



## Seven Questions on Macroprudential Policy Frameworks

Itai Agur and Sunil Sharma



*Implementing macroprudential policy and dealing with the political economy is likely to be hard. But limiting policy discretion through the formulation*

*of macroprudential rules is complicated by the difficulties in detecting and measuring systemic risk. This Q&A article provides brief answers to seven questions about macroprudential policy in light of recent research by Itai Agur and Sunil Sharma (2013). Their findings suggest that oversight is best served by having a strong baseline regulatory regime on which a time-varying macroprudential policy can be added as conditions warrant and permit.*

### Question 1: What is the justification for requiring a greater macroprudential orientation for economic and financial policies?

Three types of externalities that can lead to systemic fragilities justify the need for macroprudential policies (De Nicolò, Favara, and Ratnovski, 2012): (i) interconnectedness of markets and intermediaries that can propagate shocks through the financial system; (ii) strategic complementarities that generate correlated risks among financial institutions and markets; and (iii) fire sales of financial assets that can lead to a cycle of declining asset prices and weakened balance sheets of financial intermediaries.

The objective of macroprudential policy is to limit systemic risk by finding ways to dampen the effects of business and financial cycles, to handle interconnectedness and the buildup of common exposures by institutions and market players, and to catch credit and asset bubbles in their infancy rather than having to deal with them when they are considerably distended and puncturing asset bubbles may lead to much economic and financial mayhem.

### Question 2: What are the challenges inherent in measuring systemic risk?

By their very nature, systemic threats are “tail events,” they represent an agglomeration of risks from a variety of channels, and collecting data and views to make assessments

is difficult since in most situations it is likely to involve a multiplicity of sources and agencies. While systemic risk measurement has made some progress in recent years prodded on by the financial crisis, it has not yet produced a satisfactory measure, despite the variety and complexity of models and methods used (Bisias and others, 2012). The measurement of systemic risk thus continues to proceed without a comprehensive operational definition.

Systemic risk in the future may also arise in very different ways and it may not be captured by our existing intelligence systems. Moreover, one lesson from this crisis that surely carries over to future crises is the non-linearity of effects in a complex evolving economy (Haldane, 2012). Suddenly, some very fuzzy boundaries are crossed and the system spirals away from an ostensibly stable equilibrium, into the abyss. Threshold effects severely complicate efforts to quantify the risk of a systemic crisis, and make it particularly difficult for a warning system to be “early,” and not just begin to flash red when it is too late to contain the risks or the fallout from their realization.

### Question 3: How do the nature of systemic risk and the difficulties associated with measuring it influence the conduct of macroprudential policy?

Consider how policymakers would use an early warning system. They have two options: either they specify in advance what measures will be taken when systemic risk is apparent, or they wait until the warning signals are flashing red and then decide on a set of actions. The latter option leaves full discretion in the hands of the regulators, and depending on institutional and political structures such discretion could open the door to resistance from the financial industry, politicians, and even the public.

The challenges associated with systemic risk measurement make it difficult to operationalize the first option: a time-varying policy that is rules based. The key to a successful rule is the ability to specify in advance the policy action that will be taken when a certain event happens, and having the credibility to implement the policy when the need arises. In the context of macroprudential regulation, the “event” is the rise of systemic risk beyond some threshold and the “action” is the

*(continued on page 6)*

## Seven Questions

*(continued from page 5)*

application of macroprudential tools to reduce systemic risk to acceptable levels. Given the intrinsic problems in making systemic risk assessments and designing a suitable macroprudential toolkit, trying to define preemptive responses to a rare event using fuzzy measures to calibrate (infrequently used) tools is going to be difficult and a hard sell.

### Question 4: Is macroprudential policy harder to implement than monetary policy?

When a central bank targets inflation, the “event,” inflation, is well defined, as is the “act” of raising short-term interest rates. Further, there is historical experience, data, and reasonably well-founded models that tell us how interest rates have an impact on inflation. Moreover, the inflation gauge is a simple one, which is readily available and comprehensible to the public. In the realm of macroprudential regulation, however, any single measure is bound to be inadequate. Creating a rule that links an array of measures to a set of tools will be tough, both in terms of calibration and communication with the public. This is especially true since macroprudential tools are unlikely to be changed frequently and their effect on systemic risk will have to be judged relative to a counterfactual that is based more on assertions than evidence.

In implementing macroprudential remedies, measurement problems interact with the political economy of policy formulation. If a central bank moves to raise interest rates when it finds that inflationary pressures are building up, there is little scope for a lobby to counter that inflation is not being properly measured. Industry lobbies will not see much scope for influencing policy, since it applies to everyone. Instead, when a macroprudential policy is made more stringent because some indicators show systemic or sectoral risks are building up, lobbies have scope to argue with the measurement itself. Furthermore, it is more difficult to tell only a few of the proverbial partygoers that they cannot touch a punch bowl than to take the bowl out of the room. When one sector is singled out, especially one that is highly concentrated and has the resources to wield a lot of power, resistance to targeted restrictions may be intense.

### Question 5: What are the implications of assigning the mandate for macroprudential policy to the central bank?

Central bank leadership unifies systemic risk analysis and macroprudential decision making, and the central

bank does not need to coordinate public communication with other agencies. However, this “lack of involvement” of other agencies is also a drawback and raises the possibility of inter-agency conflict, because the bank and markets regulators must provide key inputs to the central bank and implement the policy response that is devised, without having a say in the decision making. This could endanger the flow of soft supervisory information, as well as the speed and extent of policy implementation, and thereby also the ability to credibly communicate macroprudential policy to the public. Directives that give the central bank overarching powers to make the bank regulator do its bidding will be difficult to define and enforce.

A joint committee where all the agencies have a say could prevent dogmatic thinking. Deliberations among officials with different backgrounds and experience should improve the design of policy. Such an arrangement should also minimize inter-agency conflicts and facilitate implementation. However, consensus on policy interventions may be harder to forge with a committee of representatives from different agencies. It may hamper the speed with which macroprudential policy can respond to fast changing circumstances, and increase the difficulty of coordinating a coherent message to the public. In addition, with multiple decision makers, a committee structure can increase the channels by which the industry may be able to exercise its influence on regulation and supervision. For example, some of the agencies on the committee may not have the requisite budgetary and political independence.

### Question 6: To make it easier to plan and manage macroprudential interventions, should central banks be given the responsibility for regulating the banking system?

The answer to this question will depend on a country’s size, history, and the evolution of its political and institutional structures. The creation of a super-agency with responsibilities for micro- and macroprudential regulation, as well as monetary policy does resolve the problems of inter-agency conflict. But it creates an unwieldy institution with far-reaching powers that is outside the realm of democratic accountability. Moreover, the timing of macroprudential interventions is difficult to make because of the preemptive nature of the policy, the difficulties associated with identifying and measuring systemic risk, and likely industry resistance. Faced with these hurdles, central banks may not make the right tradeoffs in using the two policies at their disposal. For example, central banks may be tempted to delay the use

of macroprudential tools with the knowledge that liquidity provision can be used to deal with systemic disturbances. The “Greenspan Put” was one illustration: since bubbles are difficult to identify *ex ante* the central bank should not attempt to prick or defuse them, but instead provide ample liquidity if, and when, things do go wrong.

### Question 7: Given the recent crisis experience, what lessons would you draw for the design of macroprudential frameworks?

Given the impediments to designing and implementing a time-varying macroprudential policy, governments should strive to build a strong baseline regulatory regime and then supplement that with a time-varying component. In this type of regulatory framework, there would be trade-offs involved in combining time-invariant (or baseline) and time-varying macroprudential policy. Implementing the time-varying component requires conservative “markers or thresholds” which when crossed force a public examination of trends in financial and real variables (Goodhart, 2011), and hence lead to appropriate responses from private and public actors that reduce the likelihood of precipitating a systemic crisis.

In this context, the institutional structure of regulation and supervision, and the incentives it embodies will be critical. Also, widening the perimeter of regulation to cover the entire financial system is essential. The devastation caused

and the costs imposed by the global financial crisis suggest that the system of oversight must be designed to prevent the emergence of systemic threats because once a system-wide meltdown starts it is hard to control due to the complexity of the system, the struggle of managing expectations under stress, and the challenges of coordinating and implementing policy through multiple agencies.

### References

- Agur, Itai, and Sunil Sharma, 2013, “Rules, Discretion, and Macro-Prudential Policy,” IMF Working Paper 13/65, (Washington: International Monetary Fund).
- Bisias, Dimitrios, Mark Flood, Andrew W. Lo, and Stavros Valavanis, 2012, “A Survey of Systemic Risk Analytics,” Office of Financial Research Working Paper No. 0001, (Washington: U.S. Department of the Treasury).
- De Nicolò, Gianni, Giovanni Favara, and Lev Ratnovski, 2012, “Externalities and Macroprudential Regulation,” IMF Staff Discussion Note 12/05 (Washington: International Monetary Fund).
- Goodhart, Charles A.E., 2011, “The Macro-Prudential Authority: Powers, Scope, and Accountability,” *OECD Journal: Financial Market Trends*, Vol. 2, Issue 2, pp. 1–26.
- Haldane, Andrew G., 2012, “Tails of the Unexpected” speech delivered at the University of Edinburgh, June 8, (London: Bank of England).
- Izquierdo, A., R. Romero, and E. Talvi, 2007, “Booms and Busts in Latin America: The Role of External Factors,” IADB, Research Department Working Paper No. 631 (Washington: Inter-American Development Bank).
- Kawakami, K., and R. Romeu, 2011, “Identifying Fiscal Policy Transmission in Stochastic Debt Forecasts,” IMF Working Paper 11/107 (Washington: International Monetary Fund).
- Osterholm, P., and J. Zettelmeyer, 2008, “The Effect of External Conditions on Growth in Latin America,” *IMF Staff Papers*, Vol. 55, No. 4, 595–623.
- Tanner, E., and I. Samake, 2008, “Probabilistic Sustainability of Public Debt: A Vector Autoregression Approach for Brazil, Mexico, and Turkey,” *IMF Staff Papers* Vol. 55, No. 1, 149–182.

### External Conditions and Debt Sustainability in Latin America

(continued from page 3)

- , 2005, *Information Note on Modifications to the Fund’s Debt Sustainability Assessment Framework for Market Access Countries* (Washington: International Monetary Fund). Available at: [www.imf.org/external/np/pp/eng/2005/070105.pdf](http://www.imf.org/external/np/pp/eng/2005/070105.pdf)
- , 2011, *Modernizing the Framework for Fiscal Policy and Public Debt Sustainability Analysis* (Washington: International Monetary Fund). Available at: [www.imf.org/external/np/pp/eng/2011/080511.pdf](http://www.imf.org/external/np/pp/eng/2011/080511.pdf)
- , 2012, *Regional Economic Outlook: Western Hemisphere—Rebuilding Strength and Flexibility* (Washington: April 2012).