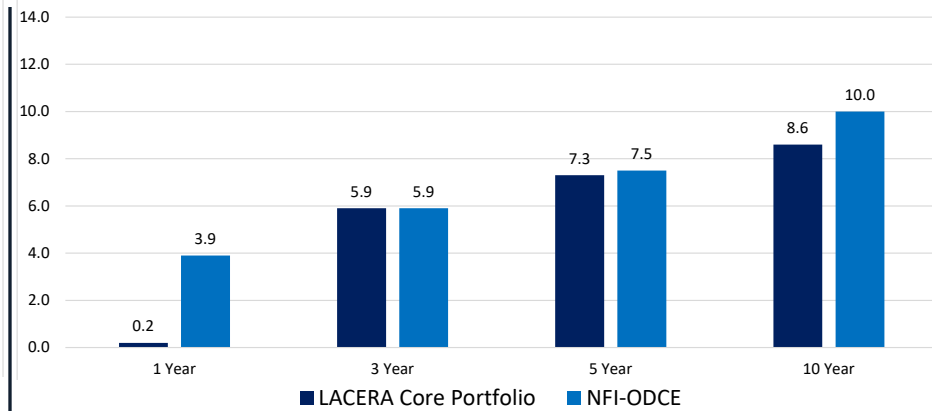
- **Office** - Uncertain future demand due to increased U.S. unemployment, increased work-from-home practices, hesitance to return to office, and greater space needs per employee.
- **Retail** - Negatively impacted by growth in e-commerce. Recovery from recession likely to be muted. General over-supply of inventory.
- **East and Midwest** - Expected population decreases and relatively lower job growth.

Performance

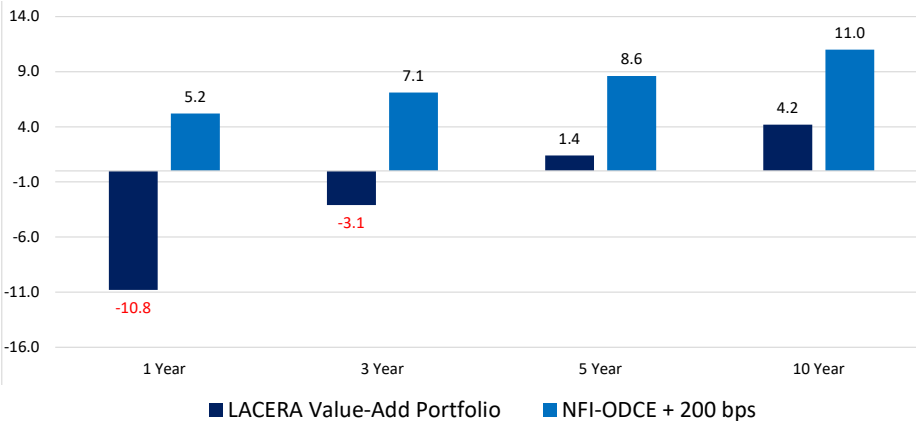
Total Real Estate Portfolio



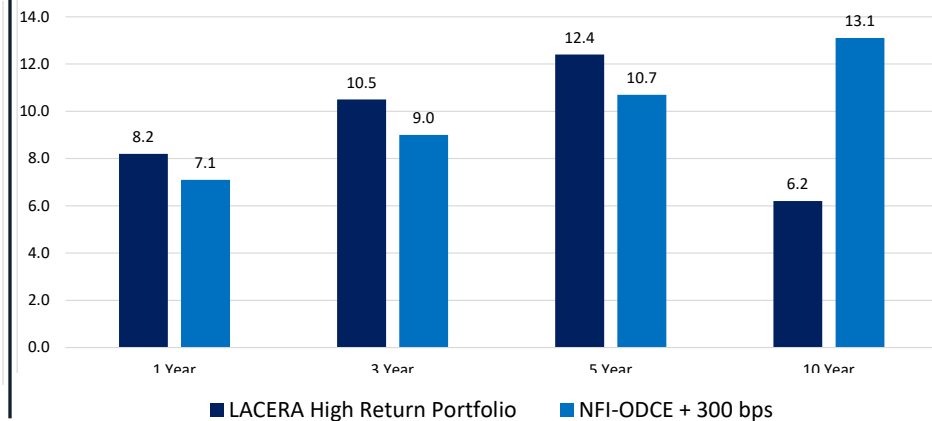
Core Portfolio (81% of total)



Value-Add Portfolio (7% of total)



High Return Portfolio (13% of total)



Data is as of June 30, 2020 with a quarter lag. Percentages do not add up to 100% due to rounding. The NFI-ODCE benchmark includes historical returns, reflecting the return objectives since inception.



Evaluation

What has Worked:



Growth Investing

Investments in development of multi-family and industrial properties have generated strong returns (via both commingled funds and separate accounts)

Income Generation

Income from Core investments has been strong (5.8% over ten-year period)

Areas for Refinement:



Portfolio Design

Optimize portfolio to increase intentionality, exceed benchmark returns, meet target allocations, and improve diversification

Enhance Portfolio Diversification

Decrease large single-asset impact by increasing commingled fund investments and maintaining vintage year diversification

Harmonization – Allocator to Investor

Focus on industry best practices and allocate capital based on strategic house views and manager performance rather than manager capital balances

Title Holding Company (THC) Management

Evaluate continued utilization of operationally intensive special purpose entities

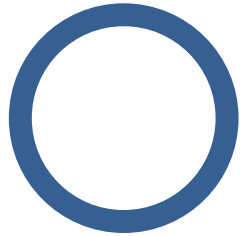
COVID-19 Pandemic Impact



- Value declines are anticipated over the next year as decreased rents and increased expenses will result in lower values.
- Staff is tracking monthly rent collections and cash flow to identify properties in distress.
- Rebalance efforts are expected to take longer since the pace of transactions has slowed significantly.

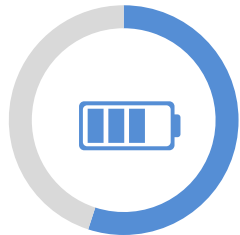
- In-person and on-site diligence has moved to virtual, saving on travel costs and allowing for meetings with more managers.
- Fundraising time periods have been extended, resulting in more time to complete due diligence.
- More team members, from both LACERA and the manager, can participate virtually.

Initiatives – Strategic



Completed

- Terminated under-performing managers
 - In the past 24 months, BOI approved terminating **four** managers
- Invested in open-end funds
 - IDR ODCE index fund
 - RREEF Core Plus Industrial Fund
 - Prologis European Industrial Fund
 - Invesco Asia Core



In-Process

- Underwriting value-add and opportunistic funds in the U.S. and internationally
- **Cull portfolio of under-performing assets**
- **Critically evaluate under-performing managers**



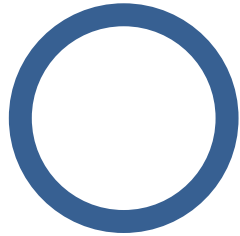
Upcoming

- Underwrite ODCE funds
- Review optimal portfolio structure with the guidance of real estate consultant

Green indicates initiatives where progress has been made since the Real Estate Structure Review – Part 1 presentation in June 2020.

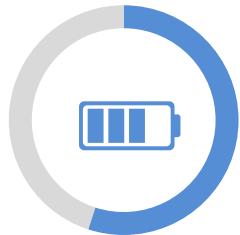


Initiatives – Operations



Completed

- Hired an appraisal management service provider
- Created a formal quarterly reconciliation process
- Completed search for administrator



In-Process

- Onboard administrator
- Transition book of record
- Formalize desktop procedures
- Consultant search
- Operational due diligence review

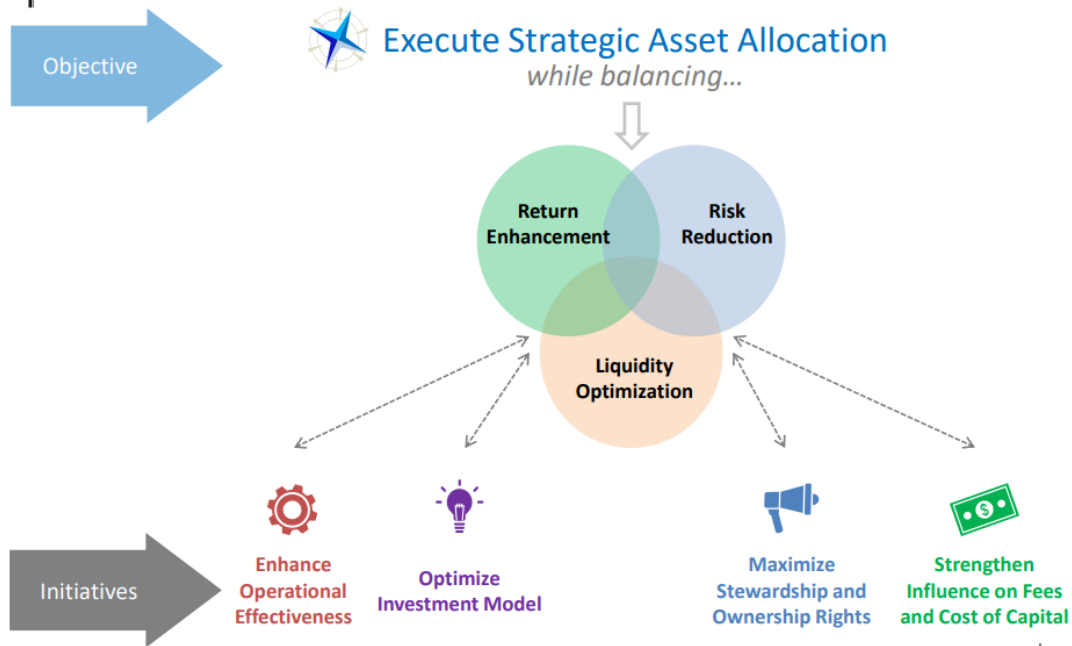


Upcoming

- Review of banking operations
- Reevaluation of internal title holding company (THC) management

Strategic Initiatives – Timeline

Vision 2020: Strategic Objective and Initiatives



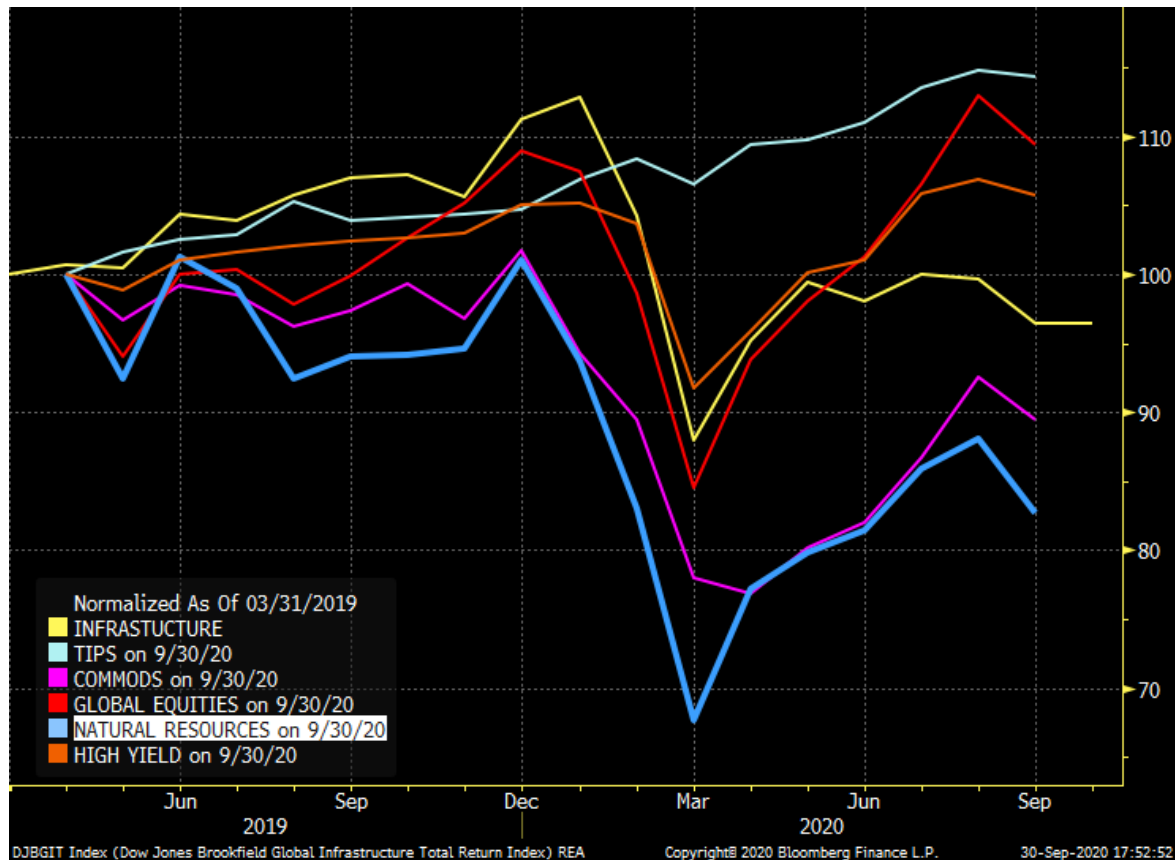
Short-Term (FY 2021)	Medium-Term (FY 2022)	Long-Term (Beyond FY 2022)
<ul style="list-style-type: none"> Optimize portfolio construction Underwrite ODCE and other non-core funds Terminate underperforming managers 	<ul style="list-style-type: none"> Reduce exposure to separate accounts and increase exposure to commingled funds Emerging manager program update Update International Implementation Plan 	<p>Consider:</p> <ul style="list-style-type: none"> Co-investments with like-minded investors Secondary market transactions Exchanging assets for commingled fund shares Entity investing



Real Assets (ex-Real Estate)



Public Market Benchmark Performance



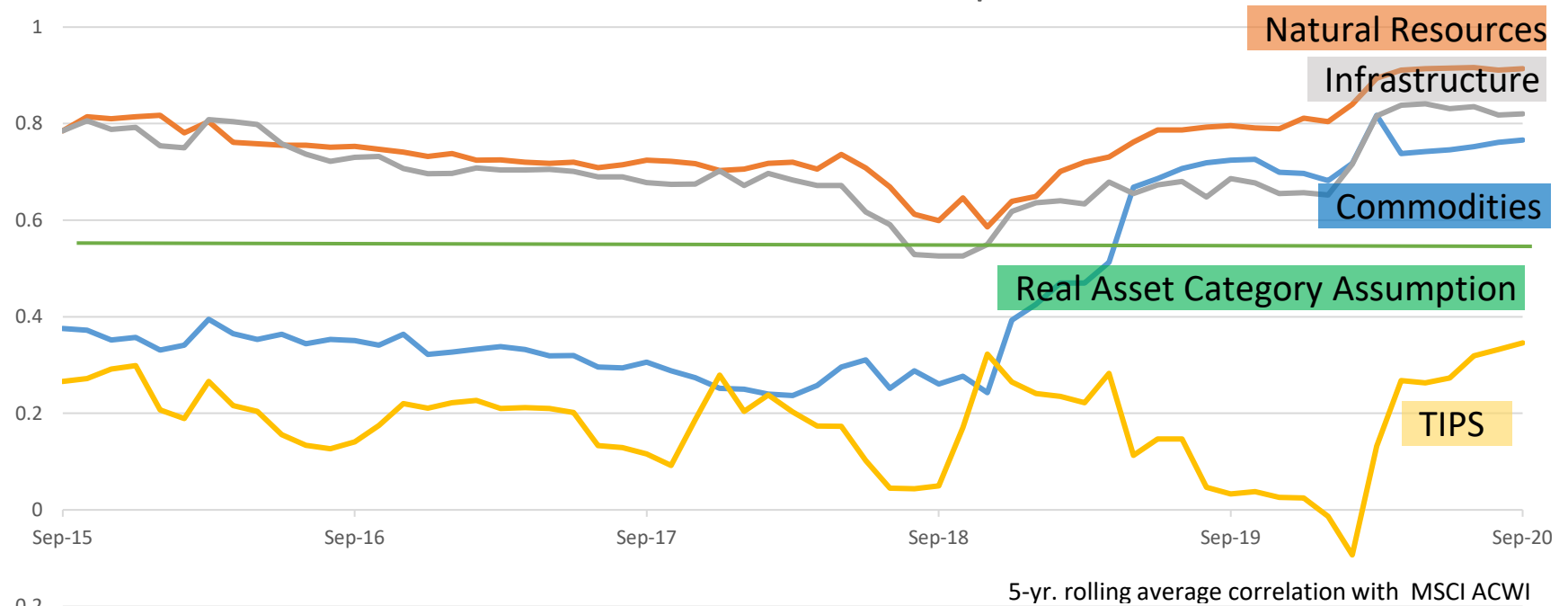
- During the COVID-19 downturn in February and March, TIPS held up well, although Infrastructure, Natural Resources and Commodities fell alongside LACERA's Global Equities and High Yield
- Natural Resources and Commodities recovered along with global equities
- Infrastructure recovered then flattened while equities continued to rally
- TIPS continued to perform well

Data from March 31, 2019 to September 30, 2020.



Diversification Role of Real Assets

Correlations with Global Equities

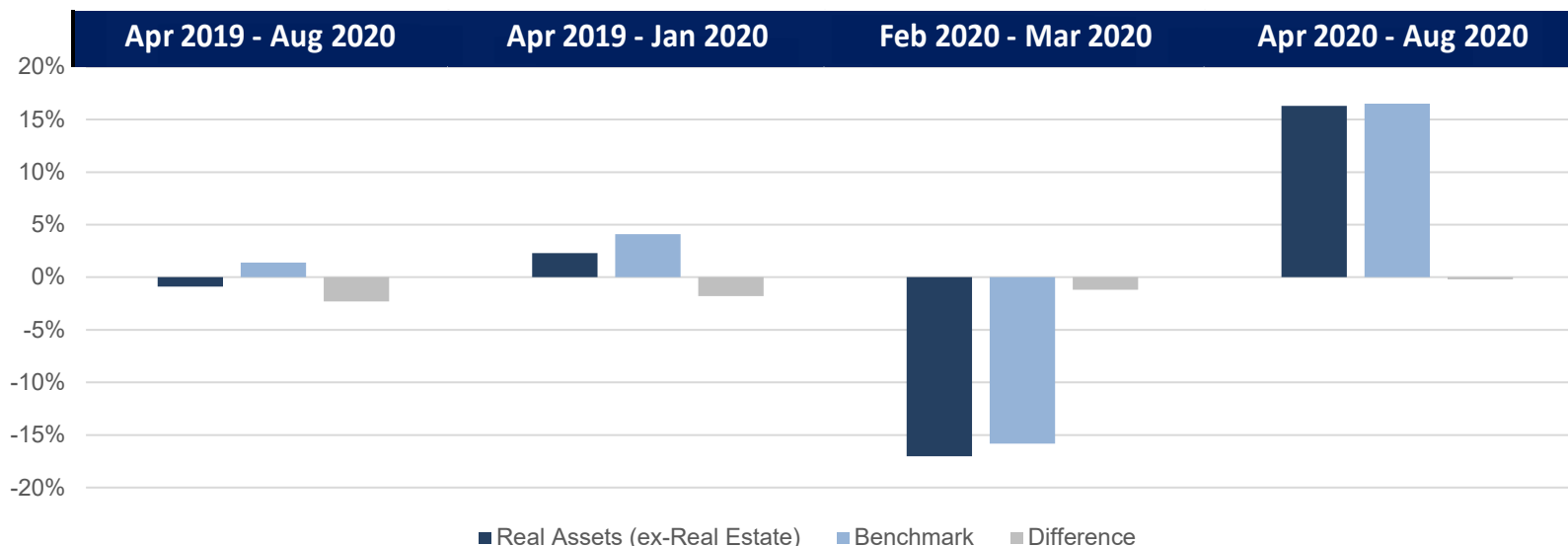


- Commodities have increased correlation with global equities in the recent period
- Natural Resources and Infrastructure correlations moved from moderate to high correlation in recent periods
- TIPS have low correlation to equities
- Most public market real asset categories currently have higher correlations than private market correlations assumed in Asset Allocation



Real Assets and Inflation Hedges (ex-RE)

Performance Relative to Policy Benchmark



Performance Commentary

- Performance relative to policy benchmark has been modestly negative since asset category creation largely due to 1.2% underweight to TIPS policy weight
- Manager portfolios are near or above benchmarks since inception
- More defensive completion portfolio (Infrastructure and Natural Resources equities) helped in downturn, lagged slightly in recovery
- Commodities lagged benchmark in downturn, recovered in period since then

Current data as of August 31, 2020 from State Street and lagged for private assets.



Real Assets: Infrastructure



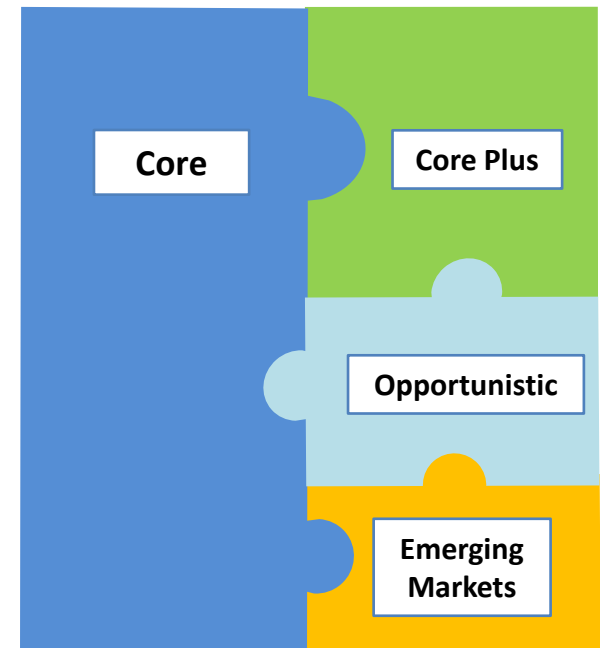
Infrastructure Role and Objectives

Role

- Diversification: more defensive than public equities
- Provide consistent income

Objectives

- Contracted and regulated assets to provide consistent returns less correlated to GDP growth
- Some potential allocation for higher-returning core plus, value added, opportunistic spectrum
- Explore co-investments and other structures for lower fees and more intentional allocation



Performance – Infrastructure

Relative Performance vs. Benchmark (net-of-fees)					
	1Q 2020	2Q 2020	YTD (08/2020)	Trailing 1-Y	Since Inception (06/2019)
DWS Infrastructure	-18.1	12.0	-5.2	-0.4	4.4
Benchmark	-20.8	11.9	-9.9	-5.0	0.2
Excess Return	2.7	0.1	4.7	4.6	4.2

Performance Commentary

- Active management has resulted in outperformance since inception, and during the COVID-19 selloff and recovery
- Defensive positioning leading into the downturn added to performance
- Move to Private Structure: first two private fund commitments made in 3Q 20

Infrastructure Private Equity Structure

Sub-Category	Proposed Allocation Range	Target Deal Returns ¹	Net Fund Returns ²	Asset Characteristics
Core	20 - 60%	7 - 9%	6½ - 7½%	Defensive, contracted assets, asset value based current yield
Core+ / Value-Add	10 - 50%	9 - 14%	8 - 10%	Balanced income/capital appreciation, regulatory protection
Opportunistic	0 - 40%	12 - 15%	9 - 12%	Business risk, targeting total return over income
Emerging Markets	0 - 20%	12 - 20%	12 - 16%	Higher political or economic environment risks

Industrial Sector	Examples
Energy/Utilities	Midstream, transmission & distribution systems, storage facilities, power generation
Transportation	Toll roads, bridges, tunnels, airports, seaports, rail & mass transit, parking facilities
Communications	Fiber networks, communication towers, satellite systems, data centers
Water & Waste	Water transportation, water rights, water treatment & distribution, waste treatment

- Infrastructure sub-categories differ based on risk premium and income generation
- Infrastructure investments will generally focus on equity within capital structure
- Initial geographic focus: developed markets & global funds

¹ Source Albourne. Target Deal Returns are based on manager underwriting of deals in each respective strategy, NOT realized results (i.e. not adjusted for potential losses).

² Source Albourne. Expected Net Fund Returns are Albourne's estimated loss-adjusted IRRs (net of fees) for funds in each respective strategy.



Evaluation

What has Worked:



Active Management

Active management has resulted in positive relative performance in the last year

Area for Refinement:



Market Recovery

Though correlations are higher than assumed, category correlations are expected to decline as private investment replaces public market portfolios

Opportunities in Private Infrastructure

- Secular Growth: digital infrastructure continues to perform well with strong demand growth from digital traffic
- GDP Linked Assets: select transport assets harmed by decrease in travel and trade; impaired valuation might lead to opportunistic entry timing

Real Assets:

Natural Resources/Commodities



Natural Resources/Commodities

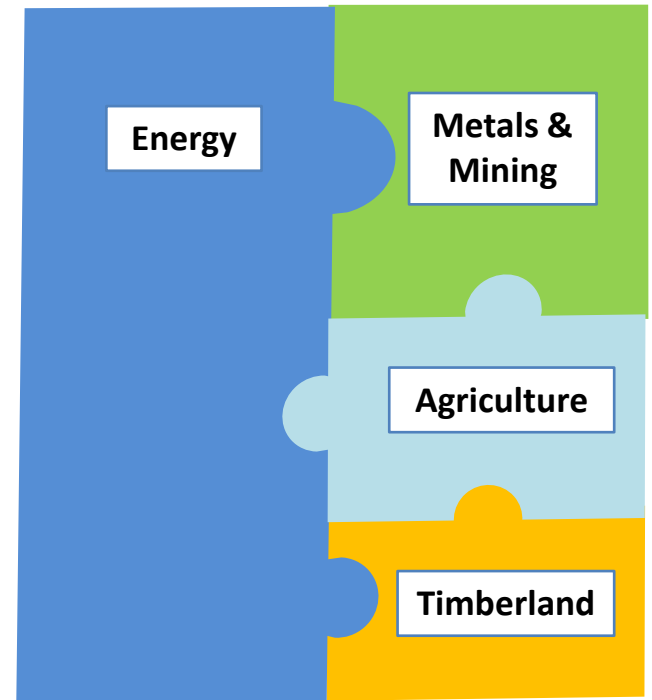
Role & Objectives

Role

- Provide inflation-hedged returns
- Diversify broad equity risk

Objectives

- Generate income or consistent capital appreciation
- Preserve capital during equity market downturns
- Provide returns that are less correlated with broad equity markets



Natural Resources/Commodities Performance

Performance vs. Benchmark (net-of-fees)					
	1Q 2020	2Q 2020	YTD (08/2020)	Trailing 1-Y	Since Inception (03/2019)
Natural Resources/ Commodities Composite	-27.9	9.4	-12.1	-5.7	-7.5
Benchmark	-27.8	13.3	-9.4	-2.0	-5.0
Excess Return	-0.1	-3.9	-2.7	-3.7	-2.5

Performance Commentary

- Performance declined with Global Equities as markets sold off in 1Q
- Natural Resources/Commodities rallied in 2Q during the COVID-19 recovery
- Natural Resources underperformed benchmark but underweight to Natural Resources relative to Infrastructure added to returns

Natural Resources Private Equity Structure

Sub-Category	Proposed Allocation Range	Target Deal Returns ¹	Expected Net Fund Returns ²
Energy	30 - 70%	10 - 20%	8 - 20%
Metals & Mining	0 - 40%	12 - 25%	8 - 20%
Agriculture	0 - 25%	7 - 20%	5 - 11%
Timberland	0 - 25%	7 - 15%	5 - 8%

- Natural Resources sub-categories differ based on linkage to inflation, yield, and economic sensitivity
- Natural Resources will generally focus on equity investments
- Risk spectrum based on potential asset value tied to current production; energy opportunities example:
 - Lower risk: developed and producing assets
 - Moderate risk: future production tied to development capital
 - Higher risk: exploration acreage requires successful discovery plus development
- Initial geographic focus: developed markets and global funds

¹ Source Albourne. Target Deal Returns are based on manager underwriting of deals in each respective strategy, NOT realized results (i.e. not adjusted for potential losses).

² Source Albourne. Expected Net Fund Returns are Albourne's estimated loss-adjusted IRRs (net of fees) for funds in each respective strategy.



Evaluation

What has Worked:



Inflation Hedging

Positive for energy prices, mining, and timber

Elements of Diversification

Precious metals outperformed

Area for Refinement:



Exposure

Highest beta segment of Real Assets; high correlation in up and down markets

Private Investing Outlook

- Continue to evaluate outlook on energy and uncertain lower-for-longer pricing environment on capital deployment
- Evaluate proven producing resources in an uncertain price environment
- Revisit Timber and Metals, where markets conditions are improving
- No private investments in Natural Resources have yet been made since the creation of the category

Real Assets: TIPS



TIPS Role and Objectives

Role

- Inflation protection: Actual CPI + real yield
- Diversification of equities: two sources - inflation and interest rate components

Objectives

- Generate returns based on actual inflation and increases in inflation expectations
- Low correlation to equities
- Hedge increases in unanticipated inflation



Performance – TIPS



April 30, 2019 Inception – August 31, 2020	
TIPS	10.6
Benchmark	10.9
Excess Return	-0.2

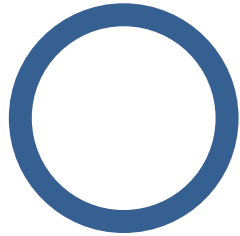
- TIPS had a sharp spike in real yields in March as liquidity experienced a brief market shock
- Performance has been strong in 2020 as real yields continue to decline and breakeven inflation rates have risen from a sharp drop during the COVID-19 selloff
- Fed “inflation average” policy shifting to allow for the potential for even longer periods of greater than 2% inflation rates



Real Assets: Next Steps

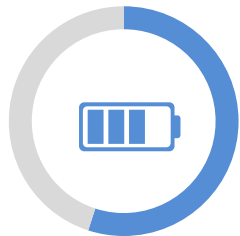


Initiatives – Strategic



Completed

- Commitments to closed-end fund structures have been approved and additional recommendations are being evaluated



In-Process

- Develop and enhance the Core and Value-Added Real Estate Structure
- Interim period before private investments replace public market portfolios; continue Real Assets (ex-Real Estate) transition to private assets
- In addition to fund commitments, actively sourcing and evaluating co-investment opportunities; exploring alternative Real Asset structures
- Extensive evaluation of open-end fund universe has not yet resulted in a Fund recommendation



Upcoming

- Review role with correlations to other asset categories in Total Fund

Real Assets

Conclusion

Prioritize Real Asset Objectives

Provide Equity
Diversification



Real Estate
Infrastructure
Commodities

Provide Stable
Yield



Real Estate
Infrastructure
Natural Resources

Protect Portfolio From
Unexpected Inflation Increases

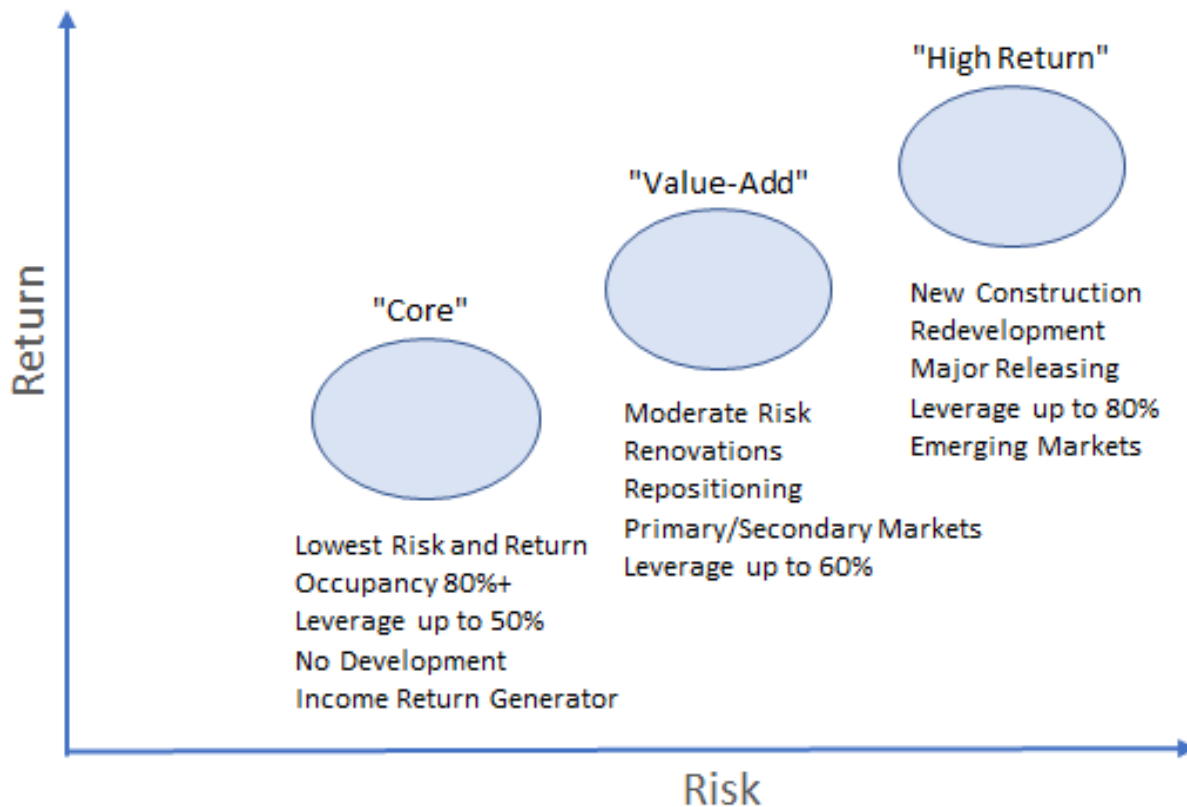


Real Estate
Infrastructure
Commodities
Natural Resources

Appendix

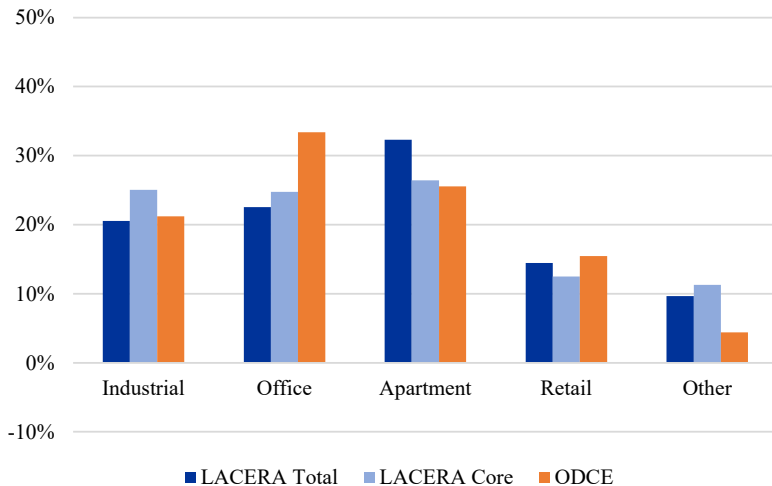


Core, Value-Add and High Return Real Estate



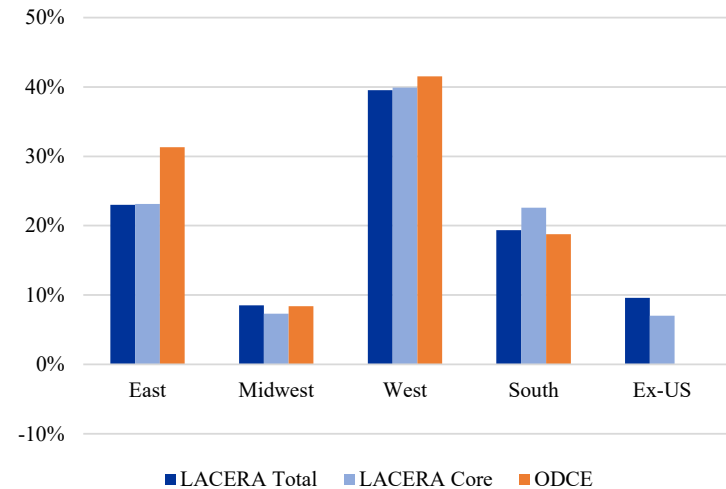
Diversification

By Property Type



- Increase overweight to industrial
- Maintain underweight to office
- Increase overweight to core apartments
- Maintain underweight to Retail
- Maintain overweight to Other

By Geography



- Maintain underweight to East
- Overweight to West and South
- Maintain other regions near ODCE average