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B. Critiques of the Institutional Structure of U.S. Macroprudential Regulation

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   1. Expand the Federal Reserve’s mandate to include a financial stability objective.
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   3. Amend FSOC voting rules to provide the Federal Reserve additional formal influence over the Council’s financial stability determinations.
   4. Incorporate financial stability objectives into mandates of all prudential regulators participating on FSOC.

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I. INTRODUCTION

The Financial Crisis highlighted the failure of many pre-existing financial regulatory regimes to detect and mitigate systemic risks. Governments around the world are now engaged in the slow process of crafting both domestic and international financial stability frameworks designed to identify and act upon imbalances and risk concentrations that may threaten the financial system as a whole. Although there is broad consensus on the need to supplement microprudential regulation and monetary policy with new instruments and tools designed to address systemic risks, there is tremendous cross-country variation in the institutional design and implementation of macroprudential policy. These variations have helped to revitalize the familiar debate regarding central bank independence, but with a new focus on the role that central banks should play in financial stability and macroprudential policy. Most commentators agree

1. See Steven L. Schwarz, Systemic Risk, 97 Geo. L. J. 193, 204 (2008) (defining “systemic risk” as “the risk that (i) an economic shock such as market or institutional failure triggers (through a panic or otherwise) either (X) the failure of a chain of markets or institutions or (Y) a chain of significant losses to financial institutions, (ii) resulting in increases in the cost of capital or decreases in its availability, often evidenced by substantial financial-market price volatility”); Int’l Monetary Fund, Bank for Int’l Settlements & Financial Stability Board, Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations (2009) (defining “systemic risk” as “a risk of disruption to financial services that is caused by an impairment of all or parts of the financial system and has the potential to have serious negative consequences for the real economy.”).

2. The term “macroprudential” broadly refers to financial regulation that fills the gap between conventional macroeconomic policy and the regulation of individual financial institutions. See Douglas J. Elliott, Greg Feldberg & Andreas Lehnert, The History of Cyclical Macroprudential Policy in the United States, Finance and Economics Discussion Series, Division of Research & Statistics and Monetary Affairs, Federal Reserve Board, 2013-29, 6 (“The [macroprudential] policymaker’s goal is to manage factors that could endanger the financial system as a whole, even if they would not be obvious as serious threats when viewed in the context of a single institution.”). Although the term has become somewhat of a buzzword, its origins can be traced to discussions among international bank regulators the late 1970s and early 1980s regarding the implications of rising oil prices on international bank lending and the consequences of financial innovation. See Piet Clement, The Term “Macroprudential” : Its Origins and Evolution, BIS QUARTERLY REVIEW, March 2010, 59-67.

3. As discussed in Part IV.A, there is no standard definition of “independence” in this context, researchers have focused on the political and economic constraints established by the central bank’s governing law or constitution. For a recent critical examination of the central bank independence literature, see Peter Conti-Brown, The Institutions of Federal Reserve Independence, Stanford University, Rock Center for Corporate Governance, Working Paper No. 139 (2014).

4. Although there is an enormous body of economics literature on macroprudential policy, interest from the legal academy in macroeconomic issues generally, and macroprudential policy specifically, has been more sporadic. For a notable recent exception, see Erik F. Gerdin, Credit Derivatives, Leverage and Financial Regulation’s Missing Macroeconomic Dimension, 9 BERK. BUS. L. J. 20, 34 (2011) (arguing for a “systematic exploration of the linkages between financial regulation and macroeconomic/monetary policy”). See generally Mark Kelman, Could Lawyers Stop Recessions? Speculations on Law and Macroeconomics, 45 STAN. L. REV. 1215 (1993) (positing that law and legal interventions might provide a corrective to recessions and the resulting higher unemployment and economic misallocation); Douglas A. Kysar, Sustainability, Distribution, and the Macroeconomic Analysis of Law, 43 B.C. L. REV. 1 (2001) (framing the macroeconomic approach in terms of promoting environmental sustainability); Timothy A. Canova, Financial Market Failure as a Crisis in the Rule of Law: From Market Fundamentalism to a New Keynesian Regulatory Model, 12 HARV. L & POL’Y REV. 369 (2009) (arguing
that central banks should play some role in macroprudential policy, and most major industrialized countries feature central banks prominently in their domestic financial stability frameworks. But the extent to which central banks charged with a financial stability mandate can or should have the same type of political and economic independence they have historically enjoyed over monetary policy remains a topic of debate.

Price stability is the classic mandate of central banks. And, at least until very recently, central bank independence has been viewed as the optimal institutional structure for achieving this goal. Indeed, a large body of empirical literature has shown that central bank independence, established through legal frameworks that both define the scope of central bank authority and preclude the political branches from using monetary policy in a distortionary way, is strongly correlated with price stability and low inflation.

for greater institutional control of macroeconomic policy to counteract financial industry capture of federal bank regulators; Margaret M. Blair, Financial Innovation, Leverage, Bubbles, and the Distribution of Income, 30 REV. BANKING & FIN. L. 225 (2010).

5. See, e.g., Gnp. of Thirty, Financial Reform: A Framework for Financial Stability (2009) (“Recent events provide impetus for recognizing a financial stability role for central banks. That carries with it a need for adequate authority and the tools to carry out this mission.”); Erland W. Nier, Jack Osinski, Luis I. Jacome & Pamela Madrid, IMF Staff Discussion Note, Institutional Models for Macroprudential Policy (2011) (“The central bank should play an important role [in macroprudential policy], so as to harness its expertise in risk assessment and its incentives to mitigate systemic risk, as well as to ensure coordination with monetary policy.”); Int’l Monetary Fund, Central Banking Lessons From the Crisis (2010) (noting that a majority of countries surveyed have given their central banks a financial stability mandate).

6. This somewhat overstates the point. As discussed in greater detail below, not all central banks have a single mandate under their authorizing statute or constitution. Some, such as United States Federal Reserve System, have multiple mandates which include, for example, the direction to maintain high employment and economic growth. See 12 U.S.C.A. § 225(a) (West, Westlaw through P.L. 113–36). Others, including the Central Bank of Ireland and the Bank of England, now have statutory financial stability mandates. See Central Bank Reform Act 2010 (item 24); Financial Services Act of 2012 (ch. 21), Part 1—Bank of England, para. 2. Moreover, in addition to price stability, central banks typically play an important role in supervising systemic payment and clearing systems, serving as lender of last resort in credit crises and the resolution of insolvent financial institutions.

7. See, e.g., Alex Cukierman, Steven B. Webb & Bilin Neyapti, Measuring the Independence of Central Banks and Its Effect on Policy Outcomes, 6 THE WORLD BANK ECON. REV. 353, 353–398 (1992) (concluding, based on longitudinal study of 72 countries, that central bank independence was inversely related to inflation—with independence determined by rate of turnover of central bank governors, an index based on a questionnaire answered by specialists in 23 countries, and an aggregation of the legal index and the rate of turnover); Alex Cukierman, Central Bank Independence and Monetary Control, 104 ECON. J. 1437, 1437–1448 (1994) (collecting studies that find a negative relationship between central bank legal independence and inflation within a group of industrialized countries); Alberto Alesina & Lawrence H. Summers, Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence, 25 J. OF MONEY, CREDIT & BANKING 151, 151–162 (1993) (finding that central bank independence improves price stability, but has no measurable impact on real economic performance). As to developing countries or countries with weaker rule of law, Cukierman et al. found that the rate of turnover of central bank chief executives provided a better proxy for central bank independence, at least as a predictor of price stability. Alex Cukierman, Central Bank Independence and Monetary Control, 104 THE ECON. J. 1437, 1437–1448 (1994).
Central Bank Independence and Macroprudential Policy

This paper examines the role of central banks in financial stability frameworks and argues that central banks should have both the primary role in and the same degree of independence over macroprudential policy as they do with respect to monetary policy. Central banks are well-positioned vis-à-vis other domestic agencies, including the organs of fiscal policy, to monitor and assess macroeconomic trends and risks. Given their existing roles in formulating monetary policy, monitoring and supervising payment and settlement systems, and as lender of last resort, central banks already have relevant institutional experience at analyzing systemic risk issues. This same expertise would seem to support the formulation and implementation of macroprudential policies designed to mitigate the build-up of systemic risk.

Central banks likewise have clear incentives to accurately assess macroprudential risks and to effectively act to mitigate those risks, since failure to do so ultimately may both impinge on their ability to fulfill their price stability mandate and increase the likelihood that they will need to act as lender of last resort in the event of a liquidity or other financial crisis. And the same concerns that support central bank independence with respect to monetary policy—i.e., to avoid potentially distortionary political influence over interest rate policy—similarly support independence over macroprudential policy. Macroprudential policies are designed to mitigate the build-up of excessive leverage and lending during boom times. These policies most directly impact the financial sector, and are therefore likely to be subject to intense lobbying and political scrutiny from financial sector actors who would accuse regulators of taking away the punch bowl once the party gets going. Macroprudential policymakers need the freedom both to select the macroprudential tools and instruments most effectively suited to mitigating the particular imbalances in the financial sector and to implement those policies in a timely manner. Although critics may warn of the dangers of concentrating additional financial stability authority under the roof of an unaccountable central bank, these concerns can be mitigated (although perhaps not entirely avoided) through clear institutional mandates and metrics and transparent systemic risk assessment methodologies. These and other factors would seem to support both a strong role for central banks in implementing macroprudential policy and for continued independence in that role.

410, 410–422 (2008) (comparing the transition process from high to low inflation with the implementation dates of central bank independence reforms and concluding that price stability is achieved before more independence is given to the central bank).

8. Given the range of available measurement methodologies (and more are developing), this may be challenging in the near term. See Dimitrious Bisias, Mark Flood, Andrew W. Lo & Stravos Valavanis, A Survey of Systemic Risk Analytics, U.S. Treasury Department, Office of Financial Research, Working Paper 0001 (2012) (summarizing the literature and identifying thirty-one proposed measures of systemic risk). But the concept, similar to the application of the Taylor Rule in the context of monetary policy, would be to provide observable benchmarks for evaluating macroprudential decision making.
But there are countervailing concerns as well. Many macroprudential tools reach beyond the traditional domain of central bank expertise—ensuring price stability—and into the realms of financial institution regulation, consumer protection, and structural policymaking. Some dynamic or cyclical macroprudential tools—for example, setting loan-to-value or debt-to-income ratios for consumer loans—look and feel like the type of consumer-targeted activities that are typically undertaken by microprudential regulators. A central bank’s expertise in understanding and navigating the macroeconomy would seem to have little use in crafting such granular measures as consumer loan terms. But even putting aside the question of their expertise to deploy macroprudential tools to mitigate systemic risks, there is a broader concern that inviting central banks to play a prominent role in financial stability frameworks ultimately will compromise their independence in effectively discharging their core mandate of price stability.

In light of these tradeoffs, what are the basic principles that should guide the organization of macroprudential policy frameworks and, specifically, the legal authority and independence of central banks in those frameworks?

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This paper proceeds in three parts. Part I begins with a brief introduction to the concept of macroprudential regulation and provides a high level taxonomy of some of the major macroprudential instruments and tools available to policymakers. In the main, macroprudential tools can be grouped into two broad categories: (1) those designed to address pro-cyclicality across the financial system, and (2) those designed to address specific risk concentrations within the financial system. While the effective implementation of macroprudential tools requires expertise at monitoring and assessing macroeconomic conditions—the traditional province of central banks—the tools themselves will often operate at the microprudential level (that is to say, at the level of individual financial institutions) or sector level. This feature of macroprudential instruments, combined with the goal of dynamic or cyclical macroprudential policies to proactively mitigate the build-up of systemic risks during boom times, has important implications for the institutional organization of financial stability frameworks.

Part III introduces the notion of central bank independence, as that concept traditionally has been understood with respect to monetary policy. I then argue that the basic political economic and institutional factors that favor central bank independence in setting monetary policy apply with equal or greater force to

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9. There is currently no consensus on how best to define or measure “systemic risk.” See id. (identifying thirty-one proposed measures of systemic risk); Lars Peter Hansen, Challenges in Identifying and Measuring Systemic Risk, University of Chicago and NBER Working Paper (Feb. 14, 2013) at 1.
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macroprudential regulation, and defend the view that independent central banks should be chiefly responsible for formulating and implementing macroprudential policy.

Building on these concepts, Part IV analyzes the independence of the Board of Governors of the Federal Reserve System within the financial stability framework created by Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act.¹⁰ Among other things, the functional consolidation of financial stability authority in the multi-member Financial Stability Oversight Council (“FSOC”), chaired by the Secretary of the Treasury, and of which the Chairman of the Federal Reserve is one of several voting members, provides an important expansion of macroprudential authority for both the Department of the Treasury and various microprudential regulators. The Council’s composition therefore reduces the independence of the Federal Reserve with respect to macroprudential policy.

At the same time, FSOC is largely conceived as a monitoring entity with little functional authority to undertake the difficult work of implementing macroprudential policy. As a practical matter, the Federal Reserve retains that authority but without a clear statutory mandate to weigh a financial stability objective against its existing dual mandate to achieve price stability and economic growth. The failure of Dodd-Frank to identify a single institution—or combination of institutions—with the direct statutory authority both to monitor and to mitigate systemic risk is not merely an academic concern: macroprudential policy is intended to address the build-up of systemic risks that might otherwise emerge from regulatory or institutional interstices. The awkward combination of the Federal Reserve’s de facto responsibility to maintain financial stability and the lack of a clear mandate for either FSOC or the Fed to pursue that goal undermines both the Federal Reserve’s independence and the extent to which it can reasonably be held accountable for macroprudential policy. These institutional design flaws ultimately may compromise the effectiveness of U.S. macroprudential policy as a whole. With these critiques in mind, I close by offering some suggestions for appropriately increasing the independence, transparency, and accountability of U.S. macroprudential regulation generally, including an expansion of the role of the Fed in implementing that policy.

II. A PRIMER ON MACROPRUDENTIAL POLICY

Before considering the role of central banks within financial stability frameworks, it may be useful to begin by defining what is meant by macropru-

dential policy and to provide some examples of the types of considerations and tools that may comprise such policy. Broadly speaking, “macroprudential” policy refers to a range of regulatory structures and policy interventions that are designed to address systemic financial risk.\(^\text{11}\) Macroprudential policies fall between macroeconomic management (typically the domain of monetary and fiscal policy) and the prudential regulation of individual financial institutions. As one commentator has noted, macroprudential policy proceeds from a "system-wide or systemic perspective, rather than from that of the safety and soundness of individual institutions on a stand-alone basis... It means taking explicitly into account the fact that drivers of risk depend on the collective behavior of financial institutions (are “endogenous”), and are not something outside of their influence."\(^\text{12}\) Put simply, the goal of macroprudential policy is to manage the factors that could stress the financial system as a whole even though the threats of these factors might not be apparent when applied to a single financial institution. As was evident in the Financial Crisis, the interconnectedness of the modern financial sector may quickly transfer risks throughout the system and exacerbate financial contagion.

To achieve this systemic approach to financial regulation, macroprudential policy aims to address both the cyclicality of the financial system and the ways in which risk is allocated across the system over time.\(^\text{13}\) Commentators have variously identified the twin aims of macroprudential policy as: (1) to “lean against the financial cycle” to reduce the probability or magnitude of a financial bust; and (2) to strengthen the financial system’s resilience to economic downturns or other shocks.\(^\text{14}\) Accordingly, the range of macroprudential tools available to policy makers can be broadly categorized as countercyclical tools, which mitigate threats to the financial system that may emerge over time, and systemic, or structural, tools, designed to improve the resilience of the financial sys-

\(^{11}\) Grp. of Thirty, *Enhancing Financial Stability and Resilience: Macroprudential Policy, Tools, and Systems for the Future* (2010) ("The goal of macroprudential policy is the welfare of the entire financial system, as opposed to the goal of prudential supervision, which is the safety of individual institutions.").


\(^{13}\) Int’l Monetary Fund, Bank for Int’l Settlements, Financial Stability Board, *Macroprudential Policy Tools and Frameworks* (2011) (defining macroprudential policy as policy that “uses primarily prudential tools to limit systemic or system-wide financial risk, thereby limiting the incidence of disruptions in the provision of key financial services that can have serious consequences for the real economy, by dampening the build-up of financial imbalances and building defences that contain the speed and sharpness of subsequent downturns and their effects on the economy; identifying and addressing common exposures, risk concentrations, linkages and interdependencies that are sources of contagion and spillover risks that may jeopardise the functioning of the financial system as a whole.").

Central Bank Independence and Macroprudential Policy

A. Countercyclical Tools

The financial system is inherently pro-cyclical. Rapid credit growth, at times accompanied or encouraged by anti-inflationary monetary policy, leads to increases in asset prices, which in turn fuels consumption and investment. The Financial Crisis—like the Great Depression, the Japanese banking crisis in the 1990s, and the East Asia crisis of 1997—was preceded by rapid credit creation. In each of these cases, increases in system-wide debt generated higher asset prices and higher collateral values, which in turn led to further increases in credit. Economists have debated whether monetary policy can be effectively deployed to counter the increase in asset prices and acceleration of credit that often precede financial crises. While interest rate policy may help reduce some forms of credit extension, it is generally viewed as a blunt instrument to address pro-cyclicality—both too unfocused to effectively address asset value increases in particular sectors and too costly to the broader goals of economic growth.

In the wake of the Crisis, academics and central bankers have proposed a number of cyclical regulatory policies to help encourage banks to build up capital buffers during the boom times that can then be drawn upon during the downturn in the credit cycle. These tools are intended not only to slow the growth of credit and leverage as financial imbalances grow, but also to build up buffers to protect the financial system when the same imbalances unwind.

There are a number of potential trade-offs and challenges posed by the countercyclical tools detailed below. First, any macroprudential policies intended to actively mitigate financial imbalances necessarily pose the risk of reducing the dynamism of the financial system generally with deleterious consequences for economic growth.


18. Numerous commentators have questioned whether this link between bank capital requirements and macroeconomic performance exists or, if so, whether it is sufficiently significant to counsel against its use in macroprudential policy. See, e.g., Bank of England, The Role of Macroprudential Policy (Discussion Paper, Nov. 2009) (explaining that “a higher equity share in the capital structure of a firm need not necessarily imply a higher cost of funding for the banking system because of the reduced risk and hence cost of debt finance arising from lower levels of leverage”); Macroeconomic Assessment Group, Financial Stability Board and Basel Committee on Banking Supervision, Final Report: Assessing the Macroeconomic Impact of the Transaction to Stronger Capital and Liquidity Requirements, 2 (Dec.
capital, as is contemplated under various countercyclical capital regimes, may be costly for the banking system and unnecessarily slow the growth of productive lending. Second, any rule-based macroprudential tool presents financial institutions with opportunities for arbitrage around the rule. Just as many financial institutions were drawn to the shadow banking system for more competitive short-term credit rates in the run-up to the Financial Crisis, policymakers choosing between macroprudential tools and the sectors in which to deploy them should be aware of substitute financial products that are available and perhaps not subject to the same regulatory constraints. Third, a rule-based countercyclical macroprudential policy will need to be complemented with discretionary action by the macroprudential regulatory body if and when the regulator identifies financial imbalances not adequately mitigated through existing rules.\footnote{Bank of Int’l Settlements, supra note 12 at 6 (“[E]ach new financial cycle has unique as well as generic characteristics. Thus, policymakers will need to exercise judgment and give due weight to qualitative factors when using financial measures to assess systemic risks. The timing and intensity of policy interventions will also probably need to be varied with some discretion.”).}

\section{Countercyclical Capital Requirements.}

Leading global financial authorities generally agree that countercyclical capital requirements should be considered as a tool of macroprudential policy.\footnote{See, e.g., D.J. Elliott, \textit{Choosing Among Macroprudential Tools}, The Brookings Inst., 2 (June 7, 2011), available at http://www.brookings.edu/~media/research/files/papers/2011/6/07%20macroprudential%20tools%20elliott/0607_macroprudential_tools_elliott (“Countercyclical capital will clearly be an important macroprudential tool, perhaps the most important one used in advanced economies.”); Bank of Int’l Settlements, Comm. on the Global Fin. Sys., \textit{Countercyclical capital buffer proposal—consultative document}, 9 (July 2010), available at http://www.bis.org/publ/bcbs172.pdf (describing countercyclical capital buffers as “an important instrument in a suite of macroprudential tools at the disposal of the authorities”).} A variety of international monetary and political organizations have endorsed time variable bank capital requirements as an effective and targeted means of dampening the excessive growth of bank leverage, including the Basel Committee on Banking Supervision, the Financial Stability Board, and the G-20.\footnote{See Financial Stability Board, \textit{Report on Addressing Procyclicality in the Financial System} 11 (Apr. 2, 2009) (recommending that the Basel Committee “should strengthen the regulatory capital framework so that the quality and level of capital in the banking system increase during strong economic conditions and can be drawn down during periods of economic and financial stress”); Bank of Int’l Settlements, Basel Comm. on Banking Supervision, \textit{Consultative Document—Countercyclical Capital Buffer Proposal} 2 (July 2010) (describing goal of proposal to “use a buffer of capital to achieve the broader macroprudential goal of protecting the banking sector from periods of excess aggregate credit growth that have often been associated with the build-up of system-wide risk”); G20, \textit{Declaration on Strengthening the Financial System} 2 (Apr. 2, 2009) (recommending that international bank regulators enact policies to “mitigate procyclicality, including a requirement for banks to build buffers of resources in good times that they can draw upon when conditions deteriorate”).}
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The formulation of effective variable capital requirements likely will depend on the methodologies for adjusting those requirements through the economic cycle. A major criticism of pre-existing bank capital regimes, including Basel, relates to the static historic look back that traditionally has been used in calculating stress cases. As such, efforts are underway to redefine the methodologies associated with the bank’s capital function to avoid the problem of “near sightedness” in calculating stress cases. As an alternative, so-called “through-the-cycle methodologies” effectively disregard short-term fluctuations in default risk when calculating capital requirements and instead aim to reflect only the long-term structural component of risk. These models attempt to capture fluctuations in the probability of default in order to more closely approximate trends in the business cycle. Basel III will correct some of the current inputs to calculating the capital function by adding stressed periods or scenarios to make capital requirements less volatile through the cycle. Stressed VaR in Basel III’s market risk framework likewise is intended to build additional bank capital buffers during economic upswings.

From an implementation perspective, countercyclical capital requirements can be applied across sectors, to specific financial institutions, or even to specific types of products. There are advantages and disadvantages to each approach, with implications for the ultimate question of the role central banks should play in financial stability frameworks. For example, across-the-board capital requirements may be more attractive than targeted interventions in spe-

22. See, e.g., Bernard S. Sharfman, Using the Law to Reduce Systemic Risk, 36 J. CORP. L. 607, 615-16 (2011) (praising regulation of capital ratios, but arguing that this approach in Dodd-Frank is “incomplete because it is backward-looking”).


25. VaR is a measurement used to estimate the losses that could be incurred before a trading book position can be reduced. After the Financial Crisis, VaR drew criticism for a number of weaknesses, including its tendency to underestimate the possibility of “tail risk”—low probability, high consequence events—by virtue of its use of short historical observation periods to asset the volatility of an asset and the statistical assumption that the probability of profits and losses is normally distributed. The “stress tests” suggested in Basel III and elsewhere are designed to correct that systematic error by revealing potential interlinkages that are not captured by stress test that are focused on single firms. See Grp. of Thirty, Working Grp. on Macroprudential Policy, Enhancing Financial Stability and Resilience: Macroprudential Policy, Tools and Systems for the Future 47–48 (Oct. 2010). For discussions of the potential instability effects of common risk measures, including VaR, see Charles Whitehead, Destructive Coordination, 96 CORNELL L. REV. 223 (2011) and Erik F. Gerding, Code, Crash and Open Source: The Outsourcing of Financial Regulation to Risk Models and the Global Financial Crisis, 84 WASH. L. REV. 127 (2009).

cific credit markets when it is unclear whether excessive risk taking in a single sector (say, housing) is indicative of a larger set of economic circumstances that encourage such risk taking. On the other hand, selective implementation of countercyclical capital requirements may enable macroprudential regulators to target areas of the financial sector, such as individual institutions or specific financial products, that pose the greatest threat to systemic stability while avoiding the broader negative macroeconomic effects that might result from across the board increases in bank capital.

The choice of discretionary or formula-based countercyclical buffers is itself a subject of debate. The virtues of discretionary targeting depend a great deal on the quality and independence of macroprudential judgments. Accordingly, many commentators have expressed a preference for formula-based countercyclical rules. Specifically, contingent capital—in essence, a convertible debt security that converts automatically to equity upon certain trigger events—has garnered support as a “pre-planned” macroprudential tool that would automatically enhance the loss absorbency of financial institutions in the event of crisis.

2. Countercyclical Liquidity Requirements.

Like countercyclical capital requirements, countercyclical liquidity requirements can be deployed to help mitigate the build-up of excess leverage during economic booms. A countercyclical liquidity rule would require banks to increase their minimum level of safe, short-term assets to cover the possibility of needing cash quickly to stop a bank run or to withstand a freeze in the short-term credit markets. Like countercyclical capital, a required increase in countercyclical liquidity would raise the cost of making loans during a boom. The measure would thus discourage excessive lending in the first instance, while also enhancing the resilience of individual institutions by increasing their holdings of short-term instruments to withstand a financial shock.

3. Tools to Address Excessive Credit or Asset Price Increases.

In addition to capital and liquidity requirements, there are a number of price- and quantity-based tools available to macroprudential regulators to address excessive credit or asset price increases. As to price-based tools, several

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prudential regulators, including those in India, Australia, Hong Kong and Spain have implemented countercyclical risk-weighting policies to help reduce exposures to certain instruments, sectors, and markets. As to quantity-based tools, both before and after the Financial Crisis, countries have used time variable caps on specific loan transactions to tighten credit in overheated sectors, including loan-to-value ratios, loan-to-income ratios, and debt-to-income ratios. These caps limit the amount that individuals or firms can borrow, thus helping to mitigate both a run-up in underlying asset prices and an increase in overall leverage. On the plus side, loan caps can be finely calibrated to address credit expansion in specific sectors of the market. Likewise, as with any targeted macroprudential instrument, focusing on particular transactions may help mitigate the impact of the intervention on broader monetary policies aimed at price stability and economic growth. On the other hand, specifically targeting certain types of transactions—particularly consumer-level loan transactions—raises the possibility of more intense political opposition from affected parties, and thus potentially subjects the macroprudential regulator to greater scrutiny and compromised independence.

4. Time Variable Collateral Requirements.

As commentators have noted, the “run on the repo”—the seizing of the short-term credit markets through which many financial institutions funded their operations prior to the crisis—contributed greatly to a liquidity shortage for many major financial institutions and the outright failure of others during the height of the Financial Crisis. As a result, countercyclical variations in margins or haircuts on collateral used in the securitized funding markets (such as repo) have come to be viewed as a necessary arrow in the macroprudential quiver.


31. For example, Hong Kong’s implementation of maximum loan-to-value ratios in the residential mortgage market was effective in reducing both the systemic impact of property boom-bust cycles and householder sector leverage. See T.C. Wong et al., Loan-to-Value Ratio as a Macroprudential Tool - Hong Kong’s Experience and Cross-Country Evidence, (February 23, 2011) available at http://ssrn.com/abstract=1768546 or http://dx.doi.org/10.2139/ssrn.1768546.


34. See David Longworth et al., The Role of Margin Requirements and Haircuts in Procyclicality viii (Comm. on the Global Fin. Sys., Paper No. 36, Mar. 2010) (explaining that “higher haircuts and initial margins during expansions would provide greater credit loss protection if collateral assets have to be
5. Monetary Policy.

It goes without saying that monetary policy can play a critical role in what we now view as macroprudential policy. Effective interest rate policy can be used to mitigate increases in leverage and asset prices, although it risks acting as a blunt instrument in addressing particular vulnerabilities and imbalances in the financial sector by causing broader, negative spillover effects in the wider economy. As discussed in greater detail below, the main goal of monetary policy is price stability. While the macroprudential goal of ensuring financial stability with a steady supply of credit across the macroeconomic cycle is in some ways complementary to the price stability objective, it is also distinct. Nevertheless, the policy judgments necessary to achieve each goal are largely similar, since both price stability and financial system stability depend on broad trends in the macroeconomic environment. Efforts are underway at central banks around the world to develop more robust macroeconomic models that provide a tighter linkage between financial stability indicators and monetary policy by taking into account financial balance sheets, financial intermediation, and current asset prices.


While the tools mentioned above are targeted primarily to address procyclical risks—that is, the increase of leverage during economic booms and the subsequent decline in lending during crises—macroprudential policies also may focus on enhancing the overall resilience of the financial system to shocks. Although risk concentrations and financial imbalances may themselves be easy to identify, regulators are still developing the methodologies for identifying the risks of interconnectedness, as well as the tools for mitigating those risks. Although by no means exhaustive, the following discussion identifies a number of the major tools for enhancing financial system resilience, as well as their strengths and weaknesses.


35. See, e.g., Grp. of Thirty, *supra* note 25, at 32 (“Although there is a complementary relationship between monetary and macroprudential policy, and monetary policy can often be used to address systemic risk, monetary policy is not a perfect tool for migrating sources of risk internal to the financial system and combating procyclical trends within the financial system . . . monetary supervisors are not always in the best position to moderate movements in financial asset prices or emerging financial imbalances.”).


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1. Systemic Liquidity, Capital and Surcharges.

Policymakers are in the process of identifying systemically important financial institutions (SIFIs)\textsuperscript{38}—institutions whose failure or insolvency would have a potentially destabilizing impact on the financial system writ large—and designing specific tools to monitor and mitigate the concentration of systemic risks within these entities. One genre of macroprudential tool regulators and academics are now considering involves assessing SIFIs with systemic risk surcharges, which would be calibrated based on the systemic-specific risk posed by the individual SIFI to the financial system as a whole.\textsuperscript{39} The goal of these surcharges is to lessen the systemic impact that may result from SIFI failure by increasing their capacity for loss absorption. Related tools include systemic liquidity and capital surcharges, each also based on the firm’s marginal contribution to systemic risk.\textsuperscript{40}

2. Capital charges for uncleared trades.

The failure of a systemically important utility, such as a payment or settlement system, potentially could have consequences as severe for financial stability as the failure of one or more systemically important financial institutions. Likewise, a robust central clearing mechanism helps both to enhance the monitoring of credit exposures and interconnectedness of trading counterparties, and to mitigate the systemic cost resulting from the failure of a single market participant. As a result, several jurisdictions have recently focused on mandated or incentivized use of central clearing houses by financial institutions as a means of mitigating systemic risk.\textsuperscript{41} The Dodd-Frank Act, for example, requires centralized clearing of most swap transactions,\textsuperscript{42} and requires supervision of systemically important market utilities by the Financial Stability Oversight Coun-

\textsuperscript{38} Although there is no single metric of “systemic importance,” there are a number of likely variables that indicate the level of systemic risk posed by a particular institution, including, \textit{inter alia}, total value of assets, liabilities arising from arrangements with other financial institutions, repo liabilities, value of trading assets, presence of infrastructures that reduce uncertainty about inter-institution exposure (e.g., clearing houses), and network structure. See GRP. OF THIRTY, \textit{supra} note 25, at 45

\textsuperscript{39} See e.g., Jeffrey N. Gordon & Christopher Muller, \textit{Confronting Financial Crisis: Dodd-Frank’s Dangers and the Case for a Systemic Emergency Insurance Fund}, 28 YALE J. REG. 151 (2011) (discussing proposal for systemic risk surcharge); Basel Committee on Banking Supervision, \textit{Globally Systemically Important Banks: Assessment Methodology and the additional loss absorbency requirement at 12-14 (July 2013) (discussing methodology for calculating higher loss absorbency requirements—i.e., common equity as a percentage of risk-weighted assets) for globally systemically important banks)}


\textsuperscript{41} For a critical assessment of central clearing as a systemic risk-mitigating device, see Mark J. Roe, \textit{Clearinghouse Overconfidence}, 101 CAL. L. REV. 1641 (2013).

\textsuperscript{42} Dodd-Frank § 723(a) (requiring mandatory clearing of swaps through registered or exempt clearing organization).
cil (discussed in greater detail below), the new macroprudential regulator.

3. Aggregate lending or leverage limits.

Perhaps a more heavy-handed approach to excessive risk taking during boom times is direct regulation of the amount of leverage financial institutions can use, either individually or as a class. A gross-leverage ratio, like a counter-cyclical capital buffer, would help control increases in leverage during boom times and thus minimize the potential for harm in the eventual downturn. But by limiting aggregate credit positions, an aggregate leverage ratio would also address risks of systemic or cross-sectional financial stability by reducing aggregate positions. Moreover, because it is broadly applied (and thus easy to implement), aggregate credit ratios may help reduce the risk of regulatory arbitrage that can result from more targeted macroprudential policies.

However, leverage limits have the potential to arbitrarily constrain positive economic activity. Aggregate leverage limits act as blunt instruments that do not distinguish between credit extended on high-grade assets and low-grade assets.

4. Structural Measures To Limit Risk Concentrations and Interconnectedness.

Macropurged policy also may operate on a more structural basis to mitigate risk concentration and limit the interconnectedness of financial institutions. For example, some countries historically have placed limitations on financial risk concentration through boundaries drawn around regulated industries. In the United States, for example, the Glass-Steagall Act, repealed in 1999, prohibited commercial banks from engaging in securities transactions. The so-called Volcker Rule, embodied in Title VI of the Dodd-Frank Act, bans proprietary trading by U.S. investment banks. Similarly, the Financial Stability Oversight Council may force the break-up of bank holding companies or restrict their ability to offer certain financial products or services if the Federal Reserve determines that the bank holding company poses a “grave threat” to financial stability. And government agencies can use competition policy generally to prohibit or mitigate the concentration of particular industries through growth or merger.

43. Id. § 112(a)(2)(J) (describing FSOC’s duties to include, inter alia, identifying systemically important financial market utilities and payment, clearing and settlement systems).
45. Dodd-Frank Act § 619.
46. Id. § 121(a).
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C. Crisis Response Tools.

Any macroprudential toolkit must include not only the rules and instruments designed to mitigate the build-up of excessive risk in the financial sector, but also the discretionary tools available to policymakers if financial crises nevertheless occur. Although some commentators have suggested that policy interventions may successfully thwart financial instability, most believe that macroprudential policy—even if properly designed and implemented—can never completely eliminate the occurrence of financial crises. Macroprudential regulators therefore should have at their disposal a set of instruments and tools to help reduce the severity and duration of financial crises when they do occur.

III. CENTRAL BANK INDEPENDENCE

A. Defining Independence

Commentators analyzing the optimal institutional structure for implementing macroprudential policy often begin by asserting the virtues of central bank independence with respect to macroeconomic policy. But what does it mean to say that a central bank is “independent” with respect to monetary policy and why does such independence, however it is defined, matter? As to the first question, “independence” typically refers to a central bank’s authority to select and implement its policy objectives, consistent with its mandate, without influence from the executive or legislature. There is no standard definition or scale of central bank independence, although commentators have focused on the political and economic constraints established by the central bank’s governing law or constitution. Indicators of political independence may include the

47. Hyman P. Minsky, STABILIZING AN UNSTABLE ECONOMY 7 (1986) (“The dynamics of capitalist economy . . . lead to the development of conditions conducive to incoherence . . . . But incoherence need not be fully realized because institutions and policy can contain the thrust to instability.”).

48. See John C. Coffee, Jr., Systemic Risk After Dodd-Frank at 802-803 (“[I]t is, unfortunately, predictable that serious problems capable of generating a systemic crisis will not be detected in advance or will elicit only an inadequate response.”); Kim de Glossop, The Inherent Instability of the Financial System, 4 J. BUS. ENTREPRENEURSHIP & L. 483 (2011) (“If the system is indeed inherently unstable then no amount of intervention—by central banks or regulators—will be able to eliminate the risks we face, short of a switch to a different system altogether.”); Steven L. Schwartz, Controlling Financial Chaos: The Role and Limits of Law, 2012 WISC. L. REV 815, 826 (“Ideal regulation would act ex ante, eliminating the triggers of systemic risk. Realistically, however, we cannot eliminate those triggers.”).


relationship between the central bank and the executive, or the relationship between the central bank and the legislature. In examining central bank independence, researchers have assessed, among other things, the executive’s role in nominating or dismissing the head of the central bank, 52 the role of executive officials on the central bank’s board, the length of service of central bank governors and board members, 53 whether government approval for monetary policy decisions is required, 54 and the role of any executive agency in auditing or reviewing the operations of the bank. Legislative involvement with central bank operations often includes periodic reporting requirements.

Economic independence, by contrast, may be loosely defined as the ability to use specific instruments of monetary policy without restriction. A common economic constraint imposed on central banks relates to their obligation to finance government deficits. This type of activity, if legally required, reduces the central bank’s ability to influence macroeconomic conditions in the direction it deems most appropriate for performing its mandate to maintain price stability. 55 Less overtly, to the extent that any other government entity has


55. The laws authorizing the U.S Federal Reserve System, the European Central Bank and the Bank of Japan all prohibit those central banks from directly underwriting government debt. See, e.g., Federal Reserve Act § 12(b), 12 U.S.C. § 355 (1) (2012) (“any bonds, notes, or other obligations which are direct obligations of the United States or which are fully guaranteed by the United States as to the principal and interest may be bought and sold without regard to maturities but only in the open market”) (emphasis added); Protocol on the Statute of the European System of Central Banks, art. 18, May 9, 2008, 2008 O.J. (C115) 230 (giving the ECB broad powers to buy and sell securities, “in order to achieve the objectives of the ESCB”); Consolidated Version of the Treaty on the Functioning of the European Union art. 123, May 9, 2008, 2008 O.J. (C115) 47 [hereinafter TFEU] (“Overdraft facilities or any other type
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authority over policy instruments that impact price stability, that agency’s authority may indirectly compromise the ability of the central bank to set its own macroeconomic policy agenda. For example, the timing and issuance of government debt by the U.S. Treasury Department may hinder or multiply the effects of certain novel monetary policies implemented by the Federal Reserve. 56

Both political and economic independence can be defined in reference to the central bank’s governing law or constitution. Legal or “functional” independence requires that the primary objective of the central bank—its mandate—be set forth in a legally certain way that provides the bank with a clear and transparent goal in setting its policy instruments. As a practical matter, most legal grants of authority to central banks in developing economies identify price stability as the bank’s principle or primary objective. 57 Any legal obstacle to the central bank’s control over interest rates—the primary tool of monetary policy—can be viewed as an obstacle to legal independence. The grant of legal authority to the central bank may be incomplete and therefore fail to specify the limits of authority between the central bank and other government entities. This sort of indeterminacy in the bank’s scope of authority may be as general as

56. A recent example of the complimentary impact of fiscal and monetary policies can be seen with the Federal Reserve’s revitalization of “Operation Twist,” a monetary program pursuant to which the Fed funds the purchase of up long-term Treasury bills by selling short-term Treasuries. As a result, the average maturity of outstanding government decreased, for a time. However, subsequent bond issuances by the Treasury Department ultimately overwhelmed the open market purchases by the Fed and increased the average maturity of outstanding debt, thus reducing the effectiveness of the Fed’s program. See Federal Reserve Bank of New York, FAQs: Purchases of Longer-term Treasury Securities, available at http://www.newyorkfed.org/markets/lttrea_ifaq.html (last visited Oct. 25, 2013); see also Is Treasury Undermining QE? THE ECONOMIST, Mar. 18, 2011, available at http://www.economist.com/blogs/freeexchange/2011/03/monetary_policy_4.

57. The Federal Reserve Act identifies the “monetary policy objectives” of the Federal Reserve System as “maintain[ing] the long run growth of the monetary and credit aggregates commensurate with the economy’s long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.” 12 U.S.C. § 225a. The European Central Bank’s mandate is more circumscribed in its focus of price stability. See Maastricht Treaty, Art. 105(1), Feb. 2, 1992, 1992 O.J. (C191) 1 (“The primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, the ESCB shall support the general economic policies of the Community . . .”).

competing policy mandates in the central bank’s charter or it may revolve around the specific tools and instruments the central bank can permissibly use for discharging its mandate.

B. Why is central bank independence important for monetary policy?

Money creation in the form of low interest rates can generate positive short-term effects on growth and employment while shifting the costs of such policies, most notably higher inflation, into the medium to longer term, past upcoming election cycles. This presents an obvious temptation for elected officials to use monetary policy to enhance short-term economic performance for electoral gain. Delegating monetary policy to an independent central bank removes this temptation and thus enhances the positive impact of price stability on long-term growth. As Alesina and Summers elegantly state, “delegating

58. For example, the Federal Reserve has a dual mandate of price stability and maximum employment with no indication as to the hierarchy with which the Fed is intended to prioritize these goals. By contrast, while the mandate to the European Central Bank makes clear that the ECB should support the general economic policies of the European Community, including high levels of employment and economic growth, these goals are secondary to the primary goal of price stability. See Giuseppe Fontana, The Federal Reserve and the European Central Bank: A Theoretical Comparison of Their Legislative Mandates, 28 J. POST KEYNESIAN ECON. 433, 437–38 (2006). Some central bankers have advocated that policymakers provide central banks with not only a broad mandate to ensure price stability but to provide legislated inflation targets or target frameworks, in part to avoid the ambiguity in legal authority and resulting challenges in legitimacy. See William Poole, Institutions for Stable Prices: How to Design An Optimal Central Bank Law, 85 FED. RES. BANK ST. LOUIS REV. Nov.-Dec. 2003, at 1. Others have concluded that a more general mandate allows for a high margin of flexibility in policy formulation that enables the central bank to employ less restrictive theoretical assumptions than a single mandate for price stability. See Donald L. Kohn, Panel Discussion: Inflation Targeting, 86 FED. RES. BANK ST. LOUIS REV. Jul.-Aug. 2004, at 179, 180 (“I think the U.S. economy has benefitted from the flexibility that the Federal Reserve as derived by eschewing a formal inflation target.”); see also Benjamin M. Friedman, Why A Dual Mandate is Right for Monetary Policy, 11 INT’L Fin. 153, 155 (2008) (“When monetary policy pursues objectives for both prices and real output, an inflation targeting regime is unlikely to deliver the gains in policy transparency and accountability of policy that advocates often claim as its advantages; the more likely result is instead a loss of transparency and a parallel sacrifice of accountability.”).

59. The classic example here is the Federal Reserve’s structuring of the loan facility that enabled the purchase of assets from Bear Stearns and AIG. Sections 13 and 14 of the Federal Reserve Act, read together allow the bank to make loans to solvent companies in “exigent circumstances” but prohibit the Fed from purchasing non-governmental assets. To facilitate the rescue of Bear Stearns, the Fed created a wholly-controlled limited liability company, Maiden Lane LLC, to engage in the purchase mortgage-related assets from Bear. Maiden Lane then used the proceeds from a $28.2 billion loan from the New York Fed and an additional $1 billion subordinated loan from J.P. Morgan to purchase the assets. Commentators have argued that this transaction, which effectively amounts to the Fed’s purchase of private assets in a two-step transaction, exceeded the Fed’s authority under Section 14 of the Federal Reserve Act, which limits the Fed’s power to purchase assets to “bonds, notes, or other obligations which are the direct obligations of the United States or which are fully guaranteed by the United States.” Federal Reserve Act §§ 13, 14(b)(1), 12 U.S.C. §§ 343, 355(1); see Chad Emerson, The Illegal Actions of the Federal Reserve: An Analysis of How the Nation’s Central Bank Has Acted Outside The Law in Responding to the Current Financial Crisis, 1 WM. & MARY BUS. L. REV. 109, 128–29 (2010).

60. See Poole, supra note 58, at 3 (“Political independence and nonpartisan monetary policy provide the promise of policy stability over time, which in turn stabilize expectations in asset markets. Such stability and continuity is essential to successful monetary policy.”).
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monetary policy to an agent whose preferences are more inflation averse than are society’s preferences serves as a commitment device that permits sustaining a lower rate of inflation than would otherwise be possible.”61 Numerous studies over the past two decades have endorsed the wisdom of this strategy, concluding that central bank legal independence, variously defined, is inversely correlated to inflation, at least in industrialized countries.62

But there are also familiar concerns associated with delegating monetary policy to a wholly independent central bank. Economists have criticized central bank independence in setting monetary policy as undemocratic on the grounds that it entrusts monetary policy to a group of unaccountable technocrats with no or limited political oversight.63 As the argument goes, policymakers may prefer accommodative monetary policy because it reduces recessionary concerns and provides short-term gains in employment and economic output going into the election cycle. Pre-committing monetary policy to an independent central bank is intended to overcome these short-term democratic pressures in favor of long-term price stability.64 The accountability dilemma arguably becomes more acute during financial crises or unexpected macroeconomic


62. See, e.g., Alex Cukierman, Steven B. Webb & Bilin Neypaki, Measuring the Independence of Central Banks and Its Effect on Policy Outcome, 6 World Bank Econ. Rev. 353(1992) (concluding, based on longitudinal study of 72 countries, that central bank independence was inversely related to inflation–with independence determined by rate of turnover of central bank governors, an index based on a questionnaire answered by specialists in 23 countries, and an aggregation of the legal index and the rate of turnover); Alex Cukierman, Central Bank Independence and Monetary Control, 104 The Econ. J. 1437, 1438 (1994) (collecting studies that find a negative relationship between central bank legal independence and inflation within a group of industrialized countries); Alesina & Summers, supra note 61 at 151 (finding that central bank independence improves price stability, but has no measurable impact on real economic performance). As to developing countries or countries with weaker rule of law, Cukierman et al. found that the rate of turnover of central bank chief executives provided a better proxy for central bank independence, at least as a predictor of price stability. Cukierman et al., 6 World Bank Econ. Rev. at 390–392. For recent studies finding a weaker correlation between central bank independence and price stability, see Sven-Olov Daunfeldt & Xavier de Luna, Central Bank Independence and Price Stability: Evidence from OECD countries, 60 Oxford Econ. Papers, 410 (2008) (comparing the transition process from high to low inflation with the implementation dates of central bank independence reforms and concluding that price stability is achieved before more independence is given to the central bank).


64. See, e.g., Rosa M. Lastra, Central Bank Independence and Financial Stability, Estabilidad Financiera, NÚM. 18 (“In a democracy, political parties try to appeal to various constituencies and in their eagerness to increase economic activity, the incumbent party may engage in inflationary policy in the period immediately before an election in order to raise employment, and create a strong, if temporary, sense of euphoria among voters that translates into votes for the politicians then in office. It is against this background that independent central banks find their contemporary justification: central bank independence is conceived as a means to achieve the goal of price stability.”)
shocks, when the central bank may intervene more directly at the institution or sector level to mitigate the potential crisis. In either case, accountability and communication structures that enhance transparency and enable greater political scrutiny (if not direct control) over central bank actions can mitigate some of these concerns relating to central bank independence.

The same basic rationale for delegating authority over monetary policy to an independent agency applies to financial stability policy. As with interest rate policy, political authorities may have an incentive to distort macroprudential policies in the short run—for example by preventing the imposition of countercyclical capital requirements that slow lending and asset price increases—to the detriment of long- or medium-term financial stability. So again, the pre-commitment of macroprudential policy to an independent agency helps ensure efficient action can be taken to address systemic risks in advance of a financial crisis, even if that means taking away the punch bowl as the party gets going.

Indeed, because the instruments of macroprudential policy are, in the main, more targeted to specific institutions or sectors of the financial system, they are likely to be subject to even more intense resistance from the affected parties than a general interest rate move that impacts the economy more broadly. Central bank independence helps reduce the risk of delayed action in implementing macroprudential policy because of adverse political influence or lobbying. As numerous commentators have noted, a key characteristic of an effective macroprudential policy is the ability of macroprudential policymakers to act decisively to curb systemic risk concentrations once they have been identified.

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65. Cukierman, supra note 7, at 1444.

66. Central banks today often communicate with the public about their actions and objectives of monetary policy through a variety of mechanism including reports, speeches, testimony, press conferences, and post-decision announcements. For example, the Board of Governors of the Federal Reserve System publishes the minutes and transcripts of its Open Markets Committee meetings, conducts press conferences at the conclusion of such meetings, and its bank governors and board members frequently deliver speeches and testimony on a wide range of topics concerning the Fed’s operations and policy. Economist Benjamin Friedman has argued that transparency of monetary policy has two primary benefits: (1) providing greater predictability that in turn “leads to more efficient decision making by private investors, firms and workers involved in determining prices and wages”; and (2) “enable[ing] both higher political authority and the body politic at large to hold monetary policy makers accountable for their success or failure in achieving the ends to which they are charged.” Benjamin M. Friedman, Why A Dual Mandate is Right for Monetary Policy, 11 INT'L FIN., 159 (2008).


68. See, e.g., Christopher Crowe, Giovanni Dell’Ariceia, Deniz Igan & Pau Rabanal, Policies for Macrofinancial Stability: Options to Deal with Real Estate Booms, 6-7 (2011) (analyzing lobbying activity of mortgage lenders prior to the Financial Crisis and suggesting that this and related lobbying activity by the financial industry influenced financial stability); Randall Kroszner & Philip Strahan, Bankers on Boards: Monitoring, Conflicts of Interest, and Lender Liability, available at http://www.nber.org/papers/w7319 (last visited Jan. 29, 2014) (showing that special interest theory can be used to explain bank deregulation in the United States).
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tified. Macroprudential authorities also require a high degree of discretion over the policy instruments they use to mitigate macroprudential risk.

C. Is central bank independence desirable in the formulation and implementation of macroprudential policy?

As a practical matter, most commentators and most countries have concluded that central banks should play a critical role in financial stability frameworks. There are several reasons why central banks should have a central role in formulating and implementing macroprudential stability programs. First, the central bank’s achievement of its price stability mandate is inextricably linked to financial stability. Sharp changes in interest rates can result in large changes in asset values that may make it more likely for financial crises to occur. Price stability can therefore be viewed as a crucial macroprudential tool since it mitigates the likelihood and severity of financial crises, even though there may be short-term trade-offs between price stability and financial stability that the central bank’s lender of last resort function makes necessary. When used in a complementary fashion, monetary policy can support the goals of financial stability and vice versa. For similar reasons, because price stability and financial stability policies are closely interlinked, delegating macroprudential authority to a government agency other than the central bank may threaten the bank’s independence over its price stability mandate.

Second, and closely related to the linkage between price stability and financial stability, central banks have a strong institutional incentive to reduce the frequency and severity of financial crises. A central bank’s role in both the resolution of systemically important financial institutions and as lender of last resort during liquidity crises places its balance sheet at risk. If macroprudential policies are too lax in mitigating pro-cyclical leverage growth, asset price increases, or the build-up of concentrated risk within the financial system, then the central bank will have to put its own capital at risk when crisis hits. As the meteoric increase in central bank balance sheets post-Crisis demonstrates, the


70. See, e.g., Grp. of Thirty, Working Group on Macroprudential Policy, Enhancing Financial Stability and Resilience: Macroprudential Policy, Tools and Systems for the Future 15 (2010) ("[T]he working group believes that the central bank must play a pivotal role in any such council or board that is established to implement macroprudential policy"); but see Wolfram Berger & Friedrich Klammer, Central Bank Independence and Financial Stability: A Tale of Perfect Harmony?, EURO. J. POLITICAL ECON., 2013 (concluding that central bank independence fosters financial instability).

71. For example, a central bank may need to abandon its interest rate policy during a financial crisis in order to provide necessary liquidity to avoid a bank run. See, e.g., Ernst Baltensperger, Central Bank Policy and Lending of Last Resort, 441–452, available at http://www.jstor.org/stable/23247861?origin

72. Nier et al., supra note 5, at 14.

73. Id. at 11.
process of unwinding financial excesses not mitigated through sound macroprudential policy can be costly to the central bank.\textsuperscript{74} Moreover, asset purchases by central banks may threaten the effectiveness of their price stability agendas.\textsuperscript{75} In light of their lender of last resort and resolution obligations, central banks also therefore have a strong incentive to use monetary policy to compensate for ineffective macroprudential regulation. As discussed above, there are strong reasons not to rely too heavily on monetary policy as the primary instrument for mitigating countercyclical financial imbalances or the build-up of risk concentrations across the financial system.

Third, central banks are well-suited to take a prominent role in macroprudential policy formulation and implementation. Central bank expertise in assessing macroeconomic conditions and macro-financial risks over a medium-term horizon, along with central banks' role in the design and oversight of systemically important payment and settlement systems,\textsuperscript{76} would seem to complement the goals of macroprudential policy. Although central banks, in the main, failed to identify the build-up of many of the financial imbalances that ultimately precipitated the Financial Crisis, their inherent level of analysis—macroeconomic conditions—should prove complementary to designing macroprudential stability measures.\textsuperscript{77}

While there are many reasons to believe that central banks should play a prominent role in macroprudential financial stability frameworks, there are also reasons to counsel against giving a strong prudential role to central banks. First, concentrating power over both monetary and financial stability policy into a single, unaccountable regulator may raise serious questions regarding democratic oversight and accountability. Pricing policy is a significant governmental

\textsuperscript{74} To provide just one example, the Federal Reserve’s balance expanded from approximately $870 billion in 2007 to over $4 trillion at the beginning of 2014. See http://www.federalreserve.gov/monetarypolicy/bst_recenttrends.htm

\textsuperscript{75} This is because the central bank effectively creates new money when it purchases assets, which can be inflationary.

\textsuperscript{76} Nier et al., supra note 5, at 13.

\textsuperscript{77} Some commentators have argued that central bank participation in micro-prudential regulation and supervision (a likely component of any macroprudential policy framework) may actually compromise the central bank’s conduct of monetary policy because the central bank with a dual agenda that includes financial and price stability may be reluctant to tighten monetary policy out of inflationary concerns if it compromises the solvency of institutions it supervises. See Charles Goodhart & Dirk Schoenmaker, \textit{Should the Functions of Monetary Policy and Banking Supervision Be Separated?}, OXFORD ECON. PAPERS, 546 (1995). As a practical matter, micro-supervision of individual financial institutions by the central bank does not appear compelling in light of the strong institutional incentives to coordinate monetary and macroprudential policy. See generally Ben Bernanke, \textit{Financial Regulation and Financial Stability}, Speech at the Federal Deposit Insurance Corporation’s Forum on Mortgage Lending for Law and Moderate Income Households, available at http://www.federalreserve.gov/newsevents/speech/bernanke20080708a.htm (last visited Jan. 29, 2014) (“\[D\]uring the recent financial turmoil the ability of the Fed to obtain information directly from key institutions and from supervisory reviews has been invaluable for understanding financial development and their impact on the economy.”).
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obligation, the success of which has important impacts on a range of public policy concerns, from economic growth to employment to the relative wealth of creditors and debtors. As in other regulatory contexts, delegation to an independent agency raises the possibility that the agency’s interest will depart from the public interest. Perhaps worse still is the possibility that the agency’s agenda will be captured by powerful lobbying and influence campaigns, typically by the industry actors within the agency’s regulatory jurisdiction.

Second, tasking the central bank with the lead role in macroprudential regulation may be viewed as compromising the bank’s independence over its primary goal of implementing monetary policy. Perceived failure by the central bank in its role as macroprudential regulator may compromise its credibility in the monetary policy domain as well.78

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If the central bank is given a larger role in the financial stability framework, including a stronger role with respect to the regulation of non-bank financial institutions and the formulation and implementation of other macroprudential tools, these powers need to be complemented with increased transparency and accountability. Achieving accountability and transparency in the context of monetary policy is relatively straightforward. The primary objective of price stability is easily quantified (subject to technical concerns regarding measurement, the margin for error in achieving the pricing target, etc.), and the primary tool for achieving this objective—the federal funds rate—is easily understood. The ease with which price stability can be measured simplifies the exercise of holding the delegated monetary authority accountable, and thus helps reduce some of the concern of delegating pricing policy to an unaccountable agency like the central bank.79 In the abstract, it may be more difficult to achieve the same level of accountability over the exercise of macroprudential authorities. For example, unlike price stability, financial stability may be difficult to assess along a single metric, at least ex ante. While increasing market volatility or widening credit default swap spreads might provide important indicators of financial instability, there is, as of yet, no single agreed upon quantitative stability metric analogous to an inflation target.80 Similarly, as discussed

78. Nier et al., supra note 5, at 11.


in Section I, the instruments of macroprudential policy are far more varied than monetary policy, making the performance of the macroprudential regulator difficult to assess.

IV. THE GOVERNANCE OF U.S. MACROPRUDENTIAL REGULATION

The discussion above suggests a handful of principles for organizing a macroprudential regulator. First, because of their expertise in assessing macroeconomic conditions, their experience monitoring and overseeing critical payment systems, and their preexisting incentives to maintain financial stability consistent with their price stability mandate, central banks should play the primary role in formulating and implementing macroprudential policy. Second, the macroprudential regulator, however it is institutionally configured, should remain politically independent, with discretion to address systemic risks as they are identified. Third, the macroprudential regulator should have access to and control over a wide range of tools and instruments to address systemic risks as they arise, and discretionary authority to pursue novel approaches to facilitating its financial stability objective. Finally, the central bank’s authorizing statute or constitution should articulate a clear financial stability mandate in order for the bank to maintain a degree of legitimacy and accountability.

The Dodd-Frank Act establishes a new macroprudential framework in the United States by designating the multi-member Financial Stability Oversight Council (FSOC) as the guardian of systemic risk assessment and mitigation. How does Dodd-Frank’s specification of FSOC compare to the basic principles of macroprudential regulation outlined above? Dodd-Frank succeeds at the basic tasks of devoting resources to identifying and monitoring risks to the financial system as a whole and encouraging coordination across microprudential regulators on issues relating to financial stability and systemic risk. But after that, Dodd-Frank may come up short.

A. The Institutional Structure of U.S. Macroprudential Regulation

Title I of Dodd-Frank designates FSOC as the macroprudential regulator for the U.S. financial system. FSOC is chaired by the Secretary of the Treasury and includes ten voting members: the Chairman of the Board of Governors of the Federal Reserve System, the Director of the Bureau of Consumer

82. See, e.g., 12 U.S.C. § 5322(a)(2) (requiring FSOC to inter alia: “(C) monitor the financial services marketplace in order to identify potential threats to the financial stability of the United States …(E) facilitate information sharing and coordination among the member agencies and other Federal and State agencies…(G) identify gaps in regulations that could pose risks to the financial stability of the United States”).
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Financial Protection, the Comptroller of the Currency, the Chairman of the Securities and Exchange Commission, the Chairperson of the Federal Deposit Insurance Corporation, the Chairperson of the Commodities Futures Trading Commission, the Director of the Federal Housing Finance Agency, the Chairman of the National Credit Union Administration Board and an independent member appointed by the President of the United States, upon advice and consent of the U.S. Senate, with “insurance expertise.” FSOC also includes five non-voting members: the Director of the Office of Financial Research, the Director of the Federal Insurance Office, a state banking regulator, a state insurance regulator and a state securities regulator. The three state regulator representatives are designated through a selection process agreed to by the states.

FSOC’s statutory mandate is threefold: (1) to identify risks to the financial stability of the United States, (2) to “promote market discipline” by eliminating expectations of shareholders, creditors and counterparties that the government will shield them from losses in the event of failure (read: no bail outs); and, critically here, (3) to respond to emerging threats to the stability of the United States financial system. As to the risk identification mandate, Title I requires FSOC to collect and assess information about potential threats to the U.S. financial system, monitor domestic and international financial regulatory proposals, and facilitate information sharing among state and federal agencies regarding the development of domestic financial services policy. FSOC then has the duty to make recommendations to its member agencies, including, inter alia, recommending supervisory priorities to its member agencies and recommending prudential standards to the Federal Reserve for supervised nonbank financial companies and bank holding companies. These prudential standards include requirements on risk-based capital, leverage, liquidity, contingent capital, resolution plans, credit exposure reports, enhanced public disclosures and

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86. Dodd-Frank Act § 112(a)(2)(A)–(E); 12 U.S.C. § 5322(a)(2)(A)–(E). The Dodd-Frank Act also directs Secretary of the Treasury, as chairperson of FSOC, to conduct a study of the economic impact on the efficiency of the capital markets, the financial sector and national economic growth of several specifically identified macroprudential tools intended to reduce systemic risks including, inter alia: (1) limits on the maximum size of banks, bank holding companies and other large financial institutions; (2) limits on the organizational complexity and diversification of large financial institutions; (3) requirements for operational separation between business units of large financial institutions in order to expedite resolution in case of failure; (4) limits on risk transfer between business units of large financial institutions; (5) requirements to carry contingent capital or similar mechanism; (6) limits on commingling of commercial or financial activities by large financial institutions; (7) segregation requirements between traditional financial activities and trading or other high-risk operations in large financial institutions; and (8) any other limitations on the activities or structure of large financial institutions that may be useful to limit systemic risk. See Dodd-Frank Act § 123(a); 12 U.S.C. § 5333(a).
overall risk management programs. As a technical matter, Dodd-Frank limits FSOC’s direct implementation of macroprudential policy. FSOC’s sole macroprudential power is its authority to “require” the Federal Reserve to supervise certain nonbank financial companies that may pose risks to U.S. financial stability in the event of their material financial distress or failure. Although Title I creates a strong presumption that prudential regulators “shall” follow any recommendations made by the Council or, alternatively, explain in writing to FSOC why it has chosen not to follow its recommendations, FSOC has no formal statutory authority to override the decision of an individual Council member.

FSOC is subject to Congressional oversight and is required to submit annual reports to Congress on a range of topics, including its own activities, significant financial market and regulatory developments, potential emerging threats to the financial stability of the United States, the designation of any systemically important nonbank financial institutions, and any recommendations to promote market discipline and maintain investor confidence by “enhanc[ing] the integrity, efficiency, competitiveness or stability of United States financial markets.” In addition, each voting member of the Council must submit a signed statement at the same time as the annual report stating that the member believes “the Council, the Government, and the private sector are taking all reasonable steps to ensure financial stability and to mitigate systemic risk that would negatively affect the economy,” or, alternatively, to identify which additional actions need to be taken. Finally, the Secretary of the Treasury, as Chairman of the Council, is required to testify before the House and Senate about the contents of the annual report.

In addition to financial stability planning and policy, the Dodd-Frank Act also reconfigures the Federal Reserve’s authority to manage liquidity crises and

87. Dodd-Frank Act § 112(a)(2)(F),(I),(K); 12 U.S.C. § 5322(a)(F), (I), (K); see also Dodd-Frank Act § 120(a); 12 U.S.C. § 5330(a) (providing that FSOC may recommend that primary financial regulators apply heightened safeguards to financial activities of bank holding companies or nonbank financial companies if FSOC determines that “conduct, scope, nature, size, scale, concentration, or interconnectedness of such activity or practice could create or increase the risk of significant liquidity, credit, or other problems spreading among bank holding companies and nonbank financial companies, financial markets of the United States, or low-income, minority, or underserved communities.”).
88. Dodd-Frank Act § 112(a)(2)(H); 12 U.S.C. § 5322(a)(2)(H). The determination that a U.S. nonbank financial institution shall be subject to supervision by the Federal Reserve is based on a two-thirds vote by the Council, including an affirmative vote by the Treasury Secretary, that financial distress at the institution could pose a threat to the financial stability of the United States. Dodd-Frank Act § 113(a)(1); 12 U.S.C. § 5323(a)(1).
89. Dodd-Frank Act § 120(c)(2); 12 U.S.C. § 5330(c)(2).
90. 12 U.S.C. § 5330(c).
93. Dodd-Frank Act § 112(c); 12 U.S.C. § 5322(c).
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to assist with the resolution of insolvent financial institutions. Prior to Dodd-Frank, Section 13(3) of the Federal Reserve Act permitted the Fed, “in unusual and exigent circumstances,” to provide credit—technically, to “discount” certain financial instruments—to specific individuals, partnerships and corporations.\(^\text{94}\) As a practical matter, a “discount” in this context is a loan transaction pursuant to which the Fed accepts a financial instrument from a borrower (such as “notes, drafts and bills of exchange”) and then lends an amount less than the face value of the instrument. Unlike an asset purchase, in which the purchaser obtains ownership of the asset, in this sort of secured loan transaction the borrower retains ownership of the financial instrument offered as collateral for the loan. The lender, here the Fed, obtains only a secured interest in the property, providing the right to move against the assets in satisfaction of the loan if the borrower defaults. A loan under Section 13(3) must be “secured to the satisfaction” of the Fed, suggesting that the Fed has some degree of discretion in terms of the collateral it accepts.\(^\text{95}\) In addition, before extending credit under Section 13(3), the Fed must obtain evidence that the individual, partnership or corporation is “unable to secure adequate accommodations from other banking institutions”—that is, that the Federal Reserve is the only remaining source of credit. The Federal Reserve Act also authorizes the Fed to purchase and sell certain assets in its open market operations.\(^\text{96}\) Securities issued by individual corporations are not included on this list.\(^\text{97}\)

These powers, albeit extensive, proved to be inadequate to address the rapid deterioration of systemically important financial institutions during the Crisis. As events unfolded, the Fed implemented an unprecedented expansion of its balance sheet to hold significant investments in private assets.\(^\text{98}\) The Federal Reserve’s use of the lending facility to purchase Bear Stearns’ mortgage-related

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\(^\text{94}\). See Federal Reserve Act § 13(3)(A); 12 U.S.C. § 343(A) ("In unusual and exigent circumstances, the Board of Governors of the Federal Reserve System, by affirmative vote of not less than five members, may authorize any Federal reserve bank, during such periods as the said board may determine, at rates established in accordance with the provisions of section 357 of this title, to discount for any individual, partnership, or corporation, notes, drafts, and bills of exchange when such notes, drafts, and bills of exchange are indorsed or otherwise secured to the satisfaction of the Federal reserve bank; Provided, that before discounting any such note, draft, or bill of exchange for an individual or partnership or corporation the Federal reserve bank shall obtain evidence that such individual, partnership, or corporation is unable to secure adequate accommodations from other banking institutions.").

\(^\text{95}\). Id.

\(^\text{96}\). Nier et al., supra note 5, at 11. Those assets include: gold, debt issued or guaranteed by the U.S. government or its agencies, debt issues by local, state or foreign governments, and three kinds of private debt (1) cable transfers (foreign exchange), (2) banker’s acceptances (orders that become promises to pay after a banker accepts them), and (3) “bills of exchange of the kinds and maturities by this Act made eligible for rediscount, with or without the indorsement of a member bank.” See Federal Reserve Act § 14(a), (b)(1); 12 U.S.C. §§ 353–359 (2013).

\(^\text{97}\). Id.

assets, as well as its rescue of AIG, were sharply criticized as “illegal” and outside of the Fed’s legal authority under the Federal Reserve Act. As discussed above, Sections 13 and 14 of the Federal Reserve Act, read together, allow the bank to lend to solvent companies in “exigent circumstances,” but prohibit the Fed from purchasing non-governmental assets. To facilitate the rescue of Bear Stearns, the Fed created a wholly controlled limited liability company, Maiden Lane LLC, to engage in the purchase of mortgage-related assets from Bear. Maiden Lane then used the proceeds from a $28.2 billion loan from the New York Fed and an additional $1.15 billion subordinated loan from J.P. Morgan to purchase the assets. Commentators have argued that this transaction, which effectively amounts to the Fed’s purchase of private assets in a two-step transaction, exceeded the Fed’s authority under Section 14 of the Federal Reserve Act, which limits the Fed’s power to purchase assets to “bonds, notes, or other obligations which are the direct obligations of the United States or which are fully guaranteed by the United States.”

Dodd-Frank attempts to address those criticisms, in part, by constraining the authority of the Federal Reserve to purchase assets from, or provide loans to, specific financial institutions suffering liquidity problems. Specifically, Dodd-Frank amends Section 13(3) of the Federal Reserve Act to permit the Fed in “unusual and exigent circumstances” to “discount . . . notes”—that is, to lend—to any participant “in any program or facility with broad-based eligibility” when such loans are secured to the satisfaction of the Fed. The practical effect of this revision is to prohibit the Fed from lending to specific institutions, directly or indirectly, unless such loans are made through a program or “broad-based eligibility.” It also greatly expands political oversight over both the Fed’s authority to act in crisis situations and its authority to prescribe rules and regulations governing emergency lending. For example, the programs of

103. Federal Reserve Act § 13(B)(i); 12 U.S.C. § 343 (2013) (“As soon as practicable after the date of enactment of this subparagraph, the Board shall establish, by regulation, in consultation with the Secretary of the Treasury, the policies and procedures governing emergency lending [which] shall be designed to ensure that any emergency lending program of facility is for the purpose of providing liquidity to the financial system, and not to aid a failing financial company.”); § 13(B)(iii); 12 U.S.C. § 343 (2013) (“A program or facility that is structured to remove assets from the balance sheet of a single and specific company, or that is established for the purpose of assisting a single and specific company avoid bankruptcy, resolution under title II of the Dodd-Frank Wall Street Reform and Consumer Protection act, or any other Federal or State insolvency proceeding, shall not be considered a program or facility with broad-based eligibility.”).
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“broad-based eligibility” may be established only with the prior approval of the Secretary of the Treasury.\textsuperscript{104} And Dodd-Frank requires the Fed to provide a report to Congress justifying any Section 13(3) loan within seven days of executing it. The report must provide the identity of the recipients, the date of assistance, and the material terms of the loan, including the nature and value of collateral pledged in respect of the loan. The Fed then must report on a monthly basis thereafter the value of the collateral, the amount of interest or fees received on the loan, and the expected final cost of the loan for taxpayers.\textsuperscript{105}

\textbf{B. Critiques of the Institutional Structure of U.S. Macroprudential Regulation}

The Dodd-Frank Act’s designation of the Financial Stability Oversight Council as the country’s macroprudential regulator accomplishes the narrow goal of identifying a multi-member body with responsibility for identifying and addressing risks to the financial stability of the United States. And to be sure, many features of FSOC and related provisions of Title I should help close the regulatory gaps that may have contributed to the Financial Crisis. For example, FSOC’s mandate to monitor and identify risks to the United States financial system, a task supported by the new Office for Financial Research, at least designates a regulatory entity with primary authority to recognize financial imbalances and risk concentrations in a timely manner.\textsuperscript{106} Likewise, FSOC’s mandate to mitigate systemic risks creates a single entity with ultimate responsibility for macroprudential policy and thus helps avoid the risk that threats to financial stability might emerge in the interstices of the financial regulatory framework.\textsuperscript{107} And Title I goes a long way toward identifying specific macroprudential tools—for example, contingent capital requirements, mandated divestiture of large, interconnected financial institutions, and limits on the inter-organizational transfer of risk—\textsuperscript{108} that should lay the groundwork for future systemic intervention. But in other respects, the macroprudential regime established by Dodd-Frank is institutionally flawed.

As an initial matter, FSOC’s multi-member council structure, with the Secretary of the Treasury as the chair with effective veto power over certain Council determinations, subjects U.S. macroprudential policymaking to significant political influence. As discussed above, there are reasons to believe that macroprudential policy, like monetary policy, should be formulated and implemented by an independent regulator, subject to certain accountability mech-

\textsuperscript{104} \textit{Id.} § 13(B)(iv); 12 U.S.C. § 343 (2013).
\textsuperscript{105} \textit{Id.} § 13(C); 12 U.S.C. § 343 (2013).
\textsuperscript{106} 12 U.S.C. § 5321.
\textsuperscript{107} \textit{Id.}
anisms for ensuring consistent pursuit of the delegated mandate.

Moreover, although Title I gives FSOC a macroprudential mandate, the actual legal authority to activate macroprudential tools and instruments with the aim of maintaining financial stability in large part continues to reside with the prudential regulators. Most obviously, the Federal Reserve continues to retain legal authority to deploy at its discretion many critical tools of macroprudential policy, including, for example, authority over capital requirements.\footnote{See, e.g., Board of Governors of the Federal Reserve System, Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Capital Adequacy, Transition Provisions, Prompt Corrective Action, Standardized Approach for Risk-weighted Assets, Market Discipline and Disclosure Requirements, Advanced Approaches Risk-Based Capital Rule, and Market Risk Capital Rule, 78 Fed. Reg. 62,018 (Oct. 11, 2013); Board of Governors of the Federal Reserve System, Financial Market Utilities, 77 Fed. Reg. 45,907 (Aug. 2, 2012) (risk management standards for financial market utilities); Board of Governors of the Federal Reserve System, Liquidity Coverage Ratio, Liquidity Risk Measurement, Standards and Monitoring, 78 Fed. Reg. 71,818 (Nov. 29, 2013).} Aside from the authority to direct the Federal Reserve to designate certain nonbank financial institutions as systemically important and subject to Fed supervision,\footnote{Dodd-Frank §§112(b)(2)(H) & (J) & 113; 12 U.S.C. §§ 5322(a)(2)(H) & (J) & 5323.} FSOC has no legal authority to direct the Fed to implement any particular tool of macroprudential policy. By decoupling the mandate to maintain financial stability from the authority to implement macroprudential policy, Title I opens up a potential regulatory responsibility and accountability gap—indeed, precisely the kind of gap that inspired the creation of FSOC in the first instance.\footnote{A recent “peer review” of FSOC conducted by the Financial Stability Board made a similar point, noting that the “scope of risk analysis (conducted by FSOC) currently is relatively narrow as it tends to reflect the sectoral perspectives of individual agencies, rather than providing a system-wide view of interconnections and exposure to risk.” See Financial Stability Board, Peer Review of the United States, Review Report (Aug. 27, 2013), available at: http://www.financialstabilityboard.org/publications/r_130827.pdf.} Title I presumptively requires prudential regulators to adopt FSOC’s macroprudential recommendations or provide a written explanation for why they are rejecting such recommendations.\footnote{Dodd-Frank § 120(c)(2); 12 USC § 5330(c)(2).} But the statute itself offers no road map for resolving potential conflicts between the organic authorizing statute or mandate given to a prudential regulator and the goal of financial stability given to FSOC.

Finally, and somewhat outside of the official macroprudential authority granted to FSOC, Dodd-Frank limits the Fed’s ability to lend to individual insolvent financial institutions, though such action may be necessary to successfully manage both monetary and financial stability policy.\footnote{See supra text accompanying notes 108-115.} While it may be wise to subject such actions to fiscal oversight, as Dodd-Frank already does with Federal Reserve authority to lend through programs of “broad-based eli-
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A categorical prohibition on lending to specific, insolvent institutions—even those that are systemically important—eliminates a critical tool of financial stability policy.

C. Recommendations for Restructuring U.S. Macroprudential Authority

Given the foregoing critiques of the institutional structure of U.S. macroprudential policy, there are a handful of improvements that could be made to enhance both the independence of macroprudential policy and the ultimate accountability of macroprudential regulators.

1. Expand the Federal Reserve’s mandate to include a financial stability objective.

As a threshold matter, the U.S. macroprudential structure could be improved by assigning the Federal Reserve with an explicit financial stability mandate. As a practical matter, the Federal Reserve already participates in important macroprudential activities that contribute to the financial stability agenda. For example, its role in regulating and monitoring payment and settlement systems provides it with important insights on counterparty risk and trade clearance, both of which have important systemic implications. Indeed, commentators have credited the Fed’s efforts (and those of its international central bank colleagues) relating to the clearance of over-the-counter derivatives in the early and mid-2000s with shoring up the resiliency of those systems, which performed well during the Crisis. Moreover, the Federal Reserve already participates as a member of the new Financial Stability Oversight Council, created under Title I of the Dodd-Frank Act. The Federal Reserve Chairman is only one of a number of voting members, and the Treasury Secretary retains effective veto authority over most recommendations of the Council. As a practical matter, however, the Federal Reserve continues to pull the lever on the implementation of many of the critical tools of macroprudential policy, including among other things capital requirements, leverage ratios, supervision of SIFIs (in-

114. See supra pp. 53.
115. As Professor Coffee notes, this restriction “makes explicit that the [Fed’s] emergency lending authority cannot encompass targeted bailout loans to a future AIG or Lehman.” Coffee, Systemic Risk After Dodd-Frank, 111 Colum. L. Rev. 795 at 824 n.82.
116. See Nier et al., supra note 5 at 13
118. Board of Governors of the Federal Reserve System, Regulatory Capital Rules: Regulatory Capi-
cluding non-bank SIFIs)\textsuperscript{119} and consolidated supervision of large financial institutions which may not qualify for SIFI status.\textsuperscript{120} Finally, as discussed, the goal of financial stability can be understood as entirely consistent with the Fed’s current dual mandate of price stability and economic growth. Indeed, because macroprudential policies may need to be tightly coordinated with monetary policy to achieve the maximum effectiveness of both, there is a strong institutional logic for co-locating the primary legal mandate for financial stability with the Federal Reserve.\textsuperscript{121}

2. Provide FSOC with specific authority to direct microprudential regulators to take action in furtherance of macroprudential objectives.

As it is currently structured, FSOC primarily functions in an advisory function with little formal authority to directly implement macroprudential policy. There is a strong statutory presumption that prudential regulators will follow FSOC’s recommendations to undertake particular policy initiatives, and that prudential regulators will be held accountable for any decision not to follow those recommendations. But without a clear financial stability mandate in the prudential regulator’s authorizing statute, the regulator can credibly claim grounds for rejecting any macroprudential regulation that cuts against its own policy agenda. For example, the Consumer Financial Protection Bureau, a voting member of FSOC, is tasked with enforcing consumer financial laws “for the purpose of ensuring that all consumers have access to markets for consumer financial products and services and that markets for consumer financial products and services are fair, transparent, and competitive.”\textsuperscript{122}

\textsuperscript{119} See Dodd-Frank Act § 804(a)(1); 12 U.S.C. § 5463.


\textsuperscript{121} Critics argue, however, that expanding central banks’ mandate to include a financial stability objective may compromise their primary price stability objective. See, e.g., Int’l Monetary Fund, \textit{Central Banking: Lessons from the Crisis}, p. 25 (2010) (“[T]he central bank could more fully take financial stability developments into consideration to the extent they were consistent with the primary objective of price stability. A much bigger step would be to add a financial stability objective to the central bank’s monetary policy mandate. In this case, financial stability considerations would need to be taken into account in monetary policy whether or not they were consistent with the price stability objective. Assigning only one policy instrument—the policy interest rate—to more than one objective would confront monetary policy with sharp trade-offs and could well lead to a failure to achieve either objective.”).

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certain consumer credit markets portends growing financial imbalances that should be addressed through targeted macroprudential policies, such as loan-to-value restrictions or the elimination of certain classes of consumer financial products. That conflict may drive the CFPB to reject FSOC’s macroprudential regulation—which would cut off credit to segments of the consumer financial market—in favor of its pro-consumer expansionary policy. A clear financial stability mandate in the CFPB’s authorizing statute would enable the CFPB to trade off its consumer access agenda in favor of countervailing macroprudential forces and, critically, increase the accountability of agency decision making.

3. Amend FSOC voting rules to provide the Federal Reserve additional formal influence over the Council’s financial stability determinations.

As noted in Section IIC above, there are strong arguments that central banks should play an outsized role (if not the primary role) in formulating and implementing macroprudential policy. As a practical matter, the Fed retains significant authority over stability matters concerning the banking sector. (See Section III.C.1) As a formal matter, however, Dodd-Frank places the Fed on par with the other eight voting members of FSOC, with an equal vote on proposals to regulate financial activity for the sake of financial stability.123 Moreover, like the other members, the Fed is effectively subordinate to Treasury on determinations that require the affirmative vote of the Chairman. These determinations include the decision to require or rescind supervision of non-banks,124 anti-evasion determinations,125 and mitigating actions directed toward both bank holding companies with total consolidated assets of $50 billion or more and nonbank financial companies supervised by the Federal Reserve.126 But given the Fed’s expertise in assessing macroeconomic issues and its authority both to implement critical tools of macroprudential policy and to coordinate monetary and macroprudential policy with foreign governments, the FSOC structure may leave the Fed inappropriately weakened in this subordinate role.

4. Incorporate financial stability objectives into mandates of all prudential regulators participating on FSOC.

As mentioned, there is currently a gap in the institutional structure of U.S. macroprudential policy. On the one hand, FSOC is charged with “respond[ing]
to emerging threats to the stability of the United States financial system.”127 On
the other hand, FSOC has little direct authority to implement macroprudential
policy but rather instead serves as a high-powered advisory group with authority
to collect information and a forum to “recommend” policy directions to the
various microprudential regulators who comprise its ranks.128 If the basic fea-
tures of effective macroprudential policy include (a) a clear mandate to main-
tain financial stability, coupled with (b) access to the tools and instruments
necessary to achieve that objective, Dodd-Frank’s splintering of formal author-
ity and the ability to implement policy is troubling.

As discussed above, one potential solution to that problem is to provide
formal authority to FSOC to direct individual regulators to implement its policy
directives. An alternative approach would be to provide financial stability man-
dates to each of the microprudential regulators.129 This would have a similar

129. Compare Department of the Treasury, 1 Stat. 65 (“An Act to Establish the Treasury Depart-
ment”) (enacted Sept. 2, 1789) (“[I]t shall be the duty of the Secretary of the Treasury to digest and pre-
pare plans for the improvement and management of the revenue, and for the support of public credit; to
prepare and report estimates of the public revenue, and the public expenditures; to superintend the col-
clection of revenue; to decide on the forms of keeping and stating accounts and making returns, and to
grant under the limitations herein established, or to be hereafter provided, all warrants for monies to be
issued from the Treasury, in pursuance of appropriations by law; to execute such services relative to the
sale of the lands belonging to the United States, as may be by law required of him; (b) to make report,
and give information to either branch of the legislature, in person or in writing (as he may be required),
respecting all matters referred to him by the Senate or House of Representatives, or which shall apper-
tain to his office; and generally to perform all such services relative to the finances, as he shall be di-
rected to perform.”); Board of Governors of the Federal Reserve System, Federal Reserve Act, Sec. 2A,
12 U.S.C. § 225a (2014) (identifying mandate of Federal Reserve to “maintain the long run growth of
the monetary and credit aggregates commensurate with the economy’s long run potential to increase
production, so as to promote effectively the goals of maximum employment, stable prices, and moderate
long term growth.”); Dodd-Frank Act § 1021(a); 12 U.S.C. § 5511(a) (2014) (“The Bureau [of Consum-
er Financial Protection] shall seek to implement and, where applicable, enforce Federal consumer finan-
cial law consistently for the purpose of ensuring that all consumers have access to markets for consumer
financial products and services and that markets for consumer financial products and services are fair,
shall be in the Department of the Treasury a bureau charged with the execution of all laws passed by
Congress relating to the issue and regulation of national currency secured by United States bonds and,
under the general supervision of the Board of Governors of the Federal Reserve System, of all Federal
Reserve notes, except for the cancellation and destruction, and accounting with respect to such cancella-
tion and destruction, of Federal Reserve notes unfit for circulation[.]”); Securities and Exchange Com-
plemented and enforced by the Commission as necessary “to provide for the regulation and control of
such transactions and of such practices and matters related thereto, including transactions by officers,
directors, and principal security holders, to require appropriate reports, to remove impediments to and
perfect the mechanisms of a national market for securities and a national system for the clearance and
settlement of securities transactions and the safeguarding of securities and funds related thereto, and to
impose requirements necessary to make such regulation and control reasonably complete and effective,
in order to protect interstate commerce, the national credit, the Federal taking power, to protect and
make more effective the national banking system and Federal Reserve System, and to insure the mainte-
nance of fair and honest markets in such transactions.”); Federal Deposit Insurance Corporation, 12

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effect of encouraging individual regulators both to independently monitor their respective regulatory playing fields for financial imbalances and to heed the recommendations of FSOC regarding macropurudential policy, even when those recommendations may depart from the policy agenda of the agency. Arguably, a financial stability mandate is implicitly incorporated into Section 120, which establishes a default presumption that prudential regulators will adopt any macropurudential recommendations from FSOC, subject to a written explanation for any departure from that presumption. The difficulty of providing this sort of policy opt-out, however, is that any of the political prudential regulators has the ability to refuse implementation of specific macropurudential tools in favor of a regulatory agenda that might not have the goals of financial stability in mind. Indeed, this sort of policy escape hatch is precisely the type of mechanism that undermines the independence of the macropurudential authority—and therefore its efficiency and accountability as steward of the financial stability framework. And because, depending on context, the most effective macropurudential tools may operate within a narrow industry segment and under the purview of a single prudential regulator, granting individual agencies the discretion to opt out of the macropurudential regime is problematic.

V. CONCLUSION

As governments and regulators around the world sort through the wreckage of the Financial Crisis, increasing attention has been given to the institutional and operational structure of financial stability frameworks. Central banks provide an obvious model when conceptualizing the design of any such macropurudential regulator. Central bank independence has come to be understood as a key institutional feature of monetary policy. Given the countercyclical aims of macropurudential policy, the potentially longer and more ambiguous timelines over which macropurudential policies may operate, and the targeted impact of certain macropurudential tools, the need for political independence seems, in some ways, even greater for macropurudential policy. Aside from the question of independence generally, policy makers are wrestling with the appropriate role of central banks within financial stability frameworks. Central banks offer critical expertise to any macropurudential framework, including insight and analysis on macroeconomic issues, the potential interrelation between monetary

as an independent agency with authority to regulate and supervise Fannie Mae, Freddie Mac, the Federal Home Loan Banks and the Office of Finance); National Credit Union Administration Board, 12 U.S.C. § 1753 (2014). The Commodities and Futures Trading Commission arguably has a financial stability mandate. See 7 U.S.C. § 5(b) (2014) (defining purpose of the Commodities Exchange Act, to be enforced by the CFTC, to, inter alia, “ensure the financial integrity of all transactions subject to this chapter and the avoidance of systemic risk”).

policy and macroprudential policy, and access to critical macroprudential tools, including countercyclical capital requirements, oversight of systemic payment and clearing systems, and lender of last resort and resolution authority when preventive measures ultimately fail. Broadly conceptualized, then, independence and central bank primacy would seem to be critical features of any macroprudential policy structure.

The Dodd-Frank Act designates the new, multimember Financial Stability Oversight Council as the macroprudential regulator for the U.S. financial system. On some measures, the institutional and operational structure of FSOC appears well suited to the task of implementing effective macroprudential policy. Congress has given the Council a single, clear financial stability mandate and the resources and authority to identify and monitor systemic risks to the U.S. financial system. FSOC also provides a single forum for key prudential regulators to discuss emerging systemic risk issues and to coordinate macroprudential responses. On the other hand, the institutional structure of FSOC retains many of the gaps that may ultimately undermine its mission. FSOC itself has little direct authority to implement macroprudential policies; that authority remains largely with the prudential regulators who themselves are not bound by financial stability mandates. More broadly, the multi-member council structure, with the Treasury as the chair and deciding vote, significantly compromises the independence of FSOC in defining and implementing macroprudential policy. The Federal Reserve, while it retains a key voting position on the Council, is ultimately little more than a voting member, although it retains authority to implement many of the primary tools of macroprudential policy without an express financial stability mandate. In short, while FSOC provides a laudable first step towards a robust financial stability framework, its institutional configuration ultimately may compromise its effectiveness.