

New Approaches for Monetary Policy

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Abstract. *As a result of the economic turmoil started in 2007, there is a dispute if the monetary policy implies radical changes or just a rethinking of details regarding the main framework of the monetary policy strategy. Therefore, the actual debates that I have analyzed in the article take into account, among others, the relationship of monetary policy with the one of financial stability, the analyze if the monetary policy should lean against credit bubbles or just clean after their explosion (Lean vs. Clean debate), the presence of nonlinearities in economy. Thus, monetary economy becomes more interesting and the economists need to think about a wider range of monetary policy problems than existed before.*

Keywords: monetary policy; financial stability; macroprudential regulation; credit bubbles; linear quadratic framework.

JEL Codes: E50, E52, E58.

REL Code: 8J.

In this article I have analyzed if, as a result of these economic turmoil, the conduct of the monetary policy implies radical changes or just a rethinking of details regarding the main framework of the monetary policy strategy.

Therefore, the actual debates take into account, among others, *the future of the monetary policy and its relationship with the financial stability*. Many have claimed that excessively easy monetary policy by the Federal Reserve after 2001 helped cause a bubble in house prices in the US, a bubble whose inevitable bursting proved to be a major source of the financial crisis. However, the crisis was mainly caused by factors that had very little to do with monetary policy and were mostly due to background macro conditions, distorted incentives in financial markets, regulatory and supervisory failures (also when central banks have been responsible for regulation and supervision), information problems, and some specific circumstances, including the US housing policy to support home ownership for low-income households.

Thus, flexible inflation targeting, applied in the right way and using all the information about financial factors that is relevant for the forecast of inflation and resource utilization at any horizon, remains the monetary policy before, during, and after the financial crisis that has the best chance to stabilize both inflation and the real economy. But a better theoretical, empirical, and operational understanding of the role of financial factors in the transmission mechanism is urgently required and needs much work, work that is already underway in academia and in central banks.

Even though they have different instruments and objectives, the monetary policy and the financial stability policy are intrinsically linked one to another, such as the dichotomy between them is a false one.

Monetary policy can affect financial stability, while macroprudential policies to promote financial stability will have an impact on monetary policy. If macroprudential policies are implemented to restrain a credit bubble, they will slow credit growth and will slow the growth of aggregate demand. In this case, monetary policy may need to be easier in order to offset weaker aggregate demand. Alternatively, if policy rates are kept low to stimulate the economy, as is true currently, there is a greater risk that a credit bubble might occur. This may require tighter macroprudential policies to ensure that a credit bubble does not get started (Svensson, 2010).

Coordination of monetary and macroprudential policies becomes of greater value when all three objectives of price stability, output stability and financial stability are to be pursued. Taking into account that financial factors may have a very strong and deteriorating effect on the transmission mechanism, making standard interest rate policy much less effective, the question is if the

financial factors will be incorporated as target variables in standard models of the transmission mechanism, used by the central banks, or they will only remain some reference points in decision making?

This thing depends, firstly, on the capacity of financial stability policy instruments (such as supervision, legalization, reports on financial stability) to provide early warning of some possible threats. Whilst these regulation and supervision policies (e.g.: disclosure and capital requirements, liquidity requirements, prompt corrective actions, careful monitoring of risk management procedures of an institution, careful supervision of financial institutions to enforce compliance with regulations) have been traditionally based on assurance of the “health” of some individual financial institutions and market infrastructure and market integrity, recently a greater emphasis has been put on system-level approach, which could focus on the stability of the entire financial system. This type of regulation that focuses on what is happening on credit markets is named *macroprudential regulation and supervision* (Mishkin, 2011). Through this approach, the supervision and the regulation tend to make the financial system more robust and to support on financial cycle.

In the aftermath of the recent crisis, promising initiatives have been launched to develop a framework for system-wide supervision and regulation and to upgrade this toolkit. If these initiatives are successful, *they could obviate, or substantially reduce, the need for monetary policy to counteract financial imbalances.*

Since imbalances can potentially arise in many areas of the financial system, not one, but a whole array of prudential tools may be required to target them. The effectiveness of such tools can change over time: given the ability of financial markets to adapt quickly to a changing environment (including by circumventing existing regulation), the tools would themselves need to adapt. Moreover, the authorities responsible for supervision and regulation would require the scope to adjust the parameters of their policies to target emerging financial imbalances. In practice, such use of prudential policies may be constrained by the need to maintain a stable regulatory environment for financial institutions and markets.

It has thus been argued that system-wide supervision should be the first line of defense against financial instability (Carney, 2009, Bernanke, 2010, Kohn, 2010). But designing and implementing this new toolkit is a formidable challenge, and there is considerable uncertainty about what will realistically be feasible. While there are many promising proposals on the table (Basel Committee on Banking Supervision 2009) – indeed, this is at the core of the G-20’s agenda – much remains to be done. Granted that appropriate supervision

and regulation are the first line of defense against financial imbalances, *the key question is whether they should be the only one.*

Yet, although prudential tools will be always helpful to prevent and address financial imbalances, they might not be sufficient in every case

The effectiveness of monetary policy in countering financial imbalances depend on the nature of the shocks, the influence of monetary policy and prudential tools on these imbalances, and the interactions between them. In particular, where financial imbalances reflect specific market failures and regulatory policies can be targeted directly to such failures, monetary policy is less likely to play a useful role. Monetary policy will more likely have a role to play when financial imbalances stem from economy-wide factors. Of course, in practice, financial imbalances in the economy may well be associated with a combination of factors, and exuberance that is initially contained within specific sectors could spread more broadly through the economy. That was almost certainly the case in the run-up to the 2007–09 crisis, which reflected the complex interplay of imbalances among mortgage markets in the United States and other countries, securitized lending markets, credit default swaps and other derivatives markets, and the banking systems of the United States and some other countries.

The extent to which monetary policy will play a role in mitigating financial imbalances is not clear yet, but it should be an important part of the discussions concerning potential improvements to monetary policy frameworks.

The macro conditions preceding the crisis included low world real interest rates associated with global imbalances, as well as the Great Moderation, with a long period of very stable growth and stable low inflation, which led to a systematic underestimation of risk and very low risk premia in financial markets (based on the idea that more predictable monetary policy may reduce the uncertainty and encourages assets managers to underestimate the risk (Gambacota, 2009)). And due to this fact, the explosion of microeconomic research, both theoretical and empirical, suggests that there is a case for monetary policy to play a role in creating credit bubbles. Borio and Zhu (2008) have called this mechanism the “risk taking channel of monetary policy”. Also, this channel may arise from compartmental considerations such as money illusion in which they consider that the low nominal rates indicate the fact that real profits are low, encouraging them to purchase riskier assets in order to obtain a bigger profit regarding the objective.

The monetary policy may encourage risk taking in the following way: monetary policy which cleans up after financial disruptions, by lowering interest rates, may lead to a form of moral hazard in which the financial institutions expect the monetary policy to help them recover from bad

investments. This method may increase the systemic risk because it is exerted only when many financial firms have problems in the same time such that these can be encouraged to follow similar investment strategies, thus increasing the profit correlation.

Given the support for the risk-taking channel, does this mean that once with the increasing of supply of assets, monetary policy should be used to lean against credit bubbles by increasing the interest rates in order to prevent the bubbles to get out of control (“lean” vs. “clean” debate)? Through this action it is sustained the fact that raising interest rates to slow a bubble’s growth would produce better outcomes because it would either prevent the bubble or would result in a less severe bursting of the bubble, with far less damage to the economy.

There are some objections regarding this action, translated by the “Greenspan” doctrine, because he sustained the fact that the monetary policy should not fight against asset price bubbles, but rather it should clean after their explosion (Greenspan, 2002).

The arguments of this latest vision are the following:

- *Bubbles are hard to detect.* In order to justify leaning against a bubble, a central bank must assume that it can identify a bubble in progress. That assumption was viewed as highly dubious because it is hard to believe that the central bank has such an informational advantage over private markets. If the central bank has no informational advantage, and if it knows that a bubble has developed, the market will almost surely know this too, and the bubble will burst. Thus, any bubble that could be identified with certainty by the central bank would be unlikely ever to develop much further.
- *Raising interest rates may be very ineffective in restraining the bubble,* because market participants expect such high rates of return from buying bubble-driven assets. By definition, bubbles are departures from the behavior that is normally incorporated within models, and so *the tools of monetary policy are unlikely to work normally in abnormal conditions.*
- There are many asset prices, and at any one time *a bubble may be present in only a fraction of assets.* Monetary policy actions are a very blunt instrument in such a case, as such actions would be likely to affect asset prices in general, rather than solely those in a bubble. Another way of saying this is that bubbles are departures from normal behavior, and it is unrealistic to expect that the usual tools of monetary policy will be effective in abnormal conditions.

- Giving monetary policy another objective might lead to *confusions* about the central bank's commitment to price stability, thereby weakening the nominal anchor, with potentially adverse effects on economic outcomes.
- If the monetary policy aims to promote stability could lead to *decisions of consolidation of the monetary policy when it is not necessary to constrain the credit bubbles*. A situation of low interest rates does not necessarily indicate that monetary policy is promoting excessive risk taking. Then, the monetary policy may become a blunt instrument, given that financial imbalances appear in certain sections and do not have a significant economic impact, generating a material decrease of production and inflation (because the entire economy is affected by the monetary policy decisions).

One lesson from the analysis here is that policymakers, and especially monetary policymakers, will want tools to assess whether credit bubbles are developing. Research is currently underway to find measures that will signal if credit bubbles are likely to be forming. But even so there is a stronger case for monetary policy to lean against credit bubbles, rather than just cleaning up after the bubble has burst. Using monetary policy to pursue financial stability goals is not an easy task, however, and research on how to monitor credit conditions so that to take decisions to use monetary policy to restrict excessive risk are based on the correct information will be a high priority for research in the future.

Also in this article I pointed out *the presence of nonlinearities in economy*. The role of nonlinearities in the macro economy when there is a financial disruption implies an important flaw in the theory of optimal monetary policy that was in general use prior to the crisis: the theory of optimal monetary policy was based on the assumption that the macro economy can be described by linear dynamic equations. The financial crisis of 2007-2009 demonstrates that although the linear-quadratic framework may provide a reasonable approximation to how optimal monetary policy operates under fairly normal circumstances, this approach will not be adequate for thinking about monetary policy when financial disruptions hit the economy.

Although the linear-quadratic framework might be reasonable during normal times, we have learned that financial disruptions can produce large deviations from these assumptions, indicating that the linear-quadratic framework may provide misleading answers for monetary policy strategy when financial crises occur. The important role of nonlinearities in the economy arising from financial disruption suggests that policymakers will not only focus on the modal outcomes, as they would in a certainty equivalent world which is

a feature of the linear-quadratic framework, but will also tailor their policies to cope with uncertainty and the possible existence of tail risks in which there is a low probability of extremely adverse outcomes.

Most of the quantitative studies of optimal monetary policy have also assumed that the shocks hitting the economy have a time-invariant Gaussian distribution, that is, a classical bell curve with symmetric and well-behaved tails. In reality, however, the distribution of shocks hitting the economy is more complex. In some instances, the uncertainty facing the economy is clearly skewed in one direction or another; again, this is likely when there are significant financial disruptions. In addition, as we have seen in the recent crisis, the shocks hitting the economy may exhibit excess kurtosis, that is, tail risk, because the probability of relatively large negative disturbances is higher than would be implied by a Gaussian distribution.

Therefore, there is a need of a major rethinking of details regarding the main framework of the monetary policy strategy. We now recognize that the financial sector plays a prominent role in the macroeconomy and makes it sometimes nonlinear. This requires abandoning the linear quadratic framework for thinking about ways of conducting monetary policy when there is a financial disruption. Another lesson is that there is a stronger case for monetary policy to lean against credit bubbles rather than to clean after their explosion. Using monetary policy to pursue the objectives of financial stability is not an easy task and research on how to monitor credit conditions in order to use monetary policy to restrict excessive risk taking is based on accurate information and will be of a high priority for the future research.

Finally, the financial crisis has shown that interactions between the financial sector and the aggregate economy imply that monetary policy and the one of financial stability are interconnected. There is one good news that came out of this crisis. Macro-monetary economics became much more interesting. We are now faced with a whole new agenda for research that should keep people in the field very busy for a very long time. It has also made the work of central bankers more exciting as well. They now have to think about a much wider range of policy issues than they had to previously. This will surely be exhausting, but central banking will be a far more stimulating profession.

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