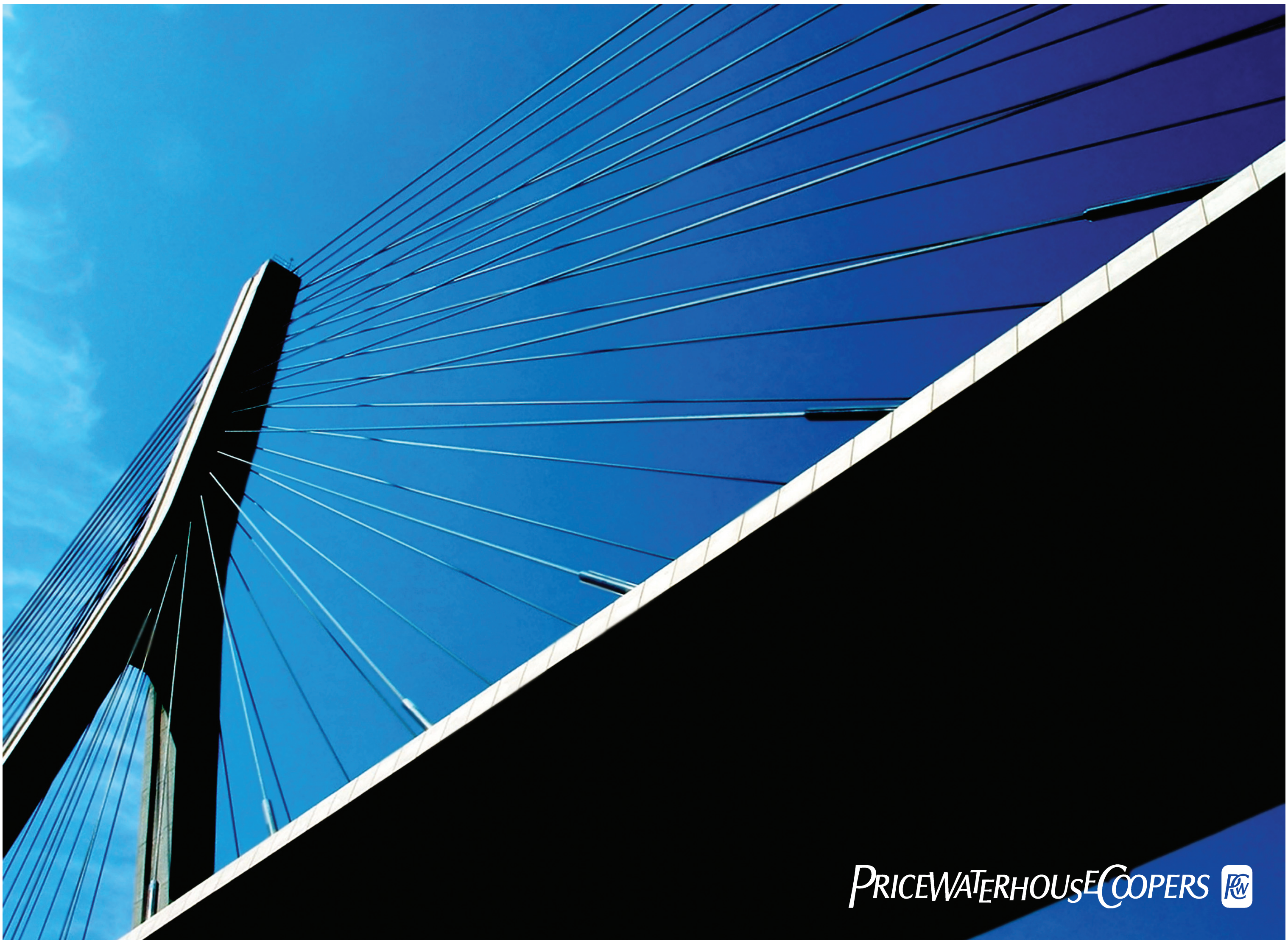
Banking and Capital Markets

The Journal

Stress testing: From stressful times to business as usual

August 2009



PricewaterhouseCoopers

Public debate of the Federal Reserve's stress test results – which called on 10 of the 19 largest US banks to raise $74.6 billion in additional capital – has tended to take the form of a lively back-and-forth about the appropriateness of the scenarios used, or has focused on the short-term implications for individual institutions. These issues are important.

Fernando de la Mora
PricewaterhouseCoopers (US)
+646 471 5257
fernando.de.la.mora@us.pwc.com

Michael Shearer
PricewaterhouseCoopers (US)
+646 471 5035
michael.a.shearer@us.pwc.com

Dan Weiss
PricewaterhouseCoopers (US)
+703 918 1431
dan.weiss@us.pwc.com

But the tests also raise a number of other themes which have far wider relevance for the industry and which will shape the way that banks think about capital, run their businesses and manage their risks for years to come.

For example, lower quality capital – tier two securities and even some tier one hybrids – now appears devalued at best and irrelevant at worst. The focus is squarely on common equity as the primary arbiter of an institution's strength. This is reasonable enough given the events of the last two years, but the need to hold more – and more expensive – capital will have an impact on bank business models by making certain businesses more or less attractive on the basis of their capital consumption. Advocates of economic capital and similar approaches have long argued that banks should use risk-based capital to inform strategic decisions, but capital has been so cheap and so plentiful that there was no real imperative to do so. That could now change.

It might be tempting to see the stress tests as a one-off measure taken to resolve some of the uncertainty around US banks. That would be a mistake. As the industry emerges from the crisis, comprehensive stress tests look set to become standard practice for management and supervisors, and a key way in which capital adequacy is assessed. The results of ongoing testing regimes will also help to strengthen risk management oversight and will become an additional source of disclosure to the market.

This document summarizes PricewaterhouseCoopers'[1] perspectives on the stress testing results, including the implications of these changes over the short and medium term.

Higher capital charges for the biggest US banks

As a result of the stress tests, bank capital requirements have climbed. Prior to the tests, a minimum tier one risk-based capital ratio of 6% was the solvency requirement for a bank to be considered well-capitalised. Under the stress tests, that standard has been toughened – the minimum 6% tier one ratio remains, but it must now be able to withstand two years of worst case losses. This represents an effective capital increase from current levels of approximately 100 basis points, on average, in addition to another 270 basis points originally infused under the US government Troubled Asset Recovery Program (TARP).

1 "PricewaterhouseCoopers" refers to the network of member firms of PricewaterhouseCoopers International Limited, each of which is a separate and independent legal entity.

Although this is expected to be a temporary increase, it will still have broader implications for the overall cost of doing business, impacting profitability prospects across the banking industry. Given that banks add strategic capital buffers to finance future growth and acquisitions – and to secure possible TARP capital repayment – banks will likely keep greater levels of capital in addition to the minimum thresholds proposed by the government.

Open questions also remain about how the tests – and the capital levels they have set – will be integrated into the future regulatory capital framework:

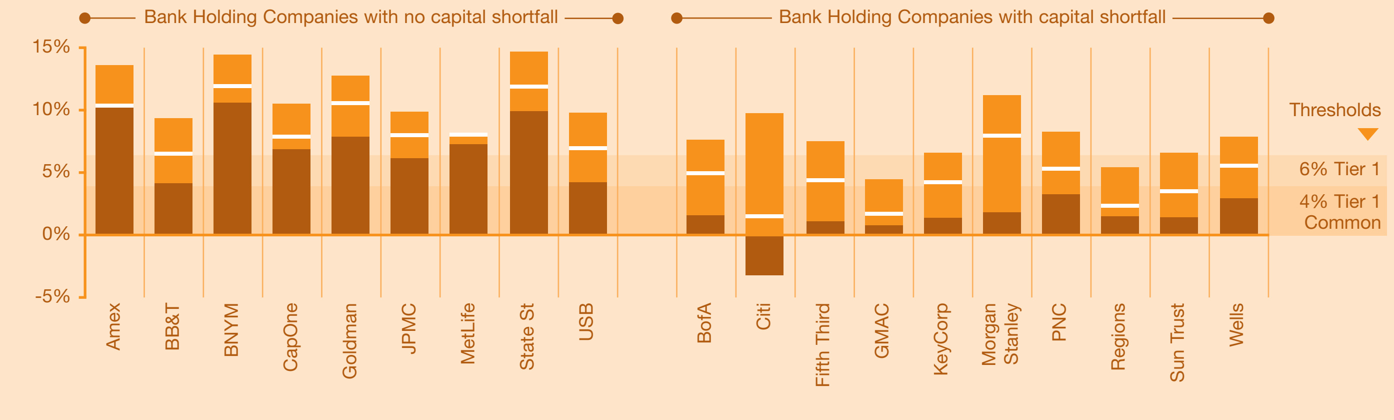
- When will these additional capital targets be refined or lifted?
- Will the apparent pro-cyclical nature of the targeted capital buffers be eliminated if regulatory capital is revised – as expected – to make it more counter-cyclical?
- Will there be higher targets for larger, more complex banks, or those with concentrated exposures?
- How will the new stress test guidelines be factored into existing rules on capital?
- Are the new stress test requirements applicable to other banks that were not included among the original 19 institutions?

Capital quality standards have changed

The stress tests have introduced stricter expectations about the composition and quality of capital. Prior to the stress tests, there were some qualifications and limitations built into the definition of regulatory capital, but no explicit requirements relating to tier one common equity – European regulators had been working to produce harmonised rules on capital quality prior to the start of the crisis, but the project focused primarily on hybrid capital.

The stress tests establish de facto standards for capital composition, by setting a minimum 4% ratio for common equity to risk-weighted assets after factoring in losses in an adverse stress scenario. In fact, most banks achieved a tier one ratio of more than 6% after applying the tests, which indicates that the vast majority of the required capital will be raised to meet the new minimum tier one common equity threshold. As a result, the relative attractiveness of preferred share instruments and other hybrid structures may be reduced in the future (see figure 1).

Figure 1



Source: SCAP and PricewaterhouseCoopers analysis

Capital-raising plans are needed

As a result of the new capital quality expectations, banks that need more capital will focus on generating additional common equity through new issuance, sales of businesses or assets, and the potential conversion of preferred shares. Those banks without a capital shortfall under the terms of the tests will focus on developing plans to repay TARP capital as soon as they are allowed. All banks that are not being asked to raise capital will meet the minimum 6% tier one ratio under an adverse scenario even after repaying all TARP capital.

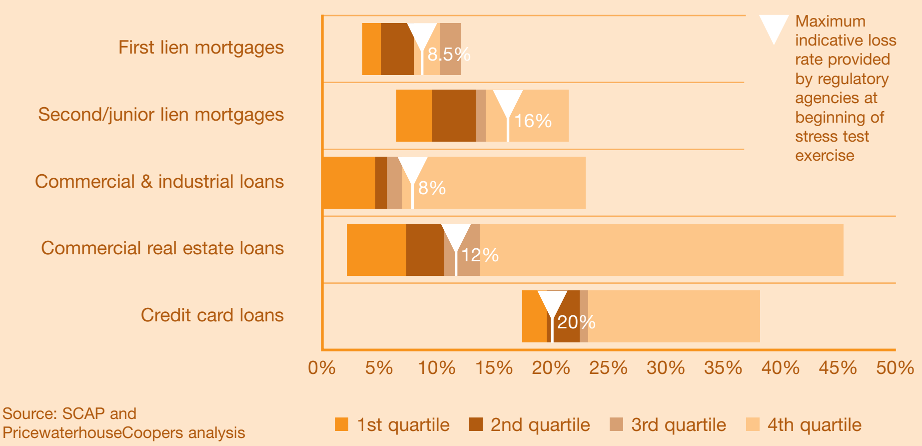
Impact on bank business models

Under the new restrictions, return on capital will take a hit – in the medium term, this is where management attention is likely to be focused. It remains unclear whether banks will be able to earn enough profits across all their asset classes and activities to support post-crisis expectations for capital and liquidity. This isn't necessarily a disaster – but banks will have to revisit and refine their business mix based on how each one stacks up in terms of its impact on future performance and returns on capital.

As evidenced by the size of future potential losses in some loan classes (see figure 2), banks will be forced to consider:
(1) carving out or spinning off assets, portfolios or businesses that consume more capital in stress scenarios;
(2) re-pricing lending risk and introducing more differentiated pricing for customers, products and businesses that are capital-intensive; and (3) other restructuring options to optimise their use of capital.

These considerations don't just impact lending businesses, but also sales and trading activities. If the regulators and other stakeholders prompt management to consider measures such as a stress Value-at-Risk (VaR) approach for capitalizing sales and trading businesses, capital requirements could be significantly higher. Projected stress test losses for five selected banks with trading assets greater than $100 billion represented, on average, nine times their two-week VaR, including a regulatory capital multiplier of three. As capital guidelines for sales and trading migrate from traditional VaR to stress VaR, banks will need to evaluate the impact in terms of returns and capital consumption.

Figure 2



Source: SCAP and PricewaterhouseCoopers analysis

Stress testing is the new norm

The crisis will pass, but stress tests are here to stay. Banks' own in-house tests will become a more integral part of business-as-usual activities, helping to inform business planning and forecasting, capital allocation, execution and performance evaluation processes. There's work to be done as banks make the transition to this new regime – some institutions have struggled to capture the data and perform the analytics required to respond to their regulators in an organised and effective way. The process is complex and involves all business units, treasury, finance and risk functions, and ultimately the chief executive.

Developing sustainable stress testing capabilities and processes is essential – we expect that stress tests and their subsequent capital and liquidity planning practices, including the vetting of new businesses, will gain prevalence relative to other internal risk management techniques. New scenarios will need to be generated and calibrated over time to capture changing macroeconomic conditions and emerging risks.

In addition, loss mitigation activities will continue to take centre stage – banks that acted quickly to mitigate losses have been able to create substantial benefits from their stress test results, but this process is still in its early stages in many consumer and commercial credit portfolios.

From a regulatory standpoint, the banking supervisors have elevated and formalized a more comprehensive, rigorous, forward-looking and collaborative process relative to their prior supervision of capital adequacy and management practices. Some aspects of the stress test exercise are likely to be incorporated into supervisory processes from now on.

Reinforced risk management and new disclosures

Risk management effectiveness needs to be certified by the executive management team and ultimately the board. Supervisors expect that, as part of the capital planning process, firms will need to review both their existing management and the board to ensure the leadership of the firm has sufficient expertise and ability to manage the risks it faces.

To meet this expectation – and to keep improving the effectiveness of risk management – executive management teams will need periodically to assess their institution's risk governance and oversight structures, culture and incentives, risk management and measurement processes, as well as resources and the supporting risk IT infrastructure. To be effective, this assessment should be conducted on a regular basis and independently of line management; it should be focused on identifying opportunities for improvement; and its results should be shared with the board of directors.

We expect banks to be transparent about stress test results and explain on an ongoing basis (i) their stress/scenario methodologies and any differences between their assumptions and those being used by the regulators, as well as (ii) the resulting capital management actions to investors.

Contacts

Fernando de la Mora
PricewaterhouseCoopers (US)
+646 471 5257
fernando.de.la.mora@us.pwc.com

Michael Shearer
PricewaterhouseCoopers (US)
+646 471 5035
michael.a.shearer@us.pwc.com

Dan Weiss
PricewaterhouseCoopers (US)
+703 918 1431
dan.weiss@us.pwc.com

Shyam Venkat
PricewaterhouseCoopers (US)
+646 471 8296
shyam.venkat@us.pwc.com

Fernando de la Mora
PricewaterhouseCoopers (US)
+646 471 5257
fernando.de.la.mora@us.pwc.com

For information on the PricewaterhouseCoopers Journal marketing programme please contact Áine Bryn, Marketing Director, Global Financial Services, PricewaterhouseCoopers (UK) on 44 20 7212 8839 or at aine.bryn@uk.pwc.com

For hard copies please contact Russell Bishop at PricewaterhouseCoopers (UK) at russell.p.bishop@uk.pwc.com

pwc.com