

Conference on Macro-Finance Linkages

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For many policymakers, the lesson of the financial crisis of 2007-09—and other similar events in the past—is that the disorderly failure of an important financial institution could have large macroeconomic costs. Faced with these costs, governments might well provide resources to an important financial institution to enable it to continue to repay its creditors in full. Such firms are often referred to as being “too big to fail,” or TBTF.

The Dodd-Frank Act says that one of its goals is to end “too big to fail.” To achieve that goal, the act makes a number of changes in the regulatory landscape. Regulatory agencies are beginning to implement these changes.

But how will we know if these changes in laws and regulations are working? I think that there is no way to answer this question without a measure—or preferably a range of measures—of the size of the TBTF problem. If these metrics remain high, then we know that we need further supervisory, regulatory or possibly legislative changes. If those measures are low, then the TBTF problem is small, and we can conclude that the current approach to dealing with TBTF is, in fact, an effective one.

At the Federal Reserve Bank of Minneapolis, we are highly interested in developing and tracking these kinds of measures of the TBTF problem. This interest follows naturally from the line of thinking about the TBTF problem emphasized by my predecessor, Gary Stern, and my current head of supervision, Ron Feldman. Our preferred approach is to use market indicators as the basis for our metrics, along the lines that Chairman Bernanke sketched earlier this year.¹

¹ Chairman Bernanke made the case for sizing TBTF expectations via market prices indicators. See the following exchange from Chairman Bernanke’s press conference held April 25, 2012: “Q: What in your view is a litmus test

In my remarks today, I'll describe two current market-based approaches that gauge the size of the TBTF problem. Then I'll discuss a limitation of these two market-based approaches—a limitation that seems to be shared by other available market-based approaches as well. I'll close by highlighting this limitation as a key area for future research. Before I continue, I need to remind you that all views expressed in these remarks and during the discussion are my own, and not necessarily those of others in the Federal Reserve.

Measurement

I'll begin by describing two of the currently available market-based approaches for measuring the size of the TBTF problem.

The first approach relies on a combination of credit ratings and market prices. The method examines the difference—typically called the “uplift” —between two types of credit ratings: one that accounts for potential external support and one that does not. Market data can then be used to translate the uplift—the difference in credit ratings—into a difference in borrowing costs. By scaling this borrowing cost by the size of the bank's risk-sensitive liabilities, a measure of the TBTF problem can be obtained for that bank. Andrew Haldane of the Bank of England has

that will allow us to know that we can achieve ending too big to fail through Dodd-Frank? A: If we can safely unwind a failing firm, then we no longer have too-big-to-fail, obviously, and so I think that's a very, very important objective. The test would be that the financial markets that lend to large firms base their bond spreads and what they're willing to pay for the stock of those firms solely on the risk-taking and on the business model of those firms, and not on the fact that there's some anticipation of a government bailout. So I think market indicators will help us see our progress towards ending too big to fail.” See federalreserve.gov/mediacenter/files/FOMCpresconf20120425.pdf for the transcript.

exploited this approach to great effect. Based on this analysis, he argues that the size of the TBTF problem—both here in the United States and globally—remains substantial.²

The second approach is typical of a more complex method that relies on market prices, specifically the relationship between market prices, measures of TBTF status and measures of risk. We've done some work using this approach here at the Federal Reserve Bank of Minneapolis. We examine pricing on credit default swaps for large bank debt likely considered TBTF and for debt issued by other financial firms not likely considered TBTF. We use a standard model to estimate the likelihood of firm default. We calculate the statistical relationship between the measure of default and the credit default swaps prices. We compare that relationship for the likely TBTF firms to the firms not considered TBTF. The connection between credit default swaps prices and estimated default probabilities should be relatively lower for the TBTF firms that are seen as being more likely to receive government support. Our preliminary work using this approach indicates that the size of the TBTF problem has fallen over the past couple of years but remains large.

A Conceptual Limitation

Let me turn to describing what I think we can and cannot learn from the approaches that I've described and from other currently available market-based metrics. In my description, I'll ignore some possible sources of error, like the use of potentially flawed credit ratings or statistical models of default. It's not that I don't see those possible sources of error as important—it's more

² See Haldane (2012).

that I'm sure that they will be the subject of intense scrutiny in future research.³ In contrast, I'll focus on what I see as an intrinsic conceptual limitation of the existing metrics that I believe also merits attention.

In describing this conceptual limitation, I think that it's helpful for me to start with a recent speech about "too big to fail" by William Dudley, president of the Federal Reserve Bank of New York.⁴

In his speech, President Dudley describes two kinds of policy approaches designed to treat the problem of TBTF. Some approaches—like higher capital requirements—attempt to reduce the likelihood of distress in an important financial institution. Other approaches—like living wills—attempt to reduce the social costs associated with that distress. I see this reduction in social costs as valuable because it reduces the incentive for a government to provide support to the relevant distressed financial institution.

The metrics that I've described are gauges of the *joint* impact of both kinds of policies. In particular, when the metrics are low for a given financial institution, it can be for one of two reasons. It could be that creditors believe that there is little likelihood of that financial institution becoming distressed. This would be a sign that the first kind of policies identified by President Dudley are working. Or it could be that creditors believe that it is unlikely that the government will provide support to the institution if it ever becomes distressed. This would be a sign that the second kind of policy measures are working.

³ For example, Kocherlakota (2010) describes a way to sidestep these measurement problems by using the market price of specially designed "rescue" bonds.

⁴ See Dudley (2012).

Measures of the joint impact of the two kinds of policy approaches are, I think, valuable. It is clear that the TBTF problem is small if living wills work so well that there is little or no likelihood of a distressed financial institution ever receiving support. But I would suggest too that the TBTF problem is also small if creditors perceive that, because of either economic conditions or capital requirements, there is little likelihood of important financial institutions becoming distressed. To use an analogy, some observers have expressed concern about emergency federal flood assistance creating a moral hazard problem. But, even if the government stands ready to provide full assistance to all in the event of a flood, I would expect the impact of the relevant moral hazard problem to be low for a house in the 10,000 year flood zone.

So I do see the current metrics as being of use. Nonetheless, it would be desirable to augment them with metrics that could distinguish the impacts of the two kinds of policy measures. Similarly, TBTF metrics could improve simply because creditors' assessments of future macroeconomic conditions improve. It would be desirable too to have a way to strip out the effects of this particular factor on our metrics. Technically, we would like to be able to use market-based information, and other data sources, to obtain projected levels of TBTF support that are *conditional* on specific economic events. The current measures average across these events to obtain an *expected* level of TBTF support.⁵

⁵ Technically, this expectation is taken with respect to a relevant risk-neutral probability density.

Conclusions

Let me wrap up.

Congress has mandated that the Federal Reserve make monetary policy so as to promote price stability and maximum employment. In recent remarks that I made in Duluth, Minnesota, I stressed the importance of using metrics about the inflation and unemployment outlooks to gauge the appropriateness of monetary policy in light of those congressionally mandated objectives. Without these metrics, it is challenging to know whether monetary policy is overly accommodative or not.

This same general point applies to supervision and regulation. The Dodd-Frank Act mandates an end to “too big to fail.” But the public can only hold Congress and its delegates responsible for achieving this mandate if there are quantitative measures of the size of the TBTF problem. The Minneapolis Fed continues to work toward constructing, and publicizing, such measures.