

MACROPRUDENTIAL REGULATION AS A NEW METHODOLOGY FOR MACROECONOMIC POLICY MAKERS

Tabatadze Marina

*Professor of economics at the Tbilisi Ivane Javakishvili State University,
Faculty of Economics and Business, Georgia, Tbilisi*

Abstract. *The article argues that the macroprudential regulation can be used to the research in macroeconomic field as a new methodological tool. The main goal of macroprudential regulation is solving the crisis by the mitigation of risks of financial systems as a whole. It was introduced in macroeconomics in the late 2000s as an opposition of microprudential regulations. Macroprudential regulation is used as a new ingredient to fill the gap between the macroeconomic policy and research by analyzing it as a whole. It is generally based on two key elements: First, macroprudential methodology strengthens the resilience of the financial system as a whole. Second, it limits a system-wide excesses on asset and credit markets. In other words, macroprudential methodology is concerned with the stability of the entire financial system, and not of individual institutions.*

The article aims to propose an alternative methodology to the macroeconomic policy making and research. This new method, based on macroprudential regulation should allow researchers to answer some fundamental questions, like how to identify the market failures for financial crisis analysis and which macroprudential regulations should be used to correct them. In the present article, the theory of this macroeconomical methodology is being compared with other methods. Macroprudential regulation is provided with cross-country analysis, which highlights the practical aspects of the implementation. However the author argues that even if other countries experiences are interesting to take into account, home country context will define the exact methodology of macroprudential regulation.

Keywords: *macroprudential, macroeconomic methodology, financial analysis, market failure, financial stability.*

Introduction. Macroprudential regulation is important for modern economic research. Beside general methodology, it uses other specific methods, such as: determining the market failures and solution methods of conflicts between monetary and macroprudential policies, delineate macroprudential policy and financial stability, etc. This way, macroprudential regulation can be presented as an alternative methodology for researching macroeconomic issues.

This term "macroprudential" was first used in the 1970s to describe a specific solution for different crisis in the banking industry. It became particularly popular after the financial crisis of late 2000s (Clement, 2010). It is aspiring to moderate the risks of the financial system as a whole. It mainly aims reducing risks and macroeconomic costs of financial instability. Researches consider it as a necessary component between macroeconomic policy and the traditional microprudential regulation of financial institutions (Bank of England, 2009).

The main difference between microprudential and macroprudential methods is their perception of risks. For microprudential approach, the risk is taken as exogenous from the financial system, meanwhile for the macroprudential method the risk is taken endogenously. Microprudential regulation tries to grow the safety and soundness of individual financial institutions, but, in opposite, macroprudential view focuses on welfare of the financial system as a whole.

Before the financial crisis of 2007, banking regulation and supervision were traditionally based on a microprudential approach. Regulators were focusing on the needs of individual financial institutions, considering the financial system and the economy as a whole as given. The role of microprudential regulation was correcting inherent market imperfection by a generic effort to guarantee "as much safety as possible" to all banks individually. With the lack of a necessary knowledge of the transmission mechanisms in the financial sector and beyond, the micro-regulator and

supervisor often focused on books and internal arrangements of individual bank, intervening where needed, in the assumption that the rest of the system would remain stable and unaffected by their actions.

After the crisis of late 2000s the stability of individual financial institutions taken in isolation is not enough guarantee for the stability of the whole financial system. Because actions of individual banks can harm others through interconnection and contagion effects. In addition, when individual banks cannot withstand sector competition they should be allowed to fail - if not, this would be dangerous for the efficiency and ultimately the very stability of the system. In this sense the stability of individual financial institutions is neither necessary nor sufficient. That said, if the reliability of a Systemically Important Financial Institution (SIFI) is at danger, then systemic risk may arise. That is why, the stability of systemically relevant financial firms may be necessary to ensure financial stability.

A macroprudential method of financial stability. Macroprudential policy is generally aimed at two different but not mutually exclusive goals. First, macroprudential policy should strengthen the resilience of the financial system as a whole. Second, it should limit system-wide excesses on asset and credit markets. In other words, macroprudential supervision and regulation is concerned with the stability of the entire financial system, and not of individual institutions.

A main substance of macroprudential approach is monitoring structural systemic risk. This is the risk that the default of a single bank – because of its size, market share or interconnectedness – could threaten certain functions that are vital for the economy, such as payment transactions or lending to the real economy. This is the problem arising from institutions that are “too big (or interconnected) to fail” (TBTF). The key objective of policies addressing this risk is to reduce the likelihood of crisis at such institutions and the costs to the economy in the event of such a crisis.

One way out of these risks is to impose progressive capital adequacy requirements. The equity capital causes the importance of the banks systemic. When a bank has a big systemic importance, it is required to hold more equity capital. If capital adequacy requirements increase in step with systemic importance, banks have an incentive to stay smaller and less systemically important. Oppose to this, the extra capital at least makes them more resilient. In addition, given that it is impossible to avoid a future crisis, measures that improve the resolvability of a distressed Systemically Important Financial Institution (SIFI) are important. There are variety of measures, from a mandatory separation of financial institutions, e.g. along the lines of the Glass-Steagall Act, to less intrusive rules such as requiring banks to ex ante demonstrate that their systemically important functions can be maintained in the event of a severe crisis. The TBTF (“too big to fail”) issue is particularly suitable in Switzerland. This explains that already in 2011 Switzerland adopted a package of measures designed in the sense of complementarity. It prescribes a capital surcharge for SIFIs allowing banks to partially fulfil capital requirements by means of issuing Contingent Convertible Capital (cocos). The cocos are converted exactly at the time when financial means are needed for restructuring a bank, this means acting as an internal crisis fund. The package requires banks to show convincingly – on the basis of “emergency plans” – that they are organized in a way to be able to maintain systemically important functions in the event of a crisis, thus reducing the need for a public bail-out. If they are not able to do so, the regulator, the Swiss Financial Market Supervisory Authority – FINMA, may impose specific organizational measures.

The second central element of a macroprudential methodology is to directly address the root causes of cyclical systemic risk. This element of systemic risk captures the procyclicality of financial agents' behaviour which can cause expansion of the financial cycle and increase its instability if left unchecked. This is a classical collective action problem. Procyclicality can arise, for example, from the tendency to underprice risk during booms and to overprice it in downswings. The main objective here is to limit too much risky behaviour on the part of financial intermediaries, and avoiding excessive credit growth, an overvaluation of assets and preventing bubbles from emerging, or at least constraining their size. The interest rate comes to mind as a potential instrument. Indeed, raising interest rates seems like a natural response to a credit boom, as the higher market borrowing rates exert a dampening effect on credit demand and eventually on asset prices. When this calls for deviations from otherwise optimal policy, one talks of “leaning against the wind”. In economic growth, it would involve central banks setting higher interest rates than would it is necessary to achieve price stability alone. In this way, using the interest rate to contain asset price growth would not regularly lead to deviations from the interest rate path that would be optimally justified by the pursuit of the price stability mandate.

From time to time, price and financial stability assessments may require very different interest rate moves, possibly moves in opposite directions. These tensions are illustrations of the well-known Tinbergen principle according to which the number of policy tools should equal the number of policy goals. These all is necessary to resort to additional instruments to counter the emergence of cyclical systemic risk. The most appropriate instruments seem to be directly targeting the source of financial exuberance. Regulatory action can be taken to cushion against or hinder the growth of such risks such as: imposing a temporary obligation to build-up additional capital, a CCB, as proposed in the Basel III framework. In capital requirements this instrument allows for a temporary increase when imbalances appear to be building-up in the credit markets with the aim of increasing the capital buffer to absorb potential losses and lean against excessive credit growth, at the same time.

One more possibility to achieve the required countercyclical effect can be the tightening restrictions on loan-to-value ratios when signs emerge that a bubble could be forming in certain credit markets, such as the mortgage market. The situation is spread in Switzerland since 2011 provides a good illustration of the potential tensions between price and financial stability faced by a central bank described above. Oposing with extreme safe haven pressures resulting in a massive overvaluation of the Swiss franc, the Swiss National Bank (SNB) has been enforcing an exchange rate floor of CHF 1.20 per euro since September 2011. This policy move was to defeat strong deflationary developments, which has invalidated the interest rate as an instrument for dampening the sustained momentum observable in the domestic credit and real estate markets over the last few decades. In June 2012 the Swiss authorities introduced the CCB against the background of the ensuing imbalances and risk to financial stability. It had been activated for the first time in February 2013. Since end of September 2013, banks are required to hold additional capital for mortgage loans financing residential property located in Switzerland. In short, macroprudential instruments enhance the toolkit available so that it is possible to tackle system-wide risks to financial stability more directly and in a preventive manner.

A macroprudential policy structure should be seen as complementary to a well-designed microprudential regulation targeted at assuring the resilience of individual financial institutions and it should be conducted alongside a monetary policy that remains firmly focused on price stability. What is appealing in theory is not always easy to realize in practice. The use of macroprudential instruments have various challenges. First, the use of macroprudential instruments raises significant governance issues, originating in the tight and complex interaction of macroprudential policies with monetary and microprudential policies. Second, the use of macroprudential instruments is subject to significant uncertainties, given the elusiveness of “systemic risk”.

A great number of instruments of macroprudential regulations are proposed by the researchers, but there is no agreement about which one should play the primary role in the implementation of macroprudential policy. Most of these instruments are used to prevent the procyclicality of the financial system on the asset and liability sides. This tools are “Cap on loan-to-value ratio and loan loss provisions” and “Cap on debt-to-income ratio” (Raviv, 2004, Shin, 2011). There are also tools that serve the same purpose, but additional specific functions have been attributed to them, as noted below:

- Countercyclical capital requirement - to avoid excessive balance-sheet shrinkage from banks in trouble.
- Cap on leverage (finance) - to limit asset growth by tying banks' assets to their equity (finance).
- Levy on non-core liabilities - to mitigate pricing distortions that cause excessive asset growth.
- Time-varying reserve requirement - as a means to control capital flows with prudential purposes, especially for emerging economies.

Other tools serve to prevent the accumulation of excessive short-term debt. They are: “Liquidity coverage ratio”, “Liquidity risk charges that penalize short-term funding”, “Capital requirement surcharges proportional to size of maturity mismatch”, “Minimum haircut requirements on asset-backed securities. In addition to this list, researchers and policy makers propose different types of contingent capital instruments, such as “contingent convertibles” and “capital insurance” which facilitate bank's recapitalization in a crisis event.

Identification of market failures selecting instruments. Which are the market failures that need macroprudential regulations? To answer this question it is important to make typology of the market failures that justify the use of macroprudential policy and whose prevention could constitute its

intermediary objectives. For this, policy makers should accurately define the objective of financial stability, in order to implement the mandate at the operational level. This approach is based on identifying a certain number of market failures that arise during the financial crisis and that require different method, such as macroprudential approach to financial regulation. These market failures are: excessive credit growth and leverage; excessive maturity mismatch and market illiquidity; excessive exposure concentrations; misaligned incentives for excessive risk-taking and moral hazard; and the significant development of OTC derivatives and off-balance sheet transactions to circumvent regulation.

However, we argue that a new approach should be implemented in these situations in order to guarantee the success. The traditional approach of monetary policy is based on Tinbergen's principle and believes that one instrument should be used per objective. New approach suggests using several instruments to reach a single financial stability objective. The reason is that the use of macroprudential instruments may have unintended consequences for other segments of the financial system or the economy. Even though these instruments are already used by microprudential supervisors, their effectiveness has not yet been proven from a macroprudential perspective. This sometimes implies a countercyclical dimension, meaning these instruments have to be adjusted over time.

Also, their effectiveness is depending on two other elements of the financial system: first, the asymmetric nature of financial cycles, which means that certain instruments have to be adjusted asymmetrically over time (for instance, credit institutions have up to twelve months to adjust their countercyclical capital buffer to the level specified by the macroprudential authority whereas a release of this buffer is immediate); second, the presence of non-linearities, which makes it sub-optimal to release the countercyclical buffer when the level of banks' capital is too low. This would result de facto in amplifying the cycle, running counter to the desired effect, whereas its use when capital levels are high would maximize the impact on the credit cycle and more generally on economic activity. In this context, it important to gain a better understanding of the transmission channels of macroprudential policy, which requires having a sound analytical framework, and of its interaction with other stabilization policies.

Conclusions. The macroprudential regulation is a new methodology for the analysis of system based crisis. The crisis of the late 2000s showed the limit of previous methods, like microprudential regulation. However, the misuse of this new method, can cause even bigger issues. In the conclusion of this article, we would like to highlight the major mistake that would make future macroprudential policy much harder. The ability of macroprudential authorities to act can be cut quickly in the event of a major mistake in this policy area.

This happened in the case of the Credit Control Act in the United States. Congress in 1969 gave the President the power to direct the Fed to implement credit controls in the US economy, with a very wide grant of authority. This was not used until 1980, when President Carter gave these powers to induce the Fed to take strong actions to rein in credit growth, which was seen as contributing to the inflationary environment. The economy quickly went into recession and there appeared to be a very direct connection between the credit controls and this drop in activity. The economic growth resumed when the controls were removed, and this happened with a considerable bounce-back. The disastrous use of such a strong set of macroprudential tools made it much harder to attempt future macroprudential actions, even of milder and more conventional form

Since that period global views on how macroprudential policy fits into the larger scheme of things have also evolved very considerably. Should authorities make a large mistake in this area, or be perceived to have done so, it could halt significant macroprudential policy of a cyclical nature for many years. This may be counteracted over time by the successful use of such tools in other countries, but home grown lessons tend to have much greater force, especially political force, than lessons from abroad. This point is especially important because macroprudential policy is not solidly based in political and public support at this point. There is a very strong consensus for monetary policy to be undertaken, although there does remain a core of support for a gold standard. Monetary policy mistakes are unlikely to lead to the abolition of the Fed. The equivalent cannot be said for macroprudential policy. In the conclusion I strongly suggest that we can and should use macroprudential policy more actively in the future. We may do so most effectively by heeding the lessons of the last century of experimentation in this country.

REFERENCES

1. Agur I. and Sharma S. (2013), “Rules, discretion, and macroprudential policy”, IMF, Working Paper, March.
2. Bank of England (2009). The role of macroprudential policy. Bank of England Discussion Paper, November.
3. Banque de France (2015) – “Financial stability review”.
4. Beau D. Clerc L. and Mojon B. (2011), “Macroprudential policy and the conduct of monetary policy”, Banque de France, Occasional Paper, No. 8.
5. Borio, C. (2003). Towards a macro-prudential framework for financial supervision and regulation? BIS Working Papers No 128, February.
6. Clement, P. (2010). The term "macroprudential": origins and evolution. BIS Quarterly Review, March.
7. Financial Stability Board (2013) “2013 update of global systemically important banks (G-SIBs)”, November.
8. Greenspan A. (2015) “The map and the territory”, THE PENGUIN PRESS/NEW YORK.
9. Mahy A. (2012) “Food: Clear-cut Legal Basis for the RASFF: Mere Formalisation or a Concrete Move Forward?”, European Journal of risk regulation 2012/1
10. Olivier Blanchard, David R. Johnson – MACROECONOMICS sixth edition, Prentice Hal.
11. Raviv, A. (2004). Bank Stability and Market Discipline: Debt-for-Equity Swap versus Subordinated Notes. Brandeis University. Mimeo.
12. Shin, H. (2011). Macroprudential policies beyond Basel III. In: BIS Papers No 60, December;
13. Todaro Michael P. and Smith Stephen C. (2011), “Economic development 12th GNI per capita, world bank Atlas method”.