CALSTRS

Investment Committee

Item Number 5 – Open Session

Subject: Liquidity Oversight Management

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Attachment(s): None

PowerPoint(s): Liquidity Oversight Presentation

Item Purpose

The purpose of this item is to provide an overview of how liquidity is managed across the Total Fund. The overview is intended to inform the Investment Committee ahead of staff presenting a set of recommended changes at future Investment Committee Meetings to the Investment Policy Statement (IPS) to support enhanced liquidity oversight and management.

Executive Summary

CalSTRS has been prudently managing the pension's cash balance and liquidity for over 30 years. Staff has a proven, robust process to manage and monitor Total Fund liquidity in different market environments. Moreover, staff has developed significant expertise with almost all the various liquidity tools. Going forward, staff believes it is important to continue to evolve and enhance the fund's liquidity management to support the long-term success and resilience of the investment portfolio. This is particularly important for the following reasons:

(i) CalSTRS is a mature pension fund with a net negative cash flow,

(ii) The May 2023 Asset Liability Management (ALM) Study and the goals of the Collaborative Model are increasing illiquid private asset investments,

(iii) Sufficient liquidity options particularly during a market downturn provides flexibility to achieve goals:

- Allow member benefits and capital calls to continue to be paid smoothly,
- Avoid forced selling of investments at discounts,
- Enable staff to take advantage of new opportunities due to market dislocations, and
- Rebalance the portfolio to meet strategic asset allocation targets.

This item provides background information on liquidity management, the types of tools available to manage liquidity and the benefits and complexities of using different tools. The item also suggests two areas for enhanced liquidity oversight and management and follow-up discussion with the Investment Committee:

- Annual Asset Allocation Plan and Private Asset Pacing
- Liquidity Plan, Leverage and Asset Allocation Bands

Based on the Investment Committee's feedback, staff will present additional information and propose a set of changes to the Investment Policy Statement (IPS) to support enhanced liquidity management for the Total Fund at future Investment Committee meetings.

Background

Liquidity refers to the ability to quickly convert assets into cash with minimal price impacts. Staff continues to evolve CalSTRS approach to managing liquidity to support the long-term performance of the Total Fund.

Current liquidity management practices include: (1) Daily cash forecasting by the Investment Operations team; (2) Daily management of cash balances and the Liquidity Portfolio (a portfolio of short-term, highly liquid, and highly rated securities) for the Total Fund by the Fixed Income team, and (3) Review and oversight by the investment directors and senior management team. Future liquidity needs are estimated by reviewing benefit payments and contributions, daily trade activity, private market capital calls and distributions, derivatives margins, and potential stress scenario needs, to name a few. As described in the May 2023 ALM Investment Committee item, staff strives to maintain substantial amounts of operational liquidity to cover any near-term needs, while balancing the need to stay optimally invested to generate returns.

This item includes the following sections:

- Liquidity Trends and Challenges,
- Liquidity Oversight Enhancements:
    - Private Assets Pacing and Annual Allocation Plan
    - Liquidity Plan, Leverage and Asset Allocation Bands
- Risk and Governance, and
- Next Steps.

Liquidity Trends and Challenges

As a mature pension plan, CalSTRS' benefit payments exceed contributions from members, employers, and the state on an annual basis. This results in negative cash flow each year from Benefits-Related flows as outlined below. Benefits-related flows are not only expected to be net negative, but our cash flow needs are also projected to rise from approximately $4 billion annually in 2023 to approximately $18 billion annually over the next 25 years. Ultimately, this creates challenges on our investment portfolio to manage liquidity to both generate investment gains to achieve a return above the 7% required to fund liabilities and to pay benefits.

Table 1 highlights the primary sources (inflows) and uses (outflows) of liquidity in the fund.

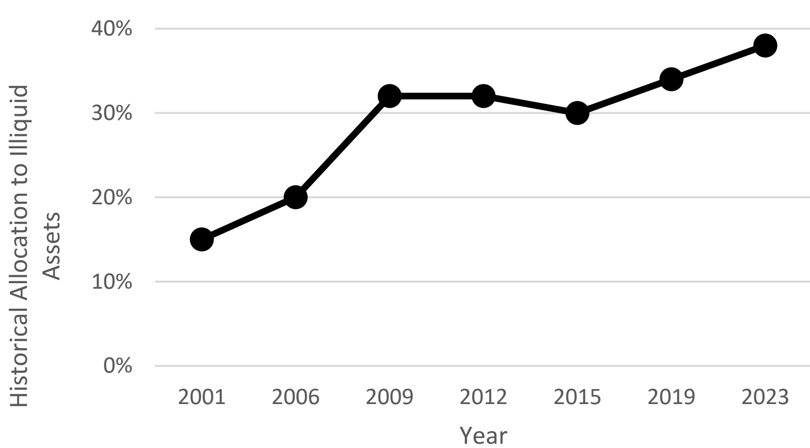
Table 1. Sources and Uses of Total Fund Liquidity

Types of Liquidity	Inflows	Outflows
Benefits-Related	Member, Employer, State Contributions	Benefit Payments
Investments-Related	Sale of Investments Private Market Distributions Income From Assets	Purchases of Investments Private Market Capital Calls General Expenses

The Investments-related flows from income and capital appreciation through sales of investments are expected to be positive over the long-term. However, over short- or medium-term periods, cash flows can fluctuate significantly during changing or volatile market conditions. This can cause liquidity challenges. For example, a market downturn does not immediately impact near-term cash needs; however, rebalancing the portfolio to continue to meet asset allocation goals depends on utilizing cash reserves, trading, or selling public market assets and utilizing current options relating to leverage. Staff currently manages these functions through frequent Risk Allocation Committee (RAC) meetings.

CalSTRS has gradually increased private market investments, for example, in Private Equity, Real Estate, and Inflation Sensitive asset classes to improve diversification and maximize risk-adjusted returns. However, investors in these strategies tend to have limited control over the timing of the underlying investment purchases and sales, particularly in commingled funds (Collaborative Model investment structures tend to have more control). This increases the need to forecast and plan for private market capital calls and distributions which impact cash needs. The increase in illiquid private markets assets over time is shown in Chart 1.

Chart 1. CalSTRS Historical Allocation to Private/Illiquid Assets



A natural trade-off related to increasing private market investments is that rebalancing more illiquid assets can pose challenges. Investors not only have limited control of private market asset cash flows but in addition, private market valuations can lag public market movements by multiple quarters. This means that dislocations in private market allocations can persist for extended periods of time as transaction activity and cash flows are delayed.

The CalSTRS portfolio experienced such times in the past, most notably during times of significant market volatility such as the 2008-2009 Great Financial Crisis (GFC) and the COVID pandemic. The GFC and COVID pandemic severely affected CalSTRS (and other asset owners) asset allocation, with persistent deviations from policy targets. Specifically:

- As private market assets are less liquid than public market assets, they trade at a discount (10-20% or more) to their long-term value. During market downturns, these discounts can double or triple. Institutional investors generally avoid selling private market assets – at a loss – under such conditions.

- Investors can, and do, limit new private market investments during market downturns to help preserve liquidity. However, this has a limited effect on near-term liquidity, as new private market commitments are typically funded over 3-5 years. Significantly lower private asset commitments may also lead to under allocation to private market asset classes, disrupting fund asset allocation goals and negatively affecting long-term risk-adjusted returns.

- During periodic market dislocations and disruptions, investors like CalSTRS hope to be positioned to take advantage of unique investment opportunities that exist in such conditions. If forced to stop investing in private markets altogether (due to liquidity concerns), CalSTRS would miss opportunities and diminish staff's advantage to be a reliable 'partner of choice' in the private markets.

For these reasons, staff believe it is very important to ensure that CalSTRS has a robust set of tools to manage liquidity to achieve Total Fund goals to rebalance the overall investment portfolio, avoid selling assets at discounted/distressed valuations, capture unique investment opportunities, and manage risks through a variety of market cycles, including periods of significant volatility and recessions.

Liquidity Oversight Enhancements

Staff is currently in the process of enhancing CalSTRS Total Fund management, modeling, reporting, and oversight functions, including liquidity management. Staff is focusing on two main areas for enhanced liquidity oversight:

1. Annual Asset Allocation Planning and Private Asset Pacing
2. Liquidity Plan, Leverage and Asset Allocation Bands

Annual Asset Allocation Planning and Private Asset Pacing

Because of the liquidity trends and challenges mentioned above, private market pacing and a more detailed annual asset allocation plan, along with a liquidity plan integrating these components, can significantly enhance liquidity oversight. Accordingly, staff has refined a structured planning process to consolidate and monitor private market cash flow needs. Staff also intends to establish annual commitment and cash management budgets, supported by quarterly commitment and cash management tracking. This will allow senior management to review investment opportunities, consider market outlook, and plan near-term asset allocation goals. Recognizing the vital role that private markets play in achieving the Total Fund's risk-return goals, and their significance in managing cash flow and liquidity, staff is developing a more holistic approach to integrating plans for pacing, annual allocations, and liquidity across the Total Fund.

Liquidity Plan, Leverage and Asset Allocation Bands

The establishment of enhanced annual asset allocation planning and private asset pacing paves the way for staff to develop a holistic liquidity plan. In developing an enhanced liquidity plan, staff is evaluating the need for other changes, specifically expanding asset allocation bands, and using leverage at the Total Fund level. These two expansions would further increase staff's flexibility to manage asset allocations and pacing, as well as take advantage of investment opportunities in dislocated markets. Creating a central resource and function would also ensure liquidity is sourced efficiently and at the lowest costs. An enhanced liquidity plan with use of the above tools would reduce the need to hold inefficiently large amounts of cash (as a liquidity 'buffer') or rely on the sale of available public assets to fund ongoing cash needs:

(a) Expanding Asset Allocation Bands - As the fund experienced during the heightened volatility of the GFC and COVID pandemic, allocations to public and private markets can deviate significantly from policy targets. CalSTRS' current, narrow policy ranges limit staff's flexibility to rebalance, especially during times of dislocation. Widening the allowable range around policy targets would enhance staff's ability to balance cash needs while maximizing asset allocation goals and minimizing risk. Staff will provide additional information to the Investment Committee to support a recommendation to expand these bands within the Investment Policy Statement at the November 2023 meeting.

(b) Expanding Leverage **-** CalSTRS has a long history of successfully using leverage in different asset classes (with existing policies for Real Estate, Inflation Sensitive, and Securities Lending) as a foundation to potentially increase the use of leverage for the Total Fund in order to manage liquidity needs. The leverage limits within these asset class policies are currently monitored by Investment Compliance, with any deviations outside of policy reported to the Investment Committee by the CIO and summarized in the Director of Investment Services Compliance Report. Other investment strategies currently include embedded leverage with portfolio guidelines to manage risk. These forms of asset class leverage are already fully integrated into and managed through the strategic asset allocation process. When staff develop capital markets assumptions, the expected returns and risks include an assumption of leverage consistent with the amount of leverage used in each asset class.

Risks and Governance

Over the past 30 years, CalSTRS has developed the appropriate processes, resources, reports and governance to manage and mitigate the risks of liquidity and leverage prudently. We have also developed a deep level of expertise in employing most liquidity tools. Like our large pension peers globally, we believe that an enhanced liquidity plan and the additional use of leverage when deployed appropriately will by a valuable tool. However, we foresee additional risks that will need to be addressed, mitigated, and monitored. Some potential risks include potentially amplified returns or losses, repayment risks, higher volatility, or counterparty risk. Many of the potential risks of using leverage will require an expansion of existing tools and processes used to manage portfolio allocation, risk, and liquidity.

At the November 2023 Investment Committee meeting, staff will further discuss the risks relating to leverage and propose additional recommendations for managing and constraining leverage in the Investment Policy Statement.

Staff also recognizes that robust governance is critical for monitoring the overall liquidity and leverage of the Total Fund. Proper governance provides a framework for assessing and managing risks associated with leverage and ensures that policies and reporting are in place to identify, measure, and monitor liquidity and leverage effectively. Effective governance also promotes transparency.

It is for these reasons that staff is working collaboratively across the Investment Branch to continue to improve our risk and governance processes:

- Enhance Investment Operations' cash flow analyses to incorporate a more robust private assets pacing plan,
- Develop guidelines and enhance current liquidity oversight processes, including a liquidity budgeting plan, private asset pacing, and annual process asset allocation,
- Expand the liquidity, leverage, and risk reports that are reviewed by senior management and Investment Compliance,
- Enhance board oversight reporting to expand liquidity and include total fund leverage,
- Establish internal investment committees as warranted (comprised of senior management, Directors, and Investment Services) dedicated to reviewing, recommending, and actively monitoring asset allocations, pacing, liquidity, and leverage across the Total Fund.

The Investment Compliance team continues to perform an important role in liquidity oversight with the following ongoing duties:

- Currently monitors compliance to the IPS and asset class policies, including liquidity restrictions and asset allocation,
- Monitor any additional liquidity and leverage constraints for compliance to the IPS. The CIO would continue to report any deviations outside of policy to the Investment

Committee. Investment Compliance independently reports any deviations to the Investment Committee in the Compliance Report to the Board,
- Partner with the asset classes to develop guidelines that clearly outlines roles, responsibilities, and oversight of Total Fund liquidity and leverage instruments.

Furthermore, the Board's consultant, Meketa, will continue to work closely with staff to monitor the risks of the Total Fund, including the liquidity management program and any proposed enhancements.

Next Steps

Based on the Investment Committee's input, staff will provide updates in November on:

- Further analysis of liquidity and leverage,
- First reading of the IPS with recommended asset allocation ranges, leverage limits, and other governance requirements,
- A preview of the expanded board oversight reporting.

Strategic Plan Linkage: Strategic Plan (calstrs.com)
Board Policy Linkage: Investment Policy and Management Plan (calstrs.com)
May 2023 ALM Study Discussion
