What Can Insurers and Pension Funds Learn from Bank Failures – Expert Panel Discussion

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Expert Panel Discussion

AUTHORS Gwen Weng, FSA, CERA, FCIA, CFA

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Introduction

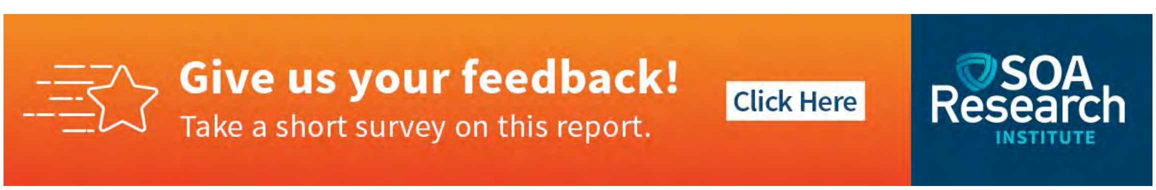
Over a short span of two weeks, the financial system has observed the collapse of two mid-sized U.S. commercial banks, California-based Silicon Valley Bank ("SVB") and New York-based Signature Bank, and a takeover of troubled Credit Suisse by a rival in Europe. Other banks that serve a similar demographic as SVB, such as First Republic Bank and PacWest Bancorp, have also experienced an elevated level of customer deposit withdrawals while their stock prices plummeted. The U.S. Federal Deposit Insurance Corporation (FDIC) quickly stepped in and guaranteed all deposits from the failed banks to prevent a broader crisis in the banking system. The current turmoil in the financial system is a stark reminder of the importance of effective risk management and regulation.

The SOA Research Institute organized an expert panel discussion on current events to draw lessons for the pension and insurance industries. A wide range of topics were covered in the discussion, including asset-liability management (ALM), rising interest rates, systemic risks, risk management and governance issues. The participants of the panel included:

David Bulin, FSA, Senior Actuarial Consultant at Actuarial Risk Management
Mary Pat Campbell, FSA, Insurance Industry Researcher at Conning
Hal Pedersen, ASA, Director, Actuarial Program at University of California, Santa Barbara
Max J. Rudolph, FSA, CFA, CERA, Rudolph Financial Consulting, LLC

The panel discussion was moderated by David Schraub, FSA, MAAA, CERA, Senior Practice Research Actuary, at the Society of Actuaries Research Institute. After the panel discussion, the moderator also solicited comments from industry experts to be included in this report:

Larry Pollack, FSA, EA, Principal, LIP Consulting, LLC
Jeff Passmore, FSA, EA, CFA, VP Pensions & LDI Solutions Strategist, MetLife Investment Management,.



Section 1: Liquidity and Asset-Liability Management in a Rising Rate Environment

To set the stage for more in-depth discussions, the panelists first discussed the unfolding of SVB's liquidity issues. SVB experienced significant growth in 2021 and 2022 when interest rates were low during the pandemic. SVB saw an influx of capital from tech startups seeking yields, which led to a peak deposit level of $172 billion in 2022, tripling their pre-pandemic level. At the time, rates were low but the yield curve was still upward sloping, so the bank invested where they could obtain a higher yield. As a result, they had positive duration assets backing checking accounts with no restrictions on withdrawals. At the same time, commitments slowed down and their customer base, which included many tech companies, continued to draw down, creating net outflows instead of net inflows at the same time that the interest rate curve was inverting. One panelist noted that, given their short liabilities, if SVB had more cash inflows, they could have taken advantage of the inverted yield curve and been well matched. When the bank run happened, it was not feasible for the bank to generate enough liquidity from its asset portfolios to cover the magnitude of the requests for account redemptions, as selling longer duration securities realized significant losses as interest rates were high and asset values depressed.

The panelists agreed that life insurance companies were also exposed to disintermediation, liquidity, and ALM risks in a rising interest rate environment. In fact, the liquidity failures that Mutual Benefit Life Insurance Company and General American Life Insurance Company suffered in the 1990s both stemmed from mismatches between their assets and liabilities. The rapid transition to a high interest rate environment could catch pension plans and insurers with ALM mismatches wrongfooted.

The insurance and pension industries, outside of life insurance as noted above, generally are less susceptible to liquidity and disintermediation risks. Property casualty insurers, health insurers and pension plans generally do not have surrenderable liabilities, so most are not subject to "run on the bank" risk. Property casualty and health insurers tend to have shorter liabilities and large amounts of liquidity for funding expected as well as unexpected claims.

Pension plans often operate intentionally with significant asset-liability mismatches. Higher interest rates have caused liabilities to decrease and left private sector plans well-funded even where there were asset losses. Because public sector pension plans report liabilities based on elevated "expected-return" discount rates, economic asset-liability mismatches go unmonitored. Because pension liabilities, unlike bank liabilities, are generally illiquid, pension plans can continue to operate for long periods, even with very poorly funded statuses and limited asset-liability risk management. Unanticipated pension liquidity needs may arise when collateral is needed for derivatives that are used for hedging liabilities or leveraged exposure to various asset classes. The pension LDI "crisis" in the U.K. in the Fall of 2022 is the poster child for what can happen when large sudden movements in economic conditions trigger unanticipated liquidity needs for derivative collateral.

Not all insurance insolvencies are caused by liquidity and disintermediation issues. During the Global Financial Crisis (2007-2009), a few insurers, including AIG, neared insolvency due primarily to declining equity and credit markets, which caused a substantial decline in capital. The failures of long-term care insurance companies[1] have stemmed from legacy contracts that were underpriced and poorly underwritten due to limited actuarial experience and faulty assumptions at the time of pricing.

On the asset side, one panelist was concerned about the life industry's shift into private debt and collateralized assets on their balance sheets since 2010. These types of assets are typically less liquid and have lower credit ratings, even though most of them are investment grade. Life companies deliberately moved into private, structured

[1] For more information on LTC insurance, please read "LTC Reserve Weakness and What an Industry Reserve Incentive Program Might Look Like" https://www.soa.org/sections/long-term-care/long-term-care-newsletter/2021/february/ltc-2021-02-gold/

securities in order to enhance their investment yields. In the recent low interest rate regime, pension plans also moved into illiquid investments, e.g., private equity, in a search of high returns, necessitating a higher degree of liquidity management to assure the ability to pay pensions when due. In contrast, P&C companies typically have portfolios with shorter durations and higher liquidity in their general account portfolios, composed mostly of municipal bonds, higher quality corporate and asset-backed securities, U.S. government bonds and cash, because they generally have shorter liabilities. Health insurers typically invest in short duration and high credit-quality assets.

The panelists observed that the industry has not experienced a significant credit event since the Global Financial Crisis and, therefore, the panelists were concerned about potential defaults in adverse credit scenarios.

A financial crisis, which a volatile rate environment could evolve into, could also lead to losses if insurers are exposed to market risks without proper hedges which, in turn, could trigger the forced selling of assets at a loss. For example, Manulife's underhedged Variable Annuity business and direct equity exposure put significant stress on the company's balance sheet during the Global Financial Crisis.

On the liability side, high interest rates could be a trigger for substantially higher than expected lapses, where policyholders surrender their contracts to secure higher crediting rates elsewhere. Such lapses may require insurers to sell assets at losses in order to meet liquidity demands.

While acknowledging the difficulties of managing these risks, the panelists shared existing risk management and risk mitigation solutions, which included:

1) Incorporating surrender protections and restrictions in product design. These limitations could prevent or slow down the pace of liquidity events. For example, Blackstone Real Estate Income Trust (BREIT) has been limiting withdrawals through their pre-set monthly redemption limit as investors have been exiting the real estate sector.

2) Understanding the true economic value of assets. One panelist commented that inflated asset values in the last two years were a result of government subsidization via low interest rates. One approach to prudentially mark down such artificial gains could be to implement a floor on the discount rates used to evaluate the market value of assets, or deliberately recognize lower unrealized capital gains as interest rates were going down in order to build buffers and resilience for a rising rate environment. Accounting treatment of assets should also be reviewed for balance sheet and regulatory capital purposes[2]. It is important to avoid systematic mismatches due to accounting differences between assets and liabilities, and maintain heightened awareness of economic conditions that might trigger the need for more capital.

3) Diversifying the customer base, which should be part of an insurer's liability management strategy. SVB had limited diversification within their deposit base, as venture capital and tech companies are highly linked and interdependent. The run-on-the-bank happened because everyone was getting the same tap on the shoulder for getting their money out as soon as they could. The takeover of Signature Bank was also driven by the less diversified commercial customer base - heavy in NYC real estate, legal firms and cryptocurrency companies. Insurers would have to strike their own balance between risk and return when it comes to getting business and taking on risk, but higher levels of diversification of the deposit base would slow down the propensity of deposits fleeing.

[2] From a U.S. GAAP accounting perspective, assets currently can be designated as held-to-maturity, with book value used on the balance sheet, or marked-to-market (MTM), with assets restated to market value at each reporting date. The ability to carry assets at book was part of what allowed SVB to maintain their asset-liability mismatch. MTM has negative connotations as well, with a role in Enron's collapse and a disconnect in insurance reporting when assets are restated but liabilities are not.

4) Diversification can be helpful in managing many types of risk, such as unique issuer risks from assets and reinsurance counterparty risk.

Section 2: Systemic Risks and Contagion

Systemic risk is the risk of the collapse of an entire financial market when a large number of institutional failures occur simultaneously or in close succession. A cause of systemic failures, contagion, could have many definitions. The panelists defined contagion risk to be the risk that problems associated with some financial intermediaries could spread to other financial intermediaries. Investors and customers could lose confidence, not just in the financial intermediary that failed, but in others as well, and act accordingly, which could create a downward spiral of fear and uncertainty. This phenomenon was observed recently as bank runs happened to banks that had client profiles with similar characteristics as SVB's but before the government intervened, calming the market.

Today's financial markets are highly interdependent. Therefore, the effect of institutional failures could ripple through not only a single region or sector, but also at national and international levels. Even though there is little evidence that the Credit Suisse takeover was directly linked to the collapse of SVB, it was likely influenced by a lack of trust in the current global financial system.

One panelist also noted the insurance industry is faced with political and legal risks, such as tax law changes, which can also have wide ranging, and sometimes disruptive, impacts on the financial system.

Overall, due to numerous differences between banking and insurance institutions, the panelists believed that it is unlikely the recent bank failures would lead to cascading failures of insurers. However, there are many lessons that insurers and regulators can draw from to prevent future failures in the insurance industry.

Section 3: Risk Management, Governance, and Regulation

As the complexity and sophistication of product designs and modeling techniques increase over time, the panelists cautioned that the insurance industry should develop a deeper understanding of risks and go beyond the bare minimum required by regulations.

With respect to the modeling and analysis of risks, the panelists discussed three common pitfalls:

The first is the over-reliance on models. One panelist noted that, so far, statistical models have not been able to capture the actual path of interest rates in simulated scenarios, and predicting actual interest rates is extremely difficult. One panelist warned against the use of overly complex models, as they often lead to fewer questions asked and overconfidence in the results. Instead, deterministic scenarios, such as sensitivity tests and stress tests that combine multiple assumption changes under distinct narrative scenarios, may be used to help companies better understand the risks they may be exposed to. Stress tests can also be useful for pensions, especially those employing significant allocations to investments, like derivative securities that can have margin and collateral requirements and illiquid investments. Significant market moves including changes in the yield curve can create liquidity events.

The second pitfall is the practice of applying shocks one at a time during a sensitivity analysis, while ignoring the possibility of risk clusters. As seen in the downfall of Credit Suisse, the bank was in a weakened state for a long time, and a series of additional stressors gradually put them under. One panelist suggested a straightforward way to incorporate risk clusters in risk appetite assessments: Insurers could rank their top risks and consider how many of them they could survive if they occurred simultaneously.

The third pitfall is a narrow focus on a specific view of risks, such as overly focusing on one of statutory, GAAP, economic, or capital views, while ignoring the others. Alternative lenses for risks can provide different and deeper insights. Insurers should also strike a balance between rule-based and principle-based analysis of risks, considering both qualitative and quantitative analytical techniques.

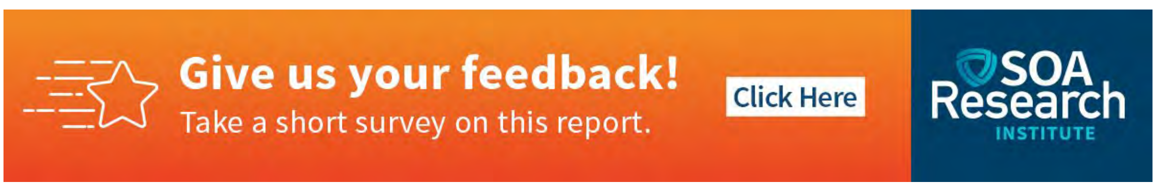
Additionally, the panelists noted sufficient knowledge and training are needed for risk management teams to effectively monitor and manage risks. Some panelists believed that understanding and analysis of the risks on the asset side of the balance sheet has been lagging as fewer actuaries are deeply trained in the area.

Aside from understanding risks, the panelists also discussed the importance of building a healthy risk culture in financial institutions. The NAIC ORSA Guidance Manual defines risk governance to be a governance structure that clearly defines and articulates roles, responsibilities, and accountabilities, with a risk culture that supports accountability in risk-based decision-making. Some panelists briefly mentioned examples where risk culture and the tone from the top mattered in risk management. Strong risk culture is a key component of an effective enterprise risk management system.

One panelist noted that there have been successful examples of risk management. Most life insurers in the U.S. have paid more death benefit claims in 2021 and 2022 than prior to the pandemic. They were able to absorb the losses because they built up excess capital during a period of reduced mortality. In the first quarter of 2020, some insurers enhanced the level of liquidity of their assets in anticipation of potential risk clusters.

The panelists agreed regulators have an important role to play in maintaining and enhancing the health of the insurance industry. The existing Risk-Based Capital framework and monitoring requirements in the U.S. are a good foundation for regulators to detect disastrous effects. NAIC Actuarial Guideline LIII (“AG-53”), effective as of year-end 2022, requires Appointed Actuaries to disclose detailed information about investment activities and risks, focusing primarily on assets used to support Asset Adequacy Testing (“AAT”). Despite not mandating insurers to increase reserves or capital, the guideline requires Appointed Actuaries to go beyond the bare minimum required by AAT and take a deeper look at complex assets that have seen increased use on life insurer balance sheets.

Even though AG-53 is a step in the right direction, the panelists believed that the current regulation may not be sufficient. A wake-up call to the financial industry, the recent bank failures should prompt insurance regulators to review the current requirements to identify areas of weakness and strengthen control. Regulators should develop a deeper understanding of the risks and the risk culture of insurers, as well as promote higher transparency in reporting and disclosures.



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Serving as the research arm of the Society of Actuaries (SOA), the SOA Research Institute provides objective, data-driven research bringing together tried and true practices and future-focused approaches to address societal challenges and your business needs. The Institute provides trusted knowledge, extensive experience and new technologies to help effectively identify, predict and manage risks.

Representing the thousands of actuaries who help conduct critical research, the SOA Research Institute provides clarity and solutions on risks and societal challenges. The Institute connects actuaries, academics, employers, the insurance industry, regulators, research partners, foundations and research institutions, sponsors and non-governmental organizations, building an effective network which provides support, knowledge and expertise regarding the management of risk to benefit the industry and the public.

Managed by experienced actuaries and research experts from a broad range of industries, the SOA Research Institute creates, funds, develops and distributes research to elevate actuaries as leaders in measuring and managing risk. These efforts include studies, essay collections, webcasts, research papers, survey reports, and original research on topics impacting society.

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Society of Actuaries Research Institute
475 N. Martingale Road, Suite 600
Schaumburg, Illinois 60173
www.SOA.org