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## Comment on "Implementing a Macroprudential Framework: Blending Boldness and Realism" (by Claudio Borio)

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*History as a starting point*

Before commenting on the specifics of the excellent and insightful paper that Claudio Borio has written, I beg leave to provide some background. Regulators the world over are grappling with reform proposals in the wake of the severe financial crisis of 2007-2009. It is striking how much of the conversation – in which deep institutional changes to the structure of the global banking system are being considered – is based on one set of events, namely the recent global financial crisis. Of course, the discussions of the crisis don't frame their points that way; they couch their recommendations in terms of long-term tendencies that they claim are illustrated by the most recent crisis. But they rarely check to see if their casual empirical impressions about the past are correct. Advocates of sweeping reforms generally presume that the recent crisis is just the last in an unchanging history of similar banking crises that have occurred throughout the ages. And if there is any recognition of a change over time in the fragility of banks, the increasing fragility is attributed to alleged, and vaguely defined, "financial deregulation" during the last three decades.

This sort of ignorance and mistaken perspective on the past often leads academic commentators and policy makers in the wrong direction when contemplating the deficiencies of the financial system and potential remedies for them. It is useful for commentators to consider that there actually is a literature on the history and theory of banking, bank crises, and bank regulation. More academics and policy makers should read it; I am shocked at how few of them do.

Indeed, it is my considered opinion that much of the confusion and disagreement about the causes of the recent crisis, and the most desirable regulatory responses to it, results precisely from very basic ignorance about the facts of banking history. I am sorry to say that this basic ignorance is so pervasive that many of the most prominent academic commentators on the crisis – even some of the most often-cited academic writers about the crisis – suffer from rather appalling ignorance about the history of bank crises and bank regulation. To illustrate how severe the problem is, let's begin with a short quiz, which I invite readers of these comments to take.

*A quiz*

1. For the past forty years, the number of episodes of national banking crises that resulted in bank failures where the negative net worth of failed banks in a country exceeded one percent of that country's GDP was roughly: (a) 4, (b) 20, (c) 60, (d) 110.

2. The average negative net worth relative to GDP of the banking crises referred to in Question 1 has been roughly: (a) 3%, (b) 6%, (c) 10%, (d) 16%.
3. For the forty years prior to World War I, the number of national banking crises that resulted in bank failures where the negative net worth of failed banks exceeded one percent of GDP was roughly: (a) 4, (b) 20, (c) 60, (d) 110.
4. The average negative net worth relative to GDP of the banking crises referred to in question 3 was roughly: (a) 3%, (b) 6%, (c) 10%, (d) 16%.
5. During the post-World War II era, financial system leverage of the world's banks was: (a) rising over time and procyclical, (b) constant over time and procyclical, (c) constant over time and not procyclical.
6. During the pre-World War I era, financial system leverage of the world's banks was: (a) rising over time and procyclical, (b) constant over time and procyclical, (c) constant over time and not procyclical.
7. U.S. banking deregulation of commercial banks in the 1980s and 1990s: (a) eliminated interest rate ceilings on deposits, allowed banks to underwrite corporate securities, and permitted banks to branch across state lines, (b) allowed these changes and also permitted banks to securitize mortgage backed securities, (c) allowed all the aforementioned changes and also allowed banks to make subprime mortgages, which had previously been prohibited.
8. U.S. investment banks: (a) faced increasing regulatory oversight after 2002, when they were forced to meet the Basel II prudential regulatory standards, enforced by the SEC, (b) had been closely regulated before 2002, but subsequently were allowed to act without regulatory oversight.

The correct answers to these questions will surprise many of the academics writing about financial crises today. For the past forty years, the number of severe banking crises was about 110, with an average severity of 16% of GDP. For the pre-World War I era, the number was four, with an average severity of about 6% (Calomiris 2011a). During the post-World War II era, banking systems became increasingly leveraged over time, and bank leverage was procyclical (Schularick and Taylor 2011); in sharp contrast, during the pre-World War I era, bank leverage was flat over time and not procyclical. The last forty years have been an unprecedented era of high and procyclical leveraging of banks ex ante, and extreme banking system fragility and loss ex post. Any attempt to come to grips with the problem of banking system instability must begin by asking why banks behave so differently recently than they did in the past. Isn't it a bit shocking that so few discussions of the current crisis and the need for reforms begin from that point?

With respect to alleged recent deregulation, the sources of U.S. banking problems – investments in subprime mortgages and mortgage-related securities – had been permitted to banks for many decades; the only significant deregulation of commercial banking during the 1980s involved the removal of interest rate ceilings, branching barriers, and limits on the underwriting of corporate securities, none of which has been implicated by any empirical study as a source of the banking crisis. Indeed, a case can be made that regulation that was relevant to the current crisis actually increased in the years leading up to the crisis. Investment banks had not been regulated under the Basel system until 2002, when, at the behest of European regulators, the U.S. was pressured into increasing regulatory oversight of investment banks to ensure similar regulatory oversight of investment banking in the U.S. and Europe.

*Why has the world changed so much?*

There is a fairly obvious explanation of why banking systems today worldwide are much more risk-loving, procyclical in their risk taking, and unstable than they used to be, which is also the consensus that the empirical research on this question from cross-country studies has reached (see Calomiris 2011a): Government policies increasingly subsidize bank risk via a combination of government protection of banks and government programs that encourage risky borrowing by bank customers. These sorts of government policies are at the heart of the differences between the pre-World War I and post-World War II periods in their bank failure history and bank leverage history.

If one comes to the facts of the subprime crisis with that broad historical and international perspective in mind, the specific policies that gave rise to the crisis are quite apparent: (1) generous safety nets, especially for the largest “too-big-to-fail” banks, permitted banks that wished to take extreme risks to do so, and (2) political support for “affordable housing” was embodied in a long list of initiatives that subsidized risk taking by high-risk homebuyers (most obviously government affordable-housing mandates imposed on Fannie Mae and Freddie Mac, combined with government guarantees of their debts).

That is a good starting point for understanding the crisis, but it is only a starting point. Not all large financial institutions chose to undertake huge subprime risks. Citibank became insolvent as a result of its losses, but JP Morgan Chase did not. Bear Stearns, Lehman, and Merrill were forced to fail or become acquired, but not Goldman or Morgan Stanley or Deutsche. UBS collapsed, but not Credit Suisse. AIG failed, but Met Life remained quite healthy. Thus, narratives about increased government subsidization of risk taking need to be augmented with explanations of the cross-sectional differences in bank

performance. Few academic studies attempt to explain these dramatic cross-sectional differences, or even recognize that they exist.

One exception is Ellul and Yerramilli (2010), who show that differences in ex ante risk and ex post loss were predictable cross-sectionally on the basis of the relative strength of the institutional commitment to risk management. As a proxy for that commitment, they employ the ratio of the compensation paid to the chief risk officer relative to the compensation paid to the chief executive officer. Banks with a high ratio suffered less risk ex ante and less loss ex post.

In other words, corporate governance, embodied in the internal organizational rules of the game that bank CEOs established, were crucial contributors to the crisis. The existence of government affordable housing subsidies and government guarantees can explain why Fannie Mae and Freddie Mac absorbed half of subprime mortgage risk, but cannot explain why Citibank and JP Morgan Chase made such different choices leading up to the crisis.

A fuller understanding of what caused those differences no doubt will occupy much of the empirical literature in banking for the next decade. But we don't have to wait that long to make some important inferences about what sorts of regulatory reforms are needed. It is beyond the scope of this comment to describe a full agenda for reform, but suffice it to point to Calomiris (2011b) and Calomiris and Herring (2011), who argue that it is possible to construct an "incentive-robust" program of reform – that is, one that takes into account the incentives of market participants to get around prudential regulation, and the incentives of supervisors, regulators, and politicians not to enforce regulations during difficult times. Such a program of reform looks very different from the Basel system; its proposed rules are simpler and objectified (to avoid reliance on supervisory discretion, which makes "forbearance" possible). Financial institutions would face significant and credible costs from attempting to circumvent those rules.

#### *Borio's "boldness and realism"*

In light of these perspectives, what can be said in response to Claudio Borio's proposals regarding macro-prudential regulation? I am convinced by Borio's logic and empirical work (and by that of others) that macro-prudential regulation should play a role as a stabilizing force, alongside micro-prudential reform. There are at least two good arguments he and others have advanced for macro-prudential policy as a way to curb excessive credit booms: (1) market participants' distorted incentives toward risk or perceptions of risk can sometimes result in aggregate under-pricing of risk by buyers, which can promote excessive risk taking, and (2) policy makers should care more about the risk of the financial system than about the risk of each of its parts. In particular, it is very hard for policy makers not to

bail out large, failed banks when they all fail together; thus, any credible program of financial reform that would attempt to reduce the subsidization of risk in the financial system should try to limit simultaneous excessive risk taking by many large financial institutions.

The most convincing success story about macro-prudential regulation as a means to curb credit booms comes from Colombia's experience in 2007-2008, not the more commonly referenced example of Spain (which is home to one of the largest government-promoted housing booms and busts of the 2000s – one which is still in progress). After failing to discourage high growth in lending and excessive inflation of asset prices using interest rate hikes, the Colombian authorities implemented an aggressive program of raising capital, provisioning, and liquidity requirements on banks. They rapidly achieved a "soft landing" that allowed Colombia to avoid either a recession or a financial collapse (Uribe 2008, Calomiris 2011b).

*Where the devil lies: rules vs. discretion*

What about the details Borio proposes for how to institutionalize macro-prudential regulation? Borio has been at the forefront of pointing to the efficacy of a threshold approach to measuring macro financial risk. Borio and Drehmann showed that a dual threshold criterion of sufficiently high asset price growth and credit growth provides a reasonably accurate way to signal risks that higher prudential requirements could contain, as in the case of Colombia. This is a promising avenue precisely because it would permit the creation of a simple and credible rule to guide macro-prudential regulation: when credit growth and asset price growth are both sufficiently high over a reasonable period of time, the macro-prudential regulator should raise requirements (or have to explain why not to do so, and bear responsibility for failing to stop a crisis by deviating from the rule).

Many advocates of macro-prudential reform want to go farther than the use of aggregate data on credit or asset prices. The idea is to try to measure concentrations of risk in large banks in real time, and factor that into macro-prudential policy responses. That is unwise for at least two reasons.

First, as Borio rightly says, "political economy pressures" will take advantage of latitude in rules to undermine the will of regulators to apply regulatory tools during excessive booms. Any set of criteria based on complex, multi-dimensional criteria that are only observed by regulators will be doomed to failure. The only hope for credible macro-prudential policy is for simple and understandable rules to which policy makers can be held to account.

I agree with Borio that discretion in applying rules is unavoidable, but I favor Charles Goodhart's approach: Require regulators to enforce a simple rule,

or explain why a deviation from it is desirable. That puts the burden of responsibility for deviations from rules squarely on the shoulders of an identifiable individual, and thus creates a presumptive burden that observable rules will be followed (much as the Taylor Rule has created greater accountability for the Fed – for example, as a benchmark to criticize the Fed’s discretionary laxity in 2002-2005). The problem of accountability is even greater for macro-prudential policy than for monetary policy since, as Borio also recognizes, there is no precise quantitative objective of macro-prudential policy that can be tracked in real time. That means it is hard for policy makers to be held accountable for achieving it. But they can be held accountable for following a rule that would raise capital ratios by a given amount if credit growth and asset price growth both exceed pre-specified thresholds.

On similar grounds, I also agree with Borio that central banks should play the key role in managing macro-prudential policy. Monetary policy and macro-prudential policy interact. In order to preserve accountability for any deviations from a macro-prudential rule, or a Taylor Rule for monetary policy, the same entity should be in charge of both. I would emphasize, however, that monetary policy and macro-prudential policy should have clearly separate rules based on different criteria (a Taylor Rule for one, a clear credit-growth and asset price-growth rule for the other), otherwise it is virtually impossible to ensure accountability for deviations from rules in either macro-prudential regulation or monetary policy.

A second reason to avoid macro-prudential rules that rely on complex and private information is that it is doubtful that macro-prudential regulators will be able reliably to calculate concentrations of financial system risk within the system in real time. Correlations among firms’ risks vary at high frequency, and supervisors simply cannot be relied upon to have the information and skills to make reliable determinations on an ongoing basis.

*Better micro regulation takes pressure off macro regulation*

As the above review of historical experience shows, the burden on macro-prudential regulators could be eased substantially by setting better rules for micro-prudential regulation. For example, improvements in the measurement of bank risk, and in the timely recognition of bank losses (Calomiris 2011b, Calomiris and Herring 2011) would prevent most excessive credit booms by improving incentives within the financial system, and thus returning the banking system to its more normal, pre-1970 cyclical behavioral patterns. Similarly, binding limits on loan-to-value ratios (that would limit the extent of government subsidization of mortgage risk) would be desirable for the same reason, and here I would not favor permitting discretionary relaxation of leverage limits. It was precisely this

relaxation of mortgage leverage limits in the U.S. during the 1990s and 2000s that made the severity of the subprime crisis possible (Pinto 2010a, Pinto 2010b, Wallison 2011, Calomiris 2011a, 2011b).

### *Leakages*

It is also obvious that macro-prudential policies will work much better if they are applied to all lenders and to all countries simultaneously. Aiyar, Calomiris and Wieladek (2011) investigate the capital requirement changes imposed by the FSA in the U.K. during the pre-crisis period. They find that capital requirements had very large effects on the lending of regulated banks (U.K.-based banks and subsidiaries of foreign-based banks), but they also find evidence for substantial "leakages." Unregulated banks (foreign branches of banks operating in the U.K., which are not subject to U.K. capital regulations) substantially increased their lending in response to lending contractions by regulated banks facing rising capital requirements.

If macro-prudential policy is going to work, it will have to be coordinated across countries to synchronize the timing of regulatory changes. That need for synchronization creates political challenges that further strengthen the political-economy argument in favor of simple macro-prudential rules based on observable criteria.

### *References*

- Aiyar, Shekhar, Charles W. Calomiris, and Tomasz Wieladek (2011). "Does Macro-Pru Leak? Empirical Evidence from a UK Policy Experiment," Working paper, Bank of England, August.
- Calomiris, Charles W. (2011a). "Banking Crises and the Rules of the Game," in Nicholas Crafts, Terry Mills, and Geoffrey Wood, eds., *Monetary and Banking History: Essays in Honour of Forrest Capie*, Routledge, Oxford, forthcoming.
- Calomiris, Charles W. (2011b). "An Incentive-Robust Program for Financial Reform," *The Manchester School*, forthcoming.
- Calomiris, Charles W., and Richard Herring (2011). "Why and How To Design an Effective Contingent Capital Requirement," Working paper, Columbia Business School, May.



- Ellul, Andrew, and Vijay Yerramilli (2010). "Stronger Risk Controls, Lower Risk: Evidence from U.S. Bank Holding Companies," NBER Working Paper No. 16178, July.
- Schularick, Moritz, and Alan M. Taylor (2011). "Credit Booms Gone Bust: Monetary Policy, Leverage Cycles and Financial Crises, 1870-2008," *American Economic Review*, forthcoming.
- Pinto, Edward (2010a). "Government Housing Policies in the Lead-up to the Financial Crisis: A Forensic Study," <http://www.aei.org/docLib/Government-Housing-Policies-Financial-Crisis-Pinto-102110.pdf>.
- Pinto, Edward (2010b), "Triggers of the Financial Crisis," <http://www.aei.org/paper/100174>.
- Uribe, J. D. (2008) "Financial Risk Management in Emerging Countries: The Case of Colombia." Paper presented at the "12th Annual Conference of the Central Bank of Chile," November.
- Wallison, Peter (2011). *Financial Crisis Inquiry Commission: Dissenting Statement*, January, 433-538.