# SPECIALISATION AND COMPETITIVENESS OF THE SPANISH SAVING BANKS (1984-1995)\*

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The last decade has required the whole Spanish banking system to accept the challenges of the free market. Although this was a direction taken some years before, it was followed with much greater certainty once the expectations of entry into the European Common Market were confirmed. The savings banks have been faced during these years with the same challenge, but having to assimilate at the same time their unequivocal condition of financial institutions which have to compete in the markets, and the institutional changes in their governing bodies.

In view of the results, all these changes have been well borne by the savings banks, which increased their market share in many years of the period. However, the institutional peculiarity of the savings banks again poses the problem of compatibility between their legal formula and the full development of the incentives to efficiency provided by competition in all markets, including those of ownership rights over firms.

The objective of this article is to review the recent history of the savings banks in order to identify the determining factors of their present solid commercial and financial position, complementing the analyses of this type already made in previous studies<sup>1</sup>.

# 1.- THE SAVINGS BANKS AND THE NEW COMPETITION OF THE SINGLE MARKET

In the last ten years, both the national financial authorities and banking firms have had to adapt their behaviour and strategies to the rules deriving from the firm intention to build a single European market. In the case of the spanish banking sector this meant, at the same time, a double demand: to accept that there was <u>more market</u> and that in it there would be competition from banks of the other countries. Both circumstances were favoured by the many <u>de-regulating</u> decisions of the authorities and by the competition of foreign banking, not only through its effective presence in the Spanish markets but also through its pressure as a <u>potential competitor</u>.

The modification of the behaviour of banks and savings banks in order to adapt to all these challenges seems to have had broadly satisfactory results. Margins were appreciably reduced without causing a serious crisis to the system during these years (there were exceptions, due more to problems of moral hazard than to increased competition). Few would now dispute that the intensification of competition was considerable, and that the banks and saving banks managed to cope with it, starting by assimilating the shrinkage of the comfortable margins that they enjoyed and continuing - though to a lesser extent - with the control and reduction of operating costs (see Graph 1)

<sup>&</sup>lt;sup>1</sup> See Pérez and Doménech (1990), Doménech Pérez and Quesada (1993), Pérez and Pastor (1993), and Pastor (1995).

#### **GRAPH 1: EVOLUTION OF MARGINS AND COSTS**

However, it must be pointed out that assimilation of the new competitive conditions occurred at the same time as a steep increase in banking activity. Favoured initially by the expansive phase of the economic cycle that started with the expansion of the European Community in the mid-1980s, banking activity was not slowed by the recession of the early 1990s (which does not mean that it did not suffer the effects of it in certain items of the profit-and-loss account). Banking services thus behaved in Spain in these years as a sector of strong demand, expanding at a faster pace than production as a whole, and protecting itself better from the oscillations of the cycle.

There can be no doubt that this strong growth was influenced decisively by the extended use of bank means of payment, driven by the rise in the level of income, the increase in the capacity to save, and the appearance on the scene of new technologies applied to banking<sup>2</sup>. This behaviour of banking services in Spain contrasts with the discussions that have been taking place for some time in the specialist literature on the decline of the banks as a channel for the transfer of saving to investment - at a disadvantage compared to the financial markets. The "disintermediation" occurring here, though important in wholesale business areas, did not, however, mean a substantial alteration of the role of the credit sector in the financing of household economies and firms. This may be a sign of our level of development (still intermediate), but it also indicates that convergence towards the situation where there is a clear predominance of the non-bank markets in financial activities will only occur conditioned by other circumstances, especially by certain characteristics of firms that enable them to be financed directly by savers<sup>3</sup>.

A few elementary indicators will serve to justify the above statement about the evolution of the production of banking services. Graph 2 shows the behaviour of a habitual indicator of banking activity: the Average Total Assets (TA) of the Spanish credit system. From the comparison of this with an index of the nominal GDP we obtain a first picture of the growing use of banking services. As a complement to the above, let us consider two other simple indicators of the activities most characteristic of the banking system: credits and ALPs, methods of payment, created by the banks or commercialised to a large extent by them. Graph 2 also shows their evolution over the period under consideration, and enables the intensity of their respective growth rates to be compared with GDP.

GRAPH 2: EVOLUTION OF BANKING ACTIVITY: INDICATORS.

<sup>&</sup>lt;sup> $^{2}$ </sup> See Maudos (1994)

<sup>&</sup>lt;sup>3</sup> On this question see King and Levine (1994), Gardener (1995) and Metais (1995).

The strong expansion of financial intermediation and of the creation of banking payment methods were important factors in the adaptation of the Spanish credit institutions to the new conditions of competition, enabling them to develop their strategies with more room for manoeuvre. However, this freedom of movement did not mean peace of mind, as the competition became more and more demanding, nor did all banking firms take advantage of it to the same extent, as they followed very different strategies and courses.

In the new competitive conditions, the ability of firms to maintain or improve their market shares must be attributed more and more to their efficiency and less to the advantages of power in the market, exercised by those already in it thanks to a protective environment<sup>4</sup>. It is true that there are still some barriers to entry into the Spanish banking markets, but becoming more important are the barriers created by the banking firms themselves with their strategies of differentiation in services and adaptation to the customer, while those deriving from factors external to the banks are losing importance, whether of a legal, technological, or sociocultural nature<sup>5</sup>. Proof of this is that when the profitability of own resources (ROE) of the Spanish banking sector is compared with those of other countries, no substantial advantages are found, although the ratios of margins and costs to average total assets continue to be higher. This means that banking in Spain is still more costly, but is perhaps no longer more profitable than elsewhere<sup>6</sup>.

In the new competitive scenario of the last decade, the course followed by the saving banks has often been valued positively, due to their growing presence in the markets and to their ability to preserve the stability of results<sup>7</sup> better than private banks from the growing pressure of margins, in spite of the downward rigidity of some costs. But in order to make an evaluation of the reasons for this course followed by the saving banks that will serve to sketch the conditions in which they face the future, it is advisable to ask these three questions: 1) How has the specialisation of the saving banks affected their evolution over the last few years?; 2) Have they shown themselves capable of carrying out efficient competitive strategies?; and 3) Have their institutional peculiarities contributed positively to these strategies or have they hindered them? The following sections are devoted to answering these questions.

#### 2.- THE SPECIALISATION OF THE SAVINGS BANKS: BASIC FEATURES

<sup>&</sup>lt;sup>4</sup> See Smirlock (1985).

<sup>&</sup>lt;sup>5</sup> See Vesala (1993). On the definition of barriers to entry and the cases in which it is applied, see Demsetz (1982).

<sup>&</sup>lt;sup>6</sup> See Pérez and Quesada (1992 and 1994), Pastor Pérez and Quesada (1994 and 1995), Pérez Quesada and Pastor (1995), (1993), and Doménech and Pérez (1992).

<sup>&</sup>lt;sup>7</sup> The considerable fall in the profitability of the banks in 1993 was due to the government's intervention of the Banco Español de Crédito.

To answer the question about the specialisation of the saving banks, we will first investigate whether their production of services is oriented in such a way as to constitute a differential feature of these institutions as against the banks. The answer is more difficult if we consider the different firms separately that if they are considered as one aggregate. For this reason, to consider the influence of specialisation on the production of services by banks and saving banks in these years, we will begin by studying systematically the differences in the structures of their balance sheets. The approach adopted in this article will consider the saving banks as a whole, and the private banks as a whole, as if each of these aggregates constituted a representative firm.

Table 1 shows the structure of the balance-sheets for the first year of the period (1984) and the last (1995), and also the average values corresponding to all the years of the period analysed. It can be observed, firstly, that there exist important differences between banks and saving banks in their specialisation in certain services linked to the selected items of assets and liabilities. These differences are more substantial and more permanent in some banking products than in others. The last columns of table 1 and graph 3 were inserted in order to illustrate these two aspects (importance and permanence).

# TABLE 1:STRUCTURE OF THE BALANCE SHEET: SAVING BANKS vs BANKS GRAPH 3: SPECIALISATION OF BANKS AND SAVING BANKS

The last three columns of table 1 show the differences between the percentage represented by a particular item of the balance sheet in saving banks and in banks. Thus, when the sign of the difference is positive this means that the item is of greater weight in the balance of the saving banks; a negative sign identifies, on the other hand, the products in which the private banks are shown to be relatively more specialised. The value in absolute terms of these differences is indicative of their importance, which will be a result of a combination of the relevance of the different products of assets or liabilities in the credit institutions and also of the intensity of the specialisation biases of banks and saving banks. Graph 3 enables us to see the following differentiating features:

#### 1) Assets:

- The saving banks are more orientated than the banks towards financial credit for the private resident sector, whereas the banks pay more attention to operations with the foreign sector. Within credit activity, it is mortgage credit that marks decisively this more intense presence of the saving banks, as the banks on the other hand have greater specialisation in commercial credit and the <u>Other Debtors</u> item, Also, the saving banks are more inclined to the financing of government bodies, particularly by acquiring securities issued by them.

#### 2) Liabilities:

- The saving banks show a strong orientation of their liability products towards the capture of deposits, above all savings and term deposits, which is significantly strengthened by their presence in the operations of temporary cession of assets.

- The banks capture much higher percentages of their resources than the saving banks from the credit system itself (inter-bank operations) and from the foreign sector. In the field of deposits, they are somewhat more specialised than the saving banks only in sight deposits.

Let us next consider the permanence or otherwise in time of these specialisations, with the help of Graph 4; this shows the annual values of the percentage differences corresponding to the most significant items on the balance sheets. When the relative specialisation of the banks or the saving banks is permanent, the value of the indicator is maintained throughout the period at a similar level, running parallel to the horizontal axis. When the differences in specialisation between saving banks and banks in a particular product are reduced, the indicator value line converges with zero; on the other hand, when the differences become greater, the indicator line moves away from zero.

The observation of the different frames of Graph 4 shows the following <u>stylised facts</u> of the evolution of the specialisation of banks and Saving Banks in this period:

#### *a) Capture of deposits:*

The savings banks show a persistent orientation in their capture of resources towards deposits, with a significant substitution of savings deposits by term deposits. In both cases the differences of the percentages that these two items represent in saving banks as compared to banks are very substantial (more than 10% of the balance-sheet).

On the other hand, the relative specialisation in capture of sight deposits shown by the private banks at the start of the period has disappeared, both types of institution converging (see Table 2).

#### *b)* Credit activity

The saving banks very clearly maintain their specialisation in mortgage credit (despite the expansion of these operations on the part of banks, as shown by columns 4 and 5 of Table 1). On the other hand, the reduction in the intensity of the commercial credit activities and Other Debtors in the case of the banks explain the convergence observed in these specialisations between both groups.

#### c) Temporary cessions

What in the 1980s constituted a specialisation of the banks in the capture of resources, accompanying the development of other financial markets - especially that of public debt - has become a speciality of the saving banks in the 1990s.

#### d) Inter-bank market

The resort to the inter-bank market is a permanent feature of the orientation of the banks, in both asset and liability operations. The greatest importance of these last indicates that the banks are net demanders of financing in these markets, a trend that grows in the 1990s.

#### e) Public Sector

The saving banks maintain an orientation of their assets towards specialisation in the public sector with regard to securities, rather more intense than the banks. On the other hand, the greater expansion of credit to government bodies by the banks has produced convergence with the saving banks in the orientation towards this type of operations at the end of the period.

#### f) Foreign sector

Finally, the activity with the foreign sector is clearly more intense in the case of the banks, with regard both to capture of funds and asset operations. The balance of both types of operations indicates that the Spanish banks place in this sector more resources than they capture from it (see table 1).

#### GRAPH 4: PERMANENCE OF SPECIALISATION OF SAVING BANKS AND BANKS

#### **3.- SPECIALISATION AND EVOLUTION OF MARKETS**

The features of banks and saving banks identified in the above section by the data of the balance sheet seem to show that the saving banks have remained more faithful to their initial relative specialisation in some lines of banking services. Indeed, both their power in the capturing of resources through deposits and their presence in the credit activities to the resident, public, and non-financial private sectors are more stable than those of the banks. It is true that the banks also maintain their orientation towards inter-bank operations and the foreign sector, but on the other hand they have not maintained their differential against the saving banks in operations as characteristic as commercial credit and Other Credits, nor their initial advantage in the capture of resources by sight deposits or temporary cessions of assets.

In view of these data, and taking into account the information available on the profitability of the different types of operation published by the Banco de España, it could be stated as a hypothesis that the saving banks have in general been more competitive than the banks in the markets where they initially had specialisation. If this were so, the intense activity of the banks in the inter-bank market would have a residual explanation: the latter resort to the inter-bank market -where the saving banks are net lenders- to capture resources that they do not manage to obtain from savers through the traditional channels. In this case, it could be said that the position of the saving banks at the doorway into the supply of lendable funds is resulting more solid, above all in the attempt to capture the resources of household economies with which they have a long and broad commercial relationship.

The competitive advantage of the initial specialisation of firms is a subject that has received attention from economists for many years. When the productive history of the firm favours its present situation we talk of "dynamic economies of scale", which prevent the appearance of decreasing returns to scale. The basic idea is that experience in carrying out a particular activity may be very important for the efficiency with which it is done in the present. This dependence on the past may act positively by allowing the appearance of economies of scale in those firms (or countries) that were already specialised in certain lines of production, making competition more difficult for other firms who, though having lower variable costs, have to bear fixed costs that the others have already amortised<sup>8</sup>.

In multi-product firms, such as banks, dynamic economies of scale will show up to analysis not when the aggregate production of each firm is observed with cross-section data, but when considering the evolution over time of the different specialisations of the firms<sup>9</sup>. It may also be that in the specific combination that each firm makes of the different products there may exist competitive advantages such as those known in the literature as "scope economies"<sup>10</sup>, derived from the saving of costs in the joint production of several outputs. In this case, the aggregate indicators of the output of a firm may negate the existence of economies of scale, and on the other hand there may exist combinations of scale and specialisation that are the source of competitive advantage for some firms.

To explore the possibility that dynamic economies of scale may have appeared in the production of certain banking services we should first observe the growth rates of the markets of the different products that we are distinguishing in the specialisation. Graph 5 shows these indicators for

<sup>&</sup>lt;sup>8</sup> On the importance of these economies see David (1985),Romer (1987) and David and Rosenbloom (1990).

 $<sup>^{9}</sup>$  Revell (1988) indicates that the relevant economies of scale are those specific to each product.

<sup>&</sup>lt;sup>00</sup> On the concept of scope economies and its applications to banking firms, Berger, Hanweck (1987), Berger and Humphrey (1991) and Pérez and Quesada (1991) Ch.4.

the Spanish credit system as a whole, so that it can be appreciated whether the growth of each banking service has occurred at a rate higher or lower than the expansion rate of the TA. The observations providing the indices with most clearly differentiated behaviour regarding the evolution of TA were the following:

#### *a)* Capture of deposits

In general, deposits did not have a buoyant behaviour as a consequence of the effects of the disintermediation that accompanied the development of the public debt and investment fund markets. Consequently, in this case the maintenance of the specialisation of the saving banks cannot be interpreted as the desire to stay in a market in expansion on the basis of these data. Thus we must seek other reasons to explain why the saving banks have maintained their specialisation in this terrain and expanded their share of these markets.

#### *b)* Credit Activity

In this case, on the other hand, the dynamism of mortgage credit, with a much higher growth rate than TA, constitutes a sign that there was for the saving banks an opportunity to take advantage of their long tradition in this market. The other types of credit - in which the banks started with the advantage of initial specialisation - expanded at a much lower rate.

#### c) Temporary cessions

The very fast growth of these operations occurs in the second half of the 1980s, in the years when the banks were more oriented towards them. The greater specialisation of the saving banks in later years therefore indicates an increased share of an already developed market, possibly as a means of compensating for the slow evolution of deposits and supporting in this way the capture of customers' savings.

#### d) Inter-bank market

The behaviour in this market followed a course very similar to the TA.

#### e) Public sector

This market grew strongly in the 1990s due to the heavy resort to credits as a means of

financing on the part of local and regional government. both banks and saving banks paid attention to this growing demand for financing from government bodies.

#### f) Foreign sector

These operations experienced significant acceleration in the 1990s, recovering the gap that had grown between them and TA.

#### **GRAPH 5: INDICES OF RELATIVE EVOLUTION OF BALANCE SHEET ITEMS**

The evolution of The markets can be summarised by underlining the strength of the specialisation of the savings banks in the three that show most intensive expansion: mortgage credit and credit to government bodies on the asset side, and temporary ceding of assets on the liabilities side. In both the asset markets mentioned the saving banks in all probability were supported by their long experience of dealing with household economies and government bodies - in particular regional and local government. but why did the saving banks opt to maintain their specialisation and increase their presence in the deposits markets which, as we have seen, do not in these years expand overall at a fast pace?

Indeed, the shadows on the relationship between the specialisation strategies of the saving banks and the expansion of the markets are cast by the permanence of this orientation towards deposits, a liability whose evolution for the credit system as a whole is slow, due to the stiff competition for these banking liabilities posed above all by public debt certificates and shares in investment funds. In this sense, we cannot forget the possible substitutions between deposits and temporary cessions, the sum of which represents a growing percentage of saving banks' liabilities. This substitution has been chosen by the saving banks on occasions as a way of facing -defensively-the higher demands for remuneration of liabilities by some customers, thus avoiding the "contamination" of large volumes of deposits.

# 4.- ARE THERE ADVANTAGES IN THE SPECIALISATION OF THE SAVING BANKS?

All the above comments on the differences between saving banks and banks invite the question whether it is possible to associate the strategic decisions of these institutions regarding specialisation with their achievements in terms of market shares.

The average cumulative growth rate of the TA of the saving banks is two and a half points higher than that of the banks for the period analysed, and it is therefore evident that the former gained market share. On this basis we can ask what part of this different evolution can be explained by the specialisation of each group in each of the markets which, as we have seen, grow at different rates according to the data of the bank balance sheets. We will use for this purpose an elementary technique of "shift-share analysis"<sup>11</sup>. In our case we will distinguish three components: the growth of banking markets as a whole, the effect of the specialisation of each grouping, and a residue, which will have to be explained by certain peculiarities of the banks and saving banks other than the information reflected in their balance sheets.

The first component is exogenous, being determined by the expansion of the market; on the other hand the second and third are endogenous, referring to decisions of the firm, whether to do with their particular specialisation or with the efficient use of the factors employed in the capture of liabilities or the placing of assets.

To illustrate this technique, suppose that there exist J firms (j = 1, ..., J) and that the balance sheet of the firms consists of I items (i = 1, ..., I). For the total of firms, item i ( $x_i$ ) can be expressed as the sum of these items for each of the J firms in the form :

$$\mathbf{x}_i = ? \int_{j=1}^{J} \mathbf{x}_{ij}$$

The output of the firm  $j(x_j)$  is the sum of the I items.

$$X_j = ? I_{i=1}^{l} X_{ij}$$

for the total of firms, the output (x) will be the sum of the *I* items for each one of the *J* firms

$$X = ? \stackrel{I}{_{i=1}} ? \stackrel{J}{_{j=1}} X_{ij}$$

Given that we are interested in analysing the sources of growth of the firms (banks or saving banks) in general, the growth of item *i* of firm *j* between the period *t* and t+1 can be expressed as

$$\chi_{ij}^{t+1} = \chi_{ij}^{t} (1 + g_{ij})$$

where  $g_{ij}$  is the growth rate of item *i* in firm *j*. In the same way, we define  $g_i$  as the growth rate of

<sup>&</sup>lt;sup>11</sup> See Esteban (1972).

item *i*,  $g_j$  as the growth rate of firm *j* and *g* as the growth rate of the market.

From all the above, the growth of output of the firm  $j(g_{ij})$  between the period t and t+1 can be expressed as a mean of the growths experienced by each of the items, weighted for their relative importance in the total output of the firm.

$$x_{j}^{t+1} = x_{j}^{t} \overset{1}{\overset{l+g}{\overset{l}{_{j}}}} = \overset{2}{\overset{2}{\overset{l}{_{j}}}} 1 + ? \overset{I}{\underset{i=1}{\overset{l}{_{j}}}} g_{ij} \frac{x_{ij}^{t}}{x_{j}^{t}} \overset{2}{\overset{2}{\overset{2}{_{j}}}}$$

Operating and re-ordering the above expression, the growth of output of firm *j* can be expressed as:

Given that the first term in the brackets is the growth rate of the market (g), expressed as a weighted mean of the growth rates of each of the items of the market, substituting for g we obtain

where the growth of firm j is explained by the growth of the market (g), the differential growth explained by the growth of the items in which firm j has a specialisation different from the market average, represented by the first term if the sum and the residue of the growth differential associated with the greater or lesser capacity of each firm to grow in a way different from the market, represented by the last term.

TABLE 2: DECOMPOSITION OF GROWTH OF THE BALANCE SHEET: BANKS vs SAVINGS BANKS.

#### **GRAPH 6: SPECIALISATION AND GROWTH**

Table 2 reflects the results of the above exercise applied to the banks and the saving banks in the period analysed, and graph 6 synthesises these results for the average of the period analysed. In general terms, the exercise indicates, with regard to specialisation, that the greater growth of the saving banks finds a different explanation in assets than in liabilities. In the case of assets specialisation contributes positively - and here we should recall the expansion of mortgage credit and of credits to government bodies. On the other hand, in liabilities the effect of the specialisation of the saving banks on growth is negative - and now we have to mention the moderate evolution of the deposit markets. The sign of the effects of specialisation is the opposite in the case of the banks (positive in assets and negative in liabilities), which is reasonable given the decomposition exercise done.

However, it is interesting to note that the third factor - the residue that reflects the

differences between banks and saving banks which are not attributable to the specialisation captured by the balance items - is of positive sign in both assets and liabilities for the saving banks, and of negative sign, again in both cases, for the banks. These signs may be interpreted in terms of other factors that have given the saving banks further competitive advantages over the banks, other than their greater or lesser specialisation in a certain market. The question is especially relevant in the case of liabilities, for two reasons: a) because it constitutes the means for capturing the resources that can be placed and, therefore, determines the volume of funds mediated; and b) because it is in these activities where the greatest importance of this third factor is observed, in both banks and saving banks.

It is thus of interest to go further into the explanation of the origin of a capacity for expanding the resources captured by the saving banks, which goes beyond what is justified by their specialisation as measured in terms of the items of the balance sheet and the dynamics of some of these items. We interpret this to be a positive effect derived from two causes: a) the decision to produce means of payment services - in which the saving banks are gaining terrain - supported by the supply of services provided by the network of offices and electronic payment methods as a whole; and b) the efficiency achieved by the saving banks in the management of this productive specialisation.

#### **5.- SPECIALISATION IN MEANS OF PAYMENT**

The maintenance of the volume of deposits must be considered as an option choice made by the saving banks with the aim of playing a very active role in the phase of development of bank means of payment that occurred in Spain during these years. To study its importance, it must be taken into account that although the items of the balance sheet and their evolution provide valuable information for the analysis of banking output, they cannot supply us with all the data necessary for a complete evaluation of it<sup>12</sup>. In the case of deposits we find a good example of this, as being liquid assets makes them in demand as means of payment. Consequently, it is reasonable to ask if the balances of deposits - which as we have seen follow a moderate evolution in comparison with that of other items -constitute a good approach to the volume of means of payment services provided by banking firms.

There are different signs that the demand for means of payment associated with deposits in these years is higher than indicated by the evolution of their balances. This is possible if the use of banking deposits as means of payment currently occurs in such a way that the number of

<sup>&</sup>lt;sup>22</sup> This is the reason for the wide-ranging discussions among specialists as to which are the best approaches for measuring the production of banking services. See Berger and Humphrey (1993), Pérez and Quesada (1991), ch.4, Pérez and Pastor (1994) and Pastor (1995).

transactions done with them is increasing. In this case, the increase in the <u>velocity of circulation</u> of <u>bank money</u> would offer banking firms business opportunities (both through charging commissions and through customers' evaluation of those services when agreeing the remuneration of liabilities), which will not be sufficiently reflected in the balances of deposit accounts.

The argument of the above paragraph may be supported by some indicators which have to do, above all, with the effect of new information technologies on the services performed by bank money<sup>13</sup>. The Bank of Spain calculates as velocity of circulation of each of the monetary aggregates the quotient (Nominal GDP / aggregate). In these indicators, by definition, the narrower the aggregate the faster the velocity of circulation. The general trend of the rate has been to decrease, as the demand for liquid assets has increased more than the Nominal GDP. But what it interests us to observe is the evolution in the period analysed of the rates of the different components of the monetary aggregates. Of the different definitions of the monetary aggregates, those that are most closely associated with banking means of payment are those that show least reduction in their rates (see graph 7).

Another approximation to the means of payment services of banking assets may be provided by the ease of disposing of them by using ATMs and cards, which reduce the transaction costs associated with the conversion of cash. Graph 10 compares, for the saving banks, an index of the evolution of deposits in real terms, with the indices of the evolution of the number of branches, the number of ATMs, the number of withdrawals at ATMs, the volume of withdrawals (in real terms) and the total number of cards. All these indicators (except the braches) increase at a faster rate than that represented by the balances of deposits, and point to an easier and more intense use of these deposits as means of payment. Consequently, it is not absurd to conjecture that the saving banks' decision to expand their means of payment services responded to a demand more intense than that indicated by the balance of deposits.

Due to the lack of information, it is not possible to compare the behaviour of the banks with that of the saving banks in all the above indicators, except in the number of branches and ATMs. At all events, Graph 8 also provides this information and enables us to see that he supply of services related with means of payment also expanded with intensity in the case of the banks, but the banks do not offer such a dense network of offices and cashpoints as the saving banks, so that the transaction costs associated with access to and mobilisation of bank balances may be somewhat higher, especially for individual customers (see graph 9).

#### GRAPH 7: VELOCITY OF CIRCULATION GRAPH 8: INDICATORS OF METHODS OF PAYMENT IN ?

<sup>&</sup>lt;sup>33</sup> See Maudos (1994)

#### GRAPH 9: SERVICES OF PAYMENT METHODS: Saving banks vs BANKS

In view of the above, it is not surprising that while the deposits of the saving banks increased their relative weight in the monetary aggregates referred to -M3 or ALP- in spite of the expansion of the non-banking liquid assets, on the other hand banking deposits clearly lost importance (see graph 10).

#### **GRAPH 10: COMPONENTS OF THE MONETARY AGGREGATES**

#### 6.- EFFICIENCY AND MARKET SHARES.

The other factor explaining the positive differential growth of the saving banks may be found in the productive efficiency of the different firms. The "contestable market" theorists have seen that when competition exists the gain of market share by certain firms will be the result of their greater efficiency, and not a reflection of their market power<sup>14</sup>. From this point of view, it can be investigated whether the indicators of productive efficiency of banks and saving banks provide evidence to justify the latter's growing market share.

The measurement of productive efficiency is a complex question and we can approach it by different paths which do not always offer quantitatively coinciding evaluations<sup>15</sup>. Notwithstanding these differences, the common idea underlying the calculation of productive efficiency is that of using the least quantity of resources to obtain a certain output or the maximisation of production obtained from a given amount of resources.

If we consider the capacity of banks and saving banks to generate added value, in relation to the capital and labour resources used for each group<sup>16</sup>, the results obtained by the saving banks are better than those of the banks. The empirical evidence accumulated in the Spanish case in this sense is fairly plentiful<sup>17</sup>, and always of the same sign. Graph 11 shows the behaviour of the efficiency levels of banks and saving banks (top) in relation with the data on the evolution of the market shares (bottom). The graph suggests that the greater efficiency of the saving banks was a firm support for their advance in the credit and deposit markets.

#### **GRAPH 11: EFFICIENCY AND MARKET SHARES**

<sup>&</sup>lt;sup>44</sup> See Baumol, Panzar and Willig (1982).

<sup>&</sup>lt;sup>55</sup> See Pastor (1995).

<sup>&</sup>lt;sup>66</sup> This indicator of efficiency corresponds to the measures of <u>total factor productivity</u>. See Pérez and pastor (1994) and Pérez and Doménech (1990).

<sup>&</sup>lt;sup>77</sup> See Pérez and Pastor (1994), Pastor (1995), Pérez and Doménech (1990) and Lozano (1993).

This greater efficiency may be associated both with the advantage taken of a particular specialisation, which we have already discussed, and with the proper use of the productive resources employed, in particular of human resources and technology and organisation. With regard to human resources, it can be indicated that in different studies<sup>18</sup> evidence has been found that the qualifications of the staff of the Saving banks have a positive and statistically significant influence on the productivity of the institutions, whereas no evidence is found in this sense in the case of the banks.

#### 7.- PERSPECTIVES

Until now we have seen, from several standpoints, that the response of the saving banks to the competitive challenges of this last decade has been, in general terms, satisfactory. However, it cannot be presumed that the situation achieved will remain stable in the future. The pressure of the markets will continue inexorably to act in search of opportunities to offer services with lower costs and only the institutions able to do so will continue to be competitive. The most reasonable expectation is that technological changes on the one hand and the processes of economic and monetary unification on the other will cause frequent shocks in this direction and offer new scenarios for the development of the competitive strategies of each firm in the coming years.

In the past decade he heavy investment required in technological change and by the specialisation in mass means of payment were incompatible with the growing pressure on margins. The reason for this impasse must be sought in the wide starting differentials and in the lower priceelasticity of the demand for financial liabilities received by the saving banks from small savers. However, the trend towards homogenisation and standardisation of the means of payment services and the penetration of new applications of information technology and communications threaten the future permanence of some of these advantages. It is possible that the present power of the networks of offices and cashpoints will be reduced with telephone banking and full compatibility of networks. It is also probable that the price elasticity of the demand of small savers will increase with their level of income and the broadening of their financial culture.

When the opportunities of enjoying the present niches in the markets are exhausted, the ability to compete in costs will come to the fore. This is a terrain in which the difficulties of Spanish banking firms in general - and the saving banks in particular - seem to be greater. Indeed, the narrowing of margins has affected profitability more than it has affected the cutting of costs, and the

<sup>&</sup>lt;sup>88</sup> See Pastor (1995), Pérez and Pastor (1994), and Pérez and Doménech (1990).

downward resistance of the latter is especially notable in the case of the saving banks. It may be asked whether this situation threatens the viability of the saving banks' strategy in the future and whether or not it has to de with the institutional and management model. The basis for this point of view can be found in the possibility that those in charge of the saving banks - directors and executives - do not have enough incentives to undertake processes of cost control and restructuring, which may be accompanied by social tensions and resistances of different kinds. If this so, the reasons for questioning the institutional model, which hitherto were not appreciated, may become important. But it must be pointed out that we are speaking of conjectures about the future behaviour of the management of the saving banks (and of their ability to anticipate developments), and not of facts.

Occasionally the question is raised as to whether the existence of public banking firms or institutions like the saving banks limits the extent of the rules of the market by establishing institutional barriers to certain mergers, acquisitions, or shareholdings. This question is currently being debated in Spain as a consequence of the asymmetry derived from the decisions of some saving banks to purchase banks, the reverse of which is not possible. It is also asked when the authorities wish to continue intervening in foreign banks' takeover operations of Spanish firms.

If we trust in the ability of the markets to promote efficiency it must be recognised that these barriers may prevent certain incentives having an effect on directors and managers of the saving banks. However, for the moment this possibility cannot be confused with reality: there is no basis to state that this lack of pressure for efficiency is occurring in the Spanish saving banks. On the contrary, the evidence supplied in previous pages indicates that the behaviour of the saving banks enables it to be affirmed that, in general, this is not so. Until now the demands of competition in the markets for the saving banks' products and their management model are proving to be sufficient to provide results that are comparable to - if not better than - those of the private banks. On the basis of these facts, it is disputable whether it is advisable for the moment to promote institutional reforms of the saving banks on the basis only of hypotheses and/or conjectures of the prescriptions deriving from a model which also has to be tested.

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#### TABLE 1

#### STRUCTURE OF BALANCE SHEET: SAVING BANKS vs BANKS

	SAVING BAKS			BANKS			SAVING BANKS-BANKS		
	1984	1995	1984-95	1984	1995	1984-95	1984	1995	1984-95
TOTAL ASSETS	100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00
1. CREDIT SYSTEM	22.19	18.93	20.56	21.05	20.53	20.79	1.14	-1.60	-0.23
2. TOTAL GOVT.	18.54	22.15	20.34	14.07	17.77	15.92	4.46	4.38	4.42
2.1. GOVT CREDITS	2.10	5.36	3.73	0.65	5.23	2.94	1.45	0.14	0.79
2.2. GOVT SECURITES	16.43	16.79	16.61	13.42	12.55	12.98	3.01	4.24	3.63
<b>3. OTHER RESIDENT SECTORS</b>	47.85	45.44	46.65	42.62	35.37	38.99	5.23	10.08	7.65
3.1. COMMERCIAL CREDIT	2.11	2.32	2.22	12.62	5.17	8.89	-10.50	-2.85	-6.68
3.2. MORTGAGE CREDIT	16.03	24.03	20.03	1.28	9.71	5.49	14.75	14.32	14.54
3.3. OTHER DEBTORS	18.19	15.69	16.94	26.49	18.21	22.35	-8.31	-2.52	-5.41
3.4. SECURITIES	11.52	3.40	7.46	2.23	2.28	2.25	9.28	1.13	5.20
4. FOREIGN SECTOR	0.67	6.97	3.82	11.96	19.62	15.79	-11.29	-12.65	-11.97
5. NON-SECTOR OPERATIONS	10.75	6.50	8.63	10.30	6.71	8.50	0.45	-0.20	0.12
TOTAL LIABILITIES	100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00
6. CREDIT SYSTEM	7.58	10.36	8.97	18.24	28.88	23.56	-10.66	-18.52	-14.59
7. TOTAL GOVT	4.17	2.22	3.20	1.99	2.58	2.29	2.18	-0.36	0.91
8. OTHER RESIDENT SECTORS	74.41	73.13	73.77	51.70	40.34	46.02	22.71	32.79	27.75
8.1. TOTAL DEPOSITS	66.14	57.72	61.93	46.91	27.68	37.30	19.23	30.04	24.63
8.1.1. DEPMAND DEPOSITS	7.80	8.60	8.20	11.96	8.42	10.19	-4.16	0.18	-1.99
8.1.2. SAVING DEPOSITS	28.69	17.16	22.92	6.35	5.30	5.83	22.34	11.86	17.10
8.1.3. TIME DEPOSITS	29.65	31.80	30.73	28.49	13.39	20.94	1.16	18.41	9.78
8.1.4. FOREIGN CURRENCY DEP.	0.00	0.17	0.08	0.11	0.57	0.34	-0.11	-0.41	-0.26
8.2. TEMPORARY CESSIONS	1.42	12.70	7.06	0.73	10.02	5.38	0.69	2.68	1.68
8.3. SECURITIES	4.12	1.69	2.91	2.31	1.73	2.02	1.81	-0.04	0.88
8.4. OTHER CREDITORS	2.73	1.02	1.88	1.73	0.90	1.32	1.00	0.12	0.56
9. FOREIGN SECTOR	2.14	2.63	2.38	13.91	16.03	14.97	-11.77	-13.41	-12.59
10. NON-SECTOR OPERATIONS	11.70	11.67	11.68	14.17	12.17	13.17	-2.47	-0.50	-1.49

Source: Banco de España.

#### TABLE 2

#### DECOMPOSITION OF THE GROWTH OF THE BALANCE SHEET: BANKS vs SAVING BAKS

	SPECIALISATION OF THE ASSETS								
	BANKS				SA				
	TOTAL	MARKET	SPECIALIS.	DIFFERENTIAL	TOTAL	MARKET	SPECIALIS.	DIFFERENTIAI	
	GROWTH	GROWTH	EFFECT	EFFECT	GROWTH	GROWTH	EFFECT	EFFECT	
1985	8.52%	11.09%	-0.61%	-1.95%	17.31%	11.09%	1.49%	4.73%	
1986	6.38%	9.44%	-0.76%	-2.30%	16.29%	9.44%	1.71%	5.15%	
1987	10.10%	11.46%	-1.47%	0.11%	14.26%	11.46%	3.02%	-0.22%	
1988	7.98%	12.12%	-1.30%	-2.84%	20.29%	12.12%	2.57%	5.60%	
1989	13.75%	15.79%	-0.82%	-1.22%	19.40%	15.79%	1.45%	2.16%	
1990	10.06%	10.37%	-0.60%	0.29%	10.90%	10.37%	1.02%	-0.49%	
1991	16.53%	12.38%	0.41%	3.74%	5.41%	12.38%	-0.69%	-6.27%	
1992	7.74%	10.21%	0.77%	-3.23%	14.77%	10.21%	-1.42%	5.98%	
1993	24.61%	19.02%	2.43%	3.16%	9.30%	19.02%	-4.23%	-5.50%	
1994	5.53%	6.95%	-2.49%	1.06%	9.78%	6.95%	4.94%	-2.11%	
1995	7.89%	8.37%	0.23%	-0.71%	9.29%	8.37%	-0.43%	1.35%	
AVERAGE	10.83%	11.56%	-0.38%	-0.35%	13.36%	11.56%	0.86%	0.94%	
CUM. AVER.	10.71%	11.52%	-0.39%	-0.38%	13.27%	11.56%	0.77%	0.52%	

	ESPECIALISATION OF THE LIABILITIES								
	BANKS			SA					
	TOTAL	MARKET	SPECIALIS.	DIFFERENTIAI	TOTAL	MARKET	SPECIALIS.	DIFFERENTIAI	
	GROWTH	GROWTH	EFFECT	EFFECT	GROWTH	GROWTH	EFFECT	EFFECT	
1985	8.52%	11.09%	-1.24%	-1.33%	17.31%	11.09%	3.01%	3.21%	
1986	6.38%	9.44%	0.02%	-3.08%	16.29%	9.44%	-0.03%	6.89%	
1987	10.10%	11.46%	0.53%	-1.89%	14.26%	11.46%	-1.08%	3.87%	
1988	7.98%	12.12%	0.15%	-4.29%	20.29%	12.12%	-0.29%	8.47%	
1989	13.75%	15.79%	1.69%	-3.73%	19.40%	15.79%	-2.99%	6.61%	
1990	10.06%	10.37%	0.82%	-1.14%	10.90%	10.37%	-1.39%	1.92%	
1991	16.53%	12.37%	0.66%	3.50%	5.41%	12.37%	-1.11%	-5.86%	
1992	7.74%	10.21%	1.81%	-4.28%	14.77%	10.21%	-3.36%	7.92%	
1993	24.62%	19.02%	2.49%	3.11%	9.30%	19.02%	-4.32%	-5.40%	
1994	5.53%	6.95%	-0.69%	-0.73%	9.78%	6.95%	1.37%	1.45%	
1995	7.89%	8.37%	-0.77%	0.29%	9.29%	8.37%	1.47%	-0.55%	
AVERAGE	10.83%	11.56%	0.50%	-1.23%	13.36%	11.56%	-0.79%	2.59%	
CUM. AVER.	10.71%	11.52%	0.49%	-1.27%	13.27%	11.56%	-1.15%	2.43%	

Source: Banco de España and own preparation.



(i) SAVING BANKS



Source: Banco de España.

## Graph 2: Evolution of banking activity Indicators (1984=100)



Source: Banco de España

Graph 3: Specialisation of banks and saving banks by structure of Balance-sheet





Source: Banco de España

(\*) Diference of the percentage represented by the corresponding item in the balance sheet (% Saving Banks -% Banks). Positive values indicate (relative) specialisation of the Saving Banks and negative values specialisation of the banks.

### Graph 4: Permanence of specialisation of banks and saving banks (\*)



Source: Banco de España

(\*) Diference of the percentage represented by the corresponding item in the balance sheet (% Saving Banks -% Banks). Positive values indicate (relative) specialisation of the Saving Banks and negative values specialisation of the banks.

### Graph 5: Index of relative evolution of balance-sheet items (\*) Base year (1984) = 100



#### Source: Banco de España

(\*) The index calculates the evolution of the corresponding item in relation to the evolution of the average total assets. Values higher than 100 show growth of the item faster than that of the average total assets.

Graph 6: Specialisation and growth: Banks and Saving Banks (Average 1985-95)



## Graph 7: Evolution of the velocity of circulation (1984 = 100)



Source: Banco de España

### Graph 8: Indicators of methods of payment in Banks and saving Banks



(i) SAVING BANKS



(\*) In pesetas of 1994.

Source: Banco de España.

## **Graph 9: Services of payment methods: Banks vs Saving Banks N. ATMs / Deposits**



Source: Banco de España

(\*)The deposits are expresed in thousands of pesetas of 1994.

### **Graph 10: Components of monetary aggregates**



Source: Banco de España.

## **Graph 11: Efficiency and Market Share**



Source:: Banco de España, CECA, CSB and own preparation.