

2014-15 PERFORMANCE PLAN

CHECK ONE:
Status Update

Ist Semiannual

2nd Semiannual

Name: Ted Eliopoulos Position: Chief Investment Officer

Investment Performance Measure				
Weight	Title	Performance Measure	Incentive Schedule	Performance
Interim CIO 7/1/14 - 9/16/14 40%	Investment Performance: Total Fund	Return deviation in basis points relative to: Total Fund performance versus Total Fund benchmark	0 basis points = 0 +20 basis points = 1.0 +30 basis points = 1.5	+70 basis points
CIO 9/17/14 - 6/30/15 50 %		{SJ1CA1 – CPSTO2IC} *Cost-adjusted Benchmark REPORTING PERIOD: 07/01/12 - 06/30/15		
Interim CIO 7/1/14 - 9/16/14 10%	Total Real Assets Performance	Return deviation in basis points relative to: {SW3CA2 - CPERSRAB} REPORTING PERIOD: 7/1/12 – 6/19/14	0 basis points = 0 +30 basis points = 1.0 +45 basis points = 1.5	+81 basis points
CIO 9/17/14 - 6/30/15 0 %				
50%	Subtotal	Investment Performance Measures		

Qualitative Performance Measures		
Weight	Title	Performance Measure
40%	Enterprise Business Plan	 By June 30, 2015, in support of the CalPERS 2014-16 Business Plan, improve CalPERS' ability to achieve risk-adjusted investment returns. Goal A: Improve long-term pension and health benefit sustainability Fund the System through an integrated view of pension assets and liabilities: Enable the Investment committee to make strategic, informed decisions by conducting Board education sessions designed to improve understanding of benchmarks and the viability of implementing a risk-factor based allocation Options for Employers by partnering as necessary on the development of a feasibility study for multiple asset allocation options to assist employers in taking a more active role in managing investment risk. Deliver target risk-adjusted investment returns: Implement the objectives set forth for FY 2014-15 in the FY 2014-16 Investment Office Roadmap (Attachment A to be finalized in November) Goal B: Cultivate a high performing, risk-intelligent and innovative organization Recruit, retain, develop and empower a broad range of talents against organizational priorities: In collaboration with the Human Resources Division, participate in the comprehensive review of all compensation programs and policies and to ensure the Boards' policies,

philosophy and rationale remain appropriate and relevant.

- Partner with identified business partners to help ensure success of the Business Plan initiatives, particularly:
 - o Workforce Strategic Plan implementation
 - o Treasury Management
 - o Strategic Risk Measures

<u>Goal C: Engage in State and national policy development to enhance the long-term sustainability and effectiveness of our programs</u>

Clarify and communicate CalPERS perspective on pension, health and financial markets:

- Develop financial market reform principles to influence global legislative and regulatory engagement and policy development
- Support communication and outreach strategies that foster a greater understanding of investment beliefs and promote policy leadership through communication of CalPERS perspective on financial markets
- Partner with External Affairs Branch to foster the development of strategic partnerships

Status Update

Asset Allocation & Risk Management

- Completed Terminated Agency Pool (TAP) analysis and presented to Investment Committee (IC)
 December 2014.
- Prepared information to be shared at the February 2015 Investment Committee in order to provide additional context on counterparty monitoring and value at Risk (VAR) topics within the Risk reports
- Delivered a presentation to Investment Committee in December 2014 to officially kick off the Benchmark project and provided an overview of the January off-site discussion. Prepared materials for January off-site on topics such as the roles of benchmarks and the selection of appropriate benchmarks for each asset class.
- Convened a panel discussion with the Board of Administration and industry leading executives from large global asset managers and owners regarding their strategies for leading a successful investment organization. Included in the discussion was a summary of the core elements of culture and investment strategy that help drive performance (July 2015 Board and Executive Offsite).
- Prepared materials for January off-site on topics such as the roles, uses, and implications of benchmarks for CalPERS. The presentation materials also continued the discussion of the development of a total fund perspective, through the potential development of portfolio priorities to link CalPERS' Investment and Pension Beliefs with portfolio construction. The presentation materials highlighted the implications of the portfolio priorities concept on CalPERS' continued advancement towards a risk factor-based asset allocation framework.
- The CalPERS CIO Total Fund Performance & Risk Report was revised and renamed the CalPERS Trust Level Review in August 2014. The name change aligned with the inclusion of the new Trust Level Overview section in addition to the existing performance and risk information included in the Investment Review section. The CalPERS Trust Level Review also aligned the format and content with new Annual Program Reviews. These enhancements allowed for asset allocation, performance and risk information to be presented in a more consistent and effective manner to the IC.

Organization System and Controls

- ISD finalized and adopted Fixed Income valuation procedures, completed framework for Real Assets and draft procedures for Private Equity.
- ISD implemented SPAR (System for Portfolio Attributes and Relationships) for managing non-security reference data and loaded system with Global Equity information. Granted system access to Board Consultant, Wilshire Associates, to support their due diligence work.

- ISD completed an in-depth refresh of Business Continuity Plan documents for all INVO program areas.
- ISD Expense Recognition Project Jointly owned Project with FINO; Will align CalPERS financials and SSB accounting to ensure proper performance reporting.
- ICOR conducted TOM Risk Assessment survey and incorporated input by INVO program area into the TOM Refresh Project.
- ICOR developed recommendations to enhance RSA Archer operational risk management platform.
- ICOR presented to Investment Committee a preview of total fund policy redesign project in November 2014.
- ICOR presented to Investment Committee a tabular comparison of approved investment delegations across the total fund in December 2014.
- ICOR developed scope and goals for refreshing external manager monitoring guidelines (EMMG).
- ICOR identified asset class staff and organized kick-off meetings with them to introduce high level goals.

Cost Effectiveness

- Initial reporting of FY 2014-15 cost savings of \$87.6 million arising primarily from improved fee structures negotiated on new commitments made by the Real Estate Program
- Created the initial INVO Executive Expense Summary that details Net Value Add Metric by Program
 which will be included in the monthly expense reporting package that is delivered to Program
 Management
- Implemented new accounting procedure to automate the capture Corporate Governance and ARS
 program management fee within PeopleSoft through improved accounting procedures implemented by
 FINO; information had historically been manually captured within monthly expense reporting package
 by INVO
- Initiated the joint INVO/FINO Expense Recognition Project designed to integrate all Investment Office
 expenses into performance reporting at the trust and asset class level; developed project scope, goals
 and objectives

Talent Management

- Ensured all PMs and above participated in performance discussions related to year-end performance plans, and received meaningful feedback and coaching
- Developed outline and content of a Learning and Development page for the INVO Intranet, in order to provide Investment Office staff with centralized relevant educational tools and resources
- Identified five external organizations with whom INVO can form strategic talent partnerships in order to leverage greater access to top diverse talent and build CalPERS brand as a destination employer.
- Reviewed recommendations for reorganizing INVO Contracts Management Unit and INVO Talent Management and reassigned staff roles and responsibilities to OSSD and HR.
- Actively participated on the Executive Compensation Policy Review Project, engaging with HRSD, EXEO and FutureSense to thoughtfully address our compensation philosophy and policy, and how they underlie in the CalPERS business model and culture.

Global Equity

- Continued to rationalize the total portfolio to provide more effective and material investment levers.
 Completed the closure of three external accounts. Consolidated two internally managed portfolios and launched two internally managed strategies.
- Completed negotiations on Terms and Conditions with three of the five external advisors for our Emerging Managers Program and began restructuring the underlying managers for them.
- In November 2014 the Investment Committee approved an enhanced strategy for the Global

- Governance Focus List Program. The enhanced strategy is intended to increase the materiality and be directly related to the existing Global Equity Portfolio.
- At the September 15 Investment Committee meeting staff recommendation, supported by the
 Investment Committee, made the decision to eliminate the ARS program. Twenty-four hedge funds and
 six hedge fund-of-funds valued at approximately \$4 billion received notices of withdrawal/redemption.
 Proceeds from the program balance are expected to be approximately 2/3 redeemed by the end of the
 third quarter.

Global Fixed Income

- GFI has an excess return of 49 basis points from 7/1/14 11/30/14.
- Developed and implemented a daily report from the BlackRock System to incorporate both international and domestic assets into one report to better monitor the risks of the Global Fixed Income Program.

Real Assets

- RA Benchmark Performance Conducted semi-annual investment planning process for Real Estate and Infrastructure through the creation of a model portfolio and the comparison of its risk/return profile to that of the index.
- RA Benchmark Performance In alignment with Investment Belief # 8, initiated a review of best practices for effectively managing costs when contracting with an external partner.
- Quarterly Investment Monitoring Process Initiated a review of current debt strategies against industry best practices as part of the effort to identify means to reduce the cost of debt and thereby increase net interest income.

Global Governance

- Completed the first PRI Total Fund assessment on adherence to the principles of responsible investors;
 receiving an overall grade of A.
- Received Investment Committee approval in October 2014 for an enhanced Focus List, in order to achieve governance reform through increased impact and engagement.
- Presented the Annual Program Review for Global Governance to the Investment Committee in November 2014, which included CalPERS' Financial Markets Principles refocused to transparency, governance and systemic risk.
- A one year plan has been presented to the IC in November, identifying priorities for the coming year; a strategic review of the Global Governance Program to align with INVO objectives is underway and the 3 and 5 year business plan will result next quarter
- Financial Markets Priorities have been agreed and the Principles of Financial Market reform have been reviewed and refreshed. The implementation of the Priorities is underway through close consultation with the asset classes on derivatives, housing finance and credit ratings, plus commentary to support CalPERS positions in legislative, regulatory and policy arenas

Private Equity

- Restructured a significant investment relationship in the CalPERS portfolio that resulted in a reduction of reputational and performance risk for CalPERS.
- Completed data conversion and build-out for PEARS in preparation for parallel processing scheduled to begin in February 2015.
- Committed \$80M to California Mezzanine Debt Strategy and collaborated with Targeted Investment Programs for the Emerging and Diverse Manager Day in October 2014.

Targeted Investment Programs

- Completed and presented to the Investment Committee the Year-Two report to the California Legislature on the CalPERS Five-Year Plan for Emerging Managers.
- Hosted the first Emerging and Diverse Manager Day at CalPERS, which had over 130 people, representing 71 emerging and diverse manager firms, meet with CalPERS Investment Office senior staff and advisors in the Private Equity, Global Equity and Real Estate asset classes.
- Completed two Diversity & Inclusion webinar outreach efforts: a discussion with Toigo Foundation fellows on careers within the Public Sector; and a discussion with investment managers, consultants and stakeholders on the findings of CalPERS' Investment Manager and Consultant Diversity and Inclusion Survey Report.

TOM Initiatives

- PM2 "Public Markets Portfolio Management" (TOM #1) Implemented an Internal Equity Investment Book of Record service & Charles River Portfolio Construction functions.
- Strategic Asset Allocation Progressed in implementing an integrated Asset Liability Management process & extending it to all investment trusts.
- Performance Measurement and Attribution (TOM #11) Revised Board reports to improve information delivery, established program reviews, further integrated total fund & asset class performance & risk reports to the ISG committee.

Investment Beliefs

- Initial inventory of Investment Beliefs related activity presented to the Investment Committee in August 2014.
- Created a new template for inclusion of Investment Beliefs related information into the Asset Class review presentations.
- Initial specification of an Investment Beliefs review by Roger Urwin has been completed.

Weight	Title	Performance Measure
10%	Leadership	 By June 30, 2015: Provide oversight and direction to the Investment Office and enhanced communication with the Investment Committee Chair, Board President, CEO and Board Consultants Lead collaboration between the Investment Office and CalPERS enterprise functions Present to the Investment Committee a review of Investment Belief implementation activities to date, including the development of a standard reporting template for Asset Classes (by September 30, 2014); Present to the Investment Committee an assessment of CalPERS' approach and a discussion of alternative approaches to evaluate Investment Belief integration into the organization and investment decision-making process (by June 30, 2015). Meet the Leadership Expectations as set forth in the CalPERS Executive Leadership Competencies (Attachment B)

Status Update

- Continue to meet with President of the Board, Chair and Vice Chair of the Investment Committee
- Continued to inform Board of investment issues through Board weekly updates.
- Participated in the General Counsel Interviews.
- Held special meetings to address reorganization.
- I participated extensively in the work of the Special Review and was directly involved in the negotiation of agreements.
- Heidrick & Struggles was selected as the search firm for the SIO of Real Assets. Continuous work with Human Resources, Senior staff and Heidrick & Struggles. Screening and first round interviews took place.
- Actively Participated in the Diversity and Inclusion Project.
- Met regularly with the CEO.
- Attended and participated in weekly Deputies meetings with the CEO.
- Continued to work with HR staff in the succession plan for Senior staff.
- Assisted FINO work projects including expense reporting, monthly close and investment reconciliation.
- Prepared unified budget for INVO
- Continue to collaborate with INVO Senior staff and communicate with industry professionals to better understand the current economic environment and various risk factors affecting asset allocation.
- Reviewed recommendations for reorganizing INVO Contracts Management Unit and INVO Talent Management and reassigned staff roles and responsibilities to OSSD and HR.
- Actively participated on the Executive Compensation Policy Review Project, engaging with HRSD, EXEO and FutureSense to thoughtfully address our compensation philosophy and policy, and how they underlie in the CalPERS business model and culture.

Meetings and events:

- Board Offsite in San Rafael, CA on July 14
- Ed Forum in Riverside, CA on October 28
- Bental Kennedy Board Meeting in San Francisco, CA on November 10
- Raising our Game Roundtable in Seattle, WA on November 12
- Nik Deogun, Vice President Business News CNBC Studios on November 21

Speaking Engagements:

- U.S. Mayor Conference in Sacramento, CA on September 29
- Speaker at AAAIM in Palo Alto, CA on October 7
- Speaker at NAIC in Carlsbad, CA on October 29
- Panelist at the NAA 15th Anniversary in New York, NY on November 19
- Maria Bartiromo with Fox Business on November 20

Media and Press Interviews:

- Bloomberg on September 16
- CNBC on September 24
- Randy Diamond with P&I on September 25
- Photo shoot with the New York Times on September 26
- Maria Bartiromo with Fox Business on September 26
- P&I on September 29
- Wall Street Journal on October 1
- Wall Street Journal on October 2
- Robin Respaut of Reuters on October 14
- Michael Peltz w/ Institutional Investor on November 25
- Dean Starkman with Wall Street Journal on November 26

The following INVO Events were held:

- INVO ACE Awards
 - o August 8
 - o December 9
- INVO All Staff Forum
 - o September 4
 - o December 9





Investment Office 2014-16 Roadmap

nvestment Office 2014-16 Roadmap

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From the desk of CalPERS CIO Ted Eliopoulos

On behalf of the Investment Office (INVO) of the California Public Employees' Retirement System (CalPERS), I am pleased to present the Investment Office 2014-16 Roadmap (Roadmap).

In alignment with the five-year CalPERS Enterprise Plan and the CalPERS 2014-16 Business Plan, the Roadmap guides us in the achievement of our strategic priorities:

- Achieve our target rate of return without exposing the fund to undue risk of a major drawdown;
- Continue to improve the systems, controls, and processes necessary to assure the integrity of operations; and
- Ensure that we have the right number of people with the right skills to enable investment performance improvement and control of operations.



On the following pages, you will find information on the nine Roadmap strategic objectives and supporting initiatives that INVO will focus on for the coming year. These efforts build upon the firm foundation we established through hard work and "Heavy Lifting". With the significant progress made, INVO has evolved from triage mode into the beginning of what we view as a "Continuous Improvement" phase.

This evolution, along with the recent transition in senior leadership, provides an exciting opportunity for us to assess our strategic priorities in an effort to drive the CalPERS mission most effectively. Over the next year, we will begin to develop Operational Health metrics for all investment functions and undergo a refresh of our Targeted Operating Model (TOM) and Risk Assessment. I am confident these will result in many exciting changes in the next iteration of the Roadmap, including a particular focus on return, risk and cost as key measures. I look forward to sharing those with you.

I truly appreciate your continued commitment, and I thank you for the important work that you have done, and will do, in support of INVO and the Roadmap.

Ted Eliopoulos
Chief Investment Officer

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Evolution of the Investment Office Roadmap

The purpose of the Investment Office is to:

- 1. Enhance the financial security of all who participate in our system;
- 2. Generate superior risk-adjusted returns;
- 3. Develop innovative and sustainable investment strategies; and
- Be a leader among institutional investors worldwide and be known as an effective and principled investor.

The following shows the evolution of the INVO Roadmap, from triage mode to establishing the foundation to heavy lifting and eventually on to continuous improvement.

2008 – 2010 "Triage"

- · Managed impact of the financial crisis
- Ensured liquidity and mitigated immediate risks
- Managed placement agent, special review and FPPC investigation issues

2010 – 2012 "Establish Foundation"

- Developed INVO Vision, Roadmap, and Target Operating Model (TOM)
- Identified issues and developed strategic plans to remedy
- Built a core leadership team and restructured the organization
- Developed new asset allocation framework
- · Achieved significant wins and improvements

2012- 2014 "Heavy Lifting"

- Substantially implement Roadmap initiatives
- Establish a sustainable organization build repeatable processes and develop a deep bench of people
- Adopt and operationalize a set of Investment Beliefs

2014 – 2016 "Continuous Improvement"

- Refine our strategic priorities
- Continue to enhance processes, controls and systems
- Launch TOM Refresh and Risk Assessment

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Investment Office Roadmap Strategic Objectives

PERFORMANCE

Investment Performance

Restructure the portfolio to deliver consistent risk-adjusted investment returns.

Investment Risk Management

 Establish a comprehensive portfolio risk management system and practices to measure, manage, and communicate investment risks.

Asset Allocation

o Implement a risk-based, dynamic asset allocation approach.

Cost Effectiveness

o Enhance cost effectiveness of the investment program to improve net returns on assets.

• Emerging Manager Programs

 Implement a 5-year plan to provide opportunities for participation of emerging investment managers across all asset classes.

ESG Investment Strategy

 Ensure CalPERS acts as a principled and effective investor by advocating corporate governance and financial market reform, overseeing the effective management of the three forms of capital: financial, physical and human; and effectively engaging with portfolio companies and policymakers.

PLUMBING

Organization, Systems and Controls

- Design, develop, and implement a robust operating model that minimizes complexity, improves transparency and strengthens processes, systems, governance and controls.
- Reduce operational risk by developing a risk aware culture with clear metrics and operational risk management processes/governance.

PEOPLE

Talent Management

 Enhance the ability of the Investment Office to recruit, develop, and retain a highly skilled, diverse and motivated team to ensure success.

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CalPERS Investment Beliefs Adopted September 16, 2013

In September 2013, the CalPERS Board of Administration adopted a set of ten Investment Beliefs intended to provide a basis for strategic management of the investment portfolio, inform organizational priorities, and ensure alignment between the Board and CalPERS staff.

The Investment Beliefs are not a checklist to be applied to every decision. They are a guide for making decisions that often require balancing multiple, inter-related decision factors. They provide context for CalPERS actions, reflect CalPERS values, and acknowledge CalPERS responsibility to sustain its ability to pay benefits for generations.

An Investment Beliefs Policy (Policy) was adopted in October 2013. The Policy requires that CalPERS develop and maintain a set of Investment Beliefs. In addition, the Policy provides context for how the Investment Beliefs should be used and makes clear that the Investment Beliefs are a framework for making judgmental decisions but are not a checklist to be applied to each decision. For more information on the Policy, visit:

http://www.calpers.ca.gov/eip-docs/investments/policies/invo-policy-statement/investment-beliefs.pdf

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CalPERS Investment Beliefs

Investment Belief 1

Liabilities must influence the asset structure

Investment Belief 2

· A long time investment horizon is a responsibility and an advantage

Investment Belief 3

 CalPERS investment decisions may reflect wider stakeholder views, provided they are consistent with its fiduciary duty to members and beneficiaries

Investment Belief 4

 Long-term value creation requires effective management of three forms of capital: financial, physical and human

Investment Belief 5

 CalPERS must articulate its investment goals and performance measures and ensure clear accountability for their execution

Investment Belief 6

Strategic asset allocation is the dominant determinant of portfolio risk and return

Investment Belief 7

CalPERS will take risk only where we have a strong belief we will be rewarded for it

Investment Belief 8

Costs matter and need to be effectively managed

Investment Belief 9

 Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error

Investment Belief 10

 Strong processes and teamwork and deep resources are needed to achieve CalPERS goals and objectives

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Strategic Objective 1 – Investment Performance

Restructure the portfolio to deliver consistent risk-adjusted investment returns.

Today (FROM)	Vision (TO)
Asset Class performance focused	Integrated, total-fund, performance approach
Unclear value creation	 Skill-based generation of alpha and beta, focused value creation
Risks are not strategically planned; unintended bets; less intentionality	Robust risk budgeting for intentional alpha generation
Weak performance attribution capabilities, compounded by poor data quality	Performance meets targets with drivers of performance and deviation well understood
Less cost awareness and consciousness	Clear understanding of "end-to-end" cost of delivering an investment strategy. Cost-to-value actively incorporated into investment decision making

Global Equity (GE) Initiatives

- GE Excess Return: Attain the asset class 15 basis point annual excess return target consistent with current risk levels
- PM2: "Public Markets Portfolio Management" (TOM #1): Upgrade the technology and investment servicing capabilities
 used in Internal Equity Portfolio Construction to assure an accurate investment book of record is used when making
 investment decisions, replace existing portfolio management tools, improve controls and increase capacity to take on new
 investment strategies
- Capital Allocation Methodology Evolution: Evolve Global Equity capital allocation methodology to incorporate both returnbased and holdings-based optimization, determine strategic and tactical desired exposures and implement levers for execution of desired exposures
- GE Portfolio Simplification: Simplify the Global Equity portfolio through rationalization and reduction of the number of strategies
- Affiliate Investment Programs (AIP) Process and Technology (TOM #24): Develop more robust processes and technology
 to replace the current manual/spreadsheet methods used in the AIP for processing cash flows, rebalancing, communicating
 trades and reporting

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Private Equity (PE) Initiatives

- PE Enhanced Performance: Utilize the Annual Capital Allocation Plan and Private Equity House Views, secondary market, selected co- investment opportunities, and customized investment accounts to restructure and rebalance the Portfolio to enhance performance over a 10-year period
- Private Equity Portfolio Management, Accounting and Data Services (PEARS, TOM #2): Establish an integrated solution
 that incorporates (1) a Portfolio Management System and (2) Accounting and Data Services so that Private Equity staff
 have the depth of data and support needed to enhance investment monitoring, improve risk management, reduce
 operational inefficiencies and increase transparency
- Organization Change and Talent Management: Integrate new professionals into the PE Program using the PE Academy and leverage broad skill sets of the entire team to execute PE Strategic Plan
- TOM, Emerging Manager and California Investments: Support the objective INVO TOM by reducing costs in an effort to enhance performance. Support Targeted Investment Programs with the execution the CalPERS Emerging Manager Five-Year Plan

Global Fixed Income (GFI) Initiatives

- GFI Alpha Target Return: Hit annual alpha target return of 30bps for GFI Program
- ESG Incorporation: Partner with Corporate Governance staff on the development and implementation of incorporating Environmental, Social and Governance factors into the credit evaluation process
- ARS Program Review: Conduct a review of the Absolute Return Strategies Program's complexity and costs in order to make a recommendation on the program's continuation to the Investment Committee
- Aladdin Reports Restructure: Restructure Aladdin Reports to better monitor and manage the risks of the internally managed International Fixed Income Program

Real Assets (RA) Initiatives

- RA Benchmark Performance: Meet the established Benchmark performance for the Real Assets Unit
- Functional Reorganization: Continue to implement and monitor the effectiveness of the functional reorganization within Real Assets
- Quarterly Investment Monitoring Process: Develop more robust processes, including the identification of opportunities for process automation within AREIS in an effort to minimize errors and standardize reports

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Strategic Objective 2 – Investment Risk Management

Establish a comprehensive portfolio risk management system and practices to measure, manage, and communicate investment risks.

Today (FROM)	Vision (TO)
Dated risk system and tools for total fund	 Enhanced RMS, with better tools and more functionality (private assets, scenario testing, what if's and risk attributions)
No consistent risk framework for investment decisions	 Use of robust investment processes to include risk considerations at asset class, portfolio and transaction levels
Investment policies and parameters defined by asset classes – no independent risk review	Risk review by Asset Allocation/Risk Unit prior to policy approval (standard setting and risk ownership)
Less transparency with total fund and asset class risk	More transparency (risk reporting and enhanced metrics to Investment Strategy Group and Board)
Limited Risk Budgeting	Enhance Total Fund Risk Budgeting and expand to Asset Classes

Initiatives

- Trust Level Investment Risk Management: Implement an industry standard, investment risk management framework (governance model, categories and metrics) appropriate for all multi-asset investment trusts (total fund).
- Liquidity and Cash Management: Working with Asset Allocation, determine Liquidity, Leverage and FX Hedging levels
 across the total fund, including owning appropriate policies as described in the TOM working papers
- Risk Reporting Improvements: Improve the communication of investment risks with the Board and INVO staff, assuring
 that reporting addresses standard risk categories and integrates performance (returns, attribution), risk metrics, and
 commentary/analyses
- Benchmark Workshop: Establish a common understanding of terminology/definitions around benchmarks with the Board and the Investment Committee

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Strategic Objective 3 – Asset Allocation

Implement a risk-based, dynamic asset allocation approach.

Today (FROM)	Vision (TO)
Long-term, static allocation framework	More dynamic framework, responsive to market conditions
Capital allocated at asset class level	Total fund portfolio design to include asset classes, separate alpha strategies (ARS, opportunistic) and hedges
Liquidity managed separately by asset class	Capital allocation better planned and aligned with overall fund liquidity

Initiatives

- Affiliate Funds ALM Review: Design, construct, and prepare the structure and content of an Affiliate Funds Asset Liability Management review
- Integrated ALM Framework: Partner with Actuarial Office to develop and implement an integrated asset liability management framework
- Currency Positioning Strategy: Reevaluate currency hedging strategy and bring a recommendation to the Investment Committee

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Strategic Objective 4 – Cost Effectiveness

Enhance cost effectiveness of the investment program to improve net returns on assets.

Today (FROM)	Vision (TO)
Management Reporting: Inadequate reporting systems and data for effective cost management	 Automated financial reporting system; development of timely and meaningful reports
Cost Awareness: Fragmented understanding of budgetary resources and the total costs to manage portfolio at asset class level	Comprehensive knowledge of total costs being incurred to manage portfolio throughout INVO
Governance Structure: Siloed control structure that did not address the comprehensive INVO budget	Implementation of budgetary control structure that addresses INVO and each asset class
Fee Reduction: Lack of focus on management and consulting fees paid	Development of monitoring processes that tracks and communicates cost savings efforts
Cost Management: Lack of flexibility to drive best cost/value when incurring expenses	Greater flexibility to manage resources in the best interest of the fund and drive cost value
Benchmarking: Difficult to compare cost performance against relevant peers	Development of meaningful benchmarking statistics and outperform relevant peers per unit of value

Initiatives

- INVO Expense Management & CAFR Support (TOM #3): Design comprehensive financial reporting materials to enable automated, periodic reporting of total cost to manage the portfolio
- INVO Expense Management & CAFR Support (TOM #3): Establish an agreed upon cost allocation methodology approach for financial reporting
- Board Financial Reporting: Develop and implement annual financial reporting to the Board

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Strategic Objective 5 – Emerging Manager Programs

Implement CalPERS Five-Year Plan for Emerging Managers to provide opportunities for participation of emerging investment managers across the Investment Office.

Today (FROM)	Vision (TO)
 Asset class focused program performance, administration and reporting 	Integrated Total Fund approach as detailed in CalPERS Emerging Manager Five-Year Plan
Unplanned, unintended and unreported strategies and outcomes	Consistent, clearly established investment strategies, robust risk assessment and reporting, clear communication of programs outcomes
Unclear understanding of exposure, poor performance data, low awareness of cost	Establish and accurately report EM exposure, performance and cost
Lack of communications with stakeholders	Improved communications and strengthened relationships with EM community and interested stakeholders
EM community uncertain how to approach INVO, submit investment proposals, and receive feedback	Consistent access and opportunity for EM submittal of investment proposals. EM's provided appropriate feedback on investment proposals

Initiatives

- Emerging Manager 5 Year Plan Implementation: Implement work streams in the Emerging Manager Five Year Plan
- Investment Office Diversity and Inclusion: Initiate the INVO Diversity and Inclusion Task Force to identify, prioritize, and implement Investment Office Diversity and Inclusion initiatives

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Strategic Objective 6 – ESG Investment Strategy

Ensure CalPERS acts as a principled and effective investor by advocating corporate governance and financial market reform, overseeing the effective management of the three forms of capital: financial, physical and human; and effectively engaging with portfolio companies and policymakers.

Today (FROM)	Vision (TO)
Inconsistent and partial reporting on CalPERS ESG initiatives	Total Fund report, "Towards Sustainable Investment"
Multiple guidelines on ESG across asset classes and ESG initiatives / programs	Total Fund Principles on Sustainability and agreed list of priority initiatives
Varied internal and external manager expectations on sustainable investment	Total Fund ESG expectations document for internal and external managers
Lack of consensus on the evidence linking sustainability factors to performance	Definition and analysis of sustainability factors and their impact on risk and return
Financial market reform priorities focused on U.S. capital markets	Advancing reform priorities in global capital markets based on investment exposure
Unstructured process for managing CalPERS institutional relationships	Prioritizing, monitoring and advancing CalPERS leadership through relationships
Domestic Focus List program	Monetized global Focus List program

Initiatives

- Manager Expectations: In alignment with TOM, develop Total Fund Investment Manager Expectations on integrating relevant sustainable investment considerations into investment decision making
- Investment Beliefs Integration: As part of the Rapid Results Investment Beliefs project, conduct a survey with investment
 office staff to determine how integrated IBs are today and where there is potential for further integration and provide
 recommendations
- Financial Markets: Engage in federal and international policy development to advance CalPERS Financial Market reform priorities

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Initiatives (continued)

- Focus List Companies Monetization: Monetize and monitor Focus List companies and conduct company engagements on issues tied to the three forms of capital: financial, physical and human. Develop an investment policy statement for the Focus List Program
- Sustainable Investment Research Initiative (SIRI) Phase 2: Update/refresh of the SIRI database to enhance
 understanding of how human capital factors impact investors' ability to deliver sustainable, risk-adjusted returns on behalf
 of beneficiaries
- Total Fund Sustainability Report: Publish the second version of the Total Fund report on all of CalPERS environmental, social and governance initiatives across our investments and internal operations
- Principles and Proxy Voting: Execute proxy voting responsibilities in line with the Board approved CalPERS Global Principles of Accountable Corporate Governance. Pursue corporate governance reform surrounding Environmental, Social, and Governance (ESG) issues at portfolio companies by filing shareowner resolutions or through company engagements

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Strategic Objective 7 – Organization, Systems, and Controls

Design, develop and implement a robust operating model that minimizes complexity, improves transparency and strengthens processes, systems, governance, and controls. Reduce operational risk by developing a risk aware culture with clear metrics and operational risk management processes/governance.

Today (FROM)	Vision (TO)
Risk exposure due to inefficient legacy, asset-based "cottage industry" approach geared toward specialized, siloed investment strategies	Efficient operational processes and technology with verifiable, transparent controls necessary to manage INVO wide global investment strategies
Fragmented and incomplete data and infrastructure; impossible to aggregate information for timely investment management and decision making	Integrated data and systems for efficient, timely decision making driving superior investment performance
Unnecessary complexity for the value derived	Appropriate blend of simplicity and complexity
Obscured accountability and unclear roles	Transparent organization structure, roles and processes for clear accountability

Initiatives

Investment Compliance and Operational Risk

- Contract Management (TOM #5): Establish an efficient, effective contracting process and system that ensures terms
 and conditions are appropriate for the nature of the services, clear performance standards for vendor services and
 clear payment instructions
- Maturing Investment Compliance Program: Institutionalize completed initiatives to further strengthen INVO control
 environment, enhance processes and systems, integrate industry best practices and adapt the program to meet
 changes in the regulatory environment and INVO strategy
- Maturing Operational Risk Program: Institutionalize completed initiatives to further support INVO managerial decision making, enhance operational efficiency, and integrate operational risk data. Modify the Operational Risk program based on reevaluation of risk appetites and tolerances
- Investment Policy Review (TOM #19): Review and revise existing investment policies for consistency and completeness, and establish processes for developing new policies, managing changes, and monitoring compliance
- Manager Selection and Monitoring Standards and Compliance (TOM #8): Incorporate minimum standards for manager selection and monitoring into the Rapid Results framework that is being used as a guide by each asset class, periodically assess the standards and practices adopted by each asset class, and conduct an annual compliance survey.

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Initiatives (continued)

Investment Servicing Division

- Pricing / Valuation (TOM #12): Assure ownership and governance of pricing/valuation policies, escalation procedures
 and control processes that ensure accurate values for each type of asset
- Performance Measurement and Attribution (TOM #11): Provide timely, standardized analytic reports and analyses
 that accurately measures performance, risks and exposures in order to assist in managing portfolios, monitoring risk
 and performance drivers, and board reporting
- Trust (Fund) Structure Validations and Redesign (TOM #10): Validate the continued use of unitized investment pools.
 Design an optimized pool structure that complies with legal requirements and implement changes
- Technology Management (TOM #14): Establish an appropriate support model for all INVO applications, build skills
 and capabilities needed to manage third-party support services and drive changes to INVO technology
 architecture/infrastructure to meet INVO business needs
- Cash Management Processing and Controls (TOM #13): Establish clear ownership for cash processing and authorizations for moving cash, and correct specific issues with forecasting, reporting and controls
- Disaster Recovery / Business Continuity (TOM #22): Establish and maintain a desired level of business continuity capabilities to assure key investment activities are sustained (recovered) during disasters
- Data Management Core Capabilities (TOM #17): Establish the core capabilities and a governance/architecture model needed to manage investment data, including: (1) evaluating needs for investment data, (2) integrating data into internal functions and third-party services, (3) managing costs and licenses, and (4) defining a long-term strategy

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Talent Management

Enhance our ability to attract, develop and retain a highly-skilled, diverse and motivated team to ensure the success of the Investment Office.

Today (FROM)	Vision (TO)
Fragmented recruitment process that impacts our ability to hire the most qualified and talented candidates	Strategic and targeted recruitment efforts to a broad range of diverse candidates that provide a clear consistent articulation of our unique value proposition and why people should join and stay
Job families and classification structure do not allow for alignment of necessary competencies, skills and experience	Clearly defined organization structure, classification scheme and resource strategy that minimizes organizational capability gaps and promotes employee enrichment and development
Lack of focus on employee skill development, coaching, feedback and training opportunities	Established training, career development and performance evaluation programs that provide feedback and development opportunities for employees
Performance management and compensation structure that focuses on results with no reference to culture or values	 An effectively designed and administered compensation scheme that is aligned with job families and incentivizes both results and behaviors
An organization with an inconsistent employee experience, culture and values	A culture that attracts, develops and retains a highly skilled, diverse and high performance workforce

Initiatives

- Talent Sourcing and Development: Develop a strategy to establish a Talent Pipeline of highly-skilled, diverse and motivated candidate pool, and design the next phase of financial technical training for Investment Office Staff
- INVO Classification Study and Organization Redesign Project: Partner with HRSD to finalize and implement recommendations from the Class Study Managerial Level; initiate Class Study Investment Officer Level
- Executive Compensation Policy Review Project: Partner with HRSD to conduct a review of the compensation policy and total cash compensation for all staff covered under the CalPERS compensation policies

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For more information about the INVO Roadmap, visit CalPERS Insider at Investment Office or call INVO at (916) 795-3400.

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CalPERS Executive Leadership Competencies

The CalPERS Executive Leadership team will exemplify these essential attributes and competencies in working together to achieve the strategic objectives of the organization while cultivating a risk intelligent culture:

Ethics and Integrity

- Exhibits ethical, honest and professional behavior at all time with all staff, customers, and stakeholders
- Chooses the right course of action, even in the face of opposition or influence
- Takes responsibility for own actions and for those of the group, team or organization
- Exemplifies the CalPERS core values of quality, respect, integrity, openness, accountability and balance

Building Coalitions

- Develops networks and builds alliances; collaborates with customers and stakeholders to build strategic relationships and address needs
- · Creates and manages a positive perception of the organization and its programs and services
- Performs effectively in an open public setting and serves as a trusted advisor and educator to customers and stakeholders
- Builds relationships of trust, confidence, and respect with members of the Board
- Works effectively with the Board to develop and manage strategic initiatives that accomplish objectives and meet CalPERS fiduciary responsibility

Leading People

- Fosters an inclusive workplace that values diversity and respects and recognizes individual contributions
- · Promotes continuous learning and the development of self and others to achieve maximum potential
- · Fosters and maintains cooperative and productive relationships across all levels and functions
- · Seeks to understand concerns, emotions, feelings, and differing viewpoints to resolve conflicts constructively
- Inspires commitment, pride and trust by modeling CalPERS core values
- Applies broad and extensive Executive/senior level management experience to establish and achieve strategic goals

Leading Change

- · Formulates strategic goals and objectives and implements plans consistent with CalPERS long-term interests
- Builds a shared vision and influences others to translate vision into action
- · Encourages new ideas and innovation; designs and implements new or cutting edge programs/processes
- Demonstrates maturity, resiliency and sound judgment when dealing with organizational challenges
- Cultivates a risk intelligent culture, and assesses and mitigates risk when making decisions or recommending organizational strategies and tactics

Results Driven

- Recognizes when a decision must be made and acts in a thoughtful and timely manner
- · Makes decisions that produce high quality results by applying technical knowledge, analyzing problems and calculating risks
- Deals effectively with ambiguity and learns from success and failure
- · Anticipates and meets the needs of both internal and external customers; delivers high-quality products and services
- Understands and ensures appropriate application of principles, strategies, requirements, regulations, and policies related to
 pension administration, health benefit purchasing and administration, financial markets and institutional investment programs

Business Acumen

- · Strategically manages human, financial/investment, material and information resources and assets
- Understands the organization's financial processes and effectively manages program budgets using cost-benefit thinking to set priorities and achieve results
- · Builds and manages the workforce based on organizational goals, budget considerations, and staffing needs
- Keeps up-to-date on technological developments and effectively uses technology to achieve results



CalPERS Executive Leadership Competencies

The CalPERS Executive Leadership team will exemplify these essential attributes and competencies in working together to achieve the strategic objectives of the organization while cultivating a risk intelligent culture:



