MEKETA INVESTMENT GROUP

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November 18, 2019

Mr. Rob Feckner
Chairman of the Investment Committee
California Public Employees' Retirement System
400 Q Street
Sacramento, CA 95814

**RE: REAL ESTATE PORTFOLIO ANNUAL PROGRAM REVIEW 2019**

Dear Mr. Feckner:

In our role as the Board Real Estate Consultant, Meketa Investment Group ("Meketa") conducted an annual review of the Real Estate Portfolio ("the Portfolio"), which is part of the Real Assets Program, for the period ending June 30, 2019. Our review covered the Portfolio's investment performance, implementation, compliance with applicable investment policies, staffing, and representation of CalPERS' Investment Beliefs. Following a Summary Review, each area is addressed in more detail.

**Summary Review[1,2]**

- **Performance:** The Portfolio's 2019 five-year net total return of 7.6% trailed its Policy Benchmark, the PREA/IPD US Quarterly Property Fund of 9.2% by -1.5%.
- **Implementation:** The Net Asset Value ("NAV") was $34.8 billion, up $3.0 billion, or 9.4%, over the June 30, 2018 NAV of $31.8 billion. Current NAV is 9.4% of the Total Fund.
- **Policy Compliance:** The Portfolio is in compliance with the Key Parameters related to risk classification, geography, leverage, and external manager limits, as measured by NAV.
- **Staffing:** The Real Assets Unit had 47 filled positions out of 52 authorized as of June 30, 2019. Subsequent to the period end, two positions were transferred, making the current authorized total 50.
- **Investment Beliefs:** In our view, the Real Estate Portfolio, as implemented by Staff, supports many CalPERS' Investment Beliefs.

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1 All years refer to fiscal years ending June 30, unless otherwise noted. Financial data are as of March 31 for the fiscal years ending June 30, due to the quarter lag in private investment performance reporting from the managers, while staffing and Total Fund data are as of June 30.

2 The Policy Benchmark for the Real Estate Program as of July 1, 2018 is the PREA/IPD US Quarterly Property Fund. From July 1, 2011 through June 30, 2018, the Policy Benchmark was the NCREIF Fund Index Open-End Diversified Core Equity. Policy Benchmark results are shown on a blended basis during the relevant trailing periods.

Across these areas, the Portfolio's investment activity for the year was appropriate and consistent with applicable policies and Real Estate's strategic role.

**Investment Performance**[1]

Returns are moderating both for CalPERS and the broader market. CalPERS' Real Estate Portfolio returns trailed the benchmark over all periods. The Real Estate Portfolio continues its positive transformation towards a diversifying, income-oriented portion of the Real Asset Program and the Total System Portfolio, which provides positive cash flow to the System with which to pay benefits and a counterweight to public markets' debt and equity risks.

| June 2019 Net Returns (%) | 1 year | 3 year | 5 year | 10 year |
|---|---|---|---|---|
| Real Estate Portfolio | 3.4 | 5.9 | 7.6 | 4.0 |
| PREA/IPD US Quarterly Property Fund | 6.5 | 7.0 | 9.2 | 9.5 |
| Over (under) Performance | -3.1 | -1.1 | -1.5 | -5.5 |

***Performance Attribution***

Among the risk categories, Core continues to deliver the strongest returns, posting 4.3% for 2019, followed by Value Add at 0.6%, and Opportunistic at 0.5%. The Core Portfolio represents 85% of the Real Estate Portfolio, virtually all held directly in lower-cost separate accounts.

| June 2019 Net Returns (%) | NAV (billion) | 1 year | 3 year | 5 year | 10 year |
|---|---|---|---|---|---|
| Core | $28.5 | 4.3 | 6.8 | 10.6 | 7.5 |
| Value Add | $2.9 | 0.6 | 6.2 | 5.8 | 10.6 |
| Opportunistic | $3.4 | 0.5 | 2.1 | 2.0 | -0.4 |
| PREA/IPD US Quarterly Property Fund | | 6.5 | 7.0 | 9.2 | 9.5 |

The real estate portfolio has produced consistently strong income returns in excess of the benchmark income returns over the last five years. This current yield is consistent with Staff's expectations of income between 3% and 5% over the long term. For comparison, 10-year Treasuries yielded 2.7% over the trailing five-year period.

| June 2019 Net Income Returns (%) | 1 year | 3 year | 5 year | 10 year |
|---|---|---|---|---|
| Real Estate Portfolio | 3.7 | 3.6 | 3.8 | 3.0 |
| Core Real Estate Portfolio | 4.1 | 4.1 | 4.4 | 4.5 |
| PREA/IPD US Quarterly Property Fund | 3.3 | 3.4 | 3.6 | 4.2 |

[1] The Policy Benchmark for the Real Estate Program as of July 1, 2018 is the PREA/IPD US Quarterly Property Fund. From July 1, 2011 through June 30, 2018, the Policy Benchmark was the NCREIF Fund Index Open-End Diversified Core Equity. Policy Benchmark results are shown on a blended basis during the relevant trailing periods.

**Implementation**

The CalPERS Real Estate Strategic Plan adopted in 2011 and reaffirmed in 2016 emphasizes direct, separate account ownership of performing real estate with strategic, aligned managers, and CalPERS control. Virtually all of CalPERS' core properties (representing 85% of the Real Estate portfolio's value) are held directly in lower cost separate accounts (as opposed to open-end commingled pools). These long-term strategic partnerships anchor the Portfolio and are populated with assets of the highest quality, with strong, well-diversified tenant bases that generate stable, durable income streams. It is important to note that just four years ago, the Core portion represented 55% of the Real Estate portfolio, and that efforts continue to transition the Portfolio away from legacy, non-strategic risks towards higher quality stabilized assets that serve the role of the asset class.

***Current NAV and Historical Portfolio Growth***

The Portfolio's NAV as of June 30, 2019, was $34.8 billion, an increase of $3 billion, or 9.4%, compared to the June 30, 2018 NAV of $31.8 billion. The current NAV represents 9.4% of the Total Fund,[1] and 85.0% of the Real Assets Program. We note that the Real Assets NAV is currently 11.0% of the Total Fund.

***FY 2019 Investment Activity***

The increase in NAV from 2018 to 2019 of $3.0 billion is mostly attributed to a combination of new contributions to existing investment vehicles, income from existing investments, and unrealized appreciation. CalPERS' managers made 37 new acquisitions during the period totaling $3.4 billion. All real estate acquisitions were made in the U.S., and 36 of the 37 have a Core risk profile. Approximately one-third of the capital deployed was invested in multifamily assets and another one-third was invested in office properties. The remaining capital was nearly evenly divided between industrial and retail assets. All appear consistent with the managers' mandates and Portfolio objectives.

***Managers and Investment Structures***

The Portfolio's investments are managed by 17 General Partners, comprising 29 separate accounts and seven commingled funds. Over the last ten years, the number of relationships with external managers has declined by 75%, reflecting the deliberate shift away from commingled funds to the separate account model, which affords CalPERS scale, fee efficiency, governance, and a closeness to the assets that enhances portfolio and risk management.

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[1] The Total Fund market value was $370.3 billion as of June 30, 2019, per Staff's Real Assets APR.

**Investment Policy**

The following CalPERS policies and guidelines currently govern the Real Assets Program, and the Real Estate Portfolio therein (inclusive of prior versions of these policies in effect during this reporting period):

- Total Fund Investment Policy (the "Fund Policy"), September 16, 2019;
- Investment Policy for Real Assets Program (the "Real Assets Policy"), December 17, 2018; and
- Investment Procedures & Guidelines[1] for the Real Assets Program ("IPG"), June 27, 2019.

The Real Estate Portfolio complies with all policy guidelines.

**Strategic Objectives**

The Real Estate Portfolio is delivering on the prescribed role for the asset class, providing:

- ***Stable and predictable cash yield*** – Net incomes for trailing one-, three-, and five-year periods ending in June were 3.7%, 3.6%, and 3.8%, respectively. The significant exposure to Core (currently 85%) should support continuing yield in the target range.
- ***Diversification of equity risk*** – The forecasted five-year volatility for Real Assets is 3.4%, compared to the equity benchmark, FTSE Global All Cap Custom Net, value of 11.2%, according to Staff. The correlation between the two is reported as -0.14. These metrics indicate positive diversification benefits from Real Assets, including real estate.
- ***Inflation protection*** – The Portfolio seeks to invest in high quality, stabilized core properties with laddered lease structures, which helps the Portfolio comply with this investment objective.

[1] These previously were titled Investment Policy Procedures & Guidelines ("IPPG").

### *Diversification Along Key Parameters*

The Portfolio is compliant with all key parameters related to diversification and other limits, as demonstrated in the table below, with summary following.

| Key Portfolio Parameter | Policy Range/Limit | NAV 3/31/19 Exposure |
|---|---|---|
| ***Risk Classification*** | ***(%)*** | ***(%)*** |
| Core | 75-100 | 86.0 |
| Value Add | 0-25 | 7.9 |
| Opportunistic-All Strategies | 0-25 | 6.1 |
| Opportunistic-Development | 0-10 | 4.9 |
| ***Geographic Region***[1] | ***(%)*** | ***(%)*** |
| United States | 75-100 | 91.9 |
| International Developed | 0-25 | 3.0 |
| International Developing | 0-15 | 5.1 |
| International Frontier | 0-5 | 0.0 |
| ***Real Asset Segments***[2] | ***(%)*** | ***(%)*** |
| Commercial | 0-60 | 39.7 |
| Consumer | 0-40 | 24.6 |
| Essential | 0-25 | 0.0 |
| Residential | 0-40 | 23.6 |
| Specialized | 0-20 | 3.9 |
| International | 0-25 | 8.1 |
| ***Manager Exposure***[3] | ***(%)*** | ***(%)*** |
| Largest Partner Relationship | 20 max | 14.9 |
| No External Manager | 20 max | 0.0 |
| ***Leverage*** | | |
| Loan to Value | 50% max | 31.4% |
| Debt Service Coverage Ratio | 1.5x min | 2.97x |
| ***Public Securities***[4] | ***(%)*** | ***(%)*** |
| Directly Invested[5] | 10 | 0.0 |

[1] Geographic NAV policy ranges effective as of December 17, 2018.
[2] For informational purposes only: these parameters are measured at the Real Assets Program level.
[3] Calculated as NAV plus total unfunded commitments relative to a Real Assets Program base of $48.8 billion.
[4] Measured at the Real Assets Program level.
[5] Staff reports no direct investments in public securities via separately managed accounts; it is possible that one or more of the commingled fund managers could have de minimus positions in public securities.

In summary, we find the following with respect to diversification parameters:

- ***Risk***—Risk has been actively managed down over the last ten years and the predominance of core risk exposure in the real estate portfolio supports its role in the broader Total Fund;
- ***Geography***—Exposures in the U.S. are deliberately at the higher end of the policy range, with other international exposures largely attributable to legacy investments;
- ***Manager***—Exposures are within the maximums allowed, although the real estate portfolio is approaching its maximum number of external manager relationships ;
- ***Leverage***—Metrics are well within the maximums allowed and reflect the defensive structuring of the core investments; and
- ***Public Securities***—The Portfolio has no direct exposures.

**Sustainability**

There has been substantial collaboration between the Real Assets ("RA") portfolio and Sustainable Investments ("SI") over the course of the last year. Together, RA and SI finalized the energy optimization guidelines which outline Real Asset's systematic approach to energy optimization for real estate. Additionally, there was further progress on Environmental, Social, and Governance ("ESG") integration efforts in portfolio construction and management. FY19-20 marked the fourth year where external managers submitted energy optimization projects as a part of the Annual Investment Planning process with 18 proposed capital expenditure projects across nine partnerships at an expected total cost of $7.0 million with an expected annual savings of 3.3 kWh per year or $663,000 and a combined net present value of $1.5 million.

The energy optimization initiative has also motivated managers to propose innovative pilot projects, including exploring onsite renewable energy opportunities, electric vehicle charging stations, utility automation, installation of more efficient lighting, equipment retrofits, and others. RA and SI are working together to evaluate these opportunities for systematic implementation across the portfolio.

**Staffing and Resources[1]**

The Real Assets Program had 52 authorized positions as of June 30, 2019, of which 47 were filled, with authorized positions unchanged from FY 2018 end. During the year, three RAU team members left CalPERS, departing or retiring from State service entirely. Recruitments during the year included three promotions from within RAU, and one appointment from another Investment Office division. Subsequent to the end of the period, one vacant and one filled position were

1 Staffing and resource metrics are as of June 30 of the respective fiscal year.

transferred to CalPERS' Sustainable Investments Program and the Research and Strategy Group.

With respect to staffing levels, the Managing Investment Director reports to us that the total number of staff for the RAU is sufficient for the time being. As Meketa has previously noted, the RAU deploys staff using a combination of Portfolio-specific specialization and Program-level generalization, which provides expertise and workload balancing flexibility across Real Asset portfolios. We are comfortable with staffing levels at this time, but will continue to evaluate resources for the Portfolio.

With respect to Meketa providing resources during 2019, we supported the Real Estate Portfolio in the following ways:

- Real Asset Investment Committee ("RAIC")—Attended 30 RAIC's by phone, including review of materials related to pipeline, screening, due diligence, performance reporting, segment plans, manager annual investment plants, policy and guidance, and commenting as applicable.
- Weekly Call with Leadership—Received updates on the Portfolio and RAU activities, including prospective new investments, existing investments, potential exits, staffing, policy and guidance, and Total Fund matters.
- Policy Review and Comment—Reviewed, provided informal comments, and formal opinions on several proposed policy revisions affecting or otherwise relevant to the Real Estate Portfolio.
- Periodic Reports and Board Investment Committee—Prepared Annual and Semi-Annual Reports for FY 2018, and H2 2018 and H1 2019, respectively, and attended all Committee meetings.
- Investment Opinion Letters—None requested.

**Investment Beliefs**

In our view, the Real Estate Portfolio, as implemented by Staff, is well aligned with CalPERS' Investment Beliefs. We highlight below several Beliefs (#) that are particularly important to the real estate asset class.

- ***Liabilities must influence the asset structure (#1):*** As an asset class, real estate consists of long-lived assets that have stable, inflation-protected revenue, and 85.0% of the Portfolio's NAV falls into this category. These attributes make real estate assets well aligned with CalPERS' time horizon and liability structure.
- ***A long time horizon is a responsibility and an advantage (#2):*** The Portfolio's investment approach consists of a buy and hold strategy, mainly targeting Core assets that are long-lived. Shorter-term investors without the liquidity to invest long-term in private real estate cannot access these assets.

- ***CalPERS will take risk only with a strong belief we will be rewarded (#7):*** The large majority of the real estate portfolio resides in lower-risk core properties. Incremental risk is only undertaken in situations where there is strong evidence that CalPERS will achieve commensurate returns, and then, only with trusted manager partners in well-aligned investment vehicles.
- ***Costs matter and need to be effectively managed (#8):*** The Portfolio has been successful in negotiating favorable terms with managers, focusing on providing reasonable operations support and strong economic alignment. Asset management fee rates have declined as more assets are housed in fewer but larger separate accounts. However, profit sharing fees may increase where managers exceed performance hurdles. Additionally, as the Portfolio's NAV grows, total fees would be expected to increase, even as fee rates may decline.
- ***Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error (#9):*** As a private market asset class, real estate risk analysis incorporates many risk factors beyond price volatility, including financial and operating leverage, lifecycle risk, counterparty risk, interest rate risk, regulatory risk, and environmental risks. The additional governance secured under separate accounts over commingled funds helps mitigate these risks. Furthermore, the real estate portfolio's integration of ESG metrics and initiatives reflects a multi-faceted and longer term risk assessment framework.

*Future Portfolio Evolution*

The future evolution of the portfolio will be influenced by the attributes and influences identified below.

Strengths:

- Strong purpose and board direction.
- Long-term strategy integrated within Total Fund strategy.
- Effective, diverse organization and engaged leadership.
- Scale, which is translating to lower fees and costs.
- Notable and meaningful integration of ESG into decision making and portfolio management.

Weaknesses:

- Scale.
- Innovation.
- Costs of maintaining and improving assets are increasing.
- Limited control over constraints that impact ability to deploy capital.
- Required rates of return.

Opportunities:

- Placing capital with partners who can add value at the operational level.
- Creating core at better pricing than acquisition.
- Controlling leverage at the portfolio level, instead of partnership level, for better execution, longer fixed rate duration and more aligned borrowings.
- Influences changing the way people interact with the built environment.
- Increased use of data analytics in portfolio management.
- ESG initiatives.
- Current position at lower end of target allocation.

Threats:

- Organizational change.
- Technology changes, space use disruption/innovation, and obsolescence.
- Retention of professionals.
- Downturn in market growth rates and demand.
- Proliferation of new non-bank lenders, less regulation.
- Higher leverage and more speculative supply—historic harbingers of real estate downturn.

**Conclusion**

Real Estate is playing its intended role within the overall portfolio by providing diversification, current income with which to pay benefits, and protection against inflation. CalPERS continues to be an industry leader in creating and embracing Responsible Contractor Policies and ESG best practices at its properties.

Please do not hesitate to contact us if you have questions or require additional information.

Sincerely,

| | |
|---|---|
| Christy Fields<br>Managing Principal | David Glickman<br>Executive Vice President |

CLF/DMG/jls