Financial Economists Roundtable

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Statement on

Bank Capital as a Substitute for Prudential Regulation

Larry Harris*
Executive Director
University of Southern California
Los Angeles, CA 90089-1422
(323) 244-1154
LHarris@USC.edu

Steering committee

Jennifer Conrad
University of North Carolina – Chapel Hill

Elroy Dimson
Cambridge Judge Business School

Robert Eisenbeis*
Cumberland Advisors

Richard J. Herring*
University of Pennsylvania

George G. Kaufman*
Loyola University, Chicago

Rafael Repullo
CEMFI

Jay R. Ritter
University of Florida

Stephen Schaefer
London Business School

Robert Stambaugh
University of Pennsylvania

*Executive Committee

The Financial Economist Roundtable (FER) is a group of senior financial economists who have made significant contributions to the finance literature and seek to apply their knowledge to current policy debates. The Roundtable focuses on microeconomic issues in investments, corporate finance, as well as financial institutions and markets, both in the U.S. and internationally. It aims to create a forum for intellectual interaction that promotes in-depth analyses of current policy issues in order to raise the level of public and private policy debate and improve the quality of policy decisions.

FER was founded in 1993 and meets annually. Members attending an FER meeting discuss specific policy issues on which the FER may adopt statements. When the FER issues a statement, it reflects a consensus among at least two-thirds of the attending members, and all the members who sign it support it. The statements are intended to increase the awareness and understanding of public policy makers, the financial economics profession, the communications media, and the public. FER distributes its statements to relevant policy makers and the media. This statement is the outcome of the FER's discussion at its annual meeting, which took place on July 15-17, 2017, in Minneapolis.

We signatories to this statement believe that banks with high levels of equity capital relative to their assets should be allowed to avoid much burdensome prudential regulation, including costly stress tests. This proposal, which appears in the Financial CHOICE Act recently passed by the U.S. House of Representatives and is supported by the Treasury in its recent Report to President Trump, is called the *off-ramp*. The Financial CHOICE Act specifies that banks can opt for the off-ramp if the ratio of their equity capital to their total assets exceeds 10%.

We believe that a uniform requirement (currently proposed at 10%) would be inadequate as it could lead to substantial increases in risk by some banks opting for the off-ramp. Instead, regulators should set bank-specific thresholds and do so in a way that reflects the current ***and future*** risk of the bank's assets and the bank's systemic importance. This should take the form of two capital ratio requirements rather than one. One of the requirements would specify the minimum equity capital ratio as a fraction of total assets, while the other would specify it as a fraction of risk-weighted assets. For systemically important financial institutions, both required capital ratios should consider the risk that a failure of the bank would pose to the financial system.

Requiring banks to maintain capital as a fraction of risk-weighted assets does not require continuing dependence on the current Basel risk-weighting system for banks accessing the off-ramp; risk weighting could be accomplished in a simpler, more reliable way, which would be adequate for preventing abuse of the off-ramp. Finally, legislators or regulators must specify mechanisms for ensuring that banks that opt for the off-ramp continue to comply with the conditions for accessing it.

For additional information, contact:

Charles Calomiris
Columbia School of Business
cc374@gsb.columbia.edu
(212) 854-8748

Larry Harris
USC Marshall School of Business
lharris@USC.edu
(323) 244-1154

Catherine Schrand
The Wharton School
schrand@wharton.upenn.edu
(215) 898-6798

Roman L. Weil
Chicago Booth School of Business
Roman.Weil@chicagobooth.edu
(312) 493-7156

Bank Capital as a Substitute for Prudential Regulation

Statement of the Financial Economics Roundtable

Bank regulation and deregulation are in the news. The Financial CHOICE Act that recently passed the U.S. House of Representative would give banks an "off-ramp" to allow them to escape much burdensome prudential regulation—including costly stress tests—if the ratio of their equity capital to their total assets is 10% or more. The Act's proposal recognizes that capital can substitute for costly regulation as a means to discourage banks from taking risks that can lead to their failure or a systemic crisis. While we agree with this basic principle, applying it to real-world banks requires care.

The Executive Summary of the Act[1] characterizes the off-ramp as an opportunity for banks to elect to be "a strongly capitalized, well managed financial institution" and thus enjoy benefits including relief from supervisory requirements and capital and liquidity standards. Electing banks also would be exempt from certain rules, regulations, or laws "that provide limitations on mergers, consolidations, or acquisitions of assets or control, to the extent the limitations relate to capital or liquidity standards or concentrations of deposits or assets"; and they would be exempt "from any federal law, rule, or regulation that permits a banking agency to consider risk to the stability of the United States banking or financial system" in its monitoring activities. Banks that take the off-ramp would reduce their exposures to prudential regulatory controls and to ongoing supervision.

The logic behind this trade-off is simple: Banks will invest and loan responsibly if they expect that they will bear the costs of losses on their assets, and a large capital cushion makes that more likely for two reasons.[2] First, on a forward-looking basis, higher equity increases bankers' incentives to manage risk conservatively because the bank's owners will bear any losses. Second, when losses occur, greater equity increases the bank's ability to absorb those losses without having to impose losses on bondholders, depositors or, in the event of a bailout, taxpayers.

While this basic logic is sound, the "off-ramp" proposal ignores many important issues that, if unaddressed, would result in a system that is impractical, infeasible, or ineffective, and worse, potentially dangerous.

Because banks have protections provided by deposit insurance and the prospect of government bailouts, bank owners do not appropriately value the default-protection provided by high capital ratios. Left to themselves, banks thus can profit from increasing their default risk, which implies an incentive to increase their leverage and decrease their equity capital. Furthermore, bank defaults create adverse consequences for other participants in the financial system. Regulators therefore should set minimum capital standards at levels that take those consequences into account, given that value-maximizing banks will not consider these "negative externalities" when setting their equity ratios.

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[1] See https://financialservices.house.gov/uploadedfiles/financial_choice_act-_executive_summary.pdf.
[2] We use the word *capital* alone to mean *equity capital*, the owners' equity of a bank.

To create an off-ramp option that provides regulatory simplification while maintaining financial security, regulators must specify the conditions for using the off-ramp and what to do with off-ramp banks that no longer qualify. We briefly discuss these issues in the next paragraphs and then address them in detail below.

Regulators first must decide the appropriate equity capital level that would exempt a bank from the full panoply of prudential regulations. Although the proposed 10% capital ratio threshold is higher than current requirements, 10% is on the low end of analysts' estimates of an adequate requirement. A capital ratio of 10% may not be high enough to discourage banks from excessive risk taking through a process known as asset substitution or risk shifting: banks enjoying deposit insurance and too-big-to-fail bailout protection may see an advantage in boosting their investment portfolio risk because their risk level has little effect on their required capital.[3] When the capital requirement is too low, the bank wins if the risky portfolio pays off while the government (and thus ultimately the taxpayer) pays via bailouts or deposit insurance subsidies if the risky investments fail.

High ratios of required capital to assets mute incentives for risk shifting, but theory and evidence do not make us confident that 10% is sufficiently high to forestall concerns about risk shifting. To deal with the incentives for risk shifting that exist even at a 10% capital ratio suggests an additional capital ratio requirement that reflects the risk of a bank's overall portfolio. Currently, these risk assessments derive from the Basel risk-weighting system, but this approach is not necessary. To effectively reduce risk shifting, risk weights need not be perfect; they need to capture only gross differences in risk that arise when banks substantially increase their portfolio risk. For example, one simple alternative would infer loan risk from the all-in spread the bank earns on its loans.

Regulators setting capital requirements must consider three additional issues: The capital requirements must protect against potential systemic risks posed by banks. They must reflect the fact that banks inevitably exploit imperfections in regulatory controls. And they must be robust enough to deal with shortcomings in accounting practice that can cause accounting measures of equity capital to exceed the economic value of equity capital.

The Act's one-size-fits-all requirement, which does not recognize the potential for banks to alter their risk profiles through time, is too simple. Better to impose two minimum capital ratio requirements: one expressed as a fraction of assets (specifying ratios of 10% or higher, depending on the systemic risk posed by the bank), and another expressed as a fraction of risk-weighted assets (specifying ratios of 15% or higher, also depending on the systemic risk posed by the bank).

Regulators also must specify how they will supervise banks that have taken the off-ramp. The off-ramp selection should not allow banks to escape the regulators' radar. Yes, monitoring and

[3] The risk-shifting problem goes by various terms including "asset-substitution problem" and "excessive risk-taking problem." We call it the "risk-shifting problem" because we think that name best conveys the nature of the issue: management takes steps to shift risk from owners to others without adequately compensating those others for the extra risk they become forced to bear.

supervision can be less intense and frequent, but a capital buffer will not eliminate the need for all regulation and supervision. Regulators must specify mechanisms that will ensure that firms on the off-ramp maintain adequate capital, and if they are unable or unwilling to do so, specify how they are to be returned to standard prudential regulation.

Setting the Off-Ramp Threshold

Increasing a bank's capital ratio to only 10% to take the off-ramp is unwise. When presented with this simple requirement, some bank managers might find it profitable to take a bank onto the off-ramp and then substantially increase its exposure to risk. If the risky investments prove profitable, the bank's owners would pocket the earnings. But if the investments produce substantial losses, the bank could easily lose more than 10% of its assets, thus wiping out its equity capital. These losses would lead to its failure and force losses upon the bank's bondholders and depositors, and perhaps even onto taxpayers (if a bailout occurs).

The temptation to take excessive risk has often led to bad behavior. This problem lies behind almost every bank failure and every banking crisis. For that reason, prudential regulatory standards must consider whether a bank's equity capital is sufficient to absorb plausibly extreme losses.

Regulators could solve the excessive risk-taking and risk shifting problems by requiring a capital ratio so high that no manager would find profitable engaging in irresponsible risk-taking behavior. This solution is impractical because the ratio would have to be so high that no banks would choose the off-ramp.

A solution that we view as feasible is to have two capital requirements for banks choosing the off-ramp: one absolute (as proposed in the Act) and one risk-based. The risk-based ratio would be higher to discourage excessive risk-taking.[4] While this solution still involves risk weighting, we believe many banks will prefer this regime to current burdensome prudential regulation, especially if regulators simplify the setting of risk weights and make them more rule-based. Abandoning risk weighting altogether is dangerous.

The risk-based measure that we propose differs from the capital risk-weighting system now used. The current system is too complex, involves too much unpredictable regulatory judgment, and is subject to political influence. In implementing the off-ramp mechanisms, we advocate using risk weighting of loans and securities based on all-in interest rate spreads and market values. Empirical evidence suggests that all-in interest rate spreads predict loan losses better than do current risk-weighting methods. This method involves a less microscopic look at an individual bank than does the current risk-weighting system, but since the risk-based measure serves as a backup only to prevent excessive risk taking, it does not require pinpoint accuracy. We think it

[4] It might seem that with a higher threshold, the risk-based capital requirement would obviate the need for the lower absolute capital threshold. The absolute requirement can be binding if the bank's loan and investment portfolio contains relatively secure securities.

will work. The aim is to establish simple transparent methods that remove incentives for banks to undertake risks that allow them to exploit costless (to them) default options.[5]

We signatories cannot opine on the proper level of either threshold for any given bank. Instead, regulators must use appropriate financial models to set thresholds sufficiently high so that equity will absorb all bank losses in essentially all circumstances. This policy will ensure that bank managers will fully internalize the risks associated with their investments, and thereby protect the bondholders, depositors, other stakeholders, and taxpayers from bank investment decisions that could affect these stakeholders, but over which they can exercise little control.

Economic theory and substantial empirical evidence suggest that banks game regulatory risk weighting, and even accounting book values, so that measured economic risk generally understates actual economic risk. Regulators must account for this behavior when setting capital thresholds. We note that if regulators will no longer apply stress tests to banks—as proposed in the CHOICE Act—relying on capital ratio requirements to ensure stability increases the banks' potential gains from gaming risk weights.

Large bank failures can impose substantial costs upon other banks and upon the whole economy. To take the off-ramp, systemically important banks ("SIBs") should have higher capital ratios than those not deemed systemically important. Requiring higher capital will help protect the economy from the costs that failures of SIBs can impose upon others.

If the government deems that certain banks are too big to fail, it will not allow them to fail. Adequate capital can provide better protection against the costs associated with the failure of a large bank than can costly prudential regulation. Encouraging banks to have more capital in their financial structures costs the economy less than regulatory interference with bank lending decisions or suffering costly banking crises.

Ongoing Supervision and Enforcement

Another major concern we have with the Act's off-ramp proposal is its elimination of many elements of ongoing supervision and regulation.

Withdrawing all prudential regulation in return for higher capital overstates the importance of bank capital, which cannot solve all banking problems. Under the Financial CHOICE Act, banks that elect the off-ramp would not be subject to any risk-weighted capital requirements or limitations on risk-taking activities. In addition, these banks would not be subject to the intensity and frequency of monitoring in the current system. Once a bank elects the off-ramp it need merely maintain its minimum capital ratio and a CAMELS rating of 1 or 2. Adequate capital can solve risk-taking problems only when the bank has proper financial controls in place. Capital also offers incomplete protection against problems involving fraud or illegal discrimination.

[5] The high capital ratios envisioned by the off-ramp proposal effectively rule out the use of high yield debt to finance banks. Banks that want to issue risky securities senior to the banks' common stock could issue preferred stock or contingent convertible securities ("COCOs"). Such securities would be counted as equity capital when computing off-ramp capital ratios. We recognize potential advantages to alternative regulatory use of COCOs, which have been proposed in several academic studies, but do not consider those here.

Banks must remain subject to some regulations and audit procedures to solve these and other problems.

The Act would allow off-ramp banks to avoid stress tests, which attempt to measure how well the bank's actual portfolio might perform under hypothetical extreme market fluctuations. If the regulator deems the portfolio's simulated losses so great as to endanger the bank's capital ratio, then the regulator can demand that the bank act to shore up its equity so that the capital ratios will not drop so much should the extreme market conditions occur.

We disagree with the Act's proposal that would eliminate all participation in the stress testing for banks with sufficient capital. We suggest, instead, that off-ramped banks should continue to report the data that regulators use for stress tests. Then, the regulators can understand risk in the financial system and use stress test results to calibrate the capital ratio thresholds that qualify off-ramp banks. The information contained in stress tests should continue to inform regulatory practice, even if the discipline from failed stress tests would not apply to the individual off-ramped banks. The regulators need the data, even though the off-ramped banks need not be subject to the discipline of the tests.

Another concern with the Act's off-ramp proposal relates to the treatment of off-ramped banks that subsequently fall below the capital requirement. The Act does not immediately suspend a bank's off-ramp status, but requires that a non-compliant bank submit a plan to return to sufficient capitalization within three months and outline a timetable for returning to adequate capitalization. If the bank "falls off" the off-ramp, it can apply for re-admission after maintaining sufficient capitalization for eight-consecutive quarters. Some banks may therefore view the off-ramp as an exploitable option. A bank might elect the off-ramp and enjoy the benefits of light regulation, and then return to the status quo of full regulation and 3% risk-based capital if its capital falls below the minimums for off-ramping.

To deal with the potential exploitable option problem, banks that fall below the minimum requirements should be required to immediately raise new capital. Banks that wish to leave the off-ramp should be allowed to do so, but only when they have raised enough capital to ensure that they are not accessing and then exiting the off-ramp to game prudential regulation. Requiring banks to raise equity capital as part of their exit from the off-ramp entails costs that will help to discourage banks from gaming regulation by purposely going on and off the off-ramp. Requiring banks that choose to revert to the normal prudential system to begin that process with capital ratios above what normally would be required for banks that have not accessed the off-ramp would accomplish that goal. Furthermore, we do not think banks exiting off-ramp status should be able to achieve those minimum standards by shrinking their assets. Doing so could have adverse systemic consequences.[6]

[6] Research has identified several potential systemic effects from the contraction of bank balance sheets. First, reductions in banking system lending can aggravate recessionary influences on GDP growth and asset price declines. Second, when a bank shrinks its securities holdings, it does so by selling them. This selling likely reduces the fair value of those assets in the market. Other banks hold the same assets and find the fair value of their portfolios diminished, which causes their equity ratios to decline. This can cause those other banks to have to take steps to keep from violating various prudential or off-ramp benchmarks, including reducing lending.

Critics of the proposed off-ramp believe that higher capital requirements will impose large costs upon the banks and lead to substantial decreases in bank loans. We acknowledge that a relatively high (but simplified) equity ratio requirement and a higher risk-weighted equity ratio requirement (with correspondingly higher thresholds for SIBs) would represent significant increases from current requirements, but we have several rebuttals to the criticisms. First, such criticisms fail to recognize that making the off-ramp available to banks does not reduce any options currently available to banks; rather, it simply provides a new one. Second, banks with stronger balance sheets have lower average funding costs.[7] Finally, the critics ignore the offsetting benefits to the economy of increased stability.

Accounting rules matter when measuring the effect of a bank's capital on its operations. If regulators adopt a simpler structure of prudential requirements (without mandatory stress tests) for banks on the off-ramp, they also must address the shortcomings of accounting measures of bank equity capital as measures of the economic value of equity capital. Differences between accounting and economic equity may arise because accounting measures may fail to adequately represent the economic value of tangible assets or liabilities and may imperfectly capture the value of intangible assets and liabilities. The off-ramp proposal needs additional regulatory safeguards to help ensure that a bank whose economic equity value persistently falls short of its accounting equity value should face higher capital requirements, given that regulatory capital requirements rely on accounting measures. For banks with publicly traded equity, market values provide a useful gauge of economic value. For other banks, regulators could develop an alternative measure of economic value.[8]

The notion that higher capital requirements can substitute for some costly prudential regulation has merit and an off-ramp that allows banks to substitute more capital for less regulation provides a positive option for our economy—measurable benefits with reduced costs. The CHOICE Act's version of the off-ramp, however, is flawed. We have identified those flaws and shown how to fix them. Properly implemented, the off-ramp can provide meaningful regulatory simplification that could lead to greater funding for economic growth.

[7] Banks with super adequate equity can borrow at better rates and they have lower required rates of return on their equity. Banks presently do not maintain high equity ratios because new equity extinguishes default option values and because the deductibility of interest makes equity more expensive than debt financing. The purpose of the off-ramp is to provide banks with a new incentive–regulatory simplification—to encourage them to use more equity financing.

[8] For example, using the subset of banks with publicly traded equity, regulators could develop a valuation model that maps from a vector of bank characteristics to economic value (measured by market value), and then adapt that valuation model to banks without publicly traded shares.

FER Members Signing the Statement, “Bank Capital as a Substitute for Prudential Regulation”

Rashad Abdel-Khalik
University of Illinois

Arnoud Boot
University of Amsterdam

Charles W. Calomiris
Columbia University

Jennifer Conrad
University of North Carolina

Elroy Dimson
Cambridge Judge Business School

Franklin R. Edwards
Columbia University

Robert A. Eisenbeis
Cumberland Advisors

Mark Flannery
University of Florida

Martin J. Gruber
New York University

Larry Harris
University of Southern California

Richard J. Herring
University of Pennsylvania

Ravi Jagannathan
Northwestern University

Kose John
New York University

George G. Kaufman
Loyola University of Chicago

Robert Litan
Council on Foreign Relations

Dennis E. Logue
Ledyard National Bank

Deborah Lucas
MIT

Frank Partnoy
University of San Diego

Stephen Penman
Columbia University

Jay Ritter
University of Florida

Catherine Schrand Ramaswamy
University of Pennsylvania

Lemma W. Senbet
University of Maryland

Chester S. Spatt
Carnegie Mellon University

Siew Hong Teoh
UC Irvine

Ingo Walter
New York University

Roman L. Weil
University of Chicago