

# CAPITAL REQUIREMENTS: HITTING SIX BIRDS WITH ONE STONE

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Financial reform has to cover a huge amount of public policy goals. However, one part of reform has the ability to boost the efficacy of the other, crucial parts of financial reform. That reform is the regulation of capital requirements, or the mix of equity and leverage that financial firms use to carry out their business. The proper regulation of capital requirements has the ability to hit six different financial reform birds, all with one stone.

These six birds are solvency, risk management, ending “too big to fail” through resolution, preventing liquidity crises in the shadow banking sector, right-sizing the scale and scope of our largest financial institutions, and designing financial regulations with an eye towards preventing bubbles.

Much has already been done, and more is forthcoming when it comes to this area. Indeed the very first part of The Dodd-Frank Wall Street Reform and Consumer Protection Act, Title I, gives regulators broad powers to determine capital requirements going forward. Indeed, the Dodd-Frank Act requires regulators to take risks to the system as a whole into account, with “large, interconnected financial institutions” subject to “prudential standards...more stringent than the standards and requirements applicable to nonbank financial companies and bank holding companies that do not present similar risks to the financial stability of the United States.”

However much of the work on capital requirements either waited for, or was developed alongside, the global regulatory standard Basel III. Created by the Basel Committee on Banking Supervision and still under revisions, Basel III is a major overhaul of capital regulators that is slowly being imported to the United States. There still is much work to be done, with large parts of capital requirements underdeveloped and not sufficient for the task of bringing stability to the global financial sector.

With the reform of capital requirements, what are the details of the six associated benefits to financial reform at large? Or, to continue the metaphor, what are the six birds?

## **1. Solvency: Making Firms Less Likely to Fail**

As we saw in 2008, the amount of capital with which banks finance themselves proved too low to deal effectively with the financial crisis. Banks often had as little as 3 percent in equity, leaving little room to deal with a downturn. The crisis required extensive backstopping from the Federal Reserve and extensive, coordinated bailouts from Congress to prevent the total collapse of the system.

The United States never adopted the Basel II accords, which used a technique of “risk-weighting” to determine the asset level that was used to determine an appropriate capital ratio. If an instrument had a risk-weighting of 50 percent, half as much capital would have to be held than if the risk-weight was 100 percent.

This technique came under extensive criticism even before the financial crisis.<sup>1</sup> Under the United States adoption of Basel III, two tests will determine the capital ratios. The first test will still use risk-weighted assets. There will be a requirement of 8 percent total capital. This is broken down with common equity tier 1 (CET1) requiring 4.5 percent, additional tier 1 requiring 1.5 percent and tier 2 requiring 2 percent.

In addition, there is a capital conservation buffer of 2.5 percent, a countercyclical buffer of up to 2.5 percent, and a potential surcharge for systemically risky large financial institutions yet to be determined. These will be discussed below.

These rules were finalized in July of 2013. If regulators or Congress decide to readdress this, relying more on CET1 and less on substandard forms of equity is crucial. As it stands, these levels remain very low when it comes to risk-weighted assets.

It’s worth noting that the economic costs of raising capital requirements is low and second-order, while the benefits are large and public. As Anat Admati argues persuasively in “The Bankers New Clothes,” equity requirements adjusts the funding but not the activities of our largest financial institutions. The return on equity is not fixed but instead a price that adjusts depending on the overall funding mix. As Admati and Hellwig note, to the extent it does increase, “the main reason that total funding costs of banks might increase as a result of higher equity requirements is that with more equity banks would be less able to benefit from guarantees and subsidies, which come at the expense of taxpayers.”

As former governor of the Bank of England Mervyn King said, “Those who argue that requiring higher levels of capital will necessarily restrict lending are wrong. The reverse is true. It is insufficient capital that restricts lending.” As Thomas Philippon has found, a simple, annual unit cost of finance has been relatively stable over periods of time with remarkably different background capital requirements over the 20th century, implying that capital requirements play a very small role in terms of industry-wide fundamentals.<sup>2</sup>

## **2. Risk Management: Relying Less on Models and the Ratings Agencies**

U.S. regulators have rightfully been skeptical about risk-weighting of assets. There is a second approach in Basel III that is meant to balance against the benefits and problems of risk-weighted assets. This approach involves expanding the role of leverage requirements, requirements that were already a part of U.S. banking regulations.

Leverage ratios are not-risk based, and as a result they are seen as a backstop against risk-weighted results. A leverage requirement is the ratio of tier-one capital against total leverage exposure, not including off-balance sheet exposures.

These two different ratios—risk-based and leverage—supplement each other, and play off each other's strengths and weaknesses. A sole leverage requirement gives firms an incentive to take on more risks by having a smaller balance sheet loaded with riskier assets. However, a leverage ratio corrects for well-known errors in risk-based models. They each will bind in different circumstances, providing a check on each other and on the financial firm itself.

Note that a significant amount of research indicates that leverage requirements are associated with substantial stability and lack of bank financial distress. This is unique among other metrics. There is significant evidence that higher leverage requirements provide both bank level benefits in terms of micro-prudential regulations as well as macro-level benefits in terms of preventing contagion and systemic risk.<sup>3</sup>

As of July 2013, the proposed rule is to have a 4 percent leverage requirement across all institutions. However, for global, systemically important banks, or roughly the eight largest U.S. bank holding companies, there will be a supplemental leverage requirements (discussed below). That buffer will function like the capital conservation buffer (also discussed below). As it is breached, a bank will be limited in how it can dispense bonuses and capital purchases.

This is problematic on both the numerator and the denominator. A 5 percent leverage requirement still puts the system at risk, as it is not substantially higher than what came before. The 2 percent buffer in the leverage requirements is smaller than the 2.5 percent risk-weighted buffer.

Meanwhile, and even more importantly, the denominator doesn't include a sufficiently high enough level of assets as the Federal Reserve has currently written the rule. Even the Basel Committee understands this, and is currently moving to expand their definition of the denominator. In a recent paper<sup>4</sup>, they've moved to change the denominator to include derivatives and their collateral, repurchase/reverse repurchase agreements, and off-balance sheet treatment.

Under the current U.S. definitions, the denominator doesn't include off-balance sheet exposures at a sufficient level. Indeed, according to one set of estimates, "the denominator of the Basel III supplementary leverage ratio is roughly 43 percent higher than the denominator of the U.S. leverage ratio."<sup>5</sup>

U.S. regulators have indicated that they'd revisit the issue of the denominator in their leverage ratios once the Bank for International Settlements has come to consensus on

the best practice. This paper strongly encourages regulators to follow through on this important piece.

### **3. Resolution: Making the End of “Too Big To Fail” More Credible**

Implementing Title II of the Dodd-Frank Act, the “ordinary liquidation authority” (OLA), often referred to as resolution authority, is seen as crucial to both ending “too big to fail” as well as addressing the problems of the financial crisis.

However, the OLA doesn't exist in a vacuum. Capital plays an essential role in any successful resolution. Higher levels of capital will help with resolution by making it less necessary, and also giving regulators more space to act when problems arise. Indeed, there are two very specific roles capital ratios play in determining a successful resolution.

The first is using capital requirements to force regulators to act. Regulators, in practice, and even in the last crisis, have often delayed putting financial institutions into receivership, in the hopes that problems will take care of themselves. This problem was addressed for commercial banks in the early 1990s through a process known as “prompt corrective action,” which forces changes by both regulators and firms if capital falls below a certain threshold.

This is also part of Basel III. There are two “conservation buffers” mentioned above, with one for risk-weighted assets (2.5 percent) and one for leverage (2 percent). If a firm breaks into these buffers, they receive limitations on both their ability to pay bonuses and make capital purchases. This is meant to force banks to seek recapitalization, as it incentivizes shareholders and internal managers with the needs of regulators seeking well-capitalized banks.

The second role capital ratios may play in resolution is a potential requirement to oblige the largest and riskiest financial firms to hold long-term, subordinated, unsecured debt that is convertible to capital once a bank has failed. This won't necessarily help the bank stay in business once it is failing. It will, however, give the Federal Deposit Insurance Corporation (FDIC) debt to work with once the bank has failed. Thus holding some substantial portion of debt in subordinated debt where the rules are signaled ahead of time, which falls under capital requirements, can make the job of the regulators much easier in times of crisis and stress.

This doesn't replace the role of equity as it is described here, but it does make the job of resolution, which everyone agrees is an essential part of financial reform, more dependable. It is unclear whether or not the OLA will work, and even the terms under which “working” will mean something. A crucial element of a successful OLA process is regulators intervening early while a single-point-of-entry strategy is still workable. If losses are so severe that they have to be imposed at the subsidiary level, then single-

point-of-entry will have significant troubles. Giving regulators space through capital buffers, plus predetermined debt to use in a resolution, will help make FDIC's job easier and keep taxpayer money from being at risk.

#### **4. Liquidity Crisis: Helping Bring Order to Shadow Banking**

We should distinguish between a crisis generated by a firm being insolvent versus a crisis triggered by concerns over the liquidity of a financial firm. The overreliance on short-term funding for large, systemically important financial firms generated panics and made the crisis in 2008 significantly worse. When creditors providing short-term funding started getting worried about the firm's ability to meet their obligations, they raised their terms, which began something akin to a bank run. This will be a condition of any crisis, where it is hard to sell assets in order to make payments.<sup>6</sup>

Basel III introduced a "liquidity coverage ratio" (LCR) designed to make sure banks have enough high-quality assets that can be turned into cash in order to survive a 30-day period of funding stresses. By encouraging financial firms to capitalize for the long-run, they'll lose a regulatory arbitrage they have over commercial banks that allows them to compete for the same business while using cheaper funding. This will also encourage financial firms to focus on long-run survivability by using funding that is less likely to disappear in a panic.

A liquidity rule will be necessary. The makeshift backstop for liquidity in the 2008 crisis was the Federal Reserve's 13(3) powers. However, these have been significantly curtailed as a result of the Dodd-Frank Act, with only broad-based funding available.

In January 2013, the Basel Committee made certain changes significantly weakening the LCR's requirements. First, it moved from two levels of assets, level 1 and level 2, to three. It also includes equity with a 50 percent haircut, as opposed to the 15 percent haircut assets in Level 2A will get. Equity is a poor choice for a liquidity buffer, as its value is directly correlated with a crisis. It is least likely to be there when needed, which is the purpose of a liquidity buffer. The other major change was reducing the "outflow rate" for liquidity facilities and corporate deposits, among other outflow sources.

Regulators recently proposed a LCR rule, with Federal Reserve Board Governor Daniel Tarullo arguing that the "proposed Liquidity Coverage Ratio we review today is 'super-equivalent' to the Basel Committee's LCR standard."<sup>7</sup> This new rule makes two crucial distinctions.

It is graduated, which is important for dealing with the largest financial institutions (see below). Firms with more than \$250 billion in total consolidated assets are subject to the entire rule, while firms with \$50 billion in total assets are subject to a lighter version of the rule. Crucially, the rule goes beyond the final Basel III rule, importantly limiting the range of assets that will qualify as well as the assumed rate of outflows.

Due to their lack of liquidity, covered bonds, mortgage-backed private-label securities and municipals are excluded in the proposed rule.

As U.S. regulators consider how to implement the LCR, this stronger implementation should be the focus. Changes to it should be placed under strict scrutiny. Exposure to short-term funding exacerbated the financial crisis, bringing in more panic, contagion and risk than would have occurred otherwise. Particularly with the unstable nature of liquidity facilities, a quick draw down is something that can happen easily in times of crisis.

### **5. Size: Pricing Size and Complexity Among the Largest Financial Institutions**

U.S. regulators have yet to propose Basel III rules for the capital surcharge for systemically important financial institutions (SIFIs). Regulators are expected to announce a SIFI surcharge around the end of this year.<sup>8</sup> If it is in line with Basel III, it will be on the order of 2.5 percent of risk-weighted capital.

A strong implementation of a SIFI surcharge is important for four different reasons. The first is that it internalizes risks a firm poses to the financial system as a whole to the individual firms themselves. To the extent that the largest, most risky, firms pose risks to the system as a whole, they should be required to fund themselves with more equity and maintain a stronger balance sheet.

A related second reason is that it would combat the widespread notion that the largest banks receive a backstop from the federal government. For reasons both economic and political, a serious surcharge would send a signal to the market that the largest institutions will be under heightened scrutiny, as called for by the Dodd-Frank Act. There have been significant debates over whether or not the largest financial firms receive special funding treatment in the capital markets as a result of being seen as “too big to fail.”<sup>9</sup> This will help combat both the appearance and the substance of said treatment.

A third reason is that it would help control the size and scale of our largest financial institutions. As a result of the financial deregulation of the past 30 years, there has been a massive consolidation at the top end of the financial industry. The top five banks went from 17 percent of total industry assets in 1970 to 52 percent in 2010.<sup>10</sup>

Efforts to put size caps on large financial institutions, which received some votes in the Senate, as well as some support among commentators, have failed.<sup>11</sup> These caps, usually in the form of non-deposit liabilities as a percentage of GDP, are unlikely to become law anytime soon. A surcharge would do some of the work a size cap would, making sure that increases in size and risk among megabanks would be a function of economic efficiency, instead of just a function of government backstops and hopes of future bailouts.

A fourth reason is that it would make the OLA more practical and much more likely to work. The chief FDIC regulator has stated that size alone can make a successful OLA procedure more difficult to pull off.<sup>12</sup> The OLA is an untested solution to a major policy problem; efforts to boost its effectiveness at the margin are crucial. Even if successful, taxpayer funds are potentially used to provide backstop liquidity to the process, to be recouped later. Taxpayers are correct to demand a more extensive surcharge here.

There are two steps here: increasing the risk-based capital for the largest firms, and increasing the leverage ratio as well. The risk-based capital surcharge should go above what Basel III calls for, as the size, influence and risk of the largest firms are the issue that still remains most in doubt in the political economy of the United States after the financial crisis.

However, regulators have already taken some steps to incorporate a surcharge for size when it comes to leverage ratios. The largest firms, with assets over \$700 billion in consolidated total assets, will be subject to a proposed “supplementary leverage ratio” (SLR), where insured depository subsidiaries of the holding company will have a 6 percent leverage ratio, and the consolidated holding company will be at a 5 percent ratio.

As mentioned above, while a promising step, this is still far too low of a leverage ratio, given the numerous benefits it would have for financial stability. But as Americans for Financial Reform (AFR) note, there is a dangerous precedence in introducing a potential regulatory arbitrage here.<sup>13</sup> As AFR notes, “if the consolidated capital ratio is lower than the capital ratio at depository subsidiaries, then the depository subsidiaries will implicitly be serving as a source of strength to the rest of the holding company, which reverses the principles of U.S. banking law.”

In addition, note that even with the SLR, after the surcharge it is likely that the gap between the leverage ratio and the risk-weighted capital ratio will grow. This will introduce additional risks into the regulatory environment by downplaying the balance between the two. Regulators should keep this in mind when debating the final size of the SLR.

## **6. Macro-prudential Regulation: How the Federal Reserve Will Manage the Credit Cycle**

There have been widespread worries, even before the crisis, that risk-weighted capital requirements are procyclical. That means that they tend to be lower when the economy is heating up and higher when the economy is weak, which is generally the opposite of what should be happening. By fundamentally being backward looking, they generate lower requirements when a market is in a bubble.

Meanwhile, central banks in general, and the Federal Reserve in particular, have been looking at the interplay between monetary policy, credit allocation and full employment. There is concern among some policymakers that a monetary policy aggressive enough to ensure full employment will necessarily endanger the stability of the financial sector.

The exact wrong lesson to draw from this relationship, if it exists, is that the economy as a whole should live with a lower level of production and GDP, and a higher level of idleness and unemployment, in order to protect the financial sector.<sup>14</sup> The correct way would be to structure financial regulations to lean against this trend, and counter-cyclical capital ratios will be the front line of this effort.

The research into this field is still young. However, the biggest fear should be that regulations won't push on this tool to ensure financial stability when the time comes. Stricter guidelines and public disclosures should complement the Federal Reserve's actions here. It may be that the Federal Reserve, instead of just announcing a single interest rate, also announces several other metrics that it uses to ensure full employment and price stability—something like the ratio on bank capitalization. It's important that regulators provide space and resources for additional studies here, while laying the groundwork for this transition.

## **Conclusion**

Capital requirements are a clean, straightforward way of increasing the stability of the financial sector. Not only that, they also make other parts of financial reform easier to implement. It's because of this realization that experts from the left and the right, as well as ex-regulators and current industry stakeholders, all agree: stronger and smarter capital requirements for large financial institutions can and should be implemented.<sup>15</sup>

However, it should be noted that hitting, not killing, six birds is the extended metaphor of this piece, and the word choice is conscious. Higher capital requirements will not absolve regulators from having to design a system for the clearing and transparency of derivatives, or a legal regime to allow banks to fail without engendering systemic risk. But capital will, in fact, make these easier, putting less pressure on regulators by providing a secondary layer of protection and solvency for the system as a whole.

However, capital requirements are coming in too low. Large systemically-risky financial institutions should carry significantly more capital, with leverage ratios approaching 10 percent and a risk-weighted buffer above that. In addition, their capital ratios should be designed to facilitate the FDIC's ability to resolve such institutions, they should hedge against liquidity risks, and they should help maintain the credit cycle against the broader economy. Also, the most expansive definition of assets should be used in the calculations of ratios. The public benefits of these goals are numerous and the costs are negligible.

The United States is a little more than halfway through the implementation of new, post-crisis capital requirements. There is still significant rule writing to be done, and old rules can be revisited. Understanding how important capital is, and how it both strengthens all the other parts of financial regulations while making it less vulnerable to any one failure, will be essential to having a financial sector that works for the real economy.

## Endnotes

1. See Daniel K. Tarullo, "Banking on Basel: The Future of International Financial Regulation," 2008.
2. Sir Mervyn King, "A Governor looks back – and forward," Jun 19 2013. Thomas Philippon, "Has the U.S. Finance Industry Become Less Efficient? On the Theory and Measurement of Financial Intermediation."
3. David G Mayes, Hanno Stremmel, "The Effectiveness of Capital Adequacy Measures in Predicting Bank Distress." Andrew G Haldane, "The Dog and the Frisbee."
4. Basel Committee on Banking Supervision, "Consultative Document: Revised Basel III leverage ratio framework and disclosure requirements," June 2013.
5. Davis Polk, "Basel III Leverage Ratio: U.S. Proposes American Add-on; Basel Committee Proposes Important Denominator Changes," July 19, 2013.
6. See, generally, Gary Gorton, *Slapped by the Invisible Hand*
7. Donna Borak, "How Regulators Toughened New Liquidity Proposal," *American Banker*, October 24, 2013.
8. See Governor Daniel K. Tarullo, *Dodd-Frank Implementation*, Before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, Washington D.C., July 11th 2013.
9. See, for instance, Bloomberg News, "Remember That \$83 Billion Bank Subsidy? We Weren't Kidding." *The Ticker* Editors, Feb 24, 2013.
10. See "Testimony of Wallace C. Turbeville, Senate Committee on Banking, Housing and Urban Affairs," May 9, 2012.
11. "Banks Are Too Big to Fail Say ... Conservatives?" David Dayen, *American Prospect*, March 21st, 2013. <http://prospect.org/article/banks-are-too-big-fail-say-conservatives>
12. Remarks by Martin J. Gruenberg Acting Chairman, FDIC to the Federal Reserve Bank of Chicago Bank Structure Conference; Chicago, IL May 10, 2012.
13. See Comment Letter by Americans for Financial Reform, "Regulatory Capital Rules: Regulatory Capital, Enhanced Supplementary Leverage Ratio Standards," October 21, 2013.
14. For one summary of this debate see Narayana Kocherlakota, "Low Real Interest Rates," April 18, 2013
15. See Adam Davidson, "Did We Waste a Recession?" *New York Times*, August 6, 2013.

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