

## Micro-prudential vs Macro-prudential Regulation

Liviu Serbanescu

*School of Advanced Studies of the Romanian Academy, Romania*

[serbanescu.liviu@yahoo.com](mailto:serbanescu.liviu@yahoo.com)

### Abstract

*The recent global financial crisis was caused, among others, by the interaction of micro and macro elements, so it is important for regulatory policies to cover these interactions as the objective is to decrease future crises or at least to minimize their effects. Macroprudential policies are very useful, but their main objective is not yet well highlighted and quantified, such as price stability in the case of monetary policy, for example. Regulators need to strike a balance between the micro and macro prudential approach to financial stability. The paper looks at the differences and similarities between micro-prudential and macro-prudential from the perspectives of financial regulation.*

**Key words:** macro-prudential, micro-prudential, prudential regulation, supervision

**J.E.L. classification:** G28, E58, G21, G32

### 1. Introduction

In general, when we speak about prudential regulation, we refer to a set of rules (quantitative and qualitative) applicable to the activity of credit institutions, with the purpose of ensuring the financial soundness of each entity (micro-prudential) and financial stability of the banking system (macro-prudential). Micro-prudential and macro-prudential policies use similar tools at the level of each separate financial institution, and, even if they have distinct goals, yet they are connected. The most important difference between the macro-prudential and micro-prudential dimensions is given by the objectives of each.

After it was realized that acts that are appropriate for individual companies might collectively contribute to or worsen financial system issues, macro-prudential rules arose (Isarescu, 2011).

The prefix macro denotes that rules or acts apply to the whole financial system or a large portion of it, rather than to specific financial organizations. Micro-prudential policies, on the other hand, are supervisory or regulatory measures that apply to specific financial firms.

Prudential policies refer to efforts that encourage sound practices and restrict risk-taking, while caution is another preventative measure. As a result, macro-prudential regulations should assist in ensuring that everyone takes a responsible approach to risks that have the potential to become systemic, i.e., hazards affecting the whole financial system.

Micro-prudential regulation and supervision is probably the most logical choice. So, the micro-prudential regulation's objective – the safety and robustness of individual financial institutions – it has been proven that it is insufficient to guarantee the financial system's overall stability, but it is sound and linked to it. A failure of prudential supervision for systemically important institutions (or infrastructures) is the best way to go into a crisis. No matter of how complex the macro-prudential framework is, it is systemic. Furthermore, because macro-prudential policy primarily employs micro-prudential instruments, the toolkits of the two regimes are comparable.

Macro-prudential policy is considered complementary to micro-prudential policy because of the interaction of this policy with various types of economic policies that have an impact on financial imbalances, working to build financial stability, and increasing protection barriers by recognizing and dealing with common exposures, risk concentrations, and contagion risks.

To explain the concept of macro-prudential, it is useful to first explain the concept of micro-prudential, which contrasts. It could be said that micro-prudence describes the conventional ideas behind the political approach to guarantee the stability of the financial system. To keep it simply in another way, micro-prudence is the belief that if individual financial institution management is sound, the whole financial system, which consists of all individual financial institutions, should be stable as well, and that regulation and supervision should focus on achieving solidity at this level.

The sum of micro-prudential risks is less than the systemic risk caused by externalities. Externalities are factors that are usually not taken into account in the risks involved but can have an influence on the stability of the financial system and even on the real economy. One such example of externality is the situation in which the failure of a financial institution has repercussions on other institutions and has serious side effects or even their failure. The micro-prudential approach does not take into account the additional risks that some institutions may have on other institutions or the impact of the failure of one financial institution on others.

At the same time, the idea behind macro prudence is that financial system stability cannot be achieved solely through micro-level efforts, and that it is necessary to assess the risks of the entire financial system, considering the links between economic activities, financial markets, and financial institution behavior, and to act accordingly.

Using only one of the two approaches has been proven that is not sufficient to keep the stability of the financial system. Rather, both approaches are needed, and what we have learned from the 2007-2008 global financial crisis is that we need to pay a lot more attention to the concept of macro-prudential supervision and regulation.

Individual financial institutions are the central pawn of micro-prudential supervision, which seeks to protect them from excessive risk-taking. The financial crisis of 2007-2008 has demonstrated that the resilience of a single financial institution is not sufficient to have a stable financial system at the macro level.

## **2. Theoretical background**

Traditional regulatory frameworks based on fiscal and monetary policy and micro-prudential regulation of the financial system have failed to curb the risks that led to the global financial crisis a decade ago. In his 2008 keynote address, US Federal Reserve Chairman Ben Bernanke called for broadening the field of vision of decision-makers and regulators to incorporate a system-wide perspective to identify and mitigate all potential sources of financial instability (Bernanke, 2008).

According to Andrew Crockett (Crockett, 2002) there is a difference between the micro- and macro-prudential dimensions of financial stability, arguing that, while the micro-prudential objective is to limit as much as it can the failing at the level of individual institutions, the macro-prudential objective can be defined as reducing the costs to the economy from financial distress including those that comes from any moral hazard induced by the policies pursued. To Crockett, the goal of macro-prudential policy is to reduce the chance of failing of considerable parts of the financial system and incurring corresponding costs, or systemic risk.

The macro-prudential goal might be characterized as minimizing the costs to the economy of financial distress, including any moral hazard caused by the measures undertaken. Another argument for this purpose might be to reduce the risk of substantial segments of the financial system failing and incurring commensurate expenses.

This is sometimes referred to as systemic risk management. Instead, the micro-prudential goal might be viewed as reducing the chance of particular institutions failing. This entails, again, reducing idiosyncratic risk. This purpose, according to Andrew Crockett (Crockett, 2002), is to safeguard depositors.

## **3. Research methodology**

In the past, most financial regulations have been assessed at the micro-prudential level, respectively at the level of their interactions with various intermediaries and markets. This paper aims to present the evolution of macroprudential policy and to highlight the link between them

using a qualitative empirical analysis. Macroprudential policies are very useful, but their main objective is not yet well highlighted and quantified, such as price stability in the case of monetary policy, for example.

#### 4. Findings

Andrew Crockett has been officiating the marriage of the micro– and macro – prudential dimensions of financial stability since 2002. With the time passing, one may ask whether it is a happy marriage? This marriage can be really happy, but some considerations must be taken into account.

First of all, there must be a solid framework in which to establish a strategy. Then we need to consider, among other things, the possible interactions between the micro and macro spheres in terms of the objectives of different policies. The side effects of using a particular instrument in other areas should also be studied.

Secondly, endless debates over whether a particular policy is micro, or macro should be avoided. Although it is useful to divide the two categories, this separation is not easy to draw in practice. The same thing happens in a marriage. What matters most is that both members contribute to the overall goals as much as they can.

Third, while their aims may differ in principle, they will frequently overlap in practice. While the micro-prudential strategy focuses on the risks of individual institutions, the macro-prudential approach in many cases tackles the system level approach, micro and macro-prudential policies would utilize similar, if not identical, instruments and complement one other.

For this micro- and macro-prudential policy mix to survive, there is a clear need for coordination and cooperation, even more, as during an economic crisis, this conflicts between micro and macro-prudential measures are more frequent. A hierarchy of macroprudential and microprudential policies is needed, especially in the event of a potential conflict between them in order to survive, collaborate and complement each other.

The coexistence of micro and macro approaches, like any marriage, is not easy. Just like in life, conflicts will arise at some point. But a clear framework, well-defined objectives, proper coordination, and cooperation, as well as an appropriate regulatory framework should help to overcome these difficulties.

In 2011, the International Monetary Fund, the Bank for International Settlements and the Financial Stability Board clearly defined macro-prudential policy as policies that use prudential policies as instruments, supported by governance structures to prevent systemic risk.

Several macro-prudential instruments are closely linked to micro-prudential instruments (ECB, 2014). For example, Table 1 illustrates that the countercyclical capital buffer (macro) is part of a larger (capital) capital adequacy framework, although it has a different underlying objective.

*Table no.1, Countercyclical Capital Buffer*

|  | <b>Macro-prudential</b>  | <b>Micro-prudential</b>                                      |
|--|--|--|
| The purpose of the policy                          | Limiting financial system problems                                   | Limiting the problems of individual companies                |
| The ultimate goal                                  | Avoidance of production costs (GDP) related to financial instability | Consumer protection (depositor / investor / insured)         |
| Risk characterization                              | Depending on the collective behavior; endogenous                     | Regardless of the behavior of individual agents; exogenously |
| Joint correlations and exposures between companies | Important  | Irrelevant   |
| Calibration of prudential controls                 | In terms of system-wide risk. from up to down                        | In terms of firm risks. bottom up                            |

*Source:* (BIS, 2003).

The two policies are compared from the perspective of objectives, risk and links in the system, as follows: i) micro-prudential policy seeks the protection of depositors and investors by evaluating financial institutions at the individual level. In this case, the risk is exogenous and the connections and exposures between financial institutions are not important; ii) at the macroprudential level, the main objective is the stability at the system level. The risk is endogenous, and the connections and exposures between financial institutions are very important.

As the basic objectives are different, it is important to assign macro and micro-prudential tasks to separate authorities. The macro-prudential authority decides at the macro level (e.g., the size of the countercyclical capital buffer), while the implementation can be carried out later by the micro-prudential supervisor if this is more effective (e.g., the implementation of the general capital adequacy framework). Finally, some macro-prudential instruments may apply to unregulated entities outside the remit of the micro-prudential supervisor. The loan-to-value ratio should, for example, apply to all financial institutions that grant mortgages to households. Thus, the scope may go beyond the regulatory framework of banks, insurers, and pension funds.

## 5. Conclusions

Macroprudential policy has become a priority following the latest financial crisis that has affected the financial and economic system as a whole. This term began to be used as early as the end of 1970, during the liquidity surge triggered in the banking system of the United States of America, but it took shape from the year 2000.

Macro-prudential supervision considers the links and connections between financial institutions but also the interactions with the real economy. Most often, this kind of risk has an endogenous source overlapping with the periods when credit and business cycles increase. Under such conditions, risk is usually underestimated and financial institutions' perceptions of it are lower. Financial institutions are usually interested in personal well-being and are not aware of the negative effects that increased risk-taking behavior can have on the economy as a whole.

Macro-prudential policies, by definition, have a preventive function to play in limiting the imprudent expansion of systemic risk over time, which turns it into macroeconomic stability. For example, macro-prudential authorities can relax policies during recessions and strengthen them during recessions. Because of this, macroprudential measures could potentially include a countercyclical element that will counteract the effects of the cycle.

The severe macroeconomic and financial imbalances caused by the global financial crisis of 2008, have prompted a shift in both micro-prudential and macro-prudential approaches to financial supervision. As a result, macro-prudential policies are beginning to take form, particularly now that it has been demonstrated that proper steps for individual financial institutions are insufficient to avert systemic risk.

An effective macro-prudential policy can also help to achieve the ultimate purpose of micro-prudential policies in an indirect way. As a result, micro-prudential policy is considered to be subordinated to macro-prudential policy.

Any public policy framework, including macro-prudential policy, must have clear policy objectives and communication tactics. A variety of elements unique to this area makes the policy's aim and communication critical and complex.

The independence of central banks is critical, and the responsibility for financial stability should certainly lie with central banks and they should play a leading role in defining macroprudential policies because the central bank has clear reasons to protect financial stability, has all the necessary tools to identify systemic risk and is politically autonomous. Thus, the response of macro-prudential policy should generally be faster than if it were managed by another institution, even if the central bank plays a very important role.

At the same time, it is critical that key supervisory and regulatory bodies be included in the decision-making process. Not only because their prospects can help with risk detection, but also because micro-prudential capital and liquidity requirements are commonly used to execute macro-prudential policy tools.

In terms of risk management, financial institution minimum solvency, debtor conduct in crisis conditions, the notion of evaluating it, and its application in the future financial system, we are witnessing a shift in financial paradigms. Transparency, accountability, and a trusting environment are required.

The crisis-fighting measures aimed not only at the regulatory framework, but also at ensuring a consistent set of regulations and financial institution oversight as a whole.

## 6. References

- Andrew, C., 2002. *Marrying the micro – and macro – prudential dimensions of financial stability*, pp 59–65, [online] Available at: <https://www.bis.org/publ/bppdf/bispap01.pdf>, <https://www.bis.org/review/r000922b.pdf> [Accessed date: 07.05.2022].
- Bernanke, B. S., 2008. *Reducing Systemic Risk*, [online] Available at: <https://www.federalreserve.gov/newsevents/speech/bernanke20080822a.htm> [Accessed date: 17.04.2022].
- BIS, 2010, *FSI Survey on the Implementation of the New Capital Adequacy Framework*, [online] Available at: <https://www.bis.org/fsi/fsipapers09.pdf> [Accessed date: 05.05.2022].
- Claudio Borio, 2003. *Towards a macroprudential framework for financial supervision and regulation?* BIS, [online] Available at: <https://www.bis.org/publ/work128.pdf> [Accessed date: 09.06.2022].
- European Central Bank, 2014. *Financial Stability Review*, [online] Available at: <https://www.ecb.europa.eu/pub/pdf/fsr/financialstabilityreview201405en.pdf> [Accessed date: 25.06.2022].
- Isarescu, M., 2011. *Macroprudențialitatea. Reglementarea, crizele financiare și politica monetară* [Macroprudentiality. Regulation, financial crises and monetary policy], [online] Available at: <https://www.bnro.ro/apage.aspx?pid=1332> [Accessed date: 25.06.2021]
- [www.bnr.ro](http://www.bnr.ro) - The National Bank of Romania's official webpage
- <https://www.cnsmro.ro/en/> - The National Committee for Macroprudential Oversight