



M E K E T A I N V E S T M E N T G R O U P

B O S T O N

M I A M I

S A N D I E G O

October 29, 2013

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 at CalPERS. 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

Key Developments

- The Program return was 5.7% (net) for the one-year period ending 3/31/2013.

Comments

The Program's one-year investment return of 5.7% (net) exceeded its long-term benchmark of CPI + 400 bps by 0.2%. Returns were lower than in prior periods, but the results were primarily impacted by commitments to three commingled funds that were made before the current team was in place. While these earlier

¹ The reporting period for investment performance is for the twelve months ended 3/31/2013, 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.

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commitments still represented the largest share of the Program portfolio for the reporting period, the Program's more recent direct investments outperformed the benchmark by 6.2%. And, after the end of the reporting period, the Program made a sizeable commitment to a discretionary separate account, which, along with other more recent commitments, will have a greater influence on portfolio performance going forward.

From an attribution standpoint, the increase in the value of the portfolio came in the form of realizations, and to a lesser extent current income, which again is partly due to the earlier commingled fund investments. Going forward, we expect that cash yield will represent a larger portion of the total return, which 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, none 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, 18% of the portfolio was classified as Defensive, and this percentage will increase with the inclusion of the sizeable commitment to a separate account, which has a Defensive/Defensive Plus mandate.

Implementation

Key developments

- In total, Staff reviewed 129 investment opportunities between Q2 2012 and Q3 2013.
- During the reporting period, Staff made a \$250 million commitment to Global Infrastructure Partners II. Since the end of the reporting period, Staff closed on a \$100 million commitment to Harbert Power Fund V and a \$582 million commitment to a discretionary separate account managed by Harbert.

Comments

Other than the one fund investment, commitment pacing was slow during the reporting period, due to both internal and external (market) conditions. Staff was focused on evaluating a number of direct investments that ultimately did not reach financial close. Demand for high-quality, defensive infrastructure 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

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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. We provide additional detail on market conditions in the Appendix.

Since the end of the reporting period, investment activity increased, due in part to Staff's successful negotiation of the Program's first 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. For example, Staff estimates a cost savings of approximately \$30 million (140 bps/year) over ten years from the separate account it created this year, and annual savings of approximately 150 bps from separate accounts and selective use of direct investments in the future. Through partnering with external managers, this model also allows Staff to deploy internal resources to pursue direct investments on a more selective and opportunistic basis.

Staffing and Resources

Key developments

- During the reporting period, the Infrastructure Program filled six positions.
- During the reporting period, Staff completed seven due diligence reviews.

Comments

At the end of the reporting period, the Program had a total of 12 positions filled. The Program added one Portfolio Manager, three Investment Officer IIIs, one Investment Officer I, and one Staff Services Analyst. New hires on the Portfolio Manager level added resources and skillsets in key areas, including the sourcing and evaluation of new investments, asset management, and ESG/Global governance. Additions on the Investment Officer level brought additional resources to these areas, while also enabling the Program to conduct a more comprehensive evaluation of the infrastructure manager universe that will be useful in the process of evaluating partners for additional separate accounts. The Program is seeking to fill two Investment Officer vacancies.

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 three reached financial close. In addition to reviewing and commenting on several

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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.

Staff faced headwinds in their attempts to successfully complete direct investments (including through the separate account). This outcome was partly influenced by conservative underwriting by Staff, which we believe indicates a disciplined approach to current market conditions. As discussed above, we do not foresee competition for high-quality infrastructure investments subsiding in the near term, which may limit CalPERS' ability to deploy capital into direct investments. While the separate account model does not necessarily increase CalPERS' competitive standing in bidding on direct investments, it may be a more cost effective approach, since much of the costs and time associated with bidding can be absorbed by the account manager.

The assignment of ESG responsibilities to the Program's portfolio management responsibilities, and participation in cross-asset class ESG initiatives are positive developments. 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

Key developments

- The Program is in compliance with Key Policy Parameters.
- Staff is recommending revisions to the Policy related to use of leverage and ownership limits on commingled funds.

Comments

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 \$1.1 billion (equal to approximately 0.4% of the Total Fund). Nevertheless, each of the transactions completed in FY 2013 were in compliance with the Key Policy

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.

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Parameters. As of the end of the reporting period, the program was also in compliance with the Policy on permitted leverage.

At the November Investment Committee meeting, Staff will bring to the Board a series of proposed revisions to the Policy. The proposed revisions are intended to provide the Program with greater flexibility when pursuing investments within its mandate. The key revisions include changes to (1) permitted leverage on investments; (2) diversification limits related to CalPERS' exposure to individual vehicles and managers; and (3) language with respect to terms used in the Policy. We have submitted an opinion letter to the Board on the proposed revisions under separate cover.

California Outreach

Key developments

- CalPERS conducted an Outreach Effort to facilitate investment in California Infrastructure in 2012.
- The Outreach Effort included five roundtable meetings across California, which Staff coordinated and participated in.
- In 2012-2013, Staff submitted several bids on infrastructure projects in California.

Comments

Meketa Investment Group assisted Staff with many aspects of CalPERS infrastructure outreach effort. In our view, the ongoing outreach effort, which commenced has been important and influential on many fronts. 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. Program Staff, in conjunction with the Targeted Investment Program, participated in several infrastructure meetings related to California investment, and there are plans to conduct another roundtable meeting in 2014.

In FY 2013, Staff continued to focus on deploying Program commitments in California through direct investments and separate accounts. In the past 15 months, Staff submitted bids on approximately \$1 billion of California

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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, complies with many of CalPERS' Investment Beliefs. The Program's approach to infrastructure investment, which consists of a buy and hold strategy seeking to generate cash yield and targeting lower-risk, Defensive investments, is consistent with CalPERS' investment beliefs. We also feel that, going forward, the Program is in a position to be an industry leader by devoting greater focus to implementation of strong governance related to labor and the environment.

Conclusion

In general, 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. Several developments during this period should have an impact on Program performance in the next year, especially the more recent investments made to commingled funds and separate accounts.

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

Sincerely,



Stephen P. McCourt, CFA
Managing Principal



David Altshuler
Senior Vice President

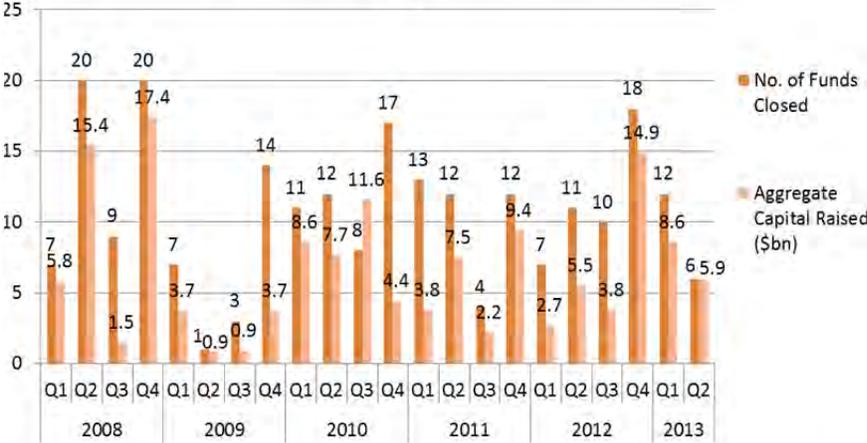
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APPENDIX

Infrastructure Market Update:

- Although commingled infrastructure funds do not represent all of the investment activity in the marketplace, they are a good indicator of the growing interest in the sector, capital overhang, and geographic preference.
- Despite growing institutional investor appetite for the infrastructure asset class, the fundraising market is extremely crowded. Preqin estimates that there are 144 infrastructure funds in market seeking \$94 billion in commitments.
 - This universe of infrastructure funds is quite broad and includes some strategies that would, for certain investors, be more private equity or natural resources oriented.
 - Preqin provides an attribution of these infrastructure funds by their primary geographic focus. North America is the largest target market in terms of target capital commitments at \$37 billion. This is followed by Europe at \$33 billion, Asia at \$9 billion, and the rest of the world at \$15 billion. Currently, there are 54 funds targeting European opportunities, while 37 funds are focusing on North America.
 - Unfortunately, Preqin does not classify its universe by risk type (Defensive, Defensive Plus and Extended) or provide any of these statistics for capital that has been raised.
- For the trailing twelve months as of June 2013, \$33.2 million was raised by infrastructure funds. This was the largest amount of commitments raised in the past four years and was up from the previous period by approximately \$13.4 million, or 68%.
 - Notable funds reaching a final close during this period include: Global Infrastructure Partners II at \$8.25 billion, Macquarie European Infrastructure Fund IV at €2.75 billion, EQT Infrastructure II at €1.9 billion, AXA Infrastructure Generation III at €1.45 billion.

Fig. 1: Quarterly Unlisted Infrastructure Fundraising, Q1 2008 - Q2 2013

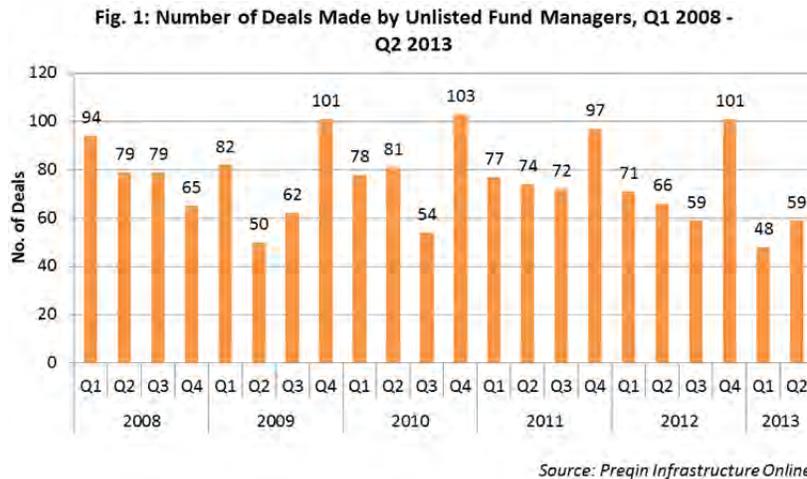


Source: Preqin Infrastructure Online

- Based on a survey conducted by Preqin, Public Pension Plans and Private Sector Pension plans are the largest infrastructure investors in North America and account for approximately 44% of infrastructure investors surveyed. The next largest investors were Endowments and Foundations at 27%. Additionally, 29% of the surveyed North American investors have assets under management of less than \$1 billion while only 6% have more than \$100 billion. Only 14% of the surveyed audience seeks to make direct investments, while the majority seeks to invest in commingled funds to access infrastructure opportunities.
- The recent Preqin survey also asked how investors would approach infrastructure in the next 12-24 months. The survey results showed that 58% of investors expect to increase their allocation to infrastructure during that period.

Infrastructure Deal Activity:

- For the trailing twelve months as of June 2013, commingled infrastructure funds completed approximately 267 deals per Preqin. This represented the fewest amount of deals completed over the last four years and a 13% drop in activity over the previous twelve month period.



- The Preqin deal numbers are not inclusive of all infrastructure activity during the year; however, they do provide a good indicator of deal activity.
- Based on attribution provided by Preqin over the period, 42% of infrastructure deals were in the Energy sector, while Social, Transport and Utilities accounted for 21%, 19% and 10%, respectively. Europe accounted for the largest number of market for transactions by commingled infrastructure funds, at 52%, while North America accounted for 27% of activity.
- Notable transactions over the period include:
 - In June 2013, it was announced that First Reserve would invest \$500 million to fund the creation of Century Midstream, a new energy company focused on the development, acquisition, and expansion of midstream assets in North America. Century, which is headquartered in Houston, will be lead by principals with over a century of midstream investment. The business is expected to target emerging liquids and liquids rich shale plays across North America.
 - In April 2013, The Port Authority of New York and New Jersey awarded Macquarie a contract to finance, design, and build a replacement for the 85 year old Goethals Bridge, connecting New Jersey with Staten Island. The project is expected to cost an estimated \$1.5 billion, including funds for the design and replacement of the bridge, constructing financing, and Port Authority funded costs. Funds will consist of \$100 million in equity, a \$500 million federal loan, Private Activity Bond, and a bank loan.
 - In March 2013, it was announced that Arclight, CenterPoint Energy, and OGE Energy entered into an agreement to form a Master Limited Partnership that will include CenterPoint Energy's interstate pipelines and field services businesses, and the midstream businesses of

Enogex, owned jointly by Arclight and CenterPoint. The MLP will own and operate 8,400 miles of interstate pipelines and nearly 2,300 miles of intrastate pipelines. The companies expect to close the formation of the partnership by Q3 2013, following receipt of necessary approvals.

- In February 2013, Australia-based Industry Funds Management (“IFM”) Global Infrastructure Fund acquired a 35.5% investment in Manchester Airports Group (“MAG”) for an estimated £1.5 billion. This transaction coincided with MAG closing on an acquisition of 100% of London Stansted Airport, from BAA, which was ordered to sell Stansted in accordance with the 2009 ruling of the Competition Commission. Stansted is the third largest airport in the London area and is regulated by the Civil Aviation Authority. In addition to Stansted, MAG also operates three deregulated airports in the UK: Manchester Airport, East Midlands Airport, and Bournemouth Airport.
- In December 2012, the Portuguese government sold its stake in ANA, the national airport operator, to a consortium led by Vinci, for approximately \$4.1 billion. Vinci will receive a 50-year concession to operate airports in Lisbon, Porto, Faro, Ponta Delgada, Santa Maria, and Horta. More than three fifths of ANA's revenue comes from domestic and European travel, and there is a potential for growth in long-haul flights to South America and Africa from Lisbon. There was a lot of interest in the concession; Vinci beat out other experienced consortia, including Fraport and IFM; a consortium led by Argentina's Corporacion America; and a group made up of CCR from Brazil, Flughafen Zurich from Switzerland, and Global Infrastructure Partners.
- Also in December, it was announced that Macquarie had acquired a 35% stake in Czech gas grids owned by RWE Grid Holdings, the second largest German utility. In a separate transaction, RWE expects to sell its Net4Gas, its transmission operator. Like other German utilities, RWE is under pressure from regulators to invest in renewables, and to reduce its debt load. The transaction is expected to close in Q1 2013.
- In November 2012, Borealis Infrastructure, which invests in and manages infrastructure investments on behalf of the Ontario Municipal Employees Retirement System, acquired a 49% stake in a portfolio of four wind farm assets with 500 MW of capacity, located in Texas. Borealis acquired the assets from EDP Renovaveis S.A., the world's third largest wind energy company, for \$230 million. EDP will continue to own the remaining shares of the asset.

- In September 2012, the European Commission approved the acquisition of UK gas distributor Wales & West by a consortium led by Cheung Kong Infrastructure Holdings (“CKI”) for \$1 billion. CKI agreed to acquire the company in July from a consortium of infrastructure investors including Macquarie European Infrastructure Funds 1 and 2, Macquarie Global Infrastructure Fund II, Canada Pension Plan Investment Board, AMP Capital Investors, and Industry Funds Management. It is the second UK gas distributor owned by CKI, following its acquisition of Northern Gas Networks in 2005. CKI also owns a number of other infrastructure assets in the UK, including Northumbrian Water, a water supply, sewerage, and waste water company which serves the Northeast and Southeast regions of England.
- In July 2012, Global Infrastructure Partners (“GIP”) completed the acquisition of all of Chesapeake Energy Corporation’s ownership interests in Chesapeake Midstream Partners. GIP paid \$2 billion and will become the 100% owner of the Chesapeake Energy Corporation’s general partner interest and 69% of its limited partner units.
- Also in July, a consortium including Morgan Stanley Infrastructure Partners and Infracapital closed on a 90% interest in Veolia Water RegCo, Veolia’s UK regulated water business. Veolia will retain a 10% ownership interest in the business. Veolia Water RegCo is the largest regulated water-only company in the UK and provides water services to over 3.5 million people in northwest London and southeast England.