Bank Capital: Lessons from the Financial Crisis

What type of capital should banks hold to ensure that they can better withstand periods of stress?

The recent financial crisis demonstrated that existing capital regulation, in its design or implementation, was inadequate to prevent a panic in the financial sector. Once again governments around the world had to step in with emergency support to prevent a collapse. Widespread calls to reform bank regulation and supervision naturally followed. In redesigning capital standards, it is important to incorporate lessons from the latest crisis. Is capital regulation justified? What type of capital should banks hold to ensure that they can better withstand periods of stress? Should a simple leverage ratio be introduced to reduce regulatory arbitrage and improve transparency?

Since the first Basel capital accord, adopted in 1988, the prevailing approach to bank regulation has put capital front and center. The premise is that banks holding more capital should be better able to absorb losses with their own resources, without becoming insolvent or needing a bailout with public funds. In addition, by forcing bank owners to have some “skin in the game,” minimum capital requirements help counterbalance incentives for excessive risk taking created by limited liability and amplified by deposit insurance and bailout expectations. But many of the banks that were rescued in the latest turmoil appeared to be in compliance with minimum capital requirements shortly before and even during the crisis. In the current debate over how to strengthen regulation, capital continues to play an important role. A consensus is being forged around a new set of capital standards (Basel III) aimed at making capital requirements more stringent.

In a new paper Demirgüç-Kunt, Detragiache, and Merrouche investigate whether banks that were better capitalized experienced a smaller decline in their stock market value during the financial crisis. They use a panel of quarterly bank data for 12 countries over the period 2006–09 to study the impact of bank capital and its various definitions and components on changes in the market valuation of banks. If bank capital truly helps in curbing banks’ incentives for risk taking and in improving their ability to absorb losses, one would expect that when a large unexpected negative shock to bank value materializes—as was the case with the financial crisis that began in August 2007—equity market participants would judge better-capitalized banks to be in a better position to withstand the shock and that the stock price of these banks would fall less than that of poorly capitalized banks.

The authors also investigate which concept of capital was more relevant to stock valuation during the crisis. Existing capital requirements are set as a proportion of risk exposure. But if the risk exposure calculation under Basel rules did not reflect actual risk, equity traders might have considered capital measures based on cruder proxies of risk exposure, such as total assets, to be more meaningful.

Another issue is the quality of different types of capital used for regulatory purposes. As recognized by the Basel Committee, under current standards some banks were able to demonstrate strong capitalization while holding a limited amount of tangible common equity, which is the component of capital that is available to absorb losses while the bank remains a going concern. So it is important to see whether banks with higher-quality capital were really viewed more positively by equity market participants.

What do the results show? Before the crisis, differences in initial capital—whether risk adjusted or not, however defined—did not consistently affect subsequent bank stock returns. But during the crisis period the importance of capital for returns became evident, particularly for the largest banks in the sample. These are the banks of systemic importance, as well as those holding capital of lesser quality at the inception of the crisis. The results also show that during the crisis the stock returns of large banks were more sensitive to the leverage ratio than to the risk-adjusted capital ratio. This suggests that market participants viewed the risk adjustment under Basel rules as being more subject to manipulation or, at the very least, not reflective of true risk in the case of large banks. Finally, the results show that the positive association with subsequent stock returns is stronger for higher-quality capital (Tier 1 leverage capital and tangible common equity).

These results have potential policy implications for the current process of regulatory reform. First, they support the view that a stronger capital position is an important asset during a systemic crisis, suggesting that emphasis on strengthening capital requirements is appropriate. Second, they indicate that introducing a minimum leverage ratio to supplement minimum risk-adjusted capital requirements is important, because properly measuring risk exposure is very difficult, especially for large and complex financial organizations. But this finding also calls into question the usefulness of emphasizing risk-weighted concepts of bank capital, which remain at the core of Basel regulations. Finally, the results suggest that greater emphasis on higher-quality capital, in the form of Tier 1 capital or tangible equity, is justified.