MEMORANDUM

**Date:** November 16, 2015

**To:** Henry Jones, Chairman, Investment Committee

**From:** Pension Consulting Alliance, LLC ("PCA")

**RE:** **CalPERS Private Equity Program Annual Review**

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This memorandum represents PCA's annual review of the CalPERS Private Equity ("PE") Program and contains PCA's opinions as to the Program's performance, risk, manager selection and monitoring processes, internal control processes and staffing. This review also addresses ESG matters related to the PE Program, the implementation of CalPERS' Investment Beliefs within the Program and the current private equity environment.

**Executive Summary**

*Private Equity Environment*: The private equity industry has received significant attention in recent months, much of which has centered on the issues of fees, transparency and alignment of interests. In general, there is a movement toward greater transparency that is being achieved through stronger negotiation by investors such as CalPERS and increased scrutiny by regulators and overseers. These issues have come to the fore at a time of robust fundraising and consistent oversubscription to the most sought after funds, which, absent legislation, may have the effect of slowing down the pace of change. The ultimate outcome of the transparency movement will not be known for some time, but incremental changes have already begun.

*Performance:* Despite the publicity and related distractions surrounding the private equity industry and CalPERS' PE Program, on a time weighted, net basis, the Program outperformed public equities by 480 basis points ("BPS") during the ten-year period ended June 30, 2015. Over the 20-year period ended June 30, the outperformance amounted to 410 BPS. The PE Program underperformed the policy benchmark for the 10-year period by 344 BPS and outperformed that same benchmark for the 20-year period by 88 BPS. It has clearly fulfilled its role of enhancing long-term returns in the portfolio despite the variations from the policy benchmark.

*Underwriting and Risk*: In connection with CalPERS' 2020 vision, the PE Program is, and over the next five years will continue implementing a strategy of opportunistically allocating capital to a core group of 30 managers in an effort to reduce the portfolio's complexity and optimize the strategic advantages of working with a limited group of larger, best-in-class managers. Transitioning to this new strategy has presented a challenge to the Program in accessing required allocation levels with top-quartile managers. The demand from other large investors pursuing similar allocations has led to more demand than supply. This strategy has also resulted in expanding CalPERS' commitments to multi-product managers that have demonstrated the ability to generate top tier results in certain, but not all, strategies. Furthermore, staff has recognized that top-quartile performance is not a permanent characteristic of managers and is closely monitoring the composition of this select group of managers. In PCA's opinion, this is an appropriate response to the challenge.

*Monitoring and Internal Controls*: The implementation of the Private Equity Accounting and Reporting Solution ("PEARS") is a meaningful step forward that will facilitate the aggregation and reporting process. One expected outcome will be increased transparency, particularly with

respect to portfolio company fees and expenses and carried interest. It will differentiate CalPERS' PE Program from those conducted by almost all other large private equity investors. PEARS' implementation will be a multi-phase, multi-year process and should not be considered an immediate panacea. Further, the additional information to be captured by PEARS, particularly relating to carried interest and portfolio company fees, is prospective and therefore meaningful data in comparative form may not be available for several years.

Overall, the processes, procedures and practices that staff employs to execute and manage the PE Program are extensive and, to PCA's knowledge, exceed those in use by almost all other large domestic investors in the asset class. The PE Program's separation of the underwriting, monitoring and performance/risk management functions into three distinct workgroups has resulted in a clear division of labor and a strengthening of internal controls, while also increasing the number of staff involved, in some capacity, with each investment in the portfolio. PCA believes this structure promotes strong teamwork amongst PE staff members and has led to the implementation of well-conceived processes within the PE Program. Additionally, a key procedural improvement that is currently ongoing is the migration of the monitoring of the co-investment portfolio to the Investment Management Group ("IMG"). PCA supports this and believes IMG should monitor all investments in the portfolio, regardless of their form or structure.

This memorandum will elaborate on PCA's findings as to the topics listed above, as well as the Program's staffing, ESG matters and CalPERS' Investment Beliefs.

**Private Equity Environment**

Private equity fundraising remains robust, with most top-quartile and many second-quartile funds being oversubscribed. This indicates strong investor participation in the asset class, both from domestic and international institutions. Given the amount of "dry powder" (unfunded capital commitments) currently in the marketplace, purchase price multiples remain very high, as competing funds are forced to outbid one another in order to acquire assets. These elevated purchase prices further underscore the importance of deal sourcing, as firms that are able to avoid (or limit) auctions to any extent are more likely to acquire assets at favorable valuations. Debt multiples are also elevated, demonstrating the availability of credit available to private equity firms seeking to leverage their acquisitions. If managers deploy capital at current purchase price multiple levels, future returns may be negatively impacted.

The past year has also seen the continuation of regulatory scrutiny on private equity and increased media attention, including a number of critiques on the industry and those that participate in it. Among commentators' key objections are the high fees, lack of transparency and misalignment of interests between managers and investors. Much of this criticism is justified; fees are too high, not enough information is being disclosed to investors and the terms of most partnership agreements strongly favor the managers. These are not new phenomena but rather have been in existence since the industry's inception decades ago. The fact that these practices are longstanding does not justify their continuation going forward, although a sea change (despite being warranted) is less likely to occur during times of very robust fundraising. Given the strong demand by investors to access the most sought after funds, managers may be reluctant to voluntarily accept less advantageous terms and conditions. That being said, CalPERS recently began asking the managers in its PE portfolio to provide more fulsome disclosure regarding fees and expenses and the early results have been positive.

Scrutiny by the SEC has the potential to contribute to an adjustment to the "standard" private equity economic model. A potential regulatory outcome would be the imposition of a required filing by managers that discloses, among other data, all fees earned from portfolio companies and itemizes all expenses reimbursed. To date, investors have not received complete transparency with respect to those items. Furthermore, the controversial management fee waiver practice – which allows managers to (1) convert management fees otherwise payable (and subject to ordinary income tax treatment) into capital contributions (ultimately subject to capital gains treatment) and (2) avoid having to expend any cash out of pocket – is the target of a proposed regulation under the Internal Revenue Code, pursuant to which the tax advantage described above would be eliminated. A manager's ability to continue using management fee waivers to satisfy its capital commitment would not be affected by the proposed regulation.

Overall, PCA supports regulators' increased attention to private equity and is optimistic that it will have a positive impact on manager behavior. In the event that regulatory budgetary constraints prevent an adequate level of attention, PCA encourages CalPERS and other investors to seek receipt of an annual letter (similar in form to a Service Organization Control Report) from an independent certified public accountant on the adequacy of a manager's internal controls and processes related to reporting to limited partners. While this type of independent oversight would neither correct any structural flaws in the prevailing private equity fund model, nor would it modify existing agreements, it would, however, have the effect of informing investors and ensuring them that they are actually receiving the benefits of their agreement with the general partner.

CalPERS, despite being the largest public pension fund in the United States and a longstanding investor in private equity, does not alone possess the bargaining power to effect major changes on the overall structure of private equity investing. CalPERS represents approximately 1% of the global private equity market and 2% of the domestic market. This demonstrates the growing use of the asset class amongst large institutional investors in recent years, as CalPERS previously represented a much higher share of the overall market. As described elsewhere in this report, CalPERS has achieved some marked success in using its size to negotiate more favorable management fee and carried interest rates relative to the industry standard "2 and 20," but the overall economic structure of private equity has remained largely unchanged. PCA believes more dramatic, industry-wide changes to the relationship between managers and investors, while still greatly needed, are less likely to occur through CalPERS' efforts alone, especially in times of strong investor demand for allocations. PCA continues to advocate that CalPERS collaborate with other large investors and increase its involvement with the Institutional Limited Partners Association to collectively pressure managers to accept important changes to the standard fund documentation.

**Performance**

| *As of June 30, 2015* | **1-Year** | **3-Year** | **5-Year** | **10-Year** | **20-Year** |
|---|---|---|---|---|---|
| **CalPERS PE Program[1]** | **8.9%** | **14.1%** | **14.4%** | **11.9%** | **12.3%** |
| Policy Benchmark[2] | 11.1% | 16.7% | 15.0% | 14.9% | 11.4% |
| Pro Forma Current Benchmark[3] | 11.1% | 16.7% | 14.9% | 10.9% | N/A[4] |
| SSPEI[5] | 7.6% | 11.6% | 12.7% | 11.5% | N/A[6] |
| CalPERS Global Equity | 1.0% | 14.5% | 12.9% | 6.6% | 8.2% |
| CalPERS Total Fund | 2.4% | 10.9% | 10.7% | 6.2% | 7.8% |
| **Excess Return** | | | | | |
| vs. Policy Benchmark | (2.2%) | (2.6%) | (0.6%) | (3.0%) | 0.9% |
| vs. Pro Forma Current Benchmark | (2.2%) | (2.6%) | (0.5%) | 1.0% | N/A |
| vs. SSPEI | 1.3% | 2.5% | 1.7% | 0.4% | N/A |
| vs. CalPERS Global Equity | 7.9% | (0.4%) | 1.5% | 5.3% | 4.1% |
| vs. CalPERS Total Fund | 6.5% | 3.2% | 3.7% | 5.7% | 4.5% |

Sources: Wilshire Associates, State Street, PCA

Despite having consistently generated investment performance in excess of CalPERS' 7.5% overall assumed rate of return, the PE Program underperformed the PE policy benchmark across all time periods other than the 20-year period ended June 30, 2015. Since the Program's inception, CalPERS has employed four different benchmarks designated as the policy benchmark at some point in time. Each one was selected as the best available at the time of its adoption. By presentation convention, each benchmark has been included in the "policy benchmark" for the time period in which it was effective. As a result, the amounts characterized as Policy Benchmark for multiple year periods are an aggregate of previously reported data linked to the current benchmark.

The frequency of changes to the PE policy benchmark indicates the difficulty in appropriately benchmarking the private equity asset class. While PCA agrees that a public market linked benchmark is reasonable for measuring the long-term performance of the PE Program, the amalgamation of various benchmarks over the years somewhat vitiates the usefulness of comparing the performance of the Program relative to the "policy benchmark." In absolute terms, historical performance has been strong, and the PE Program has also consistently outperformed (a) CalPERS' total fund, (b) CalPERS' Global Equity portfolio, (c) CalPERS' asset allocation assumptions for the private equity asset class (most recently 9.33%), (d) the total fund's actuarial rate of return of 7.5% and (e) the State Street Private Equity Index ("SSPEI"), a peer-based benchmark, over nearly all time periods. PCA believes the preceding background information provides additional context for understanding this issue, as simply looking at the PE Program's performance relative to the policy benchmark does not paint a complete picture.

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[1] The net asset value of CalPERS' PE Program portfolio is lagged one quarter with adjustments for current cash flows through the reporting period.
[2] Currently equals (67% FTSE US TMI + 33% FTSE AW x-US TMI) + 3%, 1-quarter lagged from and since September 2011; Custom CalPERS Wilshire 2500 ex-tobacco + 3% between July 2009 and June 2011; Custom Young Fund Index between July 2002 and June 2009; benchmark for periods before July 2002 was Custom CalPERS Wilshire 2500 ex-tobacco.
[3] Application of the current policy benchmark over all time periods, as opposed to the various policy benchmarks in effect since the PE Program's inception.
[4] FTSE data is not available for the entire 20-year period.
[5] Time-weighted return calculated by linking quarterly return, 1-quarter lagged.
[6] SSPEI data is not available for the entire 20-year period.

In addition to the policy benchmark, which is appropriate for measuring the long-term performance of the PE Program, PCA believes that the peer-based SSPEI is a useful tool to assess CalPERS' performance relative to other institutional investors in this asset class, especially over shorter increments such as one-year. Over all time periods measured, the PE Program outperformed the SSPEI, which is largely a product of staff's manager selection capabilities.

Additionally, given the high costs associated with investing in private equity, CalPERS' staff has been aggressive in negotiating better economic terms and conditions. CalPERS' cap-weighted management fees have been 1.22%, 1.17% and 1.13% over the last three fiscal years (2012-2013, 2013-2014 and 2014-2015, respectively), with cap-weighted carried interest rates of 16.92%, 15.51% and 14.8%. These are significant discounts relative to the industry standard rates. PCA believes the lower fees and carried interests represent a noteworthy achievement by CalPERS' PE staff that will inevitably result in significant cost savings consistent with Investment Belief #8.

*Strategy and Structure*

The PE Program is biased toward buyouts, the most predominant strategy in the private equity market overall. Approximately 58% of the PE Program's net asset value ("NAV") is in buyouts, with 17% in expansion capital/growth investments, 12% in credit related strategies, 7% in opportunistic strategies and 6% in venture capital. The PE Program's buyout investments generated the highest ten-year return of 14.1%, followed by credit related at 13.0%.

A new strategy called "compounding capital" is in its very early stages and has not yet impacted performance. Compounding capital is a longer term private equity strategy that is designed to generate some current return in the form of a periodic interest payment, together with expected capital appreciation over time. This is the most obvious example of the Program's recognition of the importance of Investment Belief #2.

Partnership structures are the most prevalent in the PE Program, representing approximately 75% of total NAV. In recent years, the PE Program has increased its participation in Customized Investment Accounts ("CIAs") in which CalPERS is the only third-party investor in a given investment vehicle.

Commitments to compounding capital and CIAs tend to enable CalPERS to obtain better terms and conditions relative to traditional commingled funds. These more favorable terms can include lower management fees, fees based on invested (rather than committed) capital, reduced carried interest, and greater governance rights for CalPERS. This is also in recognition of Investment Belief #8.

*Geography*

Given the significant bias toward U.S.-based managers (74% of the PE Program's NAV resides with managers headquartered in the United States), the performance of the overall PE Program is very closely linked to the performance of the U.S. portfolio.

*Manager Concentration*

The PE Program's five largest manager relationships (Blackstone, Carlyle, Apollo, TPG and Grove Street) represent approximately 35% of the Program's overall net exposure (cost + unfunded commitments). The PE Program is in the process of reducing the number of managers in the

portfolio and has identified a group of 30 core managers which the Program will emphasize in allocating future capital commitments. Over time, many of the legacy funds will be liquidated and, together with opportunistic sales on the secondary market, the number of managers (and funds) in the portfolio will gradually decline. PCA believes this decline will advance CalPERS' overall goal of reducing unnecessary cost and complexity within the portfolio.

**Manager Selection and Monitoring**

Prospective private equity commitments and investments are considered by the Investment Review Committee ("IRC"), whose role is to ensure a consistent, thorough and objective analysis of investment decisions and other investment matters in order to provide input, independent and non-conflicted advice and perspective to the Managing Investment Director to assist him in reaching informed decisions. The IRC meets weekly to discuss investment transactions and conduct portfolio reviews and is populated by senior personnel from PE, Real Assets, Global Fixed Income, Asset Allocation and Compliance. PCA, in its capacity as the Private Asset Class Board Consultant, is an observer at almost all IRC meetings.

*Manager Selection: Underwriting and Co-investments*

The PE Program's Underwriting workgroup is guided by a lengthy written policy setting forth the investment processes for partnerships, co-investments and direct investments, and secondary purchases and sales, in addition to template closing checklists for each. The Co-investments group has been carved out as a semi-independent workgroup within Underwriting.

All potential investment opportunities are submitted through the Investment Portal. Using the Manager Assessment Tool, the Underwriting team will either decline (subject to approval from the IRC) or bring the opportunity to the Senior Team for further consideration and possible due diligence. A final diligence report is presented to the IRC. Upon final approval, the legal due diligence and negotiation process begins, culminating with signed legal documents reviewed and negotiated by CalPERS' Legal Office and external counsel. Delegated authority compliance memos from PCA and the Legal Office are also prepared, and the Investment Compliance and Operational Risk group reviews the applicable manager's Form ADV prior to closing.

When completing a commitment to a fund, CalPERS and the manager typically agree on the terms of a side letter agreement that grants CalPERS rights not otherwise included in the fund's limited partnership agreement, e.g., more robust disclosure requirements to enable CalPERS to capture additional information as to portfolio company fees and expenses, as well as the calculation of carried interest distributions. PCA believes this is a positive development as it furthers the cause of increased transparency. Although CalPERS has received positive feedback from over 90% of its existing managers in response to requests for greater transparency, it remains to be seen, however, the extent to which managers, particularly those with over-subscribed funds, will be amenable to these enhanced disclosure obligations in future commitments. In the event managers demonstrate reluctance to accept the new template side letter, CalPERS may miss out on attractive opportunities in the near term (at least until most other investors insist upon enhanced disclosure, thereby pressuring the managers to cede). On balance, PCA supports the addition of the more stringent disclosure provisions of the revised side letter template.

In years past, when performing due diligence on a prospective commitment or investment, a member of the investment team played the role of devil's advocate and prepared a "skeptic memo," which listed potential reasons to pass on the particular transaction. The skeptic memo

was read alongside the investment recommendation prepared by other members of the PE team in connection with the IRC's final yes or no decision. Recently, the skeptic memo was replaced by the expectation that the Investment Manager (formerly Portfolio Manager) meetings would serve the same purpose. PCA believes the Investment Manager meetings have not proven to be an entirely suitable replacement for the skeptic memo. As such, PCA has suggested assigning the preparation of a skeptic memo to one individual not involved in the due diligence for each new commitment or investment.

As mentioned above, the PE Program, in connection with CalPERS' 2020 vision, is shifting toward a bifurcation of its portfolio between its 30 strategic manager relationships and the remaining legacy relationships. PCA has historically been and remains supportive of the PE Program's efforts to reduce over-diversification within the portfolio since it tends to lead to median performance results, in addition to unnecessarily complicating the portfolio and mitigating CalPERS' ability to use its size to its advantage in negotiating more favorable terms. Staff has also recognized that top-quartile performance is not a perpetual manager characteristic and is closely monitoring the composition of this select group of managers. PCA believes this is an appropriate response to the challenge.

*Manager Monitoring: Investment Management Group*

The primary objective of the IMG is to monitor and manage the investments within the PE Program on a day to day basis. For regular monitoring responsibilities, the portfolio is divided into two categories: strategic and legacy partnerships. Two professionals are assigned to each existing investment (the monitor, who tends to be more senior, and the shadow, who is usually a newer member of the team).

IMG generates a number of management and monitoring reports to assist in the discharge of its responsibilities. It also handles various ad hoc matters, such as reviewing consent and amendment requests and attending and recapping general partner meetings, as well as one-off projects such as one currently ongoing related to recoupment of tax withholdings in foreign jurisdictions. Finally, IMG, with assistance from the Administrative team, is responsible for maintaining and updating the Private Equity Procedures Manual. To that end, IMG conducts bi-weekly meetings with representatives from each functional area within the PE Program to review potential modifications to the manual.

PCA was informed that monitoring of the co-investment portfolio is currently being migrated from the Co-investments group to IMG. PCA supports this and believes IMG should monitor all investments in the portfolio for the sake of consistency throughout the PE Program.

**Risk**

Risk monitoring responsibilities are spread across the various workgroups within the PE Program and are summarized here.

The Underwriting and Co-investments groups, in connection with their due diligence processes, identify potential risks, which are included in written investment memoranda and discussed with the Investment Review Committee. They also identify risks that should be noted by IMG. The Risk, Research, Analytics and Performance ("RRAP") group prepares a Portfolio Fit and Risk Memo in connection with each due diligence process undertaken.

The IMG team identifies areas of concern related to each investment and monitors them on a prospective basis. These items, which IMG learns of through meetings with managers and reviews of financial statements or reports generated by managers, are included in meeting notes (which are submitted to the IRC for review) or quarterly monitoring reports (which are provided to the Senior Team).

The RRAP team seeks to assess the PE Program through exposure, valuation, performance attribution and risk analyses. RRAP's review of risks in the PE portfolio encompasses funding, liquidity, market, currency and concentration risks. This group also prepares certain reports that are presented to the IRC or Senior Team, which include cash flow reports and forecasts, currency exposure, industry exposure, fund count, portfolio concentration and liquidity forecasts, among others.

**Internal Controls**

The Private Equity Procedures Manual, maintained by IMG and the Administrative group, contains the detailed procedures, policies and practices applicable to those five workgroups as well as the Senior Team Meeting, ESG matters and the treatment of Material Non-Public Information.

*PEARS (Private Equity Accounting Reporting Solution)*

PEARS is a combined services and technology solution being implemented to manage the PE portfolio. Its goals are to provide enhanced analytical, monitoring and control capabilities, increase efficiency in processes and enhance data transparency. The PEARS system will include the maintenance of an accounting book of record (managed by Capital Analytics) and an investment book of record (managed by eFront).

While PEARS is still a work in progress and has not yet been fully implemented, PCA is optimistic about its capabilities and the increased efficiency and transparency. All groups within the PE Program will use PEARS to some extent, though Underwriting will likely be the last function added to the solution. Managers are being asked to utilize CalPERS' templates for providing data and thus far approximately 96% of existing managers have agreed.

Though PEARS represents an immediate and significant improvement relative to the prior system, PCA cautions against an assumption that PEARS, simply by virtue of its initial implementation, will suddenly satisfy all of CalPERS' informational needs and wants. The system is being rolled out in various phases over the next two years and most of the new data to be gathered will be done on a prospective basis. PEARS appears to be a well-designed system that is a major step, along with the more rigorous requirements set forth in CalPERS' template side letter, in the direction of enhanced transparency.

CalPERS, like most other investors, currently reviews distributions and assesses their accuracy from a reasonableness perspective. As the implementation of PEARS continues and general partner transparency expands, comparison to actual limited partnership agreement terms will become the norm. PCA believes staff is motivated to obtain all potentially relevant information from managers and to take advantage of PEARS' capabilities to the maximum extent possible.

**Staffing**

The PE Program had 53 staff positions as of September 30, 2015. Over the last year, seven individuals departed, all of whom left the CalPERS organization, while the group added 13 new hires. Eight of the 13 new personnel came from other groups within the Investment Office. Acclimating internal transfers to the unique Program aspects places a strain on management beyond that associated with external new hires. As of the reporting date, there were three vacancies with no anticipated growth over the next year.

PCA believes that CalPERS' PE staff possess the experience and competence to continue implementing the PE Program. PCA further believes the PE Program is appropriately staffed in terms of its number of positions and the division of labor within the Program. Each of the Program's senior leaders possesses a deep level of experience in the asset class.

The separation of Underwriting, IMG and RRAP into three distinct groups has created clear roles and responsibilities for each professional within the PE Program. While this structure has led to the implementation of more efficient processes and better use of the PE Program's resources, it has also had the effect of limiting certain professionals' exposure to other aspects of the Program. Given the size and complexity of the PE portfolio, the processes and division of labor currently in place make sense, as does CalPERS' desire to have each individual clearly understand their responsibilities and master them. That being said, perhaps some semblance of a rotational program would broaden each individual's skill sets and enhance their understanding of the PE Program and the asset class overall.

Furthermore, the recent criticisms of the private equity industry and CalPERS PE Program have, at least according to some group members, negatively affected morale. A significant amount of professional time has been devoted to addressing and responding to the issues raised by the various commentators. To some extent, this has shifted the Program's recent focus away from investing and monitoring the portfolio, which are the mission-critical responsibilities of the Program. Personnel departures, if any, should be monitored to see if they are a result of the challenging environment.

**ESG Matters**

PCA reviewed CalPERS' Private Equity Sustainable Investment Practice Guidelines which are a standing item for review at staff's bi-weekly Private Equity Procedures meetings.

For purposes of identifying potentially relevant ESG risks and opportunities, the PE Program currently utilizes the United Nations Principles for Responsible Investments ESG Factors and the MSCI Intangible Value Assessment Methodology Hierarchy. ESG factors are integrated throughout the PE Program's various functions, including manager selection, contracting and monitoring.

CalPERS is also a leading and active investor in the emerging manager space across all asset classes, including private equity. Commitments to women and minority owned private equity firms total nearly $1.5 billion, including at least $200 million during the 2014-2015 fiscal year.

**Investment Beliefs**

CalPERS' Investment Beliefs are being implemented to varying degrees throughout the PE Program as identified in the previous paragraphs. Below is a brief summary of the application of certain other Investment Beliefs to the current operations and goals of the PE Program.

*#1: Liabilities must influence asset structure/#6: Strategic asset allocation is the dominant determinant of portfolio risk and return*

Given CalPERS' liabilities and its assumed rate of return, the PE Program plays an important role in the system's overall ability to continue meeting its obligations. Historically, private equity has generated strong returns for CalPERS' overall portfolio, as summarized elsewhere in this report. On the other hand, private equity is also a risky and illiquid asset class, which has historically had the effect of limiting CalPERS' overall exposure to private equity to a level near or below its current long-term target of 12%. As the upcoming ALM process unfolds, the Investment Committee will have the opportunity to reassess the appropriate allocation to the private equity asset class relative to the portfolio as a whole.

*#4: Long-term value creation requires effective management of three forms of capital: financial, physical and human/#9: Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error*

As summarized above, ESG factors are integrated throughout the PE Program. With respect to CalPERS' long time horizon, it is incumbent upon CalPERS to consider the impact of its actions on future generations of members and taxpayers. Also, risks such as climate change and natural resource availability, which emerge slowly over long time periods, could have a material impact on company or portfolio returns.

*#10: Strong processes and teamwork and deep resources are needed to achieve CalPERS' goals and objectives*

The PE Program is managed by a group of seasoned professionals and is well staffed to continue implementing the Program. Also, the PE Program has in place a number of cogent policies, systems and processes that support the Program's operations. The implementation of PEARS is expected to allow for greater consistency in the information provided by managers and enhanced transparency with respect to the underlying holdings within the PE Program.

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*An investment in the Fund is speculative and involves a degree of risk and no assurance can be provided that the investment objectives of the Fund will be achieved. Investment in the Fund is suitable only for sophisticated investors who are in a position to tolerate such risk and satisfy themselves that such investment is appropriate for them. The Fund may lack diversification, thereby increasing the risk of loss, and the Fund's performance may be volatile. As a result, an investor could lose all or a substantial amount of its investment. The Fund's governing documents will contain descriptions of certain of the risks associated with an investment in the Fund. In addition, the Fund's fees and expenses may offset its profits. It is unlikely that there will be a secondary market for the shares. There are restrictions on redeeming and transferring shares of the Fund. In making an investment decision, you must rely on your own examination of the Fund and the terms of the offering.*