CALSTRS

Investment Committee

Item number 7 – Open session

Subject: Shared Vision – RMS Strategic Review

Presenter(s): Geraldine Jimenez, Steven Tong, and Carrie Lo

Item type: Information

Date and time: January 8, 2025 – 20 minutes

Attachment(s): None

PowerPoint presentation(s): PowerPoint 1 – Risk Mitigating Strategies Strategic Review

---

Item purpose

The purpose of this item is to provide an overview of Risk Mitigating Strategies (RMS). At the November 6, 2024, Investment Committee (Committee) meeting Shared Vision and Strategic Plan discussion during the CIO Report, staff noted that there would be a series of presentations by each asset class. Each presentation would inform the board of the asset class's role and how it is meeting its objective. Other topics to be addressed with respect to the Shared Vision are how the market has evolved and CalSTRS could adapt, how CalSTRS can leverage partners across the Investments branch, and opportunities to further CalSTRS' Collaborative Model and Net Zero pledge. To further enhance RMS's ability to meet its objectives and contribute to the Shared Vision, potential policy changes will be discussed in closed session. These changes will then be formally introduced at the March 2025 Committee meeting.

Recommendation

This is an information item only.

Executive summary

From a total plan perspective, RMS is part of Diversifying Strategies along with the Fixed Income and Cash/Liquidity allocations. Specifically, RMS was designed to provide diversification to the total plan, particularly during bear markets, which staff defines as a significant equity market drawdown of a loss of 20% or more and over three or more months.

Background

CalSTRS' mission is to secure the financial future and sustain the trust of California's public school educators and to provide retirement, disability and survivor benefits to them and their families. To support this mission, the CalSTRS Funding Plan, enacted by AB 1469 in 2014, put the Defined Benefit Program on the path to full funding by 2046 through incremental contribution increases shared among the program's three contributors: CalSTRS members, employers and the state.

CalSTRS continually monitors the funding plan and the financial health of the fund. Formal assessments of funding levels and risks are provided at the regular board meeting twice a year. These formal assessments are presented in the spring through the annual actuarial valuation report and in the fall through the Review of Funding Levels and Risks report.

In the 2024 Review of Funding Levels and Risks Report presented at the November 2024 regular board meeting, it was noted that investment risk is the most significant risk facing the CalSTRS Funding Plan and CalSTRS' ability to reach full funding. The report noted the risk that a negative return could impact CalSTRS' ability to reach full funding will likely increase in 2027 when the state's share of the unfunded actuarial obligation is expected to be eliminated. During the November regular board meeting, staff presented two examples that illustrated how it could be difficult for CalSTRS to achieve full funding by 2046 if a loss of -5% or more in the total plan were to occur following that elimination. Considering the Defined Benefit Program continues to mature, the system's sensitivity to investment experience is even more heightened. The report also highlighted that a potential decline in the number of active members could make it harder for CalSTRS to react to an investment loss in the future. RMS is a key part of the solution to reduce the size of a loss in the total plan and help the system achieve full funding.

History of RMS

The vulnerability of the total plan funding status was noted during the 2015 Asset Liability Study and embedded into the CalSTRS Investment Beliefs:

> Belief 1: Diversification strengthens the fund.
>
> Belief 6: Managing short-term drawdown risk can positively impact CalSTRS' ability to meet its long-term financial obligations.

RMS was recommended to reduce the risk of decline in prolonged negative investment periods by increasing the diversification of the total fund. An initial strategic allocation of 9% of the total plan was approved by the Committee in 2015. This was increased to 10% in the 2019 Asset Liability Study. A significant strategic allocation was deemed to be necessary as it is difficult to build the program or allocate to it in sufficient size when markets are already unfavorable. Moreover, the timing and catalyst for market downturns are typically unknown in advance.

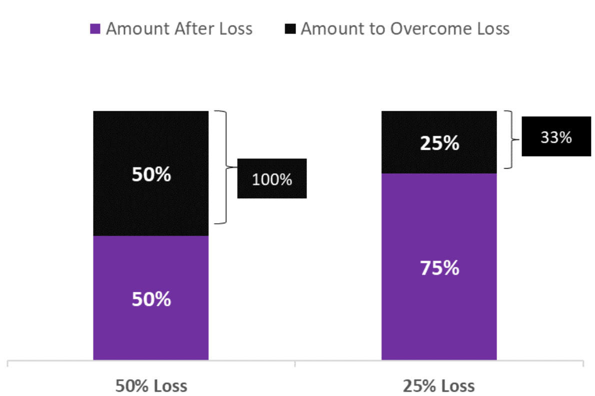
Following the establishment of Inflation Sensitive, RMS was CalSTRS' second allocation to be defined by its objective rather than the assets it included. CalSTRS was also one of the first allocators to establish an RMS program focused on providing downside protection in the event of a market crash. Based on publicly available information, there are now at least seven other institutional allocators that have RMS-type mandates.

RMS Objective

As CalSTRS assets are heavily influenced by equity market performance, RMS focuses on preserving capital or generating higher returns during those periods when equities are in an extended drawdown. Note that the RMS portfolio is not intended to maximize return in all market environments. When equities are performing well, a positive, but lower, return is expected. The purpose of the RMS portfolio is to help mitigate risks to the CalSTRS Total Fund during stress market scenarios. The value of RMS for the CalSTRS Total Fund can be established by how well the RMS program performs relative to this objective.

Preserving capital when equity markets are under stress is beneficial because a lower rate of return is needed for the portfolio to recover its losses (see figure 1). For example, if an investor has \$100 and loses 50%, the investor has \$50. For the investor's account to grow back to \$100 from \$50, the \$50 needs to gain 100%. If the investor with \$100 instead loses 25%, the account drops to \$75. For \$75 to grow back to \$100, the account needs to generate \$25 or a 33% return. Reducing steep drawdowns allows the total plan to recover more quickly and easily. This results in less stress on the system to generate future returns to maintain or improve its funding status.

Figure 1. The Benefit of Capital Preservation



Included in RMS are four investment strategies that fall into two broad categories: defenders and diversifiers (see figure 2). The defenders, long duration U.S. Treasuries (UST) and trend following, are generally the most effective responders to an initial or extended equity drawdown. The diversifiers, global macro and systematic risk premia (SRP), should compensate during periods that may be unfavorable for the defenders, thereby helping to stabilize RMS portfolio returns. Each strategy has positive expected real returns that typically have low correlation to equities, or behaves independently from equities. UST is managed internally while external managers are utilized for the remaining strategies.

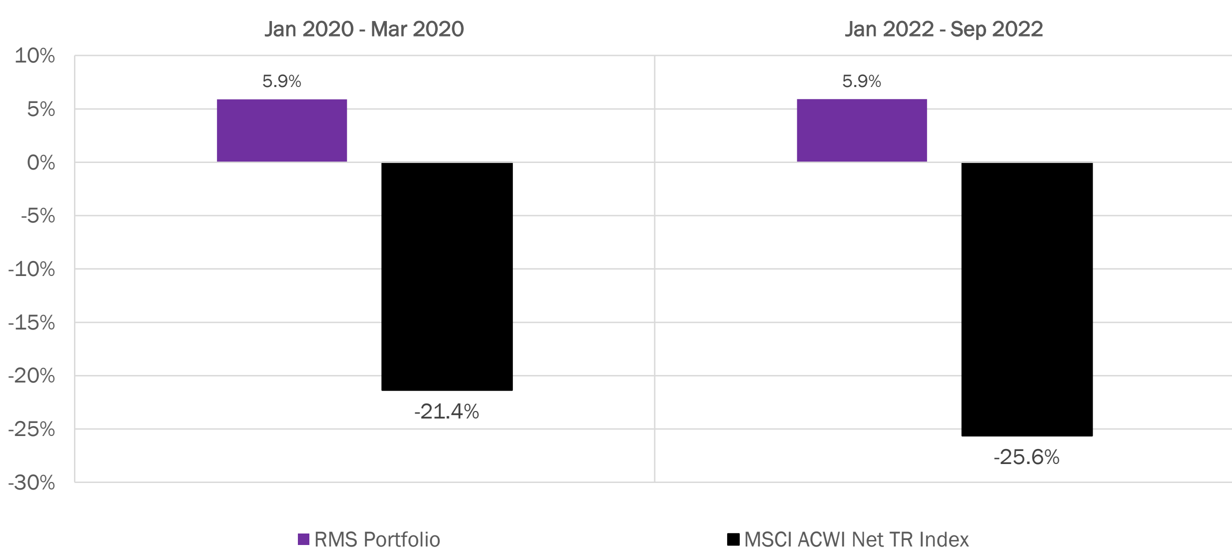
Figure 2. RMS Sub-strategies Roles

Defenders		Diversifiers	
Long Duration US Treasuries (UST)	Trend Following	Global Macro	Systematic Risk Premia (SRP)
~20 year Treasuries	Able to benefit if markets continue downward	Expected to protect capital and provide steady returns based on global growth and inflation rates	Expected to produce steady returns over a cycle independent of traditional markets

RMS Results

Since the Global Financial Crisis of 2008/2009, there have been two drawdowns in the global equity market returns as expressed by the MSCI ACWI Index of greater than a 20% loss. RMS produced approximately a positive 5.9% return over these periods in 2020 and 2022 (see figure 3). These positive returns during periods of market turmoil serve as one source of liquidity to pay benefits and even capital to reinvest in other assets at distressed prices and rebalance the overall CalSTRS portfolio. Equally important is this helped reduce the need for CalSTRS to sell assets at lower prices to meet benefit or investment obligations.

Figure 3. Cumulative Returns During MSCI ACWI Bear Markets Since RMS Inception

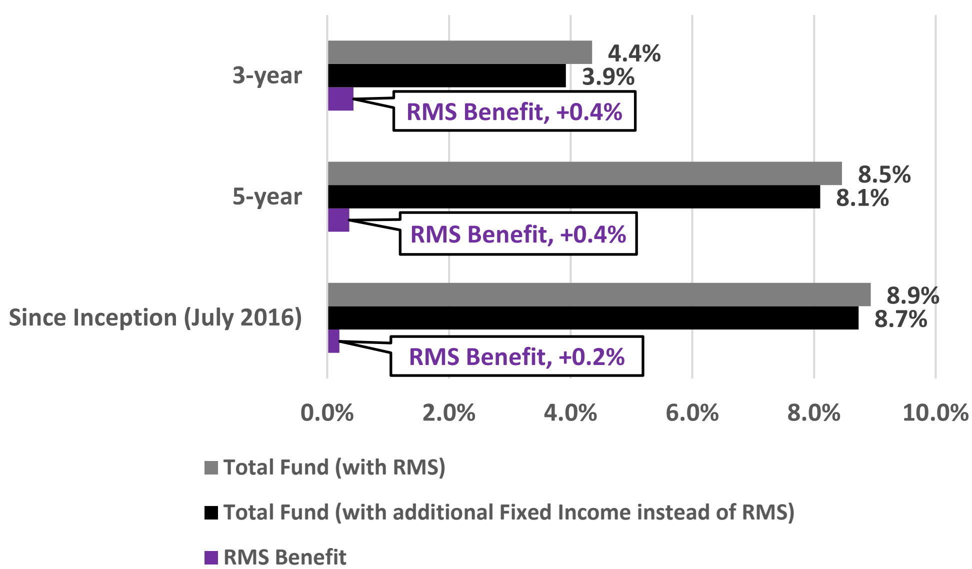


Source: CalSTRS

The true impact of RMS on the total fund's absolute return can be measured by comparing the returns of the total fund with RMS relative to the total fund invested in a comparable diversifying asset class. Assuming CalSTRS would have maintained its allocation to Diversifying Strategies but RMS had not been developed in July 2016, the allocation to RMS would most likely have been invested in fixed income. Fixed Income has traditionally been the primary hedge against equity drawdowns. The following illustrations show the impact of investing in fixed income as a diversifier instead of RMS since July 2016 on the total fund's return and funding status.

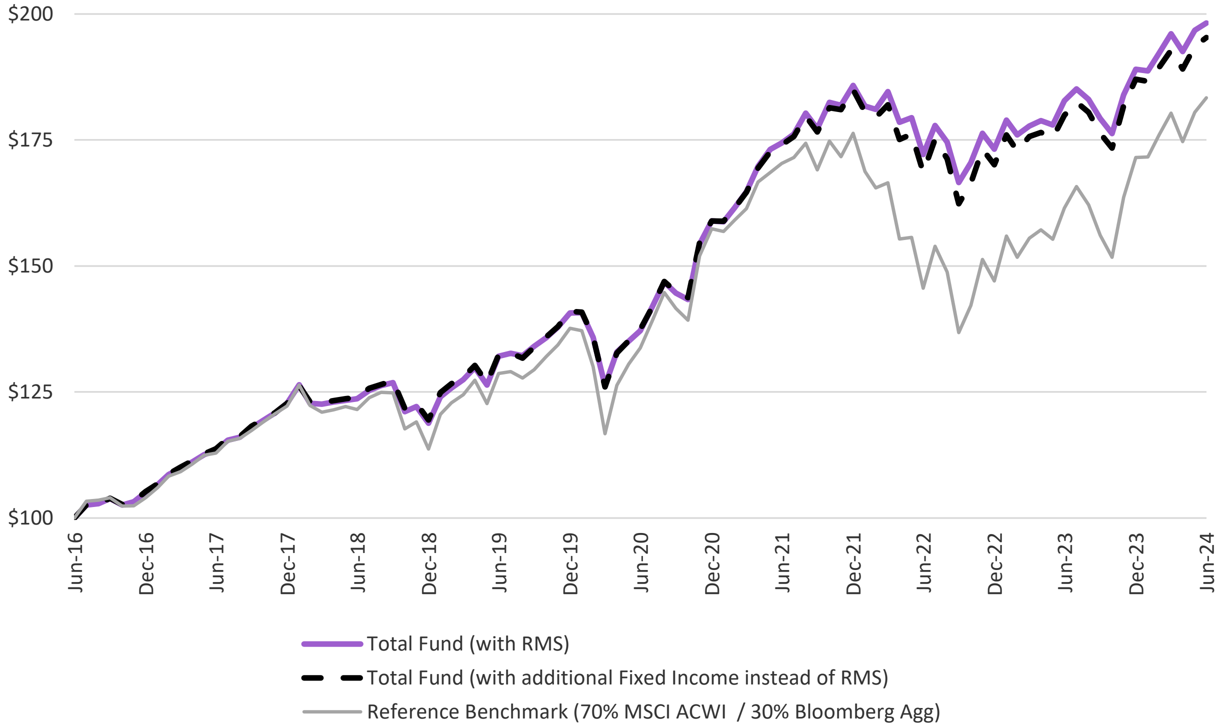
Figure 4 shows that since its inception, RMS contributed 0.2% to the total fund return of 8.9%, compared to a total fund return of 8.7% where the allocation to RMS had been invested in fixed income instead. The benefit was even greater during the three-year period due to RMS's strong performance in 2022 when both equities and fixed income suffered. Fixed Income remains an important diversifier to the total plan and RMS adds an additional line of defense.

Figure 4. RMS Benefit on Total Fund Return (as of June 30, 2024)

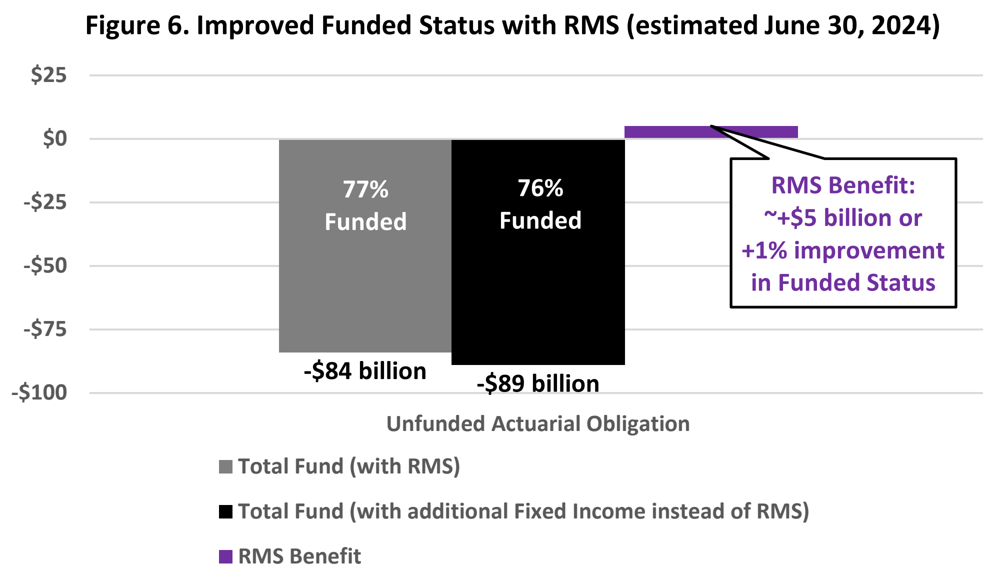


The benefit of RMS in reducing the total fund drawdown is demonstrated in the cumulative return chart, figure 5. Again comparing the total fund return with RMS (purple line) and where additional Fixed Income is utilized instead of RMS (dotted black line), both return streams initially track each other closely. However, during the 2022 bear market, RMS helped cushion the total fund's losses resulting in a faster recovery and higher return over the longer term. Both total fund implementations outperformed the CalSTRS' reference benchmark (70% MSCI ACWI IMI / 30% Bloomberg Aggregate Bond Index).

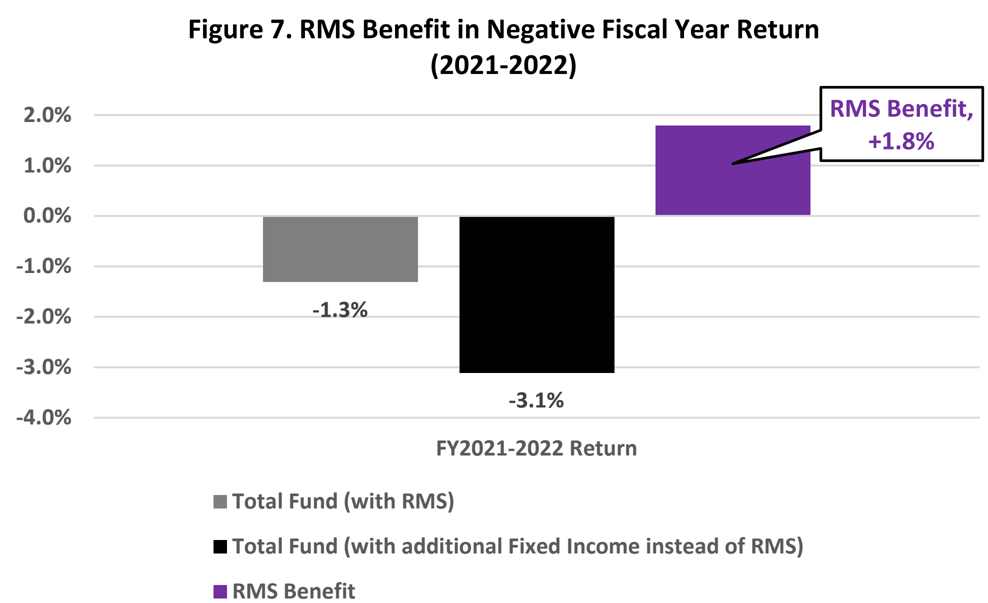
Figure 5. Growth of $100 Since Inception: July 2016 - June 2024



The benefit of RMS translates directly to the funding of the Defined Benefit Program. Actuarial staff performed an analysis to estimate how much assets there would have been in the Defined Benefit Program as of June 30, 2024, had CalSTRS not invested in RMS since July 2016. Using the estimated time-weighted rate of return CalSTRS would have earned had the assets been invested in additional Fixed Income instead of RMS, it is estimated that the Defined Benefit Program assets would have been $4 to $5 billion lower as of June 30, 2024, had CalSTRS not invested in RMS. This means the unfunded actuarial obligation would have been about $4 to $5 billion larger on June 30, 2024. Although, the formal June 30, 2024, actuarial valuation has yet to be completed and will be presented to the board in May 2025, the unfunded actuarial obligation on June 30, 2024, is expected to be about $84 billion. Without RMS, the June 30, 2024, unfunded actuarial obligation would be about $89 billion. The funded status would also have been lower by about 1% to 1.5%. The Defined Benefit Program is currently expected to be about 77% funded on June 30, 2024. It would have been about 76% without RMS. (See figure 6.)



Most of the beneficial impact of RMS was experienced in fiscal year 2021-2022 when CalSTRS reported a negative 1.3% time-weighted rate of return. Had CalSTRS not invested in RMS and invested in fixed income instead, it is estimated CalSTRS' time weighted rate of return for that year would have been 1.8% lower at -3.1% (see figure 7). Note that in fiscal years in which CalSTRS exceeded its assumed return of 7%, RMS often resulted in a slightly lower return. This is to be expected as RMS will generally not keep up with strong equity market returns.



RMS and Shared Vision

While RMS has successfully navigated the two bear markets realized since its inception in 2016, there are opportunities for RMS to meet its objective more effectively and efficiently. CalSTRS' scale introduces both challenges and opportunities. As the total fund grows, increasing capacity is needed from managers and strategies. Meketa, RMS advisor Albourne Partners (Albourne), and staff are working together to review potential adjustments to RMS that may include consideration of other strategies, sub-strategy allocations, or investment structures. Recommendations to enhance RMS will be discussed at the Committee meeting in March 2025 along with any recommended policy changes.

CalSTRS' scale also offers negotiating power for favorable terms with managers. Yet staff continues to focus on lowering the cost of the program. In alignment with CalSTRS' Collaborative Model, RMS staff is exploring opportunities with Global Equities to access RMS strategies through more direct means. The teams are engaging in knowledge sharing and co-researching opportunities to reduce costs.

Furthermore, the traditional way of employing benchmarks to gauge success can present conflicts. Each of the RMS sub- strategies is benchmarked to a relevant index and dynamically weighted to create the RMS benchmark. It can be challenging to closely track the performance of these benchmarks as they are difficult to replicate, the constituents often change, and they are not necessarily constructed specifically to perform during equity bear markets.

While the RMS program nonetheless strives to outperform its benchmark, this is not the primary goal of the RMS program. Rather, delivering performance when equity markets fall significantly is how RMS adds value to the total plan. Designing an RMS program to solely outperform its benchmark may even reduce the efficacy of the program in an equity drawdown.

Moreover, it is important to consider RMS's contribution over a longer period such as a market cycle. Since the inception of RMS in 2016, there have not been many equity bear markets where stocks declined by 20% or more. RMS will typically underperform equities during periods when traditional markets are performing well. This can make it difficult for investors to hold the strategy. Despite this, the total plan has exceeded its 7% annual return objective since RMS inception. The key is for RMS to perform better in significantly negative scenarios as it has done since its inception to help the total fund reduce negative returns and recover more quickly.

With respect to CalSTRS' net zero pledge, the nature of RMS strategies currently makes it less meaningful and, in some cases, impossible to measure the carbon footprint of the portfolio. Nonetheless, a significant opportunity for RMS to produce real-world impact is to adopt a plan of strategic engagement with investment managers. To embark on this path, RMS has issued an annual survey to its managers to systematically evaluate managers' progress towards integrating net zero considerations into corporate policies, investments and reporting. The monitoring framework is intended to help measure net zero integration over time, identify areas that require improvement, and help RMS understand its influence on managers' policies.

RMS Governance Structure

Several parties assist to ensure the RMS program is implemented in a prudent manner to best achieve its objective.

Since RMS was established in 2016, Meketa has served as the program's oversight consultant to assure the Committee that the program was established and continues to operate with great care. Quarterly, staff provides Requests for Information (RFI) to Meketa and holds a call to discuss performance, fees, conflicts of interest, research staffing, and other topics. Semi-annually, Meketa reports to the Committee on these areas with ratings for the various categories. Any concerns are brought to the Committee's attention.

RMS also engages an advisor, Albourne, for strategy and manager allocation and selection. When new strategies or managers are recommended to the portfolio, Albourne must provide consent. Otherwise, the investment may not move forward. If Albourne and RMS staff concur, the recommendation is presented to the RMS Investment Advisory Committee (IAC) for approval. The IAC includes the CIO, Senior Investment Director of Public Markets, directors and other managerial staff from groups outside of RMS. This enhances the diversity of views to properly vet the recommendation. IAC approval is required to move forward with any new strategy or manager.

Wilshire Associates (Wilshire) provides a Managed Account Platform (MAP). This is the infrastructure to facilitate separately managed account structures for the externally managed investments. Some benefits of managed accounts are that they provide for control of the assets, custom investment guidelines and risk limits, and position transparency. Visibility into the positions enhances risk management and allocation decisions.

CalSTRS' Investment Compliance provides independent oversight of the RMS portfolio to the requirements outlined in investment policies. Further, Investment Compliance reviews required disclosures, due diligence documents and RMS risk and control documentation to mitigate operational and compliance risks.

Strategic Plan linkage: CalSTRS Investment Beliefs; CalSTRS Strategic Plan

Board Policy Linkage: N/A

Optional reference material:

Risk Mitigating Strategies Policy

CalSTRS Investment Terms Glossary