Financial soundness indicators for the Spanish banking sector: An international comparison

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Solvency indicators are improving and efficiency ratios are above the euro area average. However, the damage caused by prolonged crisis is still evident in other key metrics.

Financial soundness indicators offer the most recent aggregate picture of Spanish consolidated banking groups in the European context. The impact of the crisis years has left the Spanish banking sector in a generally weaker position in absolute terms, as well as, in comparison with the euro area. Nevertheless, high levels of efficiency and doubtful loan provisions stand out in comparison to euro area figures and solvency ratios are improving. Despite the importance of aggregate comparisons, it is critical to analyse Spanish financial institutions on a disaggregated basis, given the high degree of variation across the health of institutions within the sector.

Since the financial crisis began in mid-2007, Spain has experienced four separate phases of a continuous process, which has now dragged on for over five years. The first phase was a liquidity crisis, followed by a profound economic crisis in 2009. Next came the sovereign-debt crisis and since 2012, the strains in the financial markets and uncertainties surrounding the euro have led to the current recession, which is projected to continue into 2013.

The Spanish banking sector has inevitably felt the effects of these various phases of the crisis. First, it was necessary to provide liquidity to counteract the closure of financial markets, through measures such as issuing public guarantees on bank debt. Second, in the midst of the sharp GDP contraction, it became necessary to approve the Fund for Orderly Restructuring of the Banking Sector (FROB) in 2009, and to reform savings bank legislation in 2010. After the outbreak of the sovereign debt crisis, banks were required to hold more capital (enacted by the Royal Decree/ Law on the strengthening of the financial sector in 2011) and to clean up assets associated with the property development sector in 2012. This meant increasing the provisions required for normal risk loans as well as for assets classified as toxic. Finally, the capital shortfall detected in the 2012 stress tests made it necessary to request financial

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assistance from the European rescue fund and to accept a Memorandum of Understanding (MoU), the conditions of which have begun to take shape through specific measures (such as the approval of an asset management company or "bad bank").

Taking into account all of these significant developments affecting the Spanish financial sector, it is relevant to ask oneself the following series of questions:

i) What is the Spanish banking sector's current position in the European context?

ii) Has the crisis had a bigger impact on Spanish credit institutions than on their peers?

iii) Has efficiency been boosted in an effort to counter the effects of the crisis?

iv) Have Spanish banks done more to recapitalise and improve their solvency?

v) Has the Spanish banking system made a bigger effort to clean up its impaired assets?

vi) What has been the impact of the crisis on Spanish banks' non-performing loan rate compared to their European counterparts?

vii) Do Spanish banks still have higher profits than the European average, despite the crisis?

viii) What has been the impact of the closure of wholesale financial markets on the liquidity of the Spanish banking sector?

To answer these questions, this article draws on various financial soundness indicators. In its latest report on the Spanish banking sector *(Spain: Financial Stability Assessment)* in June 2012, the International Monetary Fund (IMF) provided an in-depth analysis of recent developments in the Spanish banking system based on information up to December 2011. The IMF also uses financial soundness indicators, although it does not offer a comparative analysis with the banking sectors of Spain's peers. The aim here, therefore, is to analyse recent developments and the current position of the Spanish banking sector in the European context, using indicators of profitability, solvency, liquidity, efficiency, asset quality, etc. This approach makes it possible to analyse both how the impact of the crisis on Spanish banks has differed from elsewhere, and to examine the most recent snapshot of European banking sectors available from European Central Bank (ECB) and IMF data gathered in December 2011. In the first case, the analysis is based on consolidated banking data (including information on aggregate consolidated profitability, balance sheets and solvency of EU banks). In the second case, it is based on information from financial soundness indicators. The analysis refers to consolidated banking groups, including both domestic business and that of Spanish banks' subsidiaries abroad.

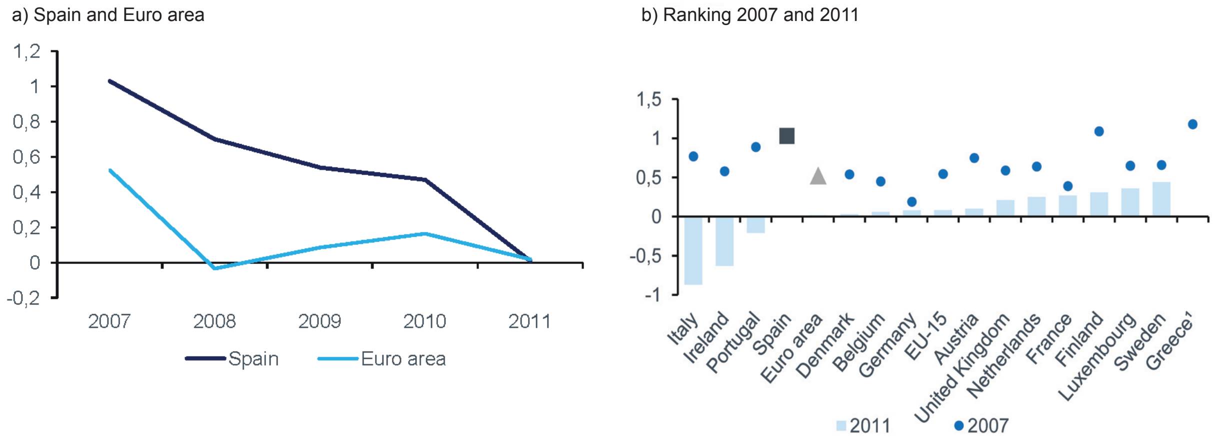
Profitability

At the close of 2011, the Spanish banking sector's return on assets (ROA) stood at 0.01%[2], a long way short of the 1.03% at the start of the crisis in 2007 (see Exhibit 1). Nevertheless, despite this sharp drop, Spanish banks' profitability in 2011 was close to the euro area and EU-15 averages, which were also extremely low. At the end of 2011 there was a wide range of variation in profitability between the various banking sectors in the euro area. Thus, although the crisis has driven down profits across the board, alongside countries with negative returns (banks in Italy, Ireland and Portugal) there are others with returns of over 0.3% (Sweden, Luxembourg and Finland). In all the euro area's banking sectors, however, profitability in 2011 was well below 2007 levels. Moreover, as the crisis has dragged on, Spanish

[2] This figure differs from that reported by the Bank of Spain in its banking supervision report. as it gives an ROA (ROE) for consolidated banking groups of 0.2% (3%). However, the information for previous years is similar.

Exhibit 1

Return on assets (ROA) of the Spanish and Euro area banking sectors. 2007-2011 (%)



(1) In 2011. Greece is not available. Euro area and EU-15 are weighted averages using total assets as weights.
Source: ECB and author's calculations.

banks' profitability has tended to converge with the European average.

In terms of return on equity (ROE), the profitability of the Spanish banking sector dropped sharply in 2011, falling from 8% in 2010 to just 0.1% in 2011. This drop is explained by the substantial cost of write-downs in 2011, as almost 95% of operating profit (i.e. 46.1 billion euros) was set aside for provisions. This exceeds the already high percentage set aside in 2009 and 2010 (around 65%). Moreover, Spanish banks' interest margins fell in 2011, weighed down by rising borrowing costs (in the context of difficulty accessing the wholesale market), which were almost three times higher than interest income (30.5% *vs.* 12.7%).

Solvency

In late 2011, the Spanish banking sector's total solvency ratio (12.4%) was situated 1.5 percentage points (pp) below the euro area average, although it had narrowed the gap compared to 2010. In terms of Tier 1 capital, the difference with the euro area banking system in 2011 was smaller (0.8 pp) and its level improved by almost 1 pp against the 2010 level and 3 pp against that of 2007. Market pressure, the requirement for higher levels of principal capital (a concept similar to core capital under the new Basel III accords) by the Bank of Spain (which required that the basic solvency ratio be increased to 8% in general, and up to 10% in some cases) and anticipation of the effects of the new Basel III accords explain the increase in quantity and quality of equity capital.

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Thus, in 2011, core capital represented 89.4% of the total, 3.6 percentage points more than in 2010 and 14.4 points more than in 2008.

In comparison with the remainder of the EU-15's banking sectors, as Exhibit 2 shows, the overall solvency ratio of the Spanish banking system in 2011 was low, above only that of Greece, Portugal, Sweden and France. The high solvency levels of Luxembourg, Belgium and Ireland stand out, although the substantial injection of public funds should be borne in mind in the case of Ireland. The ranking is very similar in the case of Tier 1 capital to risk weighted assets, with the Spanish banking system having the fifth-lowest level of solvency of all the EU-15's banking sectors.

Efficiency

The process of root-and-branch restructuring underway in the Spanish banking sector since the approval of the FROB in 2009 has meant tackling the imbalances that built up in the previous expansionary phase. The excess installed capacity that some institutions had accumulated has been partly corrected with a cut in the number of branches and jobs of 14% and 11%, respectively, from their peak values in 2008. Thus, the sector shed 30,000 employees between 2008 and 2011, and cut branches by 6,500 by June 2012. Much of this adjustment is the outcome of the savings banks mergers that have taken place.

The adjustment in installed capacity translated into a reduction in domestic business's operating expenses in 2011, although at a consolidated group level, operating expenses have risen owing to banks with a stronger international presence expanding abroad.

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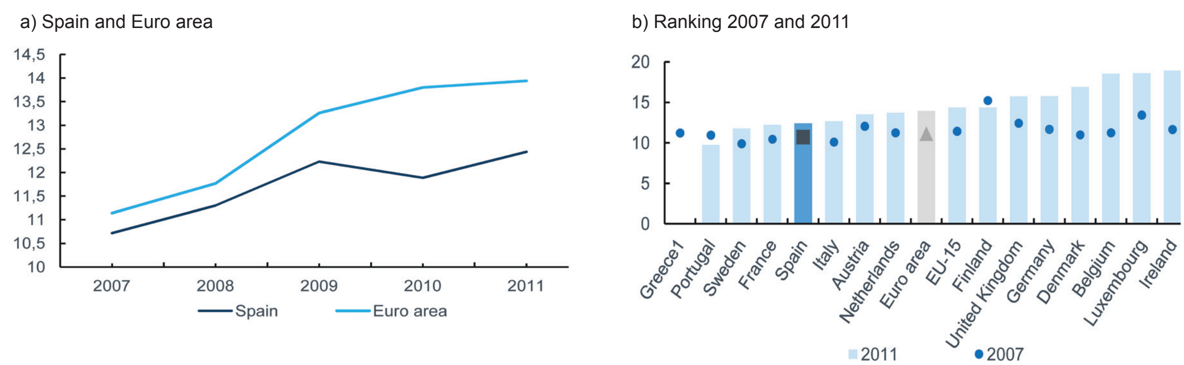
Exhibit 2

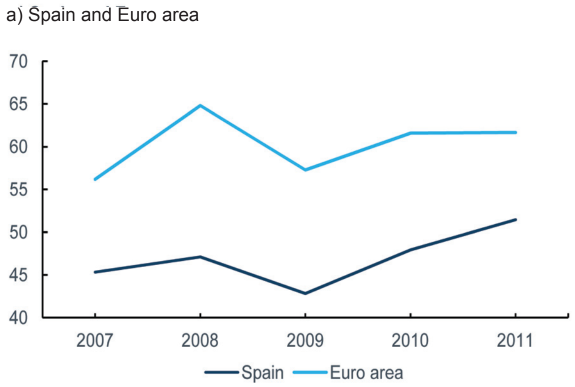
Regulatory capital to risk (overall solvency ratio) of the Spanish and Euro area banking sectors. 2007-2011 (%)

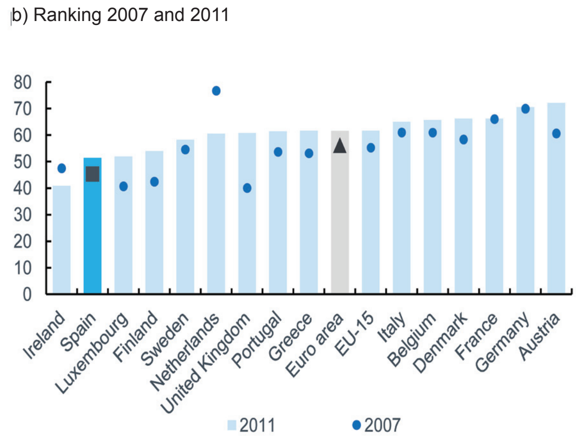


(1) In 2011. Greece is not available. Euro area and EU-15 are weighted averages using total assets as weights.
Source: ECB and author's calculations.

Exhibit 3

Cost to income ratio of the Spanish and Euro area banking sectors. 2007-2011 (%)





(*) Euro area and EU-15 are weighted averages.

Source: ECB and author's calculations..

The sharp drop in operating margin has meant that the correction of part of the existing surplus capacity has yet to bear fruit in terms of improved efficiency. Thus, the Spanish banking sector's cost to income ratio worsened in 2010 and 2011, rising to 51.5% in 2011, six points above its level at the start of the crisis in 2007. Nevertheless, Spanish banks have always stood out internationally for their high levels of efficiency, and continue to do so with an efficiency that is 10 pp higher than the average for euro area banks (51.5% *vs.* 61.6%). Moreover, as Exhibit 3 shows, Spanish banks are the second most efficient in the EU-15, with Austrian and German banks at the bottom of the efficiency rankings.

Asset quality

As well as the sharp drop in profitability levels, one of the facets of the banking business that has been hardest hit by the crisis is asset quality and the consequent need to set aside loss provisions. In the case of Spanish banks' loans to the private sector, which constitute the most important item in their assets by a wide margin, the non-performing loan (NPL) rate has risen exponentially since the onset of the crisis. From a level of just 0.9% in 2007, it had reached 6% by the end of 2011. In the case of business in Spain, the NPL rate is higher still, having reached a historic maximum of 10.7% in September 2012 (the most recent data available at the time this article was written).

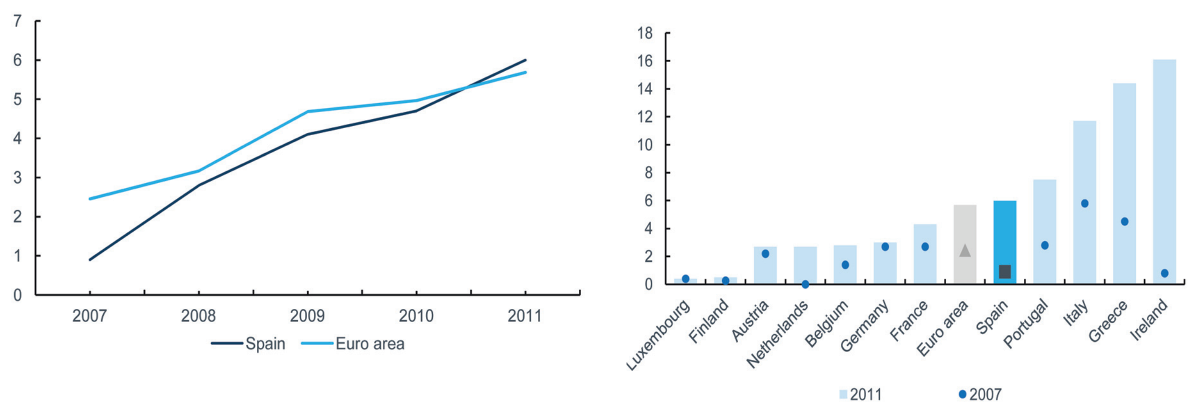
Taking the latest data available for the sample of European banking sectors (December 2011), the Spanish banking sector's NPL rate was 0.4 percentage points higher than the euro area average. At that time (see Exhibit 4), the banking sectors in Ireland (16.1%) and Greece (14.4%) were suffering the highest NPL rates, with rates in Italy (11.7%) and Portugal (7.5%) also above those in Spain. Luxembourg and Finland were at the other end of the scale, with an NPL rate of less than 1%. The banking sectors in Germany (3%) and the United Kingdom (4%) had NPL rates below the European average. The rapid growth of

Exhibit 4

Non-performing loans to total loans ratio of the Spanish and Euro area banking sectors. 2007-2011 (%)

a) Spain and Euro area

b) Ranking 2007 and 2011



(*) Euro area average is a weighted average using total loans as weights.

Source: IMF and author's calculations

The rapid growth of bank credit in the preceding expansionary phase, the excessive concentration of risks in the construction and property development sector and the depth and duration of Spain's recession, are all factors in the rapid increase in non-performing loans banks are experiencing.

bank credit in the preceding expansionary phase, the excessive concentration of risks in the construction and property development sector (in the case of business in Spain, 23% of credit to the private sector at the end of 2011), and the depth and duration of Spain's recession, are all factors in the rapid increase in non-performing loans banks are experiencing.

As mentioned above, the asset write-downs needed to respond to defaults and asset impairment made it necessary to set aside a large share of operating margin to cover provisions. Fortunately, Spanish banks entered the crisis with a strong buffer of provisions, thanks to the Bank of Spain's requirement that they set aside general provisions based on a percentage of normal risk loans. This explains why at the start of the crisis the Spanish banking sector had a high level of doubtful asset coverage, with a coverage ratio that was three times the European average. The increase in defaults since that time caused the subsequent drop in coverage in 2008 to 71%, banks having set aside part of the general provisions to cover non-performing loans. In 2011 the ratio had dropped to 57%, although it was 12 pp higher than the European average.

Liquidity

The final aspect of the financial health of the Spanish banking sector we will examine here in the European context is liquidity. The first indicator of the liquidity problems Spanish banks are currently facing as a result of the closure of wholesale financing markets is their high level of dependence on financing from the Eurosystem. Thus, in October 2012, Spanish banks concentrated

32% of gross Eurosystem lending (a historical high), a percentage well above that of the Spanish banks in the euro area (Spain's capital key in the Eurosystem is 11.8%). This percentage has risen almost uninterruptedly since early 2011, having more than tripled since then.

Another indicator of Spanish banks' liquidity problems is the wide gap between private sector credits and deposits, such that consolidated groups' loans to deposits ratio stood at 128% at the end of 2011. The ratio has dropped from the 143% level reached in 2007, although in 2011 it was up from the 2010 level, demonstrating the difficulty of reducing the liquidity gap.

Strengths and weaknesses of the Spanish banking sector

The most recent aggregate picture of Spanish consolidated banking groups in the European context is offered by financial soundness indicators (summarised in Table 1). These reveal the impact of the crisis on profitability levels, which are currently very low, but similar to the European average. With respect to solvency, although the Spanish banking sector's level is below the European average, credit institutions made a big effort to improve the situation in 2011, increasing their solvency ratio by more than the European average and boosting their core capital as a share of the total.

Regarding efficiency, despite shrinking margins, Spanish banks are still much more efficient than their European peers. In the area of asset quality, the high concentration of risks in the most crisis-stricken sector (property) explains the rapid growth of the NPL rate, to a level currently above the European average. This increase in defaults, in conjunction with the application of stricter regulations on provisions to clean up assets related to the property sector, explains the sharp drop in profits in 2011, a year in which credit institutions set aside almost 95% of their operating profits to write down impaired assets. The narrowing of interest margins and the decline in the volume of business have also had a negative impact on profits.

One of the Spanish banking sector's most significant vulnerabilities is its excessive dependence on ECB liquidity. The closure of wholesale financing markets in the wake of the sovereign debt crisis has forced Spanish banks to meet their debt repayments by turning to ECB financing on a massive scale, accounting for a peak of 32% of total Eurosystem financing, In recent years the Spanish banking sector has reduced the credit/deposit liquidity gap, although it still remains high. For this reason, it is essential to enable the banking system to return to the markets and to increase the deposit base. Otherwise there will be an abrupt deleveraging, which could undermine the economic recovery.

The forecast macroeconomic scenario is another factor putting a strain on the Spanish banking system in the immediate future. Analysts' forecasts for 2013 indicate a drop in GDP of around 1.5%, which could have an impact in terms of an increase in the NPL rate. If we add low interest rates to this crisis scenario, which have a negative impact on banking margins, and the process of deleveraging about to take place (with a drop in the credit/GDP ratio), the banks are facing a situation that is extremely complicated, and in which cost savings and efficiency gains are fundamental to overcoming the crisis.

Warning: Disaggregation matters

A warning needs to be given about the image of the sector offered by the aggregate data, as it can mask huge differences across institutions. As the IMF recognizes in its latest report on the Spanish financial sector, there is a high degree of variation in the health of Spanish financial institutions across the sector. It therefore classifies them into four different groups according to the recapitalisation they need in order to pass the stress tests. This message is reinforced and confirmed by the latest institution-level stress tests (a bottom-up analysis)

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Table 1

Financial soundness indicators for the Spanish and Euro area banking sectors (%). Consolidated banking groups

SPAIN	2007	2008	2009	2010	2011
Profitability					
ROA	1.03	0.70	0.54	0.47	0.01
ROE	21.29	12.20	8.87	8.04	0.09
Interest margen (% of total assets)	1.56	1.60	1.96	1.79	1.69
Operating profit (% of total assets)	1.56	1.40	1.71	1.43	1.25
Solvency					
Tier 1 capital to risk weighted assets	7.64	8.10	9.33	9.65	10.59
Regulatory capital to risk (overall solvency ratio)	10.72	11.30	12.23	11.89	12.44
Efficiency					
Operating expenses (% total assets)	1.28	1.20	1.29	1.32	1.33
Cost to income ratio	45.31	47.10	42.82	47.92	51.45
Asset quality					
Non-performing loans to total loans	0.90	2.80	4.10	4.70	6.00
Total loss provisions per Total (gross) doubtful and non-performing loans	-	71.40	60.80	65.82	57.31
Provisions and impairments to operating profit	-	58.94	66.59	65.14	94.62
Liquidity					
Loans to deposit ratio (private sector)	142.90	136.70	129.30	125.20	128.00
EURO AREA	**2007**	**2008**	**2009**	**2010**	**2011**
Profitability					
ROA	0.53	-0.03	0.09	0.16	0.02
ROE	13.00	-2.98	0.93	2.83	1.13
Interest margen (% of total assets)	1.04	1.10	1.33	1.29	1.25
Operating profit (% of total assets)	0.80	0.51	0.87	0.79	0.75
Solvency					
Tier 1 capital to risk weighted assets	8.67	8.81	10.34	11.01	11.42
Regulatory capital to risk (overall solvency ratio)	11.14	11.77	13.26	13.80	13.94
Efficiency					
Operating expenses (% total assets)	1.26	1.19	1.31	1.30	1.30
Cost to income ratio	56.17	64.81	57.28	61.60	61.65
Asset quality					
Non-performing loans to total loans	2.45	3.17	4.68	4.96	5.69
Total loss provisions per Total (gross) doubtful and non-performing loans[1]	-	48.41	59.01	44.73	45.43
Provisions and impairments to operating profit	-	114.26	85.45	63.83	101.18

[1] Euro area data doesn't include Finland. Ireland and Luxembourg.

Euro area data are calculated as weighted averages.

Source: ECB, IMF, Bank of Spain and own elaboration.

The upside is that two thirds of the Spanish banking system does not show signs of vulnerability, as banks have a level of solvency sufficient to confront an adverse scenario, the likelihood of which is slight.

carried out by the independent consultant at Oliver Wyman. Their findings, published in September 2012, reveal that the system's capital needs are concentrated primarily in the four nationalised banking groups. Together, these account for 86% of total capital needs. Conversely, the seven groups that passed the test, comprising the biggest institutions, account for 62% of the loan portfolio analysed, and consequently the lion's share of the sector. The upside is that two thirds of the Spanish banking system does not show signs of vulnerability, as banks have a level of solvency sufficient to confront an adverse scenario (accumulated drop in real GDP of 6.5% from 2012 to 2014), the likelihood of which is slight (the estimated probability of occurrence is less than 1%). Moreover, some of these institutions have a business that is highly diversified internationally, providing them with an adequate buffer of capital and profits to offset the weaker performance of their domestic business.