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THE CRISIS AND CENTRAL BANK REACTION

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Abstract: *The world economy is in the face of the strongest crisis of the last seventy years. This crisis is still ongoing, but authorities in many countries have already taken a series of measures to mitigate the effects. In this fight, the central banks are the first line.*
It is still too early to draw any lessons from the events taking place, but a reflection "sine ira et studio" over this experience is already possible.
This paper aims to analyze this experience through the policies implemented by central banks to cope with the crisis.

Keywords: *central bank, crisis, liquidity, regulation*

JEL Classification: *E52, G01*

1. THE NATURE OF THE CRISIS

The global financial crisis emerged as a liquidity crisis. The first symptoms manifested in early August 2007, consisted of severe disturbances in the interbank market. These turbulences consisted of abnormal profit margins, reducing maturities, ruin and even disappearance of some market segments. By contagion, these tensions have affected even the non-financial companies and the financing of the real economy.

The crisis has also emerged as a securitization crisis. Securitization is a very old financial technique, which has been used successfully in the past thirty years for credit refinancing for the purchases of automobiles, in consumer credit, mortgages, etc[2]. However, in the last decade, this technique was applied in doubtful conditions:

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[2] - The securitization consists in converting claims in the asset side of the of credit institutions’ balance sheet (eg, mortgages) in negotiable securities. Claims are arranged in packages homogeneous in terms of maturity and risk. These packages are given to a financial investment firm, created *ad hoc* and with a limited *lifetime (Structured Investment Vehicle - SIV*), which then sells them to investors as bonds. This allows banks to automatically improve their capital requirements and to restore credit

for the financing on the short-term of complex structured products, with zero liquidity and uncertain value - usually determined as a rule, not by the market, but by theoretical models[3].

By their nature, such financial mechanisms are vulnerable and fragile. However, this fragility has been obscured by abundance of liquidity on the market and by the actions of certain financial intermediaries such as *rating agencies* and *monoline* insurers[4].

In situations in which money abundant, even claims of mediocre quality or uncertain value may be easily refinanced. Moreover, as those claims are "painted" with a favorable *rating* and an insurance warranty. But, at the first failure in repayment of the subprime loans, all these financial engineering have collapsed. Liquidity disappeared more quickly than it appeared, and the grades of the rating agencies' were damaged in a cascade, with a speed and with a brutality that the techniques used and the information available did not allow anything to reveal. Finally, it became clear that the *monoline* insurers' resources ware insufficient to enable them to cope with the commitments they have undertaken.

In these circumstances, it became clear that, far from being divided within the whole system, the risk of loan default is focused, explicitly or implicitly, to certain institutions, mainly at major investment banks. Hence, successive waves of devaluation of structured products, devaluation imposed by accounting rules in force, but which gave rise in turn to doubt about the solvency of financial institutions, have imposed restrictions on access to liquidity and caused decreases in asset prices.

The collapse of the structured securitization has shed a light on a fundamental reality of the contemporary global economy. Financial innovations in recent years have served, in large, not as a measure for better risk management and allocation, but for the increase in the volume of lending without an adequate capital ratio (*the leverage effect*).[5] Increasing debt resulted from here is a phenomenon generally manifesting in forms like: enhancement in the total value of bank assets, multiplication of vehicles registered in off-balance sheet positions, which usually requires no own funds, having therefore an infinite "leverage effect", use of limited

potential. Interest rates and payments due by the SIVs are based on financial flows generated by the initial loans.

[3] - A structured product is a product designed by a bank to meet the needs of its customers, consisting, usually in a combination of optional operations (options), swaps, etc., based on the parameters not listed on the market and using various complex techniques of financial engineering, such as securitization. Such a product is not quoted on the market. Its price is determined by mathematical models that describe the product in terms of time and by various market developments.

[4] - *Monoline* insurers are insurance companies specialized in taking the risk of credit default in the issuance of bonds or operations of securitization.

[5] - The *leverage effect* reflects the degree of indebtedness of individuals, enterprises or financial institutions, in order to purchase of a product or an asset.

capital of *monoline* insurers in order to guarantee a significant volume of structured products, etc.

A feature of the leverage effect is that it increases both gains and losses. Thus, the real estate *boom* has allowed the U.S. a long time of very profitable investments. However, the reversing in the trend has caused significant devaluation of structured products, which exceeded, for many institutions, the level of own funds. The limitation in liquidity, together with the inability to refinance them, has led some of the leading institutions to bankruptcy.

The effects of the international financial crisis have passed on to the Romanian banking system, as well. Currently, the system consists mostly of banks with a majority of foreign capital, or branches of foreign banks, which have direct or indirect exposure (especially through U.S. *monoline* insurers) to structured products. As a result, the parent banks have made some significant devaluation of their assets; have suffered the impact of liquidity evaporation and paralysis of certain markets and, more generally, the increasing cost of refinancing. However, all these have negatively affected branches in Romania.

Yet, the Romanian banks remain solid and profitable. The main factors explaining this favorable situation are:

- the level of the Romanian banks' own funds remains high, at levels above the minimum required by the prudential regulations and European practice;
- the Romanian banking system continued to obtain good results in the last period, the rate of profitability calculated on the whole banking sector decreasing slightly, but remaining high compared with other countries;
- branches of foreign banks in Romania have major funding lines from the parent banks, a vital advantage when the attraction of deposits from the population and the ability to make capital increases through the issuance and placing of shares on market is small;
- Romanian banks do not have "toxic" assets;
- in time, the NBR adopted a series of prudential and administrative measures that required banks a prudent conduct.

In our view, these features of the Romanian banking system constitute a reliable source of confidence. Beyond the tensions and recent accuses to banks, the banking sector benefits from the reform to which it has been subjected in the recent years, which enables it to cope with the possible turmoil.

2. PUBLIC POLICIES DURING CRISES

An important finding regarding the current crisis is it produced changes in the conduct of public policies regarding financial institutions. Until the outbreak of the crisis, these policies have been geared exclusively toward providing liquidity, but

afterwards, public interventions have begun to target increasingly the financial sustainment and insurance of banks' own funds.

According to some authors, this change of orientation is a genuine theoretical and ideological revolution (Attali, 2008, p. 145 et seq.).

As to us, we find that only during a crisis, when the bank panic can trigger out of nothing, the problems of liquidity are crucial for financial institutions. The interbank markets have a natural capacity for self correction, which has already spontaneously stimulated an evolution towards a state of normality. However, it is clear that the market alone is not able to quickly rebalance itself. To facilitate this process, major central banks around the world took a series of exceptional measures, which in the not too distant past would have been considered true heresies: extending the maturity of refinancing facilities, expanding the range of eligible assets, as a counterparty in these transactions; multiplication of warranties admitted to the refinancing process, modification of procedures for the access to central bank liquidity in special conditions; enhancing international coordination, etc. Theoretically, these measures should crucially contribute to restore confidence and to the return to normal functioning of interbank markets.

There has also occurred massive support for solidity and solvency of banks. Without going into detail, we highlight the following three main forms of intervention in the economy of the great democratic states:

1) The refinancing of banks from public funds, so that they can, in turn, finance the economy;
2) Carrying out significant reforms of the accounting rules, the new rules oblige banks to transfer assets recorded in the past with the market value is no longer possible; also rules allow greater flexibility in calculating the "fair value " of assets that have no market;
3) Confirmation of support by the state of the banks' recapitalization.

In Romania, the authorities' response to the adverse effects of the crisis was different than in the U.S. or European countries. The explanation lies in the fact that the Romanian economy differs in many respects from Western economies, which makes it impossible to simply copy the measures taken in those countries. For the theme of this paper, the main distinction that matters is that the Romanian economy has a large current account deficit, which is especially dependent on external financing. As a result, the Romanian authorities were forced to choose between the orderly reduction of the deficit or its reduction by the market, which, in conditions of tension and mistrust, could have dramatic consequences on the exchange rate and economic growth.

Although the process of adjusting to a market economy cannot be planned with precision, it is clear, however, that the promotion of coherent and credible economic policies can avoid a disorderly adjustment (*hard landing*). Therefore, the

Romanian government attempts to avoid increasing wages and pensions, reducing taxes and contributions, etc. As a consequence, all this growth would stimulate domestic demand, which would reduce the current account deficit to a sustainable level. Conversely, the concentration of the mix of macroeconomic policies on the process of adjustment of external (current account deficit) and of the internal imbalances (budget deficit) is likely to lead to a "smooth landing" of the economy and improve foreign investor perceptions. Therefore, it is necessary to continue a significant strengthening of fiscal and wage policy (in the broad sense, including increases and awards with cvasiwage nature). The budget for 2009 is, indeed, an important step in this direction; it allocates an important volume of funds for high investments that are likely to exert certain *spillover effects* on other sectors of the economy.

Moreover, the government seeks to contribute to the improvement of foreign investors' perception, by improving the absorption of European funds, and how it replaced to a certain extent, external financing with a private public funding, in order to create new jobs in areas poorly capitalized (infrastructure, tourism, agriculture - food sector, etc.), meant to gradually take over the role of engine of economic growth, etc. Finally, the winding up of financing agreements with international organizations (International Monetary Fund, World Bank, European Commission, European Investment Bank etc.) is liable to compensate the reduction of sensitive inputs of private capital.

3. THE ROLE OF CENTRAL BANKS IN THE ASSURING AND MANAGEMENT OF LIQUIDITY

In general, central banks' response to the crisis was triggered very quickly. Since August 2007, tensions observed in the interbank markets have led the Eurosystem to provide several days in a row unlimited amounts of cash through so-called "marginal lending facility"[6]. In turn, the Fed extended the maturity of its permanent credit facility from 1 day to 30 days, thus allowing banks to provide guarantees to reach the primary currency in terms of an increasing lack of trust between interbank market participants. Also, because reducing the maturity of interbank placements (in periods of uncertainty, banks continue to grant loans to other banks tend to reduce maturities), the Eurosystem started to carry out additional operations of medium-term refinancing.

At the end of 2007, major central banks around the world began to work intensively to deal with crisis and with the difficulties faced by banks trying to refinance in U.S. dollars. Thus, on 12 December 2007, the Fed, the ECB and the

[6] - The marginal lending facility is a permanent feature, which allows banks to obtain overnight loans from the central bank, at a preset rate, collateralized by eligible assets.

Swiss National Bank have created a feature meant to allow medium-term refinancing (1 month) in U.S. dollars[7]. These measures are in force today.

Since the European central banks do not necessarily have the resources that they need in foreign currency, in order to meet requests for refinancing of European commercial banks, there were carried out a number of special arrangements (*swap*) with the Fed. Among the central banks that have benefited from the *swap* lines in U.S. dollars from the Fed, we mention: ECB, Bank of England, Swiss National Bank, Bank of Japan, etc. Subsequently, such agreements have been concluded in order to allow the ECB to provision euro (with the National Bank of Hungary, National Bank of Poland, National Bank of Switzerland, etc., as well as to allow the Swiss National Bank to supply Swiss francs.

Similar measures have been taken by other central banks, while others have applied absolutely unconventional measures. Of the latter category, an interesting case is the Fed, which is the reference model for many central banks around the world. In crisis conditions, the Fed proved extremely innovative in the design of facilities meant to allow various financial intermediaries to obtain the primary currency, to convert illiquid securities in government bonds, or even to sell directly to the central bank securities for which the there are no market buyers. Thus, since October 2008, the Fed buys, directly from the financial market, short term or long term securities issued by enterprises or ones that materialize loans to population, in order to facilitate financing of the economy and reduce the cost of this funding.

The conclusion that detaches from the facts shown is that, at first, liquidity injections were all intended to the money market, in order to enable it to function properly and to ensure a proper allocation of resources for financing during the crisis. Subsequently, these measures have increasingly pursued saving certain financial institutions. It is therefore, about a conduct unprecedented in history, and this, both in terms of duration and amounts of liquidity injected.

4. THE NBR ACTION

The NBR continued to implement the strategy of monetary policy called "inflation targeting" (inflation targeting). This strategy was adopted in 2005 as a result of the necessity of achieving a sustainable disinflation. Its implementation was not easy even before the crisis, because of unfavorable characteristics of the Romanian economy: fiscal dominance; massive inputs of capital, net debtor position of the NBR to the banking system, inefficient transmission mechanism of monetary policy, etc. During 2005-2007, all these features were combined, and therefore there were situations where the excessive appreciation rate of the leu and inflationary expectations have coexisted. This phenomenon has created a serious dilemma for the

[7] - Similar assemblings were applied for several days in September 2001.

central bank, because the interest rate increase, although necessary to reduce inflationary expectations, attracted more foreign capital, thus appreciating the leu in an unsustainable manner (Cerna et. al., 2009).

After the triggering of the crisis, some of these circumstances have disappeared. Currently, the trend shows the NBR's net creditor position to the banking system, while foreign capital entries have attenuated significantly. This situation does not ease monetary policy implementation. Conversely, the financial crisis has increased money and foreign exchange market volatility, thus slowing down the economic activity. Furthermore, the current account deficit together with the large external financing reduction triggered the depreciation of the leu, a phenomenon that is fueling inflation and makes a high interest rate necessary. In addition, borrowers who have debts in euro and other foreign currencies, and therefore the financial system as a whole, are vulnerable to a significant depreciation of the leu. Finally, higher interest rates hamper economic growth and create additional costs for borrowers, risking destabilizing the financial sector.

In these circumstances, there appears the difficult problem of compromise between the two objectives of monetary policy: price stability and ensuring financial stability.

The principle which has recently triumphed in the economic theory and practice is that the long-term objective of monetary policy should be to achieve low inflation, as a low rate of inflation helps sustainable economic growth in the long term. Consequently, low inflation is an end in itself as well as a mean of achieving sustainable economic growth.

The effectiveness of monetary policy in achieving this objective is limited by financial instability.

The experience prior to the outbreak of the crisis seems to confirm the concept that inflation is the main source of financial instability. In the past, periods characterized by high inflation have also been marked by instability and severe financial crisis in the banking sector, or were followed by recession, due to the adoption of authorities of inadequate inflation mitigation measures. However, literature showed that a low inflation rate is not a sufficient condition for ensuring financial stability in the long term (Isarescu, 2009). The current crisis shows that the turmoil in financial markets significantly influences the business cycle. Therefore, major central banks around the world are trying to maintain financial stability and avoid economic recession and depression, providing the necessary liquidity and trying to improve the management of liquid resources.

In these circumstances, question of the extent to which the central bank really has the ability to concomitantly ensure price stability and financial stability, arises (Cerna et.al., 2008, p. 25-28).

Judging by the experience of Romania, financial stability is critical to price stability. It is true that, in Romania, the inflation rate is still high compared with other Central and Eastern European countries. However, if the NBR would have undertaken a more restrictive monetary policy, which would have involved very high interest rates, financial firms and households would have been damaged. This action would have deteriorated the financial situation of households, as well as the financial stability of the banking sector. After all, the very pace of disinflation would have probably been less than that achieved. The conclusion is that, in the long-term, the inability to maintain financial stability leads to a reappearance of inflation.

An advantage of the inflation targeting strategy is that it allows the formation of the exchange rate through market mechanisms. The Romanian economy is an open economy both commercially and financially, and therefore the evolution of the leu exchange rate depends not only on internal factors but also on the events in the world economy. Under these conditions, variations in exchange rate were often higher than those justified by "fundamentals". Thus, between 2004 and 2007, when there were massive capital entries, the leu was very much appreciated. The phenomenon has repeated in certain periods, even after the outbreak of the the crisis, including in 2009. Therefore, the central bank opted for the exchange known as “managed floating”, which allowed the use of the free market virtues, the avoidance of excessive assessments and the discouragement of speculative behavior.

Consistent implementation by the central bank of this strategy has required relatively large purchases of foreign currencies on the market during 2004 and August 2007. At the time, was criticized that it did not to let the leu to apreciate in accordance with the market situation. Looking back, it appears that this policy was appropriate. For the crisis has led to an abrupt reversal of the appreciation trend of the leu, with major episodes of volatility. Just as in the past entries of foreign currency resulted in the overapreciation of the leu rate, well above the appropriate level according to the basic configuration factors of the exchange rate today, while the uncertainty and the reduced external financing tend to cause undue depreciation of the leu’s fundamental variables. The currency bought on the market in times of overrating now serves to finance interventions in order to mitigate the depreciation rate.

5. THE SUPERVISION OF FINANCIAL SYSTEMS

The crisis has highlighted the fundamental need of rethinking the ways of regulating financial systems. The most discussed aspect is the supervision, whose deficiencies are considered an important cause of the global financial crisis. In this context, some authors even talk about the need for a new Bretton Woods, i.e. a new international financial order (Boughton, 2009, p. 44-46).

In accordance with the previous analysis, it is clear that there is a need for better regulation in all areas of business, from the *rating* agencies' activity to the organization of the markets, risk management and remuneration of managers.

As to us, we refer to only two issues with this problem.

A first issue is that of the fluctuations of financial systems. By their nature, financial systems in a market economy are the subject to cyclical forces. Since the price of assets gives rise to gains or losses, the capital of financial institutions evolves in parallel with asset price movements. Therefore, the enforcement of a constant level of the rate "equity / total assets" (leverage effect) tends to increase this fact, sustaining the demand for assets in the event that their price increases - and vice versa. The problem for authorities is to establish whether and to what extent these rules intensify these dynamics. In other words, it is necessary to know if financial regulations designed from a microeconomic perspective affect the entire financial system.

These considerations mainly highlight the need to mainly improve the accounting and prudential rules. In general, one can say that it is necessary to design and implement accounting and prudential rules that are more suited to economic development; these rules must not be cyclical, but exhaustive in terms of incidence on the financial institutions both in impact and coherence.

The problem is, therefore, to develop and implement a macro prudential policy. Its general principle is easily understood: it is about to make it so that monitoring can limit the risks that threaten financial stability, as related to a specific institution and those related to the financial system as a whole. The practical application of such a policy is, however, more complex. While reform proposals abound, there are still different views on the number and magnitude of change required, to the division of tasks, methods of cooperation, etc..

The second issue is that of financial supervision, in particular banking supervision. Regarding the latter, the crisis has demonstrated the benefits of exercising it by the central bank or, anyway, by a body in which the central bank is strongly represented. This conclusion is endorsed today by all central banks, irrespective of the regulatory framework in which they operate. The argument is that the central bank's good knowledge of banking and other financial institutions, therefore being able to act quickly in periods of turbulence both on the money and credit market. And, indeed, central banks began almost immediately after the outbreak of the crisis to inject liquidity in various forms and with various maturities. This is because central banks have been able to assess the quality of market participants and the reality of their needs, and therefore were able to distinguish between problems of liquidity and solvency and react accordingly.

In this framework, the way in which the NBR responded to mitigate the consequences of the crisis on the Romanian economy emphasize the need to

increase its powers in order to deal with a destabilization of the Romanian banking system. Thus, although the Romanian banking system is solid, the recent agreement of the Romanian government with the IMF requires changes in banking legislation in order to strengthen the power of the NBR to require shareholders the conduct of capital increases and the limitation of the distribution of profits. It also provides changing laws governing the organization and functioning of the other supervisory authorities (the National Securities Commission Insurance Supervisory Commission of Supervision of Private Pension System), for the purposes of strengthening their independence.

The revise of regulations, in order to avoid a new crisis is currently the subject of numerous debates in international courts and in academic circles. Equally important is the willingness and capacity of supervisory authorities to enforce regulations on a regular and credible manner. For, however important it is, this review may not be effective unless it is reinforced by the implementation of regulations, which require the autonomy of the supervisory bodies as well as the allocation of sufficient resources.

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