Staying Afloat: A Framework for Public Pensions Navigating a Liquidity Squeeze

Managing public pension plans in turbulent markets can be a challenge, especially when funding levels and cash flow pressures dictate tough decisions. In some cases, plans are forced to sell assets, potentially locking in losses and delaying financial recovery.

In this piece, we introduce an investment framework to help address these challenges. By setting aside a liquid portion of the portfolio, plans can cover immediate cash flow needs while shielding the rest of their investments from the pressure of required payments. This strategy helps protect plan participants, even during times of extreme market stress.

Liquidity concerns are increasing

Public pension plans have been allocating more funds to less liquid investments, aiming to enhance expected returns (hence lowering liabilities) and reduce reported volatility. However, in times of market stress, this approach can limit available funding sources for benefit payments. As a result, plans may be forced to sell their more liquid assets at unfavorable prices, often incurring higher transaction costs to meet their obligations.

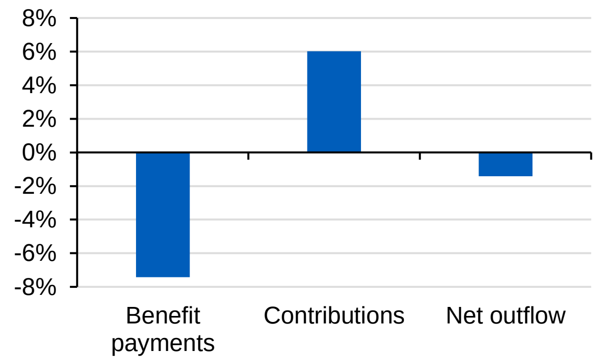
Public pension plans often face persistent net outflows, with employer and employee contributions falling short of the amounts needed to cover benefit payments. This creates an ongoing demand for liquidity to bridge the gap.

Adding to the challenge, private investments often come with scheduled capital commitments, introducing additional mandatory outflows. These uninvested funds not only fail to earn the illiquidity premium, dragging down expected returns, but also increase pressure on liquidity, requiring readily available cash to meet obligations.

Based on our database, the average public plan has annual net outflows of 2-3%. Some plans have even greater liquidity needs, as summarized in Figure 1.

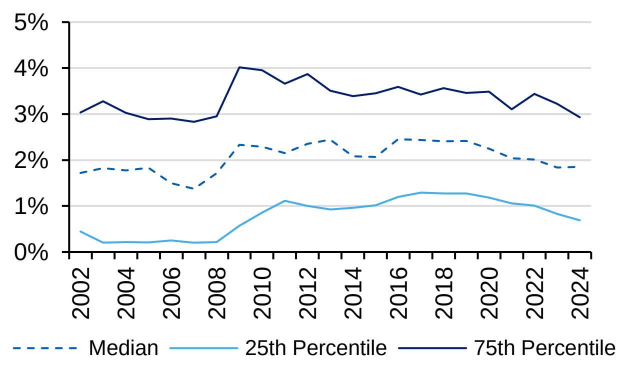
We can see that liquidity demands on public plans have persisted for years, and in some cases, greatly varied in magnitude. While Figure 2 shows the 25th and 75th percentiles, our L&G database highlights that plans on the higher end of the spectrum could experience 10-25% net outflows.

Figure 1: Annual liquidity needs as % of plan assets



Source: L&G – Asset Management, America and Public Plan database. Data as of December 31, 2024.

Figure 2: Annual net outflow as % of plan assets



Source: L&G – Asset Management, America and Public Plan database. Data as of December 31, 2024.

The capital distributed by private investments has also drifted lower in recent years, placing further strain on cash flows. Considering these pressures, the opportunity cost can be significant if higher yielding assets must be sold to rebalance or meet benefit promises.

It is therefore important to have a liquidity framework in place so that plan sponsors can at least mitigate the impact of having to liquidate assets at potentially the worst possible time and reduce the impact of higher transaction costs implied by more volatile market conditions.

Illustrative portfolio

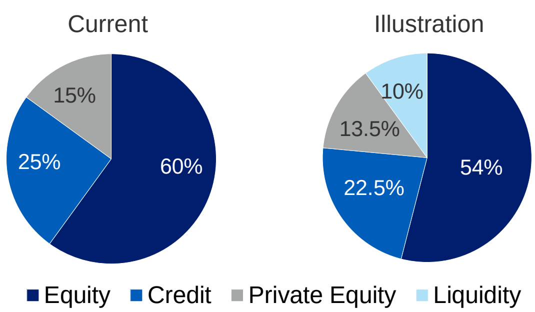
In the rest of the publication, let's consider a sample plan's asset allocation: 60% global equities, 15% private equity and 25% in bonds.

Let's assume the plan sponsor determined they're looking for a liquidity sleeve that represents 10% of the assets to meet their specific recuring cash flow needs.

The liquidity sleeve can be built in various ways. The following illustrates how this portfolio could evolve and the trade-offs inherent in each construction.

- Cash portfolio
- Treasury portfolio
- Cash flow matching portfolio
- Single asset class replication to free up capital and top up liquidity sleeve
- Full strategic asset allocation replication within liquidity sleeve
- Portable alpha for "Liquidity Plus"

Figure 3: Inventory changes by sector



Source: L&G – Asset Management, America. For illustrative purposes only.

Cash portfolio

To ensure obligations are met, plans can create a portfolio of cash to cover some period of payments. However, while this solves the liquidity issue in the short term, this could create a substantial drag on expected return and put the long-term health of the plan at risk.

Given our sample asset allocation, this would require setting aside 10% of the asset allocation, which would have to be sourced from other asset classes. This would penalize the long-term return by the following amount:

$$\text{Liquidity sleeve 10\%} \times \left[\text{Expected long-term return on asset class where cash is sourced} - \text{Expected return on cash} \right]$$

While the simplicity of this approach could work for plans with minimal cash needs, a more thoughtful approach is required to reduce the drag on expected returns.

Treasury portfolio

It may be prudent to create a liquidity portfolio consisting of Treasury bonds given the high transaction costs during volatile times.

Given the highly liquid nature of Treasuries, the portfolio could include a wide variety of Treasury products optimizing for yield, duration and curve exposure. Using our case asset allocation, the expected drag on return is now:

$$\text{Liquidity sleeve 10\%} \times \left[\text{Expected long-term return on asset class where cash is sourced} - \text{Expected return from Treasury bonds} \right]$$

Investors seek compensation for holding Treasury bonds, which helps mitigate the drag on expected returns compared to maintaining a cash-only liquidity buffer. In other words, while this approach offers higher long-term returns than holding only cash, it still falls short of the expected returns associated with foregoing a liquidity buffer altogether.

However, a Treasury-based liquidity sleeve may offer an additional advantage. Historically, during periods of market

Figure 4: Total return during major historical meltdowns in last 20 years

Start	End	Event	STRIPS 20+	Long Treasuries	S&P 500
06/29/2007	03/03/2009	**Financial Crisis**	43%	25%	-52%
02/06/2020	3/19/2020	**COVID-19 shock**	8%	6%	-28%
02/19/2025	4/8/2025	**Tariff shock**	0%	1%	-19%

Source: L&G – Asset Management, America, Bloomberg.

stress, investors have flocked to Treasuries as a safe haven, sometimes leading to their outperformance relative to other asset classes. This flight-to-safety dynamic can provide valuable diversification and act as a stabilizing force when the broader portfolio faces downward pressure. See Figure 4.

Although this strategy may still result in a dip in long-term returns, it represents a meaningful improvement over holding cash alone. With its liquidity and potential for diversification, it enhances resilience precisely when stability is needed most.

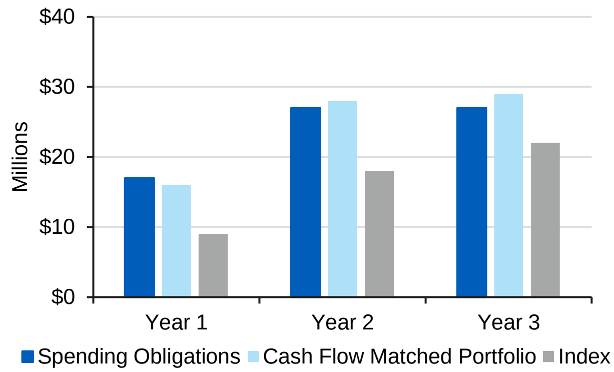
Cash flow matching credit portfolio

Adopting a cash flow matching framework is a proactive approach to pay pension obligations as they come due. With the primary goal of enhanced portfolio liquidity, we build customized credit portfolios unique to a plan's net benefit payments. The approach described below ensures the plan is not a forced seller of assets at the most inopportune times.

Investors can invest a portion of their fixed income such that proceeds from coupons and maturing positions (allowing for any potential defaults) meet the short-term cash needs of the organization. This approach is common among insurance companies and some pensions, regardless of their discounting mechanism or return objectives. Importantly, these assets can be invested in ways that safely meet (or even exceed) market returns offered by short duration benchmarks. This ensures that there are some assets in the overall portfolio that provide liquidity and certainty, regardless of the market environment for any other assets, including other fixed income. The remainder of the fixed income assets can be reoptimized around market benchmark risk factors or in accordance with a custom strategy tailored to an organization's objectives.

We believe this step may prove critically important. Some investors have sourced exposure exclusively via the longest duration instruments (e.g., STRIPS), and have been let down by higher rates—regardless of whether these moves are transient or enduring—and higher transaction costs. Very long duration assets may well be a good fit for a total return portfolio over the long term, but cash flow matched credit may be integral to fully realizing those long-term goals. For example, utilizing very long duration fixed income benchmarks may provide more negative equity beta in certain periods of stress, but rising rates make this a double-edged sword, particularly when counting on fixed income to provide liquidity during those periods. More directly, for investors who have increased allocations to private asset classes (which mark-to-market on a significant lag), the proportional allocation to long duration fixed income will decline at an accelerated pace when rates rise, leaving far less liquid assets available to the plan and at unattractive valuations. A cash flow matching approach for short-maturity needs ensures the availability of money-good liquid assets and avoids a permanent loss of capital. Figure 5 shows a stylized portfolio that balances meeting expected cash needs for the first three years, particularly by avoiding any early shortfalls, while closely matching the market benchmark (Bloomberg US Aggregate) across several other common measures of fixed income risk.

Figure 5: Illustrative cash flow match



Source: L&G – Asset Management, America. For illustrative purposes only.

While markets can be unpredictable, this approach ensures that plans will be able to meet their projected short-term obligations while leaving their return-seeking allocations untouched. To optimally preserve value, this strategy offers:

- Customized diversification: Sector, issuer, quality, maturity
- Reduced trading costs: Trading costs in credit markets can be substantial, especially in volatile markets
- Long-term management of strategic themes and views: Top-down investment themes, bottom-up views, and alpha opportunities through asset allocation, security selection and industry rotation

Using our case asset allocation, the expected drag on return is now:

$$\text{Liquidity sleeve 10\%} \times \left[\text{Expected long-term return on asset class where cash is sourced} - \text{Expected return from credit bonds used in cash flow matching approach}\right]$$

Using this approach, we benefit from credit investments which should help increase the long-term expected return relative to the two previous options. To minimize the return drag, it may make sense to source payments from the credit portfolio rather than from the equity allocation. This should be an improvement relative to the previous option.

When markets are strong, benefit payments are covered while the portfolio naturally replenishes, ensuring a consistent liquidity buffer. However, during market downturns, this replenishment pauses, requiring the portfolio to serve as the primary liquidity source until conditions improve. This strategy helps protect higher-yielding assets, allowing them to recover alongside the broader market.

Despite its advantages, this approach does not eliminate risk—bond holdings remain subject to default risk, making security selection a critical consideration.

So far, we've identified three options, ranked by their impact on long-term expected returns, from highest to lowest drag:

- Cash only
- Treasuries
- Cash flow matched credit

A blended approach using Treasuries and cash flow-matched credit could offer diversification benefits, potentially capitalizing on Treasuries' historical flight-to-safety dynamics during risk-off periods.

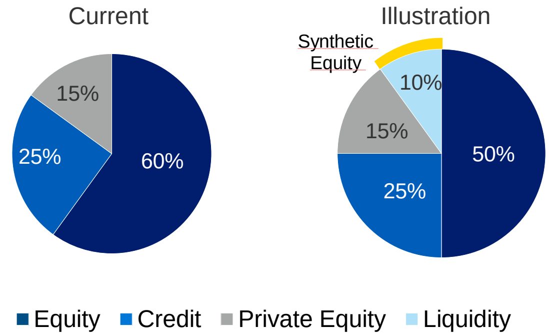
The shared challenge among all three options is their effect on expected returns, which may limit asset growth to varying degrees. However, each presents a meaningful step toward solving liquidity constraints. The next step is to refine these strategies further to minimize the drag on long-term returns while maintaining liquidity resilience.

Synthetic exposure to free up capital and top up liquidity sleeve

The liquidity buffer strategies introduced earlier are valuable first steps, but they inevitably lead to lower expected returns due to the drag previously discussed. While they address immediate liquidity concerns, preserving overall portfolio return may require taking on additional risk elsewhere. Ironically, this could drive plan sponsors to allocate more toward private assets, further intensifying liquidity constraints.

A potential solution lies in derivatives, which can efficiently replicate various exposures with relatively low capital requirements. For instance, plan sponsors could establish part of their equity exposure through equity derivatives, freeing up capital for the liquidity sleeve while keeping expected returns near initial targets. While this approach depends on funding costs at the time of implementation, it can also be extended to approximate exposure to other asset classes, offering added flexibility in portfolio construction.

Figure 6: Incorporating an equity overlay supported by the liquidity sleeve



Source: L&G – Asset Management, America. For illustrative purposes only.

Using our case asset allocation, the expected drag on return is now:

Liquidity sleeve 10% X Cost of synthetic equity exposure

Using synthetic exposure (e.g., futures, swaps) could enable plans to insulate capital for benefit payments. An additional benefit is that synthetic exposure could also be an effective tool to help keep plan allocations within the ranges of their intended strategic weights.

Full strategic asset allocation replication within liquidity sleeve

A liquidity sleeve that mimics strategic exposures

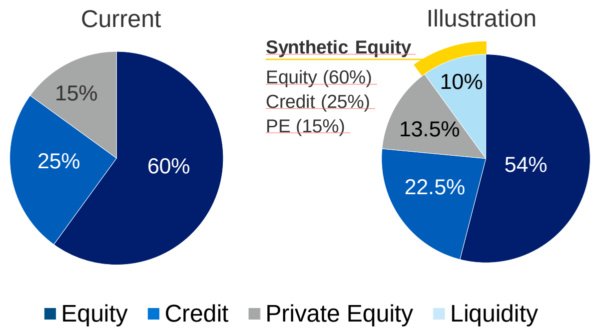
As an extension to synthetically replicating the asset class that provided the capital for the liquidity portfolio (e.g., equities above), plans could replicate the replicable portion of the entire strategic asset allocation (SAA) in the liquidity sleeve.

Using our case asset allocation, the expected drag on return is:

Liquidity sleeve 10% X Cost of synthetic SAA exposure

We would replicate the SAA within this liquidity sleeve using highly liquid instruments so, in theory, the drag on return should be close to disappearing. This is because the liquidity sleeve is expected to have approximately the same return as the rest of the portfolio.

Figure 7: Incorporating an SAA overlay supported by the liquidity sleeve



Source: L&G – Asset Management, America. For illustrative purposes only.

Various instruments would be used, for example a combination of equity and bond futures for the equity and interest rates allocations of the portfolio There are also ways to obtain credit spread exposure synthetically (e.g., CDX). As for private equity, various approaches can be considered to approximate private equity exposure in a liquid format, so that it would not be subject to capital calls or lock-in periods concerns. One such approach involves looking at the drivers of private equity returns and getting exposure to these factors directly, in a liquid form.

Benefits of this approach

The goal of this approach is to provide liquidity on demand while preserving physical allocations, which tend to be more expensive to trade during periods of market stress. As markets recover, maintaining full exposure ensures that portfolios can fully participate in the rebound. By implementing this strategy, plans can keep their long-term expected returns broadly in line with portfolios that do not incorporate a liquidity sleeve.

Beyond liquidity management, this method offers additional advantages. Reducing the relative synthetic exposure per asset class enhances derivative diversification while improving flexibility in shaping plan outcomes. This flexibility extends to trading efficiencies, cost considerations and dynamic exposure management during transitions and rebalancing. Moreover, plans can leverage tactical weights to align short- and long-term views, creating opportunities for excess return generation.

Leverage considerations

As familiarity with synthetic alternatives grows, plans can begin integrating leverage into their strategy. A well-structured leverage and liquidity sleeve should be designed for efficient risk management, considering both the liquidity of the instruments used and the associated costs. In many cases, borrowing at a low cost to invest in an asset class with a higher expected return premium makes strategic sense over the long term.

For plans that do not permit leverage, a fully collateralized approach remains a viable option. These plans can still benefit from economies of scale through a Treasury portfolio—for example, using Treasuries as collateral for a synthetic equity position. Notably, an increasing number of public plans are now adopting leverage as a tool for managing plan outcomes.

By implementing an overlay, plans can preserve long-term expected returns while building a margin of safety. This approach presents a compelling solution for addressing liquidity challenges and enhancing portfolio resilience.

Portable alpha for 'Liquidity Plus'

While we have so far considered the return drag implied by the various liquidity solutions described previously, a liquidity sleeve can also provide opportunities.

Portable alpha is an approach that allows for the separation of alpha (skilled manager) and beta (market returns). For our purposes, the broad market exposure is achieved by replicating the relevant index using derivatives; and the cash freed up using derivatives is invested in an absolute return fund.

A thoughtful combination of cash flow matching, synthetic replication and portable alpha has the potential to turn a constraint into an attractive asset. In a nutshell, here's how each component provides value:

- Cash flow matching provides liquidity needs over the relevant time horizon
- Synthetic replication frees up cash while achieving desired passive market exposure
- Absolute return can provide incremental returns on top of the derivatives financing needs, resulting in a net benefit for the liquidity sleeve.

This is an area with significant potential, and we have been exploring various options with our clients on this front.

Using fixed income for illustration purposes, investors can be pragmatic and creative by distinguishing the role of credit spreads from interest rate duration in the portfolio, even if the two aren't necessarily accessed independently. Excess returns to credit over equivalent maturity Treasuries typically have a weakly positive correlation to equity returns, and rarely are credit excess returns positive during a meaningful equity drawdown. Approaching fixed income as a market blend of credit and Treasuries may diversify your portfolio; treating them separately may hedge your objective. For example, very low duration or hedged credit portfolios that are not constrained to a market benchmark may be able to source better risk-adjusted spreads, and those allocations can be blended with other market benchmarks or custom fixed income portfolios to better match the objectives and/or market benchmark of your policy. An investor may prefer to allocate to a low duration fixed income strategy, while employing an overlay to complete to the benchmark's overall duration.

We see tremendous value in pairing cash flow matching, fixed income beta and our Short Duration Opportunistic Fixed Income strategy. This strategy captures our best ideas across US Investment Grade Credit, US High Yield credit, US Securitized and Emerging Market Debt which has the potential to provide great breadth for generating positive excess returns.

The overall approach has the potential to offer better diversification than the traditional US Aggregate credit universe, with the benefit of increased liquidity thanks to the cash flow matching component.

Continuing the conversation

This article has explored a range of liquidity solutions designed to support public pension plans in managing their obligations effectively. While we've outlined key concepts at a high level, a deeper analysis would involve additional considerations, such as funding costs, opportunity costs and actual cash flow needs.

We welcome the opportunity to collaborate with plan sponsors in tailoring liquidity strategies to their specific needs. Leveraging our extensive cross-asset expertise, we can refine these approaches to create solutions that balance liquidity, return potential and portfolio resilience.

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