Margins, General Expenses and Efficiency of Spanish Cooperative Banks (2001–2010)Subtitle as needed

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Abstract—The objective of this study is to analyze and evaluate the margins, general expenses and efficiency in the sector of Spanish cooperatives banks during 2001–2010. This study is based on an analytical development in the process of change that occurred in the financial sector, specifically with the deposits, during the mentioned period.

In this regard, it was found that the advantages that the cooperatives banks had obtained in the past, which had made them competitive, decreased during the current crisis. The basic and ordinary spread of these institutions has been overcome by the margins of commercial banks.

Keywords— Margins, General Expenses, Operational Efficiency, Cooperative Banks.

I. INTRODUCTION

If we exclude the period of this study, the Spanish banking system was, for a long time, the fundamental support for the growth of the economical activity of Spain; a fact that, in turn, provided feedback to the credit activity of the financial system itself, supposing the circumstances that the system was growing in strength.

The international crisis started in the summer of 2007. In case of Spain, it was showed more sharply during the fall of 2008. This crisis evidenced that the entire economic and financial scheme that rested over the bases that seemed solid, subsequently resulted to be insufficient.

In the said circumstances, the financial sector was affected by the macro-economical situation. The growth of the GDP was weakened, presenting reduced and even negative rates. Besides the effect of the international situation, locally, this indicator mainly deteriorated because the component with more weight, private consumption, was reduced notably in those years. This was an important factor in the deleveraging process that the private sector was carrying out. This, in turn, caused a substantial increase of the unemployment rate.

II. BIBLIOGRAPHICAL REVIEW

Several authors have researched on the events related to competitiveness in the sector of deposit entities. The analysis focused, among other factors, on the strong rivalry proceeding mainly from other credit group entities (banks and savings banks) with relatively larger size and aggressive integration models and growth, which has made an impact in the levels of profitability and productivity of the cooperative bank [1]–[7].

The competitive advantages of cooperative banking have become blurred by the crisis, since the greater its relative liquidity, the better intermediation image or “spread” of the lesser cost of the liability, has been nearing the levels of banks and savings banks [8].

The scenario from the years prior to this study period was supported by a crisis situation that presented important uncertainties for the credit entities, which are still persistent today. At a particular level, according to the investigation of several authors, in the case of cooperative banking, some of these uncertainties are of structural nature. In this way, this situation needs the development of some strategic changes [9], [10].

Based on the research made by the previous authors, a study of margins, general expenses, and efficiency of the Spanish cooperative banking is implemented in this paper.

III. DATABASES

The Annual Directories of the National Union of Credit Cooperatives (UNACC), Spanish Confederation of Savings Banks (CECA) and the Spanish Banking Association (AEB) were the sources of primary information. Moreover, information from the Supervision Memoirs of the Bank of Spain (BdE) and the Statistic Bulletins of the same institution were used.

IV. MARGIN ANALYSIS

A. Evolution of Interests Rates

In order to proceed to the analysis of the margins, results and productivities in the period of study that occurred regarding the interest rates should be kept in mind. The period analyzed can be broken down into three sub-periods. In order to proceed to the analysis of this indicated, Fig. 1 is enclosed.

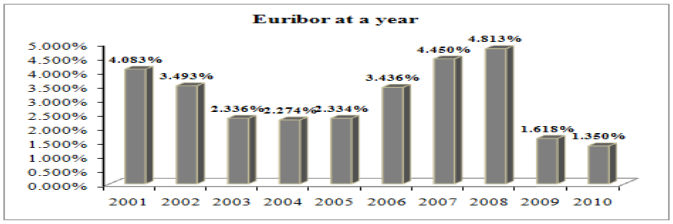

Figure 1. Evolution of the EURIBOR at 12 months during 2001–2010. Source: Own elaboration from chart 1.19 of the statistical series (Compressed CSV format) from the statistical bulletin of the Bank of Spain.

From the analysis of this graphic, we can deduct the following conclusions:

- Sub-period 2001–2005 in which a continued decrease of interest rates (4.083% to 2.334%) is produced. That way, at the end of 2005, it is an important cycle from the strategic point of view for the banking entities, in which they already had larger incomes for this concept.
- Sub-period 2006–2008 in which the rates increased considerably (2.334% to 4.813%) during the said years. This tendency investment forced the deposit entities to work with recurring intermediate margins, ordinary and basic, which was more reduced each time for trying to be competitive in its activity. The entities also undertook other types of strategies such as growth and geographic expansion, and in some cases, cost contention policies that would allow them to grow in the trading profit.
- Sub-period 2009–2010 during which the tendency was inverted again, with a sharp change in rates, going from 4.813% (maximum rate of the study period) to 1.350%.

The incidence of evolution of the interest rates in the margins of the banking entities is an overly known matter. Also, the volatility of the interest rates is significant in determining the behavior of the banking shares, confirming a negative effect in the volatility of the performance of the portfolios. In this case, it may also appear to be a relation between the magnitude in absolute value of the rate volatility impact and the institutional size [11].

B. Margin Analysis

When examining the accounts of cooperative banking, as a prior step to the development of the objective of this summary, we must bear in mind that the accounting information elaboration models and the financial statements of the deposit entities in Spain have been the object of such modifications, which are reflected in circular notes from the Bank of Spain.

The reason why successive adaptations of the financial statements were started was to make them homogeneous and comparable during the period being analyzed.

The financial statements from 1999-2004 were done by the entities that followed the guidelines from Circular Note 4/1991 dated June 14th to credit entities on accounting regulations and elaboration of financial statements. Starting from 2005, and up to 2007, Circular Note 4/2004 dated December 22nd, on regulations of public and reserved finance information and models of financial statements, the same presented important modifications that affected the structure of the main balance and result entries. Circular Note 6/2008 dated November 26th from the Bank of Spain, to credit entities as modification of Circular 4/2004, which gave place to elaboration of the financial statements of the last three years of the study period (2008–2010).

TABLE I. CAGR OF THE MAIN MAGNITUDES OF THE SPANISH BANKING ENTITIES[1]

Percentage growth rates (CAGR) of significant magnitude of the profit and loss accounts of the deposit entities (2001–2010)			
	C A G R (Percentage)		
	Credit Coop.	Banks	Savings Banks
Total average assets	12.35%	10.14%	12.99%
Intermediation Margin	3.01%	1.25%	1.29%
Net Commissions	7.40%	3.46%	6.42%
Basic Margin	4.09%	5.44%	4.13%
Ordinary Margin	5.10%	6.37%	5.41%
Trading expenses	5.66%	3.18%	3.50%
Personnel expenses	5.79%	2.14%	4.29%
Trading profit	5.07%	9.47%	7.94%
Earnings before taxes	-3.47%	6.60%	-10.25%

Source: Own elaboration based on information obtained from UNACC, CECA and AEB.

In the first place, the analysis of the main components of the public profit and loss accounts of the Spanish deposit entities is started; for this, Table I is enclosed, in which the Compound Annual Growth Rates (CAGR[2]) from the most important magnitudes of this financial statement from the study period of this work is presented.

The calculation of the CAGR responds to the following expression:

$$CAGR(t_0, t_n) = \left[\frac{V(t_0)}{V(t_n)}\right]^{\frac{1}{t_n - t_0} - 1}$$

Where:

$V(t_n)$ = Final value
$V(t_0)$ = Initial value
$t_n - t_0$ = Number of years considered

[1] While the average total assets correspond to accounts of the balance of the situation, it is included in chart No. 1 to the sole effect of comparison with the entries belonging to the results accounts.

[2] The CAGR is not an accounting term, but it is widely used, especially in growing industries or to compare the growth rates for investments, due to the fact that the CAGR moderates the volatility effect of periodic returns that may make the arithmetic mediums irrelevant. The CAGR is frequently used in order to describe the growth over a period of time of some elements from the business, for example incomes, units delivered, registered users, etc.

It can be noted from Table I that the growth of the average total assets did not accompany the increase of the other indicators. What can be observed indeed, is that for credit cooperatives, the first indicator of the cascade of profit and loss account (intermediation margin), the relative profits were higher than the banks and savings banks. Moreover, credit cooperatives' net commissions experienced a CAGR of 7.4%, which was higher compared to that of savings banks (6.42%) and banks (3.46%).

Analyzing the entry for trading expenses, we can see that banks have exercised a better control of the same during the period, presenting an annual average growth of 3.18% compared to 3.50% of savings banks and 5.66% of credit cooperatives. This indicator shows us the positive impact that appropriate control on trading expenses has over the final profitability of it and other types of entities.

If we take a look at the personnel expenses entry, we can also see that the banks – just like in the case of trading expenses – have had a more appropriate control of the same, presenting an average annual growth of 2.14% compared to 4.29% of savings banks and 5.79% of credit cooperatives. This heading, like the previous, gives us the first indications that cooperative banking has certain competitive advantages in the first level of profit and loss account (intermediation margin) and that the said advantages are clarified with the analysis of the following levels of the profit and loss account.

If we proceed to analyze in relative terms (over average total assets) the previous indicators, very significant differences can be obtained, depending on the banking entity mode we are analyzing. In case of intermediation margins, Fig. 2 is enclosed, which starts with 2001 of some levels in relative terms over total average assets that are much higher in the credit cooperatives (3.40%) than in savings banks (2.67%), and especially higher than those of the banks (2.40%). This entry, for the said year, indicates that from each 100€ of total average assets of the cooperative banking, they generated 3.40€ of intermediate margin; 2.67€ in savings banks and 2.40€ in banks.

These initial differentials between the three modes of deposit entities remained almost throughout the study period; the differential narrowed in 2003 in the case of savings banks with credit cooperatives. Finally, in 2009, the level of this indicator exceeded that of the savings banks, and also widened the differential in 2010. In any case, during the initial year, the banks kept a lower differential with the savings banks due to the higher performance of capital instruments in the said period.

Even though, the savings banks reverted this evolution to the loss from years 2002 and 2003, the global tendency in all deposit entities showed a continued decrease upto 2005, during which the beginning of a modification to that same evolution can be noted; this transformed into moderate growths up to year 2007. This change in the evolution of the intermediation margin has a direct relationship with what has been analyzed at the beginning of this summary regarding the evolution of the interest rates. In spite of the decreasing tendency in its intermediation margin, the credit cooperatives maintained much higher values than their competitors.

The basic and ordinary margins are also analyzed. Figs. 3 and 4 illustrate this.

These two indicators evolved in a similar way to the intermediate margin, showing for credit cooperatives, except year 2010, values that were clearly higher than those of the banks and savings banks throughout the entire study period.

As such, at the beginning of the period, the basic margin of the cooperatives was 4% in terms of total assets against 3.13% and 3.27% from banks and savings banks, respectively. Savings banks temporarily reduced the differential with the credit cooperatives in 2003, the year in which it was assumed that for each 100€ from total assets, the savings banks generated a basic margin of 3.31€ against 3.63€ from credit cooperatives and 2.27€ from banks. Finally, banks overtook savings bank in this category in 2009 and credit cooperatives in 2010.

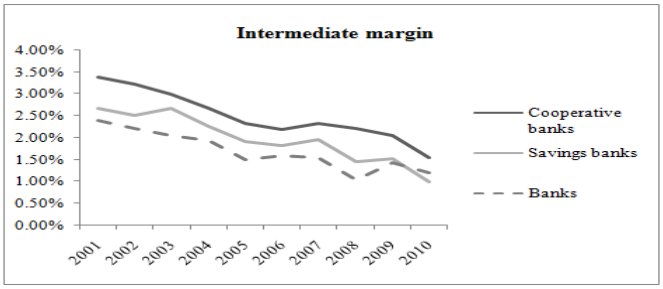

Figure 2. . Evolution of the Intermediation Margin of the deposit entities (2001–2010). Source: Own elaboration based on information obtained from UNACC, CECA and AEB.

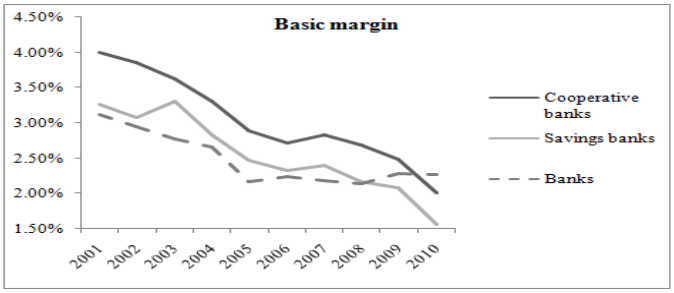

Figure 3. Evolution of the Basic Margin of deposit entities (2001–2010). Source: Own elaboration based on information obtained from UNACC, CECA and AEB.

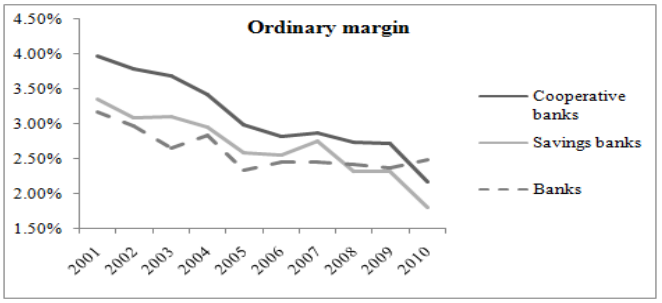

Figure 4. Evolution of the Ordinary Margin of deposit entities (2001–2010). Source: Own elaboration based on information obtained from UNACC, CECA and AEB.

In the case of ordinary margins, credit cooperatives held 3.97% over total assets in 2001, against 3.18% and 3.33% from banks and savings banks, respectively. Savings banks managed to temporarily match the differential with credit cooperatives in 2007, the year in which it was assumed that for each 100€ of total assets, cash generated an ordinary margin for 2.76€ against 2.87€ from credit cooperatives and 2.46€ from banks. Similar to what happened to basic margin, banks overtook the ordinary margin of savings banks in 2008 and that of credit cooperatives in 2010.

From the previous observations, it can be assumed that the cooperative bank has clearly differentiated certain competitive advantages that it has been keeping almost throughout the study period. The maintenance of these differentials on the recurring margins of the credit cooperatives on the aforementioned years has been basically due to the loyalty and economic and social characteristics of the clients, in spite of commencement of growing competition in the sector.

Therefore, on the first levels of the profit and loss account (intermediate margin, basic margin and ordinary margin), they present relatively similar tendencies; in the case of inferior levels, the analyzed competitive advantages are matched and even in those cases, the tendency gets reverted.

On the other hand, in 2001, the cooperative bank deviated from margin levels of trading representing 1,57% from total assets, against 1.49% of banks and 1.31% of savings banks; nevertheless, this competitive advantage was lost in 2004 (Fig. 5 attached herein), the year in which the trading profit of savings banks exceeded the banks (1.45%) and cooperative banks (1.31%).

These circumstances (inferior levels of this indicator against the banks) remained constant in the period of our study since the analyzed year on the previous paragraph. Nevertheless, it has to be mentioned that the cooperative banks managed to keep this indicator in higher positions compared to savings banks until 2006 in which it maintained a trading profit of 1.24% against 1.28% of savings banks.

In 2008, such circumstances were reverted due to a great decrease of this indicator; savings banks reached a trading profit of 1.18% against 1.26% of cooperative banks. In 2009 and 2010, a marked decrease of the ordinary margin was produced on savings banks and credit cooperatives.

V. Components of General Expenses

Just as it has been previously evidenced, the management of general expenses is an essential factor in the evolution of margins, and consequently the operational efficiency. Given such importance, we proceed to analyze its behavior. Prior to this analysis, the general expenses consisted of two entries: other administration expenses and personnel expenses. The purpose of analyzing these two categories separately was the deduction of conclusions from the behavior of such in each one of the modalities and the comparison of results.

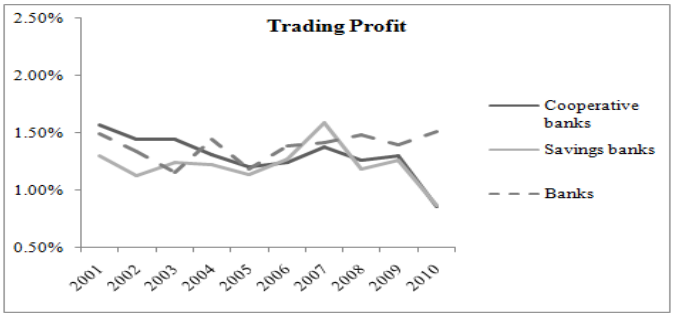

Figure 5. Evolution of the Trading Profit of the deposit entities (2001–2010). Source: Own elaboration based on information obtained from UNACC, CECA and AEB.

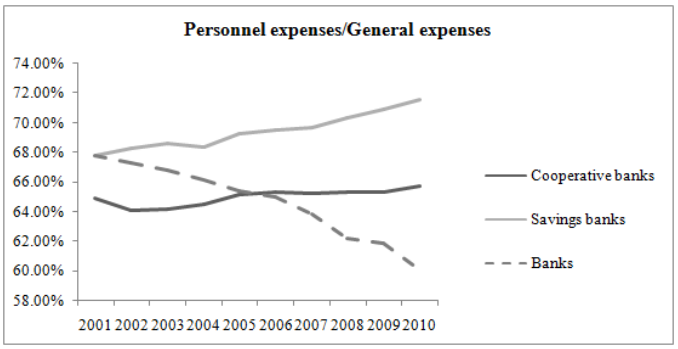

Figure 6. Evolution of the relation Personnel Expenses/General Expenses of the deposit entities (2001–2010). Source: Own elaboration based on information obtained from UNACC, CECA and AEB.

Historically, the personnel expenses have surpassed the most important quantity of the administration expenses. In our analysis, credit cooperatives represented 64.98% of the general expenses, 69.44% of savings banks, and 64.64% of banks. Now, just as it can be inferred below, on Fig. 6, the evolution of this entry of expenses in the composition of general expenses is different in each one of the three modalities of the banking system.

In case of cooperatives, it is highlighted that between 2001 and 2006, the participation of personnel expenses in general expenses was the lowest (65.37% in case of credit cooperatives and 65.04% in case of banks). Since 2006, in credit cooperatives, the personnel expenses have shown a certain level of steadiness (65%).

Banks, contrastingly to what happened in the case of savings banks, managed this entry to decrease; starting from records of 67.78% in 2001, they managed to reduce it to 64.64% in 2010. As for the savings banks, they started on 67.80% and ended up around 72%.

We analyzed the participation of the administration expenses within the general expenses hereafter. Fig. 7 shows the evolution of this ratio. As it has been previously mentioned, the banks carried out a process of reduction of personnel expenses in benefit of other administration expenses, among which the informatics expenses are included. This policy is part of a cost strategy whose immediate purpose is a clear bet for technological improvement, which brings as a direct consequence the profits on efficiency.

VI. OPERATIONAL EFFICIENCY

The ratio of operational efficiency is a part of ordinary margin, which is absorbed by the general expenses. Its calculation is: general administration expenses/ordinary margin. Therefore, it is concluded that this indicator will be lower as long as the entity is more efficient. This means that, whenever the entity is more efficient, a lower part of its operational margin will be absorbed by the exploitation expenses.

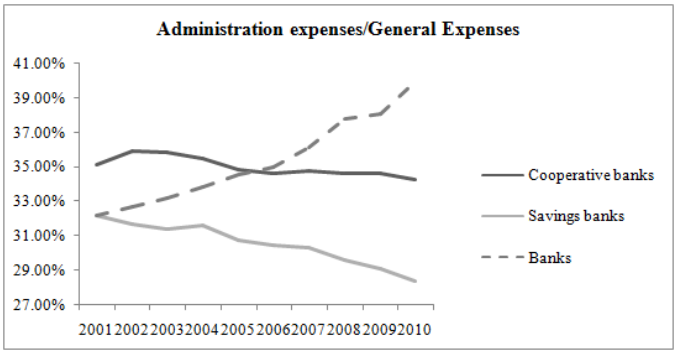

Figure 7. Evolution of the ratio Administration expenses/General Expenses of the deposit entities (2001–2010). Source: Own elaboration based on information obtained from UNACC, CECA and AEB.

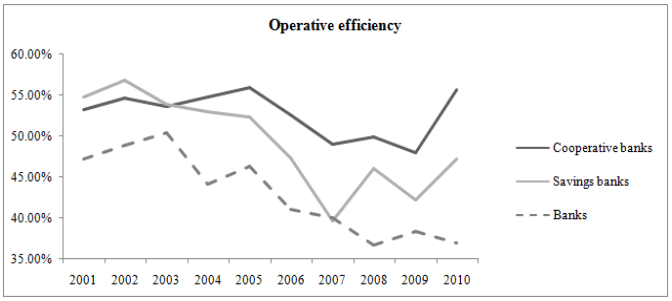

Figure 8. Evolution of the Operative Efficiency of the deposit entities (2001–2010). Source: Own elaboration based on information obtained from UNACC, CECA and AEB.

For the analysis about to be made, it will be matched based on criteria used by authors [12]. In order to determine operational efficiency, they only considered the administration general expenses, (personnel and administrative expenses) excluding from such the amortizations, reorganizations and other trading loads. This procedure was made based on two main reasons:

- The general expenses are the most important expenses to be managed facing the maintenance of the productive structure of the entity, since these are directly implied in such controllable and dependent on management criteria.
- The inclusion of amortizations and reorganizations could lead to wrong results, since its resources often do not correspond to operational criteria, but are accountable or legal.

For the efficiency analysis, Fig. 8 is attached, which shows its evolution during the study period.

It can be noted that, except for the period 2001–2003, the credit cooperatives were less efficient than the other two components of the deposit entities. Therefore, the banks were more efficient regarding cost control.

Regarding the behavior of this ratio, for cooperatives, it is important to mention that three clearly differentiated sub-periods have occurred:

- 2001–2006, in which it settled around 55%.
- 2006–2009, during which the cooperative banks managed to improve efficiency in costs by lowering them below 50%.
- 2010, this indicator, returned to 2005 levels.

In contrast to what happened with the credit cooperatives, the banks sustained the improvement of this indicator through the control of general expenses, which materialized in a reduction of such in relative values to total assets.

Savings banks, after surpassing cooperatives in efficiency levels, just as it was previously analyzed in 2003, supposed a clear improvement tendency of this indicator and reached records inferior to 40% in 2007. In 2008 and 2009, the tendency changes were produced in a way where efficiency was lost in the first year, but gained in the following year.

VII. CONCLUSIONS

The impact of the tendency of decrease of interest in the last years of the study period of this research has supposed a gradual stretching of the intermediate margins, basic and ordinary, of the three groups of financial entities that were analyzed. It has to be taken into account that in the case of the cooperatives banks – object of our research work – these three indicators historically have been one of the main sources of competitive advantage. However, as a consequence to such decrease and other measures of management nature, the cooperatives banks have passed from presenting a clear dominance before its competitors to being surpassed in 2010 for the first time by the banks.

Logically, the previous effect has conditioned the evolution of the trading profit, particularly, in the savings bank, and also in the credit cooperatives. These circumstances, along with the fact that the rural savings bank have as a peculiar characteristic higher trading costs, have an impact on its level of competitiveness. These two situations required for the cooperatives to focus on improving their strategy of cost reduction from financial to trading.

In the first study, we detected that the credit cooperatives have made notable efforts regarding moderation in costs. However, it is not to be forgotten that its competitors (particularly the banks) have been more active in this aspect. Besides, it has to be added that, to this subject, the cooperative banks parted in the first years of study of this research with higher levels of costs, which already blocks its competitiveness in said periods.

We have also proved that the credit cooperatives have presented worse records of operational efficiency in a significant part of the study period, which, again evidences

that the cooperative bank has not managed to establish a clear policy of expenses control.

All the above have an incidence not only in the economic performance and particularly in the financial performance of the sector, but also condition the results of the exercise in the study period of this research, particularly in the last two last years.

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