

THE RISE AND DECLINE OF THE RESEARCH DEPARTMENTS IN THE SPANISH FINANCIAL INSTITUTIONS, 1930-2015, by José L. García-Ruiz (Complutense University of Madrid) (jlgarcia Ruiz@ccee.ucm.es)

Introduction

The Research Departments (*Servicios de Estudios* in Spanish) in financial institutions are specialized departments in macroeconomic analysis that emerged in the early twentieth century in line with the formation of modern central banks. The relationship between the monetary sector and the real sector of the economy was a constant concern for the new monetary authorities, and it was the center of attention in the Research Departments, which recruited people trained in the faculties of Economics that emerged at that time in universities worldwide. The publication in 1936 of *The General Theory of Employment, Interest and Money* by John Maynard Keynes was a milestone in the history of Macroeconomics. The book induced one to think that with appropriate monetary and fiscal policies it was possible to moderate the impact of economic cycles and provided an adequate theoretical framework for that intervention (Keynes, 1936).

After World War II, private banks followed the example of the central banks and created their own Research Departments. Other Research Departments were developed in international organizations, universities and employers' organizations, amid a widespread acceptance of Keynesian thinking. However, when this approach to Economics as a social science went into crisis, in line with the problems of 'stagflation' of the 1970s and 1980s and the rise of neoliberal thought, Research Departments began to be regarded with suspicion. For new business leaders it was not clear that banks and companies in general had to fulfill a social function, as did the Research Departments with their high social impact publications, which completed the official statistics and encouraged the debate on major issues of economic policy. Microeconomics imposed on Macroeconomics and in the financial institutions the microeconomic analysis of risks was considered far superior to previous macroeconomic analyses.

In this paper we present the evolution of the Research Departments in Spain, which followed the general pattern we have described above. The pioneer was the Research Department of the central bank, *Banco de España* (1930), and followed those of the banks Urquijo (1945), Central (1954), Bilbao (1954) and Banesto (1965), to name only those that elaborated original information. Insurance companies and savings banks, being smaller, preferred to create shared Research Departments and thus emerged ICEA (1965) and FUNCAS (1979), respectively. Only the leading institutions (Mapfre among the insurance companies and La Caixa among the savings banks) had their own departments (historical rankings in Annex I; see also, Tortella, dir., 2014, for insurance and Torres & Comín, 2003, for savings banks). The crisis that put an end to the Golden Age in the 1970s and 1980s swept away the solid Research Departments devoted to Keynesian Macroeconomics. At best, they were replaced by others with less structure that would work with more or less sophisticated econometric models, always ready to give estimates of the future evolution of the main variables, that is, the Neokeynesian Macroeconomics inspired by Lawrence R. Klein.

The Great Recession that began in 2007 is provoking the end of the neoliberal apotheosis associated with the Great Moderation of the turn of the century, and to a lesser extent a critical evaluation of the predictive ability of econometric models *à la Klein*; for instance, these models were unable to foresee the outbreak of the bubbles that had formed during the Great Moderation and led the economy to the Great Recession (Kotz, 2015). In Spain, as we shall see, this has been a particularly serious problem, since the bursting of a bubble of enormous dimensions in real estate has caused devastating and long lasting effects. However, after the outbreak of the crisis, Macroeconomics has appreciated against Microeconomics and this is good for the consolidation of the Research Departments, which are being slowly reinforced everywhere.

The pioneer: the Research Department of the *Banco de España*

In 1930, Spain was at a crossroads. The country was abandoning the dictatorial system imposed seven years before amid a difficult economic environment marked by the international Great Depression. The tensions were reflected in the currency, the peseta, whose situation was a worry for the monetary authorities. France, which was the main commercial and financial partner of Spain, also showed concern and it is not surprising that there were two French economists, Pierre Quesnay and Michel Mitzakis, who offered their advice to the Spanish authorities to help to solve the problem (on the history of this Research Department see Martín-Aceña, 2000 & 2006, and Martín-Aceña & Tortella, 2010).

Quesnay had been chief of the Research Department of the French central bank, the *Banque de France*, and now he was managing director at the Bank for International Settlements, and Mitzakis was a young inspector of the *Banque de France*. Both were in contact with the governor of *Banco de España*, Federico Bas, to help him to design a plan to stabilize the peseta. The plan should ensure that other European central banks would lend money to Spain. Quesnay's report was finalized on 15 November 1930 and included a recommendation to create a Research Department on monetary and economic issues within the central bank, modeled on a similar department of the *Banque de France*.

The first mission of the Research Department would be to calculate the impact of the exchange rate on the elements of competitiveness of the Spanish economy (prices, wages, taxation, foreign sector, etc.), but hereinafter the department would be responsible for monetary research in general, preparing technical notes that should be useful to the governor. An important issue was to analyze the conditions for implementing the Gold Standard in Spain. To give a structure to the department it was necessary to design an organization chart, and here the Mitzakis' collaboration was decisive. The young French economist maintained frequent contact with a lawyer specializing in finance, José Larraz, and a statistician, Olegario Fernández-Baños, because they were the people chosen to run the department.

After overcoming some difficulties, on 2 January 1931 the Research Department was ready to work with three sections: i) economic, financial and monetary research; ii) translations, documentation and library; and iii) operations to stabilize the peseta. Very soon, Larraz left the department and was replaced by the economist Germán Bernácer, who, like, Fernández-Baños, had done doctoral studies abroad. The first two sections were soon producing interesting papers (such as *Ritmo de la crisis económica española en relación con la mundial*), but the third lagged behind because Bernácer proved to be

a Keynesian economist who saw the depreciation of the peseta as an appropriate instrument to deal with the external shock of the Great Depression on the Spanish economy. When the pound sterling left the Gold Standard in September 1931, the Research Department understood that this movement supported its view. For the same reason, the department was radically opposed to the integration of the peseta into the French *bloc d'or*, as was proposed by the Government in 1933, when after the abandonment of the Gold Standard by the US dollar France considered that the time for the international monetary leadership of the franc had come (the instrument was the so-called *bloc d'or* that kept the currencies linked to the Gold Standard).

The Research Department of the *Banco de España* remained largely independent from the Government policies, which is explained in part by the autonomy enjoyed by the issuing bank (the *Banco de España* was a private bank, though privileged, until 1962). This triggered some conflicts. A major controversy was unleashed around interest rates. The Government wanted to reduce them, but the *Banco de España* relying on its Research Department refused, arguing that the 'cheap money' did not guarantee a healthy economic recovery. The truth is that unemployment became unbearable and the 1936 general elections were won by a Popular Front (broad coalition of the leftist parties). Only at that moment did the Research Department of the *Banco de España* consider that it had been a mistake not to have radically cut interest rates in the recent past (then, Spanish real interest rates were among the highest in the world) (Banco de España, Servicio de Estudios, 1931-1936; Tortella & García-Ruiz, 2013, pp. 108-114).

But beyond the debatable views of the Research Department, the fact is that since 1935 its existence allowed the creation of the most important Spanish economic database. This database was composed of scattered statistics that were gathered by the department but also of others elaborated by their economists and entirely new, as the first balance of payments of the country. The statistician Francisco Jainaga did it accumulating data from many different sources, as well from a questionnaire distributed among 3,500 exporters and importers and other people related to the matter. The result was the reconstruction of the complete balances of payments for 1931-1934, a milestone in Spanish applied economics. Soon after, Jainaga was killed in the early days of the Spanish Civil War (1936-1939).

During the Civil War, the *Banco de España* was divided into two, while the Spanish monetary union broke down. The Research Department remained operational only in the territory controlled by the 'national' faction of General Francisco Franco, with José Larraz as chief economist. One of his functions was considering how monetary union would be restored when the war was over. In *Estudio sobre la restauración de la comunidad dineraria española* (1938), Larraz argued that the winners should recognize the credits of the losers, but this should be done in terms of the purchasing power of the two currencies: the 'national' peseta and the republican peseta ('Marxist peseta' in the study). Larraz would be the Minister of Finance that, in September 1939, had to undertake the monetary restoration and it was very useful for him to have worked in the Research Department of the *Banco de España* of the year before.

In the postwar, the *Banco de España* was under the Franco dictatorship (1939-1975), but it was not nationalized until 1962. The Research Department continued to operate, with a bank officer, Mariano Sebastian, at the head between 1947 and 1956. Sebastian's economic thought fitted well with the ideology of Franco's New State, willing to exert a larger control over the central bank. They were years of mediocrity, with the role of the Research Department reduced to developing a section of the annual report of the *Banco de España* on the monetary aspects of the evolution of the Spanish

economy. In late 1956, Sebastian was promoted to secretary general of the bank and had the wisdom to choose Joan Sardà as his successor. Sardà was a university professor and former chief economist of the Research Department of the Banco Central de Venezuela. He was an economist from Barcelona who had completed his training at the London School of Economics and the University of Munich, and stood out as a Keynesian and historian of the Spanish economy. In short, the cosmopolitan and brilliant Sardà was the opposite of the low profile civil servant Sebastian. In vain, a professor of the Central University of Madrid, Francisco Sánchez-Ramos, wrote to Franco to warn about Sardà as a ‘professor totally divorced from the national ideology’, because of his contacts with Catalan separatists in Venezuela and with dissidents in Spain (the letter is preserved in the Archive of the *Fundación Francisco Franco*, folder 13327).

Sardà headed the Research Department until 1965, introducing completely new approaches in the institution. Since 1957, the annual report of the *Banco de España* became the sophisticated report that is expected from a central bank, and it was complemented, since 1960, with the publication of a statistical bulletin very useful for economists. Very soon, Sardà gained enormous prestige and was called on to design the stabilization that was needed again by the Spanish economy. Somehow, it was a return to the origins, because the Research Department had been created in 1930, in the midst of the Great Depression, to help in the stabilization of the exchange rate. This time, the question was to set the peseta-dollar parity to enter the Bretton Woods monetary system and put an end to the economic isolation of the country. For the success of the process it was necessary to control inflation that was rampant with fiscal (increased taxes, restrictions on public spending) and monetary (interest rates rises, controls on the credit growth, etc.) measures. In July 1959, a Stabilization and Liberalization Plan was published in the official gazette, as a proof of the good understanding between the Ministries of Trade and Finance and the *Banco de España*.

During the Cold War, the Franco dictatorship got support from the United States in exchange for allowing the establishing of military bases in Spain, a country with a very interesting geostrategic position. In 1961, the Research Department of the *Banco de España* was committed to reach an agreement with the World Bank, which was willing to aid Spain, a backward country that had recently joined the international economic institutions. Sardà proposed the *Banco de España* as the single monetary authority, recovering monetary functions that Franco had entrusted to the Ministry of Commerce (the *Instituto Español de Moneda Extranjera* performed the external monetary transactions) and the Ministry of Finance (the *Dirección General de Banca y Bolsa* developed inspection functions on the financial institutions). In order to transform the *Banco de España* into a true central bank, the institution should be nationalized, strengthened in its functions and, finally, endowed with autonomy from the Government. The Banking Act of 1962 nationalized the bank but there was no progress in all other respects.

In 1965, as a consequence of a ministerial crisis, Ángel Madroñero replaced Sardà as head of the Research Department of the *Banco de España*. One of his first decisions was to hire Mariano Rubio as deputy head. Rubio was a socialist economist who had found work in the Paris offices of the OECD to be away from the Spanish dictatorship (Tortella, 2015). In 1966, the Research Department created the *Cuerpo de Titulados*, a team of graduates and postgraduates in Economics, most of them trained by Professor Luis A. Rojo at the Central University of Madrid (Complutense University of Madrid since 1970). The relationship was so close that Rojo ended up running the Research Department between 1971 and 1988. They were years of consolidation of the Research

Department, with the formation of a collection of studies and publications that are key to understand the Spanish economy of the period. In 1972, the first book of the Research Department was published: *Una estimación del producto interior bruto trimestral de España, 1958-1971*, written by Julio Rodríguez López, which was a proof of the institution's ability to supplement the data offered by the *Instituto Nacional de Estadística*, created in 1945 to produce the official statistics.

The importance of the Research Department in the second half of the twentieth century explains that Rubio and Rojo became deputy governors and, then, governors of the *Banco de España*. With Rojo at the top of the Research Department, 711 confidential documents were recorded, proving the impact that the department made in the modernization of the Spanish monetary policy in those crucial years marked by the transition from dictatorship to democracy and the impact of the oil crises. Confidential documents were complemented by hundreds of studies and internal statistics that were the basis of the publications offered to the general public, which were included the 'blue books' of the Economic Studies series, launched in 1972 with the aforementioned book by Julio Rodríguez. Eight years later, the 'red books' of the Economic History series, run by Pedro Tedde, historian of the department, were added. The interest for the Economic History of the *Banco de España* has been proverbial and has never waned, outstanding among them being the books devoted by Tedde to the evolution of the institution since its inception in 1782 (Tedde, 1988 & 1999) and some monographic studies (the last has been Malo de Molina & Martín-Aceña, eds, 2012).

In 1988, Rojo left the Research Department to serve as deputy governor and, after a short transition period, since 1992, José L. Malo de Molina replaced him (Malo de Molina still heads the department). The Research Department had to pay special attention to the process of monetary union that started with the Maastricht Treaty (1992). As is well known, the process culminated at the beginning of the 21st century with the adoption of the euro, a currency backed by the European Central Bank that has absorbed many of the functions of the national central banks of the 'Eurozone'. The Malo de Molina period has been marked by these events, which have reduced the role played by the *Banco de España* and its Research Department. The preference for simple econometric models explains that, between 2004 and 2014, only four 'blue books' have been published versus 462 working papers. The Research Department has developed a valuable work in the elaboration of statistics (available through the data bank BIEST in www.bde.es), the writing of the bank's annual report, the managing of the bank's library and the advising to the monetary authorities. In 2001, a group of economists linked to the European Central Bank launched a prize for young scholars called Germán Bernácer Award, which meant recognition of the work done by the Research Department since its inception. No doubt, the Research Department of the *Banco de España* remains as the key reference in its field.

The Research Departments of *Banco Urquijo* and *Banco Hispano Americano*

In 1942, Madrid was a city ravaged by the war, but one of its banks, *Banco Urquijo*, launched the journal *Moneda y Crédito*, to publish the work of Spanish and foreign economists who would bring the light of liberalism to times marked by a momentary triumph of fascism. Of the four articles published in the issue 1, the outstanding ones were those by the Keynesian Germán Bernácer (*La ecuación fundamental del valor del dinero*) and another by the Austrian Luis Olariaga (*Economía y hacienda de guerra*). Shortly after, on 15 June 1944, the Urquijo signed an agreement with *Banco Hispano*

Americano (Hispano), establishing a symbiotic relationship between the two Madrid financial institutions. The Hispano, which led the ranking of the Spanish banks, was a commercial bank with a small portfolio of industrial holdings; by contrast, the Urquijo was a universal bank but with a bias towards the investment in equity of industrial firms. Because of this specialization, it was easy for both institutions to reach an agreement of cooperation without losing independence. The agreement was called *Pacto de las Jarillas* because it was signed in a rural estate near Madrid with that name. One of the consequences of the pact was the creation of the Research Department of the *Banco Urquijo* (Puig & Torres, 2008).

The Research Department of the Urquijo was established with the mission of gathering information on the economic sectors where the bank's subsidiaries and affiliates were operating, as well as those sectors in the hands of competitors. In those years, the country's industrialization was considered the best way to ensure the growth and the Urquijo seemed destined to play a key role in it. Under the direction of Julio Tejero, professor of Political Economy and friend of the CEO Juan Lladó, in 1945 the Research Department began to publish *La Economía Española*, an annual report of great interest on the evolution of the Spanish economy that, using a comparative perspective with other countries, tried to raise awareness of the dangers of following paths leading away from the market economy. Since 1945, the annual report was supplemented with *Boletín financiero*, a bulletin on a monthly basis and less ambitious goals.

A unique feature of the Urquijo led by Lladó was its willingness to finance a variety of intellectual and scientific researches without direct connection with the economy or business. The main instrument was the *Sociedad de Estudios y Publicaciones*, founded in 1947, which gave support to people clearly away from the authoritarian orientations of the dictatorship (Francisco Suárez, Xavier Zubiri, Julián Marías, Ramón Carande, Joaquín Rodrigo, Dámaso Alonso, Emilio García-Gómez, José Antonio Maravall, etc.). For an illustrated banker like Lladó, contributions by philosophers and writers (and their intangible social values) were as important as those made by economists (and their tangible social values) to set up a society where companies promoted by the Urquijo would render private and social benefits. The Research Department of the Urquijo benefited from the collaboration of important Spanish economists such as Julio Tejero, José M. Naharro, Lucas Beltrán or Ildelfonso Cuesta-Garrigós.

An institution so committed to the industry as the Urquijo, had to feel the attraction of the 'Spain' factory', Catalonia, and, in 1962, the Barcelona branch of the Research Department was created, with a specialist in regional economics, the professor of Political Economy Ramón Trías-Fargas, at the head. Three years later, in 1965, the Seville branch was open, under the leadership of the professor of Financial and Fiscal Law Jaime García-Añoveros. This branch was more modest than those of Madrid and Barcelona, and its opening is largely explained by the role played by the Andalusian poet José A. Muñoz-Rojas in driving all the cultural conglomerate of the Urquijo. Muñoz-Rojas was a close friend of Lladó and had carte blanche to interconnect the world of the Economy with the world of Culture. Within the *Sociedad de Estudios y Publicaciones*, he ran a *Seminario de Investigación Económica*, where papers by professors of Economics as diverse as Valentín Andrés-Álvarez, José L. Sampedro or Lucas Beltrán were presented and discussed. Muñoz-Rojas obtained the sponsorship of the Ford Foundation for the workshops in the 1960s and special attention was paid to the introduction in Spain of the Freiburg School and the 'ordoliberalism'. Internationally renowned masters such as Hayek, Robbins, Shackle or Haberler presented papers in the workshop. In late 1973, the Research Department of the Urquijo

called for the First Meeting of Research Departments, which coincided with the First Meeting on Regional Studies and allowed the creation of the Spanish Association of Regional Science, which still operates today (Banco Urquijo, 1975).

Nothing similar can be said about the Research Department of the Hispano, which after the aforementioned *Pacto de las Jarillas* (renewed in 1964 and 1973), had chosen to go deep in its commercial banking line of business. In this type of banking risk is less concentrated and less exposed to the immobilization of resources caused by industrial investments. Therefore, it is reasonable that commercial banks have more interest in Microeconomics than in Macroeconomics, and this is reflected in weaker Research Departments. All in all, the Hispano's Research Department made some remarkable contributions. In the 1950s, the department followed the course of the 'American aid', a question in which the intervention of the CEO of the Hispano, Andrés Moreno, had been decisive. In its critique of the *Pactos de Madrid* (1953) between General Franco and President Eisenhower, the Communist Party did not hesitate, in June 1956, to use as a source the statistics of the Hispano's Research Department on the subject (Comité Central del Partido Comunista de España, 1956). The statistics had been published in the first issue of *Situación Económica en*, a yearbook not without interest that came to light between 1956 and 1966. In the great crisis of the 1970s and 1980s, macroeconomic events gained new importance and the working papers by the Research Department provided the critical view of who is about to be destroyed by an economic tsunami. These studies were the base of *Pulso Económico*, a publication for the media. It is worth mentioning also an ambitious study on the Input-Output Table of the Canary Islands (Banco Hispano Americano, Servicio de Estudios, 1978).

The solution to the problems could come from entering the European Economic Community (EEC), which occurred in 1986, something that was watched with hope by the Research Department. But the fate of the Madrid banks was cast. Since 1985, the tandem Hispano-Urquijo was controlled by the Government. In the process of disinvestment, Claudio Boada, the chairman appointed by the Government, would not hesitate to put an end to the Research Departments of both institutions and deliver *Moneda y Crédito* to the *Banco de España*, losing in this way its characteristic 'virginity': the journal had been truly open to all without interference from outside the academic world (Raga, 2009).

After overcoming some difficulties, the Urquijo was taken over by *Banco Sabadell*, while the Hispano would merge with another Madrid bank, *Banco Central*, in 1991 to form *Banco Central Hispano* (BCH). In 1999, the BCH was absorbed by *Banco Santander*. As we shall see in the next section, the Central had, since 1954, a true Research Department and the BCH decided to keep this tradition by appointing Fernando Fernández as head in 1996.

The Research Department of *Banco Central*

Banco Central was founded in 1919 by a group of banks and bankers, led by the Basque *Crédito de la Unión Minera* (CUM), with the aim of participating in the process of consolidation of Madrid as the Spanish financial center that was taking place since 1900. In 1925, the CUM suffered a crisis and was liquidated, putting Central in danger. The solution was found in the reinforcement of the bonds with the existing political regime, the dictatorship of General Miguel Primo de Rivera (1923-1930), who was regarded with suspicion by the liberal elite that dominated private banking in Spain. The problem was that after the dictatorship the monarchy fell and the Second Republic

(1931) was proclaimed. Immediately, Central was harried by the new political power, while it was severely affected by the industrial crises of those years. One of the measures taken to address the problems was to create in 1934 a Research Department, with the first republican governor of the *Banco de España*, Julio Carabias, as head. In March 1936, Carabias became delegate from the Government of the Popular Front in the *Consejo Superior Bancario* (a high council to deal with banking issues) and, being aware of the precarious situation of the Central, prepared it to be controlled by the *Banco de España* (see Tortella & García-Ruiz, 2013, for more details of the Spanish financial history).

The outbreak of the Civil War prevented the Central from being taken over. The ultimate solution to the problems was sought in the strong leadership of a banker and conservative politician, Ignacio Villalonga, who really laid the foundations of a new Central. Villalonga supported General Franco during the Civil War, because the 'national' faction guaranteed public order, but in the postwar period Villalonga asked for a prompt return to parliamentary monarchy. This helps us to understand Villalonga's choice in the early 1950s of Jesús Prados-Arrarte as chief economist of the new Research Department. The curriculum of Prados-Arrarte (Bilbao, 1909-Madrid, 1983) showed him as a person clearly opposed to the values defended by Franco's New State. Prados-Arrarte had been imprisoned during the dictatorship of Primo de Rivera, had participated in the republican uprising of Jaca (1930) and had received the appointment of '*capitán de estado mayor*' (high rank officer) of the republican army during the Civil War, becoming entitled to the Medal of Duty in June 1938 due to war operations. His battalion during the war had been one organized by the Federation of Education Workers of the socialist union (*Unión General de Trabajadores*), because Prados-Arrarte was at the time professor of Political Economy and Public Finance at the University of Santiago. In the postwar, Franco's dictatorship allowed the reincorporation of Prados-Arrarte to the university chair, but declared him unable to be president or dean of his university. Prados-Arrarte's response was to leave for Latin America to work in economic research in Argentina and Chile (he worked at the ECLAC) (Prados-Arrarte, 1979; Prados-García, 2004; Martín-Rodríguez, 2010).

In 1954, Prados-Arrarte returned to Spain and took charge of the Research Department of *Banco Central*. In the department, he promoted the publication of a yearbook, *Estudio Económico*, which enjoyed wide circulation. The name *Estudio Económico* resembled that of the United Nations' publications that Prados-Arrarte had known in America. This work was accompanied by the publication of a dozen books and numerous articles (Prados-Arrarte, 1958 & 1965, are particularly interesting). But Prados-Arrarte's participation in the 'conspiracy of Munich' (meeting of European democrats in that German city) returned him to exile in 1962-1964, which was used by his political enemies to try to expel him from the Faculty of Law in the Central University of Madrid (his position in the University of Santiago was being transferred to the Central University). A student protest prevented this maneuver. Finally, Prados-Arrarte kept his chair in the Central University and, after the dictator's death, could unleash his political vocation launching the *Partido Socialista Democrático Español* (PSDE), of which he was vice-president. The lack of transparency within the PSDE would lead him to resign and join the *Partido Socialista Obrero Español* (PSOE) shortly before general elections of June 1977, the first democratic elections since 1936.

The linkage of Prados-Arrarte with the banking industry was a problem for his political career. For many, the banking industry had been a pillar of the dictatorship and Prados-Arrarte's socialism was seen as opportunistic. Faced with these accusations, Prados-

Arrarte noted that ‘adherence to socialism is not proved with a card but with a socialist life’ and recalled his imprisonments and exiles. His work for *Banco Central* (where he retired in 1970) was explained saying that with the dictatorship his work in the public sector had been very difficult. ‘Where would I perform my duties as an economist in those conditions? Of course, in the private sector, and more easily in a sector like banking, which hires more economists than others?’, explained Prados-Arrarte. If he had opposed the nationalization of banks it had been because he agreed more with the German, British, Austrian and Swedish socialists than with the French or Italian. With the nationalized banks it would be easy to have a ‘Matesa in the left’, that is, a scandal induced by a privileged use of credit by some company (as had happened with Matesa, a firm supported by the right near to Opus Dei) (Prados-Arrarte, 1979).

The nationalization of private banks was one of the programmatic points of *Falange Española* (the Franco party) that had been discarded in the Banking Laws of 1946 and 1962. In the 1960s, the banking industry was widely criticized because of its high profits and its control of the largest companies. The left and *Falange* agreed that the socialization of the banking business through nationalization was needed. In December 1967-January 1968, the pages of a daily newspaper, *Madrid*, hosted a discussion on the topic between Jesús Prados-Arrarte and Ramón Tamames, professor at the Autonomous University of Madrid and a shadow member of the Communist Party (the discussion was reproduced in *Cuadernos para el Diálogo*, April 1968, through a Falangist proposal to nationalize the banks). Both were defined by the newspaper as ‘prestigious economists’, but differed a lot in their positions. Prados-Arrarte defended banks from the exaggerated critiques that had converted them into the ‘big scapegoat’ for the problems of Spain, while Tamames, a disciple of the well-known Falangist economist Juan Velarde, proposed nationalization as the best solution to give more strength to Spanish economic development. As Prados-Arrarte said in 1979, what happened more than ten years before had been the controversy between a socialist (him) and a communist (Tamames).

Prados-Arrarte’s work had a literary quality that earned him election as academic of the Royal Spanish Academy, occupying the chair ‘n’. He took office on 28 November 1982 with a speech entitled *Don Álvaro Flórez Estrada, un español excepcional (1766-1853)*, which was answered by the academic Alfonso García-Valdecasas. In the speech, Prados-Arrarte showed his admiration for the egregious liberal and constitutionalist Flórez Estrada, who ‘for his country suffered exile and persecution’. The truth is that the Flórez Estrada legacy was much more important than the Prados-Arrarte legacy. Alfonso Escámez, the chairmen that succeeded Villalonga in 1973, kept the Research Department alive, but with a more internal character. In 1991, the Central merged with the Hispano, and it was decided that the new institution, BCH, should be endowed with a Research Department. In 1997, an economist that had worked for the International Monetary Fund, Fernando Fernández, was selected as head of the institution. Fernández shared with Prados-Arrarte the fact of having spent years abroad working for international organizations, but their political orientations were radically different: Prados-Arrarte was a ‘*cepalino*’ (economist near to the ‘dependency theory’ posed by Raúl Prebisch in the ECLAC or CEPAL in Spanish), while Fernández was greatly influenced by the ‘Washington consensus’ and neoliberalism.

In mid-2001, with BCH taken over by *Banco Santander*, a conflict erupted when the conservative Government of José M. Aznar was very upset with the support granted by the Research Departments of the two big banks (BBVA and Santander) to a tax reform proposal of the PSOE. Everything was amazing in this episode. The socialist proposal

consisted in reducing the tax system to a single rate and a minimum exempted income. Naturally, the neoliberal Fernández liked the idea, and showed in public his support, but the head of the BBVA Research Department, the ‘third way’ socialist Miguel Sebastián spoke in similar vein. The reaction of Emilio Botín III, chairman of the Santander, was to dismiss Fernández and transform the Research Department into an institution for supporting the managers, with very little external presence, following the house tradition. Alejandra Kindelán would be responsible for the department thereafter.

The Research Department of *Banco de Bilbao*

In 1954, a young man from Biscay of 25 years of age, José A. Sánchez-Asiaín, with studies completed in Deusto University (Bilbao) and Central University of Madrid to obtain a PhD degree in Economics joined the new Research Department of *Banco de Bilbao*. Two years later, he was already the deputy head of the department; then, between 1959 and 1962, he would be the head. These were years in which Sánchez-Asiaín also taught at the School of Higher Commercial Studies of Bilbao, the University of Valladolid and Deusto University, allowing him to obtain a professorship in Public Finance and Tax Law at the University of Valladolid in 1962. In that year, Sánchez-Asiaín decided to accept an invitation from the new Minister of Industry, Gregorio López-Bravo, to be his *secretario general técnico* (main assistant on technical issues), with a central role in the *planes de desarrollo* (developmental plans) of the Government. López-Bravo called Sánchez-Asiaín because he was impressed by the studies on national income and its provincial distribution that had initiated the Research Department of the Bilbao in 1957 (on 1955 data).

To strengthen the studies on territorial distribution of income, the Research Department hired Julio Alcaide. Alcaide was an economist born in 1921 in Cádiz who, since 1945, worked in the *Servicio Sindical de Estadística*, an agency under the Ministry of Labor that produced very detailed statistics on work centers in Spain. Between 1962 and 1991, Alcaide would coordinate the works of the Research Department on Spain’s national income and its provincial distribution, which he would continue in the following bank institutions: *Banco Bilbao Vizcaya* (BBV) and the current *Banco Bilbao Vizcaya Argentaria* (BBVA). Alcaide became deputy head of the Research Department, a job that he combined with his work at the *Instituto Nacional de Estadística*, where he was part of the team that developed the Spanish National Accounts between 1954 and 1975. During this period he was also very active in developing the Input-Output Tables for 1954, 1958, 1962, 1966, 1970 and 1975.

In 1966, Sánchez-Asiaín left the Administration and returned to *Banco de Bilbao*, where he would be deputy general manager (1966-1968), general manager (1968-1970), general manager and director (1970-1974) and chairman of the Board of Directors (1974-1988). During all these years, the management of the Research Department was entrusted to Luis A. Lerena, an *economista del Estado* (economist working for the Administration) that Sánchez-Asiaín had met at the Ministry of Industry. Lerena and Sánchez-Asiaín shared many things, for example, their dedication to the University (Lerena taught at the Complutense University and the University of the Basque Country). The truth is that Lerena, with his characteristic modesty, transformed the Research Department into the best of its class in the private realm. Apart from the renowned collection of works on national income and its territorial distribution, the department edited an annual report (*Informe Económico*), two well-known journals, *El*

Campo (1967-1996) and *Situación* (1973-1999), and two ‘social balances’ for the period 1978-1981, where the bank tried to show its commitment with society.

1978, saw the publication of *La Renta Nacional de España y su distribución provincial. Serie homogénea, 1955-1975*, which was a milestone in Spanish applied economics. The *Instituto Nacional de Estadística* began in the 1970s to make similar statistics, but it was generally accepted that *Banco de Bilbao*’s statistics were superior. Subsequently, the series was prolonged until 2001, when it was considered that the National Accounts were already good enough. In 1980, two articles published by the scholars of the Research Department in *Situación* (issues 2 and 7, respectively) wanted to complement the information on Spanish macroeconomics with an exploration of the regional financial flows. This information was completed in *Banco de Bilbao* (1982). The 1978 Constitution had established Spain as a state with ‘autonomous regions’ (a variant of the federal state) and there was a strong debate on the role of banking in capturing resources in some regions to invest them in others. The Research Department wanted to contribute to the debate with quantitative information that was not available in official statistics (García-Ruiz, 2003 & 2007)

In the following year *La distribución provincial del crédito en España* was published. The data presented in this book on regional financial flows supported the idea that ‘the actions of the Spanish core banking system during the 1970s had not only contributed to widen existing spatial imbalances but, on the contrary, our results suggest the opposite, since the provinces that have reached a higher level of development are those that provide financial resources to the rest’ (Rodríguez-Saiz et al., 1981, p. 434). The methodology proposed in this book was similar to that of the *Situación*’s articles: to compare the share of each region in the total volume of deposits with their share in the total volume of loans, seeking to characterize the region as one with a surplus or deficit of financial resources. In both studies, the data came from the internal sources of the financial institutions that sponsored them (*Banco de Bilbao* for the articles and the *Rumasa* holding for the book).

Were the results of the two works similar? Not at all. By 1973, there was only agreement in the sign of four regions, which rose to six by 1978, but with noticeable differences in the value of the coefficients. In the case of Madrid, the divergence was extreme: for the researchers of *Banco de Bilbao* it was clearly an investment region, while for the researchers of *Rumasa* it was a region that transferred financial resources in large quantities. Overall, the results of the *Banco de Bilbao* team were consistent with other available evidence. For instance, it was difficult to believe that traditionally surplus regions like Castile, Extremadura or Galicia had enjoyed extraordinary investment behavior in the 1970s, as was stated in the *Rumasa* study. Suspiciously, the conclusions of this book were in line with what the businessman José M. Ruiz-Mateos, *Rumasa*’s owner, had been saying in the press. The Research Department of *Banco de Bilbao*, once again, had proceeded with great objectivity, even when the results proved that the Basque banks showed preference for the interests of the Basque Country, which was not politically correct for a Spanish national bank.

In 1988, *Banco de Bilbao* merged with *Banco de Vizcaya* to give birth to *Banco Bilbao Vizcaya* (BBV). The next step took place in 1999 when BBV merged with the holding of the public banks, Argentaria, to create the current BBVA. In November 1996, an economist with a PhD from the University of Minnesota, Miguel Sebastián, replaced Lerena at the head of the Research Department. The following year, David Taguas was appointed deputy head. Both Sebastián and Taguas ran the department through the turbulent years that, as has been said, led to the creation of the BBVA, an institution

where the leadership of Francisco González, supported by the conservative Aznar's Government, meant the displacement of the families that had always dominated the Basque financial institutions that were the base. Sebastián and Taguas, who had received support from those families and had a social democratic political orientation, would soon enter in conflict with González. In 2003, Sebastián would be replaced by José L. Escrivá and soon afterwards began a political career with the PSOE. When the Rodríguez Zapatero socialist Government established in 2006 its own Research Department, it was called the Economic Office of the President, Sebastián and Taguas were the key men.

Escrivá, a monetary economist trained in the Banco de España and the European Central Bank, commanded the Research Department between May 2003 and January 2011, when chairman González entrusted to him the direction of the relationships with governments and multilateral agencies (sovereign debt) and appointed Jorge Sicilia as his successor. Sicilia had been chief economist of the Mexican subsidiary Bancomer and now would be chief economist of BBVA Research (new brand name of the Research Department). In 2014, Escrivá would return to the Administration, being appointed chairman of the Independent Authority for Fiscal Responsibility (a new public institution that had been required in 2012 as a condition for the rescue of the Spanish financial system with European funds). Sicilia continues today as head of BBVA Research, enjoying the full confidence of chairman González, a man with whom he had worked in the past in Argentaria. It is hard to imagine that in a Research Department with this profile there can arise conflicts like that of 2001 that has been outlined above: the support for an idea of tax reform proposed by the political opposition provoked the immediate cessation of the head of *Banco Santander's* Research Department (then, still BSCH), while Miguel Sebastián remained in office two years more, albeit in a very uncomfortable position.

Sicilia has kept his department out of the Spanish political arena. BBVA is a global player and, in consequence, BBVA Research should pay special attention to the globalization process. Thus, BBVA Research has joined a network of more than 1,000 researchers from 38 countries known as CESifo, as it arose from a joint initiative of two German institutions: Ifo and the Center for Economic Studies at the University of Munich. A group from CESifo known as EEAG prepares each year a report on the European economies that, of course, ends with forecasts for the next twelve months. The presentation to the media of this report is an act of great importance for BBVA Research.

Other research services in financial institutions

In the 'developmental' years (the 1960s), when the industrializing of Spain advanced at top speed, recovering the time lost in the past, all financial institutions planned to establish a Research Department to have their own data and analysis of a rapidly changing macroeconomic environment. However, having a Research Department was expensive and out of the reach of most of the institutions. It was necessary to spend a lot of money in material and human resources to form teams that were able to provide useful information for internal departments, but also to offer innovative studies to the society that could contribute to enhancing the image of the institution.

Banco Popular established a Research Department in 1962, but with little endowment and searching in the following year for collaboration with *Banco Urquijo's* Research Department. In 1967, a new Department of Financial Studies was set, 'with specialists

in financial analysis, whose main target is to provide to managers, customers, and institutions demanding the analytical services and detailed reports on Spanish listed companies'. This department joined the *Groupement Européen d'Etudes Financières* (GEEF), composed of banks of several countries for the exchange of information and the development of studies by branches of the economy at the European level. At last, *Banco Popular* developed a Research Department more typical of an investment bank than of a commercial bank (Tortella, Ortiz-Villajos & García-Ruiz, 2011).

The limitation of resources that could affect *Banco Popular* was not present in the case of *Banco Español de Crédito* (Banesto), the undisputable leader of the Spanish private banks during thirty years (1949-1977), which never had a true Research Department, but a *Gabinete Técnico* (Technical Cabinet) between 1965 and 1993, oriented exclusively to produce the *Anuario del Mercado Español*, a yearbook extremely useful for marketing studies. The initiative came from José M. Fontana-Tarrats (1911-1984), a man linked to the Catalan textile bourgeoisie who in the 1930s joined the Falangists, with whom he fought in the Civil War. Then, between 1943 and 1954, Fontana-Tarrats accepted positions in the New State, but from 1955 onwards he devoted himself entirely to his work as secretary of the Chamber of Commerce of Madrid and the Spanish Antitrust Court. Fontana-Tarrats was a 'Catalan of Franco' (Thomàs, 1997), which earned him quite a few enemies in Catalonia, but the truth is that he deserves recognition for his effort to publish the first *Atlas comercial de España* (1963) and two pioneering works on the importance of 'commercial culture': *Defensa y crítica del comercio* (1965) and *Comercio y distribución* (1965).

Problems of mismanagement led Banesto to its being taken over in 1993 by the *Banco de España*, which marked the end of the *Anuario del Mercado Español*. However, the project was continued by the Lawrence R. Klein Institute, affiliated to the Autonomous University of Madrid, with the sponsorship of La Caixa. Thus, in 1997 the *Anuario Comercial de España* came to light. Both yearbooks offered comprehensive information on municipalities, provinces and regions of Spain. It should be noted that the institute of the Autonomous University took the name of Klein as a tribute to the Nobel Prize economist of the same name that popularized the predictive macroeconomic models, which have become very characteristic of the Research Departments in recent times. Since 2001, the yearbook was named *Anuario Económico de España*, the flagship publication of La Caixa Research.

The case of La Caixa, always leader among the Spanish savings banks, is singular because the rest of these institutions confided their economic research activities to the *Fundación de las Cajas de Ahorros* (FUNCAS), as a kind of collective research department. FUNCAS emerged in 1979 within the *Confederación Española de Cajas de Ahorros* (CECA), the employers' association of the savings banks, when these institutions began to compete openly with private banks and to spread beyond their region of origin. The great Spanish economist Enrique Fuentes-Quintana gave FUNCAS a big boost and today the 'FUNCAS Panel' collects the forecasts of 19 research departments that, following Klein, have turned the economy into a science oriented to make predictions on the short- and medium-term. A revision of the Panel found strong differences in predictions that are never explained satisfactorily. If we want to go further, we can consult *Diana*, a publication of the business school ESADE that contrasts the forecasts with the real data for 24 national and international institutions (Annex II), to conclude that the error margins are very large. An example: the Spanish Research Departments were completely unable to foresee the Great Recession (Annex III).

Concluding remarks

The first Spanish Research Department was created by the *Banco de España* in 1930, following the model of the *Banque de France*. The chief economists were Olegario Fernández-Baños and Germán Bernácer, who had done doctoral studies abroad. The department proved its usefulness providing new statistics (the first Spanish balance of payments) and analysis of true interest to understand the impact of the Great Depression on the Spanish economy. Then, during the Civil War, José Larraz studied in the department the formula to restore the monetary union that had been broken in wartime, which was applied by him when he was appointed Minister of Finance in 1939. Neither Larraz nor the heads of the department Joan Sardà (1956-1965) and Luis A. Rojo (1971-1988) were in line with General Franco's authoritarian beliefs, but university studies of Economy were very recent in Spain (they had begun in 1944) and there were not many alternative candidates available.

Following the steps of the *Banco de España*, there arrived the Research Departments of *Banco Urquijo* in 1945 and *Banco Central* and *Banco de Bilbao* in 1954. The Urquijo department worked in a collective way, but it was always favorable to the prewar liberalism, so it confronted the interventionist Franco's orientations. In contrast, the Research Department of *Banco Central* had a clear leader, Jesús Prados-Arrarte, a social democratic economist that felt admiration for the work of Raúl Prebisch at the ECLAC. Unjustly, Prados-Arrarte is remembered as an immoderate defender of the big banks, simply because he opposed their nationalization in the debate raised in the 1960s by Falangists and communists that pushed together in this direction. In the case of the Bilbao, the Research Department received the boost from José A. Sánchez-Asíaín, a man who, like Luis A. Rojo at the *Banco de España*, moved upwards from the head of the department to the chairmanship, which gives us an idea of the importance granted to Research Departments in the second half of the twentieth century. Among the private ones, the Research Department of *Banco de Bilbao* was outstanding because of its long lasting contributions to regional economic history of Spain due to the hard work of economists such as Julio Alcaide or Roberto Álvarez-Llano (see for instance Alcaide, 2003 or Álvarez-Llano, 1986).

Interestingly, the top leaders of the Spanish private banks, Hispano and Banesto in the twentieth century and Santander in the twenty-first century, did not boast a powerful Research Department. But this conundrum has an explanation. Hispano relied on the Research Department of Urquijo, to which it was attached by an agreement from 1944 (*Pacto de las Jarillas*), while Banesto was not really absent because it was able to promote the publication, between 1965 and 1993, of a yearbook of extraordinary interest for marketing studies, the *Anuario del Mercado Español*. In its cascade of takeovers, Santander inherited the Research Department of *Banco Central Hispano*, but, after a conflict in 2001 with Rodrigo Rato, the vice president in charge of the economic issues in the conservative Government of José M. Aznar, the department was dismantled and transformed into an office for internal use, reducing its external role mainly to launch forecasts about the evolution of the macro data. That conflict was also suffered by BBVA (born from an initiative of Sánchez-Asíaín, who was the first to search for the creation of mega-banks in Spain), but after a period of instability the Research Department seems to be regaining vigor nowadays.

The conundrum of *Banco Santander* found its explanation in the idiosyncrasy of the institution. Emilio Botín II (1950-1986) always backed the medium-size banks, but his

son, Emilio Botín III (1986-2014), thought the opposite and managed to create the current mega-bank Santander. Because of its size, the Botín II institution did not really need its own Research Department; then, the Botín III epoch was characterized by the replacement of the macroeconomic approach by the microeconomic one, which was also the most suitable for the typical small loans of the new Santander. His daughter, Ana P. Botín, raised an efficient Department of Risks in Banesto, which she presided over when it fell under Santander's control, to the point that in 2008 its Internal Rating Based (IRB) model of credit risk was adopted by the Santander Group. The main contribution in this field was due to José M. Nus, a manager very close to Ana P. Botín in her successive chairmanships (Banesto, Santander UK, Santander) (García-Ruiz, 2013). However, Santander is going to face increasing difficulties to be a global bank if it does not pay more attention to Macroeconomics, and here the Research Departments are crucial.

Other financial institutions such as savings banks and insurance companies have been characterized by their specialization and their small size, and when they felt the need for Research Departments they looked for a cooperative solution: FUNCAS (1979) for the savings banks and ICEA (1965) for the insurance companies. However, the largest institutions, such as La Caixa and Mapfre, soon realized that they should have their own Research Departments and today they are making them stronger. Recently, in 2013, Mutua Madrileña, an insurance company that wants to contest Mapfre's leadership, has created a new Research Department, with the economist Conrado Espí at the head. It seems that after the failure of the extreme microeconomic approaches, of neoliberal inspiration, eyes are turning to Macroeconomics (and to Keynes) with the aim of not losing sight of the horizon and keeping a complex view of things, and here the Research Departments are destined to have a great future. This move coincides with the creation of true historical archives and libraries where the rich statistical and analytical materials produced by the Research Departments in the past can be preserved. This is good for the scholars, good for society and good for the financial institutions.

References

- Alcaide, J. (2003), *Evolución económica de las regiones y provincias españolas en el siglo XX*, Bilbao, Fundación BBVA.
- Álvarez-Llano, R. (1986), 'Evolución de la estructura económica regional de España en la historia: una aproximación', *Situación*, 1, pp. 5-61.
- Banco Central, Servicio de Estudios (1958-1974), *Estudio Económico*, Madrid.
- Banco de Bilbao, Servicio de Estudios (1964-1996), *Informe Económico*, Bilbao.
- Banco de Bilbao, Servicio de Estudios (1967-1996), *El Campo*, Bilbao.
- Banco de Bilbao, Servicio de Estudios (1973-1999), *Situación*, Bilbao.
- Banco de Bilbao, Servicio de Estudios (1978), *La Renta Nacional de España y su distribución provincial. Serie homogénea, 1955-1975*, Bilbao.
- Banco de Bilbao, Servicio de Estudios (1979), *Balance Social del Banco de Bilbao, 1978*, Bilbao.
- Banco de Bilbao, Servicio de Estudios (1982), *Balance Social del Grupo Bancario Banco de Bilbao, 1979-1981*, Bilbao.

- Banco de España, Servicio de Estudios (1931-1936), *Problemas de la peseta: informes varios*, Madrid.
- Banco de España, Servicio de Estudios (1934), *Ritmo de la crisis económica española en relación con la mundial. Síntesis general de los barómetros económicos expuestos*, Madrid.
- Banco de España, Servicio de Estudios (1938), *Estudio sobre la restauración de la comunidad dineraria española*, Burgos.
- Banco Español de Crédito (1965-1993), *Anuario del Mercado Español*, Madrid.
- Banco Hispano Americano, Servicio de Estudios (1956-1966), *Situación Económica en*, Madrid.
- Banco Hispano Americano, Servicio de Estudios (1976-1999), *Pulso Económico*, Madrid.
- Banco Hispano Americano, Servicio de Estudios (1978), *Tablas Input-Output de la economía canaria*, Madrid.
- Banco Urquijo, Servicio de Estudios (1945-1965), *La Economía Española*, Madrid.
- Banco Urquijo, Servicio de Estudios (1975), *Economía regional en España* (I Reunión General de Servicios de Estudios Económicos), 2 vols, Madrid, Moneda y Crédito.
- Comité Central del Partido Comunista de España (1956), 'Por la reconciliación nacional, por una solución democrática y pacífica del problema español', *Boletín de Información*, VI, special issue, Prague.
- Cuadernos para el Diálogo* (1968), special issue VIII (April): *Los dirigentes de la banca y su poder empresarial. Informes sobre la nacionalización*.
- ESADE (2015), *Diana ESADE. Resultados 2014*, Madrid.
- Fontana-Tarrats, J.M. et al. (1963), *Atlas comercial de España*, Madrid, Consejo Superior de Cámaras de Comercio, Industria y Navegación de España.
- Fontana-Tarrats, J.M. (1965), *Defensa y crítica del comercio*, Madrid, Aguilar.
- Fontana-Tarrats, J.M. (1965), *Comercio y distribución*, Madrid, Consejo Superior de Cámaras de Comercio, Industria y Navegación.
- García-Ruiz, J.L. (2003), 'Los flujos financieros regionales en la España del siglo XX: una perspectiva desde la historia bancaria', *Revista de Estudios Regionales*, 67, pp. 15-54.
- García-Ruiz, J.L. (2007), 'Nuevos datos sobre flujos regionales de la banca española en el siglo XX', *Revista de Historia Industrial*, 35, pp. 115-140.
- García-Ruiz, J.L. (2013), *El Banco Español de Crédito, 1902-2013. Más de un siglo de servicio a la economía española*, unpublished manuscript.
- Keynes, J.M. (1936), *The General Theory of Employment, Interest and Money*, London, Macmillan.
- Kotz, D.M. (2015), *The Rise and Fall of Neoliberal Capitalism*, Cambridge (Mass.), Harvard University Press.
- La Caixa, Servicio de Estudios (1997-2000), *Anuario Comercial de España*, Barcelona.
- La Caixa Research (2001-), *Anuario Económico de España*, Barcelona.

- Malo de Molina, J.L. & Martín-Aceña, P. (eds) (2012), *The Spanish Financial System: Growth and Development since 1900*, London & New York, Palgrave Macmillan (translation of the Spanish edition in the Madrid publisher Alianza of the previous year).
- Martín-Rodríguez, M. (2010), *Economistas académicos del exilio republicano español de 1939*, Granada, Tleo.
- Martín-Aceña, P. (2000), *El Servicio de Estudios del Banco de España, 1930-2000*, Madrid, Banco de España.
- Martín-Aceña, P. (2006), *El Banco de Francia, el BPI y la creación del Servicio de Estudios del Banco de España a principios de la década de 1930*, Madrid, Banco de España, Documentos Ocasionales 0602.
- Martín-Aceña, P. & Tortella, T. (2010), 'Regulation and Supervision: The Rise of Central Banks' Research Departments', en S. Battilossi & J. Reis (eds.), *State and Financial System in Europe and the USA*, Farnham, Ashgate.
- Prados-García, R. & A.M. (2004), 'Prados Arrarte sufrió el exilio', *Metro Directo*, 31 December (reproduced with additions in www.profesionalespcm.org).
- Prados-Arrarte, J. (1958), *El sistema bancario español*, Madrid, Aguilar.
- Prados-Arrarte, J. (1965), *Plan de desarrollo en España, 1964-1967. Exposición y crítica*, Madrid, Tecnos.
- Prados-Arrarte, J. (1979), 'Sobre el socialismo del profesor Prados Arrarte', *El País*, 18 September.
- Puig, N. & Torres, E. (2008), *Banco Urquijo. Un banco con historia*, Madrid, Turner.
- Raga, J.T. (2009), 'José Antonio Muñoz Rojas, descanse en paz', www.libertaddigital.com, 10 April.
- Rodríguez, J. (1972), *Una estimación del producto interior bruto trimestral de España, 1958-1971*, Madrid, Banco de España.
- Rodríguez-Saiz, L., López-Díaz, G., Martín-Pliego, F.J. & Parejo-Gámir, J.A. (1981), *La distribución provincial del crédito en España*, Madrid, Set Ediciones Artes Gráficas.
- Tedde, P. (1988), *El Banco de San Carlos, 1782-1829*, Madrid, Banco de España & Alianza.
- Tedde, P. (1999), *El Banco de San Fernando, 1829-1856*, Madrid, Banco de España & Alianza.
- Thomàs, J.M. (1997), *José M. Fontana Tarrats. Biografía política d'un franquista català*, Reus, Centre de Lectura.
- Torres, E. & Comín, F. (2003), 'Una historia urgente de la Confederación Española de Cajas de Ahorros', *Papeles de Economía Española*, 97, pp. 246-284.
- Tortella, G. (2015), *Mariano Rubio Jiménez*, section of biographies of the *Asociación Española de Historia Económica* in www.aehe.net.
- Tortella, G. (dir.) (2014), *Historia del seguro en España*, Madrid, Fundación Mapfre.
- Tortella, G., Ortiz-Villajos, J.M. & García-Ruiz, J.L. (2011), *Historia del Banco Popular. La lucha por la independencia*, Madrid, Marcial Pons.
- Tortella, G. & García-Ruiz, J.L. (2013), *Spanish Money and Banking. A History*, London and New York, Palgrave Macmillan.

ANNEX I. The Most Significant Financial Institutions in Spain, 1920s-1975 (% Deposits in their sector) and 2012 (% total assets)

	Private banks (groups)					Savings banks					All
	1922	1934	1947	1975		1928	1940	1955	1975		
Banesto	7.0	17.2	21.2	14.2	La Caixa	17.7	25.7	28.1	14.8	Santander	19.0
Central	7.0	9.4	14.9	13.2	Madrid	5.3	3.6	3.2	6.8	BBVA	15.0
Hispano	21.6	23.2	28.5	12.8	Barcelona	12.1	9.5	10.1	5.4	La Caixa	12.0
Bilbao	12.0	12.1	9.6	9.8	Zaragoza	2.9	4.6	6.0	5.4	Bankia	12.0
Vizcaya	7.0	8.9	8.4	6.9	Valencia	5.7	4.9	4.0	4.5	Sabadell	6.0
Santander			2.5	6.0	Bilbao	10.5	6.0	3.7	2.8	Popular	6.0
Popular			2.0	4.3	Guipúzcoa	7.1	5.6	4.0	2.8	Libercaja	4.2
Urquijo	7.4	5.8	2.7	1.7	Vizcaína	4.5	4.0	3.8	2.6	Unicaja	2.7

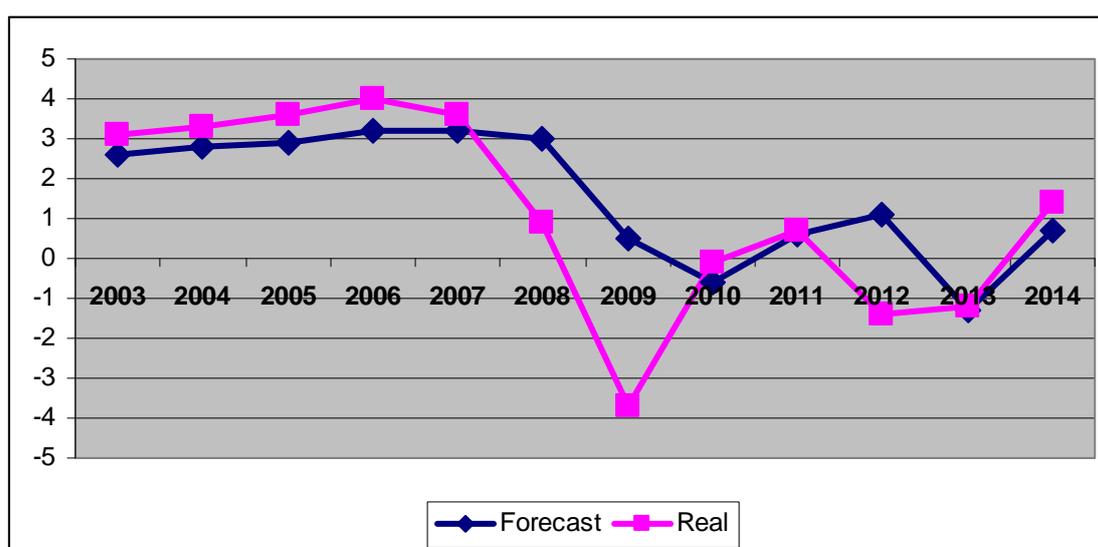
Sources: Tortella & García-Ruiz (2013), p. 221.

ANNEX II. Institutions included in DIANA ESADE (2015)

AFI	CEPREDE (Autonomous University of Madrid)	Intermoney
<i>Banco de España</i>	ESADE	La Caixa
Bankia	European Commission	OECD
BBVA	FUNCAS	Repsol
<i>Catalunya Caixa</i>	Flores-de-Lemus Institute (Charles III University)	Santander
CEEM (King Juan Carlos University)	ICAE (Complutense University)	Solchaga Recio & Associated
CEMEX	IEE	Spanish Government
CEOE	IMF	The Economist

Source: ESADE (2015).

ANNEX III. The Evolution of the Spanish GDP, according to Research Departments Mean Forecasts and Real Data, 2003-2014 (% rates of change).



Source: ESADE (2015).