ИКОНОМИЧЕСКИ ИЗСЛЕДВАНИЯ
ECONOMIC STUDIES

ГОДИНА XIX, 2010, 3

Nicolae DARDAC[1]
Iustina Alina BOITAN[2]

BANKING CRISES' TRIGGERING FACTORS – LESSONS FROM PAST EXPERIENCE

Maintaining robustness and stability of a financial system, independent of the degree of development of a specific country, has always constituted a matter of concern for decision makers. At present, this concern has transcended national borders, as financial markets have become increasingly integrated and any adverse shock affecting one country's financial system could have potential spillover effects to others. In this paper we propose a theoretical analysis of the triggers of the current global financial turmoil, in order to ascertain if there is a recurrent pattern with the past crisis episodes. To achieve this goal, we have first summarized the characteristics and root causes of past crisis episodes, with emphasis on banking crises. The last part of the paper explores the extent to which the current financial crisis is connected with the past crisis episodes.
JEL: E44; G01; G21

Introduction

There are two reasons for which the problems in the banking sector deserve special attention:

- implications for the local economies: limited room for maneuver in conducting monetary policy, credit crunch, the decline of saving, investments and consumption, recession, impairment of the payment system's functioning and large fiscal costs;

- potential spread of negative effects on other economies, by means of contagion, as the international financial markets become increasingly integrated.

Recent legislative and technological changes impacted mainly on the national banking systems and have determined a number of authors to note that the pattern

[1] *Nicolae DARDAC is Prof. In Academy of Economic Studies, Faculty of Finance, Insurance, Banks and Stock Exchange, Bucharest, Romana square no.6, sector 1, nicolae.dardac@fin.ase.ro*
[2] *Iustina Alina BOITAN is Assist. in Academy of Economic Studies, Faculty of Finance, Insurance, Banks and Stock Exchange, Bucharest, and the Centre of Financial-Monetary Research CEFIMO, Romana square no.6, sector 1, iustinaboitan@yahoo.com*

that was at the origin of the banking system's vulnerability is likely to change, so as to reflect the new risks to which the banking environment is exposed. The main arguments for this view are supported by Morttinen, Poloni, Sandars and Vesala (2005) and refer to the continuous increasing of bank exposure to market and operational risk, to shocks arising from the strong relationship with financial non-banking institutions, to the increase of cross border financial activities that induce a currency risk. In addition, financial difficulties or even bankruptcy of a credit institution playing an active role on the interbank market may pose a risk of contagion. The decline of traditional banking activities and credit institutions' increased exposure to new forms of risk has been signaled, too, in the studies of the following authors: King, Nuxoll, Yeager (2006), Moreno (2006), Turner (2006).

In recent years, regulators have established requirements in order to strengthen market discipline, eliminate barriers that restrict the access of foreign credit institutions on the national market, the possibility of developing new business lines and diversifying the range of financial products and services offered to customers (bancassurance, factoring, asset management, investment banking, financial derivatives).

On the technological side, electronic payments, Internet banking services and self banking are a series of services that have revolutionized banking, but at the same time, created preconditions for new forms of expression of operational, legal, strategic and reputational risk.

The process of financial liberalization was one of the underlying factors of the nationwide and across borders amplification of banking activity. The desire for better positioning in terms of market share, the imminent diversification of banking products and services (retail banking, corporate banking, asset management, investment banking, private banking) have prompted large financial institutions to adopt a permissive attitude towards taking excessive risks, focusing on the volume of lending activity, along with relaxation of practices involved in granting and monitoring the concentration of exposure to a certain segment of customers or business sector. In order to mitigate exposure to risk, they have resorted to creating sophisticated financial instruments, through the trading of which they intended to disperse risk to other market players.

In the following, starting from a statement widely discussed in economic studies, according to which crises, especially those affecting the financial and banking system, show a recurrent pattern, we intended to analyze the extent to which the root causes of the current financial crisis find their correspondent in the factors that lie at the origin of the past crises. The article was structured as follows: in the first part we have synthesized the main understanding associated to banking crisis episodes. In the second part, we have presented the macroeconomic, microeconomic and institutional factors which have the potential, from the standpoint of policy makers, to generate episodes of financial sector vulnerability. The third part briefly depicts the chronology of the actual financial turmoil, focusing on its leading factors, and outlines those characteristics common with past crises.

1. The Concept of Banking Crisis

In the economic literature, there have been shaped different understanding regarding the identification and definition of financial turbulence events as episodes of banking crisis.

Analyzing a sample of 69 countries in Asia, Africa and Latin America that have experienced systemic banking crises or significant difficulties in the period 1980 to 1995, Caprio, Klingebiel (1996) revealed that the main characteristics of distress episodes were: the negative impact of the concentration of lending and deposit taking activity in a small number of credit institutions, the high share of bad loans, the solvency and liquidity problems. In addition, deterioration of foreign trade has affected the real sector, and indirectly, the banking sector through credit channel. This latter conclusion is supported by Morttinen, Poloni, Sandars, Vesala (2005), who argue that shocks generated by real sector spread on credit institutions through a series of channels, the most important being the credit one. If shocks occurrence coincides with a state of latent fragility of credit institutions' financial position, it can lead to an erosion of bank capital, to the point where the entire banking system faces a crisis.

Dziobek, Pazarbasioglu (1997) believe that a banking crisis has systemic potential if the affected credit institutions hold at least 20% of total deposits in the banking system. Hardy, Pazarbasioglu (1999) add other two indicators: the volume of deposits as a percentage of GDP and the share of credit in GDP. The first one indicates the extent of deposits' withdrawal phenomenon in the banking system, and therefore a lack of confidence, while the second one captures the degree of financial intermediation.

Among the quantitative indicators of episodes of vulnerability, an important place is hold by those sizing asset quality. Gonzalez-Hermosillo (1999) considered that the deterioration of credit institutions' business may be reported by a ratio of nonperforming loans to total assets exceeding the threshold of 6-8%. Rojas-Suarez (1998) argued that a bank is in difficulty if the weight of bad loans in total assets is greater than the banking system's average in normal periods, plus two standard deviations.

To identify the banking crisis episodes which have at the core endogenous, bank-related deficiencies (for instance a generalized insolvency), Mannasso (2004) proposed to define the crisis as a situation in which bank capital plus reserves surplus is lower than the highest value between nonperforming loans and net provisions.

In the view of Gavin, Hausmann (1998), crises are the result of the interaction between macroeconomic shocks and banks' vulnerability. A bank is considered vulnerable when small shocks affecting asset quality, liquidity or income may generate a severe lack of liquidity or insolvency. Typically, vulnerability increases when banks engage in risky investment or lending activities, with no corresponding increase in bank capital, or when macroeconomic volatility alters the relationship

between bank's assets and liabilities. The permissive granting of loans (lending boom), without a careful analysis of the creditworthiness of the applicant and of the collateral may turn into losses from bad loans, boosting the bank's status of latent vulnerability.

Honohan, Klingebiel (2000) argued that a latent insolvency, widespread in the banking system and manifested a prolonged period, may trigger a bank crisis event. Goldstein, Kaminsky, Reinhart (2000) considered that the onset of a banking crisis may be announced by two events: the phenomena of bank run, leading to closure, merger or takeover of financial institutions by the public sector, or, failing the above phenomena, closures, mergers, takeovers, government assistance provided to an institution or group of financial institutions, which marks the beginning of similar actions, generalized to the entire banking system.

According to Arena (2005), if a significant number of credit institutions record an excessive share of debt to total assets, likely to cause bank run phenomena, the collapse of banking institutions or government intervention, then we have a banking crisis. Villa (2000) suggested two aspects that may indicate the imminence of a state of distress of the banking system: the decreasing price of the shares quoted by credit institutions on a regulated market and the rapid increase in the volume of deposits.

Diamond, Dybvig (2000) understood the concept of banking crisis as a random event, not related to changes in the real economy, which is due to individuals' self-fulfilling expectations. In this context, the authors proposed a model characterized by two states. The first one occurs when a depositor anticipates the imminence of a banking crisis episode and immediately withdraws the amounts deposited. His behavior could lead to a speculative attack from other depositors, a phenomenon called "bank run", which will seek to withdraw their deposits at once, forcing the credit institution to liquidate much of its assets, and even fail. An alternative state is that no one expects a bank run and the banks have sufficient resources to meet withdrawals of deposits. This theory, however, was invalidated by empirical studies. In view of Frydl (1999), a banking crisis is not a singular, isolated event, whose onset can be accurately determined, but one episode diffusely extended over a period of time, without a starting or ending date clearly defined.

Demirguc, Detragiache (1998) provide a quantitative definition, arguing that a banking crisis is characterized by fulfilling at least one of the following conditions:

- nonperforming assets to total assets ratio of the banking system exceeds 10%;
- the cost of the rescue operation is at least 2% of GDP;
- banking sector problems resulted from the widespread nationalization of banks;
- occurrence of wide "bank run" phenomena, generalized guarantee of deposits by the government, "freezing" of deposits, extended bank holidays.

The wide range of understanding of the concept of banking crisis should be interpreted in terms of macroeconomic and institutional characteristics specific to each country, the degree of restructuring, development and regulation of the banking system but also of the effectiveness of supervisory activities. Most studies avoided the explicit, quantitative definition of the concept of banking crisis, just because of the multitude of issues that it can take. Moreover, it is well known the difficulty of precisely determining the onset of the crisis, its triggers, duration and severity.

To fully capture the triggering events, the characteristics and implications of a banking crisis, it is not enough to refer only to the affected credit institutions. Their insolvency was not generated only by individual vulnerabilities, but by the adverse action of one or more macroeconomic culprits.

Although it is widely agreed that each banking crisis, by the mix of factors that lie at its origin, is a unique, complex event, which has its own dynamics, there are several "ingredients" which, to varying degrees, are always present, fact that led many authors to claim that banking crisis episodes show a recurring pattern.

2. Review of the Banking Crises' Leading Factors

In the last two decades, banking crises have become a phenomenon commonly encountered. Economic literature has recorded a wide variety of culprits and effects manifested both domestically and internationally, through the phenomenon of contagion. In the following, we chose to focus on the views accepted by policy makers such as central banks, IMF, ECB or BIS and we reviewed several studies aiming to identify the key factors that precede the episodes of banking activity deterioration (Arteta, Eichengreen 2000; Arvai, Vincze 2000; Goldstein, Kaminsky, Reinhart 2000; Ahumada, Budnevich 2001; OCC 2001; Bergo 2002; Ranciere, Tornell, Westermann 2003; Jagtiani, Kolari, Lemieux, Shin 2003; Mannasoo 2004; Morttinen, Poloni, Sandars, Vesala 2005; Allen 2005; Arena 2005; Demirguc-Kunt, Detragiache 2005; Wolfe, Schaeck, Cihak 2006). The common conclusion of these studies is that, at the origin of banking crises doesn't lie a single factor, but a broad combination of factors, which vary depending on the structural features of an economy and banking system, on the impact of institutional characteristics (financial liberalization process, the presence of explicit schemes of deposit insurance, moral hazard, the attitude of the central bank). From this perspective, there is ample controversy on the prevalence of macroeconomic turbulences on credit institutions' specific factors, in the process of triggering a banking system distress, and, in extreme cases, even a banking crisis.

Llewellyn (2000) argued that "an unstable or unpredictable macroeconomic environment is neither a necessary nor sufficient condition to trigger a banking crisis. The causes must be sought especially in the credit institutions. Ultimately, the origin of banking crises is a defective system of risk management and internal control". This vision is agreed by Gavin, Hausmann (1998), which state that the pressure exerted by macroeconomic factors on the banking system may lead to a

state of insolvency of some credit institutions, but their failure has to be seen as a consequence of individual vulnerability of the institution in question.

Caprio, Klingebiel (1996) and Halme (2000), analyzing the causes of banking crisis episodes in the Nordic countries have systematized three common elements: external shocks ("bad luck"), unsustainable monetary and economic policies, inappropriate for the financial liberalization framework ("bad policy") and excessive risk taking by credit institutions ("bad banking").

Summarizing the most relevant empirical results of the studies that have investigated the origin of banking crises, we can say that they are not, exclusively, the effect of an adverse macroeconomic phenomena, but a complex combination of factors specific to each country's economic and monetary policy, against a background of latent vulnerabilities of the banking system. According to Gavin, Hausman (1998), a credit institution is vulnerable if small shocks applied on profits, asset quality or liquidity create a state of insolvency or illiquidity, which affects the ability of the bank to honor its short-term obligations. In a report published in 2002 by the Basel Committee, a vulnerable credit institution (weak bank) is defined in terms of potential damage of its solvency or liquidity, due to low management performance, inadequate financial resources, lack of long-term sustainable strategies, low quality of the assets' portfolio, poor risk monitoring systems and internal control.

Some authors (Tussing 1967, Macey 1999) point out that in a developed economy, banking bankruptcies are not necessarily a problem, but a sign that ineffective institutions, not adapted to a competitive environment are taken out of the market. Tussing says that it is desirable that an inefficient bank fail, so that the financial resources find productive uses, the credit allocation improve its efficiency according to social priorities and economic growth not being slowed.

This view is supported also by the Basel Committee (2002), which emphasizes that the banking collapse is one of the results of risk-taking in a competitive environment and banking supervision cannot give a definite assurance that banks will not collapse. Protecting the financial system and depositors' interests should not be viewed as incompatible with the bankruptcy of individual banks.

The main factors identified in the economic literature, which had a substantial contribution in triggering a banking crisis, were classified in the following three types: macroeconomic, microeconomic and institutional.

A. The category of ***macroeconomic*** factors includes:

- *Macroeconomic volatility*. A major banking crisis has a macroeconomic component, which can take various forms. On emerging markets, volatility may have internal and external sources. The main ***external sources*** are:

    a. Deterioration of foreign trade.

Kaminsky, Reinhart (1995), Gavin, Hausman (1998) believed that the decline in foreign trade is an important factor preceding banking crises in emerging countries or low-industrialized ones. Small economies, characterized by a concentration of exports to only certain countries or a less diversified structure of exported goods, usually face with significant fluctuations in foreign trade, being likely to be confronted with banking crises, too.

b. The interest rates on the international market

Have an important role by the effect induced on private capital flows. Interest rates fluctuations affect both the cost at which emerging countries can borrow and their ability to attract investment from the international market. Incompletely sterilized capital inflows translate into an increase of the volume of available financial resources, which attracts the expansion of lending.

Internal sources of macroeconomic volatility are the GDP growth rate and inflation rate. When the two rates fluctuate significantly, credit risk assessment becomes difficult. Caprio, Klingebiel (1996), examining the period 1960-1995, noted that the volatility of economic growth and inflation rate recorded an upward trend in countries that have experienced severe banking crisis, while in countries where it occurred only difficulties of the banking sector this trend was not evident. Demirguc, Detragiache (1998) considered that at the origin of banking crises are: a low economic growth, persistent inflation, too high real interest rates and a vulnerability to sudden capital outflows.

Turner (2006) believes that, today, the macroeconomic volatility characteristic to emerging countries has been significantly reduced through the adoption of prudent macroeconomic policies, the development of capital market as an alternative to procure the funds, more flexible exchange rate regimes, increase of foreign reserves, reducing budget deficits and public debt to GDP ratio.

- *Adopted exchange rate regime*

The exchange rate regime implemented may influence vulnerability to speculative attacks, the real value of bad loans denominated in foreign currency or the central bank's ability to act as lender of last resort for banks that are solvent but temporarily short of cash. Domac, Martinez-Peria (2000) examined the extent to which the implementation of a particular type of currency regime affects the likelihood of a banking crisis episode, its cost and duration. Thus, the fixed exchange rate reduces the likelihood of triggering a banking crisis, but, in turn, increases its costs, measured in terms of economic slowdown. The banking crises' duration, however, is not influenced by the degree of exchange rate flexibility.

In the case of a floating exchange rate, the external shock will be associated with nominal exchange rate depreciation and rising domestic prices. This reduces the real value of bank assets and liabilities to an appropriate level of bank solvency.

Real exchange rate volatility can create difficulties to banks both directly, when there is a maturity or currency gap between the bank's assets and liabilities, and indirectly, when the national currency depreciation affects borrowers' repayment ability.

- *Lending booms and capital inflows*

The term "lending (credit) boom" means the rapid expansion of lending compared to the rate of economic growth. Typically, emerging economies whose banking systems are inadequately regulated, creating preconditions for the manifestation of moral hazard, and receiving significant capital flows also face a greater expansion of credit. In this situation, characterized by a rapid expansion in economic activity and consumption, banks find it difficult to assess the risk associated with lending, because most debtors are, at least temporarily, profitable and liquid. In addition, increased competition, as a result of the entry of foreign banks can contribute to a more lenient credit granting.

Although the contribution of this factor to generate a banking crisis is the subject of many studies, an excessive loan growth rate raises, first, its influence on financial stability. Increasing lending can contribute to an asset price boom, to the increase of imports, to the overheating of economy, to the deterioration of balance of payments and current account deficit, to increased inflationary pressures and increased exposure of the banking sector to credit risk. In addition, empirical studies have revealed the presence of a strong correlation between the rapid expansion of lending and bad loans.

- *Collapse of real asset prices (shares and real estate)*

Kaminsky, Reinhart (1995) believe that the severe decline in real asset prices is one of the best culprits of banking crises. Thus, it reduces the debtors' net wealth, who will find it difficult to repay loans. BIS (1996) argued that emerging economies in which private capital flows are ahead of the capital market size will face a high degree of volatility of share prices.

Bordo, Jeanne (2002), Helbling, Terrones (2003) introduced a distinction between different types of real assets. Although expansion of share prices (equity price booms) is more common than real estate prices (real estate price booms), the economic consequences of a contraction in the growth rate of real estate prices are more stringent than those of share prices.

- *Assets and liabilities mismatch, in terms of currency and maturity*

One of the indicators that signal the development and maturing of an economy is the ratio of broad money to GDP (called also degree of monetization of the economy, as it reflects the degree of financial intermediation in a country).

Goldstein and Turner (1996) stated that not any increase of the indicator can be considered benign. If bank debt is increasing faster than the size of the economy and the volume of international reserves, if there is a significant mismatch between assets and liabilities in terms of maturity, liquidity and currency, if reserves and bank capital are not enough to compensate volatility of bank assets and whether the economy is exposed to shocks, then we have the recipe for the increased fragility of the banking system.

Against the background of inflationary pressures, interest rates record high levels, thus increasing the temptation for banks and their customers to denominate their debt into foreign currency. A bank strategy that can be risky if the foreign currency depreciates consists in short-term borrowing in foreign currency on the interbank market in order to finance long-term loans. If the foreign debt position is not hedged, banks will be more vulnerable in the event of a banking crisis occurrence.

Calvo and Goldstein (1996) found that financial liberalization, together with population's access to information and new technologies have contributed to altering the currency composition of bank deposits.

Another risk for banks in developing countries arises from maturity mismatch, because they have less access to long-term financing sources and receive insufficient support from the capital market in terms of enhancing liquidity and risk diversification. Goldstein (2001) argued, however, that the maturity or currency mismatch, alone, cannot generate a banking crisis.

B. The main ***microeconomic*** factors are:

- *Deterioration of the asset portfolio quality*

Whether it was caused by economic reasons, mismanagement, internal fraud, this factor has been identified in most cases of problem banks. OCC (2001) proposed a series of signs of imminent impairment, which can be learned from the off-site reports and on-site examinations:

  - expansion of lending activity without a corresponding increase in provisions;
  - the increasing share of nonperforming loans in total loans;
  - deterioration of economic conditions locally;
  - predominance of long-term loans in the credit portfolio;
  - concentration of credits in certain sectors.

- *Banking strategies focused on rapid growth*

Excessive growth of a bank business, compared to the evolution of economic indicators, is seen by supervisory authorities as a possible precursor of problems arising from poor loan portfolio quality. In addition, aggressive growth, by the problems of adverse selection that induces, increases risk exposure, may distort the banking risk and the standards of collateral's selection, the management quality and internal control.

The negative impact of aggressive strategies, meant to increase the volume of assets, has been demonstrated in the empirical studies of the authors King, Nuxoll, Yeager (2005), Brossard, Ducrozet, Roche (2007). As this strategy requires focus on business expansion, at the expense of monitoring and correcting existing problems, the effects may develop into an increased vulnerability to changes in economic sectors (energy industry, real estate investments), and even bank failure.

Guidelines developed by OCC in 2001 offer a number of clues for the identification of such a strategy:

- there are significant differences between the growth pace mentioned in the bank's budget and that in the strategic plan;
- the risk profile is higher than anticipated;
- risk selection standards and safeguards have been reviewed;
- the structures responsible for internal control experienced minimal changes;
- the sources of funding are unstable or on short term;
- the capital records a rapid decline;
- developing new products and activities without the necessary expertise and without adequate control of new risks;
- the increase is mainly due to agent or broker transactions.

Thus, extending the product range and diversification of business lines acquire negative connotations to the extent they are not accompanied by a corresponding development of the level and complexity of the internal risk management. Supervisors' role is to determine if the size, nature and type of growth can be managed effectively by the bank in terms of internal control structures, training of staff, quality of assets, off balance activities and liquidity.

- *Empowering shareholders, managers, depositors and supervisors*

For a crisis or bank failure prevention to be effective, it is necessary to gather the contribution of shareholders, managers, depositors and the supervisory authority, to

deter excessive risk taking and to impose corrective action. In case of failure to fulfill their mandate, they are all involved in bearing the consequences/losses.

According to Goldstein and Turner (1996), shareholders will elect competent managers and executives, who will seek bank solvency and profitability, only if they are aware that their funds are at risk. Therefore, bank capital will have two functions: protection against exceptional losses and promoting good governance. It is important to clearly establish who will bear the costs of restructuring. If those who have benefited most from risk-taking will be also those who will bear most of costs, then significant shareholders will adopt a more cautious behavior.

The executive management's task is to ensure that internal risk management systems are respected. The top management of a credit institution is directly responsible for the bank's strategy and its attitude towards risk, for the internal organization and the clear, coherent, transparent and well defined allocation of responsibilities and authority, for facilitating communication between hierarchical structures, for audit activities and internal control (Committee of European Banking Supervisors, 2006). In addition, in the context of Basel II requirements, the top management has the obligation to define and implement a capital adequacy framework that respects the rules on minimum capital requirement and the requirements of Pillar 2.

Numerous studies blame the poor quality of management as an aggravating factor of bank insolvency. The managers' decisions have a direct impact on banks' business, as demonstrated by studies that have examined the 1980s and early 1990s, according to which most of bank bankruptcies are due to shortcomings in managerial work (poor management). OCC (2001) proposes a series of elements that can indicate this factor:

- lack of managers' responsiveness to recommendations of corrective action, made by supervisors;
- the board of directors is not informed on key banking activities or adopts a passive attitude, without setting the general direction of action, the nature and extent of risk which may be bear by the credit institution. The alternative is a strong, independent, informed council, with an overview of bank management, to ensure that internal control systems can identify and manage risks;
- failure to comply with laws, regulations, policies and banking practices;
- lack of long term planning, conflicting objectives, inadequate resources to attain the objectives;
- refusal to give supervisors the information requested.

Kasiak (2000) believed that both the responsibilities and penalties applicable to top management must be explicitly stipulated in banking regulations. It is required to monitor the performance of banking activity, to maintain a good profitability, to

outline a strategy that does not prejudice the creditors' interests, that should not adversely affect the liquidity of the institution and banking system stability.

Following several studies on the banking system in Britain, conducted over six years, Sergeant (1999) noted that the lack of a clear, consistent, understood strategy, agreed by all departments of a credit institution, is a common deficiency of all institutions faced with problems. The main weaknesses concern the inadequacy of resources on which the strategy is based (insufficient economic capital, poor technology, inadequate experience and skills of human capital) and inability to adjust the existing strategy, taking into account the economic, social, legal and technological context. The author stresses that top management must demonstrate a thorough knowledge not only of the causes of losses, but also of the sources of profits and risks incurred to achieve those profits. Also, he reiterates the importance of performing regular reviews, based on scenarios, in order to assess potential opportunities and threats surrounding the business of the credit institution.

Depositors, in turn, must acquire an important role in implementing market discipline. Some analysts believe that government involvement in rescuing insolvent banks has undermined the depositors and other creditors' initiative to monitor banking activity. Padoa-Schioppa (1996) argued that depositors are too dispersed, too insignificant and too unsophisticated to exercise some financial discipline on the banking activity.

Regarding surveillance activity, there are suspicions that the legal and political framework could encourage the delay in reporting a bank bankruptcy or imposition of remedies. Honohan and Klingebiel (2000) estimated that the maintenance of insolvent banks in the banking system increased fiscal costs by 7% of GDP.

- *Lack of a rigorous internal control*

Another source of banking activity damage is the lack of differentiation between front office operations and the back office ones, unawareness of the senior management regarding the exact size of risk exposure, lack of backup plans in case of falling computer systems, technical problems, and lack of independent internal audit department.

- *Small size of the banking system*

Empirical research revealed that small financial systems have a low efficiency and are more vulnerable to crises than large ones. In addition, banking systems face an increased risk due to undiversified loan portfolios and concentration of exposures to certain categories of debtors or economic sectors, and the regulatory and supervisory activities are often inadequate.

The negative impact of this factor can be reduced by the entry on the banking market of foreign-owned banks. Empirical studies have shown that banking systems in emerging countries that do not impose barriers to foreign banks have a much lower vulnerability to crises and greater efficiency of banks with domestic capital. Since

1990, the share of foreign banks in national banking systems has increased continuously.

- *Increased off-balance sheet exposure*

Although off-balance sheet exposures are not the main cause of bank bankruptcies, significant increase in their volume in recent years has attracted the supervisors' attention. Due to the widespread use of financial derivatives and securitization, it can be noted an increase in off-balance sheet credit risk.

OCC (2001) stated that, in evaluating off-balance sheet activities, supervisors should take into account the following aspects:

- participation in financial markets without training or expertise;
- high volume of off-balance sheet activity compared with the size and bank risk profile;
- a significant exposure to counterparty risk;
- substantial residual values resulting from securitization transactions;
- accounting errors in recording off-balance sheet items;
- absence of predetermined limits on the amount of activities;
- inadequate internal control mechanisms.

- *Fraud and domestic abuse*

This factor was reported in numerous bank failures, on the background of impaired internal control and surveillance. The immediate effect is reflected in an erosion of the bank's reputation and public confidence. The guide prepared by the OCC (2001) proposes a list of suspicious transactions:

- salaries and excessive bonuses compared to the bank financial results;
- fees paid in advance for services not yet provided;
- preferential interest rates for bank staff;
- unjustified transactions between bank management and customers;
- obstructing access to relevant information;
- sale of low quality assets of other banks;

- unjustified discrepancies concerning cash flows.

Supervisors must review and evaluate the findings of internal and external audit reports on the effectiveness of internal control and separation of powers, to avoid a conflict of interest between the responsibilities of a single person.

C. **Institutional** factors are:

- *Inadequate preparation for financial liberalization*

Few authors question the long-term benefits of the liberalization process in emerging countries. However, there are concerns about new risks banks face, on their ability to monitor, quantify and manage them. Often, the onset of the liberalization process coincides with a rapid expansion in lending, with high real interest rates but also higher volatility on financial markets.

When interest rates are liberalized, banks may lose the protection afforded by their term structure, which kept short-term rates to a level below the long term ones. In addition, raising the restrictions imposed on lending contributes to the recovery of credit demands, and reducing the minimum reserves requirements allows credit institutions to adapt to increased demand for loans. The influx of foreign capital and the entry into the banking sector of new foreign competitors enhance local banks incentives to engage in risky activities, which offer a substantial pay-off and ensure the maintenance/increase of market share.

In this context a special role is given to supervisory authorities, which must have resources and adequate training programs to monitor and assess the risks associated with new activities. Empirical studies have shown that financial liberalization often precedes banking crises.

Kaminsky and Reinhart (1999) showed that many emerging economies in Asia and Latin America have experienced banking crises after a period between three and five years from the beginning of the financial liberalization process. In addition, the authors found that the proxy variables of liberalization (real interest rates and monetary multiplier) have a high predictive power of the banking crises.

It is important to note that not the liberalization process itself creates difficulties for the banking system, but the pace at which it is implemented may not be adequate to the regulatory and supervisory status of a particular country. This process induces excessive risk taking, so that each credit institution must be able to strike a balance between potential loss/costs and expected benefits.

- *Government involvement in banking activity and low control of "connected lending"*

Both factors have an important role in generating banking crises because they allow the interference of government political objectives or personal interests of bank

management in banking activity, impairing profitability and efficiency of financial intermediation. A study of the Basel Committee (1996) found that banking systems characterized by a high proportion of banks with majority state capital tend to be more concentrated, less open to penetration of private-owned banks and show a greater tendency to use public funding for bailing out financial institutions facing difficulties.

Lending decisions of state-owned banks are often suspected of political interference, which encourage credit allocation to certain sectors of the economy or interest groups, without taking into account the borrowers' creditworthiness. Being protected in case of insolvency and with the state covering their losses, these entities do not have initiatives to innovate, to diversify and modernize the business, to identify bad loans, to increase provisions and to control costs. In other words, the state does not promote a competitive attitude in the banking sector. At the macroeconomic level, there is a low economic growth, underdeveloped financial sector, questionable productivity and increased incidence of banking crisis.

A World Bank study (2001) estimated that 40% of world population lives in countries where most bank assets are held by state-owned banks. Although, over time, we noted a decline in this form of ownership, the trend was more evident and rapid in industrialized countries.

Caprio and Honohan (2001) argue that the predominance of state-owned banks is a reminiscent of the 1950-1960 periods, when it was widespread the idea that the government can allocate capital more efficiently than private banks, because they are not interested in financing the poorest segments of society and would be prone to excessive risk taking.

The term "connected lending" refers to loans directed to bank management. Risks attached to this practice refer to a lack of objectivity in granting credit or even fraud, but also to an undesirable concentration of credit risk.

De Juan (1996) believes that in those cases, it is difficult to perform a quality management and to identify and properly provision doubtful loans, as it is unlikely that banks relate to these debtors within the legal framework and, in addition, according to the status held in the bank, they have a guaranteed access to liquidity. Lindgren (1996) indicates preferential credits as a key driver of banking problems in Argentina, Bangladesh, Brazil, Chile, Indonesia, Malaysia, Spain and Thailand.

- *Legal and accounting permissive framework*

Analysts say that there are emerging countries where the legal and accounting framework is underdeveloped, without imposing strict and clear rules for monitoring, assessment and penalty, which prevents the exercise of market discipline, of an effective banking supervision and the conduct of a profitable banking activity.

In some countries, accounting conventions that classify bank assets as being nonperforming are not stringent enough to prevent inclusion of doubtful loans in a higher, favorable category. Thus, there is the phenomenon of "ever greening", which consists in granting a new loan to a borrower who already has an outstanding debt in the repayment of the first loan. This practice is met frequently when the only criterion for classification of loans is the status of payments and not the debtor's creditworthiness or market value of collateral. For example, in Thailand, Philippines, Malaysia and Taiwan, before the onset of the crisis, loans were considered nonperforming only if there were arrears of payment between 6-12 months.

If bad loans are systematically undersized, the provisions will not be sufficient, and periodic reports of the net profit and capital will be overstated, distorting the supervisors and public's perception on the bank solvency, profitability and soundness. These distortions in identifying the true bad loans may be the reason for which the bank capital hasn't a significant predictive power in identifying banking crises. In addition, De Juan (1996) advises supervisors to focus on the good loan portfolio, not on those bad loans.

Sinn (2008) believes that the current accounting referential, represented by the International Financial Reporting Standards (IFRS) do not weaken the effects of contagion arising from asset price changes. Thus, if the price of assets held by credit institutions varies, they are required to reassess and reflect it in the quarterly financial statements. Regular reporting of unrealized gains and losses boosts the volatility of the institutions' share price, which then spreads in the financial system.

The distinction between healthy credit institutions and insolvent ones is often hampered by the absence of financial statements on consolidated exposure of banks, by the lack of uniform reporting for banks in the same banking system, by non-periodic publishing of key financial data, by not applying penalties for failure to draw up correct reports for the supervisory authority.

To these we can add the difficulties in assessing the creditworthiness of customers, because of the lack of adequate credit scoring. Typically, assessing the creditworthiness takes into account the following issues: cash flow, capital, collateral, behavior and vulnerability to the economic climate.

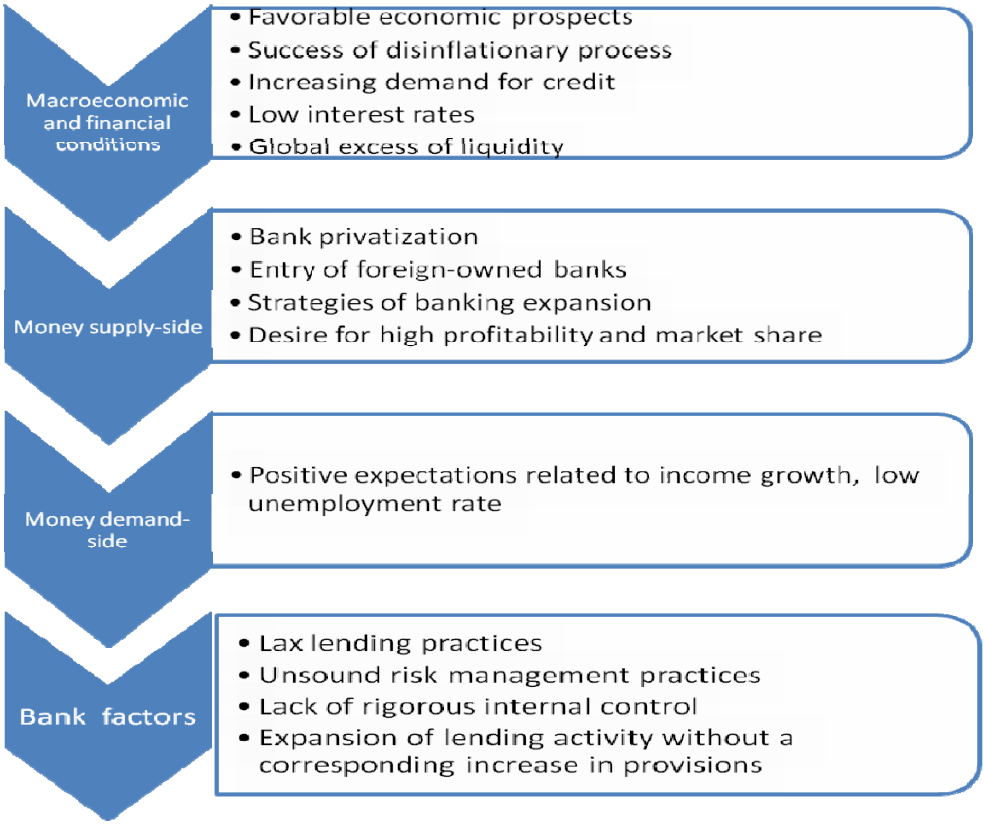
- *Asymmetric information*

It affects the ability of the financial system to function effectively and fairly, and the banking system in particular, by preventing the efficient allocation of credit. Mishkin (2000) suggested that credit institutions, compared to other financial intermediaries, have specific advantages that enable them to address the problems induced by asymmetric information. The concept of asymmetric information is presented in two ways: adverse selection and moral hazard. The economic literature is the field of extensive controversies about the role of asymmetric information, and in particular of deposit guarantees (as a driver for moral hazard) in triggering a banking crisis event. Demirguc-Kunt, Detragiache (1998), Cull (1998), Demirguc-

Kunt, Kane (2002) revealed that explicit deposit guarantee schemes and the degree of effectiveness of legal regulations, specific to each country, have a significant importance, constituting a risk factor. Instead, Arteta, Eichengreen (2000) reject the hypothesis that deposit guarantee schemes, the process of financial liberalization and the underdeveloped institutional framework would increase the probability of a crisis event.

Figure 1

Features triggering banking latent vulnerabilities



Allen (2005) brings into question the link between moral hazard and a potential crisis. Thus, if there are governmental or international institutions guarantees, then banks, creditors, or those who benefit from the guarantees will be stimulated to take risks, gaining profit (upside potential) and leaving the loss on the insurer account (downside risk). If such practice is widespread, it may generate a financial crisis.

Usually, banking system vulnerability accentuates in times of sustained economic growth, when, at least on short and medium term, investment projects are profitable and borrowers are solvent. Also, banking activity, characterized by permissive lending standards and a forbearing risk attitude represents the germ of potential

capital erosion. In figure 1 we have summarized the main factors that lead to banks' latent weaknesses.

3. The Current Financial Crisis – Causes, Characteristics and Implications

The current financial crisis marked the end of a period characterized by eagerness for profits and increasing risk taking. To counter its effects it had been necessary the timely and concerted intervention of the international financial organizations, central banks and governments, which took urgent measures, designed to restore confidence in the international financial system and provide liquidity. This appeared, in August 2007, to be a problem of the U.S. subprimes mortgage market, then it transformed into a global financial crisis, currently underway. Financial markets have begun to record serious disruptions, threatening the robustness of financial institutions and their capacity to meet current shocks.

Although it is widely agreed that at the origin of the crisis was an accumulation of factors, there is no consensus on the elements that held the decisive role in its onset.

According to the OECD Competition Committee, the main factors are the excessive global liquidity and the absence of regulations on risk management associated with new securitized financial instruments, allowing the transfer and trading of credit risk as a distinct asset class (CDO – collateralized debt obligations and CDS – credit default swaps).

Torre, Ize (2009) classify the failure of prudential regulations in three categories:

- failure of the goal, because it was believed that the market penetration of non-regulated, small intermediaries will not exert adverse effects on financial stability. These intermediaries attracted funding from the interbank market and granted mortgage loans, which then they took out from the balance sheet, in the form of issuing unregulated securitized instruments represented by CDO or CDS. In the process of risk outsourcing were involved mainly unsophisticated investors, allowing non-regulated intermediaries to grow rapidly, to become major players of the market. Once the crisis triggered on the subprime market, it was necessary to include them, too, in the safety net mechanism.

- failure of focus. At the regulatory level, there is a clear distinction between ex ante prudential regulations, whose purpose is to monitor the quality of bank assets and capital adequacy to risks, and the ex post regulations, implemented after the occurrence of an adverse event, represented by the safety net mechanism. In this case, however, asset quality has been obscured by the widespread use of securitization practices and by the investment grade ratings provided by rating agencies for the securitized financial instruments. A second error lies in the fact that prudential regulations have focused on monitoring the soundness of each financial institution in part, starting from the premise that the sum of all credit institutions forms a solid and solvent banking system. Also, there were not considered the interdependencies between financial institutions,

manifested both in the interbank market and in the unregulated securitization market (shadow banking system). Thirdly, regulations considered only traditional, statistically observable risks.

- failure of implementing a dynamic approach. Basel II requirements are static, independent of economic cycles, whereas it was considered that maintaining a minimum level for regulated capital would be sufficient to support banking system stability, regardless of business cycle fluctuations. In addition, the accord has not surprised the dynamic link, the need of interaction between monetary and prudential policy.

Moreover, the financial advisory firm Greycourt argues that factors such as superficial risk monitoring, high degree of indebtedness, ignorance of the explosive development of the mortgage market were, indeed, precursors of the crisis, but its origin must be sought deeper, in the progressive collapse of ethical behavior in financial markets, particularly as regards integrity and accountability to customer welfare. Tetangco (2009) argues, in turn, that the current situation is due to the market psychology, characterized by greed, ignorance, herd behavior, misuse of information, exuberant irrationality.

Noyer (2008) considers that the current crisis derives from an evaluation problem, particularly regarding the accounting treatment of financial instruments. Application of the accounting principle which requires the valuation of financial instruments at fair value, as market prices change, illustrates the value of a company or business at a time, but, from a prudential perspective, it distorts the forward looking analyses on financial instruments and risk management practices. In addition, uncertainty surrounding the real value of complex financial instruments undermines confidence in global financial markets, reinforcing fears of counterparty risk and generating contagion effects between the different classes of assets, financial markets and economic areas. The author stresses that the application of the fair value principle should be revised, whereas it increases sensitivity of financial institutions' balance sheet positions to market fluctuations, and, ultimately, may affect the very financial stability. Amis, Rospars (2005), Caruana, Pazarbasioglu (2008), Clerc (2008), Matherat (2008) adhere to this view, too.

In the following we make a brief foray into the factors that preceded the international financial crisis, taking into account the evolution and dependencies between them.

Ever, the traditional function of credit institutions was the mediation of supply and demand for money surplus, a basic requirement being that of allocating financial resources in terms of care (to avoid credit portfolio concentration on certain categories of borrowers, loan types or economic sectors; continuous monitoring of risk exposure; compliance with prudential norms on capital adequacy) and efficiency (selection of productive destinations, generating value added for the economy and society). ***Excess liquidity,*** created not only through the process of saving, but especially by substantial capital inflows, overlapped with an intensely competitive banking environment in emerging and developed countries.

The desire for an advantageous placement on the market, in terms of profitability and market share, led credit institutions operate at the limit of complying with prudential banking regulations. They launched in an ***aggressive lending*** activity, whose characteristics were represented by the relaxed lending standards and reduced costs of borrowing. Since the main focus of credit was the purchase of durable goods and investment in real estate sector, real asset prices have increased gradually. Moreover, economic literature highlights the potential of the relationship between credit and ***asset price boom*** to be a major source of financial instability.

Credit market in the U.S., particularly the mortgage segment, saw a rapid dynamic, which has fueled the increase of residential real estate prices. Unrealistic expectations and exaggerated optimism on prospects of economic expansion have led lenders to operate on the basis of extremely lax lending practices (small amount of the advance or even its absence, superficial assessment of customers' creditworthiness, of their ability to repay debt). The absence or lack of interest in the implementation of rigorous analyses and risk management procedures have contributed to the excessive concentration of loan portfolio in real estate sector, financial institutions being directly exposed, because of mortgage loans granted, or indirectly, because of collateral brought by debtors as warranty. In addition, most of the long-term funding granted, and, therefore, of the bad loans came from investment banks, which were not the subject of prudential supervision.

On the other hand, excessive global liquidity has helped to reduce ***interest rate*** for risk-free assets and to boost demand for profitable assets, providing a high efficiency. In the context of optimistic macroeconomic climate, financial intermediaries had an incentive to create new, complex financial instruments, without taking into account the risk embedded.

Torre, Ize (2009) offer three possible explanations to the risk appetite of financial intermediaries:

a) intermediaries knew the risks assumed, but they believed they can get the win, leaving the losses in the account of the less informed (the moral hazard paradigm);

b) intermediaries knew the risks assumed, but preferred to outsource the costs and risks (the negative externalities paradigm);

c) intermediaries did not fully understand the risks assumed, but, like other market participants, reacted emotionally to the financial innovation momentum, moving from an exaggerated optimism to panic (uncertainty paradigm).

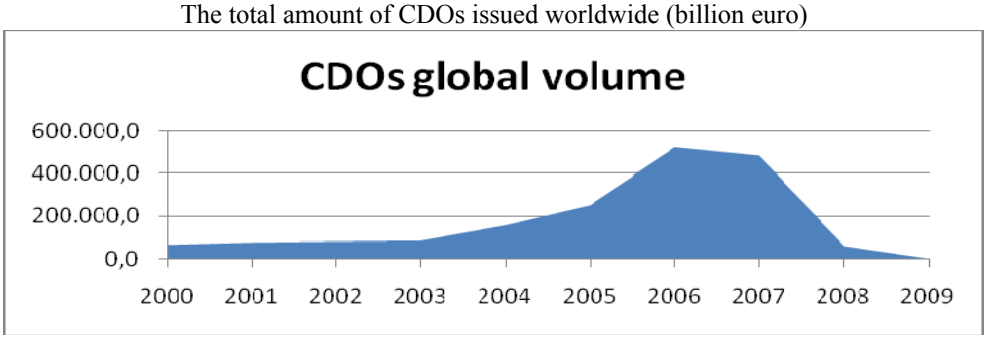
In our view, the interest in the ***financial innovation process***, through the widespread use of derivatives (especially credit derivatives) and securitization, shows that financial institutions were aware of the negative potential of risk exposure concentration and of the lax attitude in providing loans, and hence, they have proceeded to a dispersion of risk to other players in the market. However, they ignored the risks associated with the new financial instruments created. The

securitization process allowed financial institutions to convert their loans into mortgage or asset backed securities (MBS or ABS), which subsequently had been repackaged into collateralized debt obligations (CDOs) and other financial structured products of great complexity. In addition, the desire to improve profitability led financial intermediaries to buy the structured products issued by other financial institutions, contributing to a severe concentration of risk in the banking system.

In order to fully understand the amplitude of this process, we have depicted the outstanding amounts of securitized products issued worldwide (see figure 2) and separately for Europe (see figure 3).

Figure 2

The total amount of CDOs issued worldwide (billion euro)

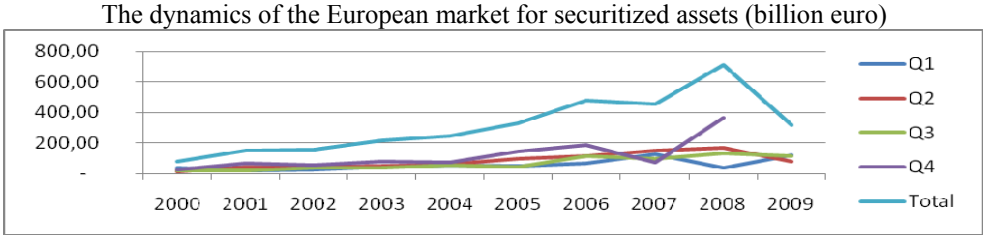


Source: the authors, data collected from The Securities Industry and Financial Markets Association (SIFMA)

The peak of global CDOs issuances has been touched in 2006, in amount of 520.644,6 billion euro. Year 2007 witnessed a small decrease of 7.5% (computed on a year-on-year basis); 2008 recorded a severe drop of 87.15 percent relative 2007, while in 2009 the contraction augmented at 93.21% (only 4.204,4 billion euro new CDOs issued).

Figure 3

The dynamics of the European market for securitized assets (billion euro)



Source: the authors, data collected from The European Mortgage Federation (EMF)

In Europe, the issuance of securitized titles, irrespective of their type, followed a relatively similar trend with the global one, but at significant low amounts, with a local maximum in 2006, followed by a small decrease of 6% in 2007. The peak has been reached in 2008, in an amount of 711.3 billion euro, due maybe to the ignorance of the potential contagion effects driven by the subprime crisis in US. In

2009, the most active European countries, in terms of issuance of securitized debt, were: UK with 613.3 billion euro, Spain with 247.9 billion, Netherlands with 223.8 billions, Italy with 196.4 billion and Germany with 88.2 billion. It is worth to mention that the United Kingdom's securitization market is the oldest and most developed in the world, after the US one. Traditionally, it is the first in Europe to issue securitized debt and it has the most complete credit market, especially on the mortgage sector.

The European Mortgage Federation (2008) proposes as main recommendation the avoidance of making any parallel between the EU's and USA's mortgage markets as they are not comparable. It notes that "the EU has neither the USA's problem of *toxic* sub-prime loans, nor its problem of bad securitization issuance (the repackaging and selling-on of such *toxic* loans)". Moreover, it is outlined that "the current crisis in the EU is a secondary symptom resulting from the exposure of European banks to the USA's *toxic* loans, due to the wide redistribution of these loans through an insufficiently transparent securitization process".

On the other hand, if we look at a country by country basis, UK has the most resembling mortgage market with the US. The most securitizations originated in the UK have involved residential mortgages, and, as pointed out by Peterson (2008) "tend to show similar structural patterns to those in the U.S". Another similitude with the US is that UK has an active securitization market for both prime and subprime mortgage loans, in fact being the only country in Europe that has provided subprime loans to borrowers.

According to the Report of the mortgage funding expert group (2006), in many European countries (Denmark, Germany, Spain, France, Italy, Austria, Poland and Portugal) mortgages are originated directly, via bank branches, while indirect distribution, via an intermediary or mortgage broker is increasing and is particularly important in countries such as Hungary, Ireland, Netherlands, and the UK.

Thus, from the traditional "originate and hold" model, in which a financial institution providing a mortgage loan retained the default risk, through securitization the mortgage market has evolved to an "originate and distribute" model, in which the risk of default was transferred to other investors. The mechanism by which mortgage loans of questionable quality, with increased risk potential, were removed from financial institutions' balance sheet, consisted in grouping of a number of loans in homogeneous risk tranches, and the issue of certain tradable securities called mortgage-baked securities. According to the risk appetite, each institutional investor purchased the desired tranche, taking not only the possibility of achieving substantial gains but also the associated risk. It is worth mentioning that these securitized products often carried investment-grade ratings, established by ratings agencies, meaning that an opaque, questionable liquid asset carries lower risk than other assets and implicitly a lower level of regulatory capital. In other words, securitization gave the opportunity to transform an asset rated as below-investment grade (the pool of mortgage loans) into an AAA or other investment grade liabilities.

Conflicts of interests in which were involved in the ***credit rating agencies*** and deficiencies recorded by rating methodologies have significantly contributed to the erosion of investors' perceptions of credit risk exposure. In addition, the ability to resell securities increased risk dispersion, beyond national borders.

A study published in 2009, focusing on the default rates recorded by global structured finance securities rated by Fitch Ratings, revealed that "the RMBS and CDO sectors continued to produce the bulk of the year's downgrade (83%). Credit quality deteriorated across all regions in 2009, but to varying degrees of severity. Downgrade rates across North America, Europe and Asia Pacific were 59%, 36% and 22%, respectively".

Table 1

The 2009 Transition Pattern of AAA Fitch Ratings (%)

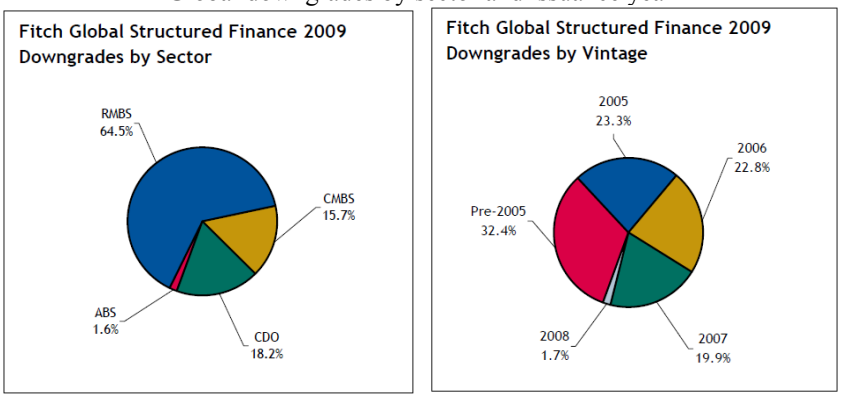
	Stable rating	Downgraded to investment grade	Downgraded to noninvestment grade
Global structured finance	75.5	14.5	10.0
ABS	97.1	2.6	0.3
CDO	46.9	37.3	15.8
CMBS	87.1	11.6	1.3
RMBS	71.7	13.2	15.0

Source: Credit market research: Fitch Ratings global structured finance 2009 transition and default study, p. 2.

As table 1 summarizes, over the year 2009, from all the global structured finance securities rated AAA by Fitch Ratings, 75.5% remained stable, 14.5% had been downgraded to an investment grade and 10% to noninvestment grade. If we examine the AAA rating migrations for the four structured finance sectors (ABS, CDO, RMBS, CMBS), we note that the majority of these downgrades consisted in movements to other investment grade categories. The hardest hit was the AAA CDO sector, with a cumulative downgrade rate of 53.1%.

Figure 4

Global downgrades by sector and issuance year



Source: Credit market research: Fitch Ratings global structured finance 2009 transition and default study, p. 2.

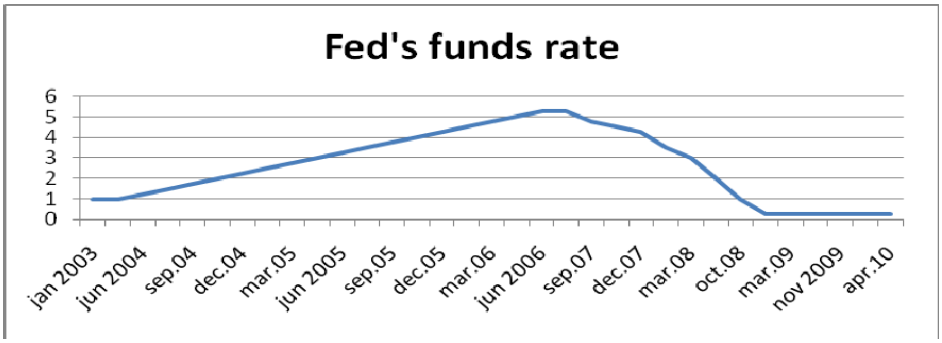
From a global perspective, irrespective the rating assigned to each structured finance sector, the first place in the hierarchy of the most impaired sectors is occupied by RMBS (securities issued on behalf of a pool of residential mortgage loans), followed by CDO, CMBS and ABS (see figure 4). If this analysis is made according to the issuance year, the structured products brought to market before 2005 recorded the highest impairment rate (32.4%). The issuance years of 2005-2007 account for almost 66% of the impaired securities in 2009.

Although the benefits of credit derivatives and securitization, in terms of risk transfer are well known, the diversity of contractual characteristics, the high degree of sophistication, the inability of the supervisory authority to keep pace with financial innovation, evidenced by the absence of regulations which explicitly stipulate a maximum limit of the exposure to this type of instruments, to which added very positive expectations regarding the expansion of the housing market, the existence of liquidity in the market and timely repayment of the monthly rates by borrowers, have been another catalyst of the financial crisis and stood at the origin of its global spread.

Triggers of the crisis were the existence of a *surplus supply of residential properties*, which marked the start of a trend of falling house prices and the actions taken by Fed in order to mitigate the inflationary pressures, leading to a gradual *increase in the monetary policy interest rates,* until mid 2007 (see figure 5).

Figure 5

Historical evolution of the Federal Reserve funds rate



Source of the data: http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html

The subprime mortgage market collapse in the U.S., in the second half of 2007, marked the beginning of a period characterized by profound financial turmoil in the financial markets and national economies, the erosion of confidence in the financial system.

In the U.S., the five largest investment banks had been deeply affected: Lehman Brothers went bankrupt, leaving the banking scene, Bear Stearns was taken over by JP Morgan Chase and Merrill Lynch by Bank of America, meanwhile Morgan Stanley and Goldman Sachs have notified Fed on their intention to become commercial banks. According to the authors Demirgüç-Kunt, Huizinga (2009), the

U.S. has come a full cycle in the regulation of financial activity, from the separation of financial institutions into commercial banks and investment banks (the Glass-Steagall in 1933), the return to universal banking activity (the Gramm-Leach-Bliley in 1999) and the disappearance of large investment banks in 2008.

The first phase of the crisis had been characterized by a lack of liquidity and confidence in financial markets, central banks and governments acting together and providing liquidity to stabilize the banking systems and maintain their ability to finance the economy. Since the second half of 2008, the episode of financial turbulence has evolved into a global crisis that has subsequently acquired an economic nature. Contraction of credit, both on the supply-side, as a result of tighter lending standards, and demand-side, due to public reluctance to seek bank financing, was reflected in a decrease in private consumption and investment, resulting in a severe adjustment of economic growth and trade balance. Compression of economic activity directly affected the labor market, unemployment rate registering a rapidly expansion in most countries. In these circumstances, a private sector characterized by high levels of debt will face repayment difficulties, which will further impair the loan portfolio quality and solvency of financial institutions, increasing their reluctance to finance the real sector. In the absence of prompt macroeconomic and monetary policies, there is risk of entering a spiral in which the decline of economic activity and restricting access to bank financing is fueling each other. In our opinion, the pace of economic and financial recovery depends, critically, on how quickly will be restored consumer and investors' confidence in economic prospects and in financial system's soundness and viability.

Table 2

Old and new triggers of the current financial crisis

Old features	New features
Preceded by a period of rapid pace of credit growth	Securitization process, through which the mortgage market has evolved from an "originate and hold" to an "originate and distribute" model
Abundant liquidity on financial markets	Creation of sophisticated, unregulated financial products, such as MBS, CDO, CDS in order to spread risks (shadow banking system)
Rapid developments in the real estate sector, which created the premises for a real estate bubble	Misjudged rating scores provided by credit rating agencies distorted investors' perceptions on risk
Unrealistic expectations and over-optimism on prospects of economic expansion	The minimum capital requirements had been determined in a static, mechanical manner
Low risk premium	Deficiencies of financial institutions' internal risk models and weaknesses of stress testing practices
Weaknesses of surveillance activity and regulation	The continuous integration of financial markets has stimulated: i) the transfer of large capital flows between countries; ii) credit risk spread within and between financial markets
	The development of large banking groups and the rapid pace of domestic and abroad territorial expansion enhanced the cross-border contagion

Source: the authors

Starting from Honohan's statement "crises are not all the same, but they are not all different either", we show, in the following, that there are several common features between the current global financial crisis and a series of earlier crisis episodes (such as the Japan and the Nordic countries in the early 1990s, the Asian crisis in the late-1990s).

The key distinction between past episodes of financial turmoil and the current crisis is given by the unprecedented severity, the pace of contagion on international financial markets and its global dimension. As the European Commission report (2009) notes, *"although a large number of crises have occurred in recent decades around the globe, almost all of them have remained national or regional events – without a global impact"*. However, when performing historical comparisons across different time periods, one has to pay attention to fundamental differences regarding the structure of the economy, degree of globalization, nature and speed of financial innovation, type of financial institutions, economic thinking and policies.

Reinhart, Rogoff (2008) justify the inability of international institutions to report the imminence and severity of the current financial crisis through the "this time is different" syndrome. It induces the illusion that the economic outlook is favorable, since each country has learned from past mistakes, enjoys the benefits of globalization, of technological advance, of financial innovation, the economic growth is founded on structural reforms, there is a balanced macroeconomic policy mix, etc. In other words, there wasn't a motivation for international financial institutions to monitor the common factors that have contributed to the outbreak of past episodes of financial turbulence, since they considered that every time a new, exceptional, distinctive factor intervenes, capable to alter the accuracy with which the potential crisis episodes had been forecasted.

An approach similar to that proposed by Reinhart, Rogoff (2008) is given by the concept of "disaster myopia", which attributes the poor predictive performance of the current financial crisis to the attitude of financial institutions. Thus Ergungor, Thomson (2005) define bankers' actions as falling under the concept of disaster myopia when they underestimate the likelihood of an economic shock, since its historical frequency is very low.

Although the epicenter of the financial turmoil originated in the U.S., the shock waves felt around the world, affecting both developed and emerging countries. National economies were affected with different magnitude, depending on endogenous vulnerabilities and banking systems' exposure to toxic assets.

The severe contraction of economic growth has spread to Europe through two channels: the declining trade between countries and reducing of capital inflows. Moreover, for the euro area countries, the risk of contagion had been attenuated because they have eliminated the exchange rate channel.

Actions taken by monetary authorities and national governments to limit the impact of the crisis consisted in the simultaneous implementation of three types of measures:

a) governmental support for the recapitalization of financial institutions and restore their ability to finance the economy;

b) central banks have acted primarily towards reducing the monetary policy interest rate to stimulate lending and consumer behavior. To restore confidence in the financial system, the measures taken have focused mainly to extend deposit guarantee ceiling, to remove non-performing assets from banks balance sheet and liquidity injections. Many authors, however, observe that providing additional liquidity must avoid taking excessive credit risk or encouraging moral hazard. One way is by approving repurchase agreements, whereby the central bank is exposed at counterparty risk, but not at the default risk, because it has the opportunity to unilaterally select the quality of collateral.

c) macroeconomic policies to stimulate aggregate demand and limit the impact of the crisis on the real economy. From the mix of macroeconomic policies, the authorities have chosen especially the implementation of monetary policy measures (gradual reduction of monetary policy interest rate, of the minimum required reserve ratio) and fiscal ones (tax stimulus, in the form of reducing taxes, increasing budget spending for investments in infrastructure, transport, education, health). Country-specific macroeconomic characteristics (existence of fiscal deficits or excessive current account deficit) restrict, however, the operating space in the implementation of discretionary, expansionary measures. Diminishing incomes in the state budget has led some countries to apply pro-cyclical measures, such as lowering wages or freezing their rate of increase, layoffs in the budgetary sector, which had the opposite effect than the desired one, as private consumption and investments' compression augmented. A solution in this regard could be the use of loans obtained from the IMF and the EC to finance public investments, without putting pressure on the budget deficit. To achieve this purpose, exceptional tax measures adopted by government must be accompanied by a plan for their removal once with containing the effects of the crisis. Tetangco (2009) argues that making budgetary expenditures should respect the rule of the four T: timely, targeted, transparent and temporary.

Conclusions

Although the phenomenon of banking crisis doesn't have a uniform, widely accepted definition, and its duration and severity, reflected by the costs incurred, are difficult to be quantified, its effects on affected countries follow a similar pattern and create, inevitably, a state of economic instability. The current global financial crisis isn't an exception.

At its origin we have identified both traditional factors, common to past crisis episodes (rapid expansion of credit, plentiful liquidity in financial markets, low risk premium, real asset prices' growth, unrealistic expectations and optimism about the prospects for economic expansion, deficiencies of the regulatory and supervisory framework), and new factors, specific to the current context of globalization and financial innovation (sophisticated financial products; securitization; static

determination of minimum capital requirements; weaknesses in financial institutions' internal risk models; amplification of the cross-border nature of banking activity).

The response of government and monetary policymakers has been timely, targeted towards regaining investors' confidence in the soundness and stability of the financial system and unfreezing various segments of the financial market. The measures taken by governments in various countries consisted in bailing out financial institutions through large scale recapitalization programs, capital injections, purchases of toxic assets and a temporary expansion of the deposit guarantee ceiling. From the perspective of monetary policymakers, the restoration of the financial markets' normal functioning has been a difficult and costly task. At first, central banks have acted aggressively in order to cut the monetary policy interest rate. As it approached the level of 0%, several major central banks (Bank of England, Bank of Japan, the Federal Reserve, ECB) have decided to abandon the traditional strategy of interest rates targeting and to implement some unconventional monetary policy measures designed to extend the money supply, which have significantly altered the central banks' balance sheet size, composition and risk exposure.

We can say that the immediate benefit was the substantial decline in the liquidity premium, although there still remains the counterparty risk, which helped to improve the financial institutions' ability to attract short-term financing in the money market, at a low price, without no longer rely on the financial support from central banks. The extent to which the effects of the unconventional monetary policy measures will spread on the economy, relaunching lending to the private sector, which will lay the foundation for further economic recovery, depends however, by the attitude of individual financial institutions. For now, there are no signs that they have proceed to a relaxation of lending standards, which reflects not only a precautionary attitude to risk exposure, but rather that their balance sheet is still affected by the losses of the previous years.

Although the current crisis has brought into attention the need of reforming some key aspects of business regulation and supervision (diminishing the pro-cyclical character of Basel II Accord, the securitization process, greater transparency of credit market and of structured financial products market, mitigating conflicts of interest, a more judicious assessment of credit risk, monitoring credit rating agencies, etc..), it is important that this process be a proactive one, not just a rigid reaction to causes which triggered the financial crisis and not inhibit the further development of financial markets and the financial and economic integration process at European level.

Undoubtedly, in the process of implementing those measures designed to mitigate the impact of the crisis, there are many nuances from one country to another, imposed by financial system's vulnerabilities and macroeconomic imbalances, which limits the room for maneuver of monetary and fiscal policy.

The unanimous opinion outlined the need to implement a mix of monetary and fiscal policy measures, on short and long term, international cooperation being essential to achieve the result desired, that of stabilizing the global financial system and restoring investors' confidence.

References

1. Ahumada A.C., Budnevich C.L. (2001) "Some measures of financial fragility in the Chilean banking system: an early warning indicators application", Central Bank of Chile Working paper no.117.
2. Allen F. (2005) "Banking crisis resolution: lessons learnt", Banking crisis resolution: theory and policy, Norges Bank, June 16-17, 2005.
3. Arena M. (2005), "Bank failures and bank fundamentals: a comparative analysis of Latin America and East Asia during the nineties using bank-level data", Bank of Canada working paper 2005-19.
4. Arteta C., Eichengreen B. (2000), "Banking crises in emerging markets: presumptions and evidence", Institute for Business and Economic Research, C00-115.
5. Arvai Z., Vincze J. (2000) "Financial crises in transition countries: models and facts", National Bank of Hungary Working Paper, 2000/6.
6. Bair S.C. (2009) "Managing the transition to a safer financial system", Banque de France, Financial Stability Review no. 13, September 2009.
7. Basel Committee on Banking Supervision (2002), "Supervisory guidance in dealing with weak banks".
8. Bergo J. (2002) "Using financial soundness indicators to asses financial stability", IMF Conference September 16-17, 2002.
9. Bordo, M, Jeanne O. (2002), "Boom-Busts in Asset Prices, Economic Instability, and Monetary Policy", NBER Working Paper 8966, National Bureau of Economic Research, Cambridge.
10. Bordo M.D. (2003) "Market Discipline and Financial Crisis Policy: An Historical Perspective", Contemporary Economic Policy Session: Market Discipline in Banking: Theory, and Evidence. Western Economic Association International Meetings, Denver Colorado, July 13 2003.
11. Brossard O., Ducrozet F., Roche A. (2007) "An early warning model for EU banks with detection of the adverse selection effect", Cahiers du GRES no.2007-08
12. Caprio G.Jr., Klingebiel D. (1996)"Bank insolvency: bad luck, bad policy or bad banking ?", Annual World Bank Conference on Development Economics.
13. Cihak M., Schaeck K., Wolfe S. (2006) "Are more competitive banking systems more stable?" IMF Working paper no. 143
14. Committee of European Banking Supervisors (2006) "Guidelines on the application of the supervisory review process under pillar 2"
15. De Juan, A. (1996) "The Roots of Banking Crises: Microeconomic Issues" in R. Hausmann and L. Rojas-Suárez Eds., Banking Crises in Latin America. Inter-American Development Bank, Washington, D.C.
16. Demirgüç-Kunt A., Detragiache E. (1998) "The determinants of banking crises in developing and developed countries" IMF Staff Papers vol.45, no.1.
17. Demirgüç-Kunt A., Detragiache E. (2005) "Cross country empirical studies of systemic bank distress: a survey" IMF Working paper WP/05/96.
18. Demirgüç-Kunt A., Servén L. (2009) "Are All the Sacred Cows Dead? Implications of the Financial Crisis for Macro and Financial Policies", The World Bank Policy Research Working Paper 4807.
19. Diamond D.W., Dybvig P.H. (2000) "Bank runs, deposit insurance and liquidity", Federal Reserve Bank of Minneapolis Quarterly Review, vol. 24, no.1, pp. 14-23.

20. Domac I., Martinez-Peria M.S. (2000) "Banking crises and exchange rate regimes: is there a link ?", The World Bank.
21. Dziobek C., Pazarbasioglu C. (1997) "Lessons from systemic bank restructuring: a survey of 24 countries", IMF Working Paper WP/97/161.
22. Ergungor O.E., Thomson J.B. (2005) "Systemic Banking Crises", Federal Reserve Bank of Cleveland, Policy Discussion Paper no.9, February 2005.
23. European Commission (2009) "Economic Crisis in Europe: Causes, Consequences and Responses", European Economy series no. 7/2009
24. European Commission Mortgage Funding Expert Group (2006), Report of the Mortgage Funding Expert Group 6 (Brussels) 22 December 2006.
25. European Mortgage Federation (2008), Annual report, Strategy and policy issues, p.6
26. Fitch Ratings (2009) "Credit market research: Fitch Ratings global structured finance 2009 transition and default study".
27. Frydl E.J. (1999) "The length and cost of banking crises", IMF Working Paper WP/99/30.
28. Gavin M., Hausmann R. (1996) "The roots of banking crises: the macroeconomic context", Inter-American Development Bank, working paper 318
29. Goldstein M., Turner P. (1996) "Banking crises in emerging economies: origins and policy options", BIS Economic Papers no.46.
30. Goldstein M., Kaminsky G, Reinhart C. (2000) "Assessing financial vulnerability: an early warning system for emerging markets", ISBN paper 0-88132-237-7 | 978-0-88132-237-8
31. Gonzalez-Hermosillo B. (1999) "Determinants of ex-ante banking system stress: a macro-micro empirical exploration of some recent episodes", IMF Working Paper no.33
32. Hardy D.C., Pazarbasioglu C. (1999) "Determinants and leading indicators of banking crises: further evidence", IMF Staff Papers 46(3): 247-58.
33. Helbling, T., Terrones M. (2003), "When Bubbles Burst", World Economic Outlook April, 2003:Chapter II, International Monetary Fund, Washington.
34. Honohan P. (2005) "Stylized facts from recent worldwide experience", the Norges Bank Conference "Banking Crisis Resolution – Theory and Policy", Oslo, June 16-17, 2005
35. Honohan, P., Klingebiel D. (2000), "Controlling the fiscal costs of banking crises",
36. World Bank Policy Research Paper, No. 2441, World Bank, Washington DC.
37. Jagtiani J.A., Kolari J.W., Lemieux C.M., Shin G.H. (2002) "The determinants and early detection of inadequate capitalization of US commercial banks".
38. Kaminsky G.L., Reinhart C.M. (1999) "On crises, contagion and confusion", forthcoming in Journal of International Economics.
39. Kasiak T. (2000) "Banking supervision and the stability of the banking system", National Bank of Slovakia.
40. King T.B., Nuxoll D.A., Yeager T.J. (2006) "Are the causes of bank distress changing ? Can researchers keep up ?", Federal Reserve Bank of St.Louis Review.
41. Larosière J. (2009) "The high-level group on financial supervision in the EU", Report chaired by de Larosière, Brussels, 25 February 2009.
42. Macey J.R. (1999) "Are bad banks the solution to a banking crisis?", SNS occasional paper no.82.
43. Männasoo K. (2004), "Investigating the Early Signs of Banking Sector Vulnerabilities in the Emerging Markets of Central and Eastern Europe", Financial Sector Research in Estonia: Research Seminar Papers, Tallinn, Eesti Pank.
44. Mishkin F.S. (2000), "Prudential supervision: why is it important and what are the issues?" NBER Working Paper Series 7926.
45. Moreno R. (2006) "The changing nature of risks facing banks", BIS Papers no.28, part 4

46. Morttinen L., Poloni P., Sandars P., Vesala J. (2005) "Analysing banking sector conditions: how to use macro-prudential indicators", ECB Occasional paper series no 26
47. Noyer C. (2008) "Lessons from the crisis. A central banker's reflections on some accounting policy issues", speech by the Governor of the Bank of France, at the European meeting of the accounting profession, Paris, 11 December 2008.
48. OCC (2001) „An examiner's guide to problem bank identification, rehabilitation and resolution"
49. Peterson C.L. (2008), "Over-Indebtedness, Predatory Lending, and the International Political Economy of Residential Home Mortgage Securitization: Comparing the U.S. Subprime Home Mortgage Lending Crisis to Home Finance in the United Kingdom, Germany, and Japan", electronic copy available at: http://ssrn.com/abstract=1083184
50. Ranciere R., Tornell A., Westermann F. (2003) "Crises and growth: a re-evaluation", NBER Working Paper no. W10073.
51. Reinhart C.M., Rogoff K.S. (2008) "This time its different: a panoramic view of eight centuries of financial crises" National Bureau of Economic Research Working Paper 13882, March 2008.
52. Rojas- Suarez L. (1998) "Early warning indicators of banking crises: what works for developing countries ?", Research Department, Inter-American Development Bank
53. Sergeant C. (1999) "The supervision of banks: the United Kingdom's experience and challenges in China", Policy Papers no. 7, www.bis.org/publ/plcy07l.pdf
54. Sinn H.W. (2008) "Lemon banking", Project Syndicate, april 2008.
55. Tamirisa N., Igan D. (2007) "Credit Growth and Bank Soundness in Emerging Europe", International Monetary Fund, The 13th Dubrovnik Economic Conference June 29, 2007.
56. Tetangco A.M. (2009) "Antecedents of the global financial crisis – a multi-factorial phenomenon", Speech of the Governor of the Central Bank of the Philippines at the Sixth Sec. Alfonso Yuchengco Policy Conference, Makati City, 2 February 2009.
57. Torre A., Ize A. (2009) "Regulatory reform: integrating paradigms", The World Bank Policy Research Working Paper 4842.
58. Turner P. (2006) "The banking system in emerging economies: how much progress has been made ?", BIS papers no.28, part 1, august 2006.
59. Vila A. (2000) "Asset price crises and banking crises: some empirical evidence " International Financial Markets and the Implications for Monetary and Financial Stability, Bank for International Settlements, Basel, Switzerland, pp 232-52.