Financial information and restructuring of spanish savings banks in a context of crisis. Changes in the regulation; content and evolution of FROB

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ABSTRACT

The worsening of the financial crisis in September 2008, coinciding with the collapse of Lehman Brothers, set off unprecedented action in the European states to support the stability of their markets and financial institutions. Different forums asked for joint and faster implementation. This lead the Spanish authorities to take a series of measures.

In the first part of this paper we make a theoretical review of previous studies at international level on early warning systems and about prediction of failure in the banking sector. No doubt it helps to situate and understand better the later Spanish analysis, why it is necessary and its development.

We also analyze the evolution of the Spanish financial system between 2008-2011 with the focus on explaining the reform and restructuring of savings banks. Specifically, a study of the accounting and financial standards evolution is made, as well as an examination of the changes in banking regulations that emerged during this period and the role of the Banking Management Restructuring Fund (FROB) and the Institutional Protection Systems (SIP).

KEY WORDS: FROB, SIP, banking regulation changes, early warning systems.

ECONLIT DESCRIPTORS: P130, Q130.

La información financiera y la reestructuración de las cajas de ahorros españolas en un contexto de crisis. Cambios en la regulación, contenido y evolución del FROB

RESUMEN: El agravamiento de la crisis financiera internacional en septiembre de 2008, coincidiendo con la caída de Lehman Brothers, provocó una acción sin precedentes de los Estados europeos para respaldar la estabilidad de sus mercados y entidades financieras. Tras esta oleada se pedía, desde diversos foros, unas acciones conjuntas y mayor rapidez en su aplicación. Fruto de ello, en España, las autoridades han tomado una serie de medidas.

En la primera parte realizamos una revisión teórica de estudios previos (a nivel internacional) sobre sistemas de alerta temprana y predicción del fracaso en el sector bancario. Sin duda ayuda a situar y comprender mejor el posterior análisis español y el por qué de su necesidad y desarrollo.

Realizado lo anterior, analizamos la evolución del sistema financiero español entre 2008-2011, deteniéndonos en explicar la reforma y reestructuración de las cajas de ahorros. Concretamente se realiza un estudio de la evolución de la normativa contable y financiera, los cambios en la regulación bancaria surgidos durante este periodo, así como el papel del Fondo de Reestructuración de Ordenación Bancaria (FROB) y de los Sistemas Institucionales de Protección (SIP) a lo largo del mismo.

PALABRAS CLAVE: FROB, SIP, cambios regulación bancaria, sistemas de alerta temprana.

Informations financières et restructuration des caisses d'épargne en Espagne dans un contexte de crise. Modifications dans la réglementation ; contenu et évolution du FROB

RESUME : L'aggravation de la crise financière en septembre 2008, qui coïncide avec la faillite de Lehman Brothers, a déclenché un mouvement sans précédent dans les états européens pour soutenir la stabilité de leurs marchés et de leurs institutions financières. Différentes assemblées ont demandé une mise en œuvre commune et plus rapide. Ainsi, les autorités espagnoles ont été amenées à prendre une série de mesures.

Dans la première partie de cet article, nous réalisons une critique théorique d'études précédentes à l'échelle internationale sur les systèmes de détection anticipée et concernant la prédiction de la faillite du secteur bancaire. Elle aide sans aucun doute à situer et à mieux comprendre l'analyse espagnole postérieure ainsi que la raison de sa nécessité et de son développement.

Nous analysons également l'évolution du système financier espagnol de 2008 à 2011 en nous attardant sur l'explication de la réforme et de la restructuration des caisses d'épargne. Plus particulièrement, nous réalisons une étude sur l'évolution des normes comptables et financières ainsi qu'un examen des modifications dans les réglementations du secteur bancaire qui ont eu lieu durant cette période et le rôle du Fonds de restructuration du secteur bancaire (FROB) et des Systèmes institutionnels de protection (SIP).

MOTS CLÉ : FROB, SIP, modifications dans les réglementations du secteur bancaire, systèmes de détection anticipée.

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1.- Introduction

The worsening of the financial crisis in September 2008, coinciding with the collapse of Lehman Brothers, caused unprecedented action to be taken in the European states to support the stability of their markets and financial institutions.

Between October 2008 and July 2009, the European Commission established in four papers a new criterion for the interpretation and application of the European standards of protection from competition. These criteria have formed a "competition law exception" applicable to an also exceptional situation of economic crisis, under which important assistance to the systems and European banks have been authorized.

In a context of international crisis such as we are experiencing today, the Banking system, per se, is a key pillar in the financial stability of any country. The period we are living in shows the how serious it can be when this sector starts to rock and the important consequences that would result from the instability in the banking system for those agents related to this sector.

In this sense, the early warning systems gain indisputable importance for this sector and we hope to show their importance in an international context. Their usefulness is mainly, but not exclusively, for the supervising institutions and because of the importance taking decisions in advance would imply.

The development of early warning systems, usually through the development of bank failure prediction models, leads to an analysis of the causes of crisis and instability, either within the banks surveyed (through the financial information they supply or by looking at other internal factors such as management) or due to other exogenous factors, such as the macroeconomic environment.

In the case of Spain, the measures taken by the authorities regarding the banking sector were: 1) a review of the guidelines for estimating asset impairments, 2) stress tests, 3) an update of the restructuring process of the savings banks, and 4) a reform of the legal system of the savings banks.

In particular, the restructuring of the financial system was entirely necessary. In this sense, in recent months, a significant part of the Spanish savings banks reached agreements to merge with other savings banks, which has resulted in the largest reorganization of the Spanish banking sector in a long time. These measures started with the creation of the FROB in June 2009[1], when the international

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1.- Please note about the slowness and complexity of this process. Two years later, this procedure is still taking place in its first stage.

financial crisis had been almost two years affecting both markets and financial systems of all the countries of our environment. The Spanish institutions have shown a high resistance.

This new Fund responded to the need to contribute to the reshaping of the Spanish banking sector, especially of the savings banks, which after a prolonged period of growth had reached a volume which, under the new conditions of demand for banking services showed oversizing

The need for redimensioning this sector and the conviction that a rationalization of the productive structures of many institutions was necessary to maintain adequate levels of efficiency in a sector characterized by increasing competence, prepared the field for the creation of the FROB. This is the framework within which many savings banks have been building their integration agreements, mergers and institutional protection systems (SIP).

To deal with these issues, we have divided this paper into the following sections. First, we deal with early warning systems in an international context, showing their usefulness and importance. We analyze the causes and effects of banking crises and show a list of previous papers, ranging from the most generic, i.e. the study of international banking crises in a global way, and then move on to a more specific and particular analysis, showing studies that examine the casuistic of the banking crisis in a particular country, as a study case. This allows us to begin to analyze the casuistry of the Spanish case, for which we analyze the evolution of the financial system and its regulations from 2008 to present. We will also analyze the Banking Management Restructuring Fund (FROB) and the Institutional Protection Systems (SIP).

2.- Early warning systems in an international context. Background to the question

Now we will show a review of international studies that address, from different perspectives, the issue of prediction of bank failure through early warning systems (EWSs). We anticipate the range and diversity of approaches found when analyzing the issue.

The study and analysis of early warning systems is especially important in times of crisis and restructuring such as those we are living in. Since the crisis of 1929, we probably have not had a financial crisis like the present one, of this length and consequences. It began in August 2007 throughout America and Europe with a wave of nationalizations in the banking system. Certainly, people tend to see financial crises like the present one as surprising and unusual, yet these are common events, especially since 1970[2], Barrell and Davis (2008:5). In this regard, Davis and Karim (2008a: 35) state that

2.- These events usually happen again and it is necessary to learn from them.

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one of the characteristics of the sub-prime crisis is that it was an sudden and fast event on its spread, so it was dismissed as "unexpected", perhaps in terms of their effects and not so much in what it could happen. Klomp (2010:82) shows that there has been more than 130 banking crises in approximately 110 countries since 1970.

But how could we define banking crisis? Davis and Karim (2008b: 89) define it as the fact that the ability of banks to carry out their role as intermediaries is severely affected. These authors, among others, argue with the evidence presented in their studies about the need and usefulness of early warning systems as an aid instrument. Authors like Bohrio and Drehmann (2009:44) wonder if the current crisis could have been anticipated, and respond affirmatively[3]. Unusual increases of credits or high increases in asset prices have tended to predict banking crises, which are often preceded by an accumulation of financial imbalances. This implies that, usually, there is evidence to show that something is happening or will happen, as discussed below.

As we are saying, in recent years, in a time of economic and financial turmoil, the studies that analize the extent to which early warning systems could have helped to predict this financial crisis in the banking sector (and their causes and symptoms) have gained strength in an international context. Thus, we divide this section into two subsections: the causes or symptoms of the banking crisis highlighted internationally and a theoretical review of international studies on the issue.

2.1. Causes and effects of banking crises

One of the first conclusions that we make when analyzing banking crises is the diversity and, therefore, the heterogeneity among its causes or symptoms. This has been demonstrated in numerous studies on this subject. Among the wide range of causes and symptoms, there are common points that the authors highlight in their studies.

Thus, a high credit growth, negative GDP growth, and an excessively high rate of interest are, in general terms, the most important causes of a banking crisis, although it is shown that the impact of any of these three causes is not significant in more than 60% of the banks analyzed, Klomp (2010:72). This means that, obviously, although these three causes explain in most cases a banking crisis, there are many other not so generalizable reasons for the specific situation of a particular case.

Demirgüç and Detragiache (2005:11-16) summarize the previous literature, according to the following explanatory variables analyzed: a) the individual study of the fragility of an institution and systemic crises, b) Financial liberalization and crises; c) international shocks, exchange rate regimes and crises; d) the ownership and structure in banking, e) the role of the institutions; f) the political system.

3.- *Particularly, this point is where we may find criticism to the supervisor institutions.*

Davis and Karim (2008a: 44-45) note that the following events usually occur without necessarily supposing a crisis, and are a usual part of the market economy, but that their combination does create financial instability: a) Change of regime, such as deregulation; b) Relaxation of the entry conditions to financial markets, c) Accumulation of debt and asset price booms; d) Innovation in the financial markets; e) Concentration of risk and lower capital adequacy for banks.

However, King et al. (2006:57) posit whether the causes of alert of bank failures are changing and whether in a changing environment, with constant regulatory changes, the traditional models are able to show the significant risks of the current banking environment. This is why they suggest keeping on analyzing these issues through new techniques.

As for the effects of banking crises: considering that these institutions are essential for the business activity, when experiencing a situation of extreme financial difficulties, governments often come to the rescue, offering emergency liquidity and several possibilities as rescue programs. While interventions may save banks, this does not mean that it prevents any effect on their economic activity. Empirical studies show that bank credit to the private sector usually decelerates during banking crises, Dell'Ariccia et al. (2008, 89-90). In addition, depositors leave the weaker banks, in search of the strongest, Demirgüç et al. (2006:702).

2.2. Studies on banking crises in an international context

There are many academic papers that have addressed crises in the banking sector and early warning systems from a generic or aggregate point of view, i.e. analyzing the international environment as a whole, as opposed to others which go more deeply into the study of a particular country as a case.

Starting with the first, Wong et al. (2010:170), address the prediction of the difficulties of the banks in the EMEAP[4] economies from 1990 to 2007, and they identify a set of warning indicators of banking alert and develop an econometric model able to estimate the predicted probability of business failure. The macroeconomic environment and the banking sector performance are some of the potential determinants of these previous studies to explain the risk to banks.

As regards early warning systems and banking regulation in **OECD[5] countries,** Barrell et al. (2010a:2256-2256) highlight the success of previous studies and the diversity of their results and include macroeconomic and financial variables among the explanatory variables of banking crises. The authors state that the triggers of a crisis in each country depend on the type of economy and the nature of the banking system. They show how in the last decade, early warning models failed to consider the

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4.- Executives' Meeting of East Asia-Pacific Central Banks. http://www.emeap.org/aboutemeap.asp.
5.- About the OECD http://www.oecd.org/document/1/0,2340,en_2649_201185_1889402_1_1_1_1,00.html.

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balance sheet variables, probably because it was seen as highly unlikely that a banking crisis would occur in developed economies. The authors highlight deficiencies in previous studies and show how liquidity and leverage ratios in banking are important in analyzing a crisis in the OECD countries.

There is also a stream of studies that focus on the analysis of models for predicting bank failures in **developed and developing countries**. Huang et al. (2010,1) analyzed 858 international banks from 2005 to 2008, determining, among others, how the indicator Equity / Assets and the ratio (interest income - interest expense)/Income showed an inverse relationship with financial failure. Others, such as Duttagupta and Cashin (2011:354) analyzed banking crises in developing countries and emerging markets. For instance, the Binary Classification Tree technique has been used to analyze banking crises in 50 emerging markets and developing countries from 1990 to 2005 and has identified three conditions under which the vulnerability of banking crises increases: 1.-) very high inflation, 2.-) highly dollarized deposits combined with nominal depreciation or low liquidity bank; 3 .-) low bank profitability.

Other authors in the sample studying the risk in banking analyze **European banks**. Such is the case of Williams (2004: 2451), who analyzes the behavior in the management of financial institutions from 1990 to 1998, concluding that the hypothesis of mismanagement in the banks analyzed, i.e. poorly managed banks tends to make for poor quality loans; or the case of Fiordelisi et al. (2011, 1319) who examine the relation between the developments in efficiency and bank risk from a sample of commercial banks in the EU between 1995 and 2007.

2.2.1. The prediction of business failure in the banking sector. One country's review as a case study

While early research on prediction of business failure dates back to the 1930s, it is in the sixties that we find a turning point with the works of Beaver (1966) and Altman (1968) or Altman et al.(1977). Four decades later, there are countless studies that have addressed this issue and from different perspectives.

Prior to the development of a model we must identify the purpose we seek in developing it. Here we can distinguish two different approaches. On the one hand the search for variables which are best able to identify and explain the business failure (economic-financial and qualitative, in the main), and on the other, to find and implement the model as a predictive tool on which any agent can rely to make decisions, Anton (2005; 2007:119).

At this point we must point out the crucial importance of the analysis technique used to choose these variables and to develop the models. Studies such as those of Zhao et al. (2009:2633) indicate logistic regression, decision trees or neural networks for the study of banking prediction, i.e. the main techniques used in the study of business failure, regardless of the sector analyzed. A comprehensive study on the comparison of these and other advanced techniques (eleven in all) can be seen in Kumar and Ravi (2007:4-27). We should note that the use of more advanced techniques does not imply bet-

ter results. Proof of this is found, for example, in recent articles like Chen (2011:11261), which is based on two traditional techniques - logistic regression and classification tree - to analyze the predictive ability of models in listed companies on the Taiwan stock market. The evidence confirms the validity and and ability of the models to predict.

There are numerous studies on the prediction models in which initially only accounting data (ratios) were used as independent variables, with which it was intended to predict the future solvency of a company. Laffarga and Mora (1998) suggest the introduction of other variables besides the traditional ratios, such as qualitative variables, to try to increase the ability of prediction.

Here is a sample of the rich and varied empirical research related to the aim of this work, a relation from previous studies whose link is the elaboration of failure prediction models on banks. We have grouped them taking into account the country of origin of the sample and listed them in alphabetical order.

In the case of **Argentina** we can find the research of Dabos (1998:216), who studied how to measure default risk[6] among financial institutions using public information only. The sample used was 38 Argentine banks, of which 9 were banks with problems and 29 banks without problems for 1994. The author used a probit model, commenting that has several advantages over other alternatives, concluding that the analysis showed that there were a number of features offered by a group of entities vulnerable to macroeconomic shock. A statistically reliable model of the characteristics of the failed banks was also obtained.

Halling and Hayden (2006:49), developed models of survival time for predicting bank failure. They used the entire sample of banks in **Austria** during the period 1995 to 2002. This data set consisted of 1,100 banks, of which 150 were banks with problems, and they developed models through logit analysis. They concluded that the two-stage approach ((a) additional information of survival time, and (b) the fact that the models are estimated separately for the sub-sample of banks at risk), could add value for those regulators who want to evaluate the situation of their banks.

For **Canada** we find the manuscript of Illing and Liu (2006:243), who developed an index of financial stress for Canadian financial system as an alternative to traditional methods, and showed hat it was valid.

As for the **Czech Republic**, Hanousek and Podpiera (2001:252) discussed the Czech banking crisis of 1994-1996 in which fourteen banks failed. Apart from indicating the low quality of accounting data available, the authors showed that the supervisory bodies had not much better information for predicting bank failures than that which the general public could guess from interest rates.

6.- Risk of problems.

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On the **German** banking system we have a paper by Bos et al. (2009), who examine a sample of German banks for the effects of heterogeneity on the efficiency ratios of banks, or the work of Kick and Koetter (2007:132), who analyze four types of increasingly serious events of banking alert using the database of the German Federal Bank.

Daley, Matthews and Whitfield (2008:293) sought to identify the characteristics that discriminate between those banks that finally closed and those which are still active. The sample consisted of 34 **Jamaican** banks in the period 1990 to 1998, of which 18 were classified as failed. They use logistic regression analysis (logit) to know the likelihood of banking failure, rescue or closing and conclude that changes in capital adequacy, the levels of efficiency, the size and condition of the economic environment are statistically significant to discriminate between banks that had closed and "healthy" ones. They also stated that larger banks are more likely to be rescued from closure because the larger the bank, the greater the political pressure to be rescued.

For **Mexico**, Hernandez and Lopez (2001:552) wanted to know the determinants of the Mexican banking crisis of 1994-1999 from their own indicators, so they used duration models and models of proportional risk. For the analysis they considered 30 banks in two groups: new banks and privatized banks, of which 18 were privatized and 12 new. They concluded that the disappearance of banks can, within statistical limits, be seen by a publicly available set of factors. On the Mexican banking system, see also López and Snowden (2000)[7].

Another study was conducted by Lanin and Vander (2006:466), who used a logit model and a model of feature recognition to predict failures in **Russian** commercial banks. They also tried to build an early warning system for Russia's banking system. Banks were divided into two subsamples: an initial sample of 3,393 banks (of which 582 banks were in bankruptcy) and another sample to assess their predictive ability of 120 banks (with 20 banks in bankruptcy). They concluded that the liquidity, asset quality and adequacy of capital play an important role in predicting failure. Other recent studies are those of Peresetsky et al. (2011) who for the 1997-2003 period anakyze a sample of Russian banks to focus on the question of to what extent quarterly balance sheets of banks may be relevant in predicting failure, demonstrating its validity and how the Russian supervisory authorities could use it. There is also the study of Fidrmuc and Süb (2011:46), who estimated a model of early warning for the banking crisis in Russia. They analyzed 47 Russian banks that failed after September 2008 and concluded on the importance of the following early warning indicators with a high predictive power: patrimony, net interest income, average return on equity, net loans and loan loss reserves.

In the case of **Spain** we have the studies by Laffarga, Martin and Vázquez (1985, 1987 and 1991), who analyzed the solvency position of financial institutions to try to predict a possible bankruptcy. They

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7.- In Marin et al. (2004) is analysed the influence of the country for the banking financial ratios, taking not only Mexican banks as a case study, but also banks from Chile, Argentina and Spain. In Nieto (2005) is analysed the stability of the financial system in the Latin-Amercian countries.

used a sample of 47 Spanish banks in times of crisis, of which 22 were failed banks and 25 were "healthy" for the period 1978-1983. The technique originally used was the discriminant analysis which was then compared with the logit analysis. They concluded that it was possible to determine an alarm system that would serve the authorities to detect the financial crisis with sufficient time.

The study by Martínez, Sanz and Cross (1989:466) focused on a proposed econometric methodology. Its objective was to obtain a system and models that enable them to predict bankruptcy and also provide guidance on actions to take. To estimate the alarm, models used logit analysis and the sample consisted of 89 banks, of which 37 were bankrupt and 52 were healthy taken from 1980 to 1983. They concluded that it was not possible to develop a general model, that is, one that served to predict bankruptcy and, in turn, help people make decisions to prvent it occurring.

Pina (1989:314) studied the ability of the accounting information in Spain to predict failures in the banking sector. He used logit analysis and the sample was divided into two periods: banks that went into crisis between 1977-1982 and those that entered later in the period 1983-1985. He concluded that the loss of predictive ability of models was due to accounting manipulation.

The research of Rodriguez (1989:190) aimed to identify a set of financial ratios to explain the insolvency of Spanish private banks. The technique used was logit analysis, and the sample consisted of 80 banks, of which 31 went through a crisis situation. He concluded that the level of profitability of the assets, the relative volume of free equity and the specific importance of non current assets are variables that should be heeded when examining the financial statements of banks.

Serrano and Martin (1993:161) also studied the prediction of bank failure, albeit through artificial neural networks, following the studies of Laffarga et al (1985;1987;1991) and Pina (1989) on the banking crisis for the period 1977-1985. They used a sample of 66 banks, of which 29 of these were failed and taking for these the information for a year before the intervention and for non-bankrupt banks the study used information from 1982[8].

For Ruzgar, Unsal and Ruzgar (2008:57) the objective was to apply the vague set theory to the banking sector in **Turkey** for the period 1995-2007 to test whether bank failures could have been foreseen. The sample consisted of 41 banks, of which 19 had failed between 1998-2001. They concluded that vague set theory is a tool that can show signs of failure, and that assets quality and profitability are good indicators in predicting bankruptcy. Canbas et al. (2005:528) proposed a methodological framework for building a warning system that can be used as a useful tool for decision-making to detect banks which are experiencing serious problems. They took a sample of forty Turkish commercial banks. The authors concluded that their proposal was useful.

8.- *More about the analysis of the Spanish banking system and the risk of insolvencies can be seen in García Pérez de Lema et al. (1995) or in Rodríguez (1989).*

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In the case of studies that have taken a sample of **United States** banks we have:

Meyer and Pifer (1970:867) developed insolvency prediction models for U.S. banks. They used a sample of 39 failed banks between 1948 and 1965. They pointed out that even if the failure was due to misappropriation of funds and other irregularities, the solvency of the company could be assessed. They also concluded that, one or two years before failure, eighty percent of the observations were correctly classified.

Sinkey (1975:33) identified and described the characteristics that distinguish banks with problems from those without. The author conducted his study through multiple discriminant analysis and sought to develop a possible warning system to assist in bank supervision to evaluate banks' financial situations. The author used a sample of 110 healthy banks and 110 failed banks.

Pettway (1980:234), aimed to test that the market information can be useful for bank regulation as a preventive alarm through the comparison of healthy banks with failed banks. The author used a sample of listed banks between 1972 and 1976. The analysis was performed on seven failed banks and in order to check the results, a control group of 24 healthy banks was selected.

Kolari, Glennon and Caputo (2002:366) used logit analysis and feature recognition to develop models of early warning systems and test the effectiveness of these models in terms of prediction accuracy using samples of exclusion. The period analyzed was 1989-1992 and in order to define the major banks $ 250 million in total assets was elected as a cutoff. They took banks closed by the FDIC in that period. They concluded that although both give good results in terms of classification, the feature recognition obtained better results than the logit.

Elsewhere, through their methodological study, Carrasco (1999:1043) tried to establish a conceptual framework of early warning systems based on the bankruptcy prediction models. She took as a base those studies that were conducted in the United States which sought to identify changes in the variables that best reflect the banking risks through accounting information.

Other review on studies of U.S. banks were developed by Martin (1977), Hanweck (1977), Rose and Scott (1978), Bovenzi et al. (1983), West (1985), and Zardkoohi Kolary (1987), Heyligery and Holdren (1991) and Gunther and Moore (2003). We do not go into the content of these papers in depth here for the sake of space because their analyses and conclusions appear in the previous review we have shown.

3.- Evolution of the financial system in Spain 2008-2011. Accounting and financial standards

In the previous section we showed the importance and the interest that knowledge of the causes behind the crisis and instability of the banking sector supposes at home and abroad. This has led us to analyse the actions taken in recent financial years in Spain by the authorities in an attempt to normalise the economic situation and to provide financial stability, which are both indispensable aspects of a global economy like today's.

During the period 2008-2011, the financial system regulation has been uniquely modified and extended as a result of measures taken by different authorities due to the current situation. This section offers a description of the major changes in the Spanish banking regulations during this period[9,10].

2008

During the third quarter of 2008, and as a consequence of the beginning of the crisis, a package of urgent measures was adopted to boost economic activity and offset the slowdown in the Spanish economy. Among the measures were actions to help finance Small and Medium Enterprises (SMEs) (Real Decreto-Ley 2 / 2008 of 21 April), and programs related to the housing market.

During the fourth quarter of 2008, numerous financial regulations were published. In the area of the financial institutions, their accounting standards were modified to adapt them to the changes in Spanish commercial law and to International Financial Reporting Standards (IFRS).

CBE 6/2008 of 26 November appears, updating the CBE 4/2004, to adapt it to the changes in Spanish and EU trade law, as well as having an effect on IFRS accounting rules, primarily in the following aspects: definition of a group of banks; public financial statement formats; treatment of the financial instruments, including guarantees; commitments to pensions; payments based on equity instruments and Income Tax as well as certain information to be reflected in the notes. Minor changes are also included, caused by changes made in the standards governing the determination and control of banks'own resources, the European Central Bank's (ECB) reporting requirements, the mortgage market and the National Classification of Economic Activities (CNAE).

9.- A much more complete development of these regulations can be seen in Casado (2011a, 2011b, 2010).
10.- Marín and Bernabé (2005) made an economic-financial análisis of the activity of the Spanish saving banks from 1975-2000.

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<u>**2009**</u>

During the first half of 2009 the system of significant shareholdings was reformed in order to adapt it to European Community legislation. A model of bank restructuring and strengthening of the equity of financial institutions was approved, the standards for the preparation and presentation of the accounting information of Mutual Guarantee Companies[11] (SGR) were updated, in order to adapt the principles and criteria established in the current accounting framework.

The Royal Decree Law 9/2009 of June 26, on bank restructuring and the strengthening of the equity of financial institutions was passed in order to strengthen the solvency and activity of credit institutions that are in a situation of difficulty or that may see theur viability compromised in the medium term.

The bank restructuring model contained in this Royal Decree is articulated around the Funds of Deposit Guarantee (FGD) of financial institutions and around the use of a new institution created for this purpose: the Banking Management Restructuring Fund (FROB). A financial institution (or a consolidated group or subgroup of financial institutions) should undertake a process of restructuring when it shows weaknesses in its economic and financial situation that could jeopardize its functioning. The process is designed, basically, in two phases:

1) finding a solution (an action plan), where the entity itself takes the initiative, or it is automatically taken by the Bank of Spain, and, if not feasible,
2) the initiation of a process of restructuring of the entity with FROB intervention.

Later this year, the system of shareholdings to the Community rules was adapted and the contributions to the Deposit Guarantee Fund in Savings Banks were amended. This was done through Order EHA/3515/2009 of 29 December, which modifies the contributions to the Deposit Guarantee Fund in Savings Banks.

In The Spanish case, the Bank of Spain issued three standards. The first one (CBE 1 / 2009 of 18 December) incorporates some new information that the financial institutions have to communicate on their capital structure, operational offices and about their higher ir senior managers. Also regulated, for the first time, is the information that those saving banks that issue voting shares need to communicate, in accordance with Royal Decree 302/2004 of 20 February.

The two remaining standards update the information required to value companies (CBE 2 / 2009 of December 18, amending the CBE 3 / 1998) and currency exchange establishments (CBE 3 / 2009 of 18 December, CBE amended 6 / 2001), to give it some consistency with that provided by other entities supervised.

11.- In Spanish they are called "Sociedades de Garantía Recíproca".

2010

This is undoubtedly the year of greatest intensification of the regulation of financial institutions. We will focus only on those standards that directly affect the financial institutions.

During the first half of 2010, we should mention not only the new legal regime of the Institutional Protection Systems (SIP), but also certain modifications in the regulation of FROB and those concerning assurance systems of depositors and investors. We should also mention a new standard on regulation and control of advertising of services and banking products.

Royal Decree Law 6 / 2010 of 9 April on measures for the impulse of the economic recovery and employment was issued. We can highlight the following two sections in the area of financial regulation:

- The rules were drawn uo to be applicable to the SIP that are created from several banks for the purpose of being considered as consolidated groups of financial institutions.
- A new case was created to proceed with the restructuring of a bank with FROB intervention, specifically, when the entity in a situation of financial weakness faces circumstances which, according to Bank of Spain, a viable solution without the support of FROB is not expected to be found.

Royal Decree-Law 11/2010 of 9 July,was issued on government bodies and other aspects of the legal status of savings banks, which modified Law 13/1985 of May 25, on investment ratios, banks'own resources and reporting obligations of financial intermediaries in relation to voting shares, and Law 31/1985, of August 2, regulating the basic rules on governing bodies of the savings banks.

This Royal Decree has several aims: first, to improve the possibilities of increasing the capital of savings banks by reforming the legal regime of the voting shares, and secondly, to promote the professionalization of its management bodies. Moreover, certain aspects of the institutional systems of protection (SIP) were adapted and a new organizational model of the financial activity of savings banks was designed.

In addition, this Royal Decree-Law introduced new provisions on solvency and liquidity of financial institutions and tax regulations applicable to the entities resulting from the restructuring. On the other hand, it incorporates the possibility that the FROB acquires bonds issued by individual banks which, though solvent and viable, were not strong enough in contexts significantly more adverse than the current one. This was done to reinforce their capital in order to increase market confidence in these entities.

CBE 3 / 2010 of 29 June was issued amending CBE 4 / 2004. The essence of this new standard is to extend the policies, methods and procedures that banks must apply when granting loans as well as to identify their impairment and the calculation of the amounts needed to cover the credit risk.

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At the end of 2010, the Bank of Spain issued four new standards with the following novelties: the change of the rules on minimum capital requirements in order to transpose two recent EU directives; the adaptation of accounting standards with new standards for formulation of consolidated annual accounts and the development of certain aspects of the mortgage market as well as certain technical clarifications of the rules of advertising services and banking products.

Finally, the third and fourth final provisions of Law 36/2010 of 22 October, Fund for the Promotion of Development, clarify the new legal regime for savings banks (now regulated by Law 31 / 1985) regulating the basic rules on governing bodies of the savings banks, and by Royal Decree Law 11/2010, Governing bodies and other aspects of the legal status of savings banks.

2011

In the first half of 2011 Law 2/2011 of March 4th is issued on sustainable economy, that demands greater transparency from financial institutions and also introduces a number of improvements in financial supervision and protection of users of financial services. In the area of banks, a series of measures was established to strengthen the financial system, in particular to strengthen their solvency level.

Also issued was Royal Decree Law 2/2011 of 18 February to reinforce the financial system with a dual purpose: first, to increase the level of solvency of financial institutions through a higher requirement of capital of the highest quality. Second, to accelerate the final phase of the institutions by restructuring, especially savings banks, through the framework established by Royal Decree Law 11/2010, governing bodies and other legal aspects of savings banks.

CBE 2 / 2011 of March 4 defines what is meant by wholesale funding ratio (for the purposes of the provisions of Royal Decree Law 2 / 2011), which is the ratio between net wholesale funding of liquid assets available and the credit to customers.

The capabilities of FROB are extended to strengthen the institutions' own resources without the need for an accompanying process of integration as was envisaged under Royal Decree Law 9/2009. So, the FROB will be able to take financial support measures such as the acquisition of shares representing the capital stock or capital contributions to entities that need to reinforce their own resources, and that request it.

4.- Banking Management Restructuring Fund (FROB)

FROB (Banking Management Restructuring Fund) was created by Royal Decree-Law 9/2009 of June 26, 2009, on bank restructuring and strengthening of banks' own resources, in order to manage the restructuring process of the financial institutions and to help to strengthen the resources of these institutions in the terms envisaged under the decree-law.

This Fund was created with a legal personality and full public and private capacity for the development of its purposes.

FROB has mixed funding paid from 9,000 million euros, charged to the State Budget and to the contributions of the Deposit Guarantee Fund for Banking Institutions, Savings Banks and Credit Cooperatives.

To fulfil its objectives, the FROB can obtain financing in securities markets by issuing debt securities, borrow, apply for the opening of credits and perform any other operations of indebtedness. The unencumbered equity of the Fund shall be embodied in government bonds or other assets of high liquidity and low risk.

Under the provisions of Article 114 of Law 47/2003 of November 26 General Budget, Central Government is authorized to provide guarantees as collateral for financial obligations due to FROB emissions resulting from financial instruments; consultation of loans and credit operations, as well as the execution of any other borrowing transactions that take place.

The FROB is governed and managed by a Governing Committee composed of nine members appointed by the Ministry of Economy and Finance:

• Two members will represent the Ministry of Economy and Finance (one from the Secretary of State for Finance and Budget and one from the Ministry of Economy).
• Four members will be proposed by the Bank of Spain.
• Three members on behalf of the Deposit Guarantee Fund.

A representative of the General Comptroller of the State Administration appointed by the Ministry of Economy and Finance at the proposal of the Auditor General can also attend the sessions of the Governing Committee but without voting rights .

One member appointed at the proposal of the Bank of Spain will be his deputy governor, who will hold the presidency of the Governing Committee.

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The Governing Committee, following the best practices of Corporate Governance has established an Audit Committee comprising three members, most of whom can not hold executive or managerial functions in the FROB. This Committee is a permanent internal organ of the Governing Committee to inform and advise it on matters covered by the scope of the Committee.

5.- Institutional Protection Systems (SIP)

The first reference to the SIP (Institutional Protection Systems) appears in Directive 2006/49/EC Capital Adequacy, Article 80, where these systems are defined as contractual or of statutory liability to protect and, in particular, ensure liquidity and solvency to avoid bankruptcy when necessary.

To have an SIP there must necessarily exist a "contractual or statutory liability," that is, an agreement of solidarity by which group members are committed to supporting, if necessary, the rest in terms of liquidity and solvency.

In view of these solidarity agreements from the perspective of its extent, nature, depth and coverage, and subsequent lack of specific regulation, SIP varieties are almost endless. However, two groups can be seen: 1) an SIP strictly speaking, groups of entities whose solidarity agreements do not establish legally binding aid commitments and 2) an enhanced SIP, groups of entities whose solidarity agreements define solid contractual commitments and are legally binding.

The enhanced SIP is therefore one rung higher than the SIP in the strict sense of degree of protection of the members, to the extent the latter is a de jure systems, and the first a system in fact. In addition, in the enhanced SIP the presence of a central body is a key feature, which combines cash management work, product development and strategic planning group, and whose existence leads to a loss of autonomy of the members. This central body however, is a much more diffuse figure in the SIP in the strict sense.

The fundamental and immediate consequence of the above differences is that in most cases, the enhanced SIP is considered groups for regulatory purposes. Consequently, supervision is performed on that basis, not on individual basis as in the case of members of the SIP in the strict sense.

Under the Royal Decree Law 6/2010 of 9 April on measures to drive economic recovery and employment, rukes are configured that are applicable to the SIP that are created from several banks for the purpose of their consideration as consolidated groups of banks. Thus, its constitution, apart from those requirements already established in the CBE 3/ 2008, among others, the following should require:

1) the existence of a central entity, which will be responsible for meeting the regulatory requirements on a consolidated basis of the SIP and for establishing a binding business strategy;

2) the contractual agreement of the SIP will contain a mutual commitment to solvency and liquidity among the entities within the system, to unlimited liquidity and to devote at least 40% of own resources to supporting solvency;

3) the entities involved will share a significant part of their results, at least 40%, which must be distributed in proportion to the participation of each in the system;

4) entities must remain in the SIP a minimum of 10 years, and must necessarily inform with a minimum of two years' notice of their intention to leave after that period. They must also have an authorization from the Bank of Spain. Additionally, the contractual agreement should include a system of penalties for those institutions which desire to leave to strengthen the permanence and stability of these entities in the SIP;

5) the central entity will be one of the financial institutions that are members of the institutional protection system or of another financial institution in which all participatel and it will be also part of the system, and

6) that, according to the Bank of Spain, it fulfils the requirements of current regulations on capital of financial institutions to assign a risk weight of 0% to exposures that each of the SIP members have.

Subsequent to this Royal Decree new standards appeared that affect the SIP integrated by savings banks. These new standards, already mentioned, are Royal Decree Law 11/2010, the third and fourth provisions of Law 36/2010 and Royal Decree Law 2/2011.

5.1. SIP between Savings Banks

The most significant characteristic of the SIP made up of savings banks means that the central entity will necessarily be at least 50% owned by shareholders of those member saving banks and thave the nature of a corporation. Thus, it is tried to assure that all the saving banks that make up a SIP do not indirectly detract from its legal nature when they lose control of its central entity. In cases where the saving banks of the SIP might lose this percentage of the central entity, the saving banks would become a special foundation and would leave their banking business.

A new organizational model is designed in addition to the existing one, based on two alternatives: 1) the indirect exercise of the financial activity of the savings through a bank, and 2) its transformation into a foundation of special character, transferring its business to another financial institution.

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Regarding the indirect exercise of the financial activity, a savings bank will be able to develop its own status as a financial institution through a bank which provides full financial business. It may also contribute with all or part of the non-financial assets attached to it. The receiving bank may use its name and its activity expressions to identify its instrumental character, including its own designations of the savings bank on which it depends.

As in the SIP, if a savings bank reduces its share to below 50% of the voting rights of the bank, it shall renounce its authorization to act as a financial institution and become a special foundation.

This same exercise of indirect activity will also be allowed for those savings banks which, together, exercise their financial activity exclusively, through the central entity of an SIP.

Regarding the transformation of a savings bank into a special foundation, this will be done through the segregation of its financial activity and its social charitable activities. The equity subject to its financial activity will be transferred to another financial institution in exchange for shares in the latter, and will become a special foundation, losing its status of financial institution.

In the last months of 2010 the integration plans of the Spanish savings banks approved by the Bank of Spain began to be realized under the framework for restructuring the sector. Most of these processes have been carried out through the creation of an SIP, which usually involves the creation of a bank to which all or part of the assets and liabilities of savings banks comprising the SIP can be transferred. In some cases, savings banks have been converted into banks.

Chart 1. Processes of integration of the savings banks, funding received from the FROB and principal capital. July 2011

Groups of saving banks		Integration Model	Funding received from FROB (millions of euros)	Additional capital R.D.L. 2/2011
FINISHED PROCESSES				
1	BFA-Bankia	SIP	4,465	5,775
2	Effibank	SIP	-	519
3	Grupo BMN	SIP	915	637
4	Banca Cívica	SIP	977	847
5	Caja 3	SIP	-	It accomplishes
6	Catalunyacaixa (CX)	Merger	1,250	1,718
7	Unnim	Merger	380	568
8	CEISS	Merger	525	463
9	Novacaixagalicia	Merger	1,162	2,622
10	Unicaja + Jaen	Merger	-	It accomplishes
11	Caixa + Girona	Merger	-	It accomplishes
12	BBK + Cajasur	Acquisition	392	It accomplishes
REST OF SAVINGS BANKS				
13	CAM	-	-	2,800
14	Ibercaja	-	-	It accomplishes
15	Vital	-	-	It accomplishes
16	Kutxa	-	-	It accomplishes
17	Onteniente	-	-	It accomplishes
18	Pollensa	-	-	It accomplishes
ONGOING PROCESSES				
1	CEISS + Unicaja			
2	BBK + Vital + Kutxa			

SOURCE: Banco de España (2011) and own elaboration.

We can conclude that the restructuring of the savings bank sector has had significant consequences in terms of the mean size of these entities, reduction of capacity, sorting out balances, recapitalisation and improved efficiency and profitability (Banco de España, 2011). It has likewise incorporated clear incentives to promote a more profesional management of these banks and to improve corporative governance practices. What remains to be seen, as Carbó (2010) points out, are the social consequences of this change, including the competitive aspects, financing households and businesses and the contribution of financial intermediaries to regional growth. We trust that the outcomes will be positive and will suppose an improvement for society as a whole.

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6.- Conclusions

Banking is per se a key pillar of the financial stability of any country. The times we are living in have shown the gravity of the situation when the sector collapses and the important consequences of its instability and how it would affect all agents involved in the banking area.

Early warning systems take on extraordinary importance for the sector, therefore, and their s usefulness has been widely demonstrated in a variety of empirical studies at international level. However, although a number of causes of financial crises as well as alerts have been detected, we must take into account the environment in which these crises occur. This is because not all crises affect different countries in the same way, so variables and causes will maybe change in different environments.

There is empirical sufficient evidence to say that the use of early warning models by the supervisory bodies could help them in decision making.

It has also become apparent that while the financial information submitted by banks is sufficient for the development of these successful models, it is appropriate not only to include other exogenous factors in them, such as macroeconomic variables but also an effective following of the supervisors.

The permanent introduction of new developments in regulations and the changing events that happen in our society should lead to the development of dynamic warning systems and therefore, flexible systems that are prepared to reflect those changes. That is why, in the study of early warning systems, researchers should look not only for variables but also for new techniques that could increase the success rate of existing warning systems.

Once again, the usefulness of predictive models has been demonstrated. The diversity and heterogeneity of conclusions reached in previous studies seem to show that each country should be analyzed separately, as a case study, due to the casuistry of each place. We also should remark the importance of taking quick decisions on economic and financial politics.

To tackle the crisis, European and national authorities have taken several measures in varius directions. In Spain the FROB was created in 2009 with the dual purpose of providing a solution for those companies that ceased to be viable and to provide viable Institutional Protection Systems (SIP) to promote their restructuring. Now the restructuring process is complete (the new savings bank map), it can be observed that the Spanish banking system remains solid and solvent. It is necessary to provide markets and public alike with precise information about the current solidness of the Spanish banks and their capacity to continue to contribute to sustainable economic growth. Various actions were taken

in this line to increase financial transparency in order to regain the confidence of investors in the Spanish financial system. In this sense, in coordination with other EU authorities stress tests were carried out and the results were published.

Finally, the renewal of tensions at the end of 2010 led to the approval of the RDL 2/2011, which raised the minimum level of capitals to 8% or 10% of risk weighted assets, which enabled the FROB to recapitalize those institutions that failed to meet these new requirements by themselves. In addition, it accelerated the restructuring of the Spanish financial system that had been opened the previous year, so the number of savings banks was reduced from 45 to 18. This process of integration was accompanied by a reorganization of the institutions involved.

However, it is necessary to continue with an intensification and disciplined execution in this field. The real economy will not flow until the financial economy stabilizes. Recent events in August 2011 show, once again, this statement and the varying degree of exposure according to the country. These events will also show the correctness or not of each of these countries' financial regulation and its implementation in the strict economic sense, without any other considerations.

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