

THE ROLE OF THE GLOBAL ACTUARY IN BANKING

IN THE FACE OF BANK FAILURES

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In their normal banking activities, banks are in the business of maturity transformation, where they raise deposits and other forms of funding (liabilities to the bank) from those with excess cash and lend to those in need of loans (assets to the bank). This scenario exposes banks to various risks, key of which is mismatching risks between assets and liabilities, as liabilities are often of a shorter duration whilst assets are often of a longer duration.

This can lead to bank liquidity and funding crises where a bank may not be able to raise funds at short notice when needed to finance any outflow of deposits. This has been the case with the recent Silicon Valley Bank ('SVB') failure in the United States in March 2023, due to what is known as 'a run on the bank' as customers demanded their deposits at a time when the Bank was short of cash and liquid assets, and could not raise fresh capital at short notice. This was the second largest US bank failure behind Washington Mutual that collapsed in 2008.

BANKING RISK MANAGEMENT IN THE FACE OF BANK FAILURES

The history of bank failures around the world has shown that, whilst both capital and liquidity

are important for the financial health of a bank, it is often liquidity and funding risks that lead to immediate bank failures. This is often driven by lack of confidence in a bank due to reputational risks materialising, leading customers to rush to withdraw their deposits at a time when the bank cannot raise funding.

We can certainly take lessons from these events, and actuarial professionals, among other professionals, could play a more pronounced role in liquidity and funding risk management in banks through asset liability modelling and management. The asset liability management tools required for managing such risks, that include projection of cash inflows and outflows over various periods under stressed conditions, are already familiar to actuaries.

This calls for the need to continue refining banking risk management models and stress testing exercises



Liquidity is a fundamental risk as banks ‘borrow short and lend long’. Banks, therefore, accept a degree of asset-liability mismatch and related liquidity risk. The management of asset-liability and liquidity risks are important in banking and are familiar ground for actuaries.

POSSIBLE BANKING INDUSTRY CONTAGION FOLLOWING SVB COLLAPSE

SVB’s collapse was sudden, following a sustained 48-hour rush to withdraw deposits by its

customers in what is seen as a classic ‘run on the bank’. It was feared that the SVB collapse could trigger a banking financial crisis. Despite assurances by the US banking regulators of no contagion, we also saw the collapse of another US bank, the New York based Signature Bank, two days after the failure of SVB. First Republic Bank then also collapsed in April 2023.

In Europe, there were concerns about Credit Suisse, the world's eighth largest investment bank based in Switzerland, with its shares having crashed by more than 20% to a new record low on 15 March 2023 after its biggest backer ruled out providing any more funding to the Bank. The Swiss banking regulator then committed to provide Credit Suisse with liquidity should this be required. The Swiss government also brokered a deal for UBS to buy Credit Suisse as a way of containing a crisis of confidence in global financial markets, bringing together Switzerland's two biggest banks.

IMPLICATIONS FOR BANKING BUSINESS MODELS AND RISK MANAGEMENT

As for other historic cases of bank collapses around the world, the recent US bank failures illustrate the need for sustainable banking business models and improved risk management. This calls for the need to continue refining banking risk management models and stress testing exercises, with the design and implementation of integrated enterprise-wide risk management (‘ERM’) frameworks being extremely important for both large and small banks. Some risks are not immediately >

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obvious, but with appropriate and integrated risk management models and frameworks, they can be anticipated, managed and/or mitigated.

OPPORTUNITIES FOR ACTUARIES IN BANKING

The changing banking landscape presents actuaries with opportunities for applying actuarial techniques in banking. Given worldwide regulatory pressures in the banking space, actuaries, among other professionals, are sought after to build cutting edge models to optimise the risk environment and to work on the forefront of policy development.

The roles of actuaries in banking typically relate to risk management. This ranges from credit risk, market risk, liquidity risk, operational risk and other business risks. Each of these risks can be broken down further into a breadth of topics. For example, credit risk is a major area of work and can be broken down into loan origination and pricing strategies, monitoring of portfolio trends, provision of capital and reporting. Given actuaries’ quantitative abilities and understanding of the financial world, actuaries are able to play a key role in each of these areas. These roles are not confined to banks but to consulting firms as well. Consultants are able to act in advisory roles or audit roles. While audit roles often lead to validation of a bank’s model, advisory roles allow actuaries to build up strategies and models for banks across the breadth of risk types and topics.

Actuaries employed in the banking sector and risk-consulting field in jurisdictions such as South Africa and Australia are largely employed in the following areas:

- Credit scorecard development
- Credit risk management and reporting
- Design and pricing of all banking products (credit and non-credit related)
- Provision model development
- Balance sheet management, i.e. asset-liability mismatching risk management and liquidity risk management
- Pricing and trading of derivative products
- Capital modelling
- Credit, operational and market risk modelling
- Balance sheet management.

BANKING CREDENTIALS FOR ACTUARIES

In view of these developments in actuarial practice in banking, the Actuarial Society of South Africa (‘ASSA’) developed a banking fellowship subject for actuaries that was introduced in 2015, a first in the world, as part of the qualification track. This subject has now evolved and revamped, and from 2022, it is being offered to the global actuarial profession leading to a certificate in banking. The Institute and Faculty of Actuaries (‘IFoA’) has also partnered with ASSA and is offering these banking subjects at fellowship principles and applications level as part of the IFoA qualification track. <

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