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# Macroprudential policy and financial stability

**Bogdan CHIRIACESCU**
Bucharest University of Economic Studies
bogdanchiriacescu@gmail.com

**Abstract.** *This paper tries a conceptual framing of the issue of financial stability in economic theory and also to identify solutions to address episodes of financial instability. An essential reference is Minsky's financial instability hypothesis, which argues that a fundamental feature of the financial system is that it swings between robustness and fragility and these pendulum swings are an integral part of the process that generates the business cycle. Studies show that the effects of banking crises on economic activity are important both in magnitude and duration. Recently, macroprudential policy stood out as a central pillar in promoting financial stability in a broad sense. Regarding specific objectives of macroprudential policy, the prevalent vision refers to limiting systemic risk and macroeconomic costs of financial crises, but there are also important nuances.*

**Keywords:** financial stability; macroprudential policy; financial instability; systemic risk; microprudential supervision.

**JEL Codes:** G28, E58.
**REL Code:** 8M.

## 1. Introduction

The origin of the macroprudential term dates back to the late 70s. The first occurrence is in the minutes of a meeting of the Cooke Committee in 1978 (the current Basel Committee on Banking Supervision). The context in which it was used targeted the fears of macroeconomic and financial stability implications of rapid growth in lending to developing countries.

The first reference in an official document was in 1986 in a BIS report which explores the fears of financial innovation, in which the macroprudential policy is seen as promoting "the safety and soundness of the financial system as a whole and the payment mechanisms".

A milestone in the evolution of this concept is the year 2000, when at the International Conference of Banking Supervisors, Andrew Crockett (2000), the BIS general manager, emphasized in his speech the need to strengthen the macroprudential dimension of supervision and regulation to ensure financial stability as a complement for the microprudential approach. A macroprudential dimension was highlighted on mutual amplification from the financial system and the real economy, which is now known as the pro-cyclicality of the financial system.

## 2. The macroprudential policy objectives

Until the financial crisis, in the literature on monetary policy there was some convergence of ideas regarding the objective to be followed, respectively price stability on a time horizon of two years or if there is a dual mandate, as in the FED case, also an objective to maximize the employment level.

But in the late 90s there was also a different view, claiming that authorities could use monetary policy to prevent the accumulation of imbalances in the financial system. There are works that have dealt with how monetary policy should respond to asset price changes. In essence, the argument was that, in some circumstances, reasons of financial stability may lead the central bank to deviate somewhat from short-term inflation target by raising interest rates higher than justified by inflation trajectory, to reduce the probability of future financial instability and, hence the inflation variability on longer time horizons, Kent and Lowe (1997) argued theoretically rigorous this vision. Okina et al. (2000) argues in favor of policy rate increases for financial stability purposes, based on the Japanese experience of the 80s. Goodheart (1995) points out, in the context of analyzing suitable indicators to measure inflation, the need to take into account the behavior of asset prices in setting monetary policy.

Literature on macroprudential policy appears not to be close to approaching broad consensus regarding the objectives, as was the case for monetary policy before the financial crisis.

Borio (2003) was among the first to deal in detail with the macroprudential issues, arguing the need to strengthen banking supervision and regulation to combat financial instability, based on the financial crisis experience of 90s in Scandinavian and Asian countries. This paper defines and compares the size of macroprudential and microprudential nuances that inevitably coexist in financial regulation and supervision (Table 1).

Particularities of the two approaches are evaluated in terms of objectives, risk model and interconnections in the system, as follows: i) in terms of prudential policy, the immediate objective is to avoid problems at individual financial institutions, the major objective being protection of depositors and investors; the risk is considered exogenous – meaning independent of the individual behavior of individual agents and interconnections and common exposures between financial institutions are irrelevant, while ii) at macroprudential level, the immediate objective is to limit instability in the system, the major objective being to avoid costs associated macroeconomic financial instability; the risk is endogenous – influenced by the collective behavior of financial institutions, and linkages and common exposures among financial institutions are very important to the system.

In a broad sense, it is accepted in the literature that the overall objective of macroprudential policy is to promote financial stability. With regard to the specific objectives of macroprudential policy, the dominant view is to limit the risks and costs of financial crises, but this view must be nuanced.

Table 1

**Macro-versus microprudential perspective**

| | Macroprudential | Microprudential |
|---|---|---|
| Immediate objective | To limit instability at system level | To limit problems at institutions' level |
| Ultimate objective | To avoid macroeconomic costs associated with financial instability | Consumer protection (investor/depositor ) |
| Risk characterization | Endogenous (dependent on collective behavior) | Exogenous (independent from the behavior of individual agents) |
| Correlation and common exposures across institutions | Important | Irrelevant |
| Calibration of prudential filters | Targets risks at system level | Targets risks at institutions' level |

**Source:** Borio (2003).

Borio and Drehmann (2009) are among the exponents of this view, considering that macroprudential policy intention is to limit the risks that lead to episodes of financial instability, which in turn require significant macroeconomic costs. The foundation of their vision has the starting point in the differentiation outlined above, between micro and macroprudential perspectives (Table 1).

A more detailed description, also in line with this vision, belongs to Caruana (2010) (BIS general manager), that frames explicitly the macro-prudential policy issues in both a temporal and a cross-sectional dimension, considering that the objective is “to reduce systemic risk by explicitly addressing the interconnections between financial institutions and their common exposures and the pro-cyclicality of the financial system”.

## 3. Minsky's financial instability hypothesis

The conceptual approach of the financial stability issue is the starting point for Minsky's financial instability hypothesis. This theory came to present only in the context of the recent financial crisis which followed the period of the Great moderation and as the need to conceptually explain how it got to this point.

The general form of this theory appeared in 1974. In essence, Minsky argued that a fundamental characteristic of the economy is that the financial system swings between robustness and fragility and these pendulum swings are an integral part of the process that generates the business cycle.

Minsky identifies three types of income-debt relations for economic units: traditional, speculative and Ponzi. In the first case, businesses can meet contractual payment obligations through cash flow (revenue expected) it generates. Speculative agents honor only interest and roll over the principal amount (often governments, banks and corporations that issue bonds), while Ponzi agents can not cover from income any interest, not even the principal, and are being forced to sell assets or to additional borrow in order to repay older debt. As long as traditional income-debt relations are dominant, the economy tends to stability and equilibrium. In contrast, the more weight the other types (speculative and Ponzi) of relationships increases, the probability that the economy may have been deviated from equilibrium is higher.

Briefly the theory published in 1992 is stated as follows: i) the first theorem of the financial instability hypothesis is that the economy has financing regimes under which it is stable and financing regimes in which it is unstable, ii) the second theorem states that, over periods of prolonged prosperity, the economy goes from financial relations that ensure stability to financial relationships that contribute to system instability. This system transition involves bubbles in asset prices.

Moreover, Minsky described the paradox of disintermediation, in which the rational behavior of firms and households needed for steady economic recovery leads to increased economic recession.

Minsky's analysis framework envisages the development of instability in two phases, namely a primary cycle and a super-cycle. The primary Minsky cycle refers to the development of funding arrangements and captures the appearance of financial instability at the balance sheet level of firms and households. This cycle goes through the three phases mentioned above: it starts with traditional financing, in which the expected income of the borrowers are sufficient to cover the interest and the principal of the loan, then goes to the speculative finance stage that assumes that incomes only cover the interest, and lastly to Ponzi finance in which the incomes are insufficient to cover interest and the debtors depend on capital gains to honor their obligations.

The primary Minsky cycle offers a psychological perspective on the economic cycle. Businesses are becoming more optimistic due to the economic stability; this leads to a more optimistic assessment of the valued assets and of the associated income, with direct effects on accepting raising risk levels with the belief that positive trends will be perpetuated. This optimism feeds all market participants, both creditors and debtors, and gradually leads to the abandonment of market discipline. Most relevant evidences are: i) during the 90s it was spoken about "the new economy" and about "the economic cycle death" when it was believed of entering a phase of constant productivity growth, and ii) in 2000 period when it was spoken about the "Great Moderation" claiming that central banks have tamed the business cycle by improving monetary policy, based on a superior understanding of theoretical economy. This optimism included even the policy makers and those responsible for market regulation. An example is the current Fed chairman Ben Bernanke, who stated in 2004 the theoretical bias toward the hypothesis of Great Moderation theory.

Empirically, the model proposed by Minsky's through financial instability hypothesis, explains in an elegant way the economic and financial developments of recent decades. Past 30 years have witnessed three economic cycles in the US, namely 1981-1990, 1991-2001 and 2002-2009, each of them being marked by a primary cycle where borrowers and lenders assumed increasing financial risks. Moreover, the entire period was marked by a super cycle characterized by financial innovation and financial deregulation. So, gradually the financial instability increased at both individual and systemic level, through increased lending and declining risk aversion, based on an institutional protection of a drifted system.

The solution proposed by Minsky for preventing problems the global economy now confronts with, and generally preventing financial instability, refers to strengthening the supervisory and regulatory policies, which are currently underway.

## 4. The financial instability cost

The problem of avoiding and protecting the economy from financial instability episodes is most eloquently captured by studies that analyze the costs they cause and that are generally important in terms of production loss, through both direct and indirect effects. Reinhert and Rogoff (2008) show that, compared to the main episodes of systemic banking crises in the past, the average real GDP decreased by 9.3 percent and that these episodes of recession last for about two years. From this point of view, according to the National Bank Annual Report (2000) estimations, the banking crisis in Romania, from the late 90, seems to fit perfectly into this pattern.

Joyce and Nabar (2009) suggest that the effects of financial crises on GDP are, however, only short-term consequences, because often the manifestation of a crisis is accompanied by currency depreciation, which induces effects of price competitiveness for domestic goods, and so by boosting exports it engages the halting of the economic decline. Studying a sample of 26 emerging countries from 1976 to 2002, the authors show that in fact the consequences of banking crisis are more serious by the fact that they produce persistent negative effect on investment, which means that the economic recovery is unsustainable and the medium term prospects are not favorable.

## 5. Conclusions

The most important steps that have been made so far refer to the rethinking of the regulatory and supervisory framework of the financial system through Basel III reform package and widening the existing institutional framework through creating bodies with responsibility for macro-prudential policies in the EU.

The global standard reform package on the capital and liquidity requirements for financial institutions, Basel III, has two important dimensions:

i) microprudential pillar, which is not new, but it's meant to be a deeper treat for individual risk of banks and ii) a new macroprudential pillar, which aims to address holistically the risk issue, within the entire banking system. Besides increasing the minimum level of capital, the novelty of the proposed measures include: i) imposing countercyclical capital buffers that banks should further constitute depending on  the business cycle phases and ii) limiting excessive debt, by introducing a maximum leverage. A special attention is given to the financial institutions of  systemically importance operating across borders, main proposals addressed to those referring to capital and liquidity requirements additional to other institutions,  that don't show systemic risk,  and emergency plans in case of failure, so that to avoid using public funds for resolving problems.

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