Harvard Law School Forum on
Corporate Governance and Financial Regulation

SUPPORTED BY: pwc

Equity is Cheap for Large Financial Institutions: The International Evidence

Posted by Priyank Gandhi, Mendoza College of Business, University of Notre Dame, on Tuesday, July 19, 2016

Editor's note: Priyank Gandhi is Assistant Professor at the University of Notre Dame's Mendoza College of Business. This post is based on a recent paper authored by Professor Gandhi; Hanno N. Lustig, Professor of Finance at Stanford Graduate School of Business; and Alberto Plazzi, Assistant Professor of Finance at USI Lugano.

In countries around the world, governments and regulators are commonly perceived by market participants to offer special protections to the depositors, bondholders, and other creditors of large financial institutions in times of financial distress. A key question is whether these implicit and explicit government guarantees—collectively referred to as "Too Big to Fail (TBTF)"—also protect the shareholders of large financial institutions. In our paper, Equity is Cheap for Large Financial Institutions: The International Evidence, we set out to measure the effect of these implicit shareholder guarantees by closely examining the returns on stocks of large financial institutions.

The reluctance of governments and regulators to let large financial institutions fail can benefit the shareholders, even though they are last in line in case of a bank failure. In principle, regulators could insist on wiping out shareholders when bailing out large banks and other financial institutions, but, in practice, they may decide not to do so, because this could risk unduly complicating the bailout itself. In stock markets, the returns that stock investors expect are determined by the risk embedded in the underlying cash flows. If sophisticated stock investors correctly price the explicit/implicit guarantees in financial crises, we expect that, *all else equal*, the average realized returns on stocks of large financial institutions in a sample without financial disasters would be abnormally low, in anticipation of the guarantees kicking in.

This is the broad pattern that we detect in most countries, but the size of this effect varies significantly across countries. In a sample of 31 developed and emerging market countries, we find that the stock returns of the largest financial firms in a country have been remarkably low over long periods of time. Controlling for standard risk factors, the returns of large financial institutions are 10.47% lower per year than the returns on small financial firms within a country. This number stands out when compared with the modest spread between large and small non-financial firms which amounts at -2.52% over the same period. This result implies that large financial institutions can typically raise equity at a lower cost as compared to small financial institutions. This "subsidy" to the cost of equity capital for large financial firms is 2.68% of GDP of all countries in our sample. By 2000-2013, this figure increases to 3.45% of GDP.

While this phenomenon is pervasive across nearly all countries in our sample, we uncover significant differences between developed and emerging market countries. In developed market countries, only the largest banks exhibit lower (negative) risk-adjusted returns (-3.29% per annum), but we do not detect a similar premium for the largest insurance and real estate companies. The government's umbrella does not seem to protect the shareholders of non-bank financial institutions in these countries. By contrast, in emerging market countries, the spread is mainly attributable to negative risk-adjusted returns for large non-bank financial firms such as real estate investment companies. This finding is on account of the fact that, for many emerging markets, financial services are typically provided by non-bank institutions. As a case in point, the Indian financial institution HDFC, which is a leading provider of housing finance in India that also offers depository services to customers, is classified as a real estate investment institution but would also likely to be systemically important.

While we do not have smoking gun evidence that attributes these differences in average returns of large and small financial institutions to implicit government guarantees, we go through a number of exercises to rule out other potential explanations. First, we show that while risk-adjusted returns to large financial are exceptionally low, the returns on large non-financial stocks in the same country are not. Second, we relate the magnitude of this anomaly to the probability of regulatory/government intervention. An increase in the likelihood of intervention should translate into an even bigger spread in the cost of capital between large and small financial institutions, because that increases the value of the protection afforded to shareholders. Consistent with this idea, we show that the size of the large-minus-small financial institutions spread depends on the regulatory, policy, and institutional characteristics of a country. The spread is significantly larger in countries with deposit insurance. The magnitude of the effect also increases with the fiscal health of the government in a particular country, as expected: implicit bailout guarantees are only credible if governments have the resources to back up these promises. Sovereign risk is always a large determinant of bank stocks valuations, even before crises. Finally, we find that the expected return gap between small and large banks also increases as the probability of a crisis increases.

Interestingly, the magnitude of the large-minus-small spread is significantly higher in countries with a common law legal system. The existing literature shows that shareholders are perceived to be better protected from expropriation in common law countries. Governments in these countries may be unable within the bounds of the law or reluctant to wipe out the shareholders of large financial institutions in the process of a bailout. There are some precedents to support this explanation. Recently, the U.S. courts ruled that the Federal Reserve had illegally taken a large equity stake in A.I.G. in 2008, thus expropriating its shareholders, while Fannie and Freddie shareholders have also challenged the Treasury's profit sweep in courts. We also find that this common law effect is mitigated by stronger corporate governance or creditor rights. This cross-sectional variation is not consistent with mispricing or behavioral biases, but instead provides compelling evidence that the pricing of equity of large institutions in financial markets reflects the presence of government guarantees.

The full research paper can be found here.