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Implementing Macroprudential and Monetary Policies: The Case for Two Committees.

Policy makers around the world have learned a number of lessons from the global financial crisis (GFC) about requirements for a policy tool kit that will prevent the next financial crisis –or at a minimum considerably lessen the pain of financial cycles for the real economy. We have learned that medium-term price and economic stability is not enough to guarantee financial stability and that the absence of financial stability can cause substantial and prolonged deviations from inflation targets and full employment.

Moreover, monetary policy has not been powerful enough to restore price and economic stability quickly once they have been disturbed by a major financial crisis. Clearly more is needed to prevent such crises from occurring in the first place. Improvements in institution-by-institution risk management and capital and liquidity buffers would help, but viewing each institution separately is not sufficient to preserve financial stability. Externalities to the behavior of individual institutions means that the authorities need to look at the whole system, devising and administering regulations to take account of the interactions and spillovers and to damp the procyclicality that seems naturally to be built into financial markets and their feedback on the economy.

Macroprudential policy—the extra regulatory perspective that does take account of systemic effects—had been a feature of policy in the US and many other industrial economies in the 1950s, 60s, and 70s, and it has remained a key aspect of the regulatory approaches in many emerging market economies in the 2000s. But it fell out of favor in most economies with open and highly developed financial markets, because markets were perceived as having gotten better at distributing and diversifying risks and because markets were undermining the effectiveness of regulation by providing more avenues for regulatory arbitrage.

Now, in the wake of the GFC, macroprudential regulation has been reborn in advanced economies, mostly as a “macroprudential finish” to standard microprudential tools, like capital and liquidity requirements applied to a wider range of institutions that are judged to be systemically important --but also with changes in market structures, for example the central clearing of derivatives.

But that gives us two types of financial policies with a macro focus—macroprudential and monetary policies. They share a common ultimate objective:

¹ This paper represents my own views and not necessarily those of the Bank of England or my colleagues on the Financial Policy Committee.

preserving economic stability in the interests of maximizing sustained long-term growth. Moreover these two types of policies interact in a number of important ways. That has raised questions about when and how each set of policy tools should be used, who should have their hands on the macroprudential levers and, if they are a different set of hands, how the two authorities should interact. What each set of tools concentrates on is important to my conclusion about governance, so I'll touch on that, but I will concentrate on the structure of governance, with particular reference to the US and to the Federal Reserve. Should the FOMC or the Board of Governors have authority over macroprudential policy? I will draw some lessons about how policymaking might be structured from the UK, where I am an external member of the macroprudential authority—the Financial Policy Committee. And I'll point to deficiencies I see in the structure for macroprudential policy in the US beyond the Federal Reserve.

Macroprudential and monetary policies.

Macroprudential and monetary policies interact in complex ways as they seek to contribute to sustained growth—both working through their effects on financial conditions.

Monetary policy operates mostly by affecting the actual and expected level of short-term interest rates, and in the case of securities purchases, influencing term premiums at longer maturities. Changes in expected interest rates feed through to asset prices and foreign exchange rates. Monetary policy contributes to sustained growth mostly by keeping average price levels reasonably stable over time and by returning the economy to its sustainable level of production as quickly as possible consistent the longer-term imperative of price stability when there are trade-offs.

Macroprudential policy is used primarily to build the resilience of the financial system, the ability of both borrowers and lenders to withstand shocks. This resilience reduces the odds that the effects on the economy of a downswing in asset prices or a rise in credit problems are amplified by a failure of intermediation. Macroprudential policy may also affect asset prices themselves, damping the upswing and cushioning the downswing. The tools it uses for this purpose--adjustments in capital and liquidity requirements, changes in the structure of some markets, and, in some countries, alterations in permissible terms of lending--affect the cost of intermediation and the availability of credit.

Because both can affect the cost of credit, the instruments used by each policy can have important effects on the appropriate instrument settings the other policy must adopt to reach its objectives. For example, added risk taking and increased credit availability is an important channel for easy monetary policy to return the economy to potential and achieve inflation targets. But highly accommodative monetary policy can increase risks to financial stability by encouraging leverage and maturity mismatch that may prove dangerous when rates rise and capital gains reverse or by inducing a “search for yield” in which lenders and investors do not give adequate consideration of potential defaults when rates eventually increase and the economy slows. Macroprudential policy must act to

ensure that the financial sector is resilient to the impact of these positions and prices unwinding—that the sector can continue to provide its essential services of intermediation, risk management, and payments.

Analogously, the effects of macroprudential policy on intermediation costs can affect incentives to borrow and spend, and therefore the level of aggregate demand relative to potential supply and prospects for inflation, which must be taken account of by monetary policy. For example, the tightening of financial regulation after the GFC to rebuild protections for financial stability and reduce procyclicality from the financial sector has probably contributed to the further decline in equilibrium interest rates. And that in turn has meant that monetary policy has had to remain unusually accommodative for longer in order to promote a return to maximum employment and 2 percent inflation targets.

The two-committee approach.

Despite the close interactions and relationships between monetary and macroprudential polices, a number of arguments favor putting primary responsibility for each in two separate committees. In brief, although they share a common very long-term goal of sustained growth at potential, they try to get there in very different ways through very different instruments and very different “intermediate” targets.

Macroprudential policy tries to identify tail risks and externalities that are not appropriately priced by markets and that can lead to contagion and spillovers, posing greater risk to the financial system and greater cost to the economy than to individual market participants. The focus of macroprudential policy will be on the financial cycle, which may have a different periodicity than the business cycle. Financial risks can build up over much longer periods, through several business cycles. The complacency of private market participants and their regulators that led to the underestimation of the risk to financial stability in the years leading up to 2007 accumulated over the several decades of the “great moderation”. The macroprudential policy actions that internalize these externalities and put extra weight on tail risks impose greater intermediation costs. The actions can be and are often concentrated on particular intermediaries or market segments where the financial stability risks seem to originate—for example, by increasing capital and liquidity buffers for banks, imposing through-the-cycle margining for securities transactions, or restrictions on intermediary activities or on credit terms for particular types of lending.

Monetary policy, by contrast, is focused on economic and price stability primarily at the business cycle frequency. It is concerned primarily with the most likely outcomes for the economy and prices; though “risk management” can play a role when certain outcomes are seen as disproportionately costly, it’s the risk of broad macroeconomic results that is taken into account, rather than the tail risk in particular financial markets. Its tools –actual and expected interest rates and the central bank balance sheet – generally work very broadly through financial markets to the economy.

To be sure, monetary policy could be used to “lean against” emerging threats to financial stability, as some have urged it should². In this view, monetary policy should regularly consider whether it needs to steer away from, or delay the return to, medium term objectives for inflation and employment in order to safeguard longer-term stability, and many of these analysts would expect the financial stability argument not infrequently would have a significant effect on monetary policy. Only in this way can the authorities be adequately assured of avoiding financial instabilities that would deflect the economy from sustained growth and inflation near target over the longer-run.

This argument rests on two premises. One, that monetary policy settings can have major effects on financial cycles—by creating bubbles and imbalances when policy is easy, and by preventing such risks from developing, whatever their origin, if policy is tighter. Second, that microprudential and macroprudential policies are not themselves sufficiently robust to contain or prevent the buildup of risks or to prevent disruptive financial crises. In particular, macroprudential and microprudential policies can make banks and other heavily regulated intermediaries more resilient, but will be weak in tackling bubbles and imbalances in securities markets and at less-regulated entities. By altering risk-taking incentives quite broadly, changing interest rates is effective in preserving financial stability, in part because it “gets in all the cracks”.³

But monetary policy is a blunt instrument, operating through multiple channels while many risks to financial stability are focused in particular markets and types of borrowing and lending (the residential real estate market and mortgage credit would be a prime example). Moreover, the effects of changes in monetary policy settings on risks to financial stability arising from mispricing of assets, leverage, and maturity mismatches are unclear and could be quite small. As a consequence, using monetary policy to deal with threats to financial stability could well involve major costs; the monetary authority might need to steer considerably away from or delay return to its medium term objectives for output and prices to deal with financial stability risks, and the collateral damage to employment and inflation, even the credibility of its inflation target might well be substantial.⁴

Overall, protecting financial stability efficiently and effectively requires a different focus and different set of tools than does achieving an inflation target. And it seems that, given the tools available to each type of policy, cost-benefit calculus would keep monetary policy focused on aggregate demand relative to supply and overall inflation, while macroprudential policy would focus on reducing the odds that disturbances in the financial sector that could have major and disruptive feedbacks on longer-term growth prospects, with monetary policy a “last line of defense” on protecting financial stability.⁵

² Stein (2014) and BIS (2015)

³ Stein (2013)

⁴ In Sweden, during the recovery from the GFC the Riksbank tightened policy in recent years to discourage household borrowing, but the effects were muted and the consequences for achieving its inflation target sufficiently adverse that it had to back off. (Svensson 2014 and Milne 2014)

⁵ Bernanke (2015) and Yellen (2014)

In my view, these differences in focus, in instruments, in proximate objectives and the effectiveness and efficiency with which they can be reached by each set of instruments, all argue for these two functions being carried out in separate committees. The public interest and macroeconomic stability will be best served by each committee concentrating on how to use its particular tools to meet its primary objective—price stability and sustained full employment for the monetary policy makers, and financial stability for the macroprudential policymakers. And accountability will be more readily applied when elected representatives can focus their review of monetary policy on the medium-term legislated mandates for that policy, and their review of macroprudential policy on actions to protect financial stability.

Of course, given the interactions and interdependencies of these policies, members of each committee will need to be exceptionally well informed about the policies of the other one. This will require a deep understanding of the strategies and intentions of the other, their rationale and expected effects. This degree of understanding can be accomplished through communication between the committees and through overlapping membership.

The need for formal cooperative agreements or understandings between the two committees will be rare. In general macroprudential policy probably works more slowly and with longer lags than monetary policy. Even countercyclical macroprudential policies, like changes in the countercyclical capital buffer, can take effect after some months (12 months for the CCB in the absence of exceptional circumstances⁶), though market expectations and the preparatory actions of affected institutions may bring some of the effect forward. By contrast, actual or expected changes in monetary policy settings are likely to have more immediate effects on financial conditions. And consideration of macroprudential policy actions is likely to occur less frequently than the monthly or 8 times per year schedule for monetary policy in most jurisdictions.

Monetary policy should be able to adjust to actual and expected changes in macroprudential policy—for example by lowering the path for its policy rate to the extent that tighter macroprudential policy is expected to raise intermediation costs appreciably enough to affect the balance of aggregate demand and potential supply. In this sense it would treat macroprudential policy analogously to the way monetary policy takes account of the likely evolution of fiscal policy. Similarly, macroprudential policy should be able to take account of how the expected path of monetary policy might affect financial stability risks.

Applied to the Federal Reserve

In the Federal Reserve, committee separation implies that the Board of Governors should remain in control of macroprudential policy as the FOMC runs monetary policy. Of course the Board is (supposed to be) a majority of the FOMC, but when they meet as a Board they should find it easier to maintain the separate

⁶ BIS (2011)

focus I believe required. Overlapping membership and communication by Board members with other FOMC members, who, as reserve bank presidents, already have extensive interest and knowledge of the financial sector and regulatory matters, should take care of mutual understanding.

The rationale for keeping macroprudential policy in the Board and separated from the FOMC is reinforced for the Federal Reserve by the governance structure of the reserve banks. In large measure, macroprudential policy involves the use of microprudential tools, like bank capital requirements, to internalize externalities and protect against downside risks. These policies can have substantial effects on the business models and profitability of banks and other financial intermediaries. The reserve banks are owned by the banks in their district, which elect 6 of the 9 members of the boards of directors, three of whom are bankers; the other six are not bankers, but may have ties to other parts of the financial system. Having the presidents vote on an aspect of setting of regulations could well entail a change in law. Right now, the Federal Reserve Act places the over-riding authority for supervision and regulation of banks in the Board of Governors, though the reserve banks do the hands-on supervision of banks and the New York Fed has an important role in overseeing financial markets through its responsibility to keep markets functioning well as it to executes monetary policy for the FOMC.

Strict rules prohibit directors' involvement in supervision and regulation and tightly govern conflicts of interest, and those rules could be extended to macroprudential regulation as well. Still, the nonbank directors select the president, who reports to the entire board on the functioning of the bank. And one of the duties of the directors under the Act is to give input to monetary policy decisions. They report on conditions in the economy to inform the reserve bank president's analysis of the economy and policy, and they vote on discount rate recommendations to the Board of Governors. Especially if monetary and macroprudential policies became intertwined in one committee—the FOMC—it would be very difficult to avoid regulation becoming an important discussion point at directors' meetings. At a minimum the optics would be terrible given this governance structure, and concerns about the influence of bankers and interested private parties on regulation would be accentuated, understandably in my view.

An FOMC decision to use its balance sheet tools for macroprudential purposes as well as for monetary policy, could complicate the operation of a two-committee structure, but would not undercut its basic rationale and efficacy. The FOMC has announced its intention to return policy implementation to the norms and techniques used before the crisis and before the adoption of unconventional policy measures. This includes ultimately allowing the balance sheet to shrink to the minimum necessary to control the federal funds rate—that is reducing assets enough to bring excess reserves back to frictional levels. This lower level of assets would limit the scope for using the size and composition of the Federal Reserve's assets for other purposes.

Some observers, however, have suggested that the Committee retain a large balance sheet and use it at least in part to foster financial stability.⁷ Most prominently, they would have the Federal Reserve retain enough assets that it could also engage in a potentially large volume of short-term reverse RPs with the nonbank private sector. In effect, the Fed would be supplying safe and liquid assets—loans to the Fed secured by Treasury securities—to money funds, GSEs, dealers, and perhaps some other private sector investors. In the years leading up to the crisis, the demand for safe liquid assets had induced the private sector itself to produce them—assets that turned out to be not so safe, not so liquid, and a source of financial instability when the realization of their vulnerability hit home. In this view, having the government—in this case the Federal Reserve—issue such assets would crowd out private sector issuance and enhance financial stability.⁸ Other possible uses of the Federal Reserve balance sheet for financial stability purposes might include using MBS purchases and sales to affect mortgage rate spreads and adjusting the maturity of the portfolio to influence the spread between short-term and long-term rates. Where any of these techniques adopted, the Federal Reserve’s portfolio would be employed in the interests of financial stability alongside the macroprudential tools that relied mostly on adjustments to microprudential tools.

As noted, at present the FOMC apparently does not intend to engage in any of these activities. The FOMC has been reluctant to remain as large a part of the intermediation process as would be implied by the large portfolio/RRP combination and worried about how its involvement would play out in a crisis; resistant to reinvolve itself in credit allocation as implied by MBS purchases and sales; and seems to have become more comfortable using forward guidance to influence long-term rates than using twist or QE type operations to affect term premiums.

Were a future FOMC to shift to more active portfolio management to promote financial stability, it wouldn’t undermine the basic reasons for a two committee structure with the Board retaining the macroprudential use of microprudential tools: the importance of keeping the FOMC primarily focused on monetary policy in the context of the business cycle and being held accountable for achieving its dual mandate, while separate authority is held primarily accountable for financial stability; and the optics of keeping the reserve banks away from setting regulatory policy that might affect their bank owners. To be sure, active use by the FOMC of its portfolio for financial stability purposes would put extra pressure on coordination and knowledge exchange between the Board and the FOMC—coordination that will occur in any event given the overlapping membership and involvement of the presidents in supervision.

Implemented in the UK.

⁷ Bernanke (2015) and Barnes (2014)

⁸ In effect, the Fed would be altering the maturity structure of outstanding Treasury debt held by the public, by taking longer term securities off the market and issuing short-term obligations (RRPs) A separate issue is whether the Fed or the Treasury is the right agency to make what are essentially debt management decisions. (Greenwood et al 2014)

The UK is implementing the two committee structure for monetary and macroprudential policy. Monetary policy is in the control of the Monetary Policy Committee in the Bank of England. In the wake of the global financial crisis, the structure of supervision and regulation was overhauled. Three new entities were established: the Prudential Regulation Authority was set up under the Bank to do microprudential regulation of banks, insurance companies, and a few other entities; the Financial Conduct Authority oversees conduct in the financial markets, including interactions of intermediaries with consumers as well as conduct within the market; the Financial Policy Committee was created in the Bank to take responsibility for using macroprudential policy to protect the stability of the UK financial system, working within a broad remit of the Bank “to protect and enhance the stability of the financial system of the UK”.

I am one of four external members (that is, not an official of the Bank) of the FPC. In addition we have 5 internal members—three overlap with the MPC and three with the PRA; the head of the FCA; and a nonvoting member from the Treasury.⁹ The primary objective of the FPC is to “identify, monitor, and take action to remove or reduce systemic risks with a view to enhancing and protecting the stability of the UK financial system”. Subject to that we are to support the economic policy of the government, including its objectives for growth and employment—our secondary objective.

The primary objective of the MPC is stable prices, defined by the government as 2 percent inflation; and subject to that to support the economic policy of the government, including for growth and employment. So the two committees are responsible and held accountable for separate primary objectives, with the same secondary objective.

Information sharing between the committees is effected by the overlapping membership, with the Governor of the Bank chairing both committees. The FPC uses the macroeconomic forecasts of the MPC in considering the effects of the macroeconomic environment on financial stability; that was important in the housing market, as I’ll return to below. The two committees are occasionally briefed together on common interests, like housing.

The FPC can make recommendations to anyone, and we have powers of direction over a number of macroprudential tools, including several that can be used in a countercyclical manner: the countercyclical capital buffers on risk-weighted and leverage bases; sectorial capital requirements in the real estate area; and LTVs and LTIs on mortgages for owner occupied housing.

The two committees have had a couple of interesting interactions, which illustrate how the two-committee system can work. Early on, when the FPC and the Bank were implementing higher capital and liquidity standards while the MPC was pushing to speed the recovery, the FPC was careful to ensure as best possible that its actions to build resilience did not reduce the availability of credit for UK households

⁹ Legislation has been proposed that would make slight alterations in the numbers of members (HM Treasury 2015).

and businesses. It emphasized in its communications with the banks and microprudential authorities that we expected higher capital requirement ratios to be attained by increasing capital in the numerator and not by decreasing assets in the denominator. In addition, the FPC recommended that new liquidity requirements be phased in gradually and the Bank of England gave banks liquidity credit for a portion of their collateral prepositioned at the Bank discount window so they didn't shift from lending to liquid assets.

When the MPC first engaged in forward guidance about holding asset portfolios and interest rates at extraordinary levels at least until certain macroeconomic thresholds were reached, they gave the FPC a “knockout” of that guidance.¹⁰ That is they said the guidance would cease to hold if the “FPC judges that the stance of monetary policy poses a significant threat to financial stability that cannot be contained by the substantial range of mitigating policy actions available to the FPC, the PRA, and the FCA in a way consistent with their objectives.” As expected, the knockout was never triggered (and it is no longer in effect as the unemployment rate has breached its threshold), but it meant the FPC had to consider the stability risks of low-for-long interest rates very explicitly and concretely and communicate its findings to the MPC on a regular basis; these communications were published soon after the MPC meeting. It was a good discipline and a nice illustration of how judgments and actions on financial stability could rest primarily with the macroprudential authority, while monetary policy could still be invoked as a “last line of defense”.

Finally, we worked with the MPC to consider developments in the UK housing markets in 2013/14. House prices in the UK did not fall that far in the financial crisis and remained elevated relative to some standard metrics. In 2013, house price inflation picked up again throughout the UK, not just in London and the southeast. Moreover, projections made by the MPC, which we on the FPC were able to discuss with them, were for prices to continue to rise nationally more rapidly than general inflation and nominal incomes, when household debt to income ratios were already high. As the FPC, we wanted to protect against deterioration in credit quality and buildup of debt in heavily indebted households that could amplify the effects of an unexpected increase in interest rates or weakening of income growth. So in 2014, we worked through the FCA to required lenders to apply a stress of an increase in interest rates of three percentage points when assessing the borrowers' ability to repay floating rate loans; and we worked through the PRA to limit high LTI loans by banks and building societies—specifically, no more than 15 percent of their new loans could be at LTIs of 4-1/2 or above. As a consequence, the MPC has been able to continue to concentrate on achieving its medium-term inflation target without needing to steer away to take account of growing longer-term risks in residential mortgage markets.

The UK system is new; it is a promising beginning, but its success can only be judged over decades. Moreover, with London a large and extremely important global financial center, the UK is very open to shocks emanating from elsewhere.

¹⁰ Bank of England (2013)

We are acutely aware that financial stability in the UK depends in part on the successful implementation of micro- and macro-prudential policies around the globe—and nowhere is more important in that regard than the United States.

Structural deficiencies in the US organization for macroprudential policy.

The organization of macroprudential and monetary policies within the Federal Reserve seems about right to me at this time: The Board of Governors in charge of regulation and the FOMC of monetary policy. But broader and deeper structural deficiencies exist in the US regulatory system for macroprudential regulation. The more effective is macroprudential policy, the less frequently the “last line defense” of monetary policy will need to be activated, and the medium-term objectives of price stability and maximum employment compromised for a time; deficiencies in US macroprudential organization and policy could mean that the last line of defense is closer to the battle line in the US than it needs to be.

Nothing speaks more clearly to these deficiencies than the ambiguity about who is in charge and the misalignment between perceptions of responsibility and authority. The widespread perception is that the Federal Reserve is responsible for financial stability. To be sure the Federal Reserve has considerable powers to make the financial system resilient to shocks, some of which it acquired in Dodd-Frank. But these are centered in banks and bank holding companies and a few systemically important nonbank intermediaries. And, in its oversight of the banking system, the Federal Reserve must work with two other agencies, though it retains considerable authority, especially for holding companies. Beyond the banking system, the Fed can play a leadership role, for example in addressing issues in shadow banking and the securities markets, but it must work with and through other agencies. This is increasingly important as activity migrates outside the banking system in response to technology and to the costs of building resilience in the banking system.

In the US, protecting financial stability, and especially protecting it through macroprudential policies that take account of spillovers, contagion across markets and institutions, and other externalities, depends on coordination across a fragmented, Balkanized, regulatory system beset by gaps and overlaps. It is a system in which many of the agencies lack a macrofinancial or macroeconomic perspective and are without financial stability mandates. They are, understandably, and properly in a democracy, focused on their explicit legislated mandates—for example for protecting investors or consumers. They concentrate their attention on the markets, market participants, and behaviors they have traditionally overseen, and less on how those markets and behaviors interact with the entire system. Their constrained perspective is reinforced by the knowledge of and relationships they build with the players in their scope and by Congressional oversight that is dispersed among several committees.

The creation of the Financial Stability Oversight Council has been helpful in bringing forward analysis of risks to financial stability and stimulating and coordinating actions to deal with those risks across agencies. But FSOC by itself cannot remedy the underlying flaws of financial regulation in the US. FSOC itself has no real powers beyond SIFI designation and making recommendations. Moreover,

there are too many agencies protecting too much turf and some turf—like most insurance regulation-- is outside any federal oversight. The membership of FSOC is vested in the agency heads—not the agencies themselves—limiting the chances for buy in to measures to protect financial stability by other members of boards or commissions.

Finally, there is likely to be value in having macroprudential policy vested in a body with some independence from short-term political pressures. Effective macroprudential policy could well affect the level and distribution of private sector profits, and it will require constraining the actions of private parties when things are going well and the requirements to protect the system—to build resilience—are not self-evident. But FSOC is chaired by the secretary of the Treasury, and the required degree of independence is greater than is likely to be consistently embodied in Treasury secretaries, especially as elections draw near. And having the secretary as chair would greatly complicate coming to any understanding about the appropriate division of labor between macroprudential and monetary policies.

Deficiencies in the tools available for macroprudential regulation.

Perhaps reflecting the deficiencies in governance and structure, the US has been engaged mainly in structural macroprudential actions—mostly building permanent buffers and protections in systemically important institutions—rather than in countercyclical tools and actions. Structural policies can be very helpful in protecting stability and increasing the scope for monetary policy to concentrate on achieving price stability and maximum employment as rapidly as possible. But there are limits. To the extent structural policies concentrate on already regulated institutions, like bank holding companies, they will give incentives for intermediation to move to less-regulated areas of the financial markets, where coordination across agencies is at a premium and the efficacy of tools to mitigate risks is more open to question. A little less reliance on structural and more on countercyclical would reduce those incentives to shift and leave more intermediation subject to the occasional use of countercyclical tools. And, appropriately designed and implemented, countercyclical requirements can be released in a downturn. Some types of countercyclical tools might be targeted at specific terms and conditions of lending, wherever it occurred.

So far, the only explicitly countercyclical tool in the US kit is the countercyclical capital buffer under Basel 3. In addition, the stress tests are designed with an important countercyclical dimension, and the results can be used to spot shifting interdependencies and correlated positions, as well as the vulnerabilities of individual institutions.

But I am particularly struck by the lack of countercyclical tools for real estate credit. Real estate cycles have been the major drivers of financial cycles in the US in the 1980s and 2000s and elsewhere around the world. The ability to increase sectoral capital requirements for real estate would help to build resilience in the next upswing. And a body with macroprudential authority needs to be able to impose limits on LTVs and LTIs, not only on the loans on the books of depositories

but also on loans held elsewhere, say through securitization. I don't know whether the authorities would have utilized such tools in the mid-2000s when they would have been so helpful in retrospect, and I'm sure if they were used political opposition would have been fierce, but having them and having an expectation that they would be used counter-cyclically would have forced a conversation. In the next housing boom, and one will come, the lack of these tools will force monetary policy to respond to the upswing more than it otherwise would, at the cost of jobs and at the risk of the credibility of its inflation target.

What is to be done?

First best of course would be legislation—to consolidate agencies and make financial stability an integral part of their remit and to create a macroprudential regulator with authority that matched its responsibility. Such a regulator should have a heavy Federal Reserve presence, but it need not be housed in the Fed. Paul Volcker had some interesting ideas along these lines.¹¹ But history suggests that thorough regulatory overhaul in the US is unlikely.

Still I suspect steps could be taken within the current framework to strengthen our ability to protect financial stability, including by being more countercyclical. We need a stock take: relative to past and likely future threats to financial stability, what tools do we have and what are the impediments to using them most effectively? FSOC and the Office of Financial Research identify risks, but usually those are risks that agencies are already taking some steps to address—and they are more structural than countercyclical. What we need is an assessment of where the holes are in coverage and how they might be filled. What can be done under current legislation? Do all relevant agencies/authorities have enough flexibility in their mandates to consider financial stability? As implied by the previous discussion, the stock take should include tools to deal with cycles in real estate lending, both commercial and residential. It should also deal with securities markets, especially where they involve leverage, maturity or liquidity transformation, as the system evolves in this direction.

The exercise should involve all the relevant agencies—it can't be just a Federal Reserve effort. An agreement for greater data sharing among the agencies would be a concrete first step toward working together for financial stability.

I understand that similar exercises are underway for securities markets, securities financing transactions and other aspects of "shadow banking" in the US and at the FSB. But these discussions need more of a public face and need to be put in context. The public and political discussion in the US about financial stability focusses almost exclusively on SIFIs: should the big banks be broken up? Should Glass-Steagall be restored? What are the criteria for becoming and remaining a nonbank SIFI? Publication of a stock take, most especially one that pointed out holes and deficiencies, would broaden the public conversation and promote a better understanding of the requirements for good macroprudential regulation. Among

¹¹ Volcker Alliance (2015)

other things it should foster understanding that such regulations should tighten in the good times and ease in bad, and that such actions would enable the monetary policymakers on the FOMC to concentrate on achieving their maximum employment and stable price objectives as rapidly as possible.

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