CALSTRS

Investment Committee

Item Number 5 – Open Session

Subject: Investment Policy Statement Revision: Leverage & Asset Allocation Bands – First Reading

Presenter(s): Scott Chan, Geraldine Jimenez, April Wilcox, Josh Diedesch

Item Type: Information

Date & Time: January 11, 2024 – 30 minutes

Attachment(s): Attachment 1 – Meketa Memo

Attachment 2 – Investment Policy Statement - Redline

Attachment 3 – Investment Policy Statement – Clean

Attachment 4 – Funding Plan Risk Metrics

Attachment 5 – Board Leverage Risk Report Example

PowerPoint(s): IPS Recommendations

Item Purpose

The purpose of this item is to present the Investment Committee (IC) with a first reading of two recommended revisions to the Investment Policy Statement (IPS). These recommendations are intended to build a more resilient portfolio by enhancing total fund[1] portfolio positioning, liquidity management and oversight, and build on related discussions at September and November 2023 IC meetings.

Recommendation

Staff recommends that the Board adopt two proposed changes to the IPS. Both policy changes are reflected in the redline and clean updated IPS (Attachments 2 and 3). The changes are to:

1. Widen the asset allocation ranges to manage and rebalance the Strategic Asset Allocation (SAA) targets as outlined in Table 1 below.

[1] The term 'total fund' applies to the management of the whole CalSTRS investment portfolio.

2. Add a maximum leverage limit of 10% for total fund portfolio positioning and liquidity management.

Table 1. Strategic Asset Allocation (SAA) Long-Term Targets and Recommended Ranges

Strategic class	Asset class/Strategy	Strategic Asset Allocation (SAA) Long-Term Targets	Range*
Economic growth	Public Equity	38%	+/- 8%
	Private Equity	14%	+/- 5%
Real assets	Real Estate	15%	+/- 5%
	Inflation Sensitive	7%	+/- 5%
Diversifying	Innovative Strategies	0%	0 to 2.5%
	Risk Mitigating Strategies	10%	+/- 5%
	Fixed Income	14%	+/- 5%
	Cash / Liquidity	2%	0 to 5%
	Total asset allocation	**100%**	

*Proposed effective date 1/1/24

Executive Summary

Market shifts often require the investment team to actively rebalance an increasingly complex CalSTRS portfolio. This complexity stems from our growing private markets portfolio, as well as cash flow streams that vary over time with the business cycle. Enhanced portfolio and liquidity management helps to manage risk and complexity, and continue to meet our objectives including: (1) Paying benefits; (2) Avoiding selling assets at discounted prices; (3) Taking advantage of market opportunities; and (4) Rebalancing the portfolio.

Staff proposes two changes to the IPS to increase flexibility for optimal portfolio implementation with a prudent level of risk:

1. **Allocation ranges:** Widening asset allocation ranges to provide flexibility in deciding when to rebalance back to the SAA targets. Over a business cycle, there are periods when private market investments are slower to reprice and return cash while the public markets quickly reprice and can be converted to cash. This difference between private and public assets requires additional tools to manage the portfolio through a cycle, rebalancing back to SAA targets, avoiding selling assets at significant discounts, and taking advantage of market opportunities as they arise.
2. **Leverage limits:** Adding policy language to allow for the use of leverage, on a temporary basis, up to a maximum of 10% of the total fund to provide the flexibility to position the

portfolio and manage liquidity over a business cycle. This additional policy language adds transparency and codifies CalSTRS' current use of leverage to manage total fund positioning, while providing the Investment Committee with enhanced reporting and oversight.

These recommendations increase Staff's ability to optimally manage the portfolio and support prudent risk management and oversight drawing on: (1) the proven expertise of the team; (2) enhanced risk mitigants; (3) good governance; and (4) monitoring and reporting.

Additionally, staff's recommendations are reflective of reviews and discussions with:

- ✓ CalSTRS Investments and Actuarial Resources teams: performed extensive analysis of the recommended changes and concluded there is minimal risk to the Funding Plan and CalSTRS ability to fund liabilities while improving staff's ability to manage the portfolio through different economic environments.
- ✓ The Board's consultant, Meketa, reviewed staff's recommendations and supports the recommendations (see Attachment 1).
- ✓ CalSTRS Financial Services team, Legal team, and Fiduciary Counsel.

Staff has significant expertise and a track record of successfully rebalancing the total fund portfolio within Strategic Asset Allocation ('SAA') bands and utilizing leverage as a liquidity tool. Additionally, individual assets classes have Board policies and extensive experience utilizing leverage within the asset classes. As CalSTRS evolved into a mature investor in private markets and alternative assets, so has the management of liquidity and leverage. Today Staff recommends these two changes to the IPS to better reflect the shifting needs of the portfolio. CalSTRS evolution has been progressive over time and will continue to evolve, ensuring proper resources, governance, monitoring and reporting to prudently oversee and manage/mitigate associated risks.

Background

In May 2023, the Board adopted a new Strategic Asset Allocation ('SAA'), which represents a diversified portfolio aimed at meeting or exceeding the actuarial rate of return of 7% over multiple business cycles, market shocks and different economic regimes. Staff then constructed a portfolio with the goal of investing in the best assets over any given time frame while targeting and rebalancing to the SAA.

Diversifying CalSTRS assets into private markets and alternative assets (Real Estate, Private Equity, Inflation Sensitive and Risk Mitigating Strategies) in the SAA and strong execution have been key drivers of performance success over the past two decades. Our diversified portfolio achieved successful performance over the past 10 years as shown in Table 2. The 10-year return placed us in the top 15% of our peers.

Table 2. CalSTRS Returns

As of 9/30/23	Annualized return	Excess return above the Benchmark*
1 year	7.7%	0.39%
3 years	7.5%	0.87%
5 years	7.2%	0.75%
10 years	7.9%	0.32%

* Benchmarked to CalSTRS Total Fund Policy Benchmark

However, with more of our SAA in less liquid assets, it increases the complexity of managing cash flows in periods when private market assets are not returning cash/capital to reinvest or, by their very nature, are less liquid and more difficult to rebalance the portfolio back to the SAA targets during volatile periods.

At the September and November Investment Committee meetings, at the request of the IC Chair and Vice Chair, Staff presented education on the topic of liquidity oversight and leverage to both, frame the challenges and the potential tools which could add significant value in the future with the addition of a low amount of risk.

After extensive analyses and review, Staff recommends two changes to the IPS aimed at creating greater flexibility to achieve CalSTRS' objectives: (1) Widening asset allocation ranges and (2) Adopting an explicit 10% leverage limit at the total fund. Taken together, the two recommended policy changes provide staff with tools to create more value by leveraging staff's expertise and judgement in adapting to a wide range of market environments. Without these changes, liquidity constraints may lead to undesirable outcomes.

Policy Change 1: Widening Allowable Asset Allocation Ranges

Staff recommends widening the asset allocation ranges as reflected in Table 1. These wider bands appropriately reflect managing the levels of less liquid assets in our portfolio since the ranges were adopted in the early 2000's. Consistent with the prior allocation ranges, they are reflective of asset classes based on their underlying size, volatility, and risk characteristics.

The asset allocation ranges limit how far the actual allocation may deviate from the SAA policy targets before the portfolio must be rebalanced back within ranges. The ranges seek to balance the flexibility needed to manage the portfolio through volatile times, with the risk of deviating modestly from policy targets. Important considerations in setting the ranges across asset classes include the relative size of the allocation to private markets compared to more liquid markets, the liquidity profile of an asset class, the volatility of each asset class and the total fund, how staff utilizes these allocation ranges, governance and oversight of the allocation relative to targets.

The most significant change since the ranges were first adopted in the early 2000's, is the effort to diversify the portfolio into less liquid private markets assets. For example, at the time of the 2001 Asset Liability Management Study (ALM), the portfolio was invested with 10% of assets in private markets with a goal to reach 15% by 2005. In the most recent ALM in 2023, the long-term target allocation to private markets was approximately 38% and greater when considering limited liquidity in some public market investments. This change enhances risk-adjusted returns of the total fund but also introduces the need to enhance liquidity management. This is due to both, the cyclical nature of private market cash flows and lagged asset values, which lead to periods of greater deviation from long-term SAA targets. Therefore, widening the ranges enables staff with greater flexibility to manage through such periods.

<u>Policy Change 2: Total Fund Leverage Limit</u>

Another useful tool to manage the total fund through various market environments is adopting a maximum limit of up to 10% leverage at the total fund. Staff proposes that leverage at the total fund be used on a temporary basis to fulfill cash flow needs in circumstances when it is disadvantageous to sell assets. 'Temporary' use of leverage or borrowing means that it will be generally paid back over the business cycle. At the November Investment Committee meeting leverage was explained by Figure 1.

Figure 1: Leverage Definition for use at the Total Fund Level

Total fund leverage comprises leverage tools that are accounted for at the total fund level or rely on CalSTRS credit worthiness and / or its balance sheet assets, in contrast with asset class leverage that is addressed in individual asset class policies. CalSTRS plans to continue to utilize the same or similar amount of leverage as permitted within individual asset class policies, so this total fund leverage will be in addition to the asset class leverage.

To support this IPS leverage recommendation, Staff would continue utilizing several leverage tools currently in use, plus seeks to use additional tools, some of which are highlighted in Table 3.

Table 3. Total Fund Leverage Tools

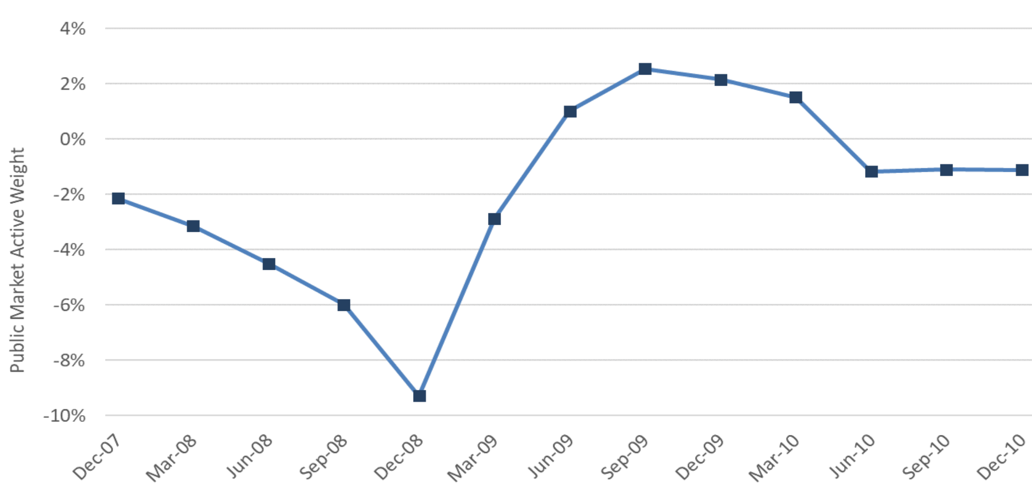
Leverage Tool	Current Usage
Derivatives (Futures & Swaps)	Currently in use
Reverse Repurchase Agreements	Currently in use
Bank Credit Lines	Currently in use
Commercial Paper Borrowing	Not Currently Used – under consideration
Unsecured Term Debt	Not Currently Used – under consideration

<u>Why are these two recommendations valuable?</u>

The primary benefit of widening asset allocation ranges and allowing leverage use as a rebalancing tool is to provide staff increased flexibility to manage through market environments by smoothing cash flows with additional liquidity tools to rebalance the portfolio during volatile markets, avoid selling assets at the wrong time (when they fall), and to invest during times of dislocation when prices are distressed. These benefits can be exemplified during market downturns like the Great Financial Crisis in 2008 and the recent COVID-19 pandemic in 2020.

During the 2008 Crisis, the CalSTRS portfolio lost significant value within a short time frame leaving the public market portfolio underweight by almost 10 percent to its SAA target which breached its asset allocation policy range (and was reported to the Board). This is demonstrated by the public market active weights in the chart below.

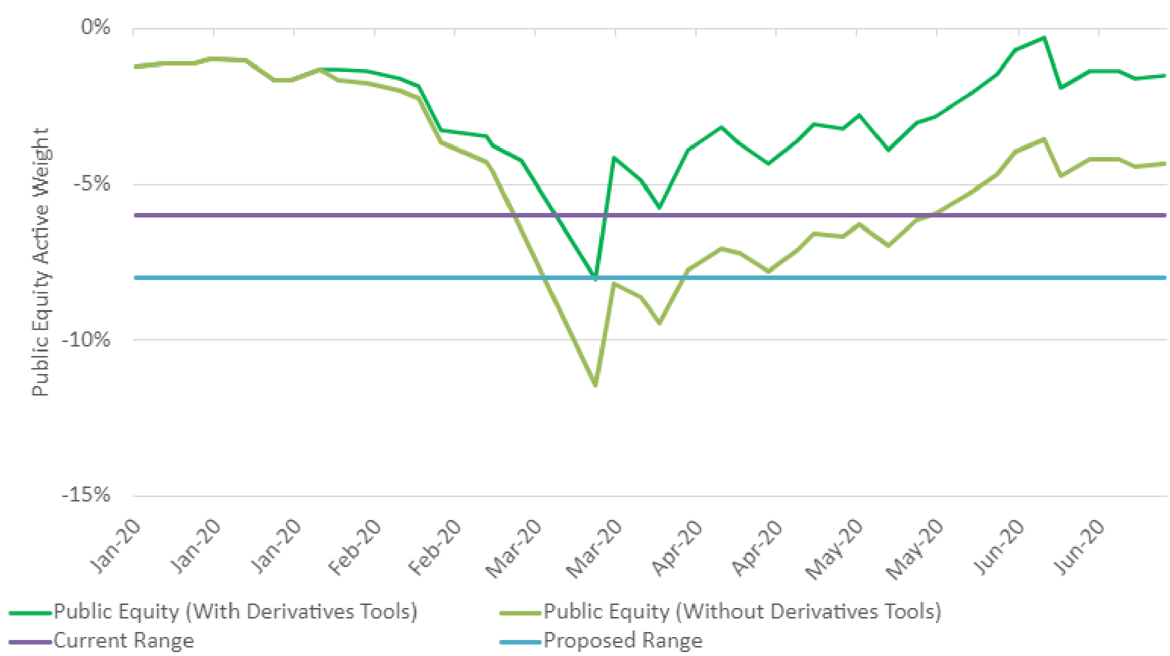
Public Markets Active Weights post 2008



This "active" positioning exposed CalSTRS to portfolio underperformance and a policy breach but with limited cash, staff was not able to reposition the portfolio. At that time, CalSTRS (and most of its peers) did not utilize equity derivatives or total fund leverage to reposition the portfolio. With a low portfolio cash balance at that time, CalSTRS could not rebalance to its SAA targets and suffered reduced performance as a result. After experiencing this difficult market environment in 2008, CalSTRS staff researched and recommended (with the Investment Committee's approval) multiple enhancements to improve portfolio diversification including the introduction of the Risk Mitigating Strategies, Inflation Sensitive assets and Private Credit strategies.

An additional experience was during the COVID-19 pandemic's large public equity market sell off in March 2020 which also left the portfolio breaching its asset allocation policy ranges (and was reported to the Board). To address the need to rebalance the portfolio during a market sell off, staff utilized equity derivatives to rebalance the portfolio with minimal cash needs. Please see the public equity active weights in the chart below with the green line showing the use of equity derivatives.

Public Equity Active Weights post COVID-19 Pandemic



This successfully reduced portfolio active risk with quick rebalancing and positive performance during a volatile market environment. This evolution in the use of derivatives resulted from CalSTRS expanded team and expertise.

The proposed expanded asset allocation policy bands and net leverage up to 10% would allow staff flexibility to optimally manage the portfolio. In forming these IPS change recommendations, Staff considered CalSTRS ability to prudently oversee and manage the following areas:

(1) Risks & Mitigants
(2) Expertise of the Team
(3) Governance & Board Oversight
(4) Monitoring & Reporting

Risks & Mitigants

Expanding the asset allocation ranges and adding total fund leverage increases the potential outcomes around the SAA policy target, both positive and negative. This provides more flexibility for staff to create value through its expertise. However, it also increases the potential active risk of the portfolio or, said another way, it can increase deviations from the SAA policy target. Since the SAA target is the allocation designed to meet or exceed our actuarial return of 7%, straying too far from it may cause risk to funding levels. Accordingly, staff undertook extensive analysis to assess a prudent level of allocation ranges and total fund leverage amounts at minimal risk across multiple dimensions and scenarios including:

(1) Market shocks such as the fast-moving, deep equity market drawdowns like the 'Great Financial Crisis of 2008' and the more prolonged 'Dot-com' bust and recession in the early 2000s;

(2) Periods of significantly depressed private cash flows;

(3) Different lengths of time periods; and

(4) Funding different allocation mixes of more conservative diversifying assets and more aggressive growth assets.

Staff believes the risk of wider allocation ranges and adding total fund leverage is mitigated by actively rebalancing the portfolio and has a long history of managing allocation risks versus policy targets through the existing Risk Allocation Committee (RAC). RAC is comprised of the senior leadership of the Investment team and provides regular, active management and oversight of the portfolio allocation by bringing together expertise from across asset classes, Investment Services, and risk, as well as active participation from Meketa. RAC meets at least once per month (or more frequently as needed in volatile markets) to actively rebalance the portfolio and limit risks by reviewing and taking actions regarding the asset allocation, market views, risk, liquidity, and cash flows. With the recommended allocation ranges, staff will continue actively monitoring and managing risk in RAC.

Most importantly, Investments and Actuarial Resources concluded that these changes pose low risk to the Funding Plan. This conclusion is supported by the minimal impact to key Funding Plan metrics, as highlighted in the Funding Plan metrics in Attachment 4.

In addition to potential Funding Plan risk, implementation of wider asset allocation bands and total fund leverage introduces several potential operational and execution risks. Managing and mitigating these risks involves extensive collaboration across multiple teams in Investments, as well as relying on the expertise of other teams like Financial Services and the Legal Office. Specifically, additional risks associated with managing leverage include:

- Solvency risk – the ability to meet financial obligations as they arise
- Maturity risk – the ability to pay back or roll over debt
- Counterparty risk – risk of a financial counterparty failing to meet their obligations
- Reputational risk – a threat or danger to the good name or standing of a business or entity
- UBTI risk – Tax-related risk
- Other execution risks – liquidity & margins, structuring, liability-matching, etc.

These risks can be mitigated by the extensive staff experience, governance and reporting already in place.

Expertise of Team

Staff has extensive experience managing to the SAA policy targets and implementing different types of leverage. To date, most leverage is allowed in policies and used within the asset classes including public market derivatives strategies and some common short and medium-term borrowing strategies such as real estate used bank credit facilities, term loans, and reverse repurchase agreements. Over the last several years, these rebalancing tools have successfully been expanded to support the total fund by remaining within SAA bands and a maximum net leverage use below 5%.

Building on this experience to expand the types of tools and execution capabilities will involve a multi-year effort to develop staffing, infrastructure, and processes. Like other major strategic initiatives such as the development of new asset classes or the collaborative model, staff will pursue a deliberate path to implementation that includes regular communication with the Investment Committee on progress and oversight from Meketa. Developing these capabilities will also involve collaboration across different branches, particularly Financial Services and Legal teams.

The recommendation of these enhancements to portfolio changes, in staff's judgment, appropriately balances the flexibility needed to manage the portfolio with the potential to add significant value while taking prudent risks with low risk to the Funding Plan.

Governance & Board Oversight

The SAA bands and use of leverage will continue to be governed by the IPS, with robust internal controls and processes in place.

Senior management in Investments and asset class directors are an integral component to managing risk and are critical members of asset allocation, liquidity management, and oversight committees.

This framework helps to implement and manage the asset allocation in line with the SAA, facilitates prudent management of leverage, and helps ensure adequate liquidity to meet fund objectives. Staff also works closely with the board's consultant, Meketa, to monitor the risks of the total portfolio, including the current liquidity management program and any proposed, future enhancements.

To ensure effective governance and oversight, staff collaborate across multiple cross-functional teams and management oversight committees dedicated to judicious use of leverage and diversification. Recommendations and/or oversight committees will include the Investment Branch's senior staff including the CIO, Deputy-CIO, Senior Investment Directors of Public and Private Markets, Director of Investment Services and Directors of divisions. This team will engage in comprehensive discussions regarding liquidity, leverage, private asset pacing, and asset allocations with a view on market outlook and other factors effecting the fund in the short and long run. Following these deliberations, the CIO (or designee) will approve recommendations as appropriate. The approved recommendations will be implemented using current processes and controls designed within the asset classes and Investment Services as appropriate.

Monitoring and Reporting

The Investment Services team is responsible for reviewing all internal investment trades, including SAA ranges and leverage. Furthermore, the team actively oversees daily cash forecasting and analysis for the Total Portfolio. In conjunction with the Risk team, Investment Services monitors the Total Portfolio's borrowing capacity, required collateral, tracking the amount of leverage available. The teams are also refining internal reporting and governance, to support the monitoring of cost and use of leverage.

Meketa also provides oversight. They are included in RAC internal asset allocation discussions and report semi-annually to the Investment Committee on the performance and activities of the Total Portfolio.

Additionally, Investment Compliance monitors compliance to the Investment policies, including the leverage percentage as proposed in the IPS if adopted. Investment Compliance also independently reports any policy deviations to the Investment Committee in the semi-annual Compliance Report to the Board.

To increase Board oversight, staff will enhance the CIO Risk Board Report to include additional liquidity and leverage reporting (Attachment 5). Also, the closed Substantiative Activities Report to the Board reports portfolio SAA positioning and will be updated to include any leverage in use.

<u>Next Steps</u>

This is a first reading of staff's two recommended IPS changes: (1) Widening strategic asset allocation ranges; and (2) Addition of policy language specifying a 10% limit for leverage at the total fund. Based on the Investment Committee's feedback, staff will provide any additional analyses to support these recommendations.

We look forward to the discussion and answering any questions at the meeting.

Strategic Plan Linkage: Trusted Stewards

Board Policy Linkage: IPS

Optional Reference Material: *(e.g., prior board items, supplemental educational materials, etc.)*

September 13th, 2023 Investment Committee: Liquidity Oversight Management-Leverage Education

November 1st, 2023 Investment Committee: Liquidity Oversight Management-Leverage Education