MEKETA INVESTMENT GROUP

BOSTON MA
MIAMI FL
PORTLAND OR
SAN DIEGO CA
LONDON UK

October 24, 2014

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

RE: INFRASTRUCTURE PROGRAM ANNUAL REVIEW

Dear Mr. Jones:

In our role as the Board Infrastructure consultant, Meketa Investment Group conducted an annual review of the Infrastructure Program ("the Program").[1] Our review covered the Program's investment performance, implementation, staffing, compliance with the Infrastructure Investment Policy ("the Policy"), the California outreach effort, and overall compliance with CalPERS' Investment Beliefs. Each area is addressed in detail below.

Our review is based on (1) the evaluation of Program reporting and documentation, including performance and activity reports, as well as investment due diligence materials and proposals prepared by Staff; (2) weekly calls with Staff members; and (3) periodic meetings with staff at CalPERS. Based on this review, Meketa Investment Group has identified the below key developments that occurred during the reporting period.

These Key developments include:

- **Performance:** The Program's one-year investment return of 22.8% (net) exceeded its long-term benchmark of CPI + 400 bps by 17.2%.
  - The Program's Direct Investments and Managed Investments[2] returned 39.1% and 16.3% over the one-year period, respectively. Both investment modes exceeded the benchmark return of 5.6%.
- **Implementation:** The program's NAV is at $1.8 billion, a 55% increase over the last reporting period.
  - The program made $682 million in commitments during the period, including the development of the programs first non-discretionary separate account.

[1] The reporting period for investment performance is for the twelve months ended 3/31/2014, due to the quarter lag in private markets reporting. In this report, we also reference Program activity and developments since the end of the first quarter.

[2] Managed portfolios include six commingled funds and one non-discretionary separate account that make up 53% and 18% of the portfolio, respectively.

- Subsequent to the reporting period. The program made $1.3 billion in commitments, including the development of the programs second non-discretionary separate account.
- Commitment pacing greatly exceeded that of the previous reporting period.

- **Staffing:** Program has 11 investment staff, up from 9 in the previous reporting period. During the period, there were three investment professionals added to the team and one portfolio manager departure. Subsequent to the reporting period, the vacated portfolio manager position has been filled and a recruiting process is underway to fill two investment officer vacancies within the next 3-4 months.
- **California Initiative:** Currently, the Program has $136 million (8% of Program) invested in California. In the past 36 months, Staff submitted bids on approximately $1 billion of California infrastructure. No new California direct investments have been made during the period.
- **Policy Compliance[1]:** Each of the transactions completed in FY 2014 were in compliance with the Key Policy Parameters. As of the end of the reporting period, the program was also in compliance with the Policy on permitted leverage.
- **Investment Beliefs:** In our view, the Infrastructure Program, as implemented by Staff, complies with CalPERS' Investment Beliefs.

Both in the reporting period and since then, the Program made progress in several areas, including staffing, outreach, and investment implementation, despite challenging market conditions. In general, we believe that the Program's investment activity for the year was appropriate and consistent with both the Policy and the strategic role of the Program.

Investment Performance

The Program's one-year investment return of 22.8% (net) exceeded its long-term benchmark of CPI + 400 bps by 17.2%. Unlike in previous periods, all investments were accretive against the benchmark. The program's direct investments, which account for approximately 30% of NAV, combined to outperform the benchmark by 33.5% during the period. Additionally, the Program's managed investments outperformed the benchmark by 10.7%

[1] According to the Infrastructure Investment Policy ("the Policy"), the requirement to meet the Key Policy Parameters pertaining to Risk Segments and Geography applies only when the Program NAV exceeds $3.0 billion.

during the period. During the reporting period, the Program made a sizeable commitment to a non-discretionary separate account, which, along with other more recent commitments, will have a greater influence on managed investment performance going forward. According to Staff, all direct investments and two managed investments are performing at or above plan. While three commingled funds committed to in 2007 and 2009 are performing below plan. This does not include new investments as their performance is not currently meaningful. Staff continues to monitor all investments.

From an attribution standpoint, the increase in the value of the portfolio came in the form of investment contributions and appreciation, and to a lesser extent current income. However, cash yield was 5% during the period and is consistent with the strategic role of the Program.

Recent investment activity, both during and since the end of the reporting period, has also lowered the risk profile of the Program's portfolio. For example, at the last annual review, 18% of the Program's investments were classified as "Defensive" (lower risk), which has a long-term strategic range of 25% to 75% of the Program's allocation. In comparison, at the end of the reporting period, 30% of the portfolio was classified as Defensive, and this percentage could potentially increase with the inclusion of the sizeable commitment to a new separate account and an increase to the existing separate account commitment, which both have a Defensive/Defensive Plus mandate.

Implementation

The Program made $682 million in commitments during the period, including the development of the Program's first non-discretionary separate account. This period's commitment pacing represents an increase over the prior reporting period; however, both internal and external (market) conditions continue to affect the pace of investments being made. Demand for high-quality, defensive infrastructure assets continues to grow, which has resulted in higher bids for projects. CalPERS' competition includes a growing pool of infrastructure funds, and many other sophisticated, long-term, direct investors, including pension and sovereign wealth funds and insurance companies from the U.S., Canada, Australia, Europe, and Asia, many of which benefitted from factors such as currency and in-house resources. And, while demand grew, the stock of high-quality Defensive infrastructure assets in the developed markets targeted by CalPERS did not. We do not anticipate a decrease in competition over the near term, yet we expect an increase in the number of infrastructure assets to come to market, as both public and private sector owners seek additional sources of capital to alleviate balance sheet constraints.

During the reporting period, investment activity increased, due in part to Staff's successful negotiation of the Program's first non-discretionary separate account. In our view, the use of separate accounts is sensible and appropriate. Enlisting managers to assist with sourcing and managing individual investments through an account structure should help to increase the pace of commitments, while also enabling Staff to retain control over asset selection, negotiate favorable terms and strong governance structures, and realize cost savings for CalPERS. Investment pacing has been positively affected by the Programs use of separate accounts. During the reporting period, The Staff bid on three investment through the separate account and successfully closed on two investments. Subsequent to the period, the separate account was successful in closing a third investment and was approximately 93% invested, leading to a strategic decision to increase the Program's overall commitment to the separate account in June 2014.

The program should also benefit from $1.3 billion in commitments made subsequent to the reporting period, including the development of the Program's second non-discretionary separate account.

Staffing and Resources

At the end of the reporting period, the Program had a total of 11 positions filled. During the period, there was one portfolio manager departure and three investment officer additions to the team. Subsequent to the reporting period, there was one investment officer departure and the vacated portfolio manager position was filled by a current team member. Currently, there are two open Investment Officer III positions. There does not seem to be a negative trend specific to CalPERS that can account for the recent departures. It has been conveyed to Meketa Investment Group that each of the departures were for personal reasons. It is expected that these two positions will be filled in the next 3-4 months.

In compliance with the requirements set forth in the Board Asset Class Policy, Meketa Investment Group reviewed and provided opinion letters on seven investment proposals by Staff during the reporting period, of which five reached financial close. In addition to reviewing and commenting on several versions of investment memoranda prepared by Staff, we also held numerous discussions with them on the internal investment review process, delegation of internal resources, and use of external resources. In general, we found that Staff conducted its analysis in a thorough, comprehensive, and efficient manner. And, in each of the transactions, Staff attempted to negotiate strong governance rights, protections, and cost savings for CalPERS.

The assignment of ESG responsibilities to the Program's portfolio management responsibilities, and participation in cross-asset class ESG initiatives, continue to be positive. Many infrastructure assets have numerous stakeholders, and their management and operations can have an impact on the labor, the environment, and the broader community around them. Therefore, strong controls in these areas can have a positive impact on the investment outcomes.

Investment Policy

According to the Infrastructure Investment Policy ("the Policy"), the requirement to meet the Key Policy Parameters pertaining to Risk Segments and Geography applies only when the Program NAV exceeds $3.0 billion.[1] At the end of the reporting period, the NAV was approximately $1.8 billion (equal to approximately 0.6% of the Total Fund). Based on our review of the Program, we note the following considerations as they relate to the Infrastructure Policy:

- *Preservation of investment capital* – The Program has been able to increase its exposure to defensive and defensive plus infrastructure assets (78% of NAV) located in OECD countries, with particular emphasis on North America and Western Europe. Extended investments represent only 22% of the current portfolio.
- *Generate stable investment returns that are attractive, on a risk-adjusted basis, relative to the program benchmark* - Since inception, the Program has returned 10.1% against a benchmark return of 6.6%. The Program's Direct Investments and Managed Investments returned 34.4% and 8.2%, since inception, respectively. Both investment modes exceeded the benchmark return.
- *Provide cash distributions, as a prominent component of investment returns* – For the annual period, cash yield has been 5.0%. As the program continues to be invested, yield is expected to be a prominent component of the return.
- *Provide long-term inflation protection* – The Program seeks to invest in essential infrastructure assets, many of which have explicit inflation adjustment mechanisms. The Program to date complies with this this investment objective.
- *Diversify CalPERS investments* - It is reasonable to expect that the Defensive and Defensive-Plus infrastructure investment strategies should demonstrate a relatively low correlation to other asset classes in which CalPERS invests.
- *Establish CalPERS' reputation as a premier infrastructure investment manager and investor of choice within the investment community* – The Program has invested with reputable infrastructure investors and managers.
- *Practice responsible investment to support efficient operation of assets, delivery of quality services, utilization of responsible labor and management practices and implementation of responsible environmental practices* – During the reporting period, the Program adopted the

[1] Regardless of portfolio size, investment allocations within the Risk Segments and Geographic Segments are not to exceed, on a dollar basis, the upper ends of the Risk Segments and Geographic Segments ranges multiplied by the Program Allocation Target.

Infrastructure and Forestland Sustainable Investment Practice Guidelines. All transactions during the period also complied with this policy.

- *Foster renewal and expansion of infrastructure assets* – The Program is still in an early stage of investing; however, Staff has invested and partnered with organizations that have demonstrated an ability to increase the value of infrastructure assets.
- *Diversification and Concentration Limits* – Although NAV does not currently exceed $3 billion, the program is also within the permitted range on a dollar basis across risk type, region, and concentration limits contained in the Infrastructure Policy.
- *Leverage* - According to Section X.B.1 of the Infrastructure Policy, the Program is permitted to carry leverage up to 65% of the market value of the Program's assets. As of the reporting period, the Program is compliance as the portfolios loan to value 48.3%.

As discussed, Meketa Investment Group believes that the Program is in compliance with the Infrastructure Investment Policy and all key Policy Parameters.

California Outreach

Meketa Investment Group assisted Staff with many aspects of CalPERS infrastructure outreach effort that culminated in a series of roundtable meetings in FY 2013. The roundtable meetings were widely attended by a range of stakeholders, including state and local agencies, investors, sector experts, representatives from labor unions, as well as CalPERS Board of Administration, Executive Office, and Investment Staff. The roundtables provided various stakeholders with an opportunity to learn about CalPERS' resources, investment objectives and limitations, and CalPERS' Staff to gain a deeper understanding of the needs, impediments, and considerations related to California public agencies and local governments as managers of public infrastructure. We feel that these meetings were an important step in building a knowledge base and valuable relationships that could facilitate infrastructure investment by CalPERS in California in the future.

In FY 2014, Staff continued to focus on deploying Program commitments in California through direct investments and separate accounts. In the past 36 months, Staff submitted bids on approximately $1 billion of California infrastructure. None of the bids submitted by Staff resulted in an investment by the Program, due to competitive market conditions and other factors. This outcome speaks to the attractiveness of California infrastructure among investors, and the degree of competition for a limited number of assets, which attracted bids from a wide range of sophisticated investors. We expect that Staff will continue to engage with sponsors of public and private projects, and pursue investments, on a direct basis or through separate account structure, where there is an investment fit with the Program objectives.

Investment Beliefs

In our view, the Infrastructure Program, as implemented by Staff, is well aligned with CalPERS' Investment Beliefs. We highlight several Beliefs that are particularly important to the infrastructure asset class.

- *Liabilities must influence the asset structure*- As an asset class, infrastructure consists of long-lived assets that have either/both long-term contracted revenue or stable, inflation-protected revenue. These attributes make infrastructure assets well aligned with the time horizon and liability structure of CalPERS.
- *A long time horizon is a responsibility and an advantage*- The Program's investment approach consists of a buy and hold strategy, targeting assets that are long lived. Shorter-term investors that do not have the liquidity to invest long-term in private infrastructure assets cannot access these assets in the marketplace.
- *CalPERS will take risk only where we have a strong belief we will be rewarded*- While targeting lower-risk, defensive investments, the Program has returned, since inception, 10.1% per year, on average against a benchmark return of 6.6%.
- *Costs matter and need to be effectively managed* - The program has been successful in negotiating terms across its investments, and focuses on lower-fee direct investments and customized separate accounts.
- *Risk of CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error* – As a private market asset class, infrastructure risk analysis incorporates many risk factors beyond price volatility, including financial and operating leverage, counterparty risk, interest rate risk, regulatory risk, and environmental risks.

Additionally, we feel that the Program is positioned to be an industry leader through disciplined capital deployment, and a continued focus on governance rights, labor practices, and environmental risks and stewardship.

Conclusion

We believe that the Program's investment activity during the reporting period, and in the months since then, has been appropriate and consistent with the Policy and the strategic role 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

Chris Tehranian
Senior Vice President

SPM/CPT/mah