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March 26, 2014

Do "Too-Big-to-Fail" Banks Take On More Risk?

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This post is the fourth in a series of twelve Liberty Street Economics *posts on Large and Complex Banks.*

In the previous post, João Santos showed that the largest banks benefit from a bigger discount in the bond market relative to the largest nonbank financial and nonfinancial issuers. Today's post approaches a complementary Too-Big-to-Fail (TBTF) question—do banks take on more risk if they're likely to receive government support? Historically, commentators have expressed concerns that TBTF status encourages banks to engage in risky behavior. However, empirical evidence to substantiate these concerns thus far has been sparse. Using new ratings from Fitch, we tackle this question by examining how changes in the perceived likelihood of government support affect bank lending policies.

A Measure of Government Support

Measuring government support is a challenge in itself. Some of the earlier work uses a measure commonly known as Moody's "uplift," which implicitly captures a bank's external support by subtracting its stand-alone rating from its all-in credit rating. Other studies rely on Fitch's Support Ratings. These measures, however, include not only the probability of government support but also support from the parent company. In our analysis, we use a new rating that Fitch started issuing in March 2007: the Support Rating Floors (SRFs). This rating uniquely isolates the likelihood of government support from other forms of support (such as from parent companies or institutional investors). In contrast to earlier measures, Fitch bases SRFs solely on its opinion of potential government support, that is, the will and ability of a government to support a bank.

To get a sense of the importance of that difference, let's consider the example of The Royal Bank of Scotland. RBS Group is the parent company of an international banking organization headquartered in Edinburgh (United Kingdom), and RBS is its largest banking subsidiary. As the chart below shows, from March 2007 to October 2008, RBS Group (the parent, in blue) had the lowest level of external support (support rating = 5), while RBS (the subsidiary, in red) enjoyed the highest level of external support (support rating = 1). By looking at support ratings only, we can't say if the strong support of RBS comes from the government or from RBS Group (the parent company). However, RBS's Support Rating

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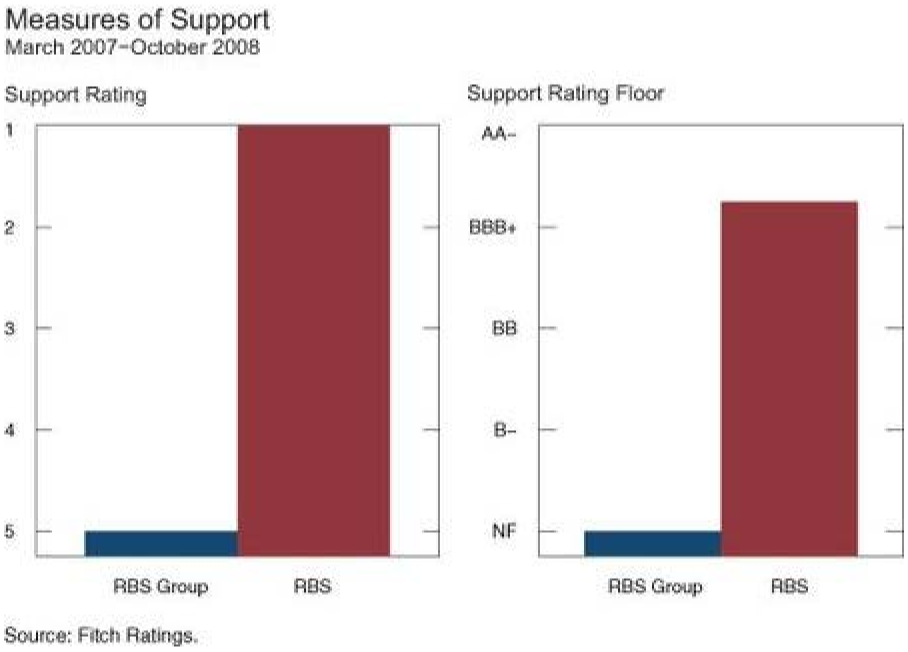
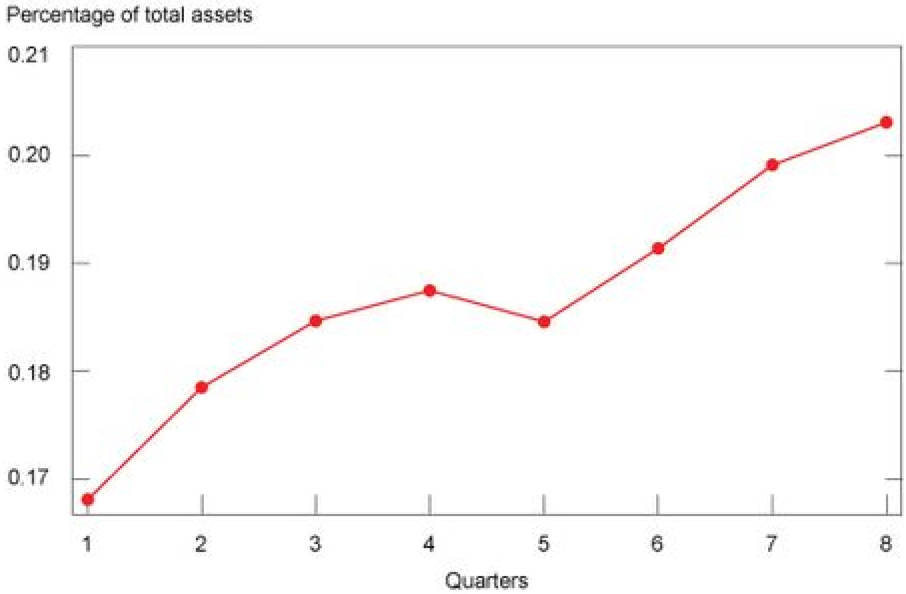
Floor (SRF = A-) tells us that there's strong perceived sovereign support.



Risk Response
Do TBTF banks engage in riskier activities? Put differently, does higher government support translate into riskier loan portfolios? To address this question, we build a panel of bank-level data for 224 banks in 45 countries that includes Fitch ratings and balance-sheet information from March 2007 to August 2013. We measure the riskiness of a bank's lending business by the ratio of impaired loans to total assets. Impaired loans are loans that are either in or close to default and are typically considered a good measure of the amount of bad debt in a bank's loan portfolio. In our sample, the average bank has an impaired loan ratio of 2.48 percent of its total assets.

Because a bank's response to government support might take time to show up on its balance sheet, we look at the effect on a bank's impaired loans one to eight quarters after a change in its SRF. The analysis also includes controls to account for other factors that may explain deterioration in a bank's loan portfolio. As shown in the chart below, stronger government support translates into a higher ratio of impaired loans. A one-notch rise in the SRF increases the impaired loan ratio by roughly 0.2—an 8 percent increase for the average bank. Importantly, this effect steadily increases through time and persists even eight quarters after a change in support.

Impaired Loans



Source: Authors' calculations, based on data from Fitch Ratings and Bankscope.
Note: Circles represent significance at the 5 percent level.

We find similar results when we look at the effect of changes in government support on net charge-offs, a related measure of bad debt in bank loan portfolios. Moreover, this effect is still present when we zoom in on U.S. banks only. In our recent paper, we present robustness analysis that confirms these results. Our findings therefore lend support to the claim that "Too-Big-to-Fail" banks engage in riskier activities by taking advantage of the likelihood that they'll receive government aid.

Disclaimer

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