Simple Rules for Financial Stability

John B. Taylor

Economics Working Paper 13106

HOOVER INSTITUTION
434 GALVEZ MALL
STANFORD UNIVERSITY
STANFORD, CA 94305-6010

April 9, 2013

This is a written version of remarks given at the Financial Markets Conference at the Federal Reserve Bank of Atlanta. It discusses three interrelated proposals to bolster and maintain financial stability: Reforming the rules of bankruptcy to handle larger financial institutions with minimal disruption, putting aside plans for temporary countercyclical capital buffers in favor of setting permanent, appropriate capital and subordinated debt ratios, and moving back to a more rules-based monetary policy.

Simple Rules for Financial Stability

John B. Taylor[1]

Dinner Keynote Address at the Financial Markets Conference
"Maintaining Financial Stability: Holding a Tiger by the Tail"
Federal Reserve Bank of Atlanta
Stone Mountain, Georgia
April 9, 2013

Thank you for the opportunity to speak at this conference on financial stability. I would like to use the opportunity to discuss three interrelated proposals to bolster and maintain financial stability. The first would reform the rules of bankruptcy to handle large financial institutions with a minimum of disruption. The second would put aside any plans for temporary countercyclical capital buffers and focus macro-prudential policy simply on setting permanent and appropriate capital and subordinated debt ratios. The third would start to move back to a more rules-based monetary policy. Taken together these proposals would constitute a sound overall strategy to improve financial and economic stability.

Bankruptcy Reform

Reform of the bankruptcy code to deal with large financial institutions is now overdue. In the five years since the financial crisis, there has been much useful work and discussion on why and how to proceed with reform—both before and since the passage of the Dodd-Frank Act. Books and articles have been written.[2] Conferences have been held. Government reports have been issued, including by the Federal Reserve Board and the Government Accountability Office.[3] And private working groups and research projects are refining proposals.[4] But the time for study is ending, and the time for action is now.

An important reason for reform is that large financial firms still seem to be enjoying a huge subsidy on their borrowing costs due to market expectations of bailouts. According to a widely-cited Bloomberg calculation, based on an International Monetary Fund study, the subsidy mounts to $83 billion per year.

To be sure some, including policy makers who would have a role in a government bailout decision, disagree with this assessment. For example, in response to questions about market

---

[1] Mary and Robert Raymond Professor at Stanford University and George P. Shultz Senior Fellow in Economics at Stanford's Hoover Institution. I thank Thomas Jackson, Kenneth Scott, David Skeel, and Emily Warren for helpful comments and discussion.

[2] See, for example, Scott, Shultz and Taylor (2010), Fitzpatrick and Thomson (2011), Scott and Taylor (2012).

[3] See Board of Governors of the Federal Reserve (2011), Government Accountability Office (2011).

[4] For example, the Resolution Project of the Working Group on Economic Policy at Stanford's Hoover institution and the Failure Resolution Working Group at the Bipartisan Policy Center. An open question is how derivatives central clearing parties (CCPs) should be handled.

expectations of firm bailouts in recent Congressional testimony, Federal Reserve Chairman Ben Bernanke argued that "Those expectations are incorrect" because "We have an Orderly Liquidation Authority," referring to Title II of the Dodd-Frank Act which gives the Federal Deposit Insurance Corporation (FDIC) the authority to resolve those large financial firms if they fail.[5]

Yet, when you examine the Orderly Liquidation Authority (OLA) as currently on the books, bailouts—properly defined—still seem quite likely, and the estimated subsidies seem economically sensible. The new resolution authority is essentially a halfway house between direct bailouts, as occurred in the case of the 2008 TARP rescue of large financial institutions, and regular bankruptcy proceedings, as usually occurs for nonfinancial firms. While full liquidation with wiped out shareholders was a major selling point of the Dodd-Frank Act—that is the reason for the in L in OLA—in the years since the Act was passed the focus of the FDIC has been on how to reorganize the failing firm into an ongoing concern, rather than on its liquidation. Under this new authority the FDIC would transfer part of a failing firm's balance sheet and its operations to a new bridge institution. That is how simulations of the new authority—including the one organized by The Clearing House—have played out.[6]

In order to carry out this task, the FDIC would exercise considerable discretion with less transparency and reliance on the rule of law than in a bankruptcy proceeding. As a result there is confusion about how this process would operate, especially in the case of complex international firms. Indeed, some argue that policymakers would ignore it in the heat of a crisis and resort to massive taxpayer bailouts as in the past.

In any case it is likely that some creditors would be given more funds than they would have expected or been entitled to under bankruptcy. This action would violate the priority rules that underlie decisions about borrowing and lending in the entire credit market. The action would, by virtually any definition, be a bailout of the favored creditors It is important to recognize that these effects occur whether or not the source of the extra payment comes from the Treasury (taxpayers), an assessment fund (the industry), or smaller payments for less favored creditors.

This expectation of bailout of some creditors increases the risk of financial instability. Government regulation through capital or liquidity requirements and supervision is not the only way a financial firm's risk-taking decisions are constrained. Discipline is also imposed on the firm by its counterparties, so long as they perceive a need to monitor the firm and protect themselves from losses by demanding collateral or simply cutting off credit.

Creditors have significant advantages over government regulators, in terms of current knowledge, ability to act quickly, and financial stakes. And they are less subject to regulatory capture. As Mervyn King, outgoing Governor of the Bank of England explains, regulatory capture does not necessarily mean that "people were bought off but that the sheer weight of

[5] Bernanke (2013)
[6] The Clearing House (2012)

resources, time and legal effort put in by banks to try to persuade regulators that what they were doing was compliant with the rules made life extraordinarily difficult for the regulators."[7]

The expectation of bailouts of creditors weakens the incentives for them to monitor their loans and thereby provide this constraint on risk taking. Because the bailout reduces the risk incurred by large creditors expecting to be favored, they charge a lower interest rate, creating the subsidy of big financial firms.

Fed Governor Jerome Powell, reflecting on his experience with government bailout decisions going back a quarter century, questions whether the FDIC's new resolution authority under Title II would prevent bailouts. [8] "The too-big-to-fail reform project is massive in scope," he says, predicting it "will take years to complete. Success is not assured."

For these reasons too-big-to-fail is still alive and well. Even if hareholders are not protected, some important creditors will be. And discretionary actions will determine who the bailed out creditors will be.

A reform of the bankruptcy code designed to handle these firms would alleviate too-big-to-fail and all the problems it creates. Under bankruptcy, a failing firm can either go into liquidation under Chapter 7 or reorganization under Chapter 11. Let us focus on reorganization. Under bankruptcy law, losses are calculated according to prescribed and open procedures, known in advance. If the failed firm's liabilities exceed its assets, then the shareholders are wiped out. The remaining difference between liabilities and assets is then allocated among creditors in the order of priority stipulated by the law, which is also known in advance. The creditors' debts are written down and, sometimes, converted into equity in the reorganized firm. In the end, the firm continues in business with either the old or new managers. The bankruptcy law is now designed as a general procedure for a wide variety of businesses, but large financial institutions present special considerations which warrant the enactment of a new chapter in the U.S. bankruptcy code.

In my view, which is informed by the work of my colleagues on the Chapter 14 Resolution Project at the Hoover Institution and also by my experience in government, certain principles should guide such a bankruptcy reform:

- The new chapter of the bankruptcy code should apply to all financial groups with assets over a certain amount—the Resolution Project chose $100 billion.
- The bankruptcy should include, in a single proceeding, all the parent's subsidiaries, including insurance and brokerage services unlike current law where insurance and brokerage services are treated separately, adding considerable complexity. The one exception would be insured depository institutions, which would continue to be handled by the FDIC
- The proceedings should be overseen by a specialized panel of Article III judges and special masters with financial expertise.

[7] Question and answer session reported by Edwards (2013), p. 20. In the same session, Mervyn King also says that "One of the major problems in regulation in the last 10 to 20 years has been that of regulatory capture."
[8] See Powell (2012)

- The new chapter should allow the primary federal regulator of the firm to file a bankruptcy petition in addition to creditors and management. This would expedite the process especially in cases where management, fearing a loss of equity or employment, has incentives to put off a filing. The examiner's report on Lehman makes it very clear there was no preparation for bankruptcy proceedings before the filing, which increased the size of the disruption.
- The procedure to determine asset values, liabilities, sales of some lines of business, write-downs of claims, and recapitalization should be based on the rule of law with judicial hearings and creditor participation.
- The strict priority rules of bankruptcy should govern.
- The new chapter should provide special treatment for derivatives, stays and preferential transfers.
- The new chapter should provide the court with the authority to give post-petition debt to support advances a top priority, so as to allow the firm to obtain ample debtor-in-possession (DIP) financing from the private sector and to permit limited advance payments.

The goal of these provisions is to let a failing financial firm go into bankruptcy in a predictable, rules-based manner without causing disruptive spillovers in the economy while permitting people to continue to use its financial services without running—just as people flew on American Airlines planes, bought Kmart sundries and tried on Hartmax suits when those firms were in bankruptcy. These provisions make it possible to create a new fully capitalized entity which would credibly provide most of the financial services the failed firm was providing before it got into trouble. Modularization of the firm, which is in principle made easier by the living wills, would expedite the process.

An example illustrates how. Consider the hypothetical dealer bank Alpha, which Darrell Duffie (2010) defined in his excellent paper on how dealer banks get into financial trouble. Alpha is a holding company involved in a host of financial activities with many subsidiaries. Its business lines include securities trading and market making, underwriting, financial advising, over-the counter derivatives, prime brokerage, private wealth management, and even commercial banking.

Trouble begins when Alpha experiences a gigantic trading loss on both its own account and that of its clients. Then a natural series of events takes place. First, the company tries unsuccessfully to raise more capital. Next it uses some capital to compensate its clients for the trading losses. Then it sees its prime brokerage clients (mainly hedge funds who are hearing the news about Alpha) remove their cash and securities, and its derivative counterparties cut their exposure. Finally Alpha's clearing bank senses Alpha's insolvency and stops processing Alpha's cash and securities transactions in order to cut off its intra-day exposure.

At this time—suppose it is close of business on Friday—Alpha's primary regulator, who has been following these developments, must take action, whether Alpha's management likes it or not. It determines that Alpha is insolvent: its debts exceed the value of its assets. It then decides to place Alpha into the new bankruptcy chapter. The automatic stay and other

bankruptcy rules are triggered, and the bankruptcy proceeding starts, overseen by the Article III judges and their master experts.

By Saturday morning a new holding company, Alpha Nu, is created consisting of all the subsidiaries of Alpha and its other assets, and assuming all its secured long-term debt, executory contracts, and short-term liabilities.[9] Alpha, which is now in bankruptcy, is the owner of Alpha Nu: Alpha's long term unsecured creditors remain in the receivership. Importantly, however, Alpha Nu is not in bankruptcy. Indeed, it is ready to open for business on Monday morning.

Alpha Nu no longer has its original long-term unsecured liabilities and is now solvent with its equity owned by Alpha, or more precisely by Alpha's untransferred creditors. Rather than a government agency (such as the FDIC or a bridge bank under Title II), private parties, motivated and incentivized by profit and loss considerations, are making key decisions, perhaps subject to bankruptcy court oversight. And rather than discretionary bailouts of some creditors, the rule of law and established priorities prevails.

Note how this approach lets Alpha Nu remain open for business on Monday morning providing key financial services without experiencing runs. The firm and its operating subsidiaries are now capitalized, so there is little incentive for counterparties to run, and liquidity should be available from the market on appropriate terms. And because Alpha Nu is a viable firm, there is little chance of contagion.

Of course this process will have to be explained clearly to all participants. The availability of living wills, advanced preparation, and the expert masters working with judges would be essential to make the process credible. It is important to have a clear understanding with regulators that large financial firms should have sufficient long-term liabilities subordinated to short-term debt to capitalize the new firm. Such an understanding could be formalized by law, regulatory rule-making, or private contractual agreement.

Note also how there is little incentive to circumvent the bankruptcy process with a massive bailout. The pressure to bailout has been reduced by making it possible for the failing firm to go through bankruptcy without causing disruption to the financial system and the economy.

While the time for such a too-big-to-fail reform is ripe, you may be wondering how to get there from here. If you will permit me, an analogy from the time I served at the U.S. Treasury may be useful.

Just about ten years ago while I was Treasury Under Secretary, I made a proposal to change the resolution procedures for sovereign debt of emerging market countries.[10] The idea was to incorporate collective action clauses into their sovereign debt. Following my proposal—which was in the form of a general set of reform principles much as I listed here—the private sector—financial institutions, lawyers, investors, buy side, sell side, academics—got together with the official sector—governments and the international financial institutions—and crafted

[9] Technically this is accomplished according to the bankruptcy law through a Section 363 sale.
[10] Speech before the Institute for International Economics (Taylor (2002))

specifics which were eventually applied in practice. The new clauses were a factor in the greatly diminished use of bailouts for emerging market countries which followed.

A similar process with the financial institutions, regulators, members of Congress and academics working together toward a common reform objective is needed and welcome now.

Macro-Prudential Policy Reform

Now consider the second and closely related reform issue: Macro-prudential policy. One of the biggest policy questions emerging from financial crisis is whether and how to vary capital requirements over the business cycle. The Bank of England has already taken a step in this direction. It now has a new Financial Policy Committee which, working alongside its Monetary Policy Committee, has responsibility for taking "action to remove or reduce systemic risks" in part by changing capital requirements in a pro-cyclical way. This macro-prudential policy is supposed to work in coordination with traditional monetary policy to counteract credit and asset price booms.

The rational for such a policy is that monetary policy alone is incapable of moderating booms without inflicting severe damage on the economy.[11] Thus, according to this view, "macro-prudential policy" should include other cyclical policy instruments designed for financial stability. The most frequently discussed stability instrument thus far is a "pro-cyclical capital buffer" in which the central bank would require financial institutions to increase their capital ratio during periods when booms can be identified and to allow a relaxation of the requirement when the boom is moderating or turning into a bust. The idea is that banks would thus reduce credit growth in a boom and increase it in a slump. This would help moderate the booms and the cycle. More targeted instruments could also be varied cyclically, such as loan-to-value ratios on mortgages and the weights used to calculate required risk-weighted capital.

While this rationale may appear to make sense, it is wrought with problems. First, the historic evidence that monetary policy cannot contain excesses without inflicting enormous damage on the economy is questionable at best. Many cite the 2003-2005 housing boom period in the U.S. as a situation where pro-cyclical capital buffers were needed to supplement traditional monetary policy. But during this period the federal funds rate was well below what traditional monetary policy principles suggested was appropriate to contain excesses. If rates had not been unusually low and we still had rapidly accelerating housing prices, then the case for capital buffers would be more reasonable. But there is a lot of evidence that rates were too low.

Second, policymakers would have to use a great deal of discretion in implementing the policy. Little is known about the short-run dynamic impact of a temporary change in capital requirements, especially when people are forward looking and endeavor to understand the meaning of such a change. We may not even know the sign of these impacts. And policy lags can create classic unintended consequences in which the lagged impact of a temporary increase in the capital buffer occurs at just the time the bubble is bursting and greatly worsen the downturn.

[11] See Bean et al (2010) for a good summary of the rationale.

Another problem is coordinating these decisions with traditional monetary policy actions. The policy will likely bring the central bank into political controversy, especially if the instrument is targeted on sensitive sectors like housing. It will be very hard for central banks to take on another cyclically-focused discretionary policy instrument without completely overloading the system.

In principle, in order to reduce discretion and favor a rules based policy, policymakers could consider a feedback rule—a so called Taylor rule for capital buffers. Indeed, there has been some research on such rules using macro models, but it is still quite preliminary because the impact of changes in capital requirements is very hard to model let alone estimate or calibrate numerically.[12] While I love the model building and simulations, the stylized nature of the models and the instruments used in the simulations illustrates are very from a robust framework to evaluate such policies.

Rather than manipulating capital buffers in this complex and temporary way a more effective approach is simply to set the required capital ratios at an appropriate level on a permanent basis and keep them there. This automatically will create a more predictable environment for decision making. Ideally, the appropriate amount of capital should be decided in conjunction with an appropriate amount of subordinated long-term debt to facilitate the orderly bankruptcy as in the Alpha Nu example

Current capital ratios for the largest U.S. financial firms which are considered systemic are remarkably low on a tangible equity-tangible asset basis. The average for the eight largest global systemically important financial institutions is only 6% using Generally Accepted Accounting Principles (GAAP) and only 4% using International Financial Reporting Standards (IFRS), far less than the 13% which includes intangibles and uses risk weighting.[13] So there is room to raise capital requirements from current levels especially if you provide some flexibility by considering a mixture of capital and subordinated debt. It would also help to cut back on the enormous number of new regulations and rule writing that is going on now.

Of course, the capital ratios should be commensurate with both the firm-specific risks that regulators and supervisors are responsible for monitoring but also the macro risk that large financial institutions can create. And the required ratios must be enforced rigorously. That macro as well as micro factors are taken into account should reduce the problem of regulatory capture.

The Reforms as Part of a Broader Rules-Based Strategy

Bankruptcy reform and appropriate capital requirements should be viewed as part of a broader strategy of financial and economic stability which obviously also includes monetary policy. I have argued that the highly discretionary monetary policy in recent years—starting with the too-low-for-too-long period in 2003-2005 and continuing into the post-2008 panic

[12] Nakornthab and Rungcharoenkitkul (2010) and Bean et al (2010) simulate simple models in which a macro-prudential instrument (a tax on bank capital for Bean) can be varied along with the interest rate.
[13] See Hoenig (2013) who provides detailed calculations for the eight largest U.S. banks and many foreign banks.

expansion of reserves on a massive scale, quantitative easing, operation twist, and various forms of forward guidance about the zero rate—have been creating risks and have been adversely affecting the economy.[14]

I warned about these risks in a dinner speech at this conference series four years ago, and placed them in context of the more general problem with the expansion of interventionist government policies. Like everyone else I am disappointed with the poor economic performance of low economic growth and high unemployment since then, which, in my view, is the result of these policies.

I do not need to repeat those concerns tonight other than to say that the risks created by these policies worsen the financial stability problems that are the subject of this conference. The zero rates and promises that they will continue in the future make it easier for banks to roll over bad loans. They create the opportunity for one sided bets. And they lead to bubbles in securities markets. As Martin Feldstein (2013) recently warned "When interest rates rise, as they surely will, the bubbles will burst, the prices of those securities will fall…. To the extent that banks and other highly leveraged financial institutions hold them, the bursting bubbles could cause bankruptcies and financial-market breakdown."[15]

A return to a conventional rules-based monetary policy as we had in the 1980s, the 1990s, and until recently will greatly reduce this source of risk. In the meantime, the rules-based bankruptcy and macro-prudential proposals I outlined here are even more important to implement than they will be after that return.

References

Bean, Charles, Matthias Paustian, Adrian Penalver and Tim Taylor (2010), "Monetary Policy after the Fall," Federal Reserve Bank of Kansas Annual Conference, Jackson Hole, Wyoming, August 28

Bernanke, Ben (2013), "Testimony on the 'Semiannual Monetary Policy Report to the Congress,'" Committee on Banking, Housing, and Urban Affairs, U.S. Senate, Washington, D.C. February 26. Response to a question by Senator Elizabeth Warren

Board of Governors of the Federal Reserve (2011), "Study on the Resolution of Financial Companies under the Bankruptcy Code," Washington, D.C. July

Duffie, Darrell, (2010), "The Failure Mechanics of Dealer Banks," *Journal of Economic Perspectives,* Volume 24, Number1, Winter, pp. 51-72

Edmonds, Timothy (2013), "The Independent Commission on Banking: The Vickers Report," House of Commons Library, SNBT 6171, January 3, 2013

[14] See my recent Congressional testimony (Taylor (2013)) for a summary.
[15] Feldstein (2013)

Feldstein, Martin (2013), "Two Dollar Fallacies," *Project Syndicate*, March 30

Fitzpatrick, Thomas J. IV and James B. Thomson (2011), "How Well Does Bankruptcy Work When Large Financial Firms Fail? Some Lessons from Lehman Brothers," *Economic Commentary*, 2011-23, Federal Reserve Bank of Cleveland,

Government Accountability Office (2011) "Bankruptcy: Complex Financial Institutions and International Coordination Pose Challenges," July

Hoenig, Thomas (2013), "Tangible Equity Capital Ratios for Global Systemically Important Banks," Federal Deposit Insurance Corporation, February 15, http://www.fdic.gov/about/learn/board/hoenig/capitalizationratios.pdf

Nakornthab, Don and Phurichai Rungcharoenkitkul (2010), "Marrying Monetary Policy with Macroprudential Regulation: Exploration of Issues," Bank of Thailand

Powell, Jerome H. (2013), "Ending 'Too Big to Fail,'" Remarks at the Institute of International Bankers, Washington Conference, Washington, D.C. March 4

Scott, Kenneth E. George P. Shultz and John B. Taylor (Editors), (2010), *Ending Government Bailouts as we Know Them*, Contributing Authors: Nicholas F. Brady, Darrell Duffie, Joseph Grundfest, Richard Herring, Thomas M. Hoenig, Thomas Jackson, William F. Kroener III, Charles S. Morris, Kenneth E. Scott, George P. Shultz, Kenneth Spong, Johannes Stroebel, Kimberly Anne Summe, John B. Taylor, and Paul Volcker. Hoover Press, Stanford, California

Scott, Kenneth E. and John B. Taylor (Editors), (2012), *Bankruptcy Not Bailout: A Special Chapter 14,* Contributing Authors: Andrew Crockett, Darrell Duffie, Thomas H. Jackson, William F. Kroener III, Kenneth E. Scott, David A. Skeel, Kimberly Anne Summe, John B. Taylor, and Kevin M. Warsh. Hoover Press, Stanford California

Taylor, John B. (2002), "Sovereign Debt Restructuring: A U.S. Perspective," Remarks the Conference: Sovereign Debt Workouts: Hopes and Hazards, Institute for International Economics, April 2.

Taylor, John B. (2009), "Systemic Risk and the Role of Government," Conference on Financial Innovation and Crises, Federal Reserve Bank of Atlanta, Jekyll Island, Georgia, May 12

Taylor, John B. (2013), "A Review of Recent Monetary Policy," Testimony before the Subcommittee on Monetary Policy and Trade, Committee on Financial Services, U.S. House of Representatives, March 5

The Clearing House (2012), "Title II OLA-Resolution Symposium and Simulation Exercise," Slides