WHAT ROLE HAVE BANKS IN FINANCIAL CRISES?

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Abstract: Financial crises mainly manifest themselves at the level of financial institutions. Although financial crises can also be generated within non-financial institutions, the role of banking institutions in the occurrence, transmitting and solving of financial crises is a deciding one. Banks play a deciding role in the development of financial crises as financial intermediaries who contribute to the efficient transfer of funds from the abundant agent towards the deficit agents. Banks can facilitate the financial crises through the activities performed on the financial markets that can influence the interest rates, the uncertainty on the market and the price of assets, but moreover bank crises can occur that transform financial crises.

This paper aims to analyze the role of banks in the emergence, the propagation, the prevention or solving financial crises.

Keywords: financial crises, bank crises, contagion

JEL Classification: G01, G21

1. INTRODUCTION

The development of financial innovations and risky speculations, the expansion of loans, the increase of the prices of assets without any economic basis, the sudden and unexpected decrease of the prices of financial assets and the quick orientation towards liquidities or quality investments are unavoidable as long as investors follow the obtainment of as large as possible profits. Under these circumstances, the emergence of the financial crisis is not a novelty, but, as a defining trait of it, the global financial environment enables the possibility of transmitting the crises in the entire system, respectively their contagion.

Bank crises, as special forms of manifestation of financial crises, are known for a long time. No mater the type of financial system (market-based or bank-based) or the degree of development of the financial system (very developed, market

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functional, developing or emerging), bank crises have marked most of the states of
the world.

The vulnerability of the banking system must be sought in the very essence of
the basic banking activity – the granting of loans based on attracted deposits. The
system is functional as long as the banks keep, in liquid form or in investments with
a high degree of liquidity, a part of the attracted deposits in order to be able to
handle the withdrawal requests coming from the deponents. If at some point most of
the bank’s clients would request the withdrawal of savings, the bank could be on the
end up of bankruptcy. Because of the special characteristics of the banking activity,
the bankruptcy of a bank is similar to the unbalancing of a domino piece that attracts
with it the crashing of the entire system. That is why, the prevention or solving of
the bank crisis, in its first stages, is a necessity acknowledged by authorities and
highlighted by their massive degree of involvement in solving crisis situations.

2. DEFINITION AND CLASSIFICATION

The term financial crisis was explained by considering numerous aspects,
such as the causes, evolution and impact of this phenomenon. According to EFC
(2001), the financial crisis is any situation in which a financial institution, or a
number of financial institutions, is in incapacity of fulfilling its statutory obligations,
a situation which negatively affect the functionality of the entire financial system.

According to Kaminsky and Reinhart (1999) financial crises can be defined
depending on the forms they manifest themselves in: currency crises, bank crises
and “twin” crises. In the case of currency crises, the attacks, internal or external, on
a currency produce important reductions of the currency reserves, substantial and
acute depreciations of the currency exchange rate of combined effects of these. Bank
crises are generated by a series of micro and macroeconomic factors, and the forms
they take vary from declaring bankruptcy, merger or overtaking by the public sector
by nationalizing a bank, a group of banks or the entire banking system. Twin crises
are a combination of the currency crises with the bank ones.

In the literature in the field financial crises are analyzed in a temporal
approach and it makes the distinction between I, II and II generation crises. The I
generation crises are specific to the ‘80s and they take on the classic form of the
balance of payment crisis and of the budgetary deficit financed through internal loan
ad are considered to be generated from the inside. The crises in this generation are
specific to small economies with fixed exchange rates and that have liberalized the
capital account, being, for these reasons, sensitive to speculative attacks that could
easily degenerate into currency crises.

The second generation of financial crises stems from the speculative attacks
on the currencies in the European Monetary System in the years 1992-1993 and
from the Mexican crisis in the years 1994-1995. The possibility of occurrence of the
financial crises even in an economically stable environment was illustrated, these crises being considered as self-generating. The model presented in this category is a edited one, having three major participants: the government that is the position to defend the exchange rate of the national currency or to change the exchange rate system depending on the compared benefits of these actions and two speculators in the respective currency, who haven’t got the necessary resources to exhaust the government reserves though.

The crises in the third generation of financial crises are much more heterogeneous than in the other two cases, being related to the problems generated by the balance sheet exposures and presenting three big options: the impact of the moral hazard on the crediting process, the reciprocal impact of the currency and bank crisis, the implications of the currency depreciation on the balance of payments.

Most of the recent financial crises are crises in the latter generation, which stem inside the financial sector and are related to structural dynamics such as the financial innovation.

The models in the third generation present different mechanisms, all related to incongruencies within the financial balance sheet, incongruencies that can take, according to Dăianu and Lungu (2008, p. 7) one of the following shapes: a) the incongruence of maturities, occurs when the differences between the short term debits and liquid assets lead to the inability of the institution to pay its current debts, on the background of the refusal of creditors to extend the crediting contracts and of the unfavorable influence of the increase of interest rates; b) the incongruence in currencies can provoke capital loses when sudden changes of the exchange rates occur; c) the problems related to the structure of capital under the circumstance when a high degree of indebtedness exposes the institution to uncertainty and shocks provoked by the adverse reaction of the markets; d) the solvency problems when the institution is incapable of covering its debits with assets; the problem of an inadequate solvency occurs on the background of a low degree of long term liquidity.

3. THE ROLE OF BANKS IN THE PROPAGATION OF FINANCIAL CRISSES

Financial crises mainly manifest themselves at the level of financial institutions. These institutions can be banking institutions, insurance companies, investment companies, financial intermediation companies or financial conglomerates. Although financial crises can also be generated within non-financial institutions, the role of banking institutions in the occurrence, transmitting and solving of financial crises is a deciding one.

The important role of banks in the propagation of financial crises is explained through a series of arguments, that is: the difference between the maturity, due-date
of the elements of assets (placements) and liabilities (attracted sources) from the bank balance sheet; the prominent role of banks within the payment systems and especially within compensating ones, in many cases the banks being founding members of the clearing houses; the substantial exposures that the banking institutions have on the interbank, internal and international markets; the banks have become in the past decades important participants on the capital markets, achieving thus a connection bridge between the different components of the financial system.

Banks play a deciding role in the development of financial crises as financial intermediaries who contribute to the efficient transfer of funds from the abundant agent towards the deficit agents. Banks can facilitate the financial crises through the activities performed on the financial markets that can influence the interest rates, the uncertainty on the market and the price of assets, but moreover bank crises can occur that transform financial crises. Bank crises can be defined according to *Allen and Gale (2007)* as being a financial period difficult enough to lead to the erosion of most or of the entire capital in the banking system.

Financial crises are characterized by an accentuated decrease of the prices of assets, the bankruptcy of some major financial and non-financial institutions, dysfunctions on the currency markets, according to *Mishkin (2001)* the factors that can determine the occurrence of a financial crisis can be: 1) deterioration of the balance sheet situation of financial institutions, 2) increase of the interest rate, 3) increase of the uncertainty in economy and 4) deterioration of the balance sheet situation of the non-financial institution because of the volatility of the prices of assets.

*Allen and Gale (2001)* showed that the occurrence of the crises is not conditioned by the structure of the financial systems, crises can occur in any type of financial system. The occurrence of bank crises depends more on the development level of the financial system or of economy. *Kaminsky and Reinhart (1999)* showed that most times bank crises were preceded by an excessive exposure of banks on the stock and real estate market. According to *Demirgüç-Kunt and Detragiache (1998)* the occurrence of bank crises is facilitated by the financial liberalization process corroborated with an inefficient laws system and with a high degree of corruption.

The key role the low quality of the bank management had in the occurrence of crises was showed by numerous studies. *Dziobek and Pazarbasioglu (1997)* established that the deficiencies in the bank management and control, together with other factors, were causes in all 24 studied systemic bank crises. In another study, concentrated on a sample of 29 insolvable banks *Caprio and Klingebiel (1996)* concluded that responsible for the occurrence of these phenomena is a combination of macro and microeconomic factors. The macroeconomic factors are represented by the recession situation, while, on a microeconomic level, an
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important role have the low quality of bank supervision and regulation and bank management deficiencies.

The imbalances on the level of the entire bank system are closely connected to the macroeconomic factors, which can be cyclical (economic recession) or structural (low quality of bank supervision and regulation)).

The macroeconomic instability has permanently constituted an important factor generating systemic bank crises. The existence of stable macroeconomic conditions, mainly the stability of prices, is a mandatory requirement of financial stability, in general and of the banking one, in particular. The expansionist monetary and fiscal policies can determine a sudden increase of the crediting activity and of the price of assets, as well as of the accumulation of debits. Because these policies can not be sustained on the long term, their correction determines the decrease of the economic growth, the decrease of the price of assets, problems with the debt service and, finally, the inability to pay debtors which will have a negative impact on the financial situation of the banking system. The external macroeconomic conditions, such as adverse changes of the exchange rates in relation to the contractual clauses, contribute to the occurrence of bank crises.

The structural evolutions can constitute an additional important factor in explaining bank crises. The existence of a coherent legal system and of a robust supervision structure is a precondition of a stable banking system. The liberalization of the acses conditions on the local banking markets determines the intensification of competition and the threatening of the positions of the institutions existing on the market up to that date. Financial innovations can have a negative effect in the circumstance when the quick growth of a new product is not sustained by a thorough knowledge of its management method (the case of derivative financial products).

According to Rochet (2008, p. 23) the banking system is functional for as long as banks keep in liquid form or in the form of investments with a high degree of liquidity a part of the attracted deposits in order to be able to handle the withdrawal requests coming from deponents. Precisely for this cause, the banking system is considered fragile. If at some point, from various reasons, all deponents of a bank would request to withdraw their savings, situation known as “bank run”, the bank has to liquidate all its assets, including long term placements, situation that provokes the bankruptcy of that institution.

The causes at the base of the bank run phenomenon are of objective or subjective nature. The former are part of a selection and elimination mechanism of non-competitive institutions. In this case, the withdrawal of deposits is based on information on the doubtful quality of bank assets owed to inefficient investments. The literature in field calls this phenomenon “fundamental run”, because the actions are based on rational comparison elements.
The subjective causes that can determine the occurrence of the bank run phenomenon comprise speculative factors. These factors have a negative impact on the functionality of the bank institution. The speculative run is generated by the “herd phenomenon”, in the sense that if a deponent anticipates that the other deponents will withdraw their savings in mass will withdraw his/her savings even if they own information according to which the bank is solid from a financial point of view.

In order to solve these crises situations with a profound impact in the entire banking system as effectively as possible a series of mechanisms were conceived and implemented, such as the institution of the last instance creditor, the bank deposits insurance system, public interventions through capital infusions or the bank supervision rules (Rochet 2008, p. 24).

These mechanisms were conceived to be implemented in order to avoid extreme bank crisis situations, such as systemic crises. Because of the essential role of bank institutions within economy, of the fragile character of the banking activity and of the globalization process with implications on the free movement of capital, the bankruptcy of a bank is seen as an event with an impact with multiple connotations that can give an alarm signal on the solvency of the other banks in the system, being able to finally start a systemic bank crisis.

A systemic crisis may develop either as a result of a macroeconomic shock or as a result of contagion (Freixas and Rochet, 2008, p. 235). Systemic bank crises can be generated according to Dornbusch and Giavazzi (2001) by three causes that can occur wither separately, or combined, in this later situation a “nightmare” scenario resulting. The first possible cause of the systemic crisis is represented by the poor management of the crediting risk, a phenomenon known in the literature as directional crediting. In this case, the financing offered by banks is not founded on profitability and the covering of risks. This situation occurs when banks are used as instruments in the implementation of economic-fiscal policies within the development strategies or when the high level of the interest rates is used as instrument for the increase of the saving degree and, in this case, the active interests are compressed to satisfy preferential debtors.

The second scenario is that in which an operational banking system is affected by strong macroeconomic shocks. If the cost of the financing of banks suddenly increases on the background of the existence of some fixed interest rates for loans, the banks must support the emergence of loses and are forced by the financial de-intermediation process to accept costly financings with short term due dates. If this situation is prolonged in time, banks get to be decapitalized the same effect is produced in the case of the severe and long lasting recession period that affects the quality of the credit portfolio, the spread no longer being able to cove the loses generated by subprime loans. Also, there is the possibility that the banking system is
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affected by currency crises. In this situation, the banks’ debtors, who have borrowed in other currencies or have commercial contracts denominated in other currencies, suffer massive capital losses because of the currency shock, propagating this phenomenon within banks by decreasing the quality of the credit portfolio. On the other hand, the banks that contracted loans on the interbank markets or external capital loans, without making an adequate hedging for these positions, will be decapitalized because of the impact of the currency crisis.

The third scenario emerges on the background of the banking liberalization measures, measures unsupported through an adequate prudential supervision. The initial image is that of an oligopoly type banking system, protected by the competition both by foreign banks, which have no access on the market, as well as by non-banking financial intermediaries from within the economy. With the started liberalization process, the newcomers, too little regulated in the incipient stages, will offer services for low prices because of the low capital costs. The balance sheet of the banks already existing on the market will deteriorate, the decapitalization of the banks being performed on the background of the immobilization of assets with unattractive interest, of the deterioration of the quality of the portfolio by losing the best clients, of the increase of the financing cost.

The banking liberalization can also produce another scenario when the new banking intermediaries orient their activity towards some market niches neglected up until that moment, such as the mortgage credit. The low crediting cost, the insufficient regulation and the lack of banking experience produce in a first stage an exponential increase of this crediting activity. The soap bubble bursts when the increase rhythm slows down and the subprime loan quota reaches alarming levels. This situation is even more severe under the circumstances when the loans were contracted in other currencies and the devaluing process determines the alarming increase of the debt service.

The contagion models were developed more recently, after the Asian crisis in ’97, which proved, more visibly than in the previous cases that, when a country goes through a financial crisis, at the same time and, especially, in the same area other countries as well are affected. In the past decades it was proven that a small amplitude shock can have a significant impact on the financial markets. A initial shock only affects a certain region or a certain sector or even only certain financial institutions and can be propagated, by contagion, through the connections between banks and other financial institutions towards the entire financial system or towards other regions.

The analysis of the contagion effect can be performed based on the direct connections between banks, by studying how the banking system reacts to the impact of a crisis when the banks are integrated in a certain network. In a banking system where the clients have a certain preference for liquidity, banks ensue
themselves against the liquidity shocks with the help of loans on the interbank market. The relationship developed between banks through the swap contracts exposes the entire system in case a liquidity shock occurs at the level of a participant. The weakly developed banking systems are more exposed to the contagion effects than the developed systems because in these developed systems the relationships between banks are more developed and thus a larger percentage of the portfolio losses suffered by a bank are transferred to several banks through the interbank contracts.

An interest theme is represented by the analysis of the impact of the individual risk of a bank on the entire banking system. Freixas, Parigi and Rochet (2000) analyzed the case when a bank must handle a liquidity shock and the connection between the banking institutions is performed through interbank credit lines. The impact of such a shock depends on the system’s ability to handle a regional liquidity shock. Allen and Gale (2001) analyzed the impact of bankruptcy of a bank on the entire banking system and showed that the more developed the interbank connections the less the impact of a bankruptcy on the entire system.

According to Allen and Carletti (2006) in the analysis of the role of banks in the contagion of financial crises the financial innovations and the used accounting system must also be considered.

4. A SOLUTION FOR BANKING CRISSES

Rojas-Suarez (2004) elaborated three basic principles in conceiving a successful program for solving banking crises. The first principle consists of the fact that the society on the whole must exercise a strong political pressure so that the solving of the bank crisis becomes a priority for the authorities, and the solving is made by allocating non-inflationist public resources. The second principle consists of the fact that the parties who obtained substantial benefits from the risky banking activities must pay a large part of the cost of banking restructuring. The third principle is represented by the emergency implementing of the measures through which problem institutions are forbidden to continue granting loans to debtors with a high degree of risk or the capitalization of arrear interests by granting new loans.

Different mechanisms were conceived for the solving of bank crises, measures were implemented having as purpose the decrease of the level of costs and strategies were adopted depending on the type of the bank crisis. From these, the most important ones are: the institution of the last instance creditor, the insurance system of bank deposits and the prudential banking supervision regulations.

The institution of the last instance creditor consists of the support offered by the central bank, in the shape of liquidities, to the affected banking institution. According to Freixas and Rochet (2008, p. 243), who takes the theory formulated by the English economist Walter Bagehot in 1873, in order to have the desired effect
thus mechanism must respect the following principles: a) to grant loans to the institutions confronted with problems only based in some quality warranties, so that only solvable banks have access to this type of loan and the central banks is protected by the possible losses; b) to only grant loans to very high interest rates, so that only truly un-liquid banks will borrow, and the other situations of lack of liquidity, that present no problems, are solved by the market; c) to announce in advance its availability to offer this type of financial support, thus obtaining credibility.

Through the insurance system of bank deposits, banks, based on a percentage contribution from the total of the attracted deposits, are insured that in case of the occurrence of the bank run phenomenon, they will reimburse each client with a limit amount established through the statute.

Studies performed by the International Monetary Fund showed that the countries that adopted this bank deposits warranty system are much more exposed to the occurrence of bank crises than the ones that have no such system. The explanation, from this perspective, is that in the presence of such a system banks assume excessive risks more easily knowing that the deposits are insured in cases of bankruptcy.

The strengthening of the bank supervision, with an accent on the solvency requirements, emerged as a reaction to the bank crises. They were internationalized by the publishing by the Basel Bank Supervision Committee in 1988 of the minimum capital requirements and of the solvency level of 8%. These regulations were updated and perfected through the new Basel Agreement II. The importance of the level of the degree of solvency is explained by a) the role of equity for supporting the activity and the losses in crises situations and b) through the co-interesting of shareholders to monitor more carefully the bank management in order to avoid large losses caused by bank crises.

The national financial and banking systems present particularities and that is why the reactions to the occurrence of bank crises are different. Nevertheless, the strategies used in the case of crises have common elements and refer to the measures applied for the decrease of the level of costs on economy and tax payers, to the limiting of the impact of future moral hazard.

The solutions applied by the private sector, in the detriment of the public one, are considered to be the most indicated for solving the bank crises. If, in the case of a bank found in state of bankruptcy, the supervision authority imposes to shareholders or creditors to recapitalize the bank, this solution is viable because it allows the institution to function, and to shareholders to get involved in the restructuring of the institution. The case of the takeover of the bank found in crisis by another bank can be seen as a penalty measure for incompetent management.
In practice, there is a wide range of options for solving the bank crises. In one extreme is the keeping of the bank operational by injecting capital from the shareholders and, at the other extreme, the shutting down of the bank by selling assets, compensating deponents and the potential payment of creditors. Between these two extremes, the license of the bank can be suspended, and it is sold, entirely or partially, to another institution to preserve the banking activity. Between these measures the involvement of authorities also varies. The involvement can be limited to encouraging or organizing the private sector or can be extended to offering financial support and, in extreme cases, to nationalization measures.

The first solution in solving a bank crisis is to involve the private sector, for the reasons mentioned above in case that this support cannot be obtained, there will be decided between the solution of liquidating the affected bank and involving the authorities. Under exceptional circumstances, when the bank crises is expected to be a systemic one, the authorities can adopt some intermediary measures such as nationalization or warranty for the bank found in bankruptcy.

Certainly the theories regarding bank crises and financial crises will know extended developments because of the current global financial crisis started in 2007.

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