

Opportunistic Strategies Annual Program Review

Kevin Winter, Managing Investment Director
Jean Hsu, Investment Director
Tom McDonagh, Investment Director

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Opportunistic Strategies (OS) | Executive Summary

1. First Annual Program Review

- Advance toward more formal trust level investment decision making
- Business model identity and transparency
- Collaboration: Public and Private Asset Classes, Trust Level Portfolio Management (TLPM)

2. OS Role Supports Investment Office (INVO) 2020 Vision

- Business effectiveness
- Enhanced capital allocation framework

3. Focused on Performance

- Deliver added value to the total fund
- Invest in Ways Across Entire Capital Structure that Do Not Fit into Existing Asset Classes

Business Update | Accomplishments & Initiatives

2017-2018 Major Accomplishments

- Established OS Business Model and Strengthened Team
- Enhanced Return Portfolio Net Dollar Value Add = \$138 Million
- Transitioned Execution Strategies and Services (ESS) from Global Equity to OS
- Integrated Equity, Rates, Currency and Derivatives Trading into Centralized, Multi-asset ESS structure
- Passed Legislation and Implemented Non-Cash Collateral for Securities Lending Transactions

2018-2019 Major Initiatives

- Evolve Plan Level Liquidity and Leverage Management in Partnership with TLPM
- Develop Plan Level Sources of Funding for Enhanced Beta and Opportunistic Strategies
- Develop Centralized ESS Derivatives Platform to Support Plan Level and Cross-Asset Class Execution

Appendix

Review Outline

	Pages	Investment Beliefs Alignment Map									
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Review Outline											
Investment Beliefs Key											
I. Program Overview											
Strategic Plan & INVO 2020 Vision	8	Yellow		Green			Yellow				
Portfolio Priorities	9		Green			Green					
Opportunistic Strategies	10				Yellow			Green	Green		Green
II. Investment Review											
Investment Philosophy	12		Green	Green						Yellow	
Enhanced Beta	13-15							Green			
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Investment Beliefs Map

- Liabilities
- Long-Term Horizon
- Stakeholders
- Three Forms of Capital
- Accountability
- Strategic Allocation
- Risk Reward
- Costs Matter
- Multi-faceted Risk
- 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 measure 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 to 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

Program Role | Execute CalPERS Strategic Plan & INVO 2020 Vision



CalPERS 2017-22 Strategic Goal

Strengthen the **long-term sustainability** of the pension fund, cultivate a **risk-intelligent** organization, and **reduce cost and complexity**.

Investment Office Mission (Generate Returns to Pay Benefits)

Manage portfolio in a cost effective, transparent, and risk-aware manner

Vision

- **Investment Beliefs and CalPERS Core Values:** principles underlying our investment decisions
- Operate with a focus on **repeatable, predictable, and scalable** portfolios and practices
- Seek **alignment of interests** with our primary stakeholders, our business partners, and ourselves
- Use clearly articulated **performance, risk, and cost metrics** to evaluate our value-add to the funds
- Investment and business activities are supported by a **solid platform of effective risk management and controls**



Program Role | Implement Portfolio Priorities

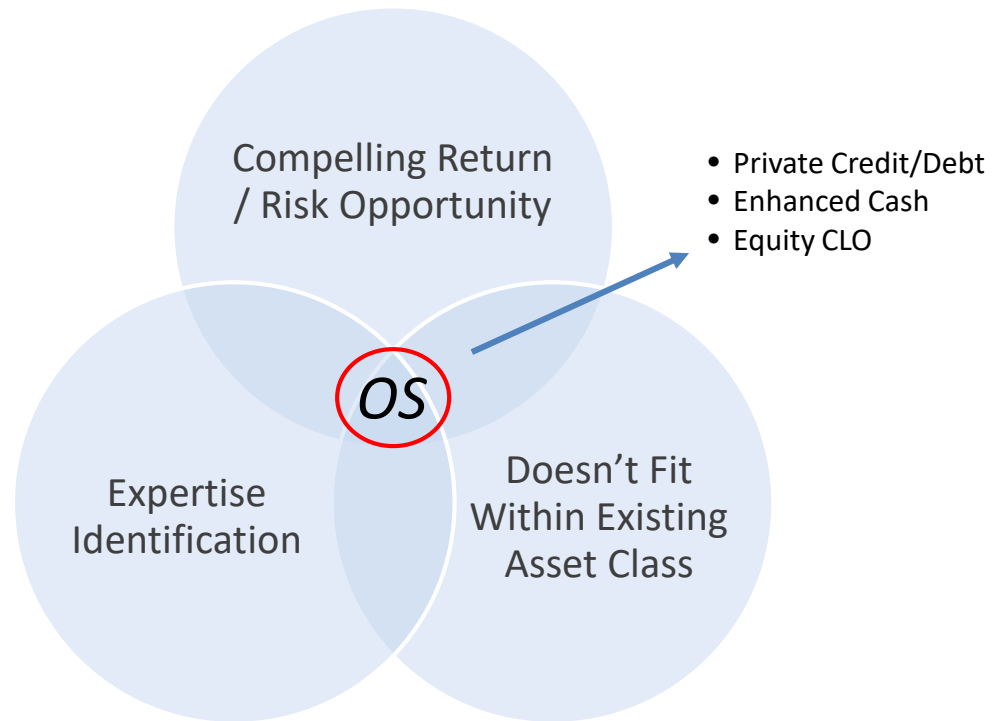
Specific to CalPERS, implementable, and will influence portfolio construction:

1. Protect the Funded Ratio
(mitigate severe drawdowns)
2. Stabilize Employer Contribution Rates
(manage overall volatility)
3. Achieve Long-term Required Rate of Return
(over the long run, but not in every market environment)

Program Role | Opportunistic Strategies

Deliver added value to the Total fund, by investing in ways across the entire capital structure that do not fit into existing asset classes.

- *Enhanced Beta to add value to the fund*
- *Invest in strategies that do not or cannot fit into other asset classes*
- *Work closely with asset allocation and other asset classes to source ideas and capital*



II. Investment Review

Investment Philosophy | Opportunistic Strategies

To function as a respected investment partner and implement disciplined and dynamic opportunistic investment strategies which have a material impact on Total Fund risk and return.

Enhanced Beta

- Attractively priced risk
- Long-term investment period; weather short-term price volatility
- Forego liquidity when appropriately compensated for
- Leverage existing resources/skillsets
- Low probability of capital loss

Opportunistic

- Attractively priced risk
- May be available only for short-time
- Investments that don't fit other mandates or constrained on size, policy or benchmark
- Leverage existing resources/skillsets
- Take advantage of our long time horizon

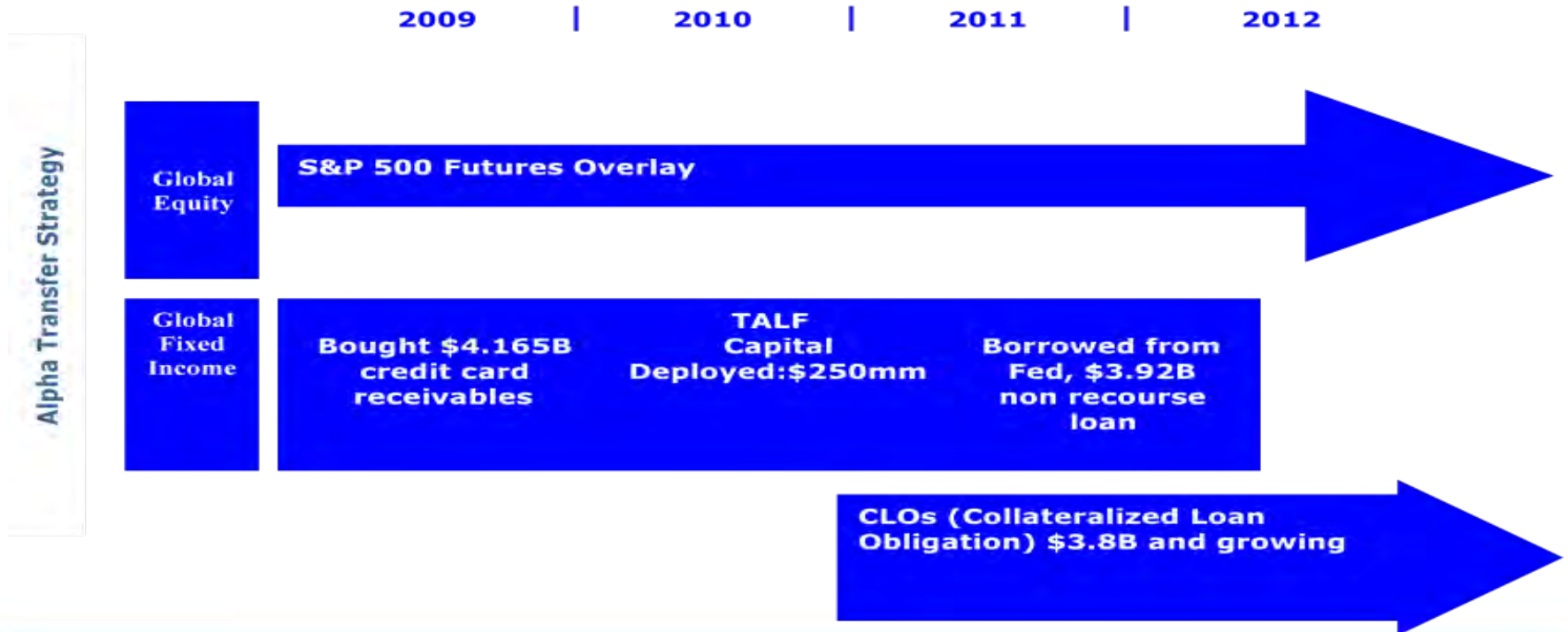
Execution Services & Strategy

- Centralized multi-asset execution
- Liquidity and leverage implementation
- Securities Lending
- Advisory and strategy support

Enhanced Beta

Portfolios which can synthesize its position (instead of holding physical securities), after taking care of its liquidity needs (e.g. margin call), can carve out a portion of the cash underneath the synthetic position to reinvest in AAA and AA rated structured products. This will enable the portfolio to have exposure to its benchmark, at the same time generating additional return.

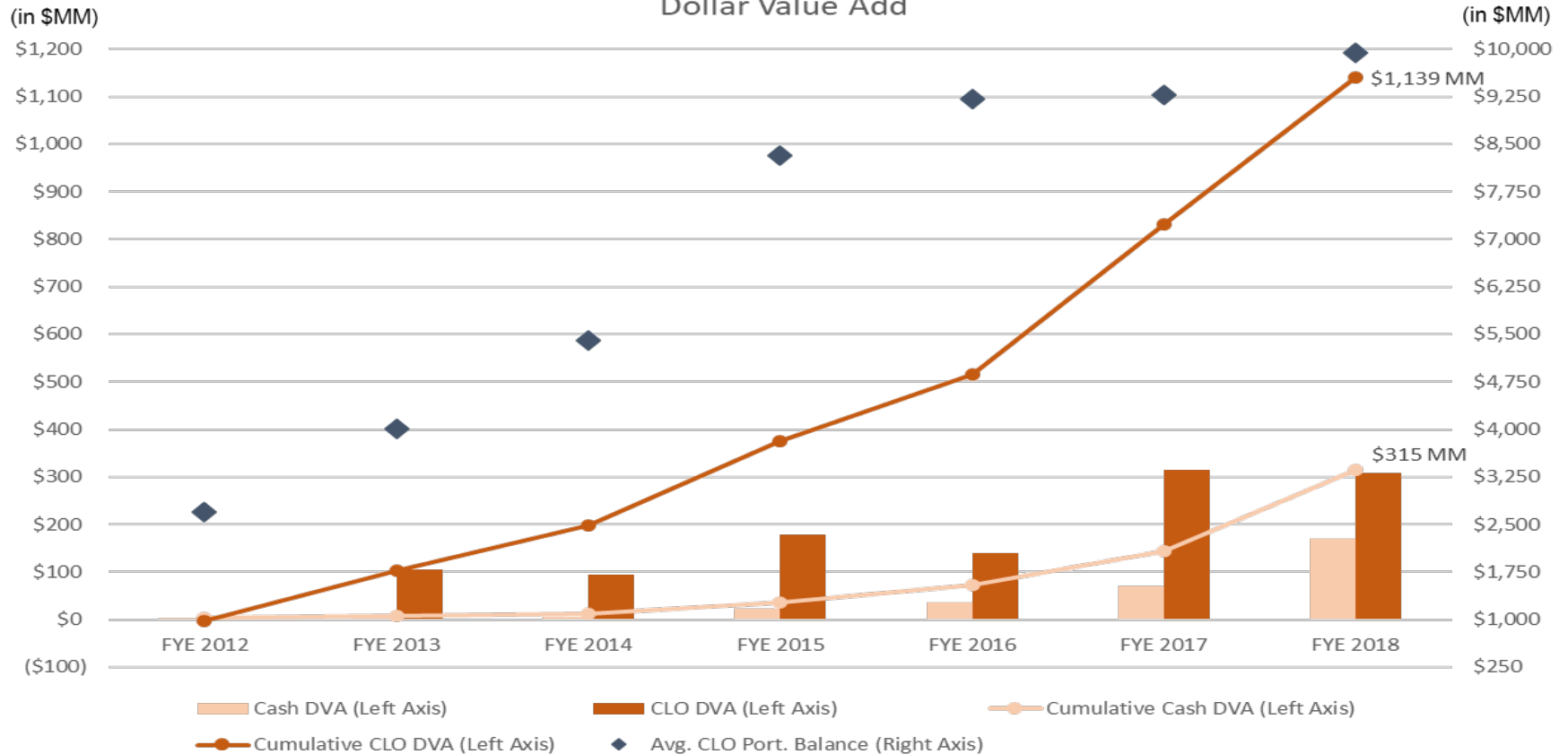
History of Enhanced Beta Strategy



Enhanced Beta

Enhanced Portfolios Dollar Value Add (DVA)

Dollar Value Add



Enhanced Beta

1. **Synthetic Enhanced Portfolio:** Serves Global Equity and Global Fixed Income
 - Exposure to Portfolio strategy determined by each asset class.

2. **Looking Ahead:** Partner with Trust Level Portfolio Management
 - Financing strategies for plan level leverage and liquidity management.

	Board Authorized Limit (10%)	Internal Cap Placed by Asset Class	Current Position	Utilization Rate
Global Equity	\$16.5 B	\$9.0 B	\$8.9 B	54%
Global Fixed Income	\$7.6 B	run off mode	\$0.6 B	8%

Note: GFI also owns ~\$3.0 B SWUQ as outright asset without beta overlay.

Execution Services and Strategy | Function

Function	Description	Examples
1. Multi-Asset Execution	Managing the Trade Lifecycle	<ul style="list-style-type: none"> • Planning → Pre-Trade → Execution → Post-trade → Settlement • Execution Platform Management
2. Leverage & Liquidity Implementation	Efficient plan level implementing leverage and liquidity framework	<ul style="list-style-type: none"> • Centralized funding / financing desk • Centralized derivatives execution
3. Return Enhancement	Finding opportunities to enhance returns	<ul style="list-style-type: none"> • Securities lending – physical and synthetic • Hedged foreign bills for enhanced cash • Cash reinvestment opportunities • Trade ideas for portfolios
4. Advisory & Strategy Support	Helping clients better manage their portfolios	<ul style="list-style-type: none"> • Market intelligence • Research monitoring • Idea generation • New portfolio/product support • Execution advisory

Strategic Initiatives

Liquidity Governance

Transparent and accountable decision-making (includes use of Cash Desk Concept), application of “Borrowed Liquidity” with Plan Level leverage management, and within pre-defined resource constraints.

Leverage Governance

Transparent and accountable decision-making (includes Financing Desk Concept; “how much”, “how to deploy”, “how long/duration”), differentiation between structural long-term and short-term (bridge loan) leverage application, and within pre-defined resource constraints.

Execution Logistics

Geographical logistics plan for implementing Plan Level Liquidity and Leverage execution in alignment with OS/ESS business model vision/function/role and within pre-defined resource constraints.

Strategic Overlay

Systematic/repeatable business model to maintain strategic asset allocation in alignment with integrating Strategic Overlay Portfolio as a portfolio construction tool which supports Plan Level liquidity and leverage decision making.

Market Knowledge

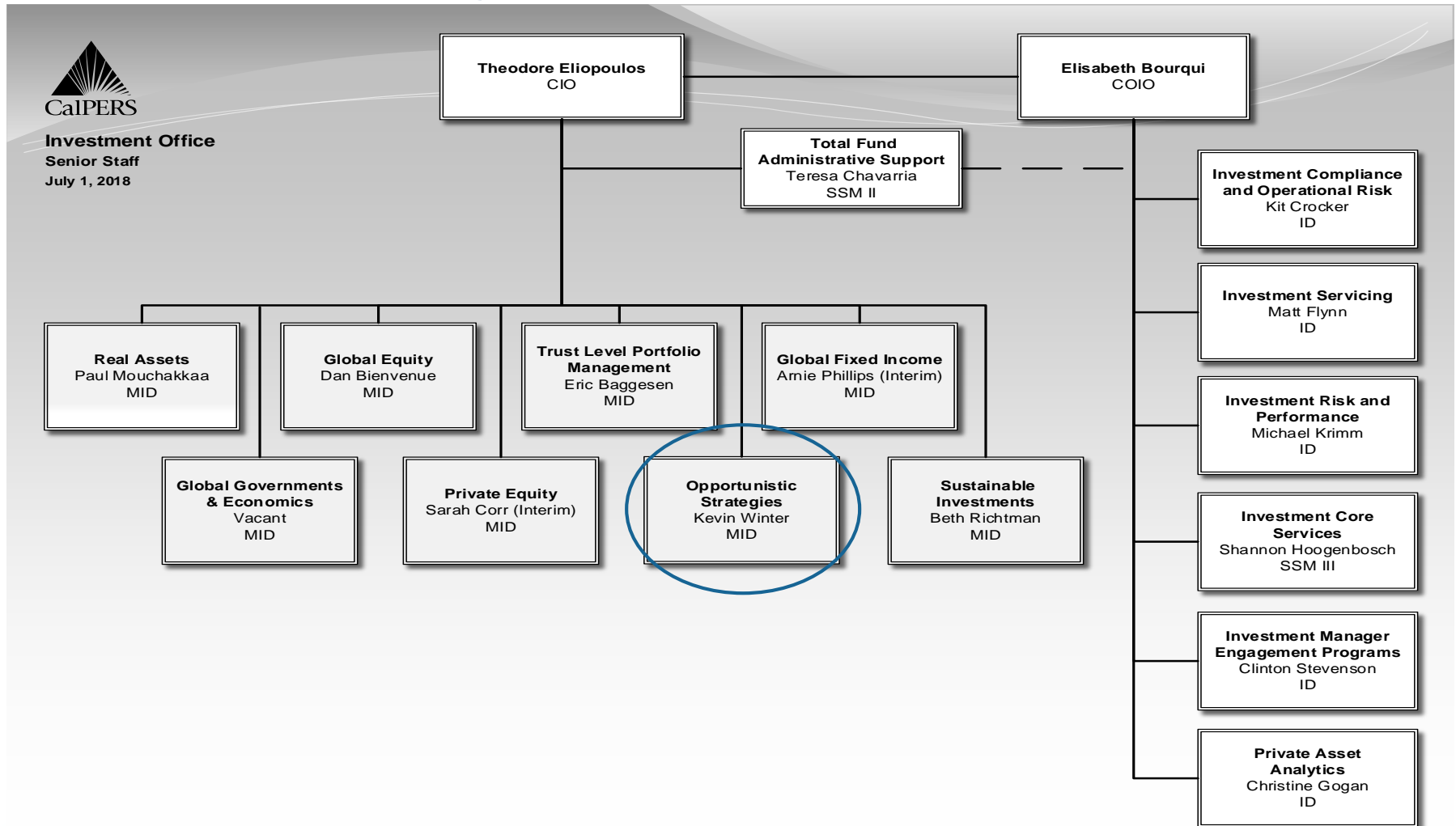
Global capital market knowledge platform to better inform Plan Level liquidity and leverage management – include provision for supporting strategic and dynamic asset allocation shifts within Board approved targets and ranges cognizant of Plan Level liquidity and leverage constraints.

Real Asset Leverage

Develop scope of pilot project for centralization of leverage management and refine roles related to managing leverage within RA, and in connection with Plan Level leverage governance.

III. Business Review

Investment Office Organization Chart



Staffing Overview



Opportunistic Strategies Staff

- 1 Managing Investment Director (MID)
- 3 Investment Directors (ID)
- 5 Investment Managers (IM)
- 2 Associate Investment Managers (AIM)
- 10 Investment Officers (5-IO3s, 3-IO2s, 2-IO1s)
- 1 Seasonal Clerk (SC)



Position Updates

- 3 New IMs (Jonathan Chen, Jonathon O'Donnell, Alan Seater)
- 2 New AIMs (Marina Kong, Ryan Ong)
- 4 New IOs (Laura Hopkins, Vicky Quan, Joy Pathak, Egle McCaffrey)
- 1 Exited ID (Accepted ID with Sustainable Investment Team)
- 1 Exited AIM (Accepted Position Outside CalPERS)



Recruitments

- 1 ID Position Target Start Date: By 9/30/18
- 1 IOIII Position Target Start Date: By 9/30/18
- 1 IOI Position Target Start Date: By 9/30/18

Functional Organizational Chart

Opportunistic Strategies | Enhanced Beta & Opportunistic

Kevin Winter, Managing Investment Director

Jean Hsu, Investment Director

Tom McDonagh, Investment Director

Leadership

Jonathan Chen, Investment Manager

Key Resources

Ryan Ong, Associate Investment Manager

Laura Hopkins, Investment Officer II

Marina Kong, Associate Investment Manager

Internal Expertise

- CLO AAA/AA for Enhanced Beta
 - \$12 Billion portfolio serving GE and GFI
- Direct Lending Financing
 - \$400 Million serving GE
- Replicating PE Benchmark in Overlay Portfolio
 - \$15 Million serving TLPM
- CLO Equity Tranche
 - Approved for OS/Total Fund

External Partners

- Trade Finance
 - External Partnerships, Alternative Solicitations

Functional Organizational Chart

Opportunistic Strategies | Execution Services & Strategy

Kevin Winter, Managing Investment Director

Tom McDonagh, Investment Director

Leadership

Dan Kiefer, Investment Manager

Brian Leu, Investment Manager

Jonathon O'Donnell, Investment Manager

Alan Seater, Investment Manager

Key Resources

Mike Johnson, Investment Officer III

Joy Pathak, Investment Officer III

Amrish Pattni, Investment Officer III

Scott Whelan, Investment Officer III

Egle McCaffrey, Investment Officer II

Michael Woodward, Investment Officer II

Vicky Quan, Investment Officer I

Chue Fue Thao, Seasonal Clerk

Securities Lending / Collateral Management

- Maximize value of lendable assets
- Optimize daily collateral posted and received

Equities & Related Derivatives/Volatility

- Advise on trading and implementation strategy
- Execute trades across all equity products

Government Rates, Currency, & Related Derivatives

- Advise on trading and implementation strategy
- Execute trades across all government interest rate and currency products

Policy Review | Investment Committee

The Total Fund Investment Policy*, adopted by CalPERS Investment Committee, includes Sections which provide the framework for OS's management of CalPERS assets. *For FY17-18, OS has no material Policy changes or exceptions to report.*

Total Fund Investment Policy Section	Summary	Reporting Responsibility	Investment Responsibility
Total Fund	Generate returns at an appropriate level of risk	X	X
Investment Beliefs	Invest in opportunistic strategies, providing liquidity when the market is short of it	X	X
Governance & Sustainability Strategy	Support achievement of sustainable investment (ESG)	X	X
Low Duration Fixed Income Program	To diversify CalPERS investment programs and enhance returns		X
Opportunistic Program	Enable greater investment in assets perceived to be substantially undervalued		X
Securities Lending	Lending both equity and fixed income securities, reinvesting collateral posted by borrowers, and facilitating short-term liquidity needs through the use of leverage		X
Use of Leverage	Defines use of notional leverage, non-recourse and recourse debt		X

*<https://www.calpers.ca.gov/docs/total-fund-investment-policy.pdf>

Delegations Review | Managing Investment Director

The OS Managing Investment Director is delegated to act finally on investment and business authorities subject to Investment Committee Policies.

Investment and Business Authorities (Summarized*)

To Allocate Assets	<ul style="list-style-type: none"> • Establish new investment strategies, subject to approval by the CIO • Manage sector allocations within approved ranges • Implement and manage activities to support the total fund and programs (i.e. hedges, currency, interest rates)
To Make Investment Decisions	<ul style="list-style-type: none"> • Transact in public securities and derivative instruments • Make or dispose of investments in private investment vehicles • Negotiate partnership agreement terms, including fees and compensation • Select and terminate, and increase or decrease funding of externally managed portfolios • Vote proxy issues related to fixed income securities and respond to corporate actions • Negotiate contract terms, fees, and compensation • Establish a spring-fed pool of external resources to meet program needs • Conduct and monitor the performance of service providers
Administrative Management	<ul style="list-style-type: none"> • Conduct and oversee activities required to carry out administrative and management functions
To Represent CalPERS	<ul style="list-style-type: none"> • Testify on behalf of CalPERS before state and federal legislative committees • Communicate the Board's policies and positions before outside parties and organizations

*Delegation No. INV-18-09; Effective January 17, 2018