Investment Office Cost Effectiveness

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Investment Committee

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Agenda

- Introduction to Cost Effectiveness Initiative
- Investment Management Cost Drivers
- INVO Cost Structure vs. Peer Benchmarks
- INVO Cost Trends
- Cost Savings Accomplishments & Upcoming Priorities

INVO - Investment Belief 8

Costs Matter and need to be effectively managed.

Sub-beliefs:

- CalPERS will balance risk, return and cost when choosing and evaluating investment managers and investment strategies
- Transparency of the total costs to manage the CalPERS portfolio is required of CalPERS business partners and itself
- Performance fee arrangements and incentive compensation plans should align the interests of the fund, staff and external managers
- CalPERS will seek to capture a larger share of economic returns by using our size to maximize our negotiating leverage. We will also seek to reduce cost, risk and complexity related to manager selection and oversight
- When deciding how to implement an investment strategy, CalPERS will implement in the most cost effective manner

INVO Cost Effectiveness Objective

Enhance cost effectiveness of the Investment Program to improve net returns on assets.

FROM	TO
Management Reporting: Inadequate reporting systems and data for effective cost management	Automated financial reporting system; development of timely and meaningful financial reports
Cost Awareness: Limited understanding of total cost to manage the CalPERS portfolio	Comprehensive knowledge of total costs being incurred to manage portfolio
Fee Reduction: Insufficient focus on management and consulting fees paid	Focus on fee reduction and value for cost: development of monitoring processes that track and communicate cost saving efforts
Cost Management: Budget process that incented use of external managers and consultants	Greater flexibility to manage use of external vs. internal resources in the best interest of the fund
Benchmarking: Difficult to compare cost performance against relevant peers	Development of meaningful benchmarking statistics and outperform relevant peers per unit of value

INVO Cost Drivers

1. Private vs. Public Assets → Private is Higher Cost than Public

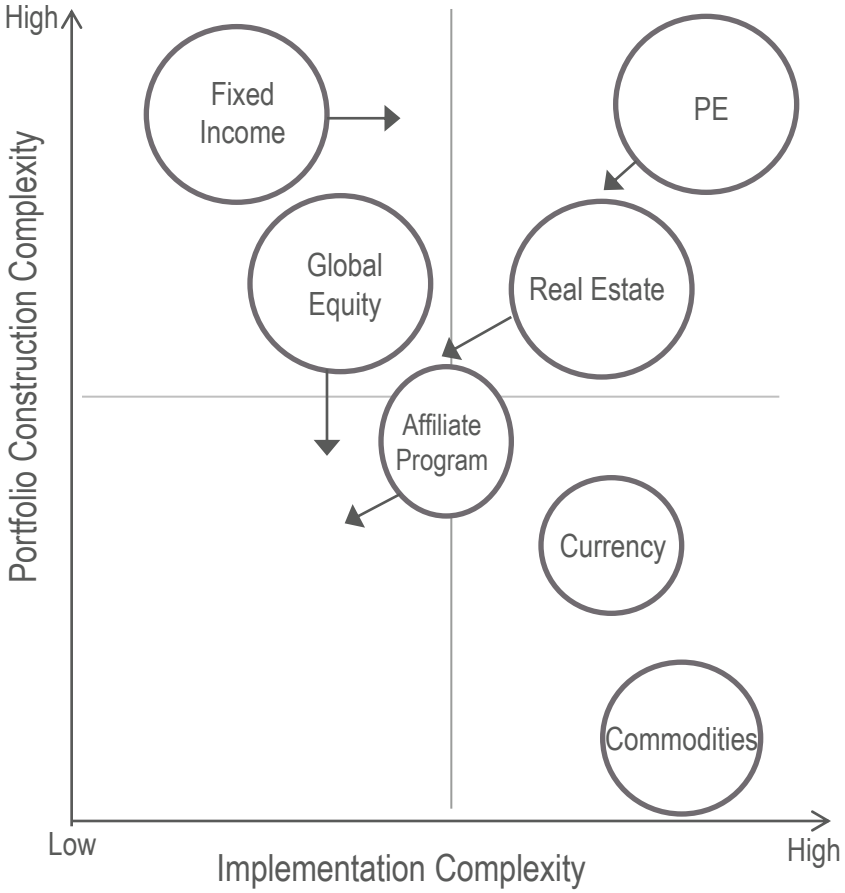
2. External vs. Internal Management → External is generally Higher Cost than Internal

3. Breadth and Type of Investment Strategies/Activities → More Complex, High Volume is Higher Cost than Simpler, Low Volume

Absolute size is not necessarily a cost driver.
However, size tends to correlate with complexity, which is a cost driver.

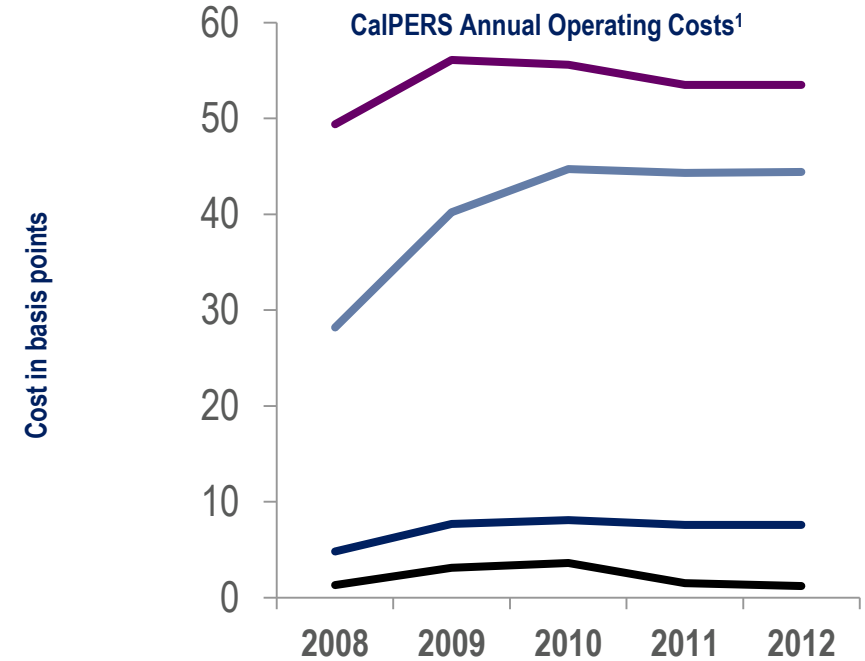
INVO Cost Drivers: Reducing Investment Program Complexity

- Investment programs are focused on restructuring portfolios; in general, moving down the scale of implementation and portfolio construction complexity
- Focused on reducing number of relationships and eliminating non-value add programs
- Selectively adding complexity where significant value can be created (e.g. Private Equity (PE) co-invest; internalizing Fixed Income)
- Goal is not to completely eliminate complexity, but to "raise the bar"; make more explicit trade-off decisions among cost, risk and return

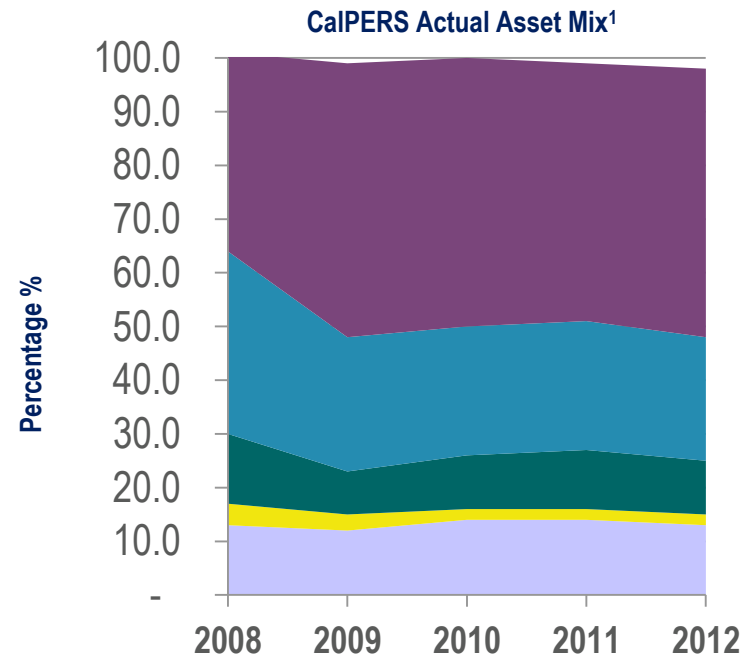


INVO 5-Year Cost Trend

Historical increase in total cost to 53.5 bps reflects increasing allocation to private assets and hedge funds.



	2008	2009	2010	2011	2012
Total Cost	49.4	56.1	55.6	53.5	53.5
Oversight	1.3	3.1	3.6	1.5	1.2
Private Assets & Hedge Funds	40.2	44.7	44.3	44.4	44.2
Public Assets (ex Hedge Funds)	7.7	8.1	7.6	7.6	8.1



	2008	2009	2010	2011	2012
Stock	37.3	51.2	50.1	48.3	50.3
Fixed Income	33.3	25.4	23.8	23.8	24.0
Real Assets	12.7	8.4	9.6	11.2	10.5
Hedge Funds	3.5	2.7	2.4	2.3	2.3
Private Equity	13.1	12.2	14.0	14.3	12.9

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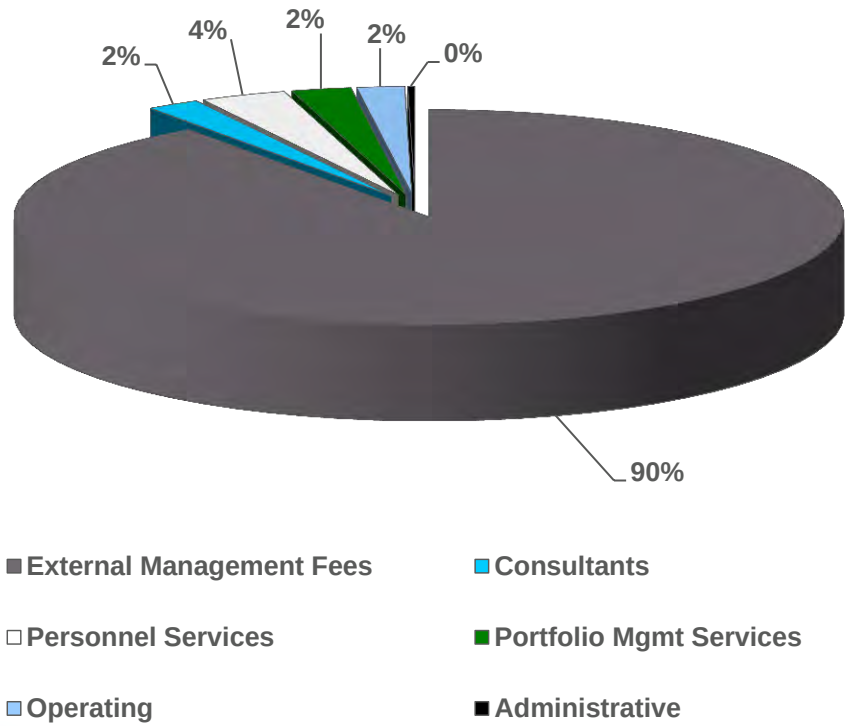
[1] Charts are from CalPERS CEM Benchmarking Calendar Year 2012 Report; asset classifications are consistent with CEM analysis and may differ from internal CalPERS reporting

Annual cost to manage the CalPERS portfolio is approximately $1.3 billion; 90% of the total cost is external management fees.

INVO Portfolio Management Expenses

Fiscal Year 2012-13: $1.3 Billion



Expense Category	$ (in millions)	% of Total Expenses
External Management Fees	1,168	90%
Consultants	26.8	2%
Personnel Services	43.6	4%
Portfolio Mgmt Services[1]	29.9	2%
Operating [2]	24.0	2%
Administrative	3.5	0%
Total	**1,295.8[3]**	**100%**
Total Cost	**53.5 bps[4]**	

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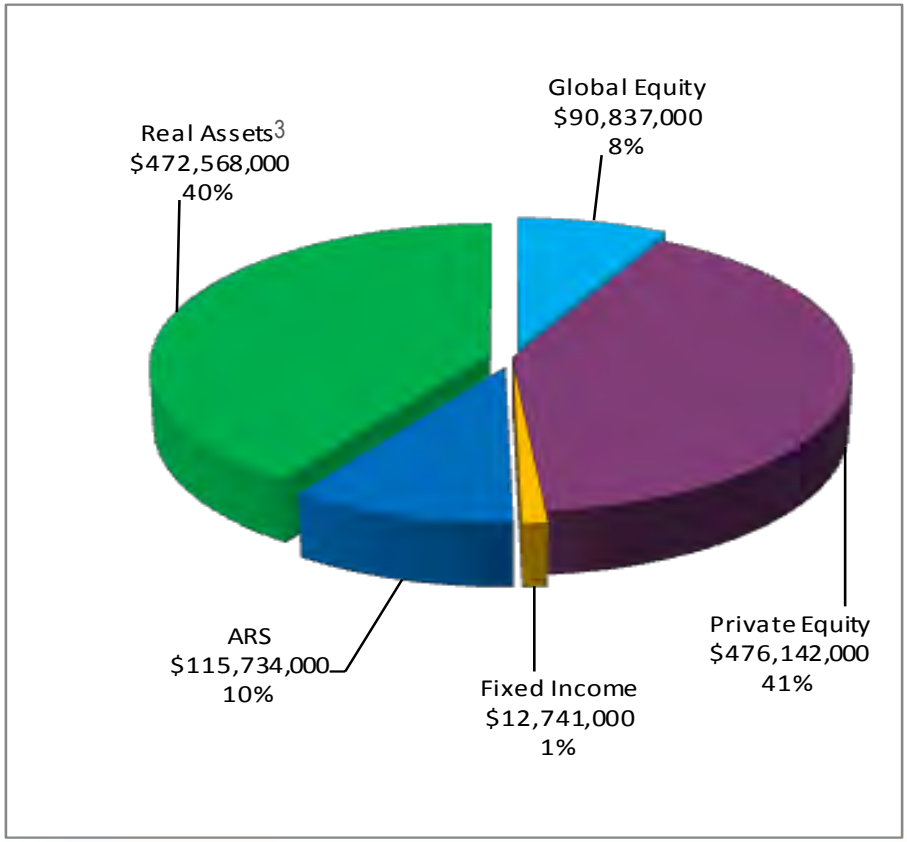
[1]Costs include technology, data, analytics, custody and fund accounting expenses
[2] Costs include legal, appraisal, audit and tax advisory services
[3]Per FY 2012-13 CAFR Investment Management Expense Summary (CAFR); figures do not include underlying fund of fund fees for PE and Absolute Return Strategies (ARS) or carried interest for PE
[4] Total Cost bps figure per CalPERS CEM Calendar Year 2012 Report, includes underlying Fund of Funds fee estimate

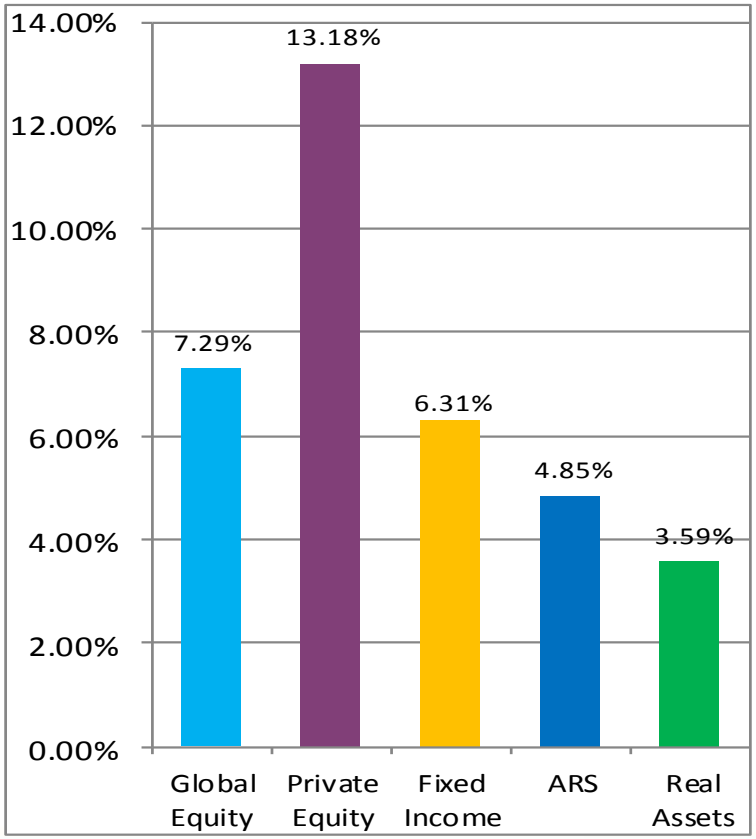
INVO Cost Structure: External Management Fees

Private assets and hedge funds are primarily externally managed and therefore represent 90% of external management fees.

External Management Fees FY 2012-13 (by program)[1]



10-Year Net Rate of Return[2]



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[1] Per FY 2012-13 CAFR Investment Management Expense Summary; figures do not include underlying fund of fund fees for PE and ARS or carried interest for PE

[2] Per 12/31/13 CIO Quarterly Performance Report presented at February 2014 Investment Committee

[3] Real Assets paid incentive fees of $270 million in FY 2012-13

INVO Cost Structure: CalPERS is Cost Advantaged vs. Peers

CEM Benchmark cost analysis suggests that CalPERS is lower cost by 5.8 bps, or $136 million.

CalPERS Cost Compared to Benchmark Cost

	$ (in millions)[1]	Basis Points[1]
CalPERS Actual Cost	1,265	53.5 bps
CalPERS Benchmark Cost	1,401	59.2 bps
CalPERS Cost Advantage	**(136)**	**(5.8) bps**

- Benchmark cost is the cost peers would incur <u>if they had CalPERS actual asset mix</u>
- CalPERS actual cost of 53.5 bps is less than benchmark cost of 59.2 bps due to:
  - -Internal management of public assets
  - -Passive management of equities
  - -Lesser use of fund-of-funds than peers
- Results are positive. However, CalPERS should be relatively low cost given scale. It is important to focus not only on cost, but also on cost effectiveness (value created net of cost).

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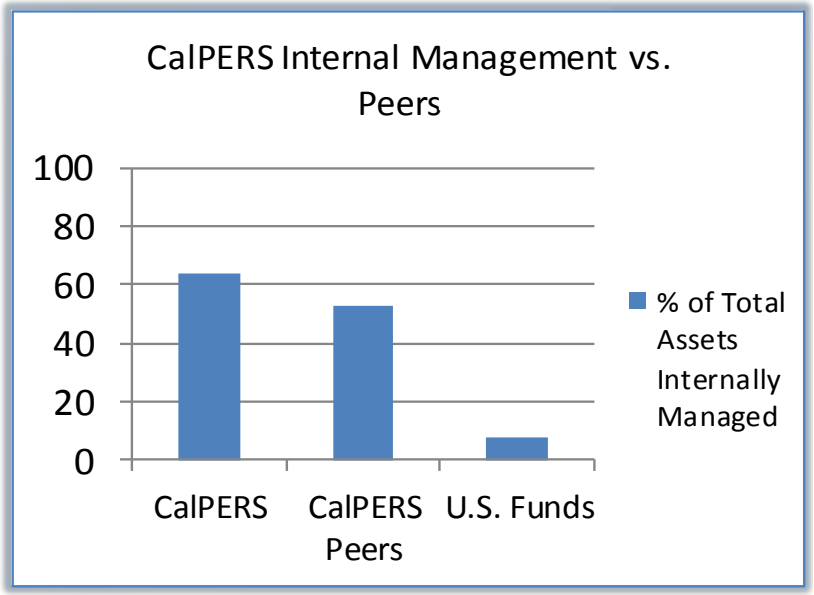
[1]Actual and benchmark cost bps figures per CalPERS CEM Calendar Year 2012 Report, includes underlying Fund of Fund fee estimate; benchmark data per custom peer group of 14 large global sponsors

INVO Cost Structure: Internal Management

Internal management of public markets and passive management of equities drive cost advantage

- CalPERS public markets asset management cost is 8.1 bps, ~50% below peer group average of 15.7 bps
- Cost benefit is driven by internal and passive management. CalPERS internally manages $189 billion or 86 % of CalPERS public market assets (67% of total assets)
- Internal management drives lower total costs, but require more staff; per CEM Global Leaders Organization Design Review, "Internal assets is the best predictor of total investment full time employees"



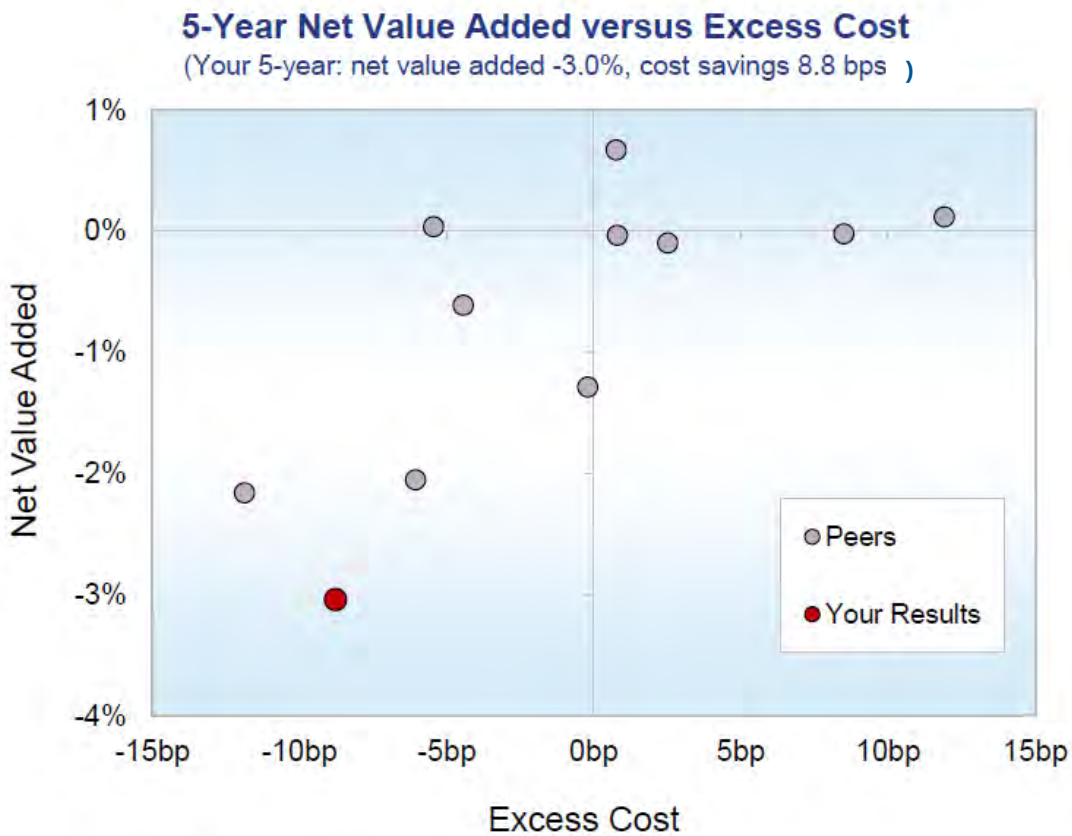
CalPERS Public Market Assets Managed Internally [2]

	Public Equity	Fixed Income	Liquidity	Inflation	Total Public Assets
Public Assets ($ billions)	156	41	13	9	219
% Managed Internally	83	91	100	100	86

[1] Peer data is from CalPERS CEM Calendar Year 2012 Report
[2] Per 12/31/13 CIO Quarterly Performance Report presented at February 2014 Investment Committee

INVO Value Add: Cost Advantage Has Not Resulted In Higher Value Add

Weak 5-year (2008-2012) investment performance overwhelmed INVO's cost advantage.



	CalPERS 5-Year [1]
Total Fund Return	1.2%
- Policy Return	3.7%
- Cost	0.5%
= Net Value Added	-3.0%

INVO Roadmap Actions

- Restructuring portfolios to improve returns
- Focus on delivering more value for cost
- Invest in risk management and control capabilities

[1] Data per CalPERS CEM Calendar Year 2012 Report for calendar years 2008-2012

Cost Effectiveness: Results

Excluding the impact of volatile performance fees, INVO has reduced expenses by $80 million over the last two fiscal years.

Expense Category	Actual FY $ 2012-13[1] ($000s)	Actual FY $ 2011-12[1] ($000s)	Actual FY $ 2010-11[1] ($000s)	2- Year $ (Decrease)/ Increase	Notes
External Mgmt Fees – Base	790,457	808,225	865,556	(75,099)	Fee reductions and insourcing of portfolios
External Mgmt Fees – Performance	377,565	165,412	284,158	93,407	Performance fees are volatile and will vary widely
Total External Mgmt Fees	**1,168,022**	**973,637**	**1,149,714**	**(18,308)**	
Consultants	26,787	37,744	45,263	(18,476)	Investment consultant reductions
Personnel Services	43,550	39,365	34,619	8,931	Increase in INVO headcount
Portfolio Mgmt Services	29,879	31,528	25,987	3,892	Increase in internal infrastructure capabilities
Operating Services	23,979	13,300	22,292	1,687	Increased legal activity
Administrative	3,534	4,642	4,015	(481)	Decrease is due to accounting change in expenses captured in administrative budget
INVO Total Port Mgmt Expense	**1,295,751**	**1,100,216**	**1,281,890**	**13,861**	**Excluding the impact of external performance fees, net expenses have decreased $80 million**

[1] Per FY 2012-13, FY 2011-12 and FY 2010-11CAFR Investment Management Expense Summary and Board Expenditure Reporting; figures do not include underlying fund of fund fees for PE and ARS or carried interest for PE

Cost Effectiveness Strategy

INVO is focused on program changes that deliver more value for cost.

- Reduce reliance on external consultants and advisors, especially for key control or portfolio monitoring functions
    - Use external resources only when external firms bring capabilities INVO can't replicate at a reasonable cost (e.g. expertise, scale, technology)

- Transition assets from external managers to internal management where it is possible for INVO to build capabilities (e.g. internalizing international and short duration Fixed Income)

- Reduce external management fees paid on private asset fund investments (e.g. Private Equity, Real Estate, ARS and Corporate Governance portfolios) by pursuing the following strategies:

    - Shift away from Fund of Funds vehicles to Direct relationships
    - Scale asset management fees; increment of fees decreases as manager grows
    - Consolidate portfolio across fewer relationships to gain pricing leverage
    - Negotiate favorable terms on fees/carry with new commitments
    - Increase focus on Co-Investments opportunities which have no carry/fees

Cost Effectiveness: Results To Date

Program efforts on cost savings has translated into material cost savings across INVO on management fees and consulting expenditures. Ongoing savings amounts are recurring annual estimates expected to realized in the future.

Program	FY 2011-12 ($000s)	FY 2012-13 ($000s)	FY 2013-14 ($000s)	Total ($000s)
ARS	6,000	4,770	9,380	20,150
Fixed Income	8,100	4,521	0	12,621
Global Equity	7,221	8,928	19,500	35,649
PE	15,688	20,641	19,680	56,009
Real Assets	10,300	8,995	959	20,254
Total Ongoing Savings [1]	**47,309**	**47,855**	**49,519**	**144,683**

Program	FY 2011-12 ($000s)	FY 2012-13 ($000s)	FY 2013-14 ($000s)	Total ($000s)
Management Fees	41,193	40,953	45,019	127,165
Consulting	6,116	6,817	4,300	17,233
Other Expenses [2]	0	85	200	285
Total Ongoing Savings [1]	**47,309**	**47,855**	**49,519**	**144,683**

- ✓ **Additional Aggregate One-Time Savings :** in addition to the ongoing annual savings, INVO has negotiated an additional $411 million in one-time savings arising from program efforts and INVO's Special Review (2011)

[1] Total identified ongoing annual savings as of Q2 FY 2013-14
[2] Includes savings captured in portfolio management services and commissions

Cost Effectiveness: Funding INVO's Roadmap

INVO's Roadmap calls for a significant increase in staffing and increased spending in Portfolio Management Services; INVO's goal is to self-fund these by cost savings efforts.

Cost Effectiveness

Recurring Annual Savings Identified (Thru Dec'13)	$145 million
2010-2014 Increased Headcount[1] (139 PYs)	($18 million)
Est. Increased Investment Office Expenses	($13 million)
Net Annual INVO Cost Savings	**$114 million**

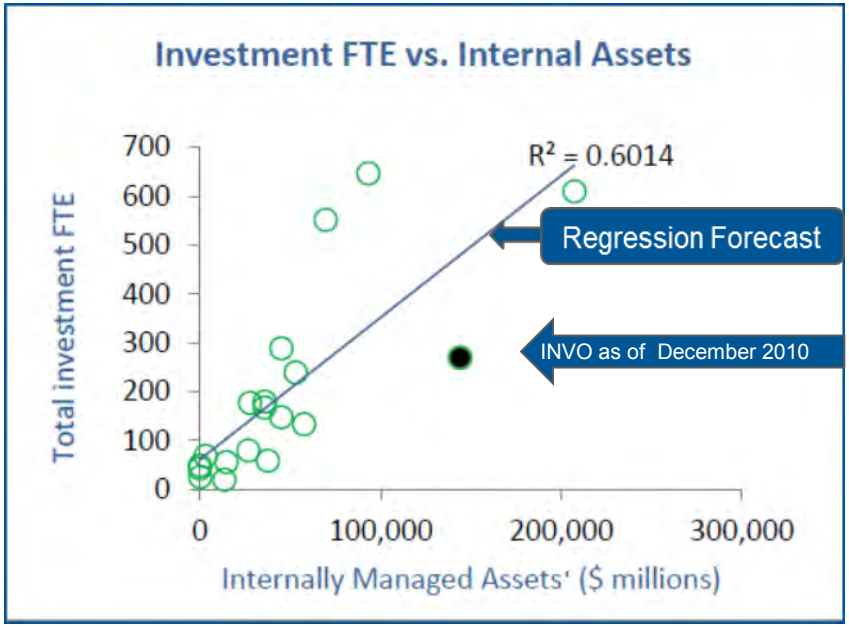
- ✓ **Headcount Additions:** Incremental headcount has allowed INVO to:
  1. Internalize core, high-value functions that were previously outsourced
  2. Establish critical control functions that previously did not exist (e.g. Investment Risk Management and Investment Compliance)
  3. Transition assets to internal management and reduce fees
     - Achieving benchmark staffing of 450 would potentially require an incremental 53 employees to be requested (est. cost of $9.0 million)

- ✓ **Increased Investment Office Expenses:** Estimated incremental annual costs of new Global Equity and Private Equity technology and data platforms and estimated increase in administrative expenses associated with the increased headcount (e.g. travel, training and other general expenses)

[1] Includes annual cost of average incentive compensation and benefits and results in total INVO headcount of 395 PYs as of March'14

Industry Benchmarks: INVO Target Staffing[1]

CalPERS participated in the CEM Global Leaders Organization Design Review to obtain an understanding of staffing levels and mix across large public sector investment organizations



CONCLUSIONS:

- INVO was significantly understaffed relative to industry benchmarks given size and complexity
- INVO's functional staffing mix (front office vs. governance/support) was not industry standard; especially with regard to investment risk and strategic asset allocation.
- Based on INVO's internal assets of $143 billion as of December 31, 2010, CEM regression analysis suggested a total size for INVO (including any dedicated Enterprise staff) of 517 people; actual INVO staff was 270
- Significant progress in last 3 years towards more appropriate staffing levels and mix (395 INVO PYs of March 2014)
- Estimated maximum staffing = 450 INVO PYs, plus estimated dedicated 50-75 Enterprise staff

[1] Chart per CEM Global Leaders Organization Design Review (2011)

Cost Effectiveness: Process Accomplishments & Upcoming Priorities

INVO continues to partner with the Financial Office (FINO) on Cost Effectiveness.

- **Process accomplishments:**
  - ✓ Continue to produce and improve upon the automated expense reporting within PeopleSoft and includes both Administrative and Investment Expense Budgets
  - ✓ Created individual detailed budgets and expense reports for each asset class (FY 2013-14)
  - ✓ Benchmarked INVO's cost and staffing levels against global peers
  - ✓ Significantly improved comprehensive investment expense reporting in CAFR

- **Upcoming priorities:**
  - ✓ Continue to identify cost savings opportunities to better deliver more value for cost and self fund INVO's Roadmap Initiatives and internal growth
  - ✓ Focus on total cost to manage the portfolio, instead of separate "administrative" and "investment" budgets
  - ✓ Finalize FY 2014-15 budget and improve projection/forecast process
  - ✓ Continue to work with FINO to further automate manually aggregated expense data
  - ✓ Provide updated comprehensive periodic reporting to Board on total costs to manage the portfolio

INVO Cost Effectiveness: Summary

- One of CalPERS investment beliefs is that “costs matter and need to be effectively managed”
- INVO’s Roadmap includes an strategic Cost Effectiveness initiative
- CalPERS has advantages that enable it to manage the portfolio at a lower total cost than peers
- INVO has focused on managing the portfolio more cost effectively which has resulted in material costs savings to the organization
- Cost Effectiveness accomplishments afford CalPERS the ability reinvest a portion of the cost savings to self fund the Target Staffing and the increased portfolio management service infrastructure identified in the INVO Roadmap
- Improve financial systems and process to enable automated, periodic reporting and analysis of total cost to manage the portfolio