Banking in Spain

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1. Introduction

The Spanish banking sector was comprised of three types of deposit institutions: commercial banks, saving banks (*cajas de ahorros*), and cooperative banks. However, savings banks were restructured after the recent financial crisis, going from 45 to 12 groups, and most of them have become banking foundations that own a commercial bank. The result is a more concentrated banking system.

The Spanish banking sector's evolution in recent years has paralleled the economic cycle.[3] Focusing on the period since the start of the century, an initial phase of strong growth lasting up until the onset of the international financial crisis in mid-2007 gave way to a period of crisis in Spain, accompanied by the bursting of the property bubble. The imbalances that built up in the banking sector during the period of expansion (among them, excessive credit growth, a high concentration of risk in the property sector, rapid growth of the branch network and number of employees, excessive reliance on wholesale financing, and weaknesses in the savings banks' governance structures) took their toll in terms of a loss in the value of bank assets, creating the need for a restructuring so intense that it forced the Spanish government to ask for financial assistance from the European rescue funds. The Memorandum of Understanding (MoU) of 2012 that accompanied the banking system bail-out set out the roadmap Spain's banks have followed in the last few years to lead them out of the crisis. The deep restructuring that took place to correct the imbalances of the past explains why Spain's banks went from being bailed out in June 2012 to successfully passing the ECB's stress tests in November 2014. Reduction of overcapacity, write-offs, improved solvency, narrowed liquidity gap, the comprehensive reform of the savings banks and the sector's consolidation through mergers explain why Spanish banks have returned to (very moderate) profitability and are coming back to perform their role as intermediaries and in financing the economy.

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[2] IESE Business School. X. Vives acknowledges financial support from the Generalitat de Catalunya, AGAUR grant 2014 SGR 1496.

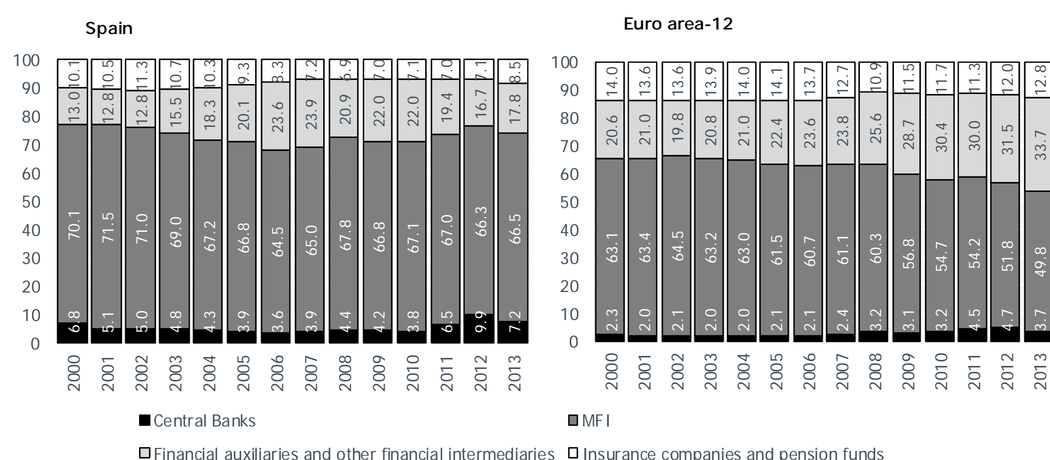
[3] See Caminal et al. (1990) for an appraisal of competition in Spanish banking before 1990 and Vives (2012) for an overview of the banking sector in Spain up to 2010.

This chapter aims to explore recent developments in the Spanish banking industry and the measures adopted in recent years to correct the imbalances that built up during the expansion, in order to give an up-to-date picture of the sector in the international context. To this end, the chapter is divided into four sections. Section 2 examines the importance of the banking sector in the Spanish economy based on various indicators of banking penetration. Section 3 looks at the features of the banking sector and its evolution in terms of a range of measures, including margins, profitability, efficiency, solvency, specialisation, and market concentration. Section 4 describes the imbalances that built up during the expansion, which lasted until 2008, and which provided the rationale for the subsequent restructuring, analysing the main measures taken and the restructuring's outcome. Finally, to conclude, section 5 sets out the lessons of the banking crisis and the challenges the Spanish banking sector faces going forward.

2. The importance of the banking sector in the Spanish economy

As Figure 1 shows, the banks account for a large portion of Spain's financial system. Thus, monetary financial institutions (among which the banks predominate) accounted in 2013 for almost three quarters of the total assets of the Spanish financial system, i.e. 17 percentage points (pp) more than the eurozone average. Although a process of disintermediation was under way during the expansion, with the crisis the weight of monetary financial institutions (MFIs) again increased, to the detriment of other intermediaries and financial auxiliaries. This contrasts with the situation elsewhere in the eurozone, where MFIs have been losing market share in the financial system almost continuously.

Figure 1. Distribution of financial assets by type of intermediary. Percentage

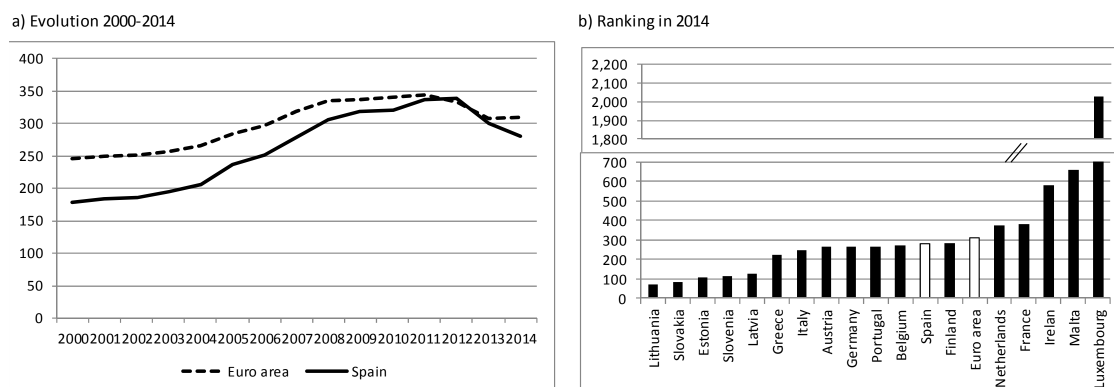


Note: MFI includes Money Market Funds
Source: Authors' elaboration on Eurostat data

The growth phase enjoyed by the Spanish economy was accompanied by even more intense growth in banking activity, such that bank assets grew as a share of GDP. Thus, bank assets rose from 178 per cent of GDP in 2000 to a record high of 339 per cent in 2012, implying a virtual doubling of the bank-assets-to-GDP ratio (Figure 2). This strong growth in banking activity explains how bank assets rose to a share of GDP close to the European average in 2012 from a level 67 pp below it in 2000.

In contrast to this strong growth in bank penetration, the contraction in banks' balance sheets is explained by the Spanish economy's deleveraging in recent years, with the bank-assets-to-GDP ratio dropping by 58 pp between 2012 and 2014, ending the period at 29 pp below the European average. Compared to the major European economies, Spain's ratio of banks assets to GDP is above Germany's and Italy's, but below that of France.

Figure 2. Banking (MFI) assets as a percentage of GDP

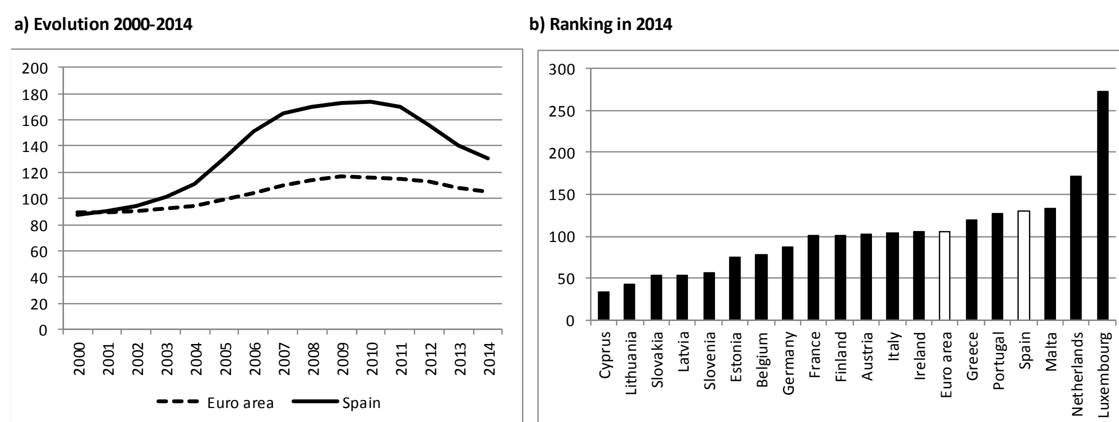


Source: Authors' elaboration on ECB and Eurostat data

The rapid pace of growth in credit to the private sector was the main factor underlying the expansion of the Spanish banking sector's balance sheet, and it also explained the subsequent deleveraging process in the recent crisis years. Between 2000 and 2008 credit grew at an average annual rate of 16 per cent. This was the fastest growth anywhere in the eurozone, and a rate more than twice the European average (7 per cent). Credit continued to grow until mid-2010, since when the growth rate has been negative. In particular, between mid-2010 and end-2014 the stock of credit to the non-financial private sector in Spain fell by 27 per cent. Nevertheless, despite the sharp

decline in credit, it remains the Spanish economy's most important source of financing by far, standing at 130 per cent of GDP in 2014, 25 pp above the European average and only exceeded by three countries (Figure 3). It is worth pointing out that banks tend to provide credit to larger firms in relation to savings banks which may have had some advantages to provide credit to SMEs because of their local and relational knowledge (Carbó and Rodríguez (2012) and Maudos (2013)).

Figure 3. Credit to the non-financial private sector as a percentage of GDP

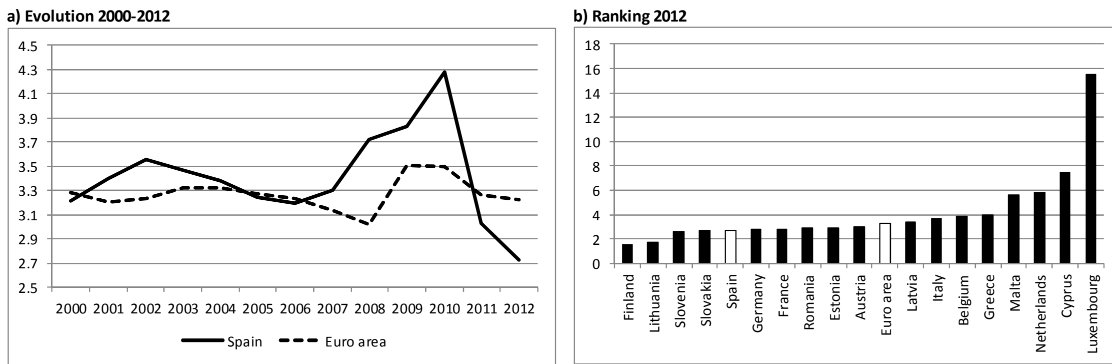


Source: Authors' elaboration on ECB and Eurostat data

An additional indicator of the degree of bank penetration in the economy is the banks' share of the economy's total added value and employment[4]. In the case of value added, as Figure 4 shows, the weight of the Spanish banking sector generally remained above the European average until 2010, peaking at 4.3 per cent in 2010. The thorough clean-up of the banking system in the following years explains the sector's losses, which reduced its added value and share of the economy to 2.7 per cent in 2012, thus dropping below the European average. In terms of employment (Figure 5), the Spanish banking sector's contribution has always been below the European average, accounting for 1.4 per cent of jobs in 2012, compared with a European average of 1.6 per cent. Consequently, the overall picture is that the contribution of banking to employment in Spain is below the European average while in terms of GDP it has fluctuated around the eurozone average.

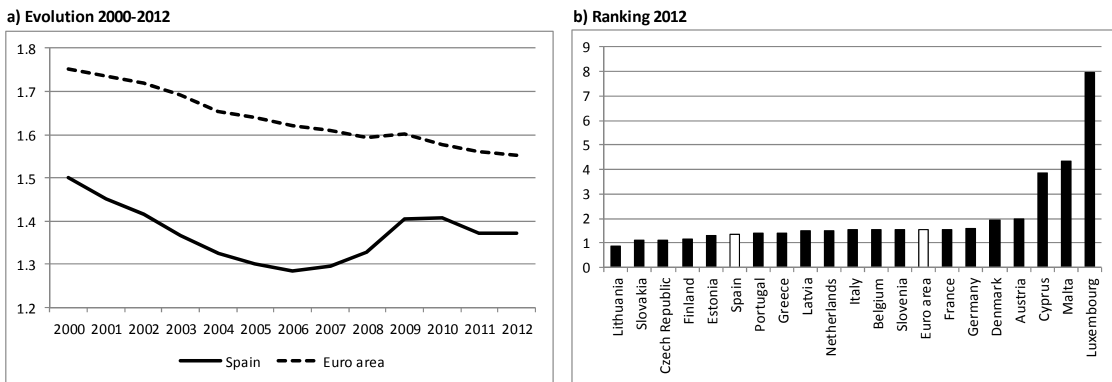
[4] See in Beck et al (2014) different measures of the size of the financial sector and the degree of intermediation and their effects of growth and volatility.

Figure 4. Percentage of banking value added over total economy



Source: Authors' elaboration on Eurostat data

Figure 5. Percentage of employment in the banking sector over total employment



Source: Authors' elaboration on Eurostat data

Spain has a dense network of branch offices. As Figure 6 shows, Spain ranks second in the EU in terms of network density, behind only Cyprus. Specifically, in Spain there was a branch for every 1,454 inhabitants in 2014, compared with one branch per 2,109 inhabitants in the euro area, or one per 2,295 inhabitants in the EU-28.[5] Spanish branches tend to be small, having assets of 109 million euros and 6.3 employees, compared with averages of 168 million euros and 12.5 employees in the eurozone and 206 million euros and 15 employees in the EU-28 (Figure 7). Consequently, as will be noted below when discussing the outstanding challenges, despite the sharp reduction in the number of branches resulting from the crisis, there is still leeway for further closures in view of the small average size of Spain's bank branches.

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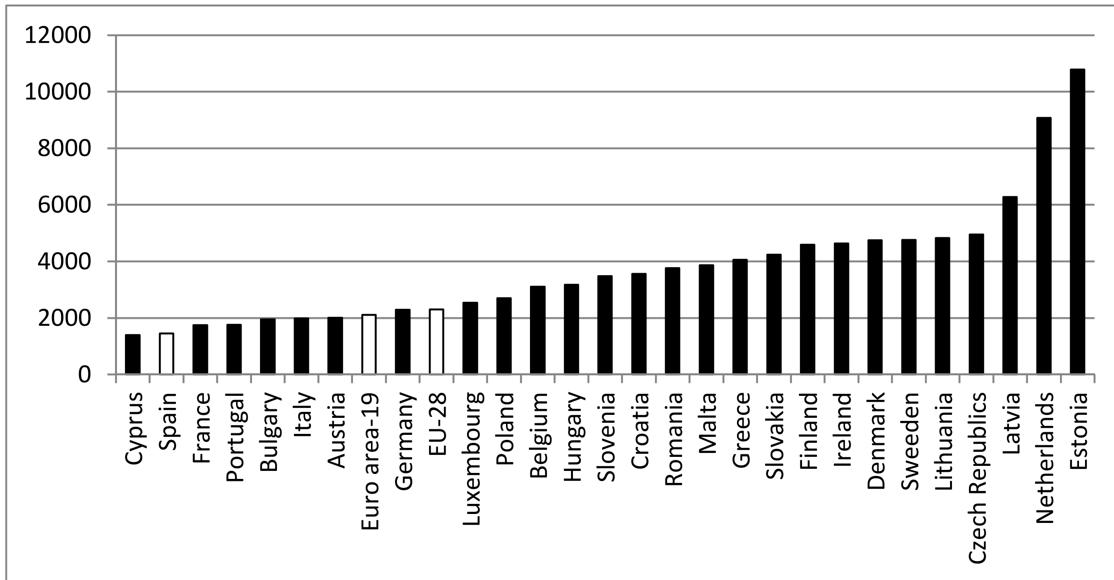
[5] Note, however, that Spain has a population density of 92 inhabitants per square km while the eurozone average stands at 128 (2014 data).

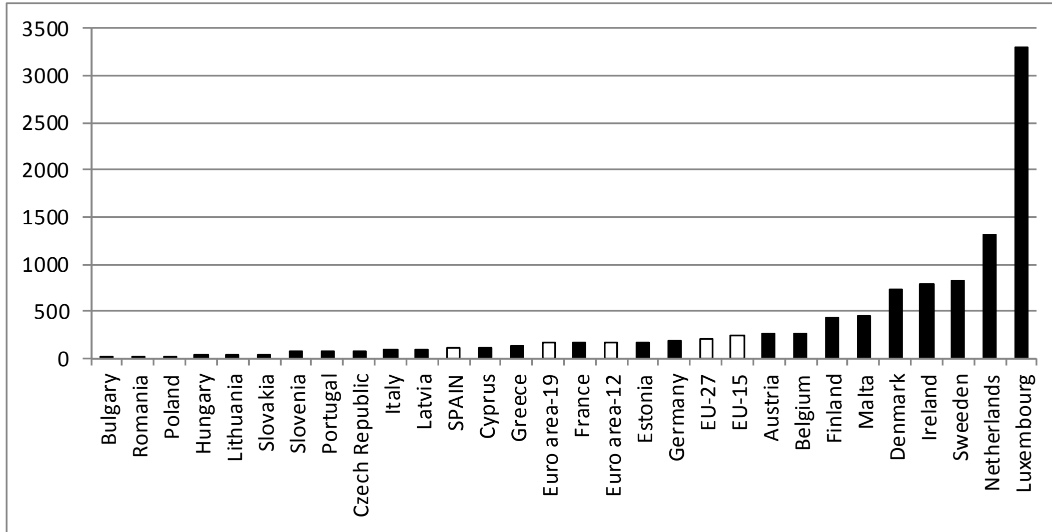
Figure 6. Population per bank branch. Ranking in 2014



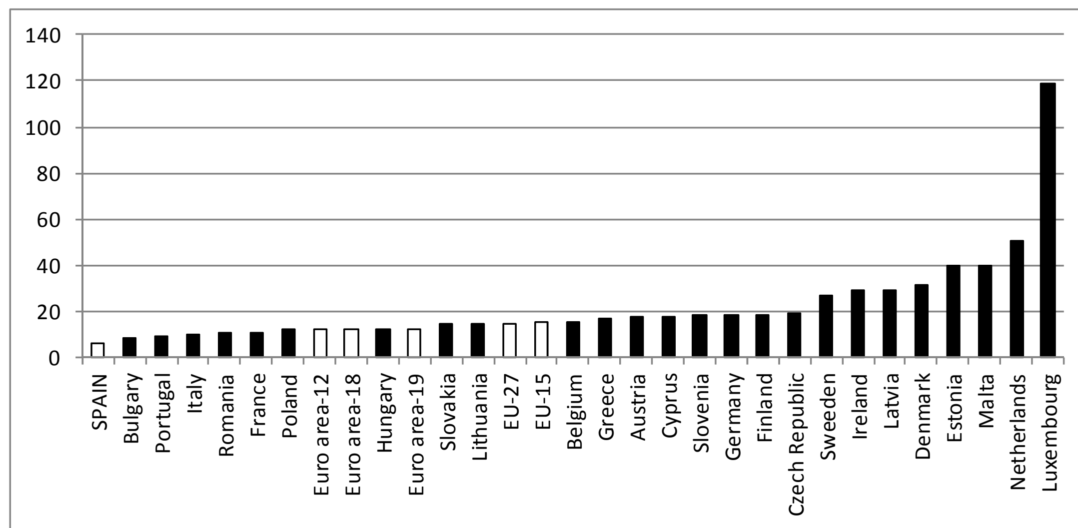
Source: Authors’ elaboration on ECB data

Figure 7. Average size of a bank branch in Europe. 2014

a) Assets per branch (millions of euros)



b) Number of employees per branch



Source: Authors' elaboration on ECB data

To round off this section analysing the significance of the banks in the Spanish economy, it is worth describing the relative size of the three types of deposit-taking institutions that make up the Spanish banking sector. At the end of 2014, the Spanish banking sector comprised 223 deposit-taking institutions (113 of which were Spanish institutions, the rest being subsidiaries of foreign banks), compared with 286 in 2008. The sector includes 35 consolidated groups: 19 non-FROB[6] banks and savings banks; 2

[6] The FROB (Fund for Orderly Bank Restructuring) manages the restructuring and resolution processes of credit institutions.

FROB banks and savings banks; and 14 cooperative banks. The consolidation of the banking sector taking place in the last few years is primarily explained by the reduction in the number of *cajas de ahorro* or savings banks, which have dropped from 45 in 2008 to 12 groups in 2014: with ten groups operating as banks owned by banking foundations (Caixabank and BFA-Bankia are the biggest ones), and two very small ones being still savings banks (Caixa Ontinyent and Caixa de Pollença).

Focusing on the domestic business[7], as Figure 8 shows, in 2000 the commercial banks held 58 per cent of total assets, while savings banks and cooperative banks had market shares of 38.4 per cent and 3.6 per cent, respectively. At the start of the financial crisis in 2008[8] the savings banks increased their market share by 6.6 pp, at the expense of the banks, as a consequence of the rapid rate of growth in credit granted by the savings banks, particularly for property-related business. However, the crisis consequently hit the savings banks particularly hard due to their greater exposure to the sector worst affected by the crisis, losing 7 pp of their share of business to the commercial and cooperative banks. Nevertheless, the savings banks and the new banks created by the savings banks that have converted into banking foundations remain a very important part of the Spanish banking sector, with a market share by assets in 2014 of 38 per cent compared with the banks' 57 per cent and cooperative banks' 5 per cent. The latter have a very small average size (only 2bn €, compared with 81bn € of a saving bank/new banks created by savings banks, and 26bn € of a commercial bank)[9] and have a strong retail focus, mainly providing credit to the primary sector of the economy (farming and fishing).

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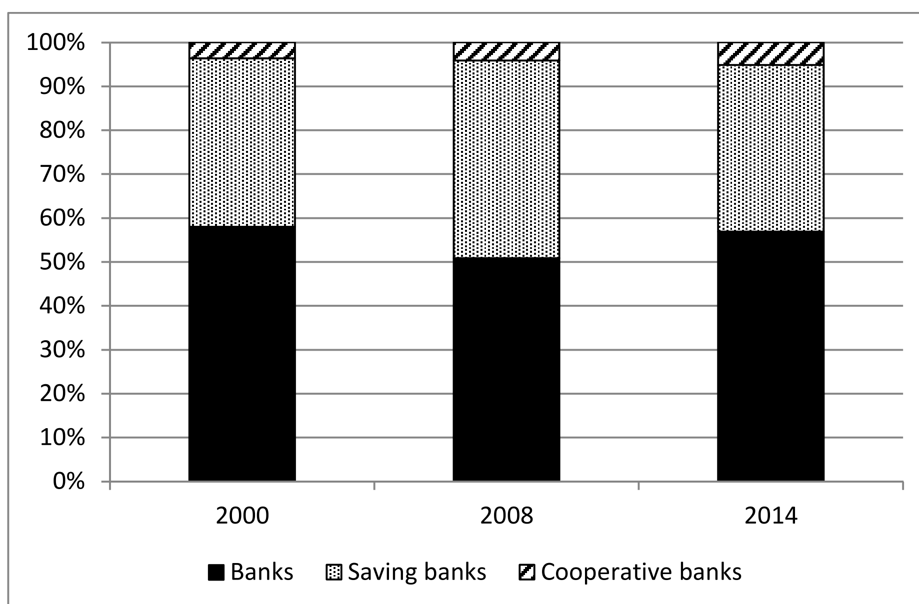
[7] At the end of 2014, total assets of consolidated groups (including business abroad) were around 3,579bn € while total assets of individual institutions (domestic business) were around 2.653 bn €. The business abroad of Santander and BBVA is the main reason that explains the difference between the size of the Spanish banking sector including the business of Spanish banks abroad and not including it.

[8] The start of the crisis of the Spanish economy is dated in the third quarter of 2008 when the GDP growth rate was negative and remained negative until the end of 2009. While the GDP grew in 2010, in 2011 the economy went back into recession. In the third quarter of 2013 the economy left the recession.

[9] Note that many small banks remain in the market.

Figure 8. Market share of credit institutions in Spain (percentage)



*Savings banks in 2014 includes banks owned by banking foundations
Source: Authors' elaboration on AEB, CECA and UNNAC data

3. Characteristics of the Spanish banking sector: recent trends

Of the various types of bank business model, the model predominating in Spain is traditional financial intermediation, with loans and deposits accounting for a large share of the balance sheet, and a large portion of income coming from interest charges. These features can be seen clearly when comparing the percentage distribution of the Spanish banking sector's balance sheet with the eurozone average (Table 1). The latest data, referring to December 2014, show that loans to the non-financial private sector account for 46.4 per cent of Spanish banks' total assets, 12 pp more than the European average. Similarly, deposits taken by the private sector account for 51.3 per cent of the balance sheet in Spain, which is 15 pp more than is the case for Europe's banks as a whole. By contrast, there is less interbank activity in Spain, on both the asset and liability sides. The predominance of deposits as the main source of financing for Spanish banks explains why market finance is more limited than in other European countries.

This financial-intermediation-based business model is also reflected in the greater relative weight of interest income in total income. As Maudos (2014) shows (using 2012 data), Spain is 11 pp above the eurozone average for the net interest income to total income ratio, making it one of the countries in which net interest income is most important. For Spanish banks, fees and charges are the most important component of

non-interest income. Most of these fees are for collection/payment services, which are related to lending and deposit-taking activities.

The comparison of the balance sheet in 2014 with that in 2000 reveals a number of interesting features: a) lending to the non-financial private sector has become less significant, as a result of the intensive deleveraging that has taken place; b) interbank business has declined sharply on the asset side, and to a lesser extent on the liabilities side; c) investments in fixed-income securities have increased; d) the share of own funds has increased; e) the relative importance of financing through debt issues has grown.

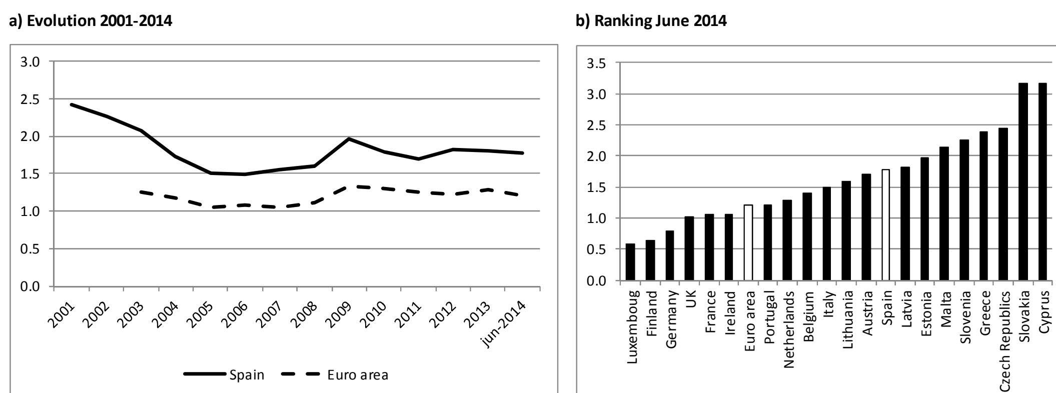
Table 1. Percentage distribution of MFIs' balance sheets. Spain and Euro area

	2000		2014	
ASSETS	Euro area	Spain	Euro area	Spain
Loans to MFI	21.08	17.29	16.47	8.21
Loans to the Goverment	4.91	2.73	3.58	3.41
Loans to the private sector	36.56	49.06	34.08	46.41
Holdings of debt securities	13.87	11.63	14.60	19.82
Money market funds	0.14	0.00	0.13	0.00
Shares/other equity	4.51	4.72	3.76	4.38
External assets	12.13	7.21	13.70	6.14
Fixed assets and others	6.81	7.35	13.67	11.63
Total	100.00	100.00	100.00	100.00
LIABILITIES	Euro area	Spain	Euro area	Spain
Deposits of non-financial sector	32.28	44.66	36.47	51.29
Deposits of MFI	22.08	19.68	17.42	16.03
Money Market funds	1.94	2.87	1.46	0.25
Debt	16.28	4.50	13.03	8.74
External liabilities	13.80	13.73	10.79	3.89
Capital and reserves	5.62	8.19	7.70	11.33
Other liabilities	8.00	6.37	13.13	8.48
Total	100.00	100.00	100.00	100.00

Source: Authors' elaboration on ECB data

Proximity to the customer, supported by a network of branches, is important when specialising in the retail banking business. This specialisation is usually associated with higher income and lower financial costs, hence the financial margin is greater. This is true in the Spanish case, where the net interest income (as a percentage of assets) is above that of European banks (Figure 9), despite its decline in recent years. As of June 2014, Spanish banks' financial margin was 1.78 per cent (compared with an average for the European banking system of 1.2 per cent), i.e. above that of the banking sector in the main European countries.

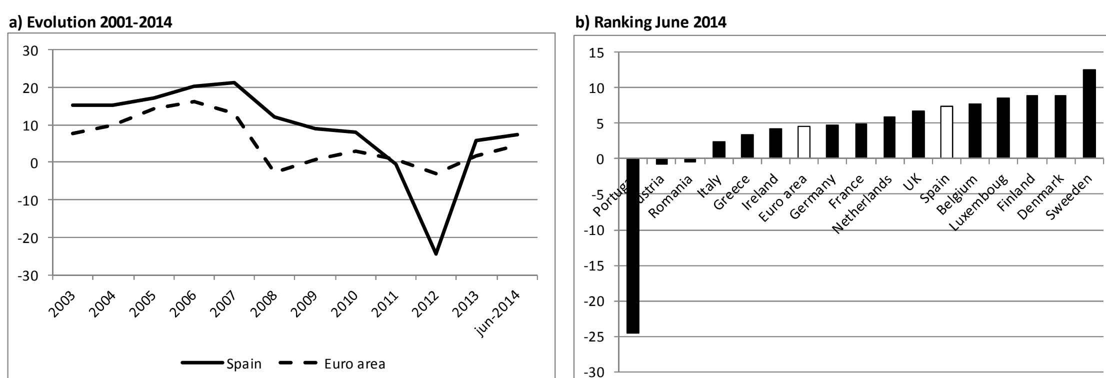
Figure 9. Interest margin. Percentage of total assets



Source: Authors' elaboration on ECB data

Another feature of the Spanish banking system that stands out in the European context is its high level of profitability. Except during the period 2012-2103, when it was affected by the clean-up imposed by Royal-Decree Laws 2/2012 and 18/2012, which obliged banks to recognise the losses deriving from their exposure to the property market, this has always been above the European average. As Figure 10 shows, return on equity (ROE) stood at over 20 per cent before the property-market bubble burst. The subsequent crisis obviously resulted in a drop in profitability, which is being recouped since the Spanish economy emerged from recession in the second half of 2013. The latest information available, referring to June 2014, places Spanish banks' ROE at 7 per cent, which is above the 5 per cent for European banks, and higher than in major European countries such as Germany, France and Italy.

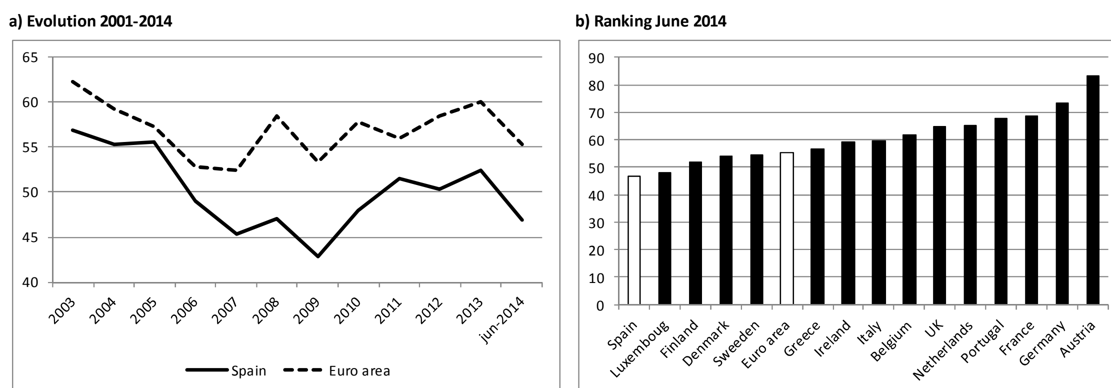
Figure 10. Bank profitability: return on equity (ROE). Percentage



Source: Authors' elaboration on ECB data

As well as profitability, Spanish banks stand out for their high level of operational efficiency (in terms of cost to income ratio), which has always been well above that of other European banks (Figure 11). The drastic cuts in operating expenses made prior to 2008[10] took place in a context of narrowing gross profit margins, although costs fell faster, such that the operational efficiency ratio improved, reaching 43 per cent compared with 53 per cent in the euro area. In the following years, the collapse in gross margin explained the loss of efficiency, although Spanish banks remained more efficient than their European counterparts. The recovery in margin in 2014 and the reduction in operating costs has enabled further efficiency gains, situating Spain's ratio at 47 per cent compared with 55.3 per cent in the euro area[11].

Figure 11. Cost to income ratio. Percentage



Source: Authors' elaboration on ECB data

The information published by the ECB allows the solvency of the Spanish banking sector to be compared with the euro area average over the period since 2008. The picture that emerges from Figure 12 is that the total solvency ratio of the Spanish banking system is below the average in recent post-crisis years, reaching a maximum difference of 2.8 pp in June 2014, when the Spanish ratio was 13.4 per cent compared with 16.2 per cent for the eurozone. Spanish banks are second from bottom of the ranking of eurozone countries by solvency, trailed only by Portugal's banks.

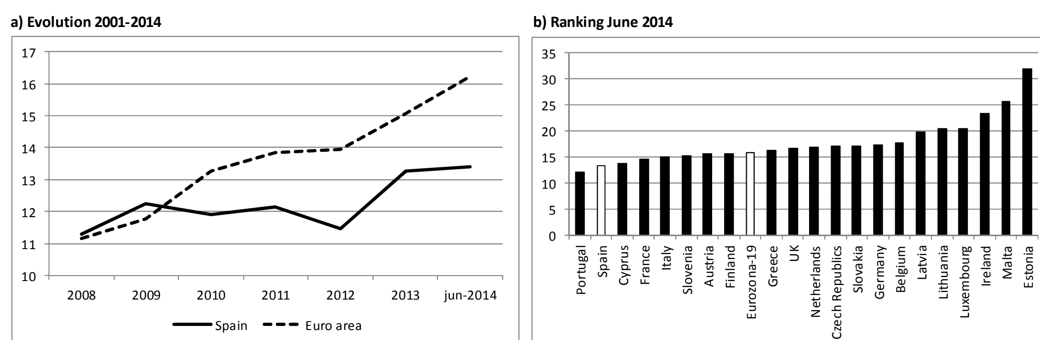
However, the data in Figure 12 need to be interpreted with caution as a result of the differences in how countries treat the ratio's denominator. Thus, although the

[10] See Maudos (2012) for a detailed analysis.

[11] Although several papers have been published analyzing the efficiency of the Spanish banking sector in the international context, the results are very sensitive to techniques used, the selection of variables and time period.

numerator is harmonised internationally thanks to the Basel Accords, the denominator (risk-weighted assets, RWA) is not, and the evidence suggests that Spanish banks weight risks more strictly. Indeed, the ranking changes substantially if it is drawn up in terms of the equity-to-asset ratio, without risk weightings. This ratio for Spain is above the major European banking sectors 7.06 per cent compared to 4.94 per cent in Germany, 5.43 per cent in France and 5.74 per cent in United Kingdom. [12]

Figure 12. Overall solvency ratio (as percentage of RWA).



Source: Authors' elaboration on ECB data

To complete this comparison of the Spanish banking sector with its counterparts elsewhere in Europe, it is worth analysing the market structure concentration[13], given the possible implications its level and evolution can have on the intensity of competition[14]. As Figure 13 shows, although the Herfindahl index (which is defined as the sum of the square of the market shares of the firms in the industry) is below the (weighted) average for European banks in the period up to 2011, the intense growth in recent years as a result of restructuring and mergers raised the index to 839 in 2014, which is above all the European averages (703 in the case of the EU-15). In this latter year, the market concentration in the Spanish banking sector exceeded that of the sectors in major European countries such as Germany, France, Italy and the United Kingdom. Although it is not shown on the graph, Spain's CR5 index (market share of the five largest banks in terms of assets) is 58 per cent, which above the EU-15's 47.6 per cent (weighted) and the levels in the largest European economies. The question that therefore arises is the possible impact of this sharp rise in concentration on competition.

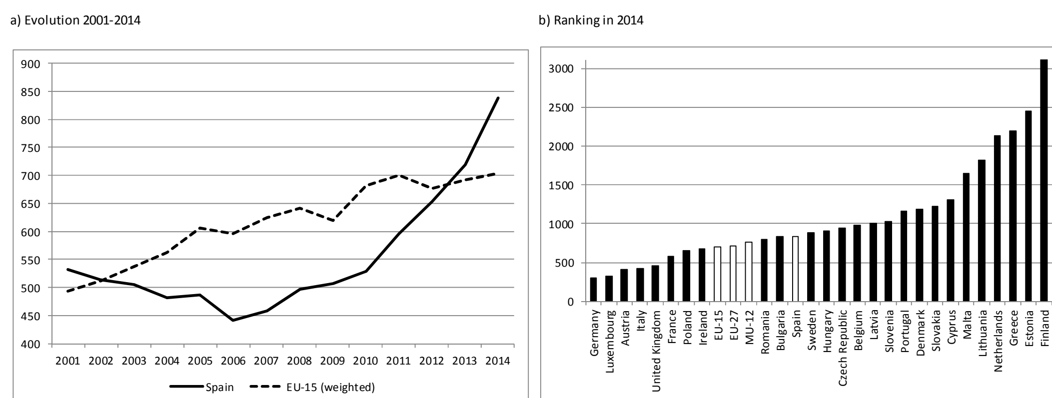
[12] See Bank of Spain (2012).

[13] The indicator used, reported by the ECB, is calculated on a non-consolidated basis, meaning that banking subsidiaries and foreign branches are considered to be separate credit institutions.

[14] However, it is important to point out that concentration measures might not be the best measure of competition (see Carbó et al., 2009).

We have to note, however, that what matters for competition is concentration in relevant product and geographical markets and not at the aggregate level. Carbó et al. (2009) in a study of a large sample of European banks for 1995–2001 in fourteen countries find that different measures of competition (including the Herfindahl index, the Panzar-Rosse H-statistic, and the Lerner index, or the return on assets (ROA)) identify in a consistent way the most and least competitive banking markets. Spain scores overall relatively low on competition. Using the Lerner index and the Boone indicator as measures of competition, Fernandez de Guevara and Maudos (2016) analyse the impact of the crisis on competition in the banking sector in Europe's largest economies over the period 2002-2012. In the specific case of the lending market, the results show market power to have increased in many countries, including Spain. The effects on stability, however, may be beneficial. Jiménez et al. (2013) found that nonperforming loans in Spanish banks fell as the loan market's Lerner index increased.[15]

Figure 13. Bank concentration in Europe: the Herfindahl index in terms of assets



Source: Authors' elaboration on ECB data

4. Crisis and restructuring: from the 2012 bail-out to passing the stress tests in 2014

4.1. The origins of the Spanish banking sector's problems

Apart from the direct impact of the outbreak of the Great Recession in mid-2007, the Spanish banking sector has suffered the consequences of the bursting of the property-market bubble resulting from the imbalances that built up in the preceding

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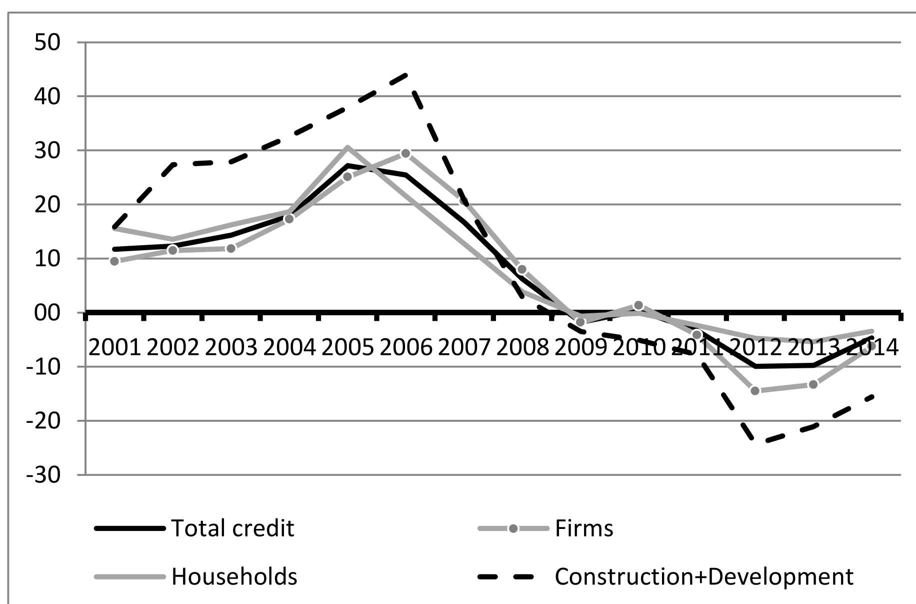
15 The authors also find that an intermediate level of competition may maximize financial stability. See Vives (2016) for thorough exploration of the relationship between competition and stability in banking.

years of expansion. These imbalances can be summarised as: a) excessive rate of credit growth; b) a high concentration of risks in the construction and property sector; c) excess installed capacity in terms of branches and employees; d) a high degree of reliance on funding from wholesale markets as a result of the liquidity gap; and e) weak governance structures at many savings banks.

As we saw in Figure 3, credit grew strongly in Spain during the years of expansion leading up to 2008, with Spain being the eurozone's leader in terms of average credit growth rates between 2000 and 2008. This growth relied heavily on lending to the construction industry and property business, which grew by as much as 40 per cent in 2006. However, lending for other purposes also grew strongly, with growth rates of up to 30 per cent some years in credit to both businesses and households (Figure 14). The subsequent crisis and excess private-sector debt made intense deleveraging unavoidable, which explains why the stock of credit to the non-financial private sector has been posting negative growth rates since 2009.

Figure 14. Annual growth rate of the credit to the non-financial private sector in Spain. Percentage

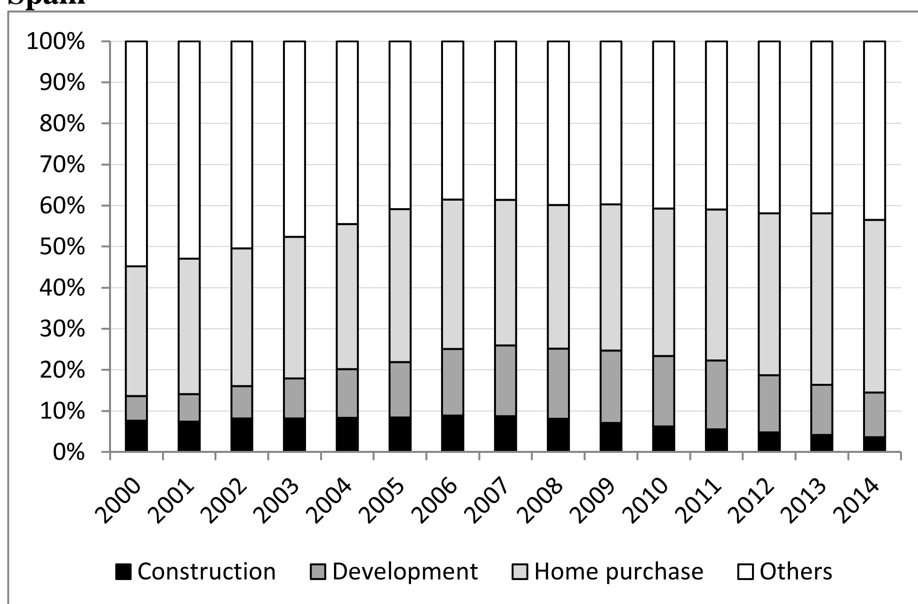


Source: Authors' elaboration on Bank of Spain data

Growth in lending to activities related to the property sector (construction, property development, and home purchases) rose from 45 per cent of total lending to the private sector in 2000 to a peak of 61.5 per cent in 2006. The subsequent crisis affecting these activities reduced their share to 56 per cent in 2014, partly due to the transfer of

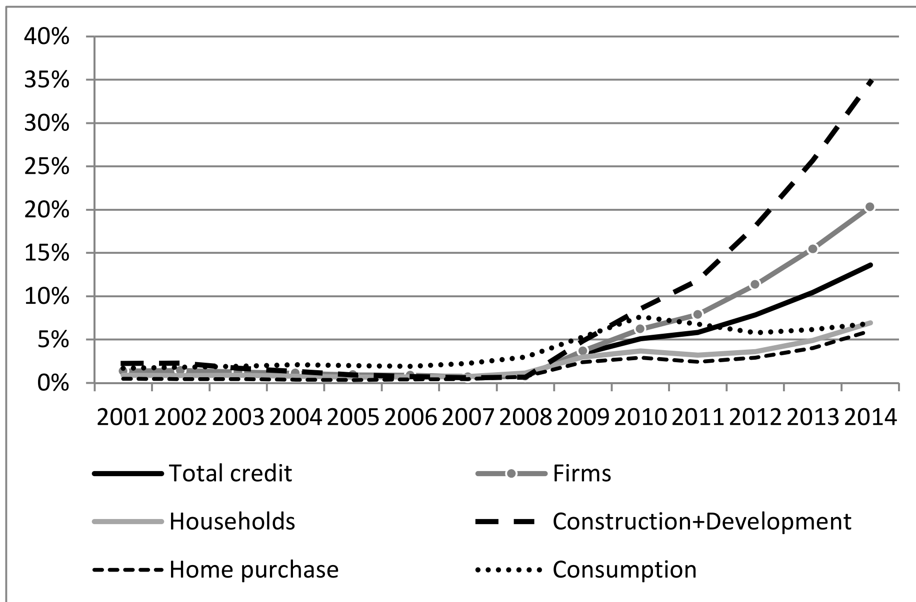
the property exposures of bailed out banks to the "bad bank" (SAREB). The strongest growth was in lending for property development, which along with construction, suffered the highest default rates. In late 2014 the default rate on construction and property development loans (Figure 16) reached 34.7 per cent, while defaults on mortgages remained modest (6 per cent). As a result, the Spanish banking sector's problems have been concentrated in the construction and property development sector, on account of the provisions they have had to set aside for losses.

Figure 15. Percentage distribution of credit to the non-financial private sector in Spain



Source: Authors' elaboration on Bank of Spain data

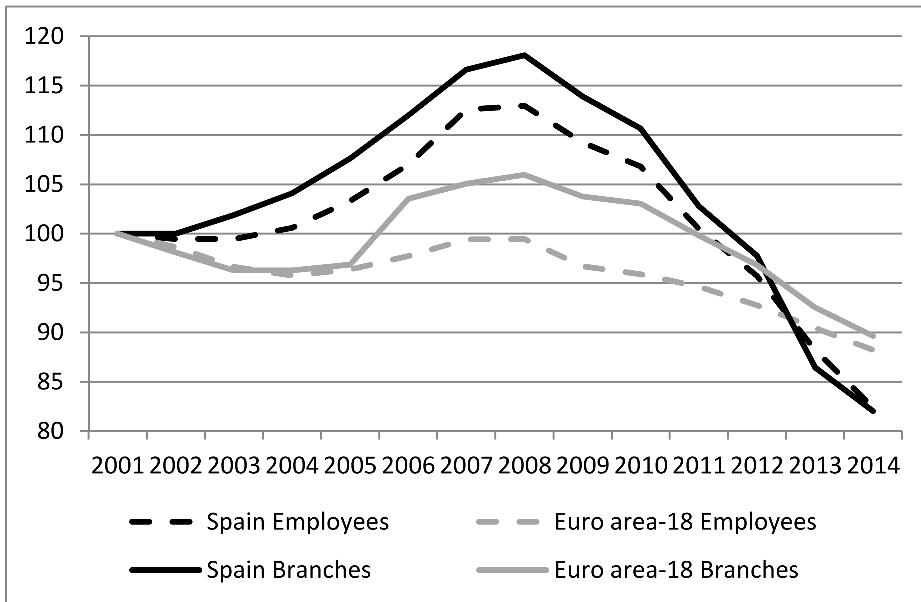
Figure 16. Percentage of doubtful loans as a share of total loans in each sector



Source: Authors' elaboration on Bank of Spain data

A rate of bank lending growth this rapid demanded an expansion in installed capacity, particularly in the case of the savings banks, which scaled up their business most and had the biggest concentration of risk in the property sector. As Figure 17 shows, between 2000 and 2008 the network of bank branches expanded by 18 per cent in Spain, compared with a euro-area average of 5 per cent. Over the same period, employment in the sector grew by 13 per cent in Spain, while banks in other European countries were trimming their headcount somewhat. During the crisis, it was necessary to severely cut back the overcapacity that had built up, with the result that in between 2008 and 2013, 31 per cent of branches closed and staffing levels were cut by 27 per cent. Indeed, those banks receiving public financial aid were obliged to reduce their capacity, and this was one of the conditions in the MoU for the banking-sector bailout in June 2012.

Figure 17. Evolution of the number of branches and employees in the Euro area and Spanish banks. 2001=100

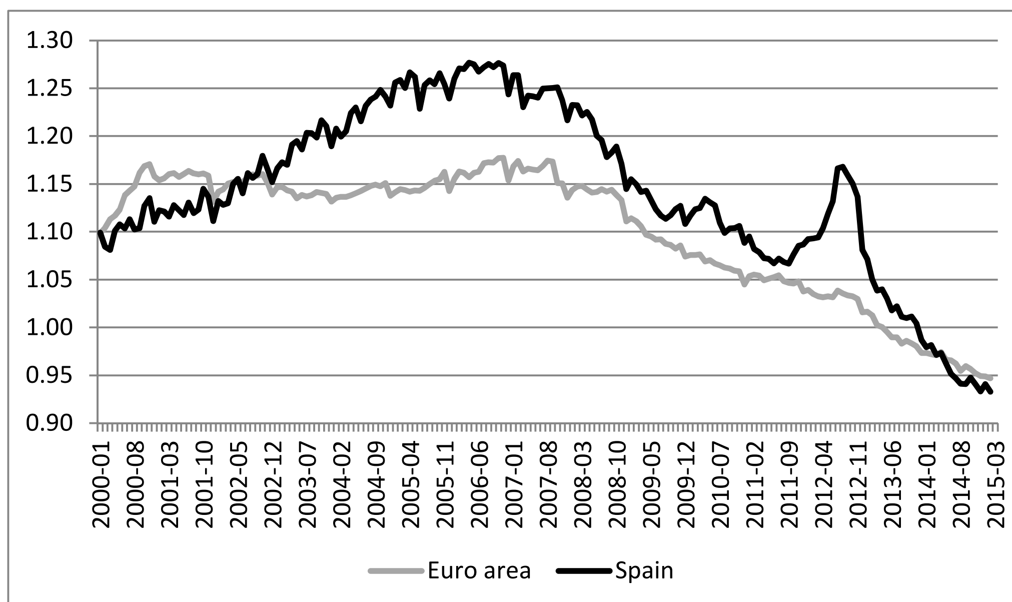


Source: Authors' elaboration on ECB data

During the years of credit expansion, domestic savings and deposits were insufficient to finance this lending. Spanish banks therefore tapped the wholesale markets for funding, and were able to issue debt with ease. The credit/deposits liquidity gap therefore widened, reaching a value of close to 1.3 in the case of the non-financial private sector. The closure of the wholesale markets in the wake of the international financial crisis left the Spanish banking system in an extremely vulnerable position when it came to rolling over its existing debt. This forced it to turn to deposits (with a war breaking out to attract deposits by offering interest rates that damaged some banks' bottom line to the extent that the Bank of Spain had to step in to penalise excessive rates) and funding from the ECB.[16] This brought the liquidity gap to a ratio of below one at the start of 2014 (Figure 18).

Figure 18. Liquidity gap. Credit/deposits to the non-financial private sector

[16] In August 2012 Spanish banks absorbed as much as 34% of the ECB's gross lending, three times its weight in the Eurosystem. In early 2015 the percentage had dropped to 26%, and gross lending was less than a third.



Source: Authors' elaboration on Bank of Spain data

Finally, in the specific case of the savings banks, on top of the imbalances referred to above, they faced difficulty obtaining quality capital from the market. Not being joint-stock companies (being private non-profit foundations conducting financial activities), they could not issue shares to raise equity when they needed to shore up their solvency. The only way in which they could improve their capitalisation was by allocating profits to reserves, which was impossible in a scenario in which they were making losses. Although they could issue non-voting primary capital certificates, these were not attractive to investors, as they lacked voting rights. In fact only one savings bank (Caja de Ahorros del Mediterráneo) managed to issue primary capital certificates.

4.2. Measures taken in response to the crisis

The specific features of the banking crisis in Spain made it necessary to adopt a wide range of measures to correct the imbalances that had built up, on top of the measures taken at the international level to prevent similar crisis in the future (such as the new Basel III Accords, which demand more and higher quality capital, liquidity ratios, leverage ratios).

To understand the rationale and time sequence of the measures adopted in 2008, the prevailing perception when the crisis erupted needs to be taken into account. The official view at the time was that the problem was not one of solvency but liquidity, so the first measures put in place were intended to facilitate access to liquidity. Thus, in 2008 the Financial Assets Acquisition Fund (FAAF) was created, with initial funding of

30 billion euros, later expanded to 50 billion euros, to be used to buy top quality assets from the banks. This measure was justified as a means of stimulating credit to businesses and households.

Along the same lines, as a further liquidity measure, later that year the European Commission authorised the Spanish government to grant guarantees backing issues of bank debt. This authorisation was extended over several years until 2012, with the total volume of guaranteed debt reaching 110,895 million euros.

As time went by, given the severity of the economic crisis, it became necessary to adopt measures to restructure the banking sector. The first such measure was the creation of the Fund for Orderly Restructuring of the Banking Sector (FROB) in June 2009. This had two goals: strengthening intervention mechanisms in distressed entities whose difficulties affected their future viability; and restructuring the sector in order to shed the excess installed capacity and achieve efficiency gains through consolidation, so as to increase the size of institutions and improve their access to market finance. The FROB bolstered solvency by providing funding to support mergers. In order to do so it had initial funding of 9 billion euros (with potential for up to a tenfold increase), a quarter of which was provided by the Deposit Guarantee Fund (FGD) and the rest by the State. It should be noted that initially the FROB provided aid in the form of capital (conditional upon submission of a feasibility plan), which entities were to repay within a period of five years. The FROB financed eight mergers and the aid granted (totalling 11,559 million euros) was lost in its entirety.

The next important measure adopted was the reform of the savings bank law in July 2010 in order to allow savings banks to access quality capital, raise the professional standards of their management, and depoliticise their governing bodies (reducing the presence of representatives of public administrations on their governing bodies from 50 per cent to 40 per cent). The reform therefore allowed the savings banks to create banks to which to transfer their business, and so access quality capital from the markets through them. This reform kicked off the process of turning the sector's entities into banks, as of the 45 savings banks that existed at the time, only two have retained their original status. The remainder of the former savings banks have been converted into banking foundations, which conduct their financial activity indirectly through banks that have been set up for the purpose.

Against the backdrop of a climate of widespread financial instability right across Europe in the wake of the sovereign-debt crisis in April 2010, triggered by the first

Greek bail-out, Royal Decree-Law 2/2011 was passed in February 2011, aiming to strengthen the Spanish financial system in an effort to dispel the uncertainties surrounding the banks' solvency, given the large volume of property assets on their balance sheets. The law raised the solvency ratio required in Spain considerably, reaching 10 per cent of core capital as a percentage of risk-weighted assets (RWA) in those entities that did not have at least 20 per cent of private capital and were more than 20 per cent dependent on wholesale market funding. These latter entities were the most vulnerable, due to their high degree of market dependence, and their difficulties accessing private capital. Although the law does not explicitly say so, the institutions it has in mind are obviously the savings banks. As the law required a lower solvency ratio (8 per cent) for other entities, it represented an incentive for the savings banks to create banks, as if they were able to place at least 20 per cent of their capital on the market the lower solvency ratio would apply to them, and they would consequently save capital.[17] Entities that were unable to obtain the capital necessary to comply with the law by their own means were financed by the FROB, which injected capital (to the tune of 7,551 million euros) and consequently nationalised part of the savings bank sector.

It would be necessary to wait until February 2012, following a change of government, for the serious solvency problem arising from the unprovisioned losses caused by the bursting of the property-market bubble to be recognised. Thus, on 3 February 2012, Royal Decree-Law 2/2012 on the reorganisation of the financial sector was passed, requiring new provisions to be set aside to address the impairment of loans and foreclosed assets from property developments held on 31 December 2011. The provisions necessary to meet the new requirements were estimated at 54 billion euros, of which 15 billion euros would be in the form of a capital buffer (charged to undistributed profits, obtained from capital increases, or by converting hybrid instruments such as preferred shares, convertible bonds or subordinate debt) and the remainder in the form of specific and general provisions. The latter, which are exclusive to the Spanish banking sector, are associated with assets classed as standard exposures, implying tacit recognition that property risk may in fact not be entirely "standard". It is important to note that in August 2012, following the bank bail-out, there was a further reform as a consequence of the obligations under the MoU. This demanded a transitory increase in the solvency ratio for all entities and the repeal of the 15 billion euro capital

[17] This was the reason for Bankia's stock market flotation.

buffer requirement laid down by the Royal-Decree Law of February 2012 on the cleaning-up of the financial sector.

In May that year, a further Royal Decree-Law (RDL 18/2012) was passed on the write-down and sale of banking sector real-estate assets. This required fresh general provisions of 30 billion euros for standard exposures to the property sector, which was somewhat surprising given that this again concerned provisions for assets classed as standard exposures after having required similar provisions (although of a smaller amount) just three months earlier. The reason for this new requirement was that in March 2012 the IMF published its preliminary Financial Sector Assessment Programme (FSAP) conclusions for Spain. In its conclusions the IMF mentioned that it had performed a stress test that found capital shortfalls at certain institutions and that "Lender forbearance –which the supervisory authorities have indicated they are monitoring closely- could not be fully incorporated into the stress tests due to lack of data, and this may have masked the extent of credit risk in some institutions." In other words, the IMF suspected that there were troubled assets that were being classed as standard exposures. The government's response to this suspicion was to demand additional provisions for this property exposure classed as "standard".

4.3 The banking-sector bail-out and the MoU

Given the scale of the write-downs required by these two royal decree-laws, compounded by the capital shortfall detected by the IMF in its report, in June 2012, against the backdrop of a soaring risk premium on sovereign debt, the Spanish government found itself obliged to apply for a banking-sector bail-out from the European funds. This request for financial assistance marked a turning point for the Spanish banking sector, as it brought the solvency problems part of the sector was facing to the fore. Given its systemic nature, Bankia (the biggest bank owned by a banking foundation) was the main focus of concern. Its size was equivalent to 30% of Spain's GDP, similar to that of Fannie Mae and Freddie Mac relative to US GDP. The Bankia's capital shortfall detected by the stress test undertaken in 2012 by Oliver Wyman represents 46% of total capital shortfalls.

The MoU that accompanied the bail-out shaped the reforms undertaken from then on. The measures included, among others, running further bank-by-bank stress tests, additional reform of the savings banks, enhanced information transparency, the creation of a "bad bank" (SAREB), a new bank resolution framework, higher solvency

requirements, reforms to supervision methods, and promoting non-bank intermediation.[18]

Of the set of reforms imposed by the MoU, two stand out in particular for their importance: Law 28/2013 on savings banks and banking foundations; and the SAREB.

The new savings bank reform laid down a series of conditions for the savings banks to continue being classed as such, requiring them to return to their traditional role. These conditions include having assets of less than ten billion euros or a share of deposits of more than 35 per cent of the total in the autonomous region in which they operate. They are also required to focus on retail customers and SMEs, and operate within geographical limits that may not exceed one autonomous region or ten contiguous provinces. The reform reduced the weight of the public sector in their governing bodies from 40 per cent to 25 per cent[19]. As well as depoliticising the savings banks, the reform aims to avoid a repetition the errors of the past, when excessive growth in scale and reach beyond their home regions led some of them to bankruptcy. For the larger savings banks, the reform requires them to create a bank to which to transfer their banking business, and to convert into a banking foundation if the savings banks keeps in the bank more than 10 per cent shareholding.

The new law establishes that banking foundations holding more than 30 per cent of the shares in a credit institution must submit a management protocol regarding this shareholding for approval by the Bank of Spain; the latter, as the supervisory authority, will have the power to establish the criteria for the management of the foundation's shareholding in the bank, the relationship between the bank and the foundation, the rules on related-party transactions, and the financial plan to meet the capital requirements. Banking foundations that have a shareholding of over 50 per cent or which hold positions of control in a credit institution will be obliged to submit an investment diversification and risk-management strategy together with their financial plan to avoid the concentration of assets. Importantly, the foundation also needs to have a reserve fund to meet possible equity needs and guarantee liquidity. Basically, given how difficult it is for a banking foundation to possess such a reserve fund, the aim is for

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[18] For details, see Spain, MoU on Financial Sector Policy Conditionality, 20 July 2012.

[19] Illueca et al. (2014) find that the governance of the Spanish savings banks significantly affected the way in which they expanded their lending activities. Savings banks subject to political influence by regional governments exhibited higher ex ante risk-taking and higher ex post loan defaults. This is confirmed by Akin et al. (2014).

foundations to have shareholdings in banks of less than 50 per cent so as to avoid their holding a controlling stake.

The SAREB, or "bad bank", is an important factor in reducing the uncertainty over the viability of bailed-out entities, as they are obliged to transfer their property exposure to it. The SAREB (the Spanish acronym for the Company for the Management of Assets proceeding from the Restructuring of the Banking System) was initially given a period of 15 years over which to conduct the orderly divestment of the 51 billion euros of assets under management (loans, foreclosed assets, and shareholdings in property developers acquired by the SAREB by paying for these assets with government-backed bonds). The SAREB is a private entity in which the FROB holds 45 per cent of the capital. The remaining 55 per cent is held by private investors (banks and insurance companies). It was important that the FROB not hold more than 50 per cent of SAREB's shares as that would have made a public law institution, and its debt would consequently have been considered government debt and its losses included in the public deficit.

4.4. The Spanish banking system after the restructuring

The fact that the Spanish banking sector has gone from having to request financial assistance from European funds to successfully passing the ECB's stress tests in November 2014 in just two years is a sign of the success of the restructuring carried out. Thus, overcapacity has been reduced, balance sheets cleaned up (equivalent to 29 per cent of GDP between 2008 and 2014), solvency improved, the liquidity gap has narrowed, and there has been a consolidation of the sector.[20]

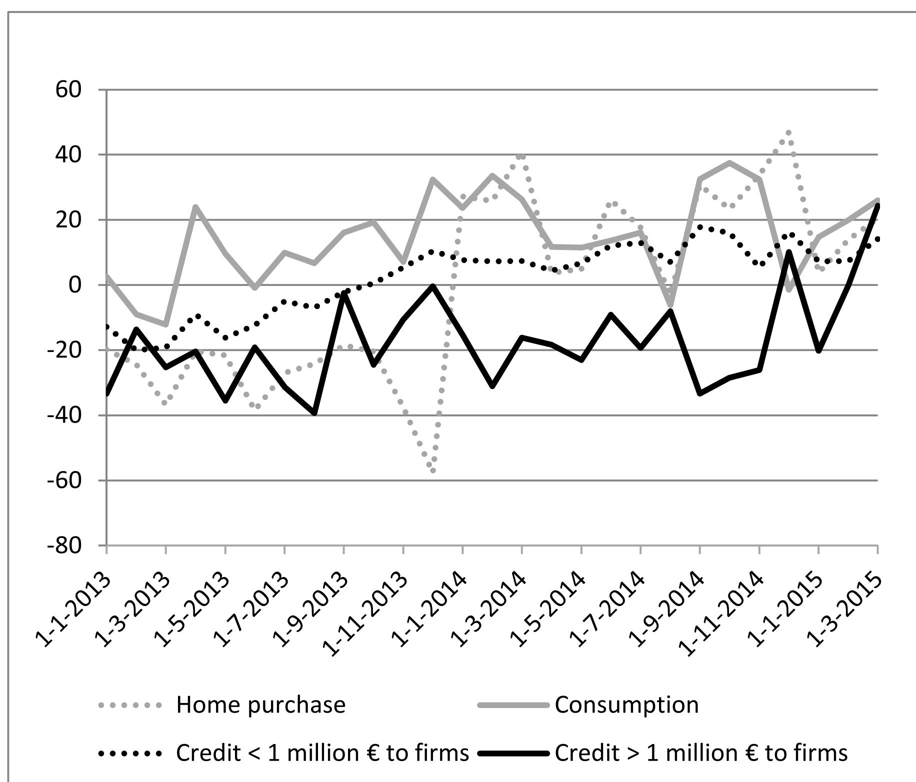
The latest information available, referring to June 2014, shows (Figure 10) profit levels above the European average, and better than those of banks in the main European economies. Nevertheless, they still face higher default rates, albeit with a level of coverage similar to the European average.

Following the restructuring and write-downs, Spanish banks are in a better position from which to perform their role as intermediaries and to finance the real economy. Although the stock of credit continues to fall (albeit at ever slower rates), new lending transactions (necessary to finance new investment projects) are growing. This includes lending both to SMEs (using loans of less than a million euros as a proxy) and

[20] The average size of banking institutions has quadrupled as a result of the restructuring.

households, both for consumption and home purchases (Figure 19). Competition has also picked up, as is revealed by the narrowing of the spreads over the Euribor banks are able to charge on the loans they grant.

Figure 19. Annual growth rate of credit (new business) to the non-financial private sector. Percentage



Source: Authors' elaboration on Bank of Spain data

5. Lessons of the banking crisis and future challenges

5.1. Lessons of the crisis

The initial diagnosis of the crisis that it was only a problem of liquidity, and not of solvency, had consequences for the effectiveness of the measures enacted. This diagnosis was left unchanged for too long, and it was even claimed at some point that Spain's banking sector was the world's most solvent. This view was the result of an underestimation of both the severity and duration of the crisis, leading to the belief that the counter-cyclical provisions set aside (around 30 billion euros), and for which the

Bank of Spain was a pioneer, would be sufficient to meet the losses. Indeed, Spain was one of the few countries in Europe that used macro-prudential tools before the crisis[21]. Alberola et al. (2011) show that, during the recent financial crisis, dynamic provisions proved useful to mitigate —to a limited extent— the build-up of risks and, above all, to provide substantial loss absorbency capacity to the financial institutions. Their effectiveness in smoothing the credit supply cycle has been tested by Jiménez et al. (2015) who find that a policy-induced one-percentage point increase in capital buffers extends credit to firms by 9 points.

Spain provides an example of softer lending standards in the boom than in the bust, in particular in real state. Akin et al. (2014) claim that the mechanism by which banks were able to increase mortgage supply bypassing loan-to-value restrictions is through upward biases in real state appraisals. The build-up for risk in the banking system was compounded by loose monetary policy. Lower overnight interest rates led undercapitalized banks to relax their credit policy by extending and expanding credit to riskier firms with larger loan volumes and lower collateral requirements in the period 2002-2008 (Jiménez et al. (2014)).

This initial misdiagnosis meant public capital was not injected early enough, when it would still have been possible given the treasury's ability to issue public debt at reasonable rates and start the cleanup of damaged balance sheets. Between 2008 and 2010 public aid to the banking system in the form of capital came to 1.2 per cent of GDP in Spain, which was tiny compared to the sums involved in the EU-27 (3.3 per cent), Germany (4.5 per cent), the Netherlands (4 per cent) or the United Kingdom (7.3 per cent).

Another lesson from the banking crisis is that mergers are not the solution when all the entities involved are in difficulties. To put it bluntly, the merger of several weak entities delivered an even weaker large entity. It is clear that the SIP mechanism (which stands for institutional protection system in Spanish, also referred to as "cold fusion", and consists of a group of institutions creating a bank to which to transfer their banking business) was sometimes a failure, resulting in the new groups created by the savings

[21] Currently, there are two types of provisions: a) specific provisions which depend on observed non-performing loans; and b) generic provisions, which depend on the stock of performing loans. Until 2004, there was a third type of provisions: the so-called statistical provisions, designed to offset specific provisions along the cycle. With the 2004 reform, generic provisions absorbed the old statistical provision. Although generic provisions smoothed the impact of the crisis, the anti-cyclical impact was smaller than expected.

banks being taken over and bailed out by the FROB. Some of the mergers that took place were defensive moves by savings banks based in the same region, as regional governments did not want to lose control over them. All the intraregional mergers that took place resulted in entities that had to be taken over, bailed out, and later sold off, with the State suffering huge losses.

Another lesson of the crisis is that injecting public capital will not solve the problems unless there is a change of management. This was seen in the case of the first aid given by the FROB, where there was barely any change in the composition of the management bodies of the new institutions created by mergers.

Finally, a lesson of the crises is the importance of geographical diversification. Santander and BBVA, the two biggest Spanish banks, have suffered less from the consequences of the crisis in the Spanish economy, partly due to the high weight of business that is outside Spain and that has offset the decline in activity in Spain with other areas of rapid credit growth and low banking penetration.[22]

5.2. Future challenges

Spain's banking sector has made major progress thanks to the restructuring, as the most recent reports from the authorities involved in rescuing the Spanish banking system (IMF, 2014; European Commission, 2015) highlight. Those authorities, however, point also to certain vulnerabilities and challenges going forward. A major one, that it is shared by the banking systems of major developed economies, is to regain the trust lost by customers and investors because of misbehaviour in the run up to the crisis. In our view, there are six challenges:

a) Low interest rate scenario

Following ECB's various non-conventional measures to tackle the problems of deflation and stagnation in the eurozone, a scenario of very low interest rates has become established, holding back the recovering in bank profitability. Although the initial effect of low interest rates was positive, as costs fell faster than interest income (as shown by Spanish banks' widening net interest margins in 2014) and the capital

[22] BBVA Group offers financial services in 31 countries. It has a strong leadership position in the Spanish market; is the largest financial institution in Mexico and it has leading franchises in South America and in the US "Sunbelt"; it also has a significant presence in Turkey (through investments in Garanti Bank), and operates an extensive network of offices around the world. Santander group has a balanced diversification in its main 10 markets. Spain (14% of its business), United Kingdom (19%), Brazil (19%), USA (10%), Mexico (8%), Chile (6%), Poland (6%), Germany (5%), Argentina (4%) and Portugal (2 %).

gains obtained from the sale of assets (such as public debt, largely acquired with finance from the ECB in carry trade transactions), going forward the margin for further lending rate cuts is slender, while assets will continue to decline, with the consequent drop in net interest income. It will also be difficult to obtain capital gains similar to those in the past from the sale of assets. In this scenario banks will seek to increase the share of income from sources other than interest charges (such as fees), which requires changes in the banking business.

b) Large volume of non-performing assets

Although the non-performing loan rate has been falling since 2014, the volume remains considerable. But as well as these bad loans (equivalent to 17 per cent of GDP at end-2014), foreclosed assets, valued at a total of 82.5 billion euros in late 2014, are also considered troubled assets. The non-performing loan rate, including both types of troubled assets, therefore stands at close to 18 per cent, with a large volume of assets generating financial and operational costs but no income. Managing this huge volume of non-performing assets is therefore a challenge for the Spanish banks, and a constraint on their returning to profitability. Indeed, the digestion of the explosion of the real-state bubble is very heavy and slow.

c) Regulatory requirements

A third element of vulnerability is the so-called regulatory tsunami that demands that banks hold more and higher quality capital in the new regulatory environment of Basel III. Spanish banks have increased their capital by over 100 billion euros, but even so, they do not stand out on the international solvency rankings. They therefore need to continue strengthening their own funds, and it is not easy to attract capital when the profitability of the business is still recovering. With a return on equity of 5 per cent (ROE of banking business in Spain, and 7 per cent when considering subsidiaries abroad) and estimated cost of attracting capital of 8 per cent, it is difficult to tap the markets for capital. Moreover, what is important is not only the level of solvency required by the regulations, but also that of market competitors.

Against the backdrop of the need to bolster own funds, the legislation on corporate tax was reformed, first in 2013 and again in 2015, such that a portion of the sector’s deferred tax assets (DTAs) converted into deferred tax credits by government guarantee, deriving from expenses that cannot be offset against current profits, and so represent a future claim against the public treasury, continue to be considered Tier 1 capital, without their being classed as State aid. The reform, which involves a cost to the banks

for the government guarantee and that eliminates the possibility in the future of generating guaranteed DTAs when no taxes are paid on a given fiscal year, was negotiated with the European Commission and the Bank of Spain.

d) New capacity adjustments

In a context of low interest rates and high volumes of non-performing assets, banks need to continue making efficiency gains in order to boost their profitability. These efficiency gains will require further adjustments to capacity, although there is now less room for manoeuvre, given that the branch network had already been cut by 31 per cent by 2014. Online and mobile banking will become more important in the future, leading to branch closures. A problem faced by Spanish banks is that although all the banks are aware of the need to close branches, it is difficult to take the first step given the risk of losing market share.

e) The new context of banking union

Banking union was designed to complete the institutions necessary for monetary union. The Single Supervisory Mechanism came into force in November 2014, the Single Resolution Mechanism in 2015, and the new bail-in rules will come into effect in 2016. A common eurozone deposit insurance fund will have to wait for the moment. Progress towards a single banking market in Europe will lead to a more competitive scenario given the growth in cross-border activity.

In this new, integrated market, Spanish banks that have grown rapidly in recent years through mergers will need to consider new, cross-border mergers, as geographical diversification of the business is one strategy for reducing future risks. Experience has shown that the two largest Spanish banks (Santander and BBVA) have been in a better position to confront the crisis partly because a large part of their business is diversified across multiple countries. However, banks with concentrated banking business in Spain may seek also to expand internationally to higher margin countries, but perhaps outside the eurozone, in order to restore profitability.

f) The impact of increased concentration on competition

Increased international competition is compatible with niches of market power in sub-national markets. Some of the mergers taking place in Spain in recent years have led to important increases in market concentration in some provinces/regions, with levels of concentration that would attract the attention of competition authorities in some other countries. As an illustration, using 2013 data, the Herfindahl index (constructed in terms of branches) is over 1,800 points in 17 of Spain's 52 provinces,

and in 47 it rose by more than 200 points during the crisis (coinciding in 13 provinces). Therefore, based on the 1,800/200 rule[23], the level of concentration out of mergers in 13 Spanish provinces would require an analysis of the impact on competition. It is worth noting the classical tension between the role of mergers to reduce excess capacity and save fixed costs and their potential impact on competition.

g) Increase in non-bank competition

The spread of shadow banking and the expansion of finance offers from new, non-bank competitors (from the digital world, such as Google or Apple) could change the landscape of banking competition. This factor is a concern from the regulatory perspective, which seeks to avoid hidden build-up of risk. Furthermore, it is a factor that will induce competition and demand a response from traditional banks. One possible response that is taking shape in some of the main Spanish banking groups is to develop online and mobile banking, as a future channel for access to banking services as well as trying to integrate some of the new competitors

h) The volume of public debt on bank balance sheets

During the crisis, Spanish banks scaled up their investments in public debt substantially. This was for several reasons: the advantages in terms of reduced capital consumption in the calculation of RWA; the lack of solvent demand for credit; and the low cost of borrowing from the ECB, enabling high returns to be obtained by buying higher yield debt via the carry trade. Over the period 2007 to 2014 the share of public debt in total assets rose by 7.2 pp. to 9.9 per cent.

These large holdings of public debt have made a positive contribution to profits in two ways: financial income, particularly when the risk premium was high; and capital gains from their sale. The problem is that going forward it will not be possible to generate so much revenue this way (firstly because of the drop in the risk premium and secondly because of the loss of potential for the carry trade), which will have a negative impact on the bottom line. Moreover, it would not be surprising to see a change in international regulations tending to limit the concentration of public debt on bank

[23] According to this rule, which is used by the U.S. Department of Justice, a merger's raising the Herfindahl index by more than 200 points, when post merger the Herfindahl goes above 1,800, requires a close examination of the intended merger, given the potential effects on the degree of competition. This rule is met in 13 of Spain's 52 provinces. Note, however, that relevant markets in loan and deposits should be defined and that the use of branches in provinces is only an imperfect substitute of a proper analysis.

balance sheets, given the negative consequences the sovereign-debt crisis had on the vicious cycle of public and bank debt in the recent past.

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