Evolution

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The Ongoing Stress Testing Evolution: Leveraging a Required Investment

BY JOY HART AND ED YOUNG

Stress testing is no longer merely about regulatory compliance. Financial institutions with effective stress testing frameworks can now use these comprehensive programs to identify and evaluate emerging risks, make better strategic decisions and improve their capital planning processes

Over the past eight years, institutions have spent an enormous amount of time, energy and capital to meet the stress testing expectations set by regulators. Given the sizable investment, it is no surprise that enterprise stress testing remains a topic of conversation for many banks.

Now that many firms have built a baseline that meets regulatory expectations, executives are beginning to ask more business-related questions, such as, "How do we use this investment and leverage the models to make better tactical and strategic decisions?"

When organizations have a well-designed stress testing framework and tools in place, meeting regulatory expectations becomes simply a by-product of much more powerful risk management and strategic planning activities. Banks that have such a framework in place can turn their focus to answering strategic questions about their balance sheet composition and risk/return trade-offs.

The notion of applying a forward-looking macroeconomic stress scenario to balance sheet and income statement projections was not common practice when the Fed initiated its seminal stress test for large banks in 2009. Since then, however, enterprise stress testing has emerged as a cornerstone of the risk management program for any large bank (more than $50 billion in assets) in the US. It requires management to synthesize the many risks a bank faces in a tangible, easily understood format, while also encouraging internal process automation.

Given the importance of stress testing, most large banks have developed dedicated teams or appended groups to their risk function in order to facilitate these activities. On the other hand, many mid-sized banks (between $10-50 billion in assets) have not developed stress testing processes that can provide meaningful business intelligence.

Since mid-sized banks in the US are only required to produce stress test scenarios annually, many have struggled to justify the investment required to develop a recurring stress testing process to run on a routine basis. Indeed, many mid-sized banks have budget constraints and must ask employees from within the business units — who are already stretched too thin — to go through this annual exercise.

Thankfully, improvements in technology and quantitative modeling are now helping to justify a smaller required investment in technology with a larger business case for integrating stress testing processes with strategic planning. As new accounting expectations start requiring banks to project expected credit losses over the life of each loan, there is an additional use case for investing in the underlying data and models.

In this article, we will explore the maturation of enterprise stress testing processes and how mid-sized firms can use investments in stress testing to make better business decisions.

Regulatory Mandate: The Formative Years of Enterprise Stress Testing

In response to the financial crisis, US regulators initially developed requirements for enterprise stress testing to help confirm that each large bank had enough capital to remain solvent during future crises, thus instilling confidence. In the years that followed, regulators continued to pressure banks to improve their processes to ensure they could produce credible results under the small group of scenarios.

Banks have continued to invest in their processes to meet these rising expectations. Much of the early focus was on improving the precision of the modeled outputs (both loss models and revenue projections) and on the internal controls that support the process. These improvements were imperative to establishing a baseline of precision for the projected capital ratios used by regulators to ensure the safety and soundness of each bank.

What's more, these foundational steps helped to foster the credibility and consistency of the results that are disclosed by each bank to the broader market. Investments in improving models and internal controls were, in fact, paramount in ensuring banks would be able to publish results that were as accurate as possible.

Looking for Additional Value

The cost of compliance with banking regulations for large and mid-sized banks has increased significantly since the financial crisis. While enhanced enterprise stress testing processes have been a great tool to improve the safety and soundness of individual banks, as well as the resiliency of the financial system, they have put a significant dent into firms' risk management budgets.

A quick glance at the return on equity (ROE) of the US commercial bank market provides some context on the clear need to increase profitability wherever possible, including from investments in stress testing processes:

» The average ROE of a US commercial bank dropped from approximately 15% from 1993 to 2006 to 9% from 2012 to 2016.

However, processes are now maturing, and established and approved methodologies are allowing the industry to coalesce around a standard for loss and resource estimation approaches. This evolution has allowed risk managers to begin to address the following question: "How do we get timely and meaningful information out of our stress testing investment?" Today, in the hyper-competitive world of banking, the firms that learn how to leverage their stress testing processes to make better business decisions will garner a distinct competitive advantage.

Risk managers have always been concerned with risks the external environment imposes on their portfolio. Chiefly, banks have focused on the direct and indirect impact of significant market changes. As stress testing has become more mainstream, that thinking has shifted to focus on the broader economic conditions.

To understand and manage exposures profitably, many banks have employed a range of quantitative models and expert judgment to mitigate potential losses. These models, however, are rarely able to translate portfolio exposures directly to their potential impact on quarterly earnings. This shortcoming leaves risk managers struggling to bridge a gap and explain to senior management the tangible implications of portfolio risk metrics.

A properly designed stress testing framework can help with the portfolio exposures/earnings impact translation, without increasing the cost of complying with regulatory requirements. The benefits of an improved capital planning program with strategic planning capabilities can even turn an initial cost into an ongoing strategic investment.

Let's now quickly explore how a well-designed stress testing program can benefit risk management and strategic planning at a bank.

Integrating Stress Testing into Broader Risk Management

Once a bank has set up a stress testing program that can easily be used on a recurring basis, it can be integrated into the firm's standard risk management framework. When running a stress test exercise quarterly (or more frequently), results can help the organization highlight emerging risks and identify and express the potential impact of changes to the external environment.

Enhancements in technology now allow banks to consider the balance sheet and potential earnings impact of a wide range of possible economic scenarios. This ability to quickly examine "what-if" scenarios in minutes give banks a powerful tool to evaluate emerging risks and to receive early warning indicators about changes to the firm's risk profile.

The ability to capture a wide range of risks, understand their potential impact and synthesize the results into pro-forma financial statements can substantially improve the capital planning process. Many large banks have begun to incorporate the results of the economic scenarios the Federal Reserve publishes — as well as their own bank holding company (BHC) stress scenarios — into their strategic planning processes. Being able to contemplate a large range of scenarios (i.e., beyond just BHC scenarios) can provide bank management with additional perspective and information to improve business decisions — but only when it is feasible to complete the analysis in a timely manner.

Figure 1 (below) illustrates the additional information a robust stress testing framework can offer to improve capital planning decisions.

Through analyzing additional scenarios, the bank depicted in Figure 1 identified a possible vulnerability (the yellow scenario path) that breached an established CET1 capital limit (the grey dotted line). This situation was not uncovered by the firm's BHC-stressed scenarios. Without the additional scenario analysis, the bank would not have appropriately incorporated necessary remediation plans or considered strategies to avoid the breach event.

Improving Business and Strategic Planning

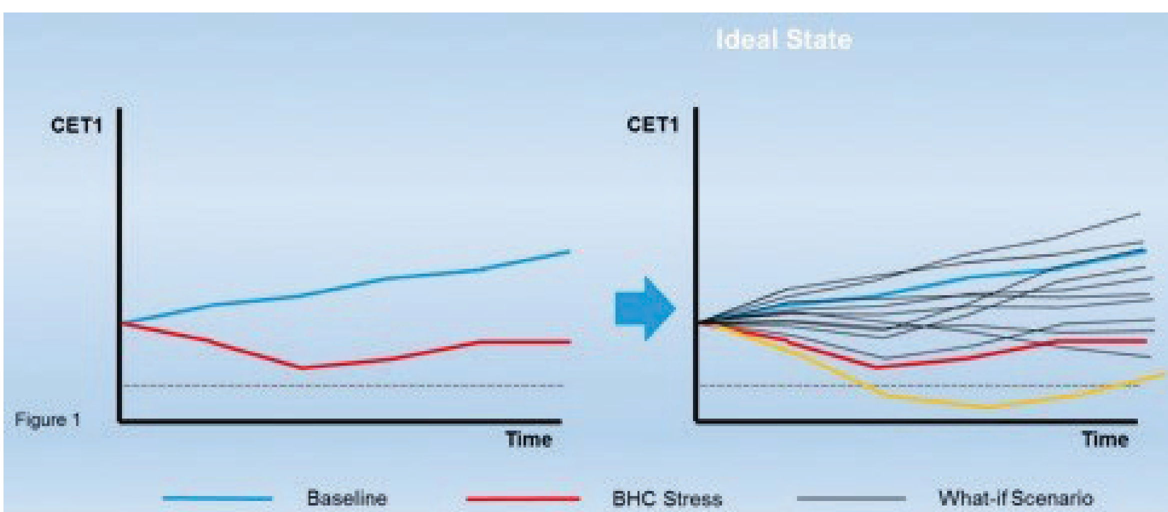
Whether a financial institution is developing a five-year plan or contemplating a possible strategic merger or acquisition, strategic planning has always been an integral part of management. However, legacy processes often struggle to integrate (adequately and formally) the firm's current and prospective future risk profiles into the process.

For instance, many mid-sized firms face challenges with integrating a range of possible future economic environments and quantitatively gauging their financial impact on strategic initiatives. Moreover, the process for understanding the implications of the economic environment on a potential acquisition remains a struggle for many banks.

Advances in stress testing methodology and technology can solve many of these problems and provide results quickly and efficiently. Banks that are armed with this new information will gain a competitive advantage over firms that ignore the benefits of a well-designed stress testing framework.

These benefits can also improve coordination and flows of information across the silos of an organization. Today, the

Figure 1: The Impact of Robust Stress Testing on a Bank's Capital Planning



impact of ongoing strategic initiatives — such as loan or deposit pricing strategies in different economic environments — can be assessed in minutes instead of months.

Access to this additional information is a significant competitive advantage that will enable your bank to be nimble and optimize its growth strategy.

A Jumping Off Point for Further Breakthroughs

A decade after the tumultuous economic times of the great recession, advances in balance sheet management are arming risk managers with significantly more information to consider and mitigate potential risks. Regulators' focus on capital planning and stress testing has led to enhanced methods to translate economic conditions into potential losses.

Now that many banks have invested in improved data capture and credit risk parameters, they are searching for ways to leverage these enhanced capabilities. The analytic improvements, coupled with advances in technology, are paving the way for banks to find new and innovative ways to use stress testing platforms for additional business intelligence.

Much of the innovation will need to be less focused on regulatory expectations and more on creating incremental business value. This new impetus for advancing risk management will lead to exciting new breakthroughs and competitive advantages for the firms that embrace the opportunity.

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