



IV ANNUAL CONFERENCE OF THE REINVENTING BRETTON WOODS COMMITTEE

Notes for Session III: “The Great Experimentation with Macro and Micro Prudential Policies”

JOSÉ DARÍO URIBE
Governor - Banco de la República

Cusco, July 3, 2013

How the recent international financial crisis has challenged the consensus view of the macroeconomic policy framework

The financial system is highly interconnected and without adequate regulation tends to behave pro-cyclically. Moreover, empirical evidence has shown that credit and asset prices usually reinforce each other (see, for instance, Kaufmann and Valderrama, 2010)¹. Conventional macroeconomic policies and traditional micro prudential policies have proven to be insufficient for countering the systemic risks that arise from these characteristics of the financial system.

There is growing consensus on the idea that macro prudential policy instruments should be designed and implemented to control systemic risks derived from the behavior of financial market participants. However, many questions remain unresolved: What kind of policies should be implemented? Should they be implemented permanently or temporarily? Should the implementation of macro prudential policies be country-specific and time-variant? Should macroeconomic policies respond to asset prices and financial system imbalances? How do monetary policy and macro prudential regulation complement each other in dealing with these imbalances? Who should be in charge of macro prudential regulation?

In this presentation I will deal with some of these questions, emphasizing that the design and implementation of macro prudential policies that seek financial stability must respond to the particular characteristics of each economy and its financial system.

¹ Kaufmann, S. and M.T. Valderrama (2010): “The Role of Credit Aggregates and Asset Prices in the Transmission Mechanism: A Comparison between the Euro Area and the USA”, *The Manchester School*, Vol. 78, No. 4, P. 345-377.

The need for macro prudential policy tools

In the view that prevailed before the recent international financial crisis, a sufficient condition for attaining financial stability² was price stability and the implementation of micro prudential regulations based on traditional practices of bank supervision, together with regulations on individual provisions and bank capital for avoiding excessive risk-taking on an individual basis.

Under this view, many central banks around the world implemented inflation targeting schemes under the assumption that price stability and financial stability could be attained through separate tools: the former using monetary policy instruments, and the latter through the implementation of micro prudential regulatory and supervisory measures.

The recent international financial crisis revealed several shortcomings of this view of macroeconomic policy. I want to highlight two in particular. The first is that under the traditional view, monetary policy should not take into account the behavior of assets prices and financial imbalances. The second is that under this view interest rates are enough for achieving price and macroeconomic stability.

The idea that different instruments should be used for different policy objectives is theoretically neat but difficult to implement. Interest rates affect financial stability and asset prices, and therefore monetary policy may achieve financial and macroeconomic stability. However, changes in short-term interest rates are not always sufficient for attaining financial stability goals. Moreover, financial cycles are not always synchronized with regular business cycles, and therefore conventional monetary policy may be incapable of simultaneously attaining financial and price stability goals. Therefore, macro prudential policy instruments may play a crucial role in achieving financial stability in different contexts.

The intention of macro prudential instruments is to help achieve the stability of the financial system as a whole, which is not necessarily guaranteed by ensuring the stability of individual institutions. These tools are designed to control spillovers and externalities for the entire financial system. These externalities may appear due to the existence of “too-big-to-fail” or “too-interconnected-to-fail” financial institutions (cross-sectional dimension of systemic risk), or may also appear over the course of the financial cycle if capital regulations allow an increase in leverage during booms while dampening in busts (time dimension of systemic risk).

²Following the traditional definition, financial stability is understood here as a condition in which the financial sector is capable of withstanding shocks, reducing the probability of disruptions in the financial intermediation process which are sufficiently strong to drastically impair the allocation of savings to profitable investment opportunities (see, for instance, Schinasi, G. (2004): “Defining Financial Stability”, *IMF working paper* No. 04/187, International Monetary Fund).

However, the design and implementation of macro prudential policy measures must consider the particular institutional context of the country and its financial system in order to be effective. For instance, the tools for effectively reducing high credit growth and external imbalances might be different depending on the particular financial structure of the economy. The tools that are useful in a bank-based system may not work as well in a market-based system, and vice versa.

Monetary policy, credit, asset prices, and macro prudential policy

Under the traditional view, central banks should only react to bubbles after they burst, or when the development of a bubble excerpts influence on the forecasts of the general price index or economic growth. Otherwise, they should do nothing to influence asset prices³. This recommendation rests on the arguments that it is hard to identify bubbles, and while trying to burst a bubble a central bank could do more harm than good to the economy by depressing output.

Similarly, under the traditional view, central banks should not worry about the effects of monetary policy on leverage and lending decisions of banks. Hence, under this view monetary policy should not take financial cycles into account.

However, recent studies show that financial cycles exist and that they excerpt important influence on regular business cycles, though the two are not perfectly synchronized. In fact, financial imbalances and risks in the financial system are usually built over longer periods of time (Drehman et al, 2012, and Gómez-González et al, 2013)⁴. Two interesting policy implications for monetary policy emerge. First, it is difficult to target both financial and real variables using just one instrument. Second, the behavior of credit should not be ignored when the objective is to stabilize the economy, as credit cycles excerpt important influence over the business cycle.

Additionally, recent literature on the risk-taking channel of monetary policy shows that prolonged periods of low short-term interest rates induce banks to undertake higher risks and to modify their lending decisions favoring greater balance sheet imbalances (see, for

³ See, for instance, *Committee on International Policy and Reform* (2011): “Rethinking Central Banking”, September 2011.

⁴ For empirical evidence for developed countries see, Drehmann, M.; C. Borio and K. Tsatsaronis, (2012): "Characterising the Financial Cycle: Don't Lose Sight of the Medium Term!", *BIS Working Papers* 380, Bank for International Settlements.

For empirical evidence for Latin American economies see, Gómez-González, J.; J. Ojeda-Joya; F. Tenjo-Galarza and H. Zárate (2013): “The Interdependence Between Credit and Real Business Cycles in Latin American Economies”, *Borradores de Economía* No. 768, Banco de la República.

instance, Altunbas et al, 2010 and Tenjo and López, 2012⁵). The monetary policy stance is fundamental for the leverage decisions made by banks and other lenders for housing-related investments. Changes in funding costs, induced by monetary policy, may have an impact on risk-taking and funding conditions. As shown by Adrian and Shin (2011)⁶, the spread between lending and funding interest rates is an important determinant of leverage and has implications on the behavior of real estate and other assets prices.

Therefore, although trying to detect an asset price bubble may be extremely difficult, a policy maker may instead try to identify whether the observable credit market conditions are prone to reinforce the behavior of asset prices with possible negative effects on the economy in the future. In that sense, monetary policy may play an important role in the prevention of housing and other asset price bubbles.

However, targeting financial stability may be difficult using only short-term interest rates. Price and financial stability objectives may not always be achieved with just one instrument. A simple example is an economy in which current (and, possibly, expected) inflation is running below its target and output is below its potential level, while housing prices and/or the growth rate of aggregate loans are running high. Increases in short-term interest rates seeking a tightening of the credit market may have negative effects on output and may lead inflation to further reductions below the target. In that context, and in many others in which the financial stability objective is incompatible with the price and output stability objectives, additional instruments may be required.

Macro prudential policy tools may prove effective in this setting. For instance, the imposition of levies of certain sources of bank funding, or the imposition of maximum leverage ratios may be useful in helping policy makers enhance financial stability without negatively affecting price and output stability.

Macro prudential tools may also be useful to reinforce the effect of changes in short-term rates on financial stability even when there are no conflicting objectives with price and output stability. An illustrative example is the case of Colombia in 2007. At a moment in which consumption and leverage (both with domestic and foreign financial institutions) were growing at disproportionate levels, the Central Bank undertook unconventional measures for enhancing financial stability. Concretely, along with increasing short-term interest rates, the Central Bank increased the average reserve requirements in domestic

⁵ Altunbas, Y.; L. Gambacorta, and D. Marques-Ibañes (2010): “Bank Risk and Monetary Policy”, *Journal of Financial Stability*, Vol. 6, No. 3, P. 121-129.

Tenjo, F.; M. López, and H. Zárate (2012): “The Risk-Taking Channel in Colombia Revisited”, *Ensayos Sobre Política Económica*, Vol. 30, No. 68, P. 274-295.

⁶ Adrian, T. and Shin, H. S. (2011): “Financial Intermediaries and Monetary Economics”. In Benjamin Friedman and Michael Woodford (Eds.) *Handbook of Monetary Economics* (pp. 601-650). Amsterdam: Elsevier.

currency deposit and imposed both a marginal reserve requirement for domestic currency deposits and an unremunerated reserve requirement on external debt. The result was a reduction in the pace of aggregate consumption and leverage that was effective in diminishing the financial fragility of the economy.

This new view of “leaning against the wind” for reducing financial imbalances and controlling asset-price bubbles imposes important challenges for monetary policy. Several issues are yet to be resolved. For instance, should financial stability be an explicit target for central banks? Should targets to financial variables be included in central banks’ objective functions? In case the answer is affirmative, which financial variables should be targeted (credit, asset prices)? Should instruments other than the short-term interest rate be used to target financial variables (for instance, counter-cyclical capital and liquidity buffers)? At which level of asset prices or credit growth should central banks start worrying and react?

Considering the diversity of institutional settings in the implementation of macro prudential policies

Institutional arrangements differ among countries, and macro prudential policies are just one part of a wider set of policies for enhancing financial stability. The selection and implementation of particular policies depends heavily on the institutional framework of each country. Particularly, they depend on the way in which financial regulation and supervision is conducted. In some countries, the responsibilities for financial regulation and supervision pertain completely to just one institution, while in others these responsibilities are distributed among different institutions. In some countries the central bank has an explicit role in pursuing financial stability, while in others it does not.

There are compelling arguments both in favor and against the centralization of the regulation and supervision of the financial system in one institution. Centralizing all regulatory and supervisory powers in a single entity has the appealing advantage of facilitating the decision-making process. Coordination may be easier, and fewer steps and meetings may be necessary to make a decision and implement it. This type of scheme probably works better in countries with a strong institutional system.

However, in countries with weak institutions, in which political pressures abound, such an institutional arrangement for the regulation and supervision of the financial system may be dangerous. Even though imposing rules could solve this problem, they do not always work well in the implementation of macro prudential policies, and a certain grade of discretion is required. Because of this, several authors have mentioned that an agency concentrating such powers should be independent of political influence and sectorial interests, in order to have a transparent process of decision making.

Some economists have suggested that the central bank is the natural candidate to assume regulatory powers in a centralized scheme. Central banks in many countries have the advantage of being independent institutions and possess a staff with macroeconomic expertise. This appears as a very valuable asset for the implementation of sound macro prudential policies. Central banks also have the right incentives to implement adequate prudential policies, and some of its functions exhibit clear synergies with financial stability objectives. They are the administrators of macroeconomic liquidity, and they have the mandate to be lenders of last resort of the financial system and to safeguard the stability of the payments system.

Finally, monetary and macro prudential policies have important complementarities, suggesting that the central bank can be a good candidate for being the financial macro regulator. For instance, monetary policy contributes to financial stability while ensuring price stability. The achievement of price stability helps in moderating macroeconomic volatility, which is a necessary (although not a sufficient) condition for achieving financial stability. Similarly, financial stability is fundamental for the good functioning of the mechanisms of monetary policy transmission.

However, some caveats apply. The main disadvantage is that if the overall institutional environment of the country is weak the central bank could be subject to political interference, which may compromise the traditional objectives central banks have of achieving price stability while smoothing business cycles.

Additionally, the objectives of monetary policy may conflict with those of financial stability over time, as financial and regular business cycles are not perfectly synchronized. Therefore, when these cycles move in opposite directions or at a different pace, the central bank could face conflicts of interests when trying to target simultaneously both traditional monetary policy and financial stability objectives. For instance, the central bank may be tempted to keep the level of short-term interest rates lower than they should be for enhancing price stability in an attempt to help financial institutions in distress in times of financial fragility.

In summary, the centralized model of financial supervision and regulation has both advantages and disadvantages compared to a decentralized model. Which model will work best depends on the particular characteristics of the country and its financial system.