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FINANCIAL STABILITY IN THE BROADER MANDATE FOR CENTRAL BANKS: A POLITICAL ECONOMY PERSPECTIVE

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SUMMARY

Much discussion of financial stability focuses on what regulatory tools should be made available to central banks and how those tools should be deployed. However, whether such tools are made available—and with what scope—depends on the political law-making process that defines the central banking mandate in the economy. Political myopia and populism can prevent central banks from (1) undertaking adequate crisis management, (2) using interest-rate policy to lean against the wind in good economic times, and (3) extending the reach of regulation to cover shadow banking parts of the financial sector. The design of a central banking mandate should take into account these political headwinds against financial stability and guard against their adverse impact on central bank operations. Rules for crisis management procedures, broad scope to regulate shadow banking sector growth and leverage, division of responsibilities with other financial sector regulators, and especially, an explicit mandate for financial stability in its objective, can enable a central bank to remain democratically accountable and yet be operationally independent from political influence.

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INTRODUCTION

Since their origin, central banks in the United States have been intimately involved with the country's financial stability, both in crisis management and crisis prevention. Their crisis management role includes resolution of distress in the financial intermediation sector, most commonly (but not exclusively) through lender-of-last-resort (LOLR) policies. A recurring theme has been that central banks face an inherent *time-inconsistency* problem: not bailing out the financial sector in a severe recession or crisis is not acceptable, even if even the proximate cause of the recession or the crisis was an excess in the financial sector. A healthy financial sector is crucial for recovery from recession or crisis, so penalizing the financial sector heavily can slow economic recovery, if not prevent it altogether. However, if penalties on the financial sector for its excesses (such as liquidations of distressed firms) are not adequately severe, there will be no incentives to rein them in.

Given this time-inconsistency problem, it is often asserted that the best hope for ensuring financial stability appears to be *ex ante*—by preventing crises. Central banks can employ crisis prevention tactics such as imposing capital and liquidity requirements on the financial intermediation sector, and, more broadly, designing macroprudential regulation aimed at addressing the collective or systemic impact of different parts of the intermediation sector. However, the macro approach does not eliminate the possibility that the financial sector could undertake actions aimed at regulatory arbitrage in response to such regulation (i.e., it could shift intermediation activities outside of the regulatory perimeter into the so-called "shadow banking" activities).

There are two possible approaches to macroprudential regulation that can attempt to address such regulatory arbitrage. They are not mutually exclusive.

The first approach is to employ the interest-rate policy to lean against the excesses in leverage and risk-taking in the financial sector. While the interest-rate policy might seem blunt at dealing with financial stability, it has the advantage of reaching out to and affecting all corners of the financial sector.

A second approach is to regulate the financial sector by function rather than form, that is, not design regulation centered on a class of institutions (most commonly banks), but instead centered on specific intermediation *functions* and limiting *risks* specific to those functions. Examples of such regulations include debt-to-income (DTI) and loan-to-value (LTV) restrictions in mortgage lending, and minimum margin requirements on derivatives transactions at clearinghouses for all the clearing members (banks, broker-dealers, hedge funds, insurance firms, etc.).

An important advantage of the second approach over the first is that if regulating by function is implemented well to cover shadow banking under its perimeter (or to discourage the growth of shadow banking in the first place), then financial stability can be dealt with exclusively by macroprudential

regulation, and the interest-rate policy can be freed up to deal more or less exclusively with other central banking objectives, notably inflation targeting.[1]

The preceding discussion of the central bank's role in financial stability is typical of how canonical models in the finance and economics literature discuss regulation of the financial sector. These models tend to focus on how to design macroprudential regulation, interest-rate policy, and crisis management tools to safeguard financial stability in the economy. This framework is of course a useful and important step, but in practice the central bank's role in financial stability is not limited to figuring out the optimal design of tools at hand. Instead, issues relating to the central bank's independence from the political establishment and to central bank governance (accountability and transparency, in particular), are often at the center of designing the central bank's role in financial stability.[2] What the central bank can and cannot do to ensure financial stability is, after all, governed by the laws defining and limiting the scope of its operations. These laws, in turn, are written and subsequently implemented as the outcome of what the political process dictates.

These observations necessitate that we consider the *political economy* of central banking as we think about the optimal design of central banking, its objectives, and its tools for crisis management and prevention.

Indeed, crisis management and prevention roles of central banks have historically come under severe strain from political economy forces. Crisis management often involves being part of fiscal actions that are beyond the central banks' immediate remit but that overlap with resolution decisions (e.g., 13(3) provisions of the Federal Reserve Act which were invoked in 2008 to rescue AIG and facilitate acquisition of Bear Stearns by JP Morgan). Crisis management may also include actions that are within the central banks' immediate remit, such as traditional LOLR actions, which are routinely quasi-fiscal (e.g., lending against assets such as mortgage-backed securities of questionable underlying quality that may result in unexpected losses for the central bank, and potentially, for the government). Such actions give rise to immense scope for political interference. Political establishments tend to be ideologically aligned with or against regulatory interventions, some wanting central banks to do too much to rescue the financial sector and kick-start a recovery following a crisis, and others wanting to limit the central banks from doing what they consider might be too much and too high-handed an intervention in the functioning of private economic forces in the financial sector.

Consider next crisis prevention. On the one hand, macroprudential tools (such as DTI and LTV limits in mortgage lending) and countercyclical interest-rate policy can exonerate central banks from *ex post*

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[1] Consider the case of Sweden, which recently attempted to trade off financial stability with medium-term economic objectives, with unpleasant results (Svensson, 2014). In particular, it illustrates the case of a central bank tightening policy to maintain financial stability, largely sparked by concern about housing prices and household debt, and then discovering it had to reverse course because it was so badly missing its inflation target on the downside. The author thanks David Wessel for drawing this case to my attention.

[2] This has been recently witnessed in how the Dodd-Frank Act on the one hand expands the role of the Federal Reserve in crisis prevention (e.g., conducting stress tests covering not just banks but other "systemically important financial institutions," or SIFIs), and on the other hand limits its role in crisis management such as by introducing restrictions on the 13(3) provision of the Federal Reserve Act that allowed it to conduct LOLR operations for individual depository institutions under exceptional circumstances.

political inconvenience. Such policies reduce the likelihood of financial crises whose management requires quasi-fiscal actions or being part of outright fiscal actions. On the other hand, central banks can face political economy headwinds that hamper such crisis-prevention policies, especially in good times; limiting financial sector excess can lead to short-term outcomes that are politically unpopular such as slower growth and weakened job-market prospects (even if these policies lead to more sustainable long-term outcomes).[3]

Such political interference can be mitigated through better design of higher-level legislation that shapes the objectives and tools of central banking and related institutions in the economy. Such legislation should balance the need for democratic accountability of the central bank with giving it adequate scope to ensure operational independence from political influences. In particular, it should feature the following.

1. *Reliance on rules in the central banking responses to manage crisis*—This helps limit *ex post* central banking discretion that can cross over into quasi-fiscal actions and increase the scope of political interference.
2. *An explicit role for financial stability in the central banking mandate*—This introduces an explicit long-term dimension in the central banking objective. Such a mandate can counter the negative spillover to financial stability from inflation and job mandates when their long-term (or sustainable) measures are hard to come by, and short-term calm and spurts in these measures, fueled by financial-sector excesses, can be politically attractive outcomes.
3. *Scope for central banks to regulate growth and leverage in the shadow banking sector*—This gives the central bank the tools and regulatory reach needed to implement macroprudential policies that recognize the best response of the financial sector in terms of regulatory arbitrage around the policies.
4. *Sharing of crisis management and prevention responsibilities between central banks and other financial regulators*—This limits the scope of any attempt at a political cramming down on the regulatory apparatus.

These features would work in tandem with each other and reinforce each other's roles. For instance, better rules for crisis management responses would exonerate central bankers from having to rely heavily on countercyclical interest-rate and macroprudential policies so as to limit the moral hazard from such responses. Greater ability to effectively regulate the shadow-banking sector would put less burden on the interest-rate policy for leaning against the wind and reaching into cracks in the financial sector, allowing the interest-rate policy to be more focused on the traditional price-stability objectives. Finally, an explicit mandate for financial stability would induce central banks to consider new financial products and asset classes with a cautious risk-management approach, leading to a proactive development of rules to deal with their failures. Such a mandate would also empower central banks with greater ability to resist political pressure to keep interest rates low or to leave excesses in the shadow banking sector unaddressed for extended periods of time.

[3] Political headwinds may potentially represent headwinds arising from the influence of financial sector interests on the legislators and on politicians through lobbying and other channels.

Several of these issues have been addressed recently in some capacity in the Dodd-Frank Act, such as weakening of the 13(3) provision while at the same time expanding the financial stability scope of the Federal Reserve. The original text for introducing financial stability in the Federal Reserve mandate was dropped from the Dodd-Frank Act's final language, however—a mistake that may have to be reconsidered in future. The United States has maintained separation between the Federal Deposit Insurance Corporation (FDIC) and the Federal Reserve since the Great Depression, but recent moves to establish a Financial Stability Oversight Council (FSOC) serve as a further step towards balancing the efficient delegation of operational powers to individual regulators—such as the FDIC and the Fed—while retaining some political control when these powers might extend into quasi-fiscal actions. These aspects of the Dodd-Frank Act (discussed in further detail in the paper) can be understood more readily under the *political economy of central banking* framework rather than under a framework that treats the central bank as the all-powerful central planner.

Section I presents the central bank role in financial stability absent any political economy considerations. Section II introduces the political economy framework for central bank role in financial stability. Section III discusses measures that can limit the political interference in central bank efforts to maintain financial stability, while yet retaining the democratic accountability of the efforts. Section IV presents final remarks suggesting that boom-and-bust cycles in the financial sector may in the end be inevitable given political headwinds against financial stability.

In the entire discussion to follow, financial stability is taken to be a necessary condition for economic growth. If the financial system breaks down during a crisis, then payments and settlements systems can come to a halt, damaging contracts, trade, and growth. Even if the financial system becomes too distressed to provide intermediation services efficiently (without breaking down), economic growth could slow down household and corporate balance sheets build up precautionary buffers to self-finance rather than rely on financial intermediation services. Finally, when the financial sector is weak, it may not pass on to households and corporates the stimulus from central banks in the form of lower interest rates relative to market funding rates. Importantly, given the externalities from the financial sector distress onto other parts of the economy, the privately optimal financial sector risk and leverage will in general exceed the socially optimal levels, creating a sound economic rationale for a regulator, such as the central bank, to be engaged in maintaining financial stability.

THE CENTRAL BANKS' ROLE IN STABILITY ABSENT POLITICAL ECONOMY FORCES

It is useful to start with the challenges that central banks face in maintaining financial stability in the absence of any political economy considerations.

TIME-INCONSISTENCY IN CRISIS MANAGEMENT POLICIES

Until the Federal Reserve came into being, banking crises in the United States were managed by private commercial bank clearinghouses. Those private arrangements failed in the Panic of 1907. This was due partly because the crisis affected not just commercial banks but also "trust companies" (similar in some sense to today's broker-dealers), and partly because there were internal disagreements as to whether the

benefits of clearinghouses should be extended to nonmembers. These benefits included the suspension of demandable deposits from the distressed banks and their replacement with joint liability certificates on the other members of the clearinghouse. Effectively, the clearinghouse acted as the lender-of-last-resort to the distressed member. In turn, the clearinghouse required its members to maintain certain minimum standards in normal times.

The 1907 crisis was resolved in the end when John Pierpont Morgan allocated emergency liquidity from the U.S. Treasury (as well as some of his own funds) to distressed trust companies and commercial banks. There was a growing discomfort in the aftermath, however, that such emergency support had been put in the hands of one private individual, and that in return for the allocation of public liquidity Morgan had required some privately attractive *quid pro quo* transactions (Chernow, 1990; Acharya, Gromb, and Yorulmazer, 2012). It was felt that such allocation of public liquidity should be done by a separate institution—one that did not have private objectives such as those of J.P. Morgan. Viewed this way, the origins of the Federal Reserve were deeply rooted in the desire to assign an entity distanced from the private financial sector the responsibility to allocate emergency liquidity support to that sector.

While the private clearinghouses did not internalize the externalities that failure or distress of nonmembers imposed on the financial system (at times the clearinghouse members even stood to gain at the expense of nonmembers), the creation of a central bank and its function to be the lender-of-last-resort expanded the scope of crisis management policies to such nonmembers without them being subject to stringent criteria to be eligible for such LOLR. Several instances of such moral hazard come to mind. Money market funds have become "too many to fail," large insurance firms participating in derivatives markets such as AIG Financial Products (AIG FP) became "too systemic to fail," and large bank holding companies with subsidiaries not subject to regulations that traditional commercial banks face became "too big to fail."

In essence, the problem with the crisis management operations of central banks is one of time-consistency. To discourage the moral hazard effect from its crisis management role, a central bank would like to commit to imposing significant penalties *ex post* on the parts of the financial sector engaging in excess, thus requiring emergency liquidity. For instance, the Federal Reserve could provide the LOLR only at punitive rates. However, such parts of the financial sector may be important to maintaining financial stability and restoring economic growth, and a time-consistent policy might in fact be to grant them LOLR at attractive rates. It is thus more or less incontrovertibly accepted that once a central bank is entrusted with crisis management responsibility, it should also be in charge of crisis prevention policies to rein in the moral hazard from expectation of its likely generous crisis management policies.

MACROPRUDENTIAL REGULATION AS CRISIS PREVENTION POLICY AND ITS CHALLENGES

To perform the crisis prevention role, central banks have been engaged in a variety of measures to restrict risk-taking and leveraging in the financial sector. Some of the salient measures deployed over the past century include capital and reserve (or more broadly, liquidity) requirements on the banking system, and structural separation of financial activities such as investment banking from commercial banking to limit the extent of moral hazard arising from crisis management policies (such as deposit insurance and the traditional LOLR operations aimed at depository institutions). This paper focuses on the first set of measures—capital and liquidity requirements—to illustrate the basic points with parsimony.

While capital and liquidity measures often are deployed as part of *micro*prudential regulation (i.e., with the objective of stabilizing an individual bank or bank holding company), the financial crisis of 2007–08 has clarified that such measures be deployed with a *macro*prudential objective to stabilize the financial system as a whole. For instance, capital and liquidity requirements could be based on shortfalls relative to prudential standards in a common "stress" scenario that recognizes that the system as a whole is most vulnerable to common asset shocks, as opposed to firm-specific or bank-specific shocks. The latter type of shocks would be more relevant for an individual bank's risk management or its microprudential regulation, whereas truly idiosyncratic shocks should not create a significant risk to the financial system as a whole.

The shift in focus of regulation from micro to macro level should in principle enable the central banks to counter or mitigate the risk of a systemwide collapse, including such risk arising from moral hazard effects of the crisis management policies. In practice there is a rather important limitation, however. As soon as the regulation defines its scope, the financial sector organically evolves—a process often called "regulatory arbitrage"—in order to operate outside of the regulatory perimeter. Regulatory arbitrage has been pervasive through the history of regulation. The examples below illustrate how potent and important this financial sector response can be in practice.

Money market funds sprang up in the United States starting in 1971 in order to arbitrage Regulation Q. Regulation Q, passed in 1933 (and fully repealed in 2011)[4], prevented banks from paying interest on demand deposit accounts and restricted banks from competing aggressively for other deposits by limiting the maximum deposit rate that could be offered to lure such deposits. As interest rates rose starting in the 1950s, bank deposit rates effectively repressed household saving, and money market funds were created to offer investors higher rates. In turn, money market fund investments (deposits) typically funded the short-term paper of the financial sector. As money market funds experienced runs following the collapse of Lehman Brothers—whose unsecured commercial paper was held in significant quantities by some of the funds—the Federal Reserve was forced to extend the LOLR to them. Had the Federal Reserve not done so, a collapse of the money market fund industry through runs could have resulted in dismantling of more than $3 trillion of wholesale deposits being channeled to the financial sector.

Asset-backed commercial paper (ABCP) conduits were set up by banks starting in late 1980s in order to create off-balance-sheet leverage once commercial banks were subject to globally harmonized capital requirements under the Basel Accord. By laying off loans into conduits and issuing short-term ABCP against the loans, which was then purchased and held by money market funds, banks managed to reduce capital requirements. The key was that banks guaranteed ABCP through lines of credit that attracted a minimal capital requirement (Acharya and Schnabl, 2010; Acharya, Schnabl, and Suarez, 2013). The global financial crisis of 2007–08 erupted in the U.S. with a "run" on these conduits (i.e., on sponsor bank's capital and liquidity, given the guarantees), inducing the Federal Reserve to support the conduits through emergency liquidity assistance.

These examples illustrate that the challenge of crisis prevention policies and macroprudential regulation should be seen as what economists might call a "fixed-point problem" in which the best regulatory

[4] See Gilbert (1986) for details on the passage and eventual repeal of Regulation Q in the United States.

response takes account of the best response of the financial sector in innovating around the edges of the regulatory perimeter.

THE ROLE OF INTEREST-RATE POLICY IN FINANCIAL STABILITY

One interesting option for central banks to deal with the regulatory arbitrage response is to employ the interest-rate policy to "lean against the wind" or "throw sands in the wheels" of the risk taking and leverage seeking of the financial sector. A policy often recommended is to raise interest rates when there is too much liquidity or leverage in the financial system, lowering it countercyclically when times get tough for the financial sector or the economy. Traditionally, the interest-rate policy has been seen primarily as a tool to manage the long-term price stability in the economy (and in this context, it is usually referred to as monetary policy). Nevertheless, if financial stability is a necessary condition for all that the central banks attempt to do, then it is worthwhile to consider its potential use in maintaining financial stability. This assertion does beg the question: Why employ the interest-rate policy?

Some observers argue that interest-rate policy is too blunt an instrument to deal with financial stability because it is not specifically targeted at reducing risks or leveraging any specific parts of the financial sector. However, this bluntness is accompanied by the virtue that it acts as a pervasive tool, reaching all corners and cracks of the financial sector (Stein, 2013).

More specifically, low interest rates are routinely employed as an expansionary or stimulus measure by central banks following a crisis or a recession. The idea is that lowering interest rates by injecting more reserves into the system will reduce the rates that banks pay for accessing liquidity in deposit markets. In turn, banks presumably will pass on the benefit of the reduced borrowing costs to households and corporations in the form of lower lending rates. While the immediate benefits of such interest-rate reduction seem to work well when the financial sector is in good health, empirical research finds that such rate reductions, when pursued for an extended period of time, usually lead to deterioration in credit quality of loans underwritten by banks (Jiménez, Ongena, Peydró, and Saurina, 2012, 2014). The expectation of an expansionary monetary policy makes the financial sector less concerned about liquidity risks given that such risks are likely to be smoothed by the central banks with further rate reductions (Acharya and Naqvi, 2012; Diamond and Rajan, 2012).

Those who favor the low-rate stimulus from central banks to revive the financial sector and the economy often contend that any resulting excesses in financial sector risks are best dealt with through macroprudential regulation. However, such regulation (e.g., capital and liquidity requirements) falls prey to the regulatory arbitrage motive. The financial sector's incentive to exploit the insurance provided by the expansionary rate policy induces the regulated financial institutions to seek risks (e.g., leverage, illiquidity, etc.) outside of the regulatory perimeter, giving rise to shadow banking activities. Indeed, the empirical research to date finds that growth in shadow banking is negatively related to the level of interest rates in the economy (IMF, 2014).

Given this regulatory arbitrage risk, central banks should raise interest rates sufficiently ahead of what might seem a natural schedule absent the moral hazard induced in financial sector risk-taking. Raising rates would increase returns resulting from holding liquidity in the financial sector, make risky and illiquid economic bets less attractive and diminishing the incidence and severity of future downturns. The

expectation of a subsequent contractionary policy—as opposed to an expansionary policy—would reduce the likelihood of moral hazard.

Importantly, the increased return to liquidity applies similarly for all firms in the financial sector, whether regulated or unregulated. In other words, the interest-rate policy also affects the risk-taking in the shadow banking parts of intermediation activities. Finally, the regulatory arbitrage might have arisen in response to macroprudential regulation—such as capital and liquidity requirements—independent of the interest-rate policy. Even in such cases, to the extent that interest-rate policy applies uniformly to all firms in the financial sector by raising returns to liquidity, it would have the desired effect of reducing the private returns from regulatory arbitrage.

REGULATION BY FUNCTION RATHER THAN FORM

Instead of deploying interest-rate policy to ensure financial stability, central banks could design macroprudential regulation that is better able to deal with shadow banking and regulatory arbitrage activity. In particular, macroprudential regulation could be based on function rather than form. That is, it could design capital and liquidity requirements that are based on the underlying economic transactions rather than the specific institutional form (banks, broker-dealer, etc.) of the involved parties. A few examples are provided below to show why such a design would work better.

Many central banks employ minimum standards on mortgage lending activity by requiring mortgage contracts to be subject to minimum debt-to-income (DTI) ratios and loan-to-value (LTV) ratios, regardless of whether they are provided by banks or nonbank mortgage lenders. Imposition of such liquidity and capital standards at the level of individual mortgages implies that there are restrictions on the extent of debt risk that can be created at the household level. In such a scenario, even if there are limits to effectively regulating mortgage lenders, the costs of such limits are unlikely to spill over to the affected households. Reorganizing mortgage lending outside of the regulatory perimeter would likely not fundamentally alter the inherent leverage that can be built into mortgage products.

Such transaction-level leverage and liquidity requirements are also a feature of derivatives clearinghouses. All members in clearinghouses, regardless of functional form (banks, hedge funds, broker dealers, insurance firms, etc.) must post margin requirements set by the clearinghouses. The margin requirements depend on the solvency standards of the members. Furthermore, there are position limits at the level of the clearinghouse for total position sizes for the clearinghouse members. This could lead to regulatory arbitrage in the form of migration from the clearinghouses to over-the-counter trading of derivatives. But if enough players are induced to trade via clearinghouses, or are required to do so (as under the Dodd-Frank Act for interest rate swaps and credit default swaps, but not foreign exchange derivatives), then such migration may not be attractive to derivatives traders because liquidity in the over-the-counter markets would be reduced.

An important advantage of designing macroprudential regulation by function rather than form is that it allows interest-rate policy to be driven by other central bank objectives, such as long-run price stability. In practice, however, it seems highly unlikely that the various regulatory tools can be segregated entirely to deal with specific regulatory functions. Given this limitation, it may be desirable to adopt a "belts and suspenders" approach to financial stability, whereby interest-rate policy and macroprudential regulation play complementary roles.

CENTRAL BANKING IN THE PRESENCE OF POLITICAL ECONOMY FORCES

The preceding discussion of the role of central banks in financial stability reflects how questions are debated in the finance and economics literature: What regulatory tool should address what objective of the central bank? What are the limitations of each tool? How can the system guard against these limitations? This discourse makes many assumptions about what the central banks can and cannot do in terms of mandates from legal statutes, including that they are operationally independent in designing the regulatory tools they use to maintain financial stability.

However, both the legal framework under which central banks operate and how operationally independent they are depends upon the *political* environment they function in. Even in developed economies, such as the United States and Western Europe, it is not unusual to hear regularly of debates relating to the central bank's independence from the political establishment, and the central bank's governance—especially its accountability and transparency to the political establishment.

These observations necessitate that we consider the *political economy* of central banking, taking into account the influence of political forces and objectives as we think about the optimal design of central banking, its objectives, and the tools it can use for crisis management and prevention. While not true in every context, this paper makes the reasonable assumption that the political horizons of decision-making are short term and populist in nature (e.g., tied to the next election cycle), whereas central banking horizons are more long term and benign, as they are less driven by immediacy of outcomes. Taking such political short-termism and populism as given, the optimal design of central banking should not just address market failures and the time-inconsistency of central banking actions, but should also guard against political headwinds that might endanger financial stability on their own.

CRISIS MANAGEMENT ACTIONS OF CENTRAL BANKS

Consider actions that central banks take as lenders-of-last-resort. Since each financial crisis is somewhat different in its manifestations, the central bank response to the crisis requires undertaking actions not previously seen in precisely the same form. As such, these actions come under the intense scrutiny of the political establishment, both beforehand (as being witnessed currently in Europe) and afterwards (as witnessed in case of Federal Reserve's rescue measures during 2007–08), and may be seen as too favorable to some parts of the financial sector, or as overreaching the central banks' mandate.

The key point is that crisis management often involves being part of fiscal actions that are beyond the central banks' immediate remit but which overlap with resolution decisions. For example, it has been more or less widely accepted since the Great Depression that the Federal Reserve should be able to act as lender-of-last-resort not just to depositories but—when emergency conditions warrant—to market-critical financial intermediaries such as broker-dealers as well. This led to the 13(3) provision of the Federal Reserve Act granting the Federal Reserve such powers. The exception was invoked in 2008 to facilitate the acquisition of Bear Stearns by JPMorgan Chase in March and to rescue AIG FP in September.

In each of these two cases, weak assets (which the markets would not have provided much lending against) were financed by the Federal Reserve as part of the "repo" transactions against the so-called

"Maiden Lane" portfolios.[5] Bear Stearns was seen as a critical private clearing party to the credit derivatives transactions, and AIG FP was an important counterparty to hundreds of billions of credit derivative transactions with large banks and broker-dealers globally. In each of the two cases, the Federal Reserve itself did not have the power to ask these entities to recapitalize. While a recapitalization might have been too late in the case of AIG FP—given the significant liquidity needs from margin calls—Bear Stearns had been operating at a high level of leverage from the inception of the crisis.

The actions of the Federal Reserve were thus reasonably seen as being "back door" bailouts of these financial firms. Whether these actions were prudent and adequately weighed the moral hazard that arose has become a topic of debate in academic and policy circles. Some view the actions as having been essential to financial stability. These observers applaud the Federal Reserve for exercising 13(3) authorities as a bold move to avoid a repeat of the Federal Reserve's inaction during the Great Depression, which led to inadequate liquidity for market-critical intermediaries.

Others view these Federal Reserve's actions, especially the support to Bear Stearns, as having contributed to the lack of recapitalization by other excessively leveraged broker-dealers such as Lehman Brothers and Merrill Lynch. As then Treasury Secretary John Paulson wrote in his memoir *On the Brink*, "Surely the Fed can work out a better deal for our shareholders as it did for Bear's" (Paulson, 2010). Without explicitly holding the Federal Reserve responsible for it, he believed Lehman Brothers' top management effectively played a game of chicken with the regulators by refusing during the post-Bear phase of the crisis to accept recapitalization offers in the form of acquisitions from foreign financial firms.

While we cannot run the counterfactual of what outcomes would have arisen for financial stability had the Federal Reserve not undertaken these actions, the outcomes highlight two important issues. One, actions aimed at financial stability during a crisis run the risk of time-inconsistency (i.e., they are issues the central banks prefer to address in *normal* times). Second, such actions can be—and, in fact, were—questioned politically and had to be defended by the Federal Reserve *ex post*. Indeed, one could argue that while the Federal Reserve could have continued exercising 13(3) powers to keep lending to Lehman Brothers, it decided to draw a line at some point and let it fail, knowing full well that this action could lead to immediate repercussions for the global financial sector.

Even actions within the central banks' immediate purview, such as serving as traditional lender-of-last-resort to Citibank in September 2008, a depository institution could be considered quasi-fiscal, given that lending against certain assets (such as mortgage-backed securities of questionable underlying quality) may result in unexpected losses for the central bank, and, in turn, for the government. While the Maiden Lane portfolios from repo transactions with Bear Stearns, Citibank, and AIG FP did not cause overall losses for the Federal Reserve, individual securities in portfolios did cause losses. But the lack of overall losses masks the fact that this outcome was coincident with significant fiscal actions taken in the form of the Troubled Asset Relief Program (TARP), which allowed the United States Treasury to insure or purchase up to $700 billion of "troubled assets" of the financial sector and purchase senior preferred stock and warrants of financial firms with the purpose of recapitalizing the financial sector in the fall of 2008.

[5] See http://newyorkfed.org/markets/maidenlane.html# for full detail.

The inability to unambiguously judge crisis management operations as justified can lead to political interference in central banking operations. Some political establishments tend to be ideologically aligned against any regulatory interventions in private forces driving the financial sector, while others want central banks to do too much to rescue the financial sector and kick-start a recovery following a crisis. Regardless, central banks' crisis management actions can give rise to immense scope for political interference, potentially on a case-by-case basis for financial firms in distress, and at worst on a day-to-day basis for each case. Wary of such interference, central banks may shy away from undertaking what they might otherwise perceive to be the required forceful response to deal with financial stability in the midst of a crisis.

DESIGN OF MACROPRUDENTIAL POLICIES BY CENTRAL BANKS

Consider next the crisis prevention role of central banks. This includes the design of macroprudential policies such as capital requirements, and regulating by function—rather than form—in order to bring shadow banking activities under the regulatory perimeter, or discourage regulatory arbitrage in the first place.

On the one hand, macroprudential policies such as well-designed capital requirements on the banking system help central banks maintain financial stability by addressing the time-inconsistency of their own crisis management actions. And importantly, capital requirements can exonerate central banks from *ex post* political interference by reducing the likelihood of banking crises where management of the crisis requires quasi-fiscal actions such as acting as LOLR against assets of questionable quality. Similarly, if central banks can design regulation by function rather than form so that shadow banking entities are covered for maintaining minimum capital and liquidity standards (e.g., through DTI or LTV restrictions on mortgages and margin requirements on derivatives), that would reduce the *exante* incidence of situations in which central banks are required to provide politically contentious assistance to shadow banking entities. Viewed this way, macroprudential policies become desirable in a central banking toolkit not just to safeguard financial stability but also to limit the undertaking of crisis management actions that can jeopardize operational independence from politics.

On the other hand, central banks can face political economy headwinds that hamper the effectiveness of such crisis-prevention policies, especially in good times. If bank capital requirements are raised through retention of earnings rather than a swift repurchase of outstanding debt, then there can be an associated credit contraction during the transition to a higher capital base in bank balance sheets. Such credit contraction may be particularly inconvenient for political objectives if it limits residential mortgage lending, housing consumption, and the associated job growth. Capital requirements might get preferentially lowered for politically favored asset classes such as housing, potentially skewing credit allocation towards such asset classes and fueling leverage booms and price run-ups.

Even with appropriate capital requirements, if leverage can be synthesized by the banking sector and other financial firms in shadow banking entities, then central bank remit could be restricted from extending to these corners of the financial sector. Such restrictions can come about in a couple of ways. The first is through lobbying efforts of the shadow banking institutions (such as those of money market funds), or of regulated institutions operating in shadow banking, such as large bank holding companies engaged in over-the-counter derivatives that are being proposed for move to clearinghouses. The second

case occurs when shadow banking activities serve political interests directly, such as government-sponsored enterprises or state-owned banks playing a central role in housing markets, or full-leverage special-purpose vehicles channeling funds to small and medium-sized enterprises in a recovery from recession.

The bottom line is that implementation by central banks of macroprudential policies to limit financial sector excess and create future financial stability can lead to politically unpopular short-term outcomes, such as slower growth and a weakened job market. When this happens, the central banks can find themselves being prevented from fully implementing such policies through limitations on their scope, or through ideological arguments that such policies are too high-handed an intervention in the functioning of private economic forces in the financial sector. Partial or incomplete implementation of macroprudential policies can be especially destabilizing from financial standpoint, as central banks cannot lean adequately against the wind in good times, being induced to eventually provide too much emergency support when a crisis materializes. This, in turn, risks further political interference in their operations down the road.

POLITICAL PRESSURE ON INTEREST-RATE POLICY

Similar concerns can arise with respect to efforts of central banks to maintain financial stability through a countercyclical interest-rate policy. While central bank rate reductions during a crisis or recession would be consistent with political objectives, and therefore might not face too much resistance, rate increases to limit financial sector excess and to rein-in shadow banking activities may be viewed as pushing too hard on the financial stability pedal at the cost of economic growth. As with macroprudential policies, rate increases can be politically unattractive if, for example, they raise mortgage rates in the economy, slow down the consumption of housing, or reduce the speed of job creation in the economy.

Importantly, raising interest rates to improve financial stability can also mean raising the cost of issuing government debt in the market. Governments wanting to follow expansionary fiscal policies as a way of stimulating the economy might face an increase in their cost of borrowing. This can occur if the impact of such fiscal policies is unclear for overall growth, or is associated with heightened risk of debt refinancing problems down the road (including issues relating to violations of debt ceilings, as in the United States, or fiscal pacts, as in the European Union). Facing such higher costs, governments may prefer central banks to lower the interest rates (or delay rate rises) and aid the fiscal plans. And, fearing political backlash in the form of other restrictions on scope, central banks may be effectively induced to give in to government plans.

In each of the three cases discussed above—crisis management, macroprudential policies, and interest-rate policy—the tradeoff between financial stability and economic growth from the political standpoint may differ from that seen by central banks. This is due both to differences in the decision-making horizon and the scope of objectives. In some cases, Congress may want central banks to do too much (from the standpoint of ensuring financial stability) to generate short-term growth and jobs, and in other cases it may want to restrict central banks from doing enough so as to retain control over them and shift the tradeoff as desired from the political perspective. Interestingly, financial instability usually ends up being a fiscal problem as governments are required to backstop financial sector liabilities in order to ensure continuity in operations of payments and settlements systems, financial transactions and trade. Hence, the

political tradeoff can often end up sacrificing the stability of the government balance sheet and economy as a whole.

Can the overarching framework, rules, laws, and mandates under which central banks operate be designed to serve a checks and balances (or belts and suspenders) role, where meeting the financial stability objectives enables central banks to limit the political headwinds that set the stage for financial or sovereign distress? Let us turn next to such a scenario and see how the Dodd-Frank Act compares in terms of (a) its central banking mandate for the Federal Reserve, (b) its new powers and new restrictions, and (c) how it fits into the financial stability framework with respect to other regulatory institutions.

Optimal Design of Central Banking to Counter Political Economy Forces

Political interference in central banking operations of the type described in the preceding section can be mitigated through better design of legislation. By "better" that is to say that the design determines a central bank's mandate and the tools they are awarded to achieve these objectives. Under the political economy view of central banking presented here such legislation should balance the need for democratic accountability of the central bank, while also giving it adequate scope to ensure operational independence from political influences.

Below are four important features that would be desirable in such high-level design of legislation defining central banking in an economy:

1. Reliance on rules in central banking responses to manage crises;
2. An explicit role for financial stability in the central banking mandate;
3. Broad scope for central banks to regulate growth and leverage in the shadow banking sector; and
4. Sharing of crisis management and prevention responsibilities between central banks and other financial regulators.

Let us examine the rationale for each feature, as well as whether and how Dodd-Frank addresses the need for each feature. While the Act takes some significant strides forward, it leaves a few gaps, which are highlighted below.

Reliance on Rules in Central Banking Responses to Manage Crises

A primary rationale for the rules approach, versus discretion, in central banking crisis management is to deal with the moral hazard arising from these responses. Rules can introduce a certain level of assurance that central banks won't necessarily support the financial system with its LOLR operations as much as might be *ex post* desirable, as this might be too generous from an *ex ante* standpoint. Rules reduce some uncertainty facing financial firms and investors and can eliminate regulatory uncertainty. This is desirable because regulatory uncertainty can create opportunity for market participants to gamble on what regulatory actions will be taken, rather than on fundamental economic bets.

However, there also is an important political economy consideration for having such rules in the crisis management role of central banks. When a central bank's hands are tied down with *a priori* knowledge as to what it can and cannot do to resolve a crisis, it would be hard for the political system to question its

actions *ex post*. In other words, taking away a certain amount of discretion from central banks can, over time, preserve their operational independence from political influences.

Dodd-Frank takes an important step in this direction by weakening the 13(3) provision of the Federal Reserve Act. In particular, it prevents the Federal Reserve from providing LOLR support to an *individual* nondepository institution, but allows it to provide such support to the market at large. Since the most politically contentious central bank support is that which is targeted to a specific entity, this should make it easier for central banks to design liquidity support of the type that was provided through various alphabet-soup of lender-of-last-resort facilities that the Federal Reserve innovated during 2007–08 with the objective of ensuring that funding markets for important asset classes remained functional.

It is possible *ex post* in a crisis that a systemically important nondepository financial firm can impose huge costs in the event of its failure if it chooses to remain undercapitalized given its ability to secure liquidity from marketwide LOLR facilities. One way the rules governing LOLR could be strengthened would be to require nondepository institutions to meet minimum solvency standards to be eligible in a marketwide support of liquidity. This would allow the Federal Reserve to bargain for the recapitalization of highly distressed and insolvent entities while lending to them against risky and illiquid assets in order to preserve financial stability. This would fix an important limitation that came up repeatedly in the Federal Reserve's defense to the Congress of why it had to support individual entities such as Bear Stearns and AIG FP during the 2008 crisis.

AN EXPLICIT ROLE FOR FINANCIAL STABILITY IN THE CENTRAL BANKING MANDATE

Giving the central bank an explicit mandate to maintain financial stability might seem superfluous at first blush. Nevertheless, it is important in order to introduce an explicit long-term dimension in the central banking objective. On the one hand, a central bank may be less prone (perhaps even immune) to short-termism and populism than the political establishment. On the other hand, its price stability and job growth mandates suffer from a measurement problem: long-term, sustainable measures are hard to come by. As a result, short-term calm and spurts in these measures, fueled by financial-sector excesses, can be politically attractive outcomes. Without an explicit mandate for financial stability, central banks may find it hard to undertake countercyclical policies such as interest-rate rises in good times (or following extraordinarily low rates for an extended period of time). Such policies may be politically unattractive—perceived as sacrificing economic growth—and thereby create the risk of greater political interference in central bank operations in future.

As mentioned at the beginning of Section I, the genesis of the Federal Reserve idea lay in entrusting financial stability to an agency rather than to a private individual. Putting the Federal Reserve in charge of financial stability would thus be getting to the roots all over again. Dodd-Frank does take a step in this direction by expanding the Federal Reserve's role in ensuring financial stability. In particular, the Federal Reserve is charged with designing prudential capital and liquidity requirements as well as conducting stress tests of the entities designated as systemically important by the FSOC. Chaired by the Treasury Secretary, the FSOC consists of representatives and heads of various regulatory agencies, including the Federal Reserve.

However, as argued earlier, it may not be entirely feasible to maintain financial stability purely through macroprudential tools, both due to the risk of regulatory arbitrage and the natural process of financial

innovations that keep expanding the shadow banking sector. It is unclear under the Dodd-Frank mandate for central banking whether the interest-rate policy should take into account financial stability considerations. The original text for Dodd-Frank did require explicitly introducing financial stability in the Federal Reserve mandate, but for reasons unexplained this was dropped from the final language. This has the misfortune of making interest-rate decisions that take adequate account of long-run financial stability highly dependent on whether there are enough governors in the Federal Reserve Board sensitized to financial stability issues. An explicit mandate for financial stability for central banks would ensure that even central bankers focused on the interest-rate policy impact on inflation and jobs would think twice while sacrificing financial stability to push on stabilizing inflation and creating jobs in the short run.[6]

BROAD SCOPE FOR CENTRAL BANKS TO REGULATE GROWTH AND LEVERAGE IN THE SHADOW BANKING SECTOR

Giving broad scope to central banks to regulate the shadow banking sector would give the central bank adequate tools and regulatory reach to implement macroprudential policies that recognize the best response of the financial sector in terms of regulatory arbitrage around these policies. From the political economy standpoint, this would grant central banks the ability to address shadow banking excesses as they manifest, rather than having to wait for new legislation to deal with innovations in the financial sector (or worse, having to wait for a crisis arising from such excesses for the innovations to be brought under the regulatory fold). Conversely, giving central banks a broad scope to regulate and intervene in the shadow banking sector would reduce the political bargains that the financial sector could extract by trying to arbitrage central banks attempts at financial stability.

Implemented in the broadest interpretation, central banks should also be able to address risks to financial stability arising from government-sponsored enterprises as well as state-owned banks and financial firms. Without being explicitly entrusted with broad scope, central banks may shy away from getting close to regulating government-sponsored enterprises (GSEs) and state-owned banks and financial firms in order to avoid political interference and backlash; however, given the broad scope, the onus may turn to the political establishment to publicly justify any backlash.

Dodd-Frank grants the FSOC the right to designate entities from the shadow banking sector as systemically important financial institutions (SFIs). Indeed, they could be deemed systemic as a "herd" even if not individually. In turn, such designations can lead to regulatory capital and liquidity requirements, as well as stress testing and preparations for resolution in the form of living wills. The FSOC appears to have achieved some success on this front already, notably by considering the insurance

[6] An important byproduct of an explicit role for financial stability in the central bank mandate would be a change in the composition of central bankers. Currently, central bank governors have—by and large—a macroeconomics background with an interest in financial stability that is acquired (cursorily) while "on the job". An explicit financial stability mandate would necessitate bringing into the central banking arena more governors with background in banking and financial crises. In particular, experts in causes, consequences and remedies of financial crises, who possess institutional knowledge of how banking and shadow banking work and interact, as well of how financial markets can provide useful signals for financial stability, would become likely candidates for central bank governor positions. Such a change would, in turn, bring about a greater top-down focus on financial stability within the central bank, in the form of greater hiring of researchers and associates with a background in financial crises. This might lead to better balance between macroeconomics and financial economics in central banking discussions.

firms and money market funds (notably during the European sovereign debt crisis of 2011) candidates for being SIFIs.

The one rather important error of omission from the candidate list of SIFIs seems to be the GSEs of Fannie Mae and Freddie Mac. These entities are clearly the two most systemically important financial institutions in the United States, perhaps even globally so, and yet they are not explicitly accounted for in financial stability discussions of the FSOC. Their omission can make them a prime target for "mission creep," whereby short-term political objectives could be pushed through by stimulating residential housing markets, with consequences that extend to the entire private financial sector and the economy.

SHARING OF CRISIS MANAGEMENT AND PREVENTION RESPONSIBILITIES BETWEEN CENTRAL BANKS AND OTHER FINANCIAL REGULATORS

The objective of sharing crisis management and prevention responsibilities between central banks and other regulators would be to make it difficult for the political establishment to influence the entire regulatory apparatus by affecting just one regulatory agency. While concentrating all regulatory tasks—macroprudential as well as crisis management—in one entity may seem attractive from the standpoint of efficiency and coordinated design of these tasks, it would violate the checks-and-balances approach to institutional design that works well in democratic settings. Institutional design with division of responsibilities across a few regulatory agencies reduces the risk that the entire regulatory system can be readily captured by political objectives (e.g., through a handful of politically influenced appointments).

The FDIC and the Federal Reserve have been separate agencies in the United States since the Great Depression. The FSOC adds a further step toward balancing the efficient delegation of operational powers to individual regulators. In particular, the FSOC retains some political control when the powers exercised by these regulators might extend into quasi-fiscal actions, but at the same time the FSOC has made financial stability a common point of discussion between the Treasury Secretary and the regulatory agencies. Such a body with one political representative and multiple regulatory heads would make any cramming down attempt practically infeasible.

Rules for crisis management procedures, an explicit mandate for financial stability in its objective, broad scope to regulate shadow banking sector growth and leverage, and division of responsibilities with other financial sector regulators could work in tandem and reinforce each other. For instance, better rules for crisis management responses would exonerate central bankers from having to rely heavily on countercyclical interest-rate and macroprudential policies to limit moral hazard from such responses. Greater ability to effectively regulate the shadow banking sector would put less burden on the interest-rate policy for leaning against the wind and reaching into cracks in the financial sector and let it be more focused on the traditional price stability objectives. Finally, an explicit mandate for financial stability would induce central banks to consider new financial products and asset classes with a cautious risk-management approach, leading to proactive development of rules to deal with their failures. And last, but not least, an explicit financial stability mandate would empower central banks with greater ability to resist political pressure to keep interest rates low or leave shadow banking sector excesses unaddressed for extended periods of time.

FINAL REMARKS

An inevitable outcome in political economy is that laws designed to limit its undesirable impacts may fall prey to its forces. In particular, legislation aimed at limiting political interference in central banking operations may fall prey to political interference. For instance, short-term political interests can lead to subsequent repeals of desirable regulation passed in the aftermath of a financial crisis or of a severe recession following financial sector distress. Further, legislation designed to enable central banks to maintain financial stability may be followed by greater direct political intervention in financial sector decisions, notably in sectors with populist appeal such as residential mortgage lending. Inevitably in such cases, boom-and-bust cycles in the financial sector emerge (though possibly at lower frequency), due to the intentional erosion of central banking powers to limit the occurrence of such cycles. When this happens, the only ones who can save the day will be obdurate central bankers who can strike a delicate balance between exercising judgment that counters political headwinds and retaining democratic accountability.

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