STRESS TESTING 2.0
FOR OFFENSE, NOT JUST DEFENSE
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This is the sixth year of the federal Comprehensive Capital Analysis and Review (CCAR) program, and judging by the results and payouts approved, the banking industry has entered a new chapter of the post-crisis regulatory regime. There were no failures this year, quantitative or qualitative; banks were approved to pay out nearly all their expected earnings; and there are ongoing signals that the Federal Reserve Board is dialing down the intensity of the program. If crisis or wartime stress testing is about getting capital into the banks, peacetime is about letting it out, and it looks like peace has finally broken out in the United States.

In this new world, banks have far more capital than they did before the crisis; the 34 institutions that participated in the 2017 CCAR had more projected capital post-stress than was held by the entire US banking system at the end of 2006 before the dawn of the financial crisis. What’s more, after spending millions of FTE hours, developing thousands of models, and holding hundreds of board meetings, they have built a formidable stress testing process to uncover risks, probe vulnerabilities, and describe their potential consequences in excruciating detail to regulators, boards, and senior management.

The same scenario-based techniques used in stress testing can be powerful tools for day-to-day risk management and strategic planning, permitting companies to identify and quantify risks and opportunities across a wide range of potential economic environments. But most banks have been wary of using them for such mundane purposes. Stress testing is designed to assess the impact of the most extreme stresses banks face. It is deep and complex, but also so cumbersome and narrow that most banks leave it in the toolbox on all but the rarest occasions. That is perfectly understandable, but it is also a shame and a waste.

And it is unnecessary. Leading banks are currently building faster machinery and streamlining their capital planning process allowing for more flexibility. In this short paper, we will look at the possibilities this thing called “stress testing” has to offer, not just to risk managers who worry about the myriad ways things can go wrong, but, as importantly, to the strategic planners who look at the world as an array of opportunities.
STRESS TESTING VS. SCENARIO ANALYSIS

The traditional dive-in-deep approach to stress testing was born in the financial crisis. The problem it addressed was pretty clear: Banks and the economy were very long the housing market. The original rounds of stress testing asked what would happen if the bubble burst – if housing prices declined by more than 20% and unemployment spiked to 10% or more? That simple and specific method worked so well in 2009 that it has colored the entire approach to subsequent peacetime stress testing: take a couple of scenarios and go deep. Regulators used this approach to push banks to build a large stable of models and processes to laboriously translate those few scenarios into bank relevant outcomes (losses, revenues) in great detail.

But the deep dive isn’t the only way to use scenario analysis. You can also stay near the surface and explore a range of possibilities, both bearish and bullish. New products, new markets, new clients – How might they play out? A sudden change in tax regimes, surprise result in elections, a surge in national protectionism – How would they impact your strategy? The world has become a more uncertain place with surprising election outcomes the world over, increased political instability, and a post-crisis economic expansion that is getting long in the tooth.

Banks need to be able to explore and be ready for a lot of not-so-unlikely scenarios. But the intensity of the CCAR exam process and the harshness of regulatory feedback have made firms extremely reluctant to deviate from a narrow, well-worn path of process intensity. Classic “What if?” scenario analysis has suffered as a result. The deep dive of CCAR must be complemented by a more exploratory mining of many scenarios. If you think data mining can provide insights, wait until you start scenario mining!

But how do you do it?

FROM DEFINED SCENARIO TO BUSINESS IMPACT

There are three steps to any scenario analysis process, whether for stress testing or strategic planning purposes.

1. SELECT THE SCENARIO(S)

CCAR-style analysis is biased toward macroeconomic and financial market shocks. But there is a large range of additional scenarios banks should be exploring: unpredictable tax legislation; political interference in investment decisions; diverging climate regulation; loosening financial regulation; and many more.

Not all of these uncertainties yield “bad” scenarios. Banks would all welcome some relaxing of financial regulations, but which regulations are loosened, and for which group of banks, matters. To simulate the alternatives and consider their effect on your bank require more careful thinking about how those scenarios might manifest in financial market variables and market share (which often appear in banks’ revenue models, for example). Active discussions and war gaming with a broad group of participants (business, risk, strategic planning) are a good way to make progress.
One area that is particularly ripe for analysis today involves China: The latest reports suggest that China’s economy is not yet slowing down, although at the cost of increased leverage and thus higher medium-term risks. How will this impact Asian economies? The United States? Global financial markets? And, of course, there are the many uncertainties encountered in launching a new product or entering a new business – for example, a retail offering by a dominant wholesale bank, or a variable annuity offering in a new region. Depending on customer behaviors and economic conditions (which are, of course, related), some design choices will be preferred over others. In each of these examples there is a myriad of scenarios that one would want to consider.

2. TRANSLATE THE SCENARIO(S) INTO OUTCOMES

Losses, revenues, costs, market share, and so on. This step is an area where banks have spent an awful lot of time and money building models upon models. They have gone deep, very granular, and optimized around translating a particular kind of macroeconomic and financial scenario to the income statements and balance sheets of the bank. But the process is extraordinarily cumbersome and does little to invite strategic planners or risk managers to try a wide range of possible scenarios. What’s more, the existing CCAR machinery is not built to explore more than a small handful of rigidly-defined scenarios. It is ill equipped to deal with more nuanced scenarios involving politics, climate, or the cyber-world.

There are, however, examples of banks adapting their CCAR machinery to a more exploratory use of scenario analysis. Some have streamlined their capital planning process and in particular their projection engine by creating a single integrated forecasting ecosystem. Alternatively, some banks have chosen to build a simplified version of the forecasting process used for CCAR to capture the essence of a bank’s financials using the same data sources (a big time savings, and it assures quality control) without going into the detailed segmentation that contributes to CCAR’s complexity. The idea is to be quick and simple – good enough to allow you to try many scenarios and get a firm handle on the impact to the bank without the nth degree of (apparent) precision and detail that is required of CCAR. It has to be simple and easy to be user friendly. Think: a handful of models designed to respond to dozens of scenarios rather than dozens of models built to respond to a handful of scenarios.

3. EVALUATE THE RESULTS IN THE CONTEXT OF YOUR OVERALL STRATEGY

For CCAR purposes, the evaluation step has focused on a rather narrow question: Do you have enough capital to support your plan and still return capital to your shareholders? The capital ask might well change depending on the results from step two, which in turn might (and in fact often did) force banks to alter some business objectives. In this way, CCAR has always represented a linkage between stress testing and the strategic plan, which manifests in part as a capital plan.

Regulators always wish and hope for exercises driven by regulatory demands to be adopted for day-to-day decisions (by risk managers and the business), and CCAR is no different. But in practice CCAR testing has limited application to strategic planning. Yes, banks’ CCAR results have changed their business emphasis and mix. The Clearing House published research in 2017 showing how CCAR testing has led banks to curtail lending for small businesses and residential mortgages. But even for risk limit setting, an increasingly common application of CCAR results, the limited set of scenarios addressed by CCAR can lead to arbitrary, non-intuitive results that business leaders and risk managers are reluctant to use.

But we believe that most banks already have the basic pieces in place to more fully realize the value of scenario analysis. Because the business has been increasingly involved in the CCAR process (for instance in risk identification and scenario design, the design of PPNR models, and so on), forward-looking business insights have already permeated formal capital planning. But the strategic planning office rarely sits at the table, largely because of the fine granularity and deep detail that CCAR demands. The development of a simpler, more flexible version of CCAR will give them the tools to participate.

**FACING A WORLD OF RISK**

We have learned a lot in the last eight years about how to design extreme stress scenarios and translate them, in great detail, to bank financials – losses, revenues, and balance sheet dynamics. But we are far from realizing the full potential that scenario analysis can bring to exploiting the wide range of opportunities banks face every day.

That is crucial. In a world facing political upheaval, climate change, radically evolving business practices, and a global economy we have not yet learned to manage effectively, banks need to understand how these outside forces will affect their financial prospects – creating both risks and opportunities. The immense shock of the financial crisis and the government’s response has given banks a powerful set of tools for understanding their environment and what it means to them. Those tools need to be adapted for wider, more proactive use. The pieces are largely in place but require some careful rearrangement to unlock their potential outside of CCAR-style stress testing. Indeed, the more uncertainty there is in the world, the broader set of things one might want to try – either to guard against or to exploit.

As the intensity of post-crisis ramps down, banks that have treated stress-testing seriously are well positioned to take the next step – preparing themselves to win in an increasingly chaotic world.

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