MEKETA INVESTMENT GROUP

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November 13, 2017

Mr. Henry Jones
Chairman of the Investment Committee
California Public Employees' Retirement System
400 P Street, Suite 3492
Sacramento, CA 95814

RE: PRIVATE EQUITY PROGRAM ANNUAL REVIEW 2017

Dear Mr. Jones:

In our role as the Board Private Equity Consultant, Meketa Investment Group conducted an annual review of the Private Equity Program ("the Program") for the period ending June 30, 2017. Our review covered the Program's investment performance, implementation, compliance with the Investment Policy for the Program, staffing, and overall compliance with CalPERS' Investment Beliefs. Each area is addressed in this letter, first in summary, followed by additional detail.

Summary Review

Meketa Investment Group was selected to replace the incumbent Board Private Equity Consultant following their resignation, and our contract became effective March 16, 2017. Consequently, this review is based primarily on: (1) the Private Equity Annual Program Review (2017) prepared by Staff, including supplemental reports and materials; (2) meetings and calls with Staff members; and (3) review of relevant policies and strategic plans.

Based on our review, Meketa Investment Group identified the following as key developments and observations during the reporting period. All years refer to fiscal years ending June 30, unless otherwise noted.[1]

- **Performance:** The Program's 2017 one-year net total return of 13.9% did not meet its Policy Benchmark (67% FTSE US Total Market and 33% FTSE All World (ex-US) + 300 basis points) of 20.3% for the period. The three-year, five-year, and ten-year net returns also did not meet the Policy Benchmark. We note, however, that the Program's performance exceeded the CalPERS Global Equity Policy Benchmark (FTSE All World All Capitalization) in the three-, five-, ten-, and twenty-year time periods, but did not for the one-year period.[2] As such, the Program has delivered a premium above public equity alternative over the longer time period.

[1] 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 data are as of June 30. Investment performance is shown on a time weighted basis.

[2] All returns are reported as Total Return net of fees, except if noted.

Additionally, the Program returns have consistently exceeded the CalPERS Total Plan target return.

- **Implementation:** The Program's fiscal year end 2017 Net Asset Value ("NAV") was $25.9 billion, a decrease of $0.5 billion, or approximately 2%, over the last reporting period. The current NAV represents 8.0% of the Total Fund, compared to the 8.0% Interim Target.[3] The Private Equity Staff made $3.3 billion of commitments during the past fiscal year, slightly below the $4.0 billion target. As discussed below, CalPERS faces several challenges, both internally and externally, in implementing the investment strategy.
- **Policy Compliance:** As of the end of the reporting period, the Program was in compliance with the key parameters of CalPERS Investment Policy for Private Equity Program (the "Policy"), including those related to strategy and manager concentration, as measured by NAV.
- **Staffing:** The Managing Investment Director for Private Equity departed in April and CalPERS has appointed an Interim Managing Interim Director. Overall, the Private Equity Unit staffing has declined from 50 to 41 in the past fiscal year with a further net reduction to 35 positions as of September 1, 2017. In addition to the Managing Investment Director position, there are two current vacancies.
- **Investment Beliefs:** In our view, the Private Equity Program, as implemented by Staff, is aligned with CalPERS' Investment Beliefs, however the current investment commitment pace is unlikely to meet targeted longer term exposure to the private equity asset class.

Historically, the Program has delivered strong returns for CalPERS and is expected to remain an important asset class going forward. The Program currently faces certain challenges, both internal and external, that may impact the ability of the Program to meet its strategic role.

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[3] The Program targets will need to be modified should the Program be merged into Global Equity as has been proposed by Staff.

Investment Performance

	NAV ($ mm)	1 Year	3 Year	5 Year	10 Year
Buyouts	15,349	14.8	9.2	12.2	10.1
Credit	3,034	10.5	1.1	8.1	10.2
Growth/Expansion	4,367	22.6	10.8	12.8	8.6
Opportunistic	2,067	11.7	16.6	13.4	6.7
Venture	982	-8.9	-1.6	4.7	3.1
Other	93				
CalPERS PE Program	**25,892**	**13.9**	**8.1**	**11.5**	**9.3**
Policy Benchmark[4]		*20.3*	*9.9*	*13.7*	*13.0*
Excess vs. Policy Benchmark (%)		-6.4	-1.8	-2.2	-3.7
CalPERS GE Policy Benchmark (%)		*16.2*	*5.5*	*9.2*	*4.9*
Excess vs. GE Benchmark (%)		-2.3	2.6	2.3	4.4

The Program's 2017 one-year net total return of 13.9% did not meet its Policy Benchmark (67% FTSE US Total Market and 33% FTSE All World (ex-US) + 300 basis points) of 20.3% for the one-year period. In addition, the Program's three-year, five-year, and ten-year net returns did not meet the Policy Benchmark.

Generally, the Buyout and Growth/Expansion strategies, which also have the largest allocation, have contributed to outperformance, while Venture and certain segments of Credit have underperformed. Also, commitments made prior and during the financial crisis (i.e., vintages from 2006 – 2009) have tended to underperform in aggregate.

Staff has proposed that the benchmark for the Program be changed to the Base Index for Global Equity (FTSE All World All Capitalization) plus 150 basis points. The Program's performance exceeded the CalPERS Global Equity Policy Benchmark in the three-, five-, and ten-year time periods, but did not for the one-year. As such, the Program has delivered a premium above public equity alternative over the longer time periods. Additionally, we note that the Program's performance has been strong and has consistently outperformed the CalPERS Total Plan target.

Private equity is a challenging asset class to benchmark. While comparing performance against a public equity index is appropriate for longer term assessment of private equity performance, comparison over shorter intervals is less meaningful. Additionally, characteristics such as industry, geography, leverage, and capitalization will be different between a public equity index and the Program.

[4] The current Policy Benchmark is a blended benchmark comprised of two-thirds weighting to the FTSE US TMI return and one-third to the FTSE AW ex-US Index return + 300 basis points, lagged by one quarter.

Implementation

The Program's NAV at 2017 end was $25.9 billion, or approximately 2% decrease over the last reporting period's NAV of $26.4 billion. This exposure represents 8.0% of the Total Fund, compared to the 8.0% Interim Target.[5] Additionally, unfunded commitments were $14.3 billion bringing total exposure to $40.2 billion at the end of the fiscal year.

During the fiscal year, the Program experienced a strong net cash inflow of $3.8 billion ($7.6 billion distributions and $3.8 billion contributions) in addition to $3.3 billion value increase. This is the seventh year in a row that distributions have exceeded contributions. The strong net cash inflows present a challenge in meeting the Interim Target of 8%.

Staff committed $3.3 billion to 9 funds during the fiscal year, slightly below the $4 billion commitment budget. In most cases, Staff was able to obtain the commitment allocation sought from the manager, however certain managers did not provide CalPERS' requested allocation. This phenomenon is likely to continue, particularly for managers in high demand. Also, as noted by Staff presentations, annual commitments of $4 billion is not projected to be adequate to maintain the 8% Interim Target allocation over the long term.

Overall, staff received 110 proposals during the fiscal year, of which 17 were referred to other parts of CalPERS as well as the Emerging Manager advisor. All 9 commitments were made to managers in the Core 30 list. By comparison, during the 2015-2016 fiscal year CalPERS received 115 proposals and committed approximately $4 billion to 14 funds (all of which were to managers in the Core 30 list), while during the 2014-2015 fiscal year CalPERS received 164 proposals and committed $5.1 billion to 20 investments (all of which were to managers in the Core 30 list). Overall, we note a trend of fewer proposals and fewer commitments in recent years, which seems unexpected given the strong fund raising environment. We have not researched the reasons for this decline.

The decision to concentrate investment commitments into a limited number of managers (the Core 30) was intended to reduce complexity and costs of managing the portfolio, help improve investment terms due to CalPERS being a larger investor, and allow CalPERS to take advantage of the broad range of investment opportunities (e.g., co-investments and customized accounts) that may be available from certain managers. Based on interactions with Staff, we make the following observations:

- **Monitoring intensity has not diminished.** Staff reports that portfolio complexity and monitoring intensity, as measured by the number of capital transactions and amendment requests, has not diminished in recent years.

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[5] Ibid, 3.

- **Lack of meaningful fee discounts.** While the delivery of fund and portfolio company information has increased over recent years, Staff reports that CalPERS has not received meaningful fee reductions that were not available to similarly situated limited partners.
- **Not capitalizing on partnership opportunities.** Co-investment opportunities are currently not being pursued and recent discussions about separate accounts have not led to commitments. As such, CalPERS is not fully realizing the opportunities available to partner with the Core 30 managers.
- **Inability to deploy larger commitment amounts.** CalPERS commitment pacing is largely dictated by the Core managers' decisions to raise new funds. While the current fundraising environment is largely conducive to new fund formation, this will likely change in future years. Additionally, CalPERS is not always able to obtain the desired commitment amount to certain managers.
- **Manager and strategy concentration.** The Core 30 managers are concentrated in mega and large buyout strategy as they are most likely to be able to receive the relatively large commitments from CalPERS. Other strategies such as mid and small buyouts, and growth could provide stronger returns as well as strategy and manager diversification.

Policy Compliance

As of the end of the reporting period, the Program was in compliance with the key Policy parameters, including those related to strategy and manager concentration, as measured by NAV.

Strategy	NAV[6] ($ mm)	Percent of Total NAV (%)	CalPERS Target[7] (%)	Target Range[8] (%)
Buyout	15,349	59.3	60	50-70
Credit	3,034	11.7	15	10-25
Growth/Expansion	4,367	16.9	15	5-20
Opportunistic	2,067	8.0	10	0-15
Venture	982	3.8	1	0-7
Other[9]	93	0.4	NA	NA
Total Program	**25,892**	**8.0**[10]	**8**[11]	

[6] Source: State Street.
[7] As of 10/1/2016.
[8] As of 11/14/2011.
[9] Includes currency and stock holdings.
[10] PE program NAV as a percent of total CalPERS portfolio as of 6/30/2017.
[11] CalPERS Interim Target is 8% and Policy Target is 12%.

Since becoming the Board Private Equity Consultant, Meketa Investment Group has reviewed four commitments during the 2016-2017 fiscal year and each commitment complied with CalPERS investment policy and limitations. Staff reports that all previous commitments during the fiscal year also were in compliance.

The Policy was last modified in December, 2016. Should the Board decide to adopt Staff's recommendation to consolidate the Private Equity Program into the Global Equity, the Policy will need to be modified.

Staffing and Resources

As of September 1, 2017 the Private Equity Program had a total of 35 positions (down from 41 as of June 30, 2017 and 50 positions at June 30, 2016) and 3 vacancies. Key departure during the fiscal year was that of Real Desrochers in April 2017 as Managing Investment Director. Overall, the Private Equity Program Staff has been reduced over time from a combination of departures and net transfers to other areas of CalPERS.

The Private Equity Staff is organized into Investment Underwriting ("UW"), Investment Management Group ("IMG"), and Risk Research Analytics & Performance ("RRAP"). This structure separates the investment underwriting from investment monitoring. This structure has advantages in terms of separating the underwriting decision from the monitoring. However, we note that there are certain consequences related to this structure.

- **Continuity of CalPERS relationship.** The UW team is largely only involved with the General Partner during the time a fund commitment is being considered, while the IMG team participates on advisory board and other interactions with the General Partner throughout the relationship period. This can lead to confusion by the General Partner about whom to contact about a particular matter or opportunity.
- **Information sharing.** The IMG team will obtain valuable information about the General Partner during their monitoring of the manager. While efforts are made to document interactions and intelligence, certain critical information can be difficult to communicate in writing.

Investment Beliefs

In our view, the Private Equity Program, as implemented by Staff, is aligned with CalPERS' Investment Beliefs, however the current investment commitment pace is unlikely to meet targeted longer term exposure to the private equity asset class. We highlight several Beliefs that are particularly important to the private equity asset class.

- **Liabilities must influence the asset structure (Belief #1):** Private Equity managers tend to hold investments for multi-year periods in order to generate their returns.
- **A long time horizon is a responsibility and an advantage (#2):** Private Equity is a long term asset class and matches well with CalPERS' long term liabilities and time horizon.
- **Strategic asset class allocation is the dominant determinant of portfolio risk and return (#6):** CalPERS Private Equity exposure is currently at the Interim Target. However, future investment pacing at recent historical levels is unlikely to maintain this target.
- **CalPERS will take risk only where we have a strong belief we will be rewarded (#7):** CalPERS' Private Equity Program has produced strong long-term returns and benefits from consistent investment pacing.
- **Costs matter and need to be effectively managed (#8):** Private equity is an expensive asset class. Staff has sought to negotiate reduced fees but with mixed success. Highly sought after managers currently have strong negotiating leverage.
- **Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error (#9):** The private equity asset class has additional risks including illiquidity, transparency, leverage, and currency.
- **Strong processes and teamwork and deep resources are needed to achieve CalPERS' goals and objectives (#10):** CalPERS' private equity team, while large and experienced, has shrunk significantly in recent years. A permanent appointment for the Managing Investment Director remains outstanding. The current structure and division of responsibilities has advantages, as well as issues that Staff seeks to manage.

Conclusion

Historically, the Program has delivered strong returns for CalPERS and is expected to remain an important asset class going forward. The Program has many advantages including large size and an experienced Staff. However, current investment pace is likely to be insufficient to meet target allocations. Additionally, the strategy of having Core 30 managers as well as the Staff structure may limit the effectiveness of the Program.

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

Sincerely,

Stephen P. McCourt, CFA
Managing Principal

Steven Hartt, CAIA
Principal

SPM/SKH/nca