ASPECTS REGARDING THE CURRENT ECONOMIC CRISIS AND ITS INFLUENCE ON THE FINANCIAL SECTOR

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Abstract: *The recent global financial and economic crisis has revealed some weaknesses in the regulation and supervision of the financial system and its architecture, especially in the treatment of systemic risks and vulnerabilities, and also the financial implications and downsizes of the globalization process. The global nature of financial crisis has highlighted the fact that, although integrated financial markets may offer a number of significant benefits, risks involved are worthy of taking into consideration. In order to ensure the financial stability of the highly integrated global landscape is needed the reform of the financial system architecture, both nationally and internationally.*

Keywords*: financial markets, banks, supervision, regulation, financial crises*

Jel Clasification: *E02, E44, E59, E61, E65*

Introduction

In order to have an efficient answer to the current economic and financial crisis, it is important to understand where and how the crisis started. Although the crisis started as a financial one and later turned into an economic one that influences every aspect of our daily life, we believe that an important part of the answer given to the crisis must address the financial sector thru better regulations and supervision for and from the financial sector triangle: government, financial institutions and corporations. In our paper, using a descriptive methodology based on survey and data interpretation, we are trying to see the factors and the catalysts of the current economic and financial crisis and the figure out a series of improvements that are necessary for an efficient and sound financial system.

1. Characteristics of the global financial crisis

The disruptions relate to the developments in the U.S. mortgage market and, for a better understanding of the transformations suffered, one should make a brief foray into history. Thus, after the 30's crisis, based on the "New Deal" program of the Roosevelt administration, a public body-the Federal National Mortgage Association (Fannie Mae) – was created. Its objective was to increase the volume of loans and mortgages, for stimulating the economy by all the positive effects that the development of the construction sector may have on it. Fannie Mae took over from the initial lenders the default and liquidity risk, which it could manage much better than the first line distributors credits, as it had a portfolio of mortgages much more

diverse and more widespread at the national level than the usual banking institutions. This body could borrow funds itself on longer term than banks, which was likely to reduce the liquidity risk.
This institution exclusively received for discount operations mortgage securities, subject to certain rules. Currently, these rules constitute the referential for defining the so-called *prime loans*, which are actually mortgages of rank one (prime mortgages). At the end of the 60s, the loans contracted by that body in order to refinance its mortgage securities discount operations have come to constitute a significant part of the U.S. government debt. Therefore, in order to relieve the state of the activity of that institution, the Johnson administration reorganized the U.S. mortgage market by creating a new body - the Government National Mortgage Association (Ginnie Mae) - responsible for managing the state guaranteed mortgages, under the scheme for veterans and other social assisted persons.
In 1970, Ginnie Mae began issuing bonds collateralized by mortgage debt, which enabled the transfer of risk of default to the subscribers of such titles and relieve the federal budget of a substantial part of the debt incurred for financing of public programs for the construction of housing. In technical terms, the operation consists of grouping similar mortgages and the issuance, on this basis, of securities (bonds) collateralized by the assets of the issuer. These titles were placed on the capital markets, and their redemption at maturity is done directly from the owners. Also, in 1970, a new body was established, the Federal National Mortgage Corporation (Freddie Mac), to issue securities based on classical mortgage loans, but also to create a competitor to Fannie Mae, which was to be privatized.

2. Securitization and the rating agencies

In time, these institutions were able to mobilize significant capital for mortgage refinancing, their main operations aiming at acquiring and holding assets in prime mortgages, as well as the transformation of mortgage loans in a variety of debt securities collateralized by mortgages. The general name of this operation is securitization, a technique that transforms less liquid financial assets into negotiable securities such as bonds.
Rating agencies, which assess the credit risk related to the transferred assets, had the role to protect the holders of securities and to supervise the administration of the issuers. This risk embodies the risk of nonpayment, late payment, interest payment, etc. If it is considered that a risk is too big for the investors to be interested, there are some techniques used in order to increase the solvability. Entities with unfavorable ratings, through the process of securitization, can refinance at interest rates available for higher ratings. At these kinds of interest rates, they would not have access without this technique. Securitization also provides the opportunity for own funds to be invested in profitable activities, besides the fact that it enables the removal of loans from the balance sheet,
Subject to securitization there can be used mortgages, credit cards, consumer loans, claims on customers, loans to finance investment projects, etc. Securities collateralized by mortgage debt, known generically as “Asset Backed Securities”, (ABS), are those securities which are issued based both on packages of residential mortgages and commercial mortgages, but more of them are based on residential mortgages. Mortgages from three sources: a single creditor, multiple creditors, as well as Fannie Mae or Freddie Mac portfolios in the U.S represent the base for most mortgage backed securities (MBS). (Cerna, 2008).

Mortgage securities based on mortgage loans from one lender are usually issued through swap transactions in which the lender changes the package of mortgages for MBS. Mortgage securities backed by multiple creditors allow some creditors to pack mortgages in exchange for the receipt of mortgage securities representing a proportionate part of a larger package. These may include the following titles: mortgage pass-through securities, collateralized mortgage obligation and stripped mortgage-backed securities. Most of the mortgage securities created were mortgage pass-through securities often named mortgage-backed securities (MBS), or participation certificates (PCs). The mortgage pass-through securities represent direct ownership rights on a package of mortgages. They can be wrapped again to create a guarantee for more complex mortgage securities known as collateralized mortgage obligations (CMO). A characteristic of the third category of mortgage securities, stripped mortgage-backed securities (SMBS), is that the cash flow collected on the mortgage base divides into two parts. The channel for the amounts received on the account of the repayment of mortgage loans is the Principal Only securities, while the entire interest paid is allocated to Interest Only securities. Generally, mortgage securities tend to provide coupon rates higher than the treasury securities issued by the U.S. Government. In part, this is because the interest rates charged for mortgages are higher than the interest rates offered by the U.S. government. At the same time, however, the higher interest rates of the mortgage securities also reflect the level of investment risk raised by the uncertainty due to the advance repayments. In the U.S., the GNMA, FNMC and FNMA guarantee these mortgage securities. The mortgage pass-through securities issued and/or guaranteed by the organizations listed above are the most numerous (AAA credit rating).
This structure of the market, based organizations supported by the state, proved to be very profitable, and therefore attracted other financial institutions as well. Thus, if in 2003 the semi-completed 76% of the total issuance of debt securities backed by mortgages and other assets of the issuer, the remaining 24% representing the large financial corporation is on Wall Street, in mid-2006, the share of the semi-public bodies decreased to 43%, while the share of private securities increased to 57% of the total. The major private issuers of this type of securities were the well-known U.S. investment banks (Wells Fargo, Lehman Brothers, Bear Stearns, JP Morgan, Goldman Sachs, and Bank of America) but also the big companies specialized in providing high-risk loans. Parallel with this rapid and radical transformation of the market, there was a change in lending standards in the U.S. following the deregulation process. In this liberal framework, while Fannie Mae and Freddie Mac have continued to provide almost exclusively prime loans, the private corporations have increased their market share, mainly through the securitization of mortgages with high risk and of the so called "Alt-A loans" granted to solvent, but less reliable debtors than the first class customers.

Table 1: The increase in the issuance volume of debt securities backed by mortgages (USD billion)

TYPE	**2004**	**Percent**	**2006 (January-June)**	**Percent**
Prime	57.7	52	67.2	26
With high risk (subprime)	37.4	34	114.3	44

Alt-A	15.8	14	76.5	30
Total	110.8	100	258	100

Source: Goolsbee, 2007:27

However, this increase in the quantity of securities backed by doubtful mortgages created a problem, because the main purchasers of such securities were institutional investors with a limited exposure to the holding of such securities. Consequently, only a small proportion of claims with high risk could be sold to institutional investors in search of higher yields.

To address this issue there was adopted a strategy of dividing risks in more categories or "tranches" with separate administration, thus determining a widening of the market for mortgage debts with high risk. From a technical point of view, this operation consists in dividing the portfolio of claims into two parts: one characterized by a low risk level and, one with high-risk level. To this end, firms on Wall Street have opted for a new financial instrument, created in 1987 by the financial investment firm, Drexel Burnham Lambert, called collateralized debt obligations (CDO).

To understand the operation of risk division, let us assume the existence of a specific portfolio of mortgages with high risk, divided into three classes of risk, with a CDOs issue. At maturity, the issuer redeems (repays) with priority securities of the tranche with the lowest risk (the senior tranche), which contains very secure and safe loans, but which usually carry low interest. After the titles in this tranche have been redeemed, there are withdrawn the titles in the intermediate tranche, with a higher risk, but also a higher yield (the mezzanine tranche). Finally, the titles in the third installment are redeemed only if the titles of the two previous installments have been fully redeemed. Because the titles of the latter class are the first affected by any possible loss in that portfolio of mortgages, they are not listed at the stock exchange, but, given their high risk, they carry the highest yield. In this way approximately 80% of high risk claims are sold to institutional investors, while the rest are sold to hedge funds, to specialized compartments in speculative operations of the firms on Wall Street and other investors attracted by high potential earnings that were provided by such transactions (Bordo, 2007).

An essential difference between CDOs and other mortgage derivatives on one hand, and securities listed at stock exchanges and futures contracts on the other hand, is that the former are not traded on stock exchanges, but on over-the – counter markets (OTC). On these markets, transactions are carried out directly between customers and dealers, unlike the stock market where sale or purchase orders are intermediated, as for the data about the volume of transactions and prices, these are not published officially. The price formation method has no transparency. It should also be noted that there does not exist a supervisory authority for OTC markets, that allows the identification of large or vulnerable exposures, nor do lenders of last resort exist, in order to provide the liquidity needed in special situations.

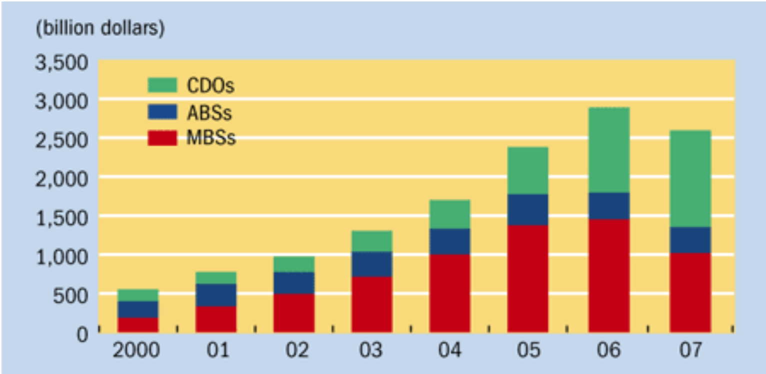

Figure 1 Issuance of structured credit instruments in the U.S.A and Europe
Source: Author

Therefore, investors who sought to obtain high profits have ignored the degree of risk involved by such securities. Until the spring of 2007, some top managers of financial companies have begun to concern about debt securities secured by subprime mortgages. However, given the still low interest rates and the high liquidity, the demand for structured credit products with AAA ratings and higher than normal yields, has continued to increase until mid-2007. The demand for real estate in the U.S. has increased considerably in the recent years, which led to a considerable increase in prices, which could be said that have almost doubled and even more from 1997 to 2006-2007.
Price evolution together with the exponential growth of prices after 2000 put the U.S. housing prices in a speculative bubble, the increase being determined by expectations regarding future price increases, rather than by economic foundations. The explanation lies in the fact that the homes were purchased for their future anticipated price level, price that could offset the initial yield offered. On the other hand, this increase was driven by the increased volume of mortgages granted, by the eased access to these credits and by the development of the construction sector in the period of economic prosperity.
In 2005-2006 interest rates began to rise and housing prices to decline moderately in many U.S. regions. As a result, outstanding loans rose as the initial terms have expired and variable interest rates rose. The inability of borrowers to honor the installments of maturing mortgages resulted in the mass start of the sale of properties by property holders and credit institutions. The market was flooded of houses from liquidation of mortgages, while new houses were not sold so well either, which led to a further decrease in the value of homes. Selling these houses below their market value (and obviously the price of acquisition or accepted value of collateral) has increased the default rate of loans and the incapacity to recover the total claims by credit institutions (Bordo, 2007).
The mortgage market crisis actually began when investors with very large debts, such as hedge funds have tried to adjust their exposure or, to exit the losing positions, which made the high-risk mortgage backed securities' market to become illiquid. In this way, in August 2007, when hedge funds had to pay the premiums required by their brokers, had found them stuck on unfavorable positions. The situation has worsened even further, because with the termination of transactions,

there were no market prices any more, to serve as benchmarks, or other means to determine the value of the securities contained in various tranches of risk.

3. Vulnerabilities highlighted by the global financial crisis

The recent financial crisis, that has stuck the world economy in 2007 and still persists to this day, is a remarkable mix of factors, that have been seen before in a serious of smaller scale financial crisis:

a) asset prices that have increased to become unsustainable;
b) credit booms that have increased the debt to new levels unseen before;
c) the accumulation of systemic risk in the lending process;
d) the inability of the supervision and regulation to contain the wide spread effects of the crisis.

However, the recent crisis had turned up with new factors that gave it the global magnitude that we are still seeing today:

e) the widespread use of toxic assets;
f) the interconnectivity among the global financial markets;
g) the central role that the housing sector played in this crisis, with all its implications.

Some authors, (Claessens et all 2010) consider that the catalyst of the crisis was the US overloaded housing and mortgage markets, with its increased securitization, and the increasing share of subprime loans within the lending activity between 2000 - 2006
(Figure 3)

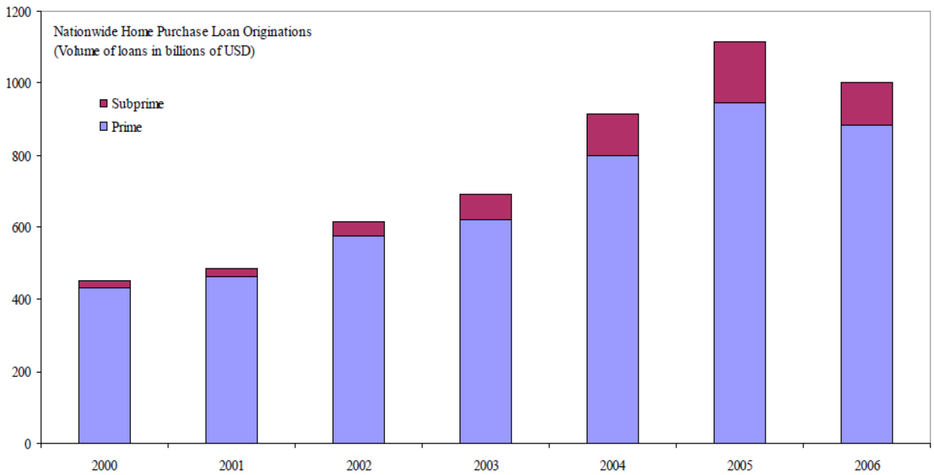

Figure 3: Prime and subprime loans
Sources: HMDA, IMF staff estimates.

The subprime loan crisis has affected the entire U.S. financial system and a good part of the international financial markets. The increase in mortgage arrears can be explained, to a large extent, by how smooth and even fraudulent the granting of loans on this market was, together with a key role in creating a framework for easy development and emergence of the crisis played by the process of financial innovation (Figure 4).

Today, the supervisory authorities reassess their financial system supervision framework. Although the wave of reforms in financial system supervision architecture began about 10-15 years ago, in the light of the current crisis, reform of financial system surveillance appears to be imminent. Thus it can be argued that the need for reform stems from the fact that the main objective of monitoring the financial system, found in limiting financial institutions' exposure to risk, is hampered by the esoteric nature of the instruments offered by financial institutions and, on the other hand, the probability of radical change in the degree of exposure. Due to the rapid changes in the risk exposure profile of institutions, the effectiveness of traditional methods of supervision and prudential regulation is significantly reduced. Therefore, the need to reform the process was one of the themes currently discussed by international organizations and forums (1) .

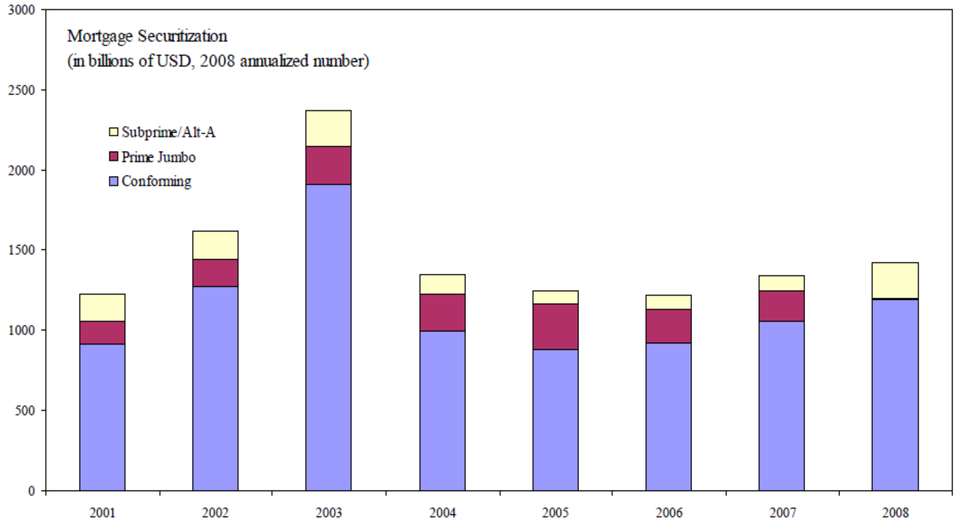

Figure 4: Mortgage securitization
Source: IMF staff estimates

TUAC (2) argues that, in light of current events, there is a need for both increased regulation and supervision of financial markets in order to adapt to the needs of the real economy. Regulatory process should aim to promote responsibility among institutions and markets as well as social protection objectives.
The need for change is felt to provide better coverage through regulation and supervision of international financial markets and to ensure better cooperation between institutions, nationally and internationally, for the early detection of risky behaviors of participants in the national and international financial market. Furthermore, the new framework should address the global financial system's weaknesses that have led to, or have intensified the crisis:

- Unsustainable growth model;
- Accelerating the process of financial innovation that gave rise to an uncontrolled structured finance industry; the risks were not spread out, but concealed, the pace of innovation in this area went beyond the companies' ability to assess risks in derivatives, and the ability of supervisors and regulators to monitor;

- Institutional arbitrage between jurisdictions and financial institutions, which helped to blur the border between the regulated and shadow banking system, allowing financial groups to practice a double accounting, using off-balance sheet transactions, also encouraging irresponsible risk-taking, and investment strategies based on the leverage;
- Prevalence of shareholder value over market integrity and long term interests;
- Poor quality assessment of loans that were transferred to other entities through the process of securitization;
- Lack of supervision of systemic risk - although the increase in indebtedness and the underestimation of credit risk have been identified before the crisis, their magnitude and implications for systemic risk was underestimated. There has also been found a failure in determining the connections between regulated and unregulated market participants;
- Weaknesses in the rating agencies - has seen a very high trust in rating agencies, failure in the models and methodologies used by them, and conflicts of interest in the rating process;
- Procyclical tendencies, fed by the existing regulatory framework and accounting procedures;
- Weaknesses in risk management practices, techniques and models using historical data based on short periods, unsuitable for estimating the likelihood and size distribution of potential losses from credit risk through structured products. More high compensation encouraged excessive risk-taking, without prior analysis of long-term risks;
- Weaknesses in the framework of disseminating information about the risks involved, thus undermining public confidence;
- Inadequate procedures for solving the problems of ailing institutions;
- Lack of transparency in OTC markets.

It is considered essential that regulatory and standardization bodies put efforts to achieve a prudential regulatory framework designed to protect the stability of financial institutions. Feeble regulation and supervision, such as those relating to the underwriting standards in the U.S. mortgage market have aggravated the current crisis, making it essential to strengthen prudential regulation and provision by the individual national regulatory authorities of a first line of defense in preventing imbalances in the financial system. (G-20, 2009)

Conclusions

In our opinion, the consequence of the shown disruptions was that hedge funds stopped their transactions, while the CDO market and the credit related derivatives have virtually ceased to exist. As a result, issuers of CDOs could not place their titles and ceased to issue new ones. Without partners on the secondary market, many initiators of mortgages with high risk have not been able to sell their claims, which put them in a critical situation, given that most of these initial creditors are weakly capitalized, unregulated financial corporations.

Regarding the banks financing the initial lenders, they have ceased their support, which made the latter unable to meet payment obligations related to the stock of mortgage loans granted. Their reaction was ceasing the granting new loans, regardless of their degree of risk, and some of the initiators of mortgages, threatened

by bankruptcy, made requests to postpone the triggering of this procedure - facility provided by U.S. law.
Finally, potential buyers and homeowners could not get mortgages any more, which has put them in the situation of not being able to pay for construction work performed. In turn, constructors, which previously have loans to build homes for sale, could not sell their homes and therefore could, not repay loans, etc.
We consider that all these phenomena have resulted in a strong contraction of demand in the construction of housing, with all the series of negative implications for the economic growth. The fact that those hedge funds and other investors did not buy high-risk mortgage debt any more, has shown that not all these claims were longer considered secure forms of investment, and therefore, buyers of cash receipts (debt securities issued by companies with high solvency) have ceased to buy those titles. Accordingly, securities prices have dropped and their issuers have not been able to procure the necessary funds for the repayment of mortgages and other types of loans they have contracted from big banks and financial corporations. In this way, when the credit resources were exhausted, in the financial system appeared a new request for additional loans.
Hedge funds and other risk seeking investors have also played an important role in the spreading of the crisis' consequences worldwide. Indeed, when the CDO prices fell and investors could not exit the losing positions any more, they began to sell other assets, in particular high yield securities such as shares of companies from countries with emerging market economy, in order to get high enough profits to enable them to cover losses. As a result, the prices of shares have fallen at all stock exchanges in the world and, emerging countries currencies' have depreciated more than was the case in the light of the fundamental economic variables (Cerna, 2008).
Taking into account the consequences of these developments, beyond the losses of the U.S. economy, spectacular bankruptcies, causing millions of unemployed and affecting all sectors, another more serious problem appears, namely the repercussions of the U.S. crisis on international financial markets and world economies. The propagation of the crisis effects appears as an unquestioned reality, through a simple fact that, currently, we can no longer speak of an isolated financial crisis in the U.S., but rather of a global financial crisis, which through the implications on the real economy, has become a generalized economic crisis.

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