Withstanding market and policyholder shocks

How insurers can manage liquidity risk

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As insurance, private equity, and private credit become increasingly intertwined, there's a rising need for an updated liquidity risk management playbook. And a more sophisticated approach to liquidity risk has taken on even greater prominence among insurers in an economic environment in which:

- Higher yield assets have become less liquid
- Interest rate volatility has increased short-term cash needs
- Economic volatility has affected policyholder behavior, leading to increased policy surrenders and withdrawal activity
- Large claims events, maturity concentration, derivative margin calls and spread widening, and regulatory and rating agency pressure (such as rating downgrade triggers) are all possible risks

In response to any of these developments, insurers may find themselves forced to sell assets at depressed prices or raise funds to meet unexpected cash demands. However, integrating market-calibrated asset modeling and sophisticated stress testing into your risk management frameworks can help you better withstand market and policyholder behavioral shocks, protecting not only your balance sheet but also policyholder trust and market stability.

Asset side liquidity considerations

When an insurance company needs to sell assets to raise cash in a liquidity event, it typically starts by prioritizing asset sales to balance speed, price impact, and regulatory considerations. A tiered approach, starting with the most liquid and least capital-intensive assets, is an effective way to do this.

Asset tiers
Cash and cash equivalents, including bank deposits, money market funds and short-term treasuries can be liquidated almost immediately at or near par.
High-quality liquid bonds, including government bonds and investment grade corporate bonds.
Marketable fixed income, including securitized corporate bonds and structured products.
Illiquid or private structured assets, including private placements, mortgages, and real estate.

In these circumstances, it's important to consider asset strategy costs and execution. In times of market stress, asset prices and values are often volatile. Furthermore, some markets can't execute large trades as quickly as others, so it can take several months to exit a position. And there are regulatory restrictions and tax consequences to consider.

Instead of selling assets, you can access alternative liquidity sources to preserve yield and avoid a potential fire sale. These include repurchase ("repo") agreements that pledge securities in exchange for short-term cash, securities lending for cash collateral, and securing mortgage or bond portfolio advances from banks or the Federal Home Loan Bank (FHLB).

However, these options come with costs. Greater financial leverage can affect debt-to-equity ratios and rating agency perceptions of funding stability. Moreover, these programs have structural limits. FHLB borrowing, for instance, is typically constrained to around 20% of the balance sheet, and such funding requires sufficient unencumbered, high-quality collateral. Moreover, assets pledged for derivative margining or held in trust cannot be pledged for repo or FHLB borrowing.

Asset valuation in a liquidity event

Imagine a mass lapse or withdrawal event and you need to liquidate corporate bonds within a short period of time. How should you calculate the fair value of the bonds?

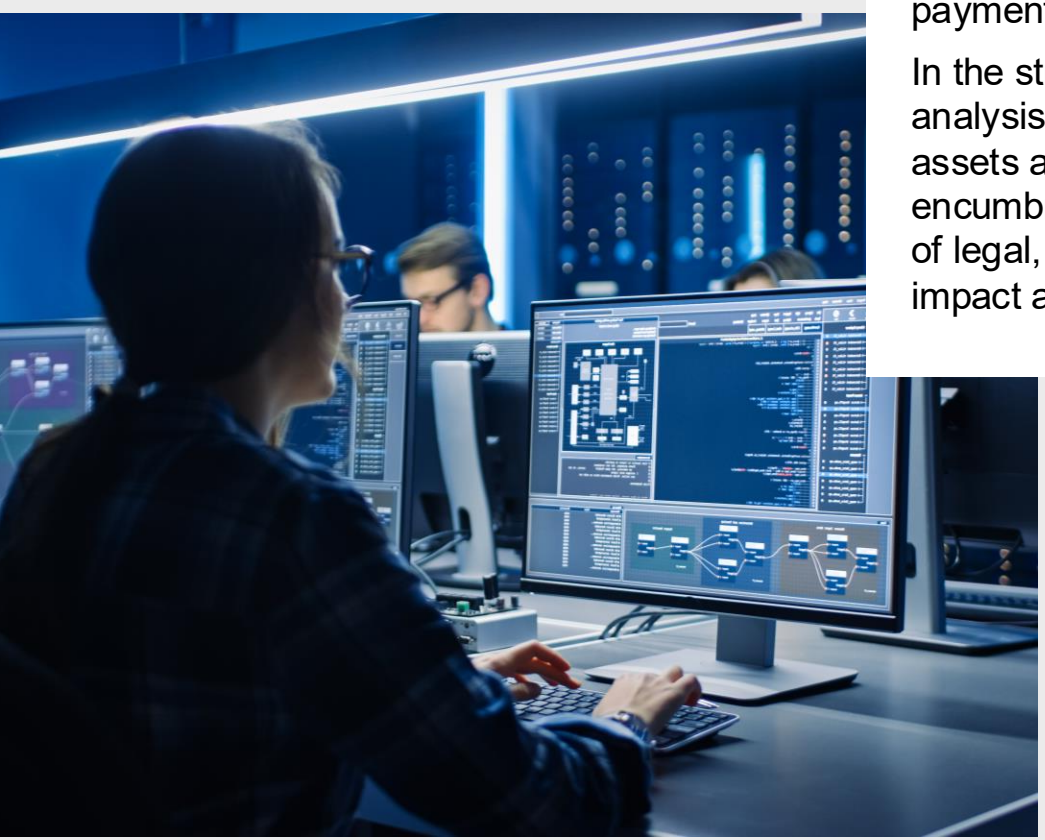
The Federal Reserve's Reg YY requires that banks maintain a liquidity buffer sufficient to meet projected net stressed cashflow needs over the 30-day planning horizon of a liquidity stress test. Although insurers aren't subject to Reg YY or the separate Liquidity Coverage Ratio, they can adopt similar principles to ensure a credible measure of liquid resources. Mainly, a liquidity buffer must consist of high-quality liquid assets (HQLA) that are unencumbered (not subject to any liens, debts, claims, or other financial obligations).

To determine the HQLA amount, companies generally calculate the fair value of assets to reflect any credit risk, market price volatility, market depth, and potential operational or settlement delays. This "haircut" is to reflect how much liquidity HQLA would realistically provide during periods of stress.

You can apply haircuts to the fair value of high-quality liquid assets (such as investment grade corporate bonds and government bonds), starting with base haircuts derived from market or regulatory benchmarks, then apply overlays reflecting rate sensitivity, credit, and liquidity risk. Key actions include:

- **Determine baseline haircuts**
  - Use internal data, industry and regulatory benchmarks (segmented by asset class, issuer and duration buckets)
- **Add systematic overlays (use the maximum amount to avoid double counting)**
  - Rate shock overlay (DV01)
  - Credit/liquidity adjustment applied to reflect liquidity of certain asset types in stress (e.g., Bloomberg Liquidity Assessment/LQA score)
  - Market execution overlay, using market haircuts based on observed tri-party repo data
  - Program eligibility floor—for example, if you plan to pledge to FHLB in stress, make sure to compare base plus overlays versus program haircuts
- **Apply scenario scalars**
  - Align scalars to the severity of the base, market-wide stress and idiosyncratic (downgrade) nature of the scenarios
  - You can define and validate scalars against historical drawdowns and internal stress tests
- **Governance and validation**
  - Consider back-testing against 2008 (financial crisis), 2016 (credit downgrades), March 2020 (pandemic), and 2022-2023 (rate shock)

Establishing a liquidity risk model

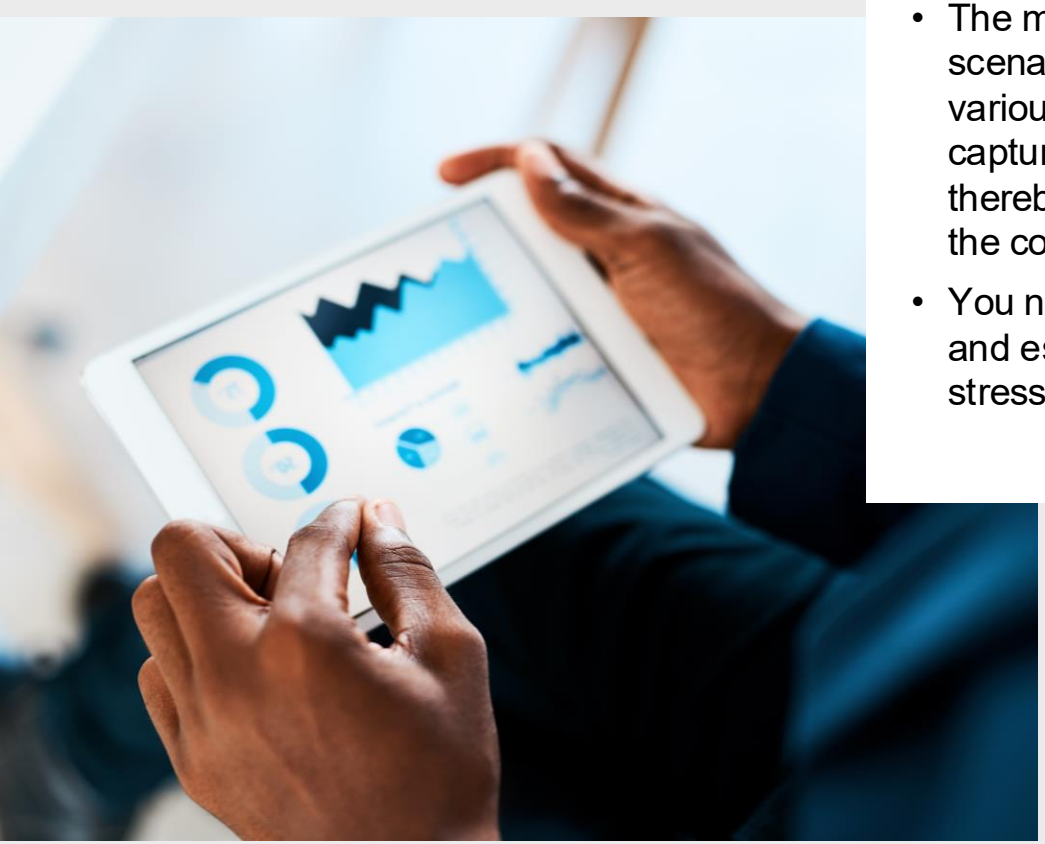


Now that you have a way to value assets during a liquidity event and identify which haircuts to apply, you'll need to embed them into a structured liquidity stress testing framework that includes an inventory of liquidity risk drivers. In addition to policyholder behavior drivers, you also should consider the possibility of market-wide and—though they can be very difficult to model—even catastrophic events. You can then determine your risk appetite and management strategy to balance risk and return.

To ensure adequate liquidity, plan on holding more liquid instruments or turning to alternative funding. After considering the sources of potential liquidity events and establishing a risk appetite, you should model stressed cashflows to reflect stress events, including mass lapse or withdrawals, large claim payments, and reduced renewals.

In the stress testing framework, consider a liquidity buffer analysis—for example, duration and liquidity matching between assets and liabilities. You also should consider different types of encumbrances (assets you cannot quickly turn into cash because of legal, contractual or operational constraints) and the liquidity impact associated with each.

Keys to building your model



As you assess your own distinct model for testing, measuring and helping mitigate liquidity risk, keep in mind that:

- A robust liquidity risk model must integrate all liquidity needs and sources across the balance sheet.
- Asset-side modeling needs to provide insights into available liquidity. Reflecting exact CUSIP-level payment amount and timing across all asset holdings is necessary to accurately reflect sources and uses of available cash.
- Liability-side drivers—such as policyholder behavior, reinsurance settlements, collateral requirements, and funding commitments—need to combine with asset-side modeling so you can understand the full picture of liquidity under stress.
- The most effective way to achieve this integration is through scenario-based modeling, which projects cashflows across various market and behavioral conditions. Each scenario should capture asset liquidity and potential policyholder behaviors, thereby facilitating liquidity management decisions that reflect the combined effects of liquidity needs from all sources.
- You need to model your assets (at a discount) in liquidity events and establish a holistic framework to perform scenario and stress testing in the model.

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