

Private Equity Annual Program Review

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Executive Summary

- Private Equity (PE) has met the return expectation of the Asset Liability Management (ALM) Assumptions.
- PE has underperformed its policy benchmark for the 1, 3, 5 and 10 year periods.
- PE is progressing with significant restructuring and portfolio rebalancing.
- PE, Investment Servicing Division (ISD), and Fiscal Services Division (FCSD) are collaborating on the implementation of a new performance analytics and accounting solution. Parallel operations are scheduled to start in February.
- Overall, PE is making progress, reducing costs and complexity, in order to improve long-term performance.

Private Equity Annual Program Review

Review Outline

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- 1** Liabilities
- 2** Long-Term Horizon
- 3** Stakeholders
- 4** Three Forms of Capital
- 5** Accountability
- 6** Strategic Allocation
- 7** Risk Reward
- 8** Costs Matter
- 9** Multi-faceted Risk
- 10** Resources/Process

Investment Beliefs Key

	Short Name	Investment Belief
1	Liabilities	Liabilities must influence the asset structure.
2	Long-Term Horizon	A long time investment horizon is a responsibility and an advantage.
3	Stakeholders	CalPERS investment decisions may reflect wider stakeholder views.
4	Three Forms of Capital	Long-term value creation requires effective management of three forms of capital: financial, physical, and human.
5	Accountability	CalPERS must articulate its investment goals and performance measures and ensure clear accountability for their execution.
6	Strategic Allocation	Strategic asset allocation is the dominant determinant of portfolio risk and return.
7	Risk Reward	CalPERS will take risk only where we have a strong belief we will be rewarded.
8	Costs Matter	Costs matter and need to be effectively managed.
9	Multi-faceted Risk	Risk of CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error.
10	Resources / Process	Strong processes and teamwork and deep resources are needed to achieve CalPERS' goals and objectives.

I. Program Overview

Private Equity: Program Role

- Primary Role
 - Private Equity allocations are a means of enhancing equity returns through a value-added approach to investment management of a diverse set of portfolio companies and to capture the illiquidity premium. The major driver for returns is appreciation, with negligible cash yield.
 - ALM Workshop 2013
- Driver of total performance
 - Price appreciation
- Risks
 - High growth risks
 - Illiquid
 - Leverage

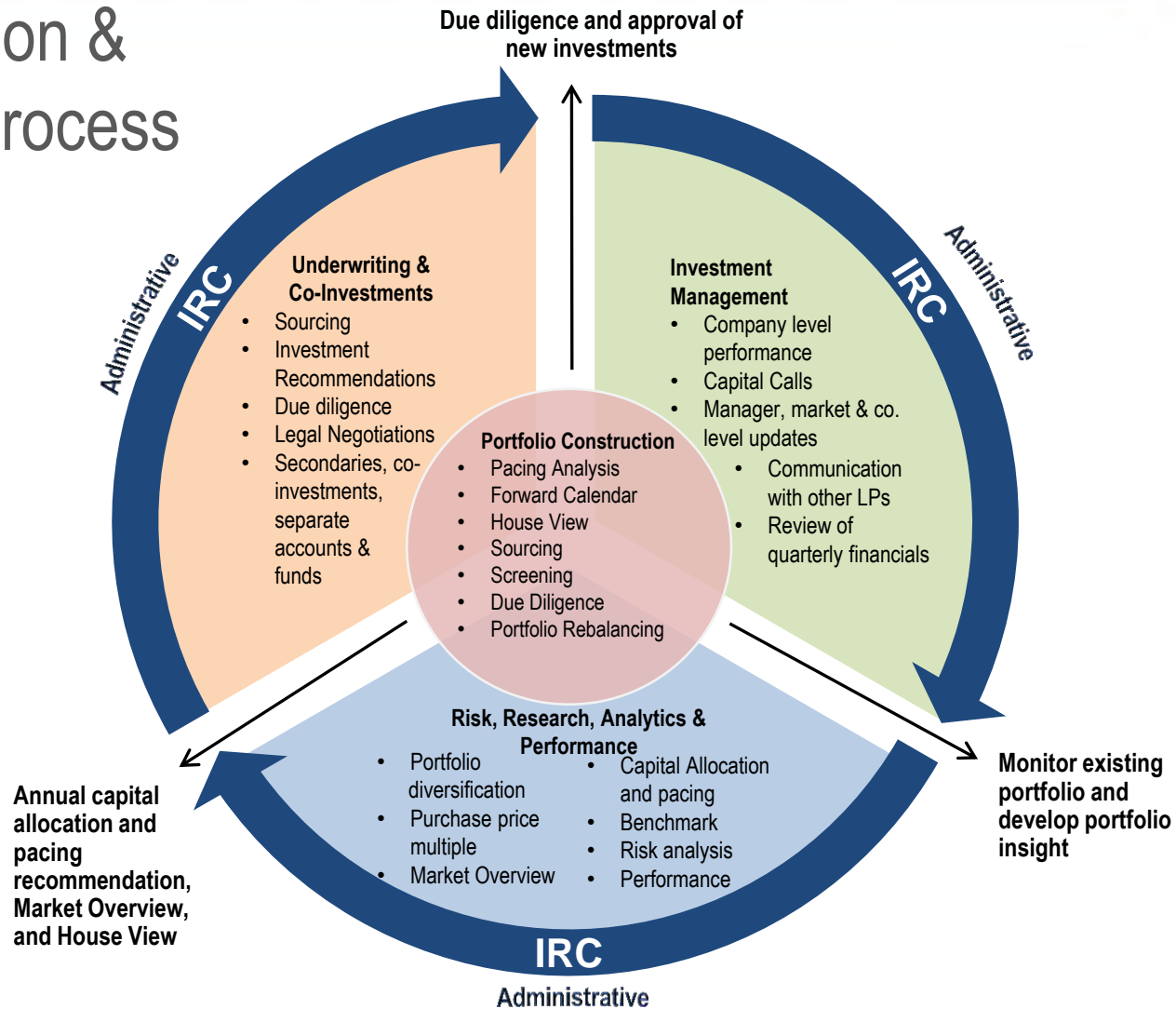
Program Investment Philosophy

- Long-term investor
- Manager selection and alignment of interest are critical to PE's success
- Over-diversification negatively impacts performance
- Costs matter

Portfolio Construction & Management Process

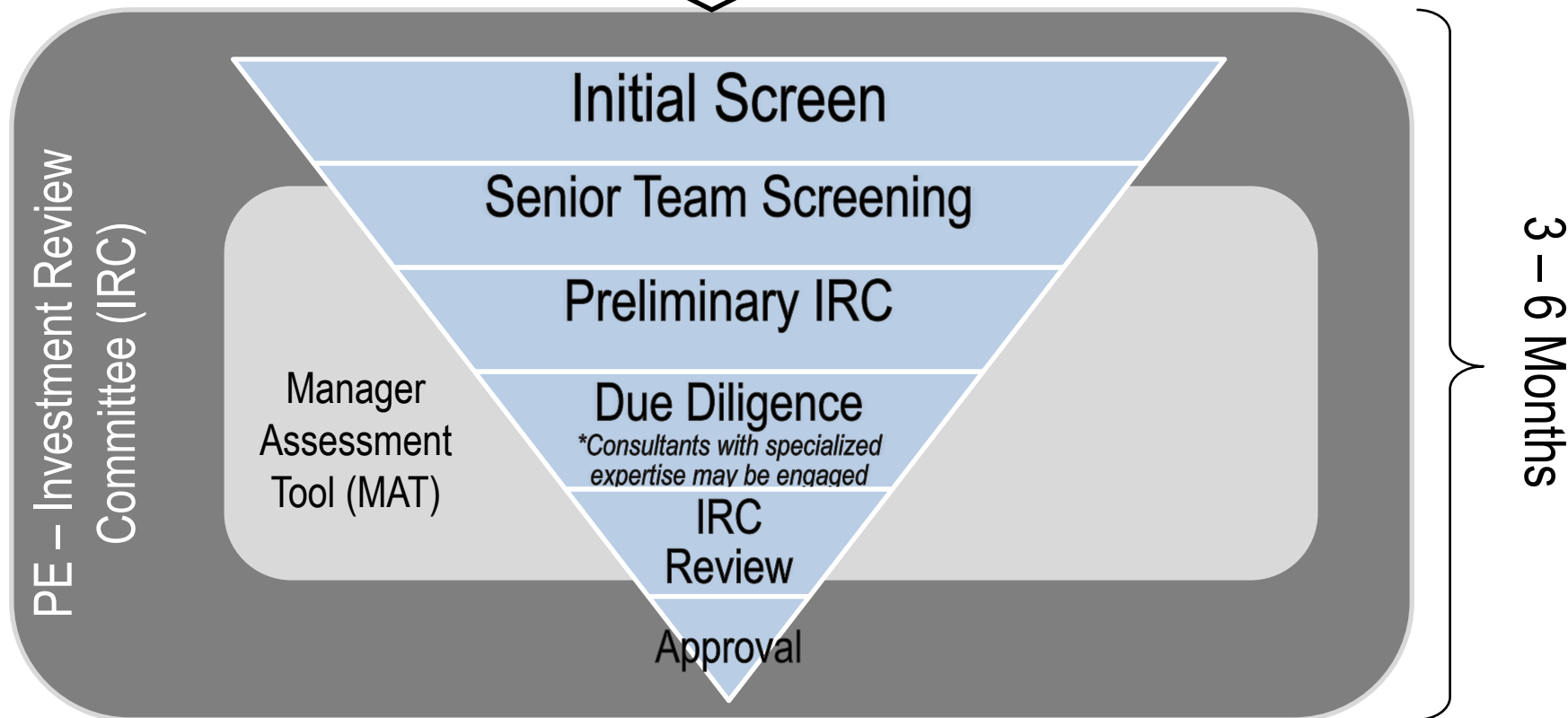
Investment Review Committee (IRC)

- Purpose: Consistent review of investments
- Timing: Weekly
- Participants:
 - CIO
 - SIO, SPMs, PMs (PE)
 - 1 PM (Real Assets)
 - 1 SPM (Global Fixed Income)
 - 1 SPM (Asset Allocation)
 - 1 PM (ICOR)
 - Board Consultant
 - Scribe

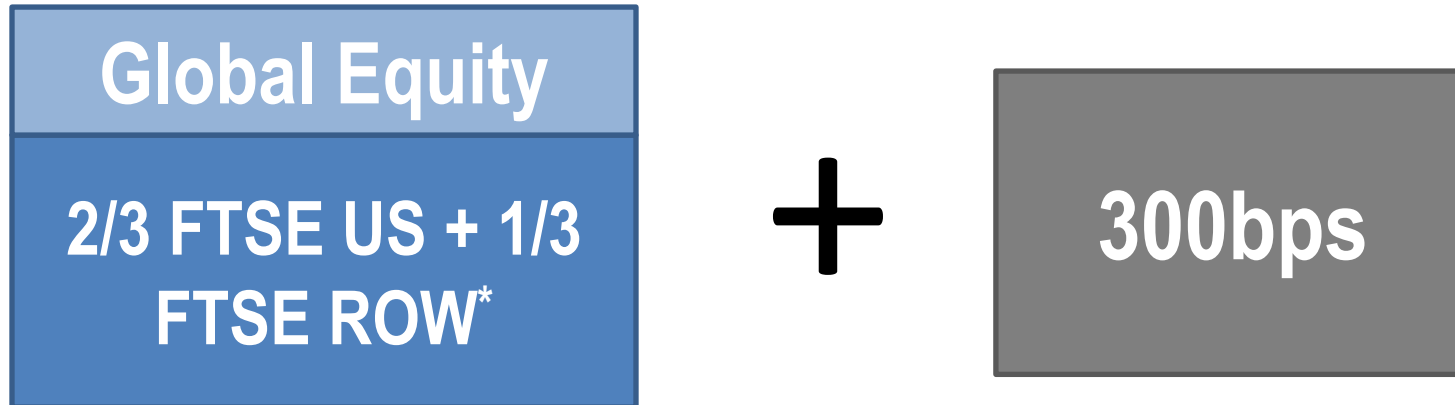


Investment Decision Process

Investment Proposal Tracking System (IPTS)



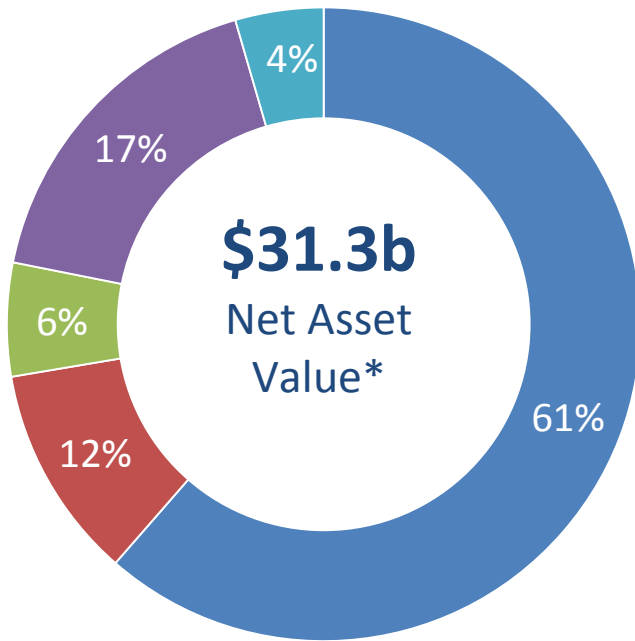
Current Policy Benchmark



- The benchmark should be reviewed in 2015 by Private Equity, Asset Allocation, and Risk Management.
- The benchmark creates unintended active risk for the Program, as well as for the Total Fund.

*(2/3 FTSE U.S. Total Market Index + 1/3 FTSE All World ex-U.S. Total Market Index) + 300 bps lagged by one quarter.

Program Characteristics

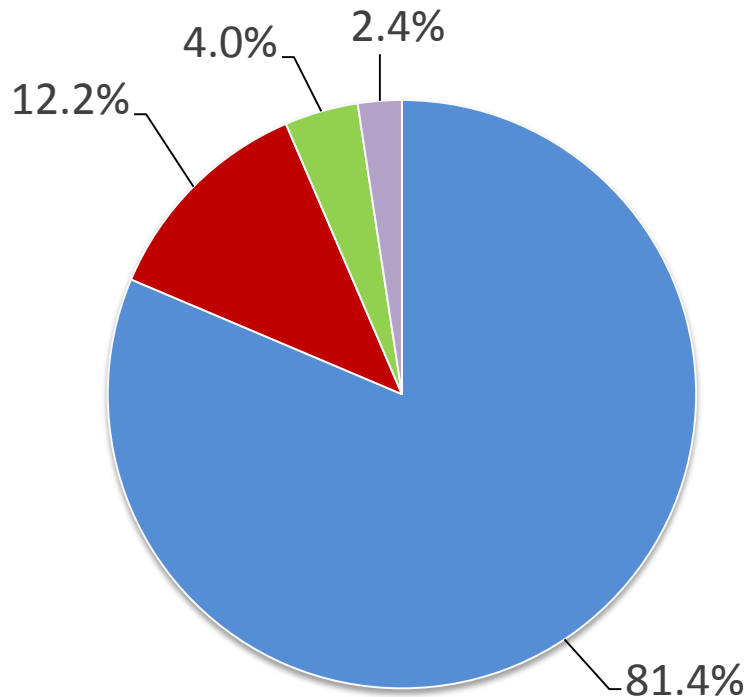


Strategy	Net Asset Value*	Current*	Target	Range
Buyouts	\$19.1	61%	60%	50-70%
Credit Related	\$3.6	12%	15%	10-25%
Venture Capital	\$1.8	6%	<1%	0-7%
Growth/Expansion	\$5.5	17%	15%	5-20%
Opportunistic	\$1.3	4%	10%	0-15%
Total	\$31.3	–	–	–

*Based on Net Asset Value (NAV) as of June 30, 2014; \$s in billions.

Source: State Street

Program Characteristics (Cont'd)



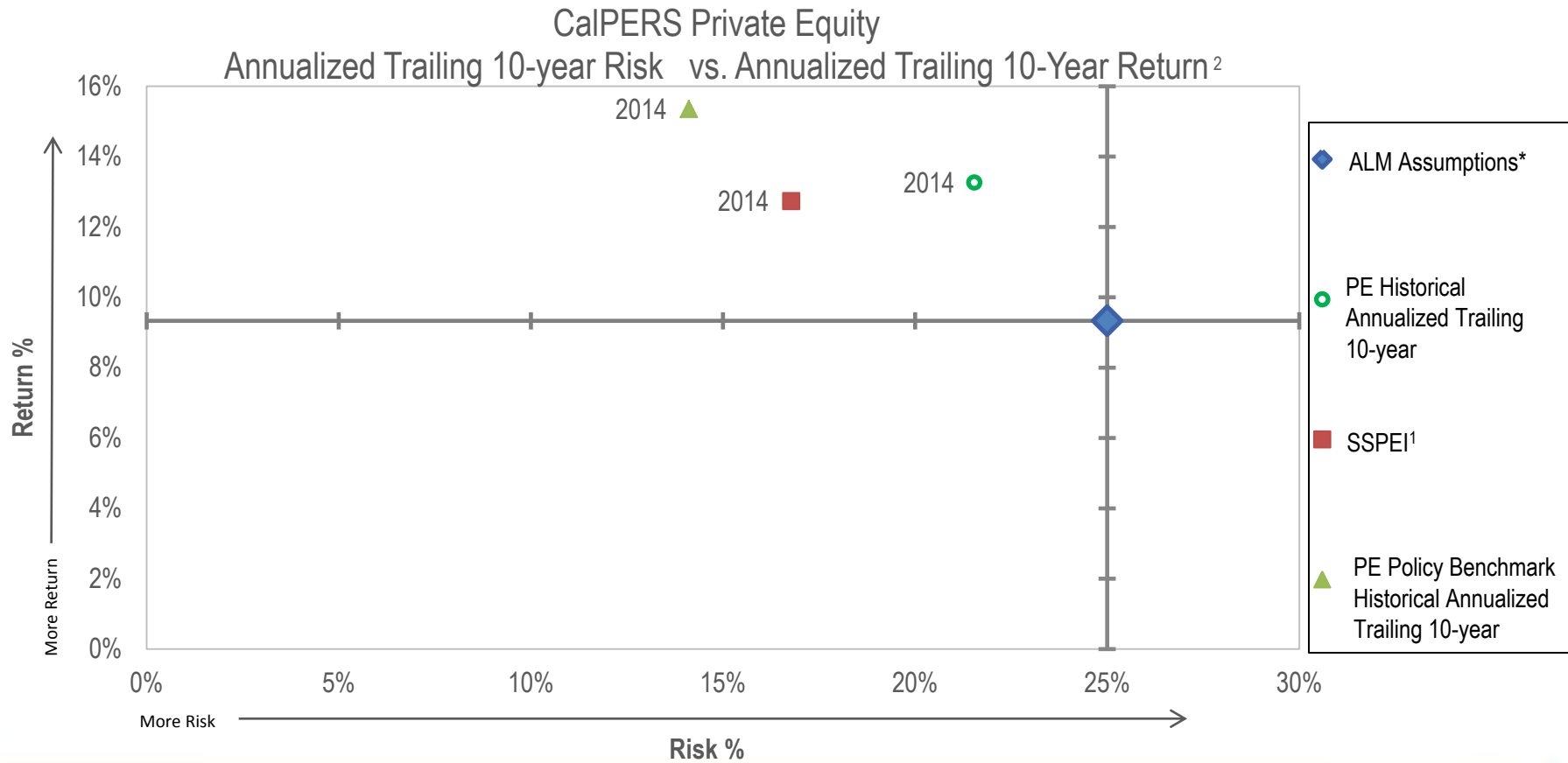
Investment Type	Net Asset Value (NAV)*
Funds	\$25.5
Fund-of-Funds	\$3.8
Co-Investments/Direct Investments	\$1.3
Customized Investment Accounts	\$0.7
TOTAL	\$31.3

*Based on NAV as of June 30, 2014; \$s in billions.

II. Investment Review

ALM Assumptions Validation

- Over a ten-year period, the CalPERS Private Equity Program has delivered 4.3% excess return above the ALM Assumptions.



* Capital Market Assumptions used in the 2013 ALM Workshop

¹ Quarterly data from State Street Bank Peer Universe, annualized trailing 10-year calculated by Asset Allocation

² Trailing 10-year ending June 2014

Past Year Environment Review

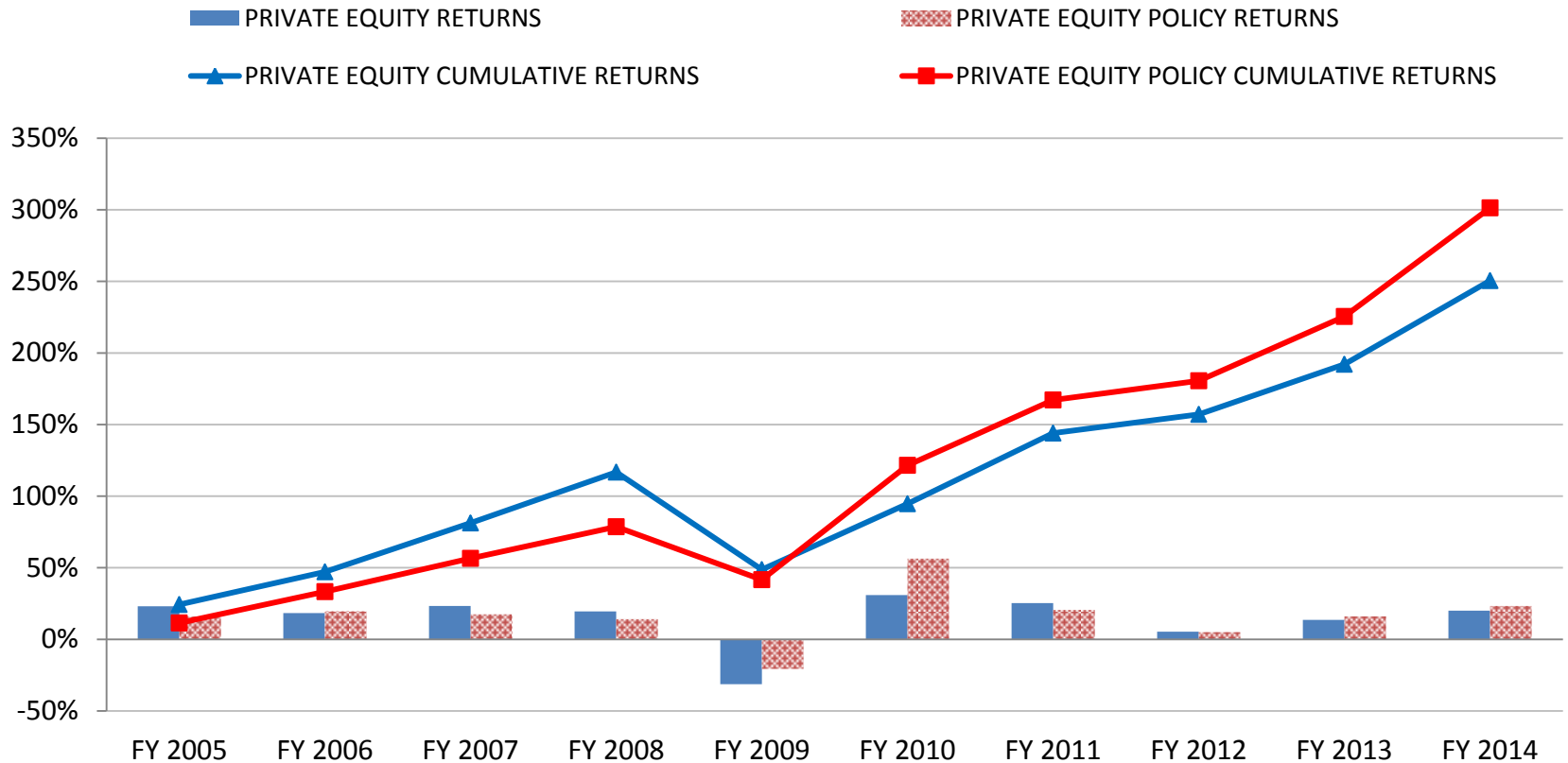
- Continued high demand for private equity products by investors.
- The pace of investments relative to available capital is low.
- Purchase price multiples are elevated due to the availability of cheap credit, with U.S. buyout multiples averaging 9.7x YTD 2014 through 9/30/14, compared to ten-year average of 8.8x.
- Calendar year 2014 on pace to significantly exceed all-time record-high distributions to limited partners, with nearly \$240 billion in distributions to date.

Program Performance Review

- Over a ten-year period:
 - Exceeded the ALM return expectation of the asset class by 4.3%
 - Underperformed the Private Equity policy benchmark by 2.1%
 - Exceeded the Global Equity portfolio performance by 5.7%

	1-YR	3-YR	5-YR	10-YR	20-YR
As of June 30, 2014	Net Return (%)	Net Return (%)	Net Return (%)	Net Return (%)	Net Return (%)
PRIVATE EQUITY	20.0	12.8	18.7	13.3	12.4
ALM Return Expectation	9.0	9.0	9.0	9.0	9.0
Excess Return	11.0	3.8	9.7	4.3	3.4
PE POLICY BENCHMARK	23.3	14.5	23.2	15.4	12.0
Excess Return	(3.3)	(1.7)	(4.5)	(2.1)	0.4
CalPERS GLOBAL EQUITY	24.8	11.3	15.7	7.6	9.4
Excess Return	(4.8)	1.5	3.0	5.7	3.0

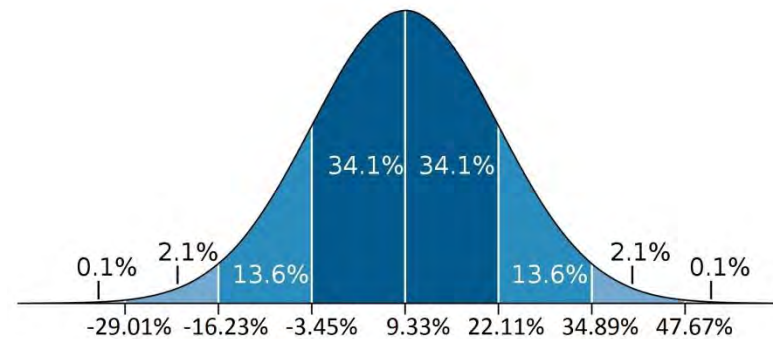
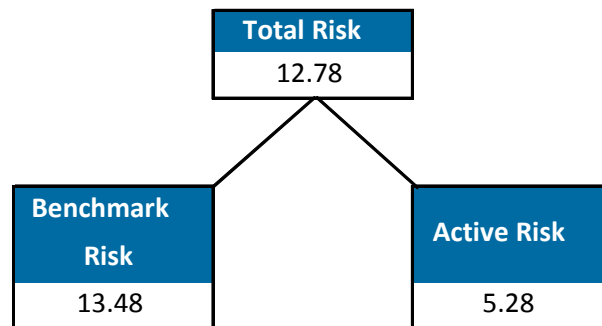
Program Performance Review (Cont'd)



Traditional Risk Assessment

As of June 30, 2014

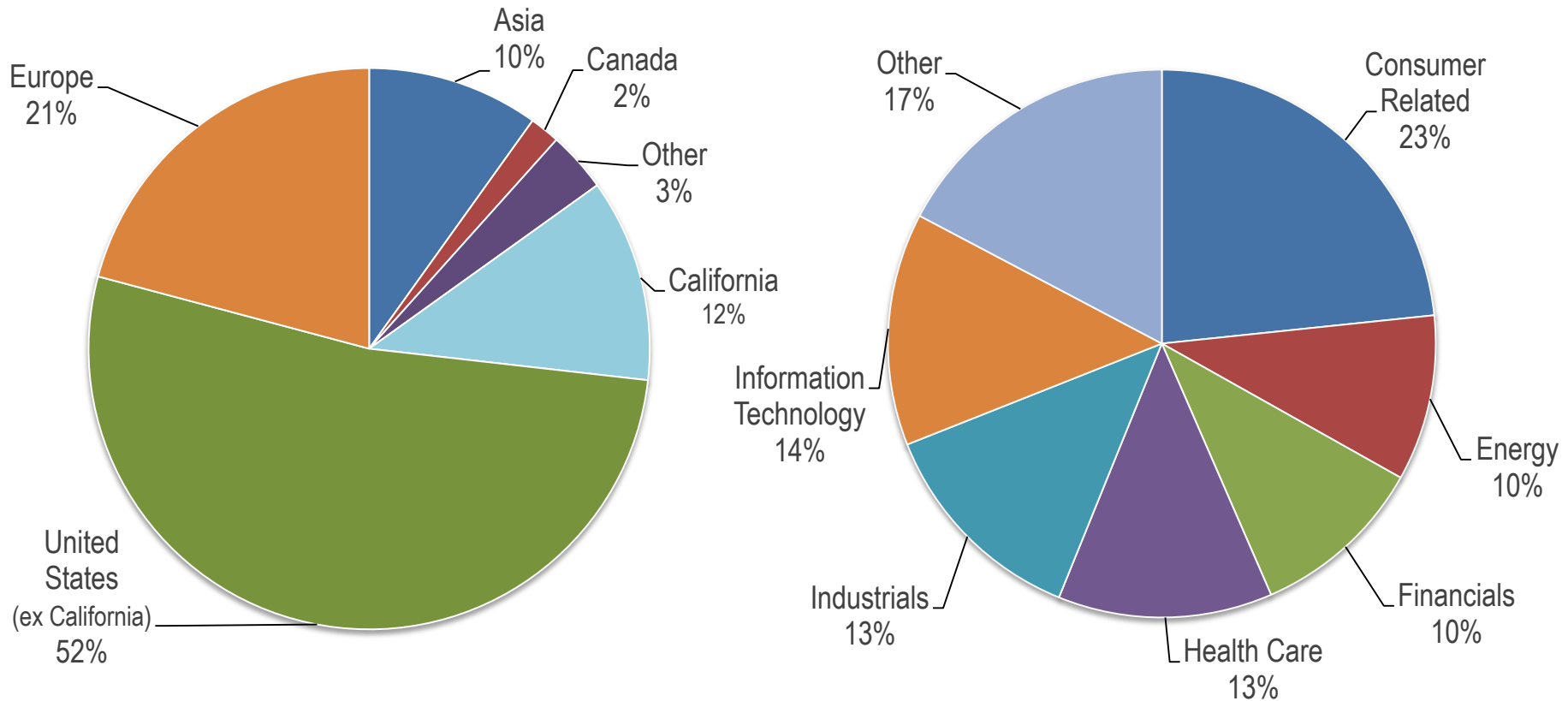
- Private Equity Forecast Risk is 12.78%
- Forecast Tracking Error is 5.28%



Forecasted Distribution of Returns*

*Based on Expected Returns from 2013 Asset Liability Workshop of 9.33% and Forecasted Risk of 12.78%

Portfolio Characteristics



Net Asset Value (NAV) as of June 30th, 2014; \$s in billions

Portfolio Characteristics (Cont'd)

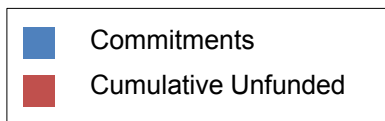
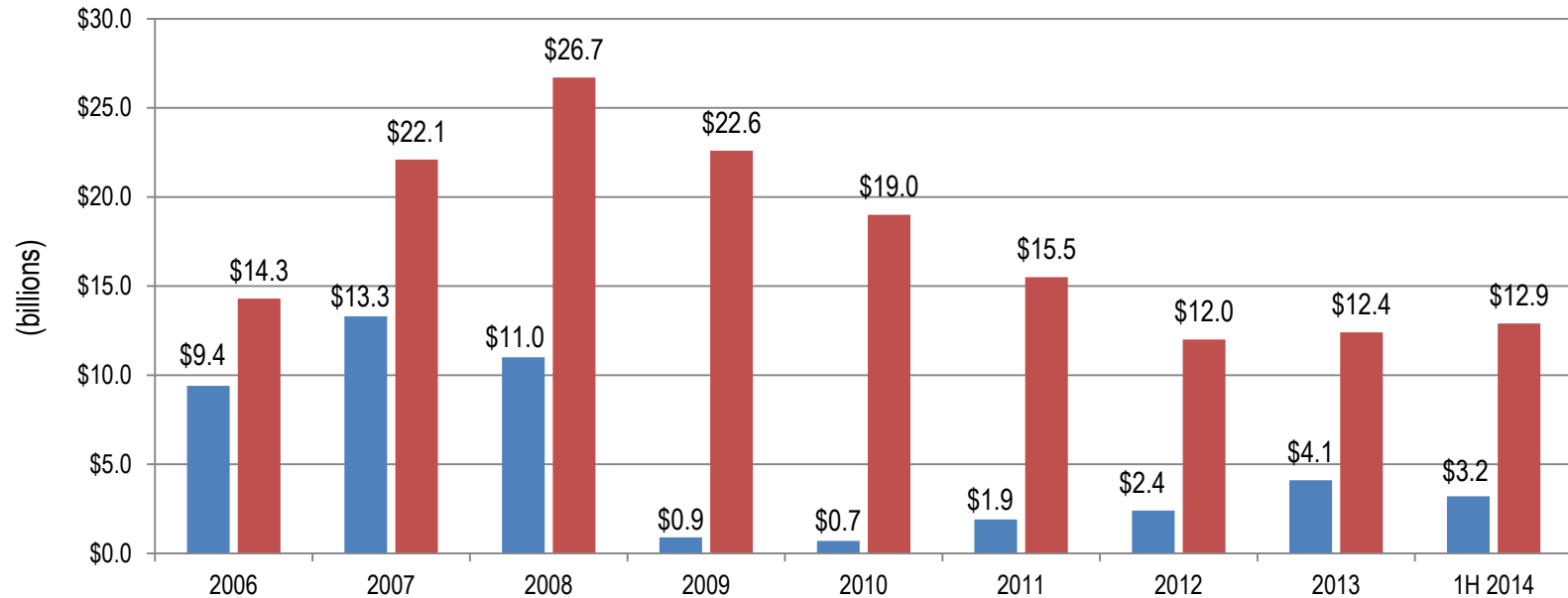
	# of Managers	# of Funds
Direct Portfolio	106	300
Fund-of-Funds	306	388
TOTAL	390	684

- The top 20 PE Managers by NAV account for 67% of overall net asset value of the PE portfolio.
- The top 40 PE Managers by NAV have generated 88% of overall gains of the PE portfolio.

**As of June 30th, 2014*

- Direct Portfolio and Fund-of-Funds Manager and Fund counts do not tie to Total due to overlapping investments

PE Portfolio Risk



	Annual Cash Flow Grand Total								
	2006	2007	2008	2009	2010	2011	2012	2013	1H 2014
Contributions	(\$4.7)	(\$9.8)	(\$9.8)	(\$4.4)	(\$6.1)	(\$5.4)	(\$4.9)	(\$2.9)	(\$1.8)
Distributions	\$4.1	\$5.8	\$3.8	\$2.3	\$6.1	\$8.6	\$8.8	\$9.9	\$3.8
Net Flow	(\$0.6)	(\$4.0)	(\$6.0)	(\$2.0)	(\$0.0)	\$3.1	\$3.9	\$7.0	\$2.0

As of June 30, 2014; \$s in billions

Forward-looking Commentary

- Focus on Customized Investment Accounts, Co-investments, and permanent capital to improve performance. Continued emphasis on reducing costs and complexity.
- Capitalize on CalPERS' long-term investment horizon.
- Given the slow pace of commitments made in years 2008-2011, the CalPERS Private Equity portfolio is expecting distributions to drop over the next five years.

III. Business Review

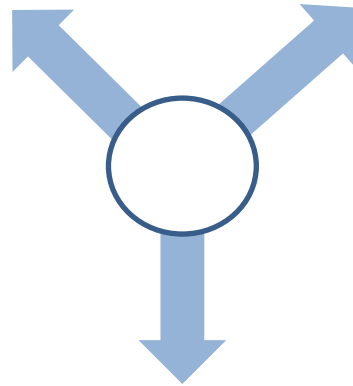
Business Model

Fund investments and Customized Investment Accounts

- Top-performing funds with strong track records and high growth potential
- Provide exposure to attractive geographies and sectors
- Provide opportunities for co-investments

Co-Investments alongside Fund Partners

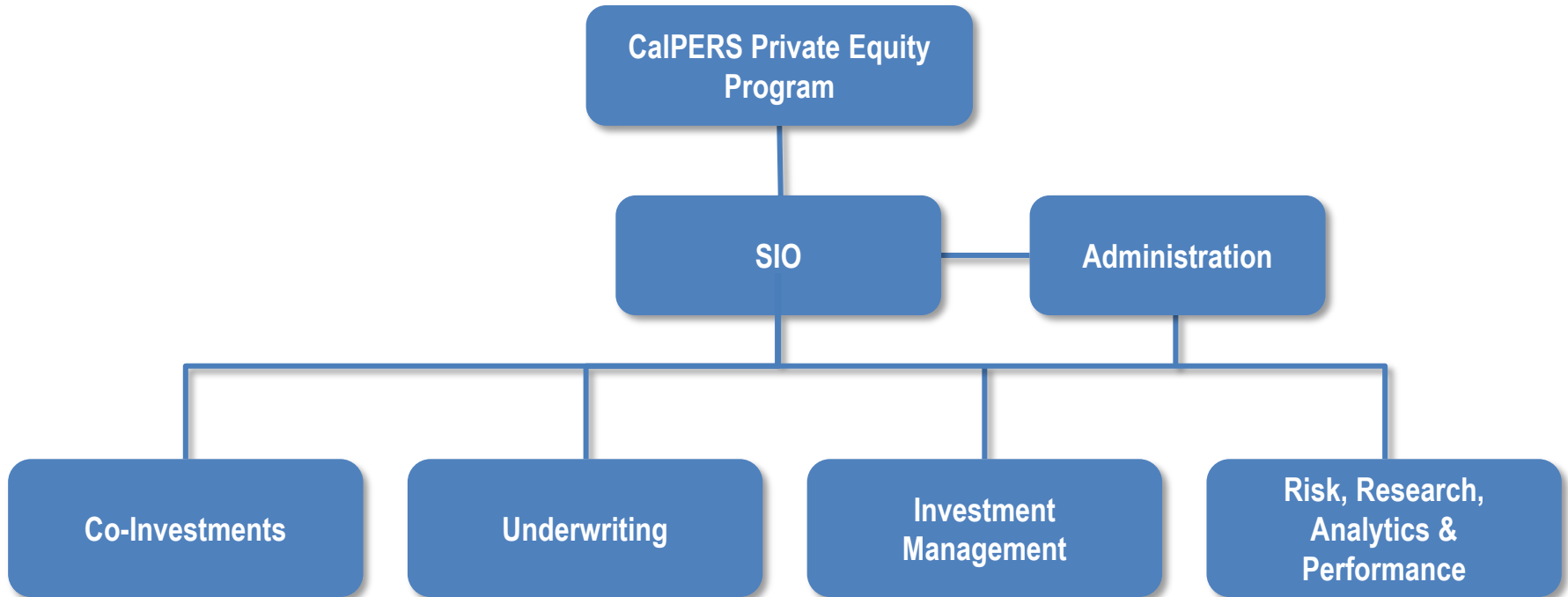
- High quality General Partners
- Strong industry fundamentals
- Attractive business and valuation
- Favorable deal dynamics



Secondary Sales and Purchases

- Utilize secondary sales to restructure and rebalance portfolio
- Evaluate secondary purchases of underexposed vintage years

Functional Organizational Chart



- Strategic Plan – Insourced critical functions previously outsourced to external advisors to increase control, reduce fees and improve performance.

Staffing Overview

TOTAL PROGRAM ¹

- 53 total positions within Private Equity compared to 47 positions in FY 2012-13

STAFFING UPDATES ¹

- Hired 1 Senior Portfolio Manager
- Hired 1 Portfolio Manager
- Hired 11 Investment Officers
- Hired 9 Administrative staff

CURRENT VACANCIES ²

- 3 Investment Officers

DIVERSITY

- 18 languages spoken
- 10+ countries of origin
- 21 women, 29 men
- Designations:
 - 11 CFA, 6 CPA, 5 CAIA
- Degrees:
 - 7 MA, 16 MBA, 2 JD, 2 PhD

Five-Year Strategic Plan Progress



Initiatives	Goals
Reduce Costs	<ul style="list-style-type: none"> • Customized Investment Accounts • Co-Investments • Focus on fees
Reduce Complexity	<ul style="list-style-type: none"> • Reduce Fund of Funds • Tail-End Project <ul style="list-style-type: none"> - Manage inactive funds off the balance sheet
Develop Infrastructure and Organization	<ul style="list-style-type: none"> • Private Equity Accounting and Reporting Solution (PEARS): <ul style="list-style-type: none"> - From State Street to CalPERS proprietary system
Governance	<ul style="list-style-type: none"> • Increased focus on regulatory compliance in PE portfolio • Securities and Exchange Commission (SEC) <ul style="list-style-type: none"> - Monitor, track and report on regulatory matters • Review and track Form ADV

Project Update: PEARS*

- Project Objective

Implement a new service and technology solution to manage and account for private equity (PE) portfolio data and activity while increasing PE data transparency through implementation of new data standards and an automated transmission process.

- Timeline



Note: The scope for the June 2015 and December 2015 releases will be finalized in early 2015.

*Private Equity Accounting and Reporting Solution

Program Expenses

	FY 2013-14			FY 2012-13		
	AUM (\$billions)	Fees Paid (\$millions)	Fees Paid ² (BPS)	AUM (\$billions)	Fees Paid (\$millions)	Fees Paid ² (BPS)
Internal Management	0	7	2	0	6	2
External Management ¹	32	441	140	31	476	152
Consultants Expense	N/A	2	1	N/A	2	1
Technology & Operating Expense	N/A	6	2	N/A	4	1
Total Program	32	455	144	31	488	155

¹ Important to note is that our private equity partners participate in this agreed-upon carried interest profit sharing only after a minimum agreed upon return has been obtained by the investor, and all underlying fund expenses have been reimbursed. The minimum agreed upon return is typically in the range of 6% – 8%.

² All BPS fees paid figures are calculated on Total Program AUM, which was \$31.5 billion as of June 30th, 2014.

Conclusion

- PE has met the return expectation of the ALM Assumptions.
- PE has underperformed its policy benchmark for the 1, 3, 5 and 10 year periods.
- PE is progressing with significant restructuring and portfolio rebalancing.
- PE, ISD, and FCSD are collaborating on the implementation of a new performance analytics and accounting solution. Parallel operations are scheduled to start in February.
- Overall, PE is making progress, reducing costs and complexity, in order to improve long-term performance.