

MEMORANDUM

Date: August 19, 2019

To: Members of the Investment Committee

California Public Employees' Retirement System ("CalPERS")

From: Meketa Investment Group ("Meketa")

Re: Semi-Annual Real Estate Performance Review

as of June 30, 2019

In our role as the Board Real Estate Consultant, Meketa conducted a semi-annual performance review of the Real Estate Portfolio ("the Portfolio") based on data provided in Wilshire's CalPERS Real Assets Performance Analysis Review for the period ended June 30, 2019, and selected CalPERS reports. This memorandum provides the Portfolio performance data and information on key policy parameters, along with summary market commentary.

Portfolio Performance¹

The Portfolio's deep diversification is serving the System as different sectors experience varying demand and supply dynamics. Across real estate markets, no property type or geographic region outperforms over the long-term, so diversification is critical.

Returns are moderating both for CalPERS and the broader market. CalPERS' Real Estate Portfolio returns trailed the benchmark over all periods except the most recent quarter. The Real Estate Portfolio continues its positive transformation towards a diversifying, incomeoriented portion of the Real Assets Program and 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.

Real Estate Performance	Quarter	1 Year	3 Year	5 Year	10 Year
Real Estate Returns	2.5%	3.4%	5.9%	7.6%	4.0%
Real Estate Policy Benchmark ²	<u>1.2%</u>	<u>6.5%</u>	<u>7.0%</u>	9.2%	<u>9.5%</u>
Difference	1.3%	-3.1%	-1.1%	-1.6%	-5.5%

Among core holdings, retail property investments (regional malls and grocery anchored centers), to which CalPERS has a material overweight compared to the benchmark, showed a marked slowdown. Similar retail holdings by open-end funds that comprise the benchmark have generally been slower to show value impairment, and the diminishment in benchmark fund retail values have generally been smaller than those reflected in CalPERS' portfolio. This is despite the fact that CalPERS' retail portfolio includes assets of equal if not higher quality.

¹ Per Wilshire's CalPERS Real Assets Performance Analysis Review for the period ended June 30, 2019, results are reported with a one-quarter lag, so effectively as of March 31, 2019.

² PREA/IPD US Quarterly Property Fund

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Returns from office and single family development properties also softened. Legacy investments, particularly higher risk international assets, continue to be a drag on performance in all measurement periods. Notably, Staff has decreased, primarily through dispositions, the proportion of the Portfolio that consists of poorer performing legacy assets from more than 50% five years ago to less than 15% today, and Staff remains laser focused on managing these legacy assets down to zero in the near term. Strong performance from industrial, multifamily and data center investments, as well as the Emerging Manager program, offset the weaker performing sectors to some degree.

As of this reporting period, the core portfolio, representing 86.0% of the Real Estate Portfolio, produced strong longer term returns of 10.6% for the five-year return against PREA/IPD benchmark returns 9.2%. Virtually all core properties are held directly in lower cost separate accounts (as opposed to investing in 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.

Implementation

The Real Estate Portfolio had a market value of \$34.8 billion at the end of the current reporting period, representing 85.1% of the Real Assets program and 9.4% of the total portfolio. Including Forestland and Infrastructure, the Real Assets program currently comprises 11.0% of the total portfolio against a long term target allocation of 13%, within the policy range of 8% to 18%.

The CalPERS business model for real estate uses direct investing to improve control, governance and transparency and take advantage of the System's size and scale to acquire larger, attractive assets and hold them for longer periods of time. Separate accounts with expert, aligned fiduciary managers/partners, overseen by Staff with the benefit of independent consultants' prudent person opinions and monitored on behalf of the Trustees by the Board Consultant, provide a replicable, scalable model. As the System grows and markets evolve, this method of investing is practical and helps control risk and reduce costs.

CalPERS continues to be an industry leader in creating and embracing Responsible Contractor Policies and ESG best practices at its properties. Additionally, during the last five years, progress has been made on harmonizing several of the private asset classes under the Real Assets Unit. This has improved continuity of decision making, risk mitigation and reporting, as well as providing increased knowledge across INVO. This is consistent with a System wide approach rather than a collection of independent asset "silos."

Leverage

At the end of this reporting period, the Real Estate Portfolio had a loan to value ratio of 31.4% and a debt service coverage ratio of 3.0, both well within policy guidelines of <50% and >1.5, respectively. This is a reasonable amount of debt for a long-term, income-oriented portfolio that balances the competitive market for real estate investing, attractive interest rates, and

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moderate incremental risk. Staff continues to appropriately manage the structure, term, rate and covenants of the debt to reduce costs and risks.

Market Commentary

Competition for acquisitions continues to be fierce as institutions increasingly seek larger private commercial real estate allocations. A rising public equity market has made more capital available merely from the "Denominator Effect" and a desire to keep fully invested at target percentage levels. This increased supply of capital has caused prices to remain full for the types of assets which CalPERS seeks as consistent with its long term hold strategy.

New entrants have surfaced among buyers: In addition to "all the usual suspects" many non-core real estate managers have become core and core plus in order to expand their AUM totals and capture additional fee streams. Blackstone, Brookfield, Divco, Walton Street and several others have begun to offer vehicles for the first time which directly compete with CalPERS' separate account managers.

Interest rates are still at very attractive levels for spread investing, and given the lack of alternatives for current return, serve to maintain strong interest in leveraged property purchases.

Loosening of regulated lenders' requirements and the rise of non-regulated lenders are likely to test the limits of disciplined new construction and speculative building — two elements that have often signaled shorter term downturns in real estate values.

The economic recovery teeth are historically long, and while demand for space continues to be healthy in all property sectors (save retail), this may abate following trade wars, changes in regulatory policies and disruption in traditional space needs (co-living and/or working, aging of America, on-line retailing, data centers, last mile warehouse and distribution patterns, for example).

Conclusion

The market environment continues to be challenging for core buyers. Nonetheless, CalPERS' continued discipline, long-term investment horizon in this illiquid asset class, and focus on the role of the asset class should continue to serve the needs of the System.

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

Sincerely,

Christy Fields

Amity Fields

Managing Principal

David Glickman

Toria Chelun

Executive Vice President