Network Analytics from Hell: The Chaos of Post-Crisis Regulation

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- Even though Basel III has morphed into IV and the U.S. says the big-bank rulebook is largely done, policy-makers have neither a position on how much capital or liquidity is optimal nor any sense of the cumulative impact of the post-crisis framework.
- The details in each rule and the complexity of the rulebook block constructive change and create risky opportunities for arbitrage and evasion.
- Financial-institution strategy does not try to solve for the optimal rule or the most coherent framework; it tries to make money. Profit-maximizing behavior creates additional unintended consequences, many of which destabilize finance and make it still less equal.

In 2011, my firm issued what may well be the first critique of the complexity and unintended consequences in the post-crisis regulatory framework.[1] In 2018, it seems to me that we were too generous – the fresh wounds of the 2008 crisis then obscured how destructive the rules would be to robust recovery that advantages all American households, not just the wealthiest. We also missed how quickly large banks would redefine their business models away from traditional financial intermediation or financial-market infrastructure, thus leading us to under-estimate how potent non-banks would quickly come to be in system-critical sectors. No one knows better than you how the post-crisis rulebook works – many of you in fact have written much of it – and I know more than a few of you share my concerns. I'm very much looking forward to our discussion, but first I'll flesh out why I think we need to do more than "tailor" bits and pieces of the post-crisis framework – not only is the framework impeding growth and creating new risks, but it's also exacerbating economic inequality, a cost to social welfare and political stability the U.S. can ill afford.

How Much is Enough?

Estimates of how many capital rules govern banks vary up to as many as 28. No wonder recent academic research finds that it's very difficult to tell which of any of these capital requirements sets the "optimal" level or is in practice likely to be an individual company's binding constraint.[2] The FRB and OCC have just proposed a whole new approach – "stress capital buffers" – designed to lump some of these capital requirements into a new, far more risk-based approach for the largest banks and BHCs.[3] However, the complexity of the underlying rules will still combine with all of the interactions among them to make it totally unclear what this new, still more complex option would do in practice.[4]

Worse still, even as this new approach is out for comment, efforts to assess the sum total impact of all of these standards and whether each of them are necessary have yet even to be attempted by U.S. regulators. One-off cost-benefit analyses, where there are any, are of little use even if they were more than the static, model-driven methodologies I've seen in recent regulatory actions. I haven't seen one such analysis that goes beyond an assessment of whether banks can pay for a new rule to determine what the rule would do to the broader financial system, arbitrage incentives, industry concentration, and the ability of regulated financial institutions to provide equality-critical financial intermediation. The need to take a far more comprehensive view of post-crisis capital regulation is supported by a 2016 survey by global regulators of the academic literature on the impact of regulatory-capital standards. It concludes that, "[T]here are opportunity costs in terms of reduced lending and economic activity as bank capital requirements rise, and that the Modigliani-Miller invariance theorem [which assumes that capital costs go down as capital holdings rise] holds only to a limited extent."[5] That is, capital costs reduce the ability of banks to lend in part because the cost of capital does not drop as theory predicts when higher regulatory-capital requirements presumably make a bank safer and thus a better investment bet. In fact, recent research does show that the "unit cost" of capital drops as more capital is held by a bank, but only about half as much as the classic theorem predicts.[6] This same study finds that each additional percentage point of regulatory capital reduces long-term output by 0.5 percent.

All of this complexity, cost, and these intersecting binding requirements might be worth the harm to equality as a result of reduced credit capacity if it were clear that these tough regulatory-capital standards made post-crisis finance a lot safer than it was before 2008. The same survey of literature finding opportunity costs from higher capital and resulting credit reductions concludes that crisis-prophylactic benefits – while more than desirable – are thoroughly uncertain.

Now, I know there are a lot of studies arguing that banks with lots of capital are safer than banks with less capital, some trying to cut through complexity by recommending only a leverage capital ratio even though a good deal of study so far, and even the FRB, have concluded that leverage rules exacerbate risk-taking arbitrage. Almost all of the studies pushing for higher capital are model-based and models mostly do not reflect the real-world effect of bank behavior in the face of short-term business and regulatory pressures. For example, academic literature tends to assume that banks operate at regulatory-capital minimums. In fact, this is not true in the U.S., in part because stress tests – almost completely omitted from the research – mandate far higher capital ratios for most large U.S. banks. Trade-association research plotted the differences in lending by large and small banks and found that residential mortgages, credit cards, and small-business lending are sharply lower at large banks likely due to the different and more binding rules applied by the stress tests and advanced approaches referenced above.[7] Because the large banks in this study account for about seventy percent of U.S. loans, the difference between the largest banks under the toughest rules and small banks had material, adverse impact on credit supply.

A lot of research, let alone regulatory-policy decisions, are not only based on models, but also on models dependent on averages, medians, and other representative-agent approaches. Relying on aggregate data is as misleading in setting regulatory policy as it is for monetary policy. All loans are not the same in terms of financial stability, let alone economic equality even though all loans are lumped together in defense of ongoing credit availability in the face of post-crisis capital requirements. Just one case in point: the simple contrast between a high-risk loan to a highly-leveraged private-equity firm using the proceeds for yet another acquisition and a low-risk, long-term loan to pay for a first home.[8]

Capital is Only Part of the Problem

But, at least a robust, if largely academic, effort to consider the optimal level of regulatory capital and assess possible results has been made for the post-crisis regulatory capital rules. Little such effort can be found across the sweep of post-crisis academic and government literature on the post-crisis liquidity standards even though a study of the overall impact of both the capital and liquidity rules in 2015[9] found considerable negative feedback loops between prudential and monetary policy with worrisome macroeconomic and financial-stability impact. As detailed in the global regulators' analysis of this question,[10] many studies concluding that liquidity rules do not adversely affect lending do not take the new capital rules into account. Studies for example review bank lending before and after the crisis based on how liquid or illiquid banks were before the crisis and how many loans they made thereafter, not adjusting the results to assess also how well- or ill-capitalized these more or less illiquid banks might also have been after the crisis, especially when taking all the new rules into account. Studies that conclude that there is no adverse lending impact due to liquidity regulation also fail to look below surface totals to see who is getting loans at what risk and rate.

The Complexity Conundrum

Although it's astonishing that the rulebook gets even more pages without a clear understanding of the optimal or cumulative outcome, these unanswered questions do not slow strategic efforts to maximize competitive and comparative advantage under the rules regardless of whether or not the rules make

sense. I know this is true because my firm works on a lot of these strategic plans. One might censure financial companies for advancing their own interests at the expense of the public, but since the policy-makers charged with protecting the public have no clear vision of what this means, it's a bit unfair to demand this instead from private institutions and their shareholders.

The downside of all of the complex capital and liquidity rules described above is not only that no one knows whether any of them works, but also that there are many other rules with which capital and liquidity intersect with still further ill-understood reverberations across the financial system.

Complexity thus enables and exacerbates strategic planning that goes farther than it should to search out opportunities for arbitrage through regulatory loopholes."[11] This also means that rules – often thousands of pages on their own and still more daunting in total – force so much attention to detail that over-arching risks are neglected. Regulatory ambiguity can also promote arbitrage – i.e., taking advantage of small details omitted from or mistaken in the body of the rules. Banks comply with the rules and in fact spend a lot of time proving this to examiners looking at all the trees and even the weeds in the regulatory forest. The actual forest and what might lurk in it go unseen.

Even if a bank is liquid and meets all its capital requirements, is it still a bank for purposes of the financial intermediation necessary to respond as predicted to the Fed's monetary policy signals or engage in equality-enhancing financial intermediation? The less balance-sheet capacity for lending due to the combined impact of the capital and liquidity rules, the greater the incentives for investment-banking, wealth management, asset-management, and higher-risk lending activities.

ROE has to come from somewhere for a company to survive and any large bank with access to the capital market, high-wealth individuals, and large corporate borrowers will change its business model to ensure it both complies and thrives. Banks do not "internalize" the cost of rules – i.e., just suck it in and get less profitable. They "externalize" them to the greatest extent possible by complying with rules to the extent necessary and shifting the cost of additional risk right back to the broader financial market or the rest of us.

Is this evil? Maybe, but banks are for-profit enterprises and the ROE straight-jacket described above governs whether a bank lives or dies as a private-sector venture. Bank boards of directors are bound in law at least as much to protect investor value – their "fiduciary" duty – as they are to ensure compliance, and they often manage this complex balancing act by taking on risk where rules do not apply. Maybe the rules should then just get tougher, but not if we still want a private-sector banking system.

How to Fix Finance

Stepping back from all these standards is one even more important and over-riding aspect of the post-crisis framework: very large financial-services firms should fail under acute stress, not be bailed out by the Treasury, Federal Reserve, and FDIC as proved very expensively the case from 2007 through 2010. As FRB Vice Chairman Quarles indicated just last Wednesday,[12] global regulators still don't know what will happen if a GSIB, let alone a cross-border GSIB, starts to crumble. Mr. Quarles did not go farther, but I am sure he would agree that, if there's at least a good deal of thinking about GSIBs, there's none about what would happen if a systemically-important nonbank bit the dust.

Ensuring orderly resolution at the least possible harm to innocent bystanders would ensure that the market – not the regulators – decided which financial institutions are safe, and which should pay the price for profligate behavior. Markets are notoriously wrong, of course, and that's why emergency liquidity backstops and resolution protocols are essential. But markets do not make decision by model, they follow the money. The more the post-crisis regulatory framework tries to re-channel money to comply with obscure, complex, and conflicting standards, the more distorted risk pricing will become, the greater the incentives to externalize risk, and the stronger the forces propelling finance from regulated banks to unregulated, unresolvable nonbanks.

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[7] Francisco Covas, Bill Nelson, and Vivian Liu, "Is Tighter Bank Regulation Restricting Loan Growth?," *The Clearing House Blog*, (December 1, 2016), available at https://www.theclearinghouse.org/research/articles/2016/12/01-loan-growth.

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[9] Bank for International Settlements (BIS) Committee on the Global Financial System (CGFS) Market Committee, *CGFS Papers No. 54: Regulatory change and monetary policy* (May, 2015), available at http://www.bis.org/publ/cgfs54.pdf.

[10] BCBS, "Literature Review on integration of regulatory capital and liquidity instruments," *op. cit*.

[11] *Ibid.*, at 22.

[12] FRB Vice Chairman for Supervision Randal K. Quarles, *Speech at "Ring-Fencing the Global Banking System: The Shift towards Financial Regulatory Protectionism" Symposium sponsored by Harvard Law School Program on International Financial Systems*, Cambridge, Massachusetts "*Trust Everyone--But Brand Your Cattle: Finding the Right Balance in Cross-Border Resolution"* (May, 16, 2018), available at https://www.federalreserve.gov/newsevents/speech/quarles20180516a.htm.