Organisational change and the computerisation of British and Spanish savings banks, 1965-1985

Batiz-Lazo, Bernardo and Maixe-Altes, J. Carles

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The computerisation of British and Spanish savings banks, 1960-2000

Bernardo Bátiz-Lazo and J. Carles Maixé-Altés

Bernardo Bátiz-Lazo is a senior lecturer at the Bristol Business School, Frenchay Campus, Coldharbour Lane, Bristol BS16 1QY, United Kingdom (tel +44 (0)117 328 36 10; fax +44 (0)117 328 22 89); e-mail: bernardo.batiz@1998.alumni.man.ac.uk.

J. Carles Maixé-Altés is a senior lecturer of Economic History at Departamento de Economía Aplicada I - Universidad de A Coruña , Campus de Elviña s/n, 15071 A Coruña, Spain (tel +34 981 167000 ext. 2569; fax +34 981 167070); e-mail: maixe@udc.es

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Abstract

In this article we explore organisational changes associated with the automation of financial intermediaries in Spain and the UK. This international comparison looks at the evolution of the same organisational form in two distinct competitive environments. Changes in regulation and technological developments (particularly applications of information technology) are said to be responsible for enhancing competitiveness of retail finance. Archival research on the evolution of savings banks helps to ascertain how, prior to competitive changes taking place, participants in bank markets had to develop capabilities to compete.

Keywords: comparative financial markets, United Kingdom, Spain, market structure, technological change, regulatory change, savings banks, banks.

*** WORK IN PROGRESS. DO NOT QUOTE ***

1 Introduction

Alton Gilbert's landmark compilation warned that, conspicuously absent from the analysis of structure-conduct-performance in banking, was an assessment of the effects regulatory change has had in determining bank performance (Gilbert, 1984). More recently an important number of contributions have emerged to debate the economic role of market competition, its benefits and its workings in financial mediation (Cetorelli, 2001). This article considers research that contributes to an investigation into the effects of technological change on performance in bank markets. This is done by looking into how and why capabilities to compete emerged in the context of changed competition (as reflected by distinct competitive environments in the United Kingdom and Spain). The combination of secondary sources and previously unavailable archival material, suggests a wide spectrum in the organisational forms adopted by collaborators. What is distinctive about the forms of collaboration explored in this article is the focus on the importance attributed to assessing market potential as the driver that brought collaborators together.

In what follows, the research presented in this paper explores competitive collaboration by taking the view that the only, relevant costs to enter a market are those known to be sunk and which can become exit barriers (Baumol *et al.*, 1982) (Thorelli, 1986) (Dietrich, 1994). From the 'contestable market' perspective, the degree of competition diminishes through means other than those facilitating collusion or reducing the number of independent participants. Competitive pressures are lower to the extent that known sunk costs reduce the threat of out-of-market participants entering the market. Strategic orientation is important to anticipate competitive advantage, including withstanding environmental turbulence which can unexpectedly turn idiosyncratic investments into exit barriers.

Before proceeding three caveats must be considered. First, the nature of mechanisation and the type of technology introduced to achieve 'modernity' and 'competitive advantage' is a significant part of this article. Ours is not a tale of technological determinism. Rather we believe that savings banks in Spain and the UK attempted to assess the costs and benefits associated with the adoption of new technologies and act appropriately but, in so doing, were fully aware of the environment in which they undertook their business. Technology is seen as constructed primarily out of the interaction of policy decisions by senior bank staff and consumption decisions by banks' customers. Choice is therefore central to our tale of technological change (Malone *et al.*, 1987; Yates, 1999).

Second, along side the changing nature of competition and technological progress, philanthropy was another distinctive feature of savings banks in Britain and

Spain However, as the social and regional dimension gathered strength at the Spanish 'cajas de ahorro', savings banks in Britain became ever more business like. For the directors of British savings banks achieving competitive advantage replaced educating the poorest of the poor in the habit of thrift as the main operating priority. Although in Spain political considerations (and appointees) have played an important role in explaining the long term survival of the Spanish savings banks, their commitment to invest in the overall well being of the city or region is also undisputable. However, in this article economic rather than social considerations are the focus to explain the long term performance of savings banks in Spain and the UK. A holistic analysis of Spanish 'cajas de ahorro' and trustees savings banks would be most desirable to do justice to their long history but space considerations override such analysis.

Third, during the twentieth century Britain and Spain changed in significant ways. Financial intermediaries played their part in fostering and responding to these changes, be they economic, legal, social, or political. Consequently, there are parts in this story for a number of factors additional to the onward march of technological progress; among these can be included: increased professionalism, and the development of the managerial class; changing perceptions of gender; the impact of war; and the role of the state. Although new technology underpins these developments, these are the themes which also enlighten our story.

The article proceeds as follows. The second section details the emergence and growth of savings banks in the UK and Spain. Of particular importance is the creation of central providers of services. These allowed loose alliances of small and geographically dispersed intermediaries invest in computer technology and in turn, achieve critical scale in retail banking markets. The third section tells of computerisation in Britain while the fourth of the same process in Spain. The fifth and final section summarises and puts forward some tentative conclusions.

2 Common origins

2.1 Emergence of savings banks in the UK

This article reports on research into the role the mechanisation and automation of practices within retail financial intermediaries aiming to contest bank markets. The research was conducted through an historical evaluation of associations in two different competitive environments and provides an international comparison. An historical analysis of collaboration enabled the assessment of organisational transformation from the inception of collaborators in the market to the eventual success or failure of the agreement. The financial service organisations, which are the topic of this article, were originally established as independent providers but all were guided by a common principle. This unifying concept dates to 1810 when the first 'savings' bank was established in Ruthwell, Scotland (Lawton, 1950).

From the outset savings banks were retail finance institutions organised as mutuals: owned by depositors and generally operated through democratic and philanthropic guidelines. Savings banks sought to create thrifty habits amongst small and medium-sized savers like craftsmen, house servants or the growing proletariat, that is, outside the banks' target market (Payne, 1967; Tedde de Lorca, 1991; Ross, 2002a). In the first half of the 19th century, bank-runs or bank collapses were common, so savings banks had no safe outlet for deposits. To create trust among potential depositors and as a matter of policy, funds from 1817 onwards were invested in government bonds or deposited at the Bank of England (Lawton, 1950). This regulation was extended to Scottish savings banks in 1835. From then on regulation of savings banks in the UK characterised as quite detailed. Several periods of "ill-health" and lack of trust on their capacity as a viable organisational form (Horne, 1947), resulted on government intervention most aspects for the operation and day to day management of savings banks (particularly the nature of the business portfolio).

There were other forms of savings banks in the UK (including a National Savings Bank and the Post Office Savings Bank) but the discussion only deals with so called trustees savings banks. Revell (1973) points out that an essential feature of a savings bank in the UK was that depositors should have a guarantee of the nominal value of their savings so that these could be withdrawn at their full value plus interest (no matter how long the deposit had been with the bank.) Funds of the savings banks would be under control of voluntary managers or trustees (hence the roots of the TSB acronym). The guarantee could not be achieved unless funds were invested in securities with a similar guarantee. As a result of the Act of Parliament of 1817 the payment of all money received by trustees savings banks, other than that needed for liquidity to deal with every day transactions, was transferred to the Bank of England for the Credit of the National Debt Commissioners. The Act also specified the duties of the treasurers, managers and trustees of the savings banks, none of whom was to derive any benefit what so ever from that office. This feature was to dominate the management of the TSB's until the 1970s.

Savings banks paying interest on deposits (at a rate ranging from three to five per cent per annum) proliferated. The number of successful institutions in the UK grew until it reached 645 in 1861 (Tedde de Lorca, 1991). This as their business remained in collecting low volume deposits as early attempts at market diversification had been curtailed by the Savings Bank Act of 1891.

The potential of trustees savings banks to contest retail bank markets became evident in the interwar years (Saville, 1996). By 1919 the sum of cash and assets held in deposit for all the TSB reached their first £100 million, which rapidly rose to £162 million in 1929 and £292 million in 1939 (Horne, 1947). Thus, in twenty years TSB assets doubled the amount accumulated in the century since the passing of the first Savings Bank Act (1817).

Together, the trustees savings banks would rank in size with any of the four main London clearing banks. In practice, however, there was little competition between trustees savings banks. Each individual TSB served a separate geographic area, although they were actively challenged by other organisations and this competition became more acute in the decades that followed the end of the war in 1945.

In 1965 a review of retail credit markets led to the TSB being allowed to issue current accounts, undertake the payment of utility bills and safeguard securities and valuables (Pringle, 1973). Although most customers of trustees savings banks were lower middle- and working-class, and had little need for cheques (Moss *et al.*, 1992), regulatory innovations which opened possibilities for diversification in the business portfolio of the trustees savings banks, threatened to erode the deposit base of the clearing banks (Saville, 1996).

In 1970 there were 75 savings banks loosely tied up in an association with £2,806 million in total assets (Revell, 1973). Size was unevenly distributed. Five of the banks had over £100m in assets (together accounting for 25 per cent of the total), 14 had between £50 and £100m (35 per cent), 39 between £10 and £50m (38 per cent) and 17 under £10m (2 per cent) (Revell, 1973). In spite of the largest trustees savings banks being based in London, Glasgow, Edinburgh and Belfast, those based in the north of England accounted for 50 per cent of total funds, those in the south of England and Wales for 27 per cent, those in Scotland for 19 per cent and those in Northern Ireland for less than 5 per cent (Revell, 1973). Geographical distribution of the 1,655 trustee savings bank branches was also unevenly distributed with branch density higher in Scotland and the North of England. Hence, in 1978, there was one savings bank branch per 18,000 persons in Scotland, but only one per 75,000 persons in the otherwise high density area of London (Price Commission, 1978: 44). A similar pattern existed in respect of individual accounts, with two out of five persons in Scotland having a savings bank account, one out of five in the north of England but only one out of twenty in London and the home counties (Revell, 1973).

2.2 Savings banks in Spain

Other European countries adopted the Scottish model early on. This type of savings bank was popular in countries with traditional Protestant values of self-help, where the ideas of Jeremy Bentham (1748-1832) and Thomas R. Malthus (1776-1834) were particularly influential (Tedde de Lorca, 1991; Ros Pérez, 1996). Such was not the case in Portugal and Spain where savings banks started rather late (1836 and 1839, respectively) and followed the French 'model' (established in 1818).

Regulation introduced in 1835 was the first to authorise the establishment of savings banks in Spain. This piece of legislation allowed the establishment of independent non-profit-orientated institutions which had to be financed by own resources. However, it was not clear how individual institutions would access these resources although there were loose references to the expectation that capital would be raised as the well-off supplied financial resources as charitable donations. The Spanish government clearly displayed a preference for initial investment to come from the private sector while individual institutions would provide for some form of guarantee to secure funds held in deposit. Financially, however, the 'model' of 1835 was very weak. Hence, in 1839 a new piece of legislation introduced the 'French model' where individual savings banks were linked with a 'Mount of Piety'.

Unlike the Scottish savings banks, French-style savings banks created an initial fund to cover set-up costs and unexpected losses through donations and setting up a charity. After this the banks became autonomous with a governing board of six to 20 principals (working *pro bono*) holding responsibility for the strategic direction and overall affairs of the banks (Duet, 1983; Gueslin, 1989; Forniés Casals, 1991). Both in Portugal and Spain the most common source of the set-up fund was the local 'Mount of Piety'. These 'Mount of Piety' (a literal translation from '*Montes de Piedad*') were early modern charitable institutions where advances were made against some kind of collateral in pawn (usually, jewellery or clothes).[1] Consequently, Spanish savings banks would accept low-value and low-volume savings in deposit and, in turn, place these funds in the 'Mounts of Piety' in order to make small loans to the more underprivileged classes (Anton Ramirez, 1876).

Like their counterparts in Scotland and France, Spanish savings banks briefly placed excess deposits at a government owned institution (Caja General de Consignaciones, 1852-68). This portfolio strategy was part of a change in government policy looking for greater intervention in the business of Spanish savings banks as well as providing financial aid to the recently created Caja de Dépositos y Consignaciones (Gonzalo Gonzalez, 1981). However, the change in strategy was short lived due to the poor quality of government bonds in the 19th century. Instead, Spanish savings banks increasingly used deposits exclusively to finance the activities of the 'Mount of Piety'.

A turning point in the history of Spanish savings banks came after the Restoration of the Monarchy in 1874. Until then was introduced. Until then regulation and government policy around savings banks had closely followed the interventionist 'French model'. As was the case in Britain, this approach limited the operations of savings banks. Legislation introduced in 1880, opened the way for the growth of Spanish savings banks as summarised in Table 1.

Table 1: The Savings Banks Act of 29 June 1880

Characteristics and Objectives of Savings Banks	Aspects not specifically included in the Act of 1880 but which posed ‘problems’ for the savings banks
• Non-profit private foundations	• Concession of personal guaranteed loans
• Charities organisations with fiscal exemptions	
• Discretion in the establishment of objectives (statutory self-governance)	• Mortgages
• Home Office supervision	• Stock Portfolio
• Basic Operations:	
a) Saving section: deposits	• Purchase and sale of estates
b) *Monte de Piedad*: advances were made against some kind of collateral in pawn (jewellery, clothes or securities)	• Regulation of the policy on new branches and agencies

Sources: Savings Banks Act - 29 June 1880 and author.

The left hand column of Table 1 indicated the Act of 1880 had clear objectives for the running of savings banks. At the same time, the right hand column suggests there were a number of areas which lacked precision in the new introduced regulation. However, it was the lack of precision in a number of areas which was to allow the growth and development of savings banks in Spain. In particular, ‘freedom’ (i.e. lack of detailed regulation) regarding investment policies resulted in diversification and growth of assets at a greater rate than counterparts elsewhere in Europe. Indeed, from the time the Act of 1880 was published until the end of the 19th century, the number of entities doubled from 26 in 1880 to 66 in 1905; while the sum of cash and assets held as deposit increased by four percent from 12 per cent of total savings in Spain in 1880 to 16 percent in 1905.

In short, since the 19th century mutual financial organisations have been participants in UK and Spanish bank markets. There was little opportunity or indeed incentives for collaboration during the initial stages of development of these intermediaries. However, throughout the 20th century a potentially wide spectrum of organisational forms could be adopted between mutual financial organisations with in- and out-of market participants and competitive collaboration was one of these organisational forms. In what follows the research assesses the likelihood that actual or potential participants in bank markets engage in any or all of these potential organisational forms of competitive collaboration. The discussion develops the notion that the strategic success of collaboration is based on the transformation over time of established participants in bank markets and their adaptation to contextual and environmental contingencies.

3 Early computing at the trustee savings banks

Clearing banks adopted second generation[2] computer technology during the late 1950s and early 1960s and as a response to staff shortages and increasing transaction volume (Bátiz-Lazo and Boyns, 2003; Bátiz-Lazo and Wardley, 2007). Staff shortages responded to increasing turnover of female clerical workers, previously unseen migration of staff to other sectors and “a lack of junior recruits of the right quality.”[3] Along side dealing with the problem of staff shortages, computer technology was attractive to banks as it offered a potential alternative to deal with limited possibilities to increase premises in high-street branches and thus eliminate the need to deal with the increasing volume of paper-based transactions by accommodating more clerical staff in already cramped back-office space within retail bank branches (Bátiz-Lazo and Wardley, 2007).

Banks sourced their computers with different vendors but as had been the case in the USA, former suppliers of office machinery such as Burroughs fought hard to maintain their links. The largest building societies followed banks and adopted second and (mostly) third generation computer technology. As shown in Table 2, Abbey National was the first building society introduce a computer in 1963 (an IBM compatible Honeywell 401-A) while most other large societies were equipped with an IBM/360 system (Co-operative Permanent and the Halifax in 1967; Bradford & Bingley in 1968) and with others choosing the local alternative, that is, an ICL 440 (Leek and Westbourne in 1968; Anglia in 1971).

Computerisation at banks and large building societies during the 1960s was ‘internally driven’. In other words, computerisation moved forward using staff (often accountants or member of the Organisation and Methods Department) and organisational capabilities built upon their experience with electromechanical accounting devices and sorter readers. But by the end of the 1960s outside consultants were being actively used to review internal processes and recommend the most suitable computer equipment (Bátiz-Lazo and Wardley, 2007). In contrast, savings banks used third generation computers (through time sharing) and fourth generation computers (within their organisations). Their drive for computerisation was 'externally driven' as it often relied on staff and expertise developed outside the TSB movement.

Table 2: Adoption of mainframe computers by selected building societies, 1963-82

	Abbey National	Co-operative Permanent	Halifax	Leek and Westbourne	Bradford & Bingley	Anglia	West Bromwich
Established	1849	1884	1853	1856	1851	1848	1849
Incorporated	1944	1884	1875	1879	1964	1923	1928
Achieved national branch coverage	1948	1952	1937	1972	1965	n/a	n/a
<u>Adoption of mainframe computer</u>							
Year installed	1963	1967	1967	1968	1968	1971	1982
Make and model	Honeywell 401-A	IBM 360/30	IBM 360/40	ICL System 4-40	IBM 360/30	ICL n/a	ICL/Nixdorf n/a
Asset size at year-end of adoption (£000)	£559,110	£524,186	£1,295,679	£243,238	£197,096	£298,518	£336,290
Rank (assets)	2	3	1	8	10	11	23
Number of retail branches	104	127	146	106	72	54	88
Number of agencies	n/a	1,291	N/a	300	n/a	n/a	17
Total membership	844,110	826,426	1,654,832	317,646	246,161	398,281	221,924

Source: Building Societies Yearbook (1963-82), company histories, authors.

The earliest recorded use of a computer by TSB banks was a demographic analysis of customers taking up the TSB's first unit trust offer in 1968.[4] Two years later a consortium of 13 trustee savings banks signed an agreement to use the Leeds centre of the National Data Processing Service (NDPS), an independent subsidiary of the Post Office.[5] By October 1970 the NDPS centre in Leeds was servicing 23 TSB banks and was said to be in the process of incorporating into the computer system 450,000 accounts and 45,000 standing orders. The aim was for the NDPS computers to service 40 percent of saving banks operations, that is, a total of 400 branches, five million customers and processing 43 million transactions a year.

Clearly, TSB banks wanted to take advantage of the NDPC's 12 year experience in computing and in servicing the National Savings Bank. Press reports pointed to the NDPC using an ICL System 470 at the centre in Leeds.[6,7] But a significant difference in the computerisation of trustee savings banks, with regards to experiences in other financial intermediaries in UK retail finance, was that computers at the savings banks were adopted as part of a major organisational change. Organisations equipped with LEO aside, other participants in UK retail bank markets and indeed British manufacturing typically adopted computers to enhance the efficiency of established procedures (usually around the accounting function) (Bátiz-Lazo and Boyns, 2003; Bátiz-Lazo and Wardley, 2007).

As above mentioned, in 1965 and following a government enquiry into the very existence of savings banks, the TSB had been allowed to issue current accounts, undertake the payment of utility bills and safeguard securities and valuables (Pringle, 1973). Although most customers of trustees savings banks were lower middle- and working-class, and had little need for cheques (Moss *et al.*, 1992), regulatory innovations had opened possibilities for diversification in the business portfolio of the trustees savings banks. "The savings banks [were] moving aggressively onwards to expand their clientele. Computerization [was] in progress throughout the [TSB] movement." (English, 1972).

In 1973 at the time of the report by the Page Committee, there were still 73 savings banks with 1,549 branch offices (Marshall, 1985). Eight years had passed since regulatory change had been allowed for the first time the introduction of cheque accounts. The trustee savings banks community sensed the need "to change in response to changing customer needs." (Marshall, 1985). However, there had been mixed developments in the growth of assets at individual banks. On the one hand, the assets of the Scottish trustee savings banks, traditionally the strongest members of the TSB movement, had been growing more slowly than those of their southern counterparts (Revell, 1973: 356). On the other hand, trustees savings banks in Lancashire, Yorkshire, Midlands, Welsh countries and West Country had "built up enviable reserves and [were] anxious to protect their territories."[8] London and southern England still remain the areas where the savings banks little presence.

There was frustration amongst directors of the savings banks as their organisations had been unable to capture growth opportunities opened by changes in regulation, attract new clients nor capitalise on the loyalties of existing depositors.

Amongst directors of the individual banks there were differing views about reconciling strong regional character with centralising services, including the creation of a 'central' trustee savings bank, and about the need for further amalgamation. Board members of individual trustee savings banks were non the wiser. Directors and Board members of banks and building societies had long experience in financial intermediation and therefore, a wealth of banking experience was to be found in the running of these organisations. As non-profit organisations, Board members of savings banks (i.e. the trustees) were drawn from public-spirited businessmen and members of the professions within the local area of individual banks. Experience in banking was then to be found within the paid professionals running individual banks.

While savings banks and government were engaged in deliberations about the future organisational structure and functioning of the movement as well as of individual trustees savings banks (Moss and Russell, 1994), the savings banks remained restricted in what services they could offer. The banks could not give loans to their customers and regulation still limited the way funds could be invested. It was at this critical stage that the report of the Page Committee recommended that the trustee savings banks were freed from government control, allowed to develop its service range and as a result, become the "third force in banking." (Marshall, 1985). Trustee savings banks then turned to computers as part of a long effort to articulate organisational change.

Two companies were set up in 1972 in preparation for future change. One was TSB Computer Services Ltd., to co-ordinate all computer systems and related developments, the other being the incorporation of the Central Trustee Savings Bank Ltd., to deal with volume transactions (Moss and Russell, 1994). It was expected that in due course the Central Trustee Savings Bank Ltd. Would become operative as the "central bank" for all trustee savings banks.[9]

The creation of TSB Computer Services Ltd. effectively brought home computing to the savings banks as it migrated applications away from bureau services at the NDPS. The savings banks grouped into five consortia of between five and nine banks to move into computer-based accountancy and banking services.[10] Each consortia built around a centre reflecting the geographical strength of the TSB movement (Lancashire, Yorkshire, the Midlands, Wales and South West England). Each centre was equipped with an ICL system 4 computer to power a network of 1,400 Olivetti TC 349 BI terminals. The aim of this extensive network was to forego batch processing of paper-based transactions and introduce "on line" processing. That is, computer terminals sitting near (or on) each teller would allow all deposits, payments and savings transactions at the counter in savings bank branches to be feed ("spooled") directly into magnetic disks or tapes. Customer accounts' files would be updated at the end of the day.

By the end of 1972 computer applications rather than clerks aimed to become the main source of data input and file maintenance. This would create the largest computer system of its kind in Europe.[11] However, change was slow to come. By 1974 individual banks still expected the Central Trustee Savings Bank to become fully operational. Incorporating retail saving bank branches to the computer consortia managed by TSB Computer Services Ltd. was also progressing but not expected to be fully operational before 1975.[12]

4 Scale through a central provider in the UK

Efforts within the trustee savings banks and within government gave rise to the publication of the Trustees Savings Banks Act in 1975. This Bill granted savings banks the right to offer equivalent services to those of the clearing banks. But it also required that, in the space of one year, their number was reduced from 73 (of varying sizes) to 19 independent banks, under the central co-ordinating authority of the TSB Central Board. This organisational framework for savings banks was in place between 1976 and 1984, a period during which TSB management undertook a series of fundamental changes while pursuing to create an independent and profitable financial services group (Marshall, 1985; Moss and Russell, 1994).

Tom Bryans, general manager of the Northern Ireland Trustee Savings Bank, was appointed the first new chief executive of the Trustee Savings Banks.[13] At the time in his mid fifties, he had spent all his working life at the TSB movement, achieving "manager status in 1956 and then became an expert in computerized banking."[14] Bryans took the helm with a mandate to turn the savings banks from a quasi-government body into successful independent providers – although his salary of £17,000 p.a. was well below those paid at similar posts at clearing banks.

Although enshrined in the 1975 Act, a central association of savings banks had been in place for many years. The Trustee Savings Banks Association was established in 18?? but for a long time it remained ineffective in persuading hundreds of small savings banks to speak and act as a single body (Horne, 1947). Spencer (later Sir Spencer) Portal was credited with introducing the idea of appointing a permanent secretary and a large Council in 1914 with the aim of deciding a common policy as well as a single voice to conduct negotiations with the government and promote legislation (Horne, 1947). Portal became deputy chairman of the Association in 1919, chairman in 1923 and president when relinquishing his chair in 1935. By the 1930s the Association under Spencer Portal was already successful in putting forward a common view to Parliamentary Committees and the Treasury to support the progress of the savings banks (Horne, 1947). This was important given the detailed regulatory framework surrounding the operation of the savings banks. Notable achievements included lifting limits on deposits introduced in 1915 as well as major reforms such as those of around the Acts of 1929, 1965 and 1975. The then president secretary-general of the Trustee Savings Banks Association, Freddie Miller, became deputy chief executive of the newly created TSB Central Board, working under Tom Bryans.[15]

Throughout its history the Trustee Savings Banks Association failed to act as central provider of administrative functions to small independent savings banks. Not surprisingly a great number of the 73 banks in existence in 1975 did not have the critical scale to compete in British banking. The amalgamation of individual trustees savings banks into purposely created regional banks and the establishment of a central board in 1975, then brought about the use of own resources to support the introduction of personal lending in 1977 (CLCB, 1978: 230). However, by 1979, the attempts to diversify across retail bank markets by the trustees savings banks had failed. Together with the Giro Bank and the Co-operative Bank the efforts of the trustees savings banks to penetrate retail finance, from scratch in 1971, resulted in only £200m in direct consumer loans in 1979 and this accounted for less than 3 per cent of total consumer lending that year.[13]

Applications of computer technology continued to play a role in articulating the strategy of the trustee savings banks (Marshall, 1985). In 1983 a new computer centre for TSB England and Wales was built in Wythenshawe, with the aim of providing a single integrated on-line real time facility throughout the retail saving bank network. In 1984 the government published a White Paper and a new TSB Bill in which the quasi-federal decentralised structure was abandoned in favour of a central organisation which was no-longer legally unique but incorporated under the Companies Act. The aim was to give the then called TSB Group “a more effective operating structure and also establish clear guidelines for ownership and accountability, neither of which was clear under former legislation." (Marshall, 1985).

5 A vertical alliance of Spanish 'cajas de ahorros'

Evidence from Spanish savings banking illustrates how competitive collaboration transformed shared experiences, allowed the implementation of opportunistic strategies and in turn, the creation of critical mass to effectively contest bank markets (see also Bátiz-Lazo and Del Angel, 2003; Bátiz-Lazo, 2004). The relative success of the 'cajas de ahorro' (i.e. savings banks) entering Spanish bank markets is summarised in Table 2, which depicts the growth in the number and relative importance of savings banks in Spain. Most early-established savings banks located in the biggest urban centres, and grew in financial strength through retained surpluses. By the turn of the century most assets were held in the savings banks located in seaports and industrial cities.

Table 3: Growth of Spanish Savings Banks, 1839-2000

Year	*Total number of savings banks*	*Total number of banks in CECA**	*Total deposits in savings banks (pesetas millions)*	*Deposits in savings banks as per cent of total deposits in Spain (pesetas)*
1839	1	-	0.3	NA
1850	8	-	4	6.5
1875	14	-	23	11.2
1880	26	-	56	12.0
1885	36	-	73	15.4
1890	43	-	98	14.1
1895	43	-	118	16.8
1900	50	-	131	10.9
1905	66	-	191	16.2
1910	94	-	263	19.1
1915	103	-	401	20.7
1920	102	-	808	15.6
1925	153	-	1 437	21.6
1930	213	82	1 895	19.4
1935	222	85	2 516	21.9
1941	-	91	3 361	14.2
1945	-	81	5 908	16.6
1950	-	81	13 979	19.0
1955	-	83	34 119	20.7
1960	-	83	75 219	22.5
1965	-	85	216 873	27.8
1970	-	87	574 676	32.4
1975	-	88	1 523 857	31.2

1980	-	80	3 675 980	31.9
1985	-	77	8 266 647	39.3
1990	-	64	14 731 907	44.7
1995	-	50	23 883 682	48.6
2000	-	47	36 829 350	52.1

* Spanish Confederation of Savings Banks or Confederación Española de Cajas de Ahorro.
Sources: Anuario Estadístico de España, Memorias de Caja Madrid (Annual Reports); Consejo Superior Bancario, Balances de la Banca Privada (1940-1962), Boletín Estadístico del Banco de España. (Gonzalo Gonzalez, 1981). Hernández Andreu (coord.), Appendix 3.2. Martín Aceña (1985), table II-1 and V-1. Martín Aceña, (1988), table I.2.1 and IV.1. Schwartz (coord.) (1970), Appendix I-4. Tedde (2000), p. 251. (Tortella, 1974a) (Tortella, 1974b).

Note: until 1874 the savings banks deposits are estimates based on net accrued balances of deposits and annual withdrawals according to Anuario Estadístico de España, 1866-67 (see Martínez Soto (2003), p.181). In 1928 when the CECA was created there were 74 savings banks in CECA.

Along side the savings banks, in the 1890s and following German ideas to promote agriculture, co-operative banks ('cajas rurales') emerged in rural areas. Most of these banks were established in the countryside under the auspices of the syndicalist, co-operativist movements and the Catholic church. However, these intermediaries grew in size until after 1920 (Martínez Soto, 2001). Their impact, number and asset size always dwarfed when compared with the achievements of the savings banks and as a result, the 'cajas rurales' are eventually absorbed by the savings banks.

Between 1870 and 1900 the financial strength of savings banks increased significantly. During this period, the pawn and emergency loan operations of the Mounts of Piety were unable to absorb all deposits made the savings bank.[16] Unlike what was a requirement at other European countries, Spanish savings banks were not required to purchase government debt with excess resources. Instead, savings banks began making short-term advances and issuing mortgages directly to the public (Ros Pérez, 1996). Initially they issued short-term loans using public and industrial goods in stock as collateral. Between 1862 and 1867, 40 per cent of the amount of the loans was granted with the clothing securities and the remaining 60 per cent was secured by stock. Diversification continued and by the outbreak of first world war, Spanish savings banks were readily issuing mortgages directly to retail customers (Maixé *et al.*, 2003).[17] The Mortgage Act of 4 June 1908 contributed to the development of this phenomenon as it pioneered exemption from having to pay different forms of capital gains and corporation's tax for mortgages issued by the Mount of Piety.[18] Table 2 shows that between 1900 and 1925 the number of Spanish savings banks tripled to

150 banks, although no major change in regulation policy or the banks' business portfolio had taken place.

Between 1900 and 1914 the Spanish banking sector experienced a sharp increase in its levels of activity. For some this period also observed increased efficiency and enhanced competitiveness (Cuadras Morató *et al.*, 2002). Assets of private commercial banks grew significantly due to two exceptional circumstances, namely the colonial crisis (the repatriation of capital) and the Great War in Europe (the growth of business activity under the protection of Spanish neutrality). These circumstances favoured the geographical expansion of the regional private commercial banks based Madrid and the Basque Country throughout Spain.

In 1921 the first banking law was enacted and that year Consejo Superior Bancario or CSB (High Banking Council) was established by private commercial banks. The role of the CSB was to co-ordinate the actions of private commercial banks as their economic power became more important. By the beginning of the Spanish Civil War (1936-9), private commercial banks dominated financial markets, were organised through the cartel that built around the Consejo Superior Bancario and supervised by the Ministry of Employment, Commerce an Industry (and later on by the Ministry of Employment and Welfare).

During the 1920s assets in savings banks started to abandon their charitable nature and gradually turned into genuine financial intermediation institutions. Grow was limited because competitive pressure to find new sources of growth within the private commercial banking sector resulted in a policy to expand the geographic scope of retail branches networks and diversify sources of business. These strategies brought the competitive challenge of private commercial banks to markets being serviced by savings banks.

Table 4: Regulatory Constrains on the Activities of the 'Cajas', 1921-97

Supervision of Savings Banks	
Home Office (1921-6)	Finance Ministry (1957-71)
Ministry of Employment, Commerce and Industry and Ministry of Employment and Welfare (1927-56)	Bank of Spain (1971-97)
Regulation Limiting Competition and Diversification	
Fixed percentage of deposits invested to be in government debt (1926-92)	Finance Ministry fixes interest rates and commission charges (1943-89)
Special registry to acquire charter as financial institution (1929-97)	Ban on cross-regional retail branch growth (1946-64 and 1974-87)[19]
Provision for minimum expenditure of social charter (1933-79).	Total ban on new savings banks (1946-64 and 1975-94)
Provision for minimum accrual of capital and reserves (1933-85).	Government encourages mergers of commercial banks and regional amalgamation of savings banks (1975-87)
Ban on FX and international trade transactions (1933-77)	Loans and own-social-charter expenditure limited to regional scope (1977-87)
Government control of diversification in loan portfolio (1933-89)	Freedom to set interest rates for assets and liabilities with less than 1 year maturity (1977)
Government stimulates growth of the savings banks' retail branch network (1939-63)	Freedom to set interest rate levels on liabilities with more than 6 month maturity and total freedom to set interest rates on assets (1982)
Ban on cross regional amalgamation of savings banks (1939-88)	Second Banking Directive comes into effect in Spain (1994)
Economic and Political Milestones	
Cartel of commercial banks (1921-38 and 1946-94)	Banking mini-reform (1974)
Private banks begin retail bank branch expansion to achieve national exposure (1923)	Fuentes Quintana reform (1977)
Economic Stabilisation Plan (1959)	Spain joins the European Community (1985)

Sources: Bank of Spain Library; authors.

Individual savings banks enhanced their profile within their local communities as greater asset size allowed them to increase the funding of social welfare- and agricultural projects ('Obra Social', a practice that is nowadays part of their 'corporate social responsibility'). However, a new approach to how people saved and to the working environment of savings banks came about as a result of legislation enacted in 1926, 1929 and 1933 during the dictatorship of General Primo de Rivera (1923-30), a period in which the economic policy was marked by an authoritarian corporatism, and the Spanish Republic (1930-6) brought. These regulatory changes brought to an end the savings banks charitable nature. They also turned their profits into the main source of funds (and therefore to support the 'Obra Social'). Table 4 summarises regulatory milestones for Spanish savings banks. These changes effectively became their operational underpinnings for most of the twentieth century. Notably, regulatory innovations put to an end the broad discretion that the previous regulation had given to the directors of savings banks and established specific and detailed guidelines whose use (and abuse) grew during the dictatorship of General Franco (1936-1975).

The Franco regime (1939-75), reaffirmed the pre-eminence of private commercial banks within the Spanish financial system and, as illustrated in Table 4, introduced regulation that handicapped traditional savings banks. Table 4 considers how supervision of the savings banks transferred from the Home Office to the Bank of Spain. Table 4 also summarises other forces mitigating direct competition in savings bank markets as well as Spanish savings banks entering other financial markets. The summary in Table 4 gives equal weighting to all barriers to entry and suggests two periods of intense regulatory change for the savings banks. The first was the years after the Civil War and prior to the Economic Stabilisation Plan (particularly 1951-7). The second period of intense regulatory change is somewhat longer and seems to be located around the transition to democracy and Spain's accession to the European Union (particularly 1974-87).

The context of the first of the episodes of regulatory change for the savings banks was characterised by the intensification of regulatory burdens and marked by the overwhelming majority of new savings banks, that were established between 1939 and 1977, being set-up by local and central governments (Forniés Casals, 1991). The Franco regime continued implementing a practice developed during the 1920s called the 'principle of territoriality', meaning that the business of the savings banks was restricted to their province. This principle remained an informal arrangement until it was enacted into law in 1964. At the same time, the increasing asset base of the savings banks prompted the Finance Ministry to start regulating the sources and applications of their funds. As a result, the Finance Ministry directed a growing proportion of the assets of savings banks to finance public debentures and private banks' short term liabilities, with the added result that the policy significantly reduced funds available for agricultural projects and other traditional lending activities (García Delgado, 1985; Serrano and Costas, 1990).

The context of the second regulatory change for the savings banks dates to the last stage of the Franco regime, when attempts were made to ease the regulatory burden on Spanish savings banks (particularly in 1962 and 1964). Nonetheless, until 1974 the savings banks remained outside the Spanish clearing house system and had access to only a restricted business portfolio. However, under the 'Fuentes Quintana Reform' (1977), the competitive environments for savings and private banks started to converge. The reform gave savings banks strong incentives to modernise their infrastructure and develop new skills (Davies, 1987; Caballero Míguez, 2004). In 1977, for example, the Bank of Spain authorised the first ATMs for the savings banks and by 1996, their combined network had 14,169 machines or in a wider context, was the biggest network in Spain and the third largest in the world[20].

The case of the Spanish savings banks thus suggested that collaboration in markets with a handful of participants can enable those with fewer resources and capabilities to absorb market intelligence without disrupting competitive equilibria. Furthermore, this study offers details on how a Spanish 'central' savings bank was instrumental for savings banks contesting markets traditionally dominated by commercial banks.

5.1 Spanish Confederation of Savings Banks as wholesaler of retail finance

Spanish savings banks developed a vertical alliance structured through a 'central' savings bank or wholesaler of retail finance. This kind of institution dated to the early 20th century and was pioneered by Skopbank in Finland (established in 1908), Fellesbanken in Norway and ICCRI in Italy (both established in 1919). 'Central' banks were membership owned and they had little influence on members' strategic or operational matters. Their aim was to service the needs of participating institutions often in a representative capacity but also in areas where necessary economies of scale were beyond the individual member (Revell, 1991). In Spain, the 'central' or main clearing bank for savings banks was called the Instituto de Crédito de las Cajas de Ahorro or ICCA (The Savings Banks Credit Institute).

The ICCA was created in 1933 to act as a clearing bank for Spanish savings banks. The aim of the new intermediary was to enable pooling of financial resources in order to fund or syndicate social-charter investments as well as establishing a 'lender of last resort' scheme for the savings banks. In 1962, ICCA became the savings banks' formal representative at the Ministry of Finance and turned into the prime instrument for government control over the savings banks. ICCA formally disappeared in 1971, its control and supervision duties were absorbed by the Bank of Spain and its clearing functions by the CECA (Comín, 2003; Comín and Torres, 2005).

Between 1921 and 1939, most savings banks remained local institutions but the biggest savings banks started to expand within their province and across adjacent areas (Forniés Casals, 1991). In the course of the first quarter of the century competition increased for the savings banks from two sources (Garcia Delgado, 1984). First, government-owned banks were established. Secondly, private commercial banks developed national branch networks by capitalising on greater balance-sheet strength. The process of banking cartelisation took place in conjunction with the regulatory change and the conflicts generated by the governmental policies. The situation created after the first banking law of 1921 and the simultaneous creation of the banking cartel (CSB), generated a series of defence mechanisms put in place by the savings banks. First, there were the processes of regional association (the Basque-Navarre federation in 1924, which was followed by the Galician, Castilian and many others, up to eight regional federations) and finally the creation of the 'Confederación Española de Cajas de Ahorros' in 1928 (CECA –Spanish Confederation of Savings Banks), as the independent federations of savings banks amalgamated (Maixé, 2005).

Bank federations in Spain emerged as a response to regulatory changes that modified the otherwise equal framework for business under which private commercial and savings banks could compete. CECA extended the savings banks' domestic and international influence and the ability to lobby on their behalf. Besides its attempts to counter balance the commercial banks' cartel (CSB), CECA was used by the Spanish government to co-ordinate social charter investment ('Obra Social'). From 1939, CECA also helped to implement a 'principle of territoriality', through which savings banks' business was restricted to a single province (Forniés Casals, 1991; Ros Pérez, 1996).

By 1970 the CECA had attained considerable credibility as a savings bank association. The reforms that the Confederation had undergone at the start of the seventies prepared the institution for future tasks. The CECA, as a collectively owned central operator became the main recipient of savings banks' outsourcing strategies (including applications of information technology) and clearing activities. The gradual removal of regulatory barriers allowed the CECA, in periods of strong growth of the Spanish economy, to offer their associates access to shared resources including clearing activities, with the end result of achieving economies of scale that allowed independent savings banks the development of previously non-existent competitive capabilities.

At the end of the 1980s all CECA members remained legally and functionally independent and, contrary to other European experiences, the alliance had not grown into a single franchise (de la Hucha and Antón, 1991). Although each savings bank had an independent treasury department, the risk-diversification of the system meant that as a group, the savings banks' cost of funds was as much as one per cent below that of private banks (Grimá i Terré and von Löhneysen, 1991). This advantage continued throughout the 1980s and emerged during a period (*circa* 1962 to 1977) in which the savings banks' collaborative strategies evolved to reduce their competitive disadvantage relative to private commercial (i.e. full-service) banks.

In this way, by the mid 1990s the co-operative mechanisms were sufficiently adapted to face market globalization, competition, ever-narrowing financial margins in banking and an accelerated pace in technological change. The savings banks were able to delve deeper into efficiency and cost reduction, and hence improved their competitive advantage viz other financial intermediaries and benefited clearly from economies of scale.

6 Technological change and market contestability in Spanish savings banks

6.1 Organizing the change

From the late 1960s, but more so during the 1970s, the CECA started steering towards a more collaborative strategy among its members. This manoeuvre was critical for in the following two decades it allowed CECA and its members to successfully confront the technological, operative and conceptual changes that came about in retail banking. The essence of this strategy was an active policy of co-operation and shared resources that would allow small and medium-sized savings banks access to new technologies and organised markets. As a result, even the smaller participants were able to offer products and services in the same conditions as private commercial banks.

As in the US state banking regime, restrictions to geographic growth limited potential economies of scale at Spanish savings banks. The disadvantage was critical for two reasons. First, it limited opportunities for market diversification as a nationwide market for goods and products that emerged in Spain at the end of the Franco regime. Secondly, limited geographic growth restricted consolidation which would have been required to benefit from technical change (investments computer applications and other shared information and telecommunication technologies). As described by one interviewee:

> ‘Several of our lines [of business] are nurtured by or are left in the hands of the Confederation. Perhaps the most strategic aspects [of developing semi-related business lines] are left to the Confederation. There are different committees or working groups to request the development of a new line [of business]. There is one called *COA* and it is the one in charge of overseeing all opportunities for joint business. They undertake studies and see whether it is more interesting for the smaller banks or for CECA to provide, say, telephone banking services. This study is then the subject of consideration by all the ‘cajas’ and those who want to develop that facility together will then join with CECA. Others will wish to develop organically and assume the risks involved. As a result, we have no studies [looking at our organisation individually] to enter into a new line of business. But you will find many studies exploring new opportunities for the whole of the Confederation and they include total clients, total expected response, cost levels, etc. Decisions are based on that information. Therefore, small and medium sized ‘savings banks’ leave that kind of project to CECA. Another very innovative project is the introduction of the electronic purse and that too is being developed by the Confederation,

> once again reflecting how we leave certain strategic aspects to CECA. We thus leave any major investment to CECA. We, in turn, avoid ascertaining discount factors. Rather our project appraisal entails assessing the incremental costs for the [retail] branch network and then [using short term government debt as discount factor to] forecast three years of profit and loss statements for our caja.' Interview, Caja de Ahorros de Murcia, 3 Jul. 1996 (Bátiz-Lazo and Wood, 1999)

The long period of geographic restrictions left Spanish savings banks with outsourcing as the only option to access scale benefits not attainable individually. As a result, collaboration characterised by the organisational structure of a strong and successful alliance emerges throughout the history of CECA. This collectively owned central operator became the main recipient of the savings banks' outsourcing strategies and clearing activities.

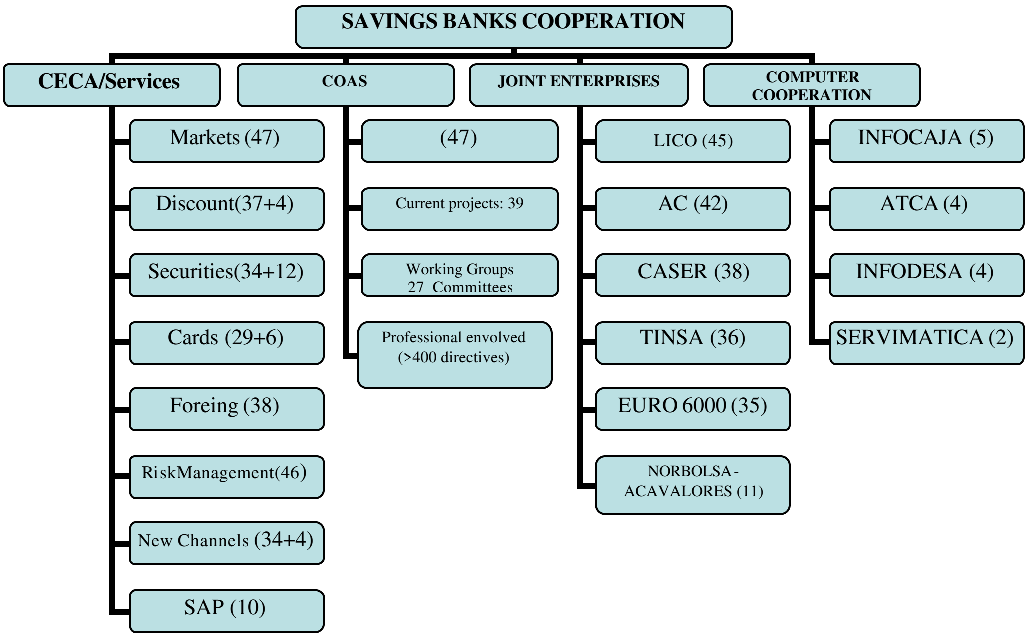
The corner stone of this policy was CECA's Comisión de Organización, Automatización y Servicios or COAS (Organization, Automation and Service commission). The creation of COAS roots to Sitges (Barcelona) in 1969. During the World Savings Banks Institute IVth International Conference on Automation, a group of directors of Spanish savings banks pointed to the need for a specialised service centre that would deal with technology issues within CECA and act as advisor to individual savings banks. This was to mirror the Automation Committees at CECA's counterparts in West Germany and Scandinavian countries.[21] CECA's Board (i.e. Comision Permanente - forerunner of the current governing body), eventually agreed and in February 1970, representatives from 28 savings banks and CECA established the Comisión de Organización y Automatización, COA, which eventually became COAS. Its main objectives were:

- ✓ Create a national database for mechanisation
- ✓ Enable knowledge interchange amongst the savings banks
- ✓ Study the creation of 'Centros de Cálculo' (Computer time sharing centres) at a national and regional level
- ✓ Normalisation of printed material and procedures
- ✓ Carry out organisational and mechanisation studies
- ✓ Publish research papers of international standing

It soon became apparent, though, that the COA working party was not to deliver expected results. Early in 1971 the process had started to set up an ambitious intercommunication project among the savings banks. This project was called SICA (Sistema de Intercomunicacion de Cajas de Ahorro – Interconnection Savings Banks System) and aimed to be operational by 1978. In setting up this project it became evident that the COA and other pre-existing commissions (such as the Current Accounts Commission and the Service Commission) were competing among each other and therefore a subsequent restructure of CECA's technical committees was required to face the challenge of technology.

The result of further deliberations was the creation of COAS as a separate charter and its activities in relation to different sub-commissions were clearly set out in May 1971.[22] COAS membership comprised of directors of savings banks members of CECA nominated by CECA's President-Director General plus a representative of CECA's Board of Directors namely the Secretaria Tecnica (Chief Information Officer).[23] A new organisational structure was introduced in May 1975 and the following year the Secretaria Tecnica was set up as an executive branch of COAS. But it was until 1979 when the Secretaria Tecnica became fully operational. Membership of COAS aimed to represent all regions and regional federations within CECA. Members would then tackle individual project through *ad hoc* committees.[24] This last organisational change was a clear response to the implications of the 1977 financial reform ("Reforma Fuentes Quintana") that "forced a rethink of many of the traditional aspects of the savings banks when these entered into open and determined competition with other credit facilities already operating in the market"[25]. In 1999 and 2003 further modifications took place and its norms were updated.

Figure 1: Achieving Scale through Co-operation in Spanish Savings Banks, 2005



Sources: CECA, authors.
Note: number of savings banks in brackets

Figure 1 summarises the results of a long co-operative process amongst Spanish savings banks to achieve scale in different applications of information and telecommunication technologies (IT). CECA's role has been instrumental as a service provider and catalyst for co-operation, which currently covers several different fields ranging from the services offered by CECA to participation in joint ventures (CECA and Savings banks) in the insurance sector, equity agencies, debit card issuers and IT services providers.

In broad terms, the thrust of technological change and innovation in the Spanish savings banks came about as a result of several factors. On the one hand, individual initiatives from the larger savings banks converged with the synergies generated by co-operation within CECA itself. On the other hand, technological change accelerated. This was fuelled by the adoption of computer technology within other financial intermediaries (primarily commercial banks) as well as regulatory change increased the potential threat of entry by new competitors (including diversification into retail bank markets of established competitors with similar capabilities such as insurance companies). Regulatory changes in Spain responded to economic policies of the new democratic government and to international developments, such as Spain's accession to then European Economic Community in 1985 and later on, the adoption of international capital standards under the Basle agreement.

Finally a 'knock on effect' came about as a result of changes and innovations that were taking place in other countries. By the 1980s, Spanish savings banks were already poised towards seeking efficiency and improvement of their services and 'brand'.

6.2 An Appraisal of Information Technology in Spanish Savings Banks Sector

CECA, therefore, went beyond creating scale and capabilities in IT or clearing activities and began to develop and supply financial services to retail members. These services included currency dealing, leasing, credit card management and factoring.

From 1975 to 1985 the 'big' savings banks actively engaged in CECA's activities as there were no major operational or strategy distinctions between them and the 'small' savings banks (Ash, 1987). The association of 'big' savings banks continued while all the savings banks could benefit from the troubles of the commercial bank sector, which resulted in the growth of advantages and profits for the savings banks (Ash, 1987). However, reduced rates of market penetration increasingly turned CECA into the defender of the smaller savings banks and this was accentuated as bigger savings banks pursued distinctive diversification moves such as their own international departments or the purchase of failed co-operative banks (*circa* 1987). The ominous trend for CECA changed in the mid-1990s and was associated with the savings banks having to update IT investments, a new general manager being named for CECA (Juan R. Quintás, a former management consultant), and renewed importance for CECA as the 'central' Spanish savings bank.

In brief, competitive collaboration between Spanish savings banks led to the development of CECA in 1928. CECA then encompassed a group of financial intermediaries that for a very long period of time had their business potential and diversification opportunities (in bank markets) limited by regulation. However, economic growth in Spain during the 1980s and early 1990s, domestic regulatory change and the adoption of IT applications allowed these mutual financial intermediaries to achieve successful diversification in Spanish bank markets. Some of these opportunities for growth were opened by managers of individual savings banks while others were only achievable through co-operation within CECA. Tactical strategies of savings banks thus resulted in high sustainability of competitive advantage for the whole co-operation agreement.

Another source of advantage emerged around the restrictions on product and market diversification. These restrictions resulted in a focus of the business of the savings banks on servicing private individuals and small and medium sized firms. The savings banks thus obtained a dominant market position amongst lower-income customers but also in the Spanish middle class. The retail focus thus engendered a strong competitive base in the late 1970s as the savings banks gained greater operative freedom. Moreover, the period of growth coincided with a crisis amongst their main competitors, the commercial banks, from 1977 to 1985.

The cost-sharing network of CECA worked well, simplified achieving control at the caja level, and provided savings banks with a low cost-base that helped them deal with the long economic downturn associated with the energy crises and the end of Franco's regime (Fanjul and Maravall, 1985; Caminal *et al.*, 1990). Strong regional ties and effective use of IT also helped Spanish savings banks to increase their share of deposits (which in any event was being eroded at the top end by growing bank disintermediation). During this period, savings banks' share of deposits grew from 27.8 per cent in 1965 to 32 per cent in 1980 and to 44.7 per cent in 1990 (table 2).

This growth was mainly at the expense of commercial banks who had enjoyed an unusually large portion of total national assets by international standards. Indeed, in 1989 Spanish commercial banks held 73 per cent of total liquid assets while this ratio averaged between 24 and 50 per cent in other European countries (Grimá i Terré and von Löhneysen, 1991). However, much of the Spanish growth had been fuelled by investments in large multinationals who required investments and international banking services which were not the strengths of the Spanish commercial banks. Also these newcomers tended to acquire or displace indigenous Spanish companies further eroding the customer base of the Spanish commercial banks.

Changes in the ability to compete forced commercial banks to redirect their attention to retail customers and thus to start to pay interest on current accounts. Their aim was to increase their share of deposits but also reduce the savings banks' share of retail banking. The move was initiated in October 1989 but this effort effectively broke the Spanish banking cartel and was followed by a mortgage rate war. Despite the actions of commercial banks, the alliance structure of the savings banks remained intact and savings banks continued growing and even gained market share (Caminal *et al.*, 1990; Neven, 1990; Canals, 1994).

The relative success of savings banks in securing leadership of Spanish retail finance in spite of commercial banks' efforts to the contrary, gives an insight into the sources of the savings banks' competitive advantage. Anecdotal evidence suggested that the savings banks' competitive advantage was built upon market specialisation as their shared strategy seemed to work despite wide variations in savings banks' sizes (Bátiz-Lazo and Wood, 1999; Bátiz-Lazo and Wood, 2003). Once savings- and commercial banks operated under the same regulatory framework (from 1985) and increasingly began to compete for the same sources of income, the lower cost base of decentralised simplicity and centralised complexity became clearer. However, econometric analysis suggested that market focus and specialisation did not solely account for superior performance (Sánchez Sáez and Sastre de Miguel, 1995). This research established that equivalent size commercial- and savings banks had distinct differences in their commercial and financial capabilities. In effect, distinctive management practices resulted in cost differences beyond what was explained by market specialisation (Domenech, 1993; Sánchez Sáez and Sastre de Miguel, 1995). In other words, some savings banks enjoyed additional operational efficiencies to the benefits attributed to the CECA alliance.

Table 5 summarises the process that the cajas have followed in adopting IT applications from the late sixties onwards based on the framework developed by Batiz-Lazo and Wood (2002) who have looked at IT adoption processes in banking from a historical perspective. Among the first initiatives put in place by the COAS working groups was to design an interconnection system for data transmission among cajas using the telephone network. Started in 1968, Intertelex was launched in 1970 by CECA in partnership with the Compañia Telefonica Nacional de España. On-line connection was established in 1974 linking the computers of four of the biggest savings banks – Barcelona, Pensiones de Barcelona, Zaragoza and Bilbao. The remaining savings banks linked up through terminals. This system was called

‘Sistema de Interconexion de las Cajas de Ahorro’ or SICA (Savings Banks Electronic Clearing).

Table 5: Adoption of IT applications in Spanish savings banks (1968-2005)

Period	Technology and Operacional Functions
Emergence (1968-79)	? SICA (Savings banks electronic clearing): previous development using first National Phone Company data transmission network (1968). ? BankAmericard (1971), by Banco de Bilbao ? Cheque guarantee cards (1973-88): first project of ‘Tarjeta 6000’ (savings banks card) ? Primeros proyectos para la domiciliación de recibos (1973-9) ? Mecanización de las nóminas de los empleados de las cajas (1974-6) ? Domiciliación de la nóminas de clientes de las cajas (desde 1979) ? Visa España (1979). First payment network: 56 banks, savings banks and cooperative banks) ? 4B System (1979). Second payment network: Banesto, Banco Central, Banco Hispano Americano and Banco Santander). Member of International Visa ? Euro 6000. Third payment network: 35 savings banks, centralized by CECA ? Auto 6000 (1979): fuel cheque
Difusión (1980-95)	? SWIFT: international access (1980/1988) ? CCI (1980-4) and CTB (1984-) Bank and Savings banks organization for clearing operations and operative services ? Debit card ‘tarjeta 6000’ (1981) ? ATM - off line: 1981-89, 47 savings banks ? Savings banks European project (1984-88): ATM service (CECA, IPACRI (Italy) and TSB (UK). EUFISERV (1990): a international company for ATM development. CECA adapted their ‘tarjeta 6000’ and connected with VISA and PLUS networks ? RJE, IFI and TAF (1985-87): desarrollo previo a la union de ordenadores de la CECA y cajas de ahorro usando bandas magnéticas y transmisión por lotes. ? Credit card (1985), ‘tarjeta 6000’ (Savings banks-CECA) and Servired (1985): Visa system ? Central de Recibos de la CECA (1986): normaliza el sistema de domiciliación de pagos ? EFTPOS (1986). Las primeras propuestas se habían dado en 1981 ? ATM – on line: 1987, CECA and savings banks ? SITO –Sistema de Intercambio y Tratamiento de Operaciones (1988): union de ordenadores on line entre todas las cajas (el proyecto se había iniciado en 1974-78) ? Savings banks 6000 Network agreement with 4B Network (1989) and Servired (1994) ? First generation of smart cards: TIBC (banks and savings banks) ? EDI Electronic data interchange for savings banks (1995). First study in 1982 (videotext, cash management, EDI) ? Home Banking (1995) utilizando la via telefónica
Communication and network architecture (1996-2005)	? Seguridad lógica ? Canal financiero en Internet ? Canal banca telefónica ? Adaptación al Euro ? Reporting financiero: aplicación NIC ? E-Procurement ? E-ESCA: formación en internet ? Arquitecturas alternativas al mainframe de IBM ? SEPA sistema de pagos europeo ? The Joint Forum – Basilea II ? Version WEB del SBP ? WOSA-XFS-JXFS:normalización de dispositivos de autoservicio

Sources: CECA, Secretaría Técnica de la COAS; Servired and authors

The next phase began in 1979, once CECA and the savings banks agreed on further developing the SICA by establishing a network directly linking their main frame or mini computers (as appropriate); by 1988 all the savings banks had been integrated into this system. The transition came about based on transmission systems such as RJE, IFI and Tap (compensacion electronica mediante tratamiento de soportes – bandas magneticas y transmission por lotes).[26] Sadly many of the initiatives proposed by CECA –who were leading the field in terms of IT- were disrupted by the CTNE's technological backwardness. Unfortunately for CECA, CTNE was the only service provider and at the time leader of the Spanish telecommunications industry. Initiatives such as VIDEOTEX (an information exchange service between CECA, the cajas and home terminals) Cash Management and particularly EDI (electronic data interchange) weren't developed until 1992 and weren't available before 1995.

The idea of a computer link was one of COAS' strategic principles from early 1970. Its development was bolstered by the growing role of IT in savings banks members of CECA and the boom in personal computers. The main initiative in this field was SATEICA and the Calculations Centre in Sabadell. All these steps allowed CECA to begin a clearly defined policy in regards to payment methods, ATMs, EFTPOS, etc from 1980.

Table 6 shows the ATM adoption process by banks, savings banks and co-operative banks in relation to the three main networks in the mid-1980s: Red 6000, 4B and Servired. The first initiatives within CECA were in 1974 following a presentation by Bourroughs. Later on in 1979, COAS created a working group with the Caja de Pensiones (La Caixa), Caja de Bilbao, Caja de Madrid (Caja Madrid) and CECA. By 1980 five trademarks that had been slow in commercial terms had been accredited. CECA began a policy to revitalise and promote commercialisation of the new service.

Table 6: ATMs in Spain (1984-90)

Network	1984	1985	1986	1987	1988	1990
6000 (Savings Banks)	1 315	1 755	3 050	3 954	5 605	9 432
4B (Banks)	708	795	1 030	1 421	1 681	3 000
Servired (Banks)	-	357	495	563	1 265	2 000
Total	2 023	2 907	4 575	5 938	8 551	14 432

Source: CECA and Tirado and Nieto (1991), pp. 121-22.

As can be seen from Table 7, by 1982 there were 200 ATMs throughout 19 provinces. By 1983 the number of cajas in the network was 47 with more than 800 automatic tellers; this number grew to 1,315 in 1984 and at this time CECA became involved in an international project led by the Instituto per L'Automatizacione delle Casse di Risparmio Italiane (IPACRI), Italy and British trustee savings banks. These three presented a technical proposal to the European Savings Bank Group in 1985 that was developed in 1988. EUFISERV – an international partnership based in Belgium - was created in 1990 to start a European project on automatic tellers (Vaencia, November 1990). As a result of this collaboration, SEINCA (1988-93) was created and it brought together 68 cajas and CECA, IPARCRI and two technology partners - Ibermatica (sponsored by the cajas) and ERITEL(Ibermatica and CNTE).[27]

Table 7: Savings Banks ATMs in Spain (1986-2000)

	1982	1983	1984	1986	1988	1990	1992	1994	1996	1998	2000
Number of machines	200	800	1 315	3 050	5 605	9 432	12 271	14 149	16 548	21 497	24 836
Number of withdraw *(millions)*	-	-	-	77	144	240	284	362	328	383	922
Value of withdraw *(€millions)*	-	-	-	4 508	9 165	16 516	20 939	28 067	25 261	29 125	57 383

Source: CECA.

Table 8: Debit and Credit Cards in Spain (1989-2004)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total debit cards												
Number (millions)	14.7	18.3	21.3	23.6	24.0	23.0	22.3	23.9	24.8	26.9	27.8	31.2
Value of sales (€ millions)	-	22 376	26 752	28 617	35 045	35 045	39 182	43 325	48 958	54 295	64 960	74 740
Total credit cards												
Number (millions)	6.0	7.0	7.7	8.3	8.4	8.4	8.3	8.6	9.5	10.7	13.3	14.3
Value of sales (€ millions)	5 244	6 425	7 621	9 139	10 025	11 445	13 075	15 106	17 777	20 764	23 752	27 568
Savings Banks cards												
Number of debit and credit cards (millions)	11.0	12.4	13.8	14.6	15.4	15.2	15.4	16.0	16.6	20.8	20.7	24.8

Source: CECA, SEMP, SERMEPA and Servired.

CECA also represented savings banks in the international credit card clearing of VISA and MasterCard through the Eufiserv network. Wholesale international transactions on behalf of the savings banks began in 1988. These services developed into representative offices in major international financial centres, a single point for SWIFT exchanges, 1,300 correspondent agreements with banks in 88 countries and trading operations whereby CECA became the third biggest Spanish player in spot currency transactions.[28]

In brief, one of the key elements in savings banks' competitive advantage between 1985 and 1990 was IT (Maudos, 1991). CECA led IT development and this allowed the savings banks to benefit from their national coverage. CECA introduced a nationwide electronic interbank funds transfer system (IFT), direct salary payments, and a state-of-the-art ATM network. These were computer systems designed to provide interoperability rather than exclusivity or competitive advantage.

Accelerated growth and wider responsibilities created operational and strategic problems for CECA (Ash, 1987). CECA originated to service the entire savings bank system but voting procedures meant it was dominated by the small savings banks. In an effort to retain the business of regional and big savings banks, CECA had to devise new ways to share the synergy benefits more favourably with the large savings banks (whose business was necessary to create them). CECA therefore set up limited cross-subsidisation between membership fees and supplied services (Medel Cámara, 1991).

The efforts made towards financial soundness and fair pricing policies also addressed the need to make substantial IT investments to keep up with developments at commercial banks (López, 1993).[29] At the time, major savings banks were investing in proprietary systems and medium sized institutions were actively outsourcing outside the CECA umbrella by transferring management of legacy hardware, IT systems and risk-control software to international vendors like Unisys, EDS, Microsoft, ICL, Bull or IBM.[30] Furthermore, three member savings banks of non-neighbouring regions created a joint venture (called ATC, see Table 4) that by-passed actual and potential services from CECA. Between 1990 and 1994, this consortium integrated their electronic banking systems in a joint venture.[31] Consortium members agreed to respect existing geographical boundaries but co-operated to provide joint capabilities to reduce costs, improve overall skills, and customer databases (Grávalos, 1993).

Growth in such 'non-obligational' outsourcing agreements and creation of saving bank consortia reflected the limits to which smaller savings banks could disproportionately enjoy the benefits of CECA. The result was that CECA concentrated on services required for small savings banks to achieve critical scale in several IT dimensions and thus increasingly provided the basis for competitive advantage.

In brief, services provided by CECA became a necessary (but not sufficient) condition for individual market success. CECA's services provided the savings banks with the necessary flexibility to anticipate a competitive advantage but it was up to the individual caja management teams to identify the most promising growth opportunities.

On the other hand, CECA delivered several types of services and effectively acted as a forum for the savings banks' top and middle managers. The continuous interaction at CECA allowed the exchange of market information, identification of competitive concerns of mutual interest (such as new entrants, technological changes or development of new skills), and mutual understanding of partners' broad capabilities. All these features allowed the Spanish alliance to re-negotiate more often than the British alliance.

7 Conclusion

Research results thus support the idea that competitive collaboration can enable the creation of inter-organisational processes and procedures to distribute otherwise inaccessible information. The development and transformation of competitive capabilities of one or all of the partners, therefore, should be seen as the appropriate indicator for successful collaboration (Ross, 2002b). However, the intensity of competition could remain unchanged unless opportunities opened by collaboration are implemented successfully (Bátiz-Lazo and Del Angel, 2003; Bátiz-Lazo, 2004).

In summary, the evolving nature of competitive collaboration and any form of inter-organisational dynamics is the motivation for analysing cases with an historical perspective. An historical view of an economic problem requires interweaving conceptual structures with contextual events and identifying how and why transitions appear. In this sense the research that follows aims to bring the history back to the concepts using as evidence comparative historical cases in Spain and the UK. Rather than providing an explanatory hypothesis to a problem, it aims to show how and why those business practices emerged in their respective contexts and explain their outcome in the light of conceptual tools.

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[1] The 'Mount of Piety' is a different organisational form from the so-called 'Montepío', which appeared during the second half of the 18th century The 'Montepío' was a mutual, agnostic, and government controlled institution established by craftsmen or lesser standing professionals to care for members' needs when disabled or rehabilitating Aguilar Piñal (1975), p. . For further details on popular credit see Montero Montero (1983), p. and Martínez Soto Martínez Soto (2001), p. .

[2] The first generation of stored program computers built on vacuum tubes (valves) between 1940 and 1956. The second generation built on transistors between 1956 and 1963. The third generation built on semi-conductors and introduced compatible software applications (circa 1964). The fourth generation built on integrated circuits and database management applications (circa 1971). Since then computer technology has built upon microprocessors.

[3]The Times, 25 April 1972.

[4] The Times, 02 May 1968.

[5] The Times, 12 January 1970, 19 January 1970 and 15 Oct 1970. By October 1970 the NDPS centre in Leeds was servicing 23 TSB banks and was said to be in the process of incorporating into the computer system 450,000 accounts and 45,000 standing orders.

[6] The Times, 15 Oct 1970.

[7] Ferry Ferry (2003), p. claims that in 1965 Nick Smith, head of the Organisation and Methods Department at the Post Office, purchased two LEO III and five LEO 326 to "equip the National Data Processing Service centres, manage the accounts in the National Savings Bank … and carry out work for outside users." (p.185). "By 1969, the Post Office had installed thirteen LEO III and 326s at centres around the country." (p. 186). The TSB certainly benefited from experience at NDPC. This even though there was no evidence to suggest that applications for the trustee savings banks actually were carried out within LEO mainframes nor that they were the same as those originally developed to service the 22 million account holders at the National Savings Bank.

[8] The Times, 25 April 1972.
[9] The Times, 22 January 1974, p. 19.
[10] Unless otherwise stated this paragraph borrows freely from English English (1972), p. .
[11] The Times, 25 Apr 1972. Advertising on page IV.
[12] The Times, 22 Jan 1974, p. 19.
[13] The Times, 29 May 1975, p. 17.
[14] The Times, 29 May 1975, p. 17.
[15] The Times, 29 May 1975, p. 17.
[16] The social welfare activity of the 'Mount of Piety' was not profitable enough as loans secured with clothing and jewels earned interest for the savings banks at a very low rate, and the savings banks themselves looked for the means of reducing the cost to the public. The use of surplus capital was one of the Achilles heels of Spanish savings banks during much of the 19th century Martínez Soto (2003), p. . It became necessary to develop new lending instruments in order to guarantee the financial sustainability of the savings banks.
[17] The recovery in the activity of the 'Mount of Piety' was enhanced by the Royal Decrees of 23 September 1908 and 12 July 1909 which regulated loan houses, restricting and controlling their activities. These regulations were a new attack on abusive interest rates and usury in general.

[18] The recovery in the activity of the 'Mount of Piety' was enhanced by the Royal Decrees of 23 September 1908 and 12 July 1909 which regulated loan houses, restricting and controlling their activities. These regulations were a new attack on abusive interest rates and usury in general.

[19] In 1975 savings banks were given freedom to open retail saving bank branches within their geographic area of influence. Freedom on territorial expansion was granted in 1988.
[20] Confederación Española de Cajas de Ahorro (hereafter CECA) http://www.ceca.es/ cecaso.htm, access date 15/Mar/1997; CECA, Secretaría Técnica COAS.

[21] CECA, Circular 12/1970, 6 January.

[22] CECA, COAS Minute, 29 May 1971.

[23] CECA, Circular 159/1975, 3 June and Circular 192/1979, 25 June.

[24] In June 2006 there were six committees namely: Distribution Channels, Quality and Knowledge Management, Third Party Negotiation, Business Systems and Processes, Architecture and Technological Innovation, and Normalisation and Standardisation.
[25] COAS Statute, CECA, 1979, p. 3.

[26] CECA, Secretaria Tecnica de la COAS, Informes.

[27] Ibidem.

[28] CECA, http://www.ceca.es/ cecasf.htm, access date 15/Mar/1997.

[29] Among others Expansión, 14 Nov. 1996.

[30] Among others Expansión, 3 Jul. 1994; 21 Feb 1995; 13 Mar 1995; 3 Oct. 1995; 28 Nov. 1995.

[31] Expansión, 3 Feb.1995.