MACROPRUDENTIAL POLICIES OF THE CENTRAL BANK AND FINANCIAL STABILITY

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Abstract: The article explains the conceptual principles of macroprudential policy, its main objectives and instruments. The classification of macroprudential policy tools of the Committee on the Global Financial System is defined. The comparative characteristics of macroprudential policy in the Western developed countries are also examined.

Key words: *macroprudential policy, macroprudential instruments, financial stability, systemic risk, financial market, banks liquidity*

Introduction

Macro-prudential policy is a top-down approach, after which the central bank determines an aggregate level of minimum capital, which then assigns to banks according to their attitude to systemic risk. In this perspective, what is being pursued is to prevent a financial dynamics leading to a crisis. Specifically, it is about establishing a certain level of minimum capital to be imposed on financial institutions of systemic importance depending on the cumulative overrun of the volume of credits granted compared to the level they achieve by observing the long-term trend. [1] It is therefore necessary to determine that trend of credit to the private sector that is compatible with the potential growth of the economy, to calculate the cumulated spread over this benchmark and to calibrate the minimal aggregate counter-cyclical capital to be imposed on all systemic financial entities, depending on the excess credit recorded by each of them. In other words, the minimum capital is allocated to the financial entities according to their contribution to systemic risk. The top-down approach thus abolishes the separation of prudential regulation from monetary policy (Table 1).

The concept of macro-prudential policies can best be defined by highlighting differences in micro-prudential policies. Thus, while micro-prudential policies are concerned with the health of each individual financial-banking institution, macro-prudential policies are interested in the viability of the banking system as a whole, as an essential hub for the functioning of any economy:

- ¬ While the ultimate object of micro-prudential policies is to ensure the protection of investors and depositors of each credit institution taken separately, the ultimate goal of macro-prudential policies is to avoid macroeconomic costs resulting from the instability of the overall financial system
- ¬ Risk factors are considered by micro-prudential policies as "exogenous" (outside credit institutions), while for macro-prudential policies they are considered “endogenous" (generated by the collective behavior of banks). As such, the risk posed by policies micro-prudential is "idiosyncratic" (customized at a particular credit institution), while the macro-prudential policy concerns the "systemic" As a result, correlation and exposure to joint shocks of credit institutions are considered irrelevant by micro prudential policies, but they are important from the perspective of macro-prudential policies

¬ Calibration of supervision and prudential controls is defined in terms of tracking down the various institutions (bottom-up approach) in micro-prudential policy, while for macro-prudential policy it is focused on the financial system as a whole (top-down approach)[2].

Table 1

Macroprudential perspective vs. microprudential perspective

	Macroprudential	**Microprudential**
Proximate objective	Limit problems to level of the entire financial–banking system	Limit problems to the level of each credit institution
Ultimate objective	Avoiding macroeconomic costs related to financial instability&avoid output (GDP) costs	Protecting investors and depositors
Model of risk	"Endogen" (dependent on collective behavior)	Exogen (independent of the individual behavior of credit institutions)
Correlation and common exposures across institutions	Important	Irrelevant
Calibration of prudential controls	In terms of systemwide distress; top-down	In terms of risks of individual institutions; bottom-up

Source: Gabriele Galati & Richhild Moessner: *"Macroprudential policy – a literature overview".* BIS Working Papers, No. 337, februarie 2011 (apud: Claudio Borio: *"Towards a macroprudential framework for financial supervision and regulation?",* BIS Working Papers, No. 128, februarie 2003) [9].

The basic content. The objects of macroprudential policy are the relationship between financial intermediaries, markets, financial market infrastructure, as well as between the financial system and the real economy. Macroprudential policy objectives are:

- The stability maintenance of the financial system against aggregate shocks, including the recession and external shocks;
- The limitation of excessive financial risks assumed by the financial system as a whole;
- The smoothing of the whole financial cycle (i.e., the prevention of "bubbles" creation in the financial assets markets, if they are carrying a potential threat to the overall financial system stability, or will have significantly negative impacts on the non-financial sector).

Macroprudential policy objectives have complementary nature. On the one hand, on the instrumental level, it is based on micro-prudential regulation and should define the norms and activities, under the influence of which the individual banks will have sufficient equity capital and liquidity in order to manage shocks and meet obligations independently.

Macroprudential policy comprises three defining elements, namely its objective, its scope, and its instruments. Its *objective* is to limit systemic risk, which is the risk of widespread disruptions to the provision of financial services that have serious negative consequences for the economy at large. Its *scope* is the financial system as a whole (including the interactions between the financial and real sectors) as opposed to individual components (that take the rest of the system as given). It primarily uses prudential *instruments* calibrated to target the sources of systemic risk. Any nonprudential instruments that are part of the toolkit (for example, financial market infrastructure policies) also need to clearly target systemic risk [7].

Financial entities have a collective tendency to assume excessive risk in an upswing and become excessively risk-averse during the downswing. This tendency can, for example, manifest in procyclicality in leverage and maturity transformations of the financial system. It can lead to concentrations on the assets side to specific entities, sectors, or products or on the liabilities side to reliance on certain funding products or sources. These *aggregate risk* positions are not likely to be taken into consideration either by the individual banks in their risk management frameworks or by the regulators focusing on individual bank balance sheets. In these circumstances, a macroprudential approach to supervision will help in capturing the system-level risks. Individual financial entities are not likely to take into account the spillover effects of their actions on other participants in the financial system (network) and are also not likely to take on board the impact of others' actions on their balance sheets. This leads to a situation where some risks in the financial system go unnoticed or unaddressed. This *network risk* is an externality in the system to the extent that no one single entity is likely to take action to address it, although it is borne by all.

These network risks are often potent, operate across entities, and are likely to amplify over time, leading to situations of over leverage or evolution of too big to fail entities. To help in identifying or designating an agency, it is important to understand how a macroprudential authority is to be equipped. Some of the key elements that a macroprudential authority should be equipped with include the following: a clear mandate; independence; adequate resources; and powers to define the perimeter for macroprudential surveillance, to access information from all relevant entities and markets, and to operate or direct the operation of policy tools. These elements also need to be adequately balanced with appropriate governance and accountability requirements.

The macroprudential authority should have a clear mandate that will enable it to perform effectively. The authority should have a clear and unambiguous mandate for promoting financial stability. Care should be exercised to avoid any overlaps of mandates. Where already more than one agency has been assigned the financial stability mandate, there should be appropriate cooperation and coordination mechanisms and clarity on sharing of responsibilities. Care should also be exercised to avoid conflicts in mandate. For example, it can be tempting to take advantage of the macroprudential authority's membership to vest the same authority with financial sector development objectives. However, doing so can dilute its effectiveness as the development objective can conflict with the (primary) macroprudential objective.

The macroprudential authority should have the power to define its oversight perimeter. As the authority needs to adopt a systemwide view, it should be empowered to extend the perimeter of its surveillance to unregulated (for example, state-owned financial entities, development finance institutions, finance companies, and hedge funds) and less-regulated entities (for example, credit unions, micro-finance institutions, cooperative banks, mutual funds, and pension funds) [3]. The authority should be able to extend the scope of regulation to include all financial markets, market infrastructures, and financial products. It should be empowered to access data and information pertaining to all relevant entities, either directly or indirectly through other agencies.

The macroprudential authority should also have adequate powers to initiate or require policy responses when warranted. The authority should be able to either activate the requisite policy response or at least require that such policy response be activated by another agency, particularly when the power to use a policy tool is vested in another authority, such as the microprudential supervisor. Without clear and explicit powers the macroprudential authority may not be able to respond or require a response, leading to delays or gaps in the macroprudential policy framework. If the macroprudential authority acts without clear powers, such action may be deemed as intrusion of the authority of the other agency. To achieve the macroprudential objectives, it may seem better to enshrine in legislation the macroprudential authority's powers.

When the central bank is not the microprudential supervisor, implementation of macroprudential policy will require a great level of coordination and cooperation between the central bank and the prudential supervisor. Supervisory inputs and judgment, including full and free access to supervisory information on an individual legal entity basis (when required), and the powers to issue and ensure compliance with macroprudential measures are key to an effective macroprudential policy. One way in which the policy can be effective is the establishment of an interagency body. A typical generic institutional model in this situation is depicted in figure 1[8].

When adopting a committee or council structure for the macroprudential authority, it is advisable to designate one of the constituent agencies as the lead macroprudential agency. Typically this responsibility will tend to fall on the central bank in light of its role in implementing monetary policy, operating a systemwide overview, its analytical skills, and its financial stability mandate. This agency will also be better placed to provide the secretariat to the macroprudential authority.

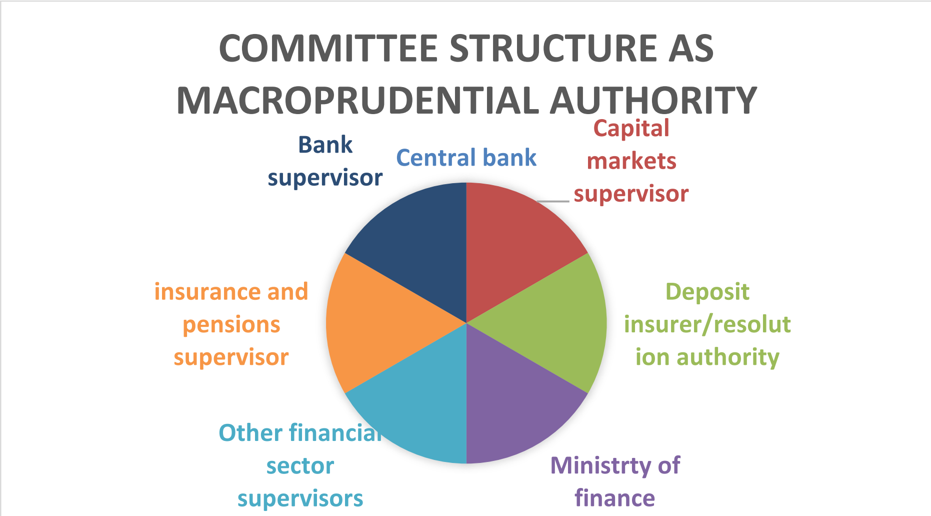

Figure 1. Committee Structure as Macroprudential Authority.

Source: [8]

Clarity about the difference in the roles of the macroprudential authority and national crisis management authority will help. There may be some commonality in the membership of these two authorities in a given jurisdiction, but their objectives are different. The macroprudential authority plays a key role in preserving financial stability, reducing the probability of instability, and reducing the impact of potential instability, if it were to occur. The national crisis management authority's active role becomes relevant when there is an impending financial instability. The macroprudential authority will need to have independence from political and financial market influences to perform an effective role. The institutional structure will require the macroprudential authority to effectively cooperate and coordinate with the other supervisory agencies. The roles and responsibilities of the various agencies towards macroprudential policy should be so defined and the governance structure should be so designed as to ensure that the macroprudentia authority is able to discharge its responsibilities to fulfill its mandate in an independent and unbiased manner. Thus, macroprudential policy differs from the micro prudential supervision in several ways. First, the analysis of the stability of the financial sector is done at the aggregate level, but not at the level of individual organizations. Second, the entire financial sector is taken into account, and not just banks. Third, analysis of the relationship between systemically important players operating in different markets is done in order to predict the chains in a domino effect. In addition to cross interbank positions the crisis spreads through the exposure of banks to the markets of individual financial assets that also should deserve a certain attention. Fourthly, the macroprudential analysis should have an applied value: it should be based on the need to take decisions on changing the settings of the overall regulation and supervision [2].

A key component of a macroprudential policy framework is a mechanism for early detection of systemic risk. Systemic risk is the risk of disruptions to financial services (including credit intermediation, risk management and payment services) that is caused by an impairment of all or parts of the financial system, and poses serious negative consequences for the real economy. Systemic risk is driven by economic and financial cycles over time, as well as by the degree of interconnectedness of financial institutions and markets. The term *systemic risk* is widely used but difficult to define and quantify. Systemic risk can manifest itself through individual institutions or a group of institutions. Individual institutions tend to manage the risks they face and ignore the risk they contribute to the system (externality). Aggregation of the risks posed by individual institutions, which are not managed by their respective risk management frameworks, contribute to systemic risk [13, 12]. Developments in individual institutions can also have systemic implications. Individual institutions assume systemic proportions when their failure can cause significant disruption to the financial system and to the real economy. When the operations of a large institution are disrupted or when the operations of a group of smaller financial institutions are disrupted at the same time, the disruptions can have a significant impact on the ability of the financial system to effectively intermediate financial flows to meet the demands of the real economy. In circumstances where a good and acceptable methodology for measurement of systemic risk is not present (and given the challenges in devising and maintaining the measurement systems) the macroprudential authority can settle for other alternatives that need not be complex. The selected risk indicators can also include those related to the fiscal sector, the macroeconomy, the real sector, the external sector, products, markets, and SIFIs (systemically important financial institutions). For example, risk indicators can include indebtedness or leverage in the household and corporate sectors, the mortgage market, the securitization market, the credit derivatives market, and the extent of unhedged foreign currency exposures outside the financial system. The additional set of indicators can also include certain institution- level indicators that reflect risks in individual institutions that are of systemic relevance—for example, rating downgrades, borrowing costs, credit default swap spreads, and equity price performance. Among the analytical instruments of macroprudential policy that have obtained the recognition today, there are the following three groups of instruments:

- Monitoring of financial stability (i.e., Financial Soundness Indicators, which are being watched in the framework of the Program on stability assessment of the financial sector implemented jointly by national regulators, the IMF and the World Bank);
- Systems for preliminary crisis prevention (i.e., early warning systems, mainly on the basis of macro-economic leading indicators);
- Stress-testing for banks using the macroeconomic scenario data as input parameters (macro stress testing) [10; 11].

Conclusions.

Summarizing all the aforesaid, we can formulate some conclusions and consequences of the macroprudential policy development. They can be described as “an early concept”, which will be supplemented as the experience on macroprudential policy implementation will be accumulated. Most of them have already been accepted and implemented in Basel 3. Thus, they are the following:

- Quantitative and qualitative capital requirements for banks should be raised appropriately as compared to the pre-crisis period;
- Capital requirements for systemically important market participants should be higher than for other players;
- Equity capital of banks should consist primarily of fixed assets, which may be used to cover losses;
- Risk-weighted asset ratio should be revised towards the rise of capital requirements for assets without any transparent assessment of risks and trading portfolio securities;
- Procyclicality of banking activity should be reduced by introducing dynamic prudential norms;
- In addition to traditional capital requirements it is appropriate to use the gross leverage factor (i.e., a simple ratio of capital and assets);
- It is required to tighten the standards for current and long-term liquidity of the banks;

- It is necessary to extend the prudential regulation for non-bank financial market participants who have systemic importance.

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