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Banking Outlook

FEBRUARY 2018 | FINANCIAL SYSTEMS UNIT

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Contents

Closing date: 13 February 2018

Summary

1. Trends and developments in the Spanish banking sector

While the deleveraging of the banking system appears to be nearing its end, the number of employees and branches in the sector continues to fall. Solvency and asset quality have further improved. In terms of the system's results, income remains somewhat weak affected by current interest rates and spending is controlled, but the sector is feeling the impact of the Banco Popular resolution. As a result, the system has posted losses of 4.97 billion euros in the first nine months of 2017 (profits of 8.29 billion over the same period in 2016).

2. Monetary policy and bank profitability: a new paradigm

Monetary policy has established a major role for itself in the recent international crisis; however, it has also had worrying secondary effects, such as the pressure it has placed on bank profitability. The Spanish banking system should be among those most favoured by the withdrawal of the stimulus measures. Looking ahead, the central banks will take a more prominent role as an intermediary in interbank flows and the experience of the crisis will affect the sector's business models.

3. An increase in the use of bank cards and e-commerce in Spain

Growth in Internet purchases is driving the use of credit cards as a payment method. In 2017, 57% of BBVA customers that own a credit or debit card bought products on the Internet using them, with online purchases currently accounting for around 17% of the total spending volume in Spain. The usage pattern of the digital channel for making purchases follows the usual dynamic for the adoption of new technologies: the young are the first to take up innovative practices. In this regard, 25% of spending by those under 26 is done online, while spending by those over 55 does not exceed 10%.

4. Transition to IFRS 9: Impact on forbearance practices

Forbearance aims at reducing the financial burden of borrowers that undergo temporary difficulties and plays a crucial role in client protection and in credit risk management. Forbearance measures were widely applied during the crisis, sometimes heterogeneously until new rules have harmonised their treatment. These rules aimed at improving transparency and avoiding bad practices, which could lead to a misrepresentation of the solvency and profitability of banks. On the other hand, higher provisioning requirements and stricter conditions for the cure of forborne exposures may negatively impact some viable but temporarily stressed borrowers.

1. Trends and developments in the Spanish banking sector

The tables and data are to be found in the appendices to this document. The majority of the data come from Chapter 4 of the Banco de España Statistical Bulletin. The analysis of the Spanish banking sector is confined to banking business in Spain (see footnote on page[1]).

Results of the sector

- The most significant feature of the results for the sector (table 2) is the resolution and sell-off of Banco Popular in June 2017, which had a highly significant impact on the results for the system in the first half of the year. This impact will continue to affect the profit and loss account of the sector during the remainder of 2017. As is well known, Banco Popular posted post-tax losses of 12.128 billion euros in the second quarter of 2017.

- Taking this into account, the Spanish banking system posted losses of 4.97 billion euros in the first nine months of 2017, compared to a profit of 8.289 billion euros for the same period in 2016.

- Income remains weak in the current rate environment. The financial margin was down 2.9% y/y in the first nine months of 2017, in line with the continued fall-off in business volumes and low interest rates, while gains on financial transactions continued their downward trend with a drop of 22% y/y. The healthy performance of commissions (+8.1% y/y) has not proved enough to counteract earlier decreases, hence the 5.8% y/y contraction in the total income in the first nine months.

- Operating costs continue to remain under control, although they have increased slightly over the first nine months of the year (+1.2% y/y), due in particular to the increase of almost 5% in general costs (partly due to the costs of folding Banco Popular into the Santander Group), given that personnel costs have fallen by 2.0%. The system's cost-income ratio fell slightly to 57.7% in September 2017, and net profit fell by 14% year-on-year.

- The impact of the resolution of Banco Popular was noted particularly towards the bottom of the profit and loss account. Provisions grew by 42% y/y in the first nine months of 2017 and "other results" multiplied their negative balance by four. The following impacts of the Banco Popular resolution were posted for these entries: 1) Losses of 7.8 billion euros on write-downs of real estate assets; 2) non-monetizable fiscal assets of 982 million; 3) 1.137 billion of adjustments for goodwill; and 4) an adjustment of 400 million in the portfolios of Banco Popular maturity bonds.

- Lastly, the sector recorded pre-tax losses of 3.13 billion euros and 4.97 billion post-tax over the first nine months of 2017.

1: Throughout the document, "€ billion" refers to thousands of millions of euros.

Activity

- Using data from December 2017, the balance sheet for the system (table 1) was in the region of 231% of GDP (237% in 2016). The number of employees and banking offices in the system has continued to fall (-30% and -40% respectively from the highs of 2008).

- On the assets side, credit for private-sector residents continued to decrease in year-on-year terms (this topic is analysed in greater detail below), as has the volume of fixed income portfolios. On the other hand, there was an increase in loans to non-residents, variable income holdings and, in particular, interbank lending (+44% in respect of accounts posted for December 2016).

- On the liabilities side, we have seen an increase in the volume of debt issued by institutions, in line with the recent growth in the funding gap (loans minus deposits). Sight and fixed-term deposits fell by 1.2% y/y overall in December 2017, demonstrating the improved stability of these items (table 6). A further quarter confirms the transfer of term deposits to current accounts and sight deposits on account of the former's low return due to current interest rates. The ECB call for liquidity maintained its course of recent quarters, with a year-on-year increase of 22% at the end of 2017. Capital (table 1) increased because of the restructuring operations conducted during the year. The cumulative volume on the balance sheet was 30% higher than at the beginning of the crisis (+€55 bn).

Spotlight on lending and NPLs

- In table 4 we can see that total lending to the private sector (ORS lending, Other Resident Sectors) has continued its downward trend with a drop of 1.8%, recording falls in both loans to families (-1.3%) and businesses (-2.8%). That said, portfolios showed an increase in consumer credit and other purposes separate from lending for house purchases (+4.1%), while lending to productive activities unrelated to construction or real estate development remained stable in year-on-year terms for the first time since the crisis began. These figures indicate that the deleveraging of the Spanish economy could be coming to an end (total ORS lending has fallen by 33%, or €616 bn, since the beginning of the crisis).

- Systemic delinquency rates continue to decline at a healthy rate. Using data from December 2017, the total default volume was €98 bn, down 1% compared with twelve months previous, with a very significant drop in business lending default (-20% y/y), while household lending default increased slightly for credit lines without a mortgage guarantee. From the default highs of 2013, the total volume of bad debts has fallen by 51% (-€100 bn). As a result, despite the drop in the volume of credit, the NPL ratio fell to 7,8% in December.

- The production of new credit (table 5) shows some notable performance across all portfolios by the close of 2017, including that of large corporations which registered substantial declines in the past. The total volume of new credit transactions, accumulated in the year, increased by 5.6%. In portfolio terms, loans to SMEs and households for consumption and other purposes increased by over 13% and 11% respectively.

Main ratios

- The efficiency and profitability of the system in the first nine months of 2017 were suffering the effects of the resolution of Banco Popular. The cost-income ratio dropped to 57.7% and the volume of operating costs as a percentage of total average assets stood at 1.0% for the first time since 2007 (figure 6, appendix 1). For their part, ROE and ROA were mired in the negative (figure 5, appendix 1). It was reasonable to suppose that these levels would remain during the remainder of 2017.

- The volume of capital and reserves on the balance sheet continued to grow, accounting for 8.8% of the balance sheet in December 2017 (figure 3, appendix 1), and own funds as shown on the balance sheet more than doubled the system's NPL volume (figure 2, appendix 1).

- There has been no issue to date with system liquidity, despite the increase in the funding gap since mid-2017 (figure 4, appendix 1). However, the funding gap remained at €111 bn, 4.2% of the balance sheet, at some considerable distance from the high-point in the historic series reached in 2007 (€714 bn, which implies a decrease of €603 bn).

- Provisions increased intermittently after the second quarter of 2017 due to the Banco Popular operation. The “provisioning effort” (additions to provisions / net margin) and “cost of risk” (net additions to provisions / average total lending) increased compared to previous quarters (Figure 1, Appendix 1).

International comparison

Comparing developments in the Spanish banking system with the average of EU banks (Appendix 2), the following are the main conclusions of the analysis of the data from the “Risk Dashboard” of the European Banking Authority (EBA), which show the average of 158 of the main EU banking institutions. The latest data available is from June 2017. The general trend was the same as in previous quarters:

- The Spanish banks had more own funds on their balance sheet (figure 1, appendix 2) and were more efficient than their European competitors (figure 5, appendix 2).

- Nonetheless, their delinquency rate was higher (figure 2, appendix 2), despite the continued drop in NPL volume, and profitability remained negative for the specific issues commented on above (figure 4, appendix 2).

- As for balance sheet clean-ups, the efforts made by Spanish banks in 2012 and 2013 (Figure 3, Appendix 2) were necessary to show the fair value of the banks' assets and to bring them into line with their European competitors. Accordingly, the default coverage using specific provisions surpassed the European average in 2014 and fell below it in 2017 due to the effects of the Banco Popular operation.

2. Monetary policy and bank profitability: a new paradigm

Monetary policy took centre stage in the recent international crisis – as a weapon against stagnation and deflation, as an instrument for re-establishing financial stability and, in the case of the euro zone, as a crucial tool for combating the financial fragmentation that at one stage threatened the very survival of the euro.

There was a certain feeling that monetary policy was the only instrument available, given the restricted room for manoeuvre of fiscal policy, the tightening of microprudential policies and the lack of experience with macroprudential ones.

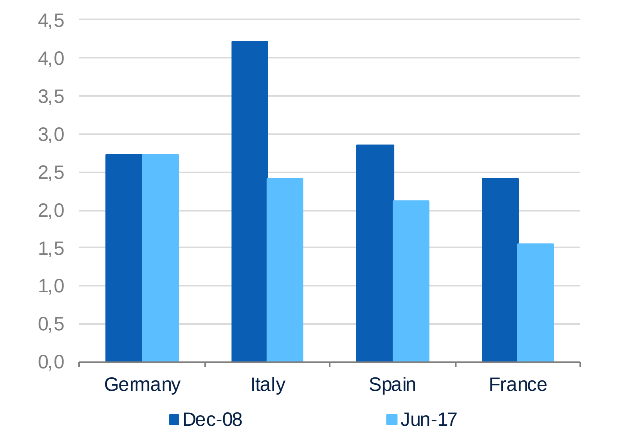
The results have generally been successful: a deeper crisis was averted and the foundations were laid for a recovery that is being consolidated. However, these extraordinary measures had some worrying side effects. In particular, negative interest rates and flat or downward-sloping yield curves brought great pressure to bear on bank profitability. In Europe, bank profitability is now below the cost of capital, which is the profitability demanded by the markets, leading to an unsustainable situation. There are fears in some quarters that if they continue for too long, the negative side effects of these policies will end up outweighing their beneficial effects, like a medicine that is over-prescribed.

In the United States, the process of withdrawing the stimulus measures is fairly well advanced; in Europe it is only just beginning, and its impact on the different countries will not be evenly spread. In particular, banks or banking systems with relatively high proportions of floating rate loans, those with high proportions of retail deposits, and those in which funding is less dependent on their governments and that hold lower levels of public debt will benefit most. Taking all these factors together, the Spanish banking system should be among those most favoured by the withdrawal of the stimulus measures, just as it was among those most harmed by their introduction.

The withdrawal of stimulus measures entails a risk of the return of financial fragmentation in the euro zone, since euro zone banks will find themselves obliged to walk without the crutch of the ECB's cheap and abundant liquidity. This risk requires monetary policy to change gradually and be appropriately communicated; it also requires the Banking Union to be completed with a single deposit guarantee fund and back-up for the Resolution Fund.

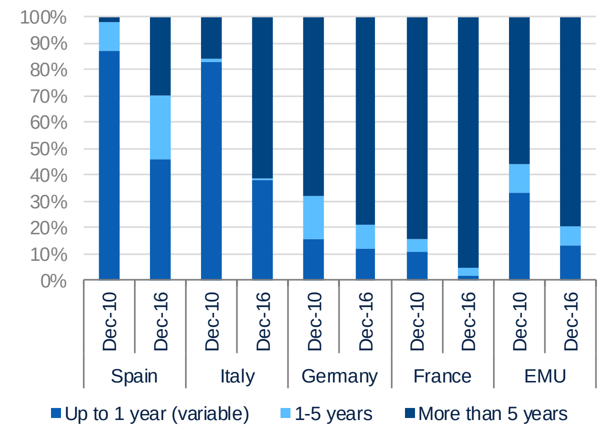
In any case, we ought not to lose sight of the fact that the role played by monetary policy during this crisis has remained an anomaly. The exit from these policies must be supported by other measures (fiscal policies and structural reforms), given that monetary policy by itself cannot at the same time guarantee the stability of prices and financial stability in all countries.

Figure.2.1 Spread between lending and deposit interest rates (%)



Source: BBVA Research based on ECB

Figure 2.2 New housing loan transactions for the initial period when setting an interest rate (% Total)



Source: ECB

Once the stimulus measures have been withdrawn, the banks' reactions to monetary policy will not be the same as they were before the crisis, for two reasons:

Firstly, without collateral, the interbank markets are unlikely to function as smoothly as they did before the crisis. The central banks will play a bigger part in the intermediation of interbank flows, so banks will be more dependent on monetary policy decisions, which will more directly affect the terms or amounts of available financing.

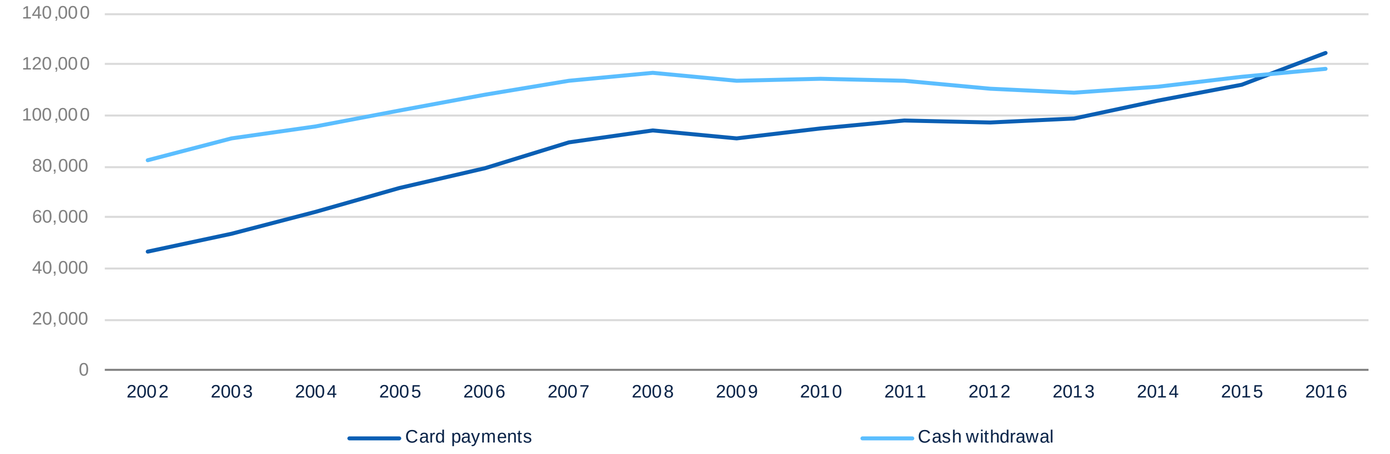
Secondly, the experience of having used monetary policy tools that had a significant impact on bank profitability will have repercussions for the banks' strategies and business models. For example, we now know that short-term interest rates can be negative for extended periods, and this will affect the strategy for granting loans at fixed or floating rates.

We must not lose sight of the fact that in the future we will continue to feel the effects of other far-reaching changes, such as stricter banking regulations (as the reforms approved in the past few years are implemented), the digital transformation of banking, and competition from new intermediaries with powerful technological bases. Although prima facie the re-establishment of more normal monetary conditions must be positive for the sector, in that it reflects the improvement in the economic situation, its final impact will depend on its interaction with a complex set of factors. After discontinuing over-prescribed medication, recovery will depend firstly on the patient's inherent health and secondly on his (or her) environment.

3. An increase in the use of bank cards and e-commerce in Spain

Growth in the use of payment methods in Spain could be undergoing a short-term structural change. As can be seen in Figure 1, both cash withdrawals and the use of bank cards experienced a significant increase in the years prior to the crisis, with a slow, steady convergence being reported. With consumption tailing off after 2008, cash use diminished slightly, while at the same time the moderate use of cards was growing. Over time, this growth has approached the usage volumes of all other payment methods. Since 2013, with the gradual exit from the crisis, growth in the use of bank cards has been significantly higher than that of cash, so that in 2016, for the first time, transactions paid by card (€124.4 billion) surpassed the volume of cash withdrawn from ATMs (€118.3 billion). It seems worth asking whether this change in the use of cards and cash is circumstantial or if, on the contrary, it will become permanent and increasingly divergent over time.

Figure 3.1 Payment methods in Spain (millions of Euros)



Source: Banco de España

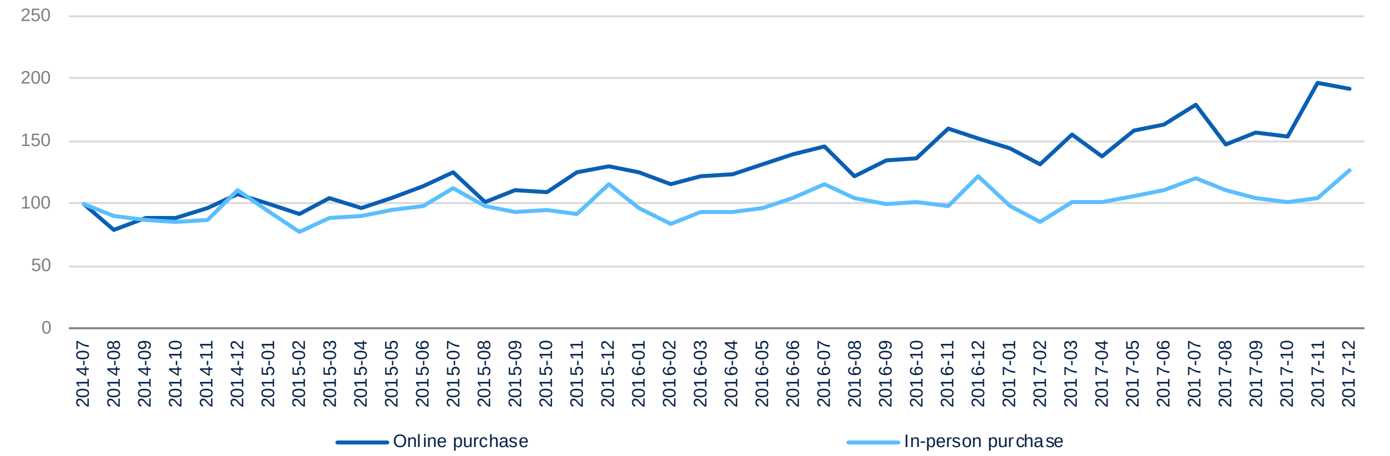
Different factors may exist to explain the greater use of credit cards. On the one hand, we can see a significant increase in the the number of POSs available for payments to businesses. While the number of ATMs grew by 11% between 2000 and 2016, during the same period, the number of POSs increased by 108% (Banco de España, 2018). This increase in the availability of POSs could have come in response to a change in consumer preferences when it comes to choosing the payment method used and in their lower cost for businesses. Here, we will focus on analysing one possible facet of this change in preferences, and more specifically the relationship between the increased use of cards and the recent boom in e-commerce.

Firstly, it should be noted that the payment methods used in e-commerce are largely electronic. According to ONTSI (2017), in 2016 credit/debit cards were the preferred method of payment for users when it came to paying for an Internet purchase using a virtual POS (67%), followed by PayPal (28.1%) and cash on delivery (cash) (7.8%).

During the period under observation, e-commerce has undergone significant growth in Spain. The percentage of BBVA customers who have made purchases over the Internet has increased without interruption, topping 57% at the end of 2017. In fact, online purchases have gone from 10% of the total volume of card purchases made by BBVA clients in 2014 to 17% today.

Part of the increase in the relative significance of e-commerce is due to the substantial growth in Internet consumption per head. As illustrated by Figure 2, monthly online spending per customer has increased by more than 91.5% since July 2014. In comparison, over the same period, card consumption at physical businesses has increased by 25%.

Figure 3.2 Monthly per capita spending using cards, BBVA clients (July of 2014=100)



Source: BBVA Research

In addition, we can see that using digital channels for making purchases follows the normal pattern for the adoption of new technologies. The youngest age groups take up innovations before the older population cohorts. The number of online transactions and their portion of total expenditure tail off in age groups above the 25–35 year group. Whereas, in this group, men and women carried out 27.2 and 21.5 transactions online per capita per year respectively, the over-56 age group barely made 12.1 and 7.9 transactions per capita, respectively (see Table 1). The weighting of purchases made over the Internet also decreases with age, in this case, starting with the under-25 group. With younger males, Internet purchases make up 29% of their spending, while in the over-56 group, they barely account for 9%. A similar pattern is seen with women.

Table 3.1 Internet purchases using a bank card among BBVA customers by user age and gender in 2017

	Women				Men			
Age	Yearly expenditure per capita	Transactions per capita	Average amount	E-commerce weighting	Yearly expenditure per capita	Transactions per capita	Average amount	E-commerce weighting
<=25	688,95	17.64	39.06	23%	906.05	22.79	39.76	29%
26-35	1,007.19	21.51	46.82	19%	1,346.92	27,24	49.45	23%
36-45	969.32	19.09	50.77	15%	1,304.01	23.97	54.41	18%
46-55	794.15	14.46	54.93	11%	1,117.29	18.68	59.80	15%
>=56	561.02	9.52	58.91	6%	791.07	12.15	65.09	9%
Total	**841.05**	**16.82**	**49.99**	**15%**	**1,131.08**	**21.00**	**53.80**	**16%**

Source: BBVA Research

The use of Paypal as an e-commerce payment method displays an age-determined usage structure similar to the one seen for bank card payments. The population groups making the greatest use of this payment platform are aged between 25 and 34, 38% of users in this group, while the over-65's only use it in 12.5 % of cases (see ONTSI, 2017[2]).

Structurally speaking, the demographic growth dynamic reinforces the effect of the increase in e-commerce, given that the more senior age groups, who use e-commerce less, are being replaced by younger generations, who use it more. This changeover in the overall consumer pattern towards the e-commerce channel seems that it will be a factor that is going to accelerate the use of bank cards rather than cash, since this channel barely makes any use of cash as a method of payment.

2: National Observatory for Telecommunications and Information Society Technologies (ONTSI) (2017): "E-Commerce Study B2C (2016)", Ministry of Energy, Tourism and the Digital Agenda. Available at:
http://www.ontsi.red.es/ontsi/sites/ontsi/files/Informe%20B2C%202016.%20Edici%C3%B3n%202017.pdf)

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4. Transition to IFRS 9: Impact on forbearance practices

Forbearance consists in the renegotiation or relaxation of the terms of a loan (or a group of loans) to allow a troubled borrower to recover from temporary financial difficulties. As an alternative to foreclosure or insolvency, forbearance enables the lender to avoid resolution actions that imply selling collateral at a depressed price and losing the long term client relationship. Therefore, forbearance practices play a crucial role in client protection and in credit risk management. Supervisory authorities encourage forbearance but they expect banks to implement well-defined forbearance policies aligned with the concept of viability and to recognise, in a timely manner, non-viable borrowers.

In the run up to the crisis and under a positive economic environment, few customers had difficulties to repay their loans. In this context, forbearance was marginal and was not regulated at European level and only partially in some countries. With the outbreak of the crisis, more and more borrowers entered into difficulties and forbearing them became more widespread. Banks had an incentive to forbear even non-viable borrowers to delay the recognition of impairment losses. This may have avoided necessary actions to tackle asset quality issues and led to a misrepresentation of doubtful exposures on the balance sheet of some banks and of their solvency and profitability.

European authorities reacted by imposing increasing transparency requirements on forbearance, and regulating and harmonizing the treatment of forborne exposures, including within the context of the Expected-Credit Loss (ECL) approach under the new accounting rules (IFRS 9). Increased transparency since 2014 has improved the understanding of the use of forbearance across EU banks.

According to the EBA, European banks had over €550 billion forborne exposures in June 2017, representing 4.0% of their total exposures. Forborne exposures concentrate in a few countries: in Spanish banks, they represent almost 24% of the total and, in Italian banks, 14%. Large forborne exposures are also observed in Greece, Germany, the UK, France and the Netherlands (between 5% and 10% of the total).

In relative terms, peripheral Euro area countries tend to present larger forborne exposures (7.1% for households and 10.5% for non-financial corporations, on average) than core Euro area countries and non-Euro area countries (below 3% for households and below 6% for non-financial corporations). Some Eastern European countries (Bulgaria, Hungary and Romania) appear also with relatively high levels of forborne exposures.

In terms of evolution, forborne exposures present a decreasing trend, supported mainly on the economic recovery. However, we can also observe a few countries with increasing forborne exposures like Italy, Latvia, Portugal and Cyprus.

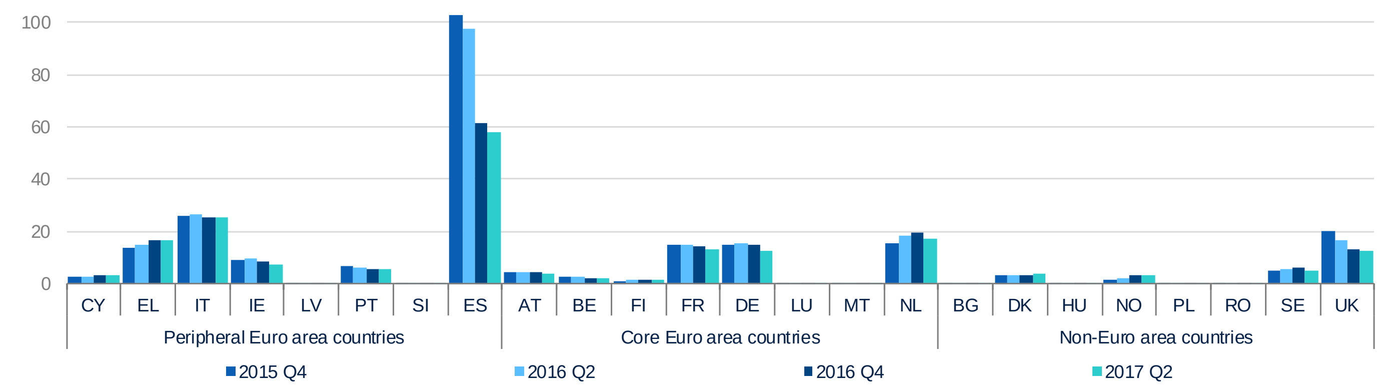
Up to 40% of non-performing forborne exposures to non-financial corporations are covered with provisions. The coverage for exposures to households is lower (about 30% of the exposures), because of the importance of mortgage loans and the corresponding collateral. Given the lower risk of performing exposures and the lower loss allowance requirements in the old accounting framework, their coverage ratio was also much lower: about 4% for the EU average. With the entry into force of IFRS 9 and the ECL approach, forborne exposures are subject to higher provisioning requirements particularly when they are performing.

The conditions for a forborne exposure to be promoted from a non-performing to a performing status and to exit the forbearance status were also regulated recently by the EBA. They involve completing a probationary period of 2 and 1 years, respectively, and complying with strict conditions about the performance of the creditors.

Given the special features of forbearance, an observation period to assess the quality of the exposure seems necessary. However, making it compulsory for two years without taking into account the specific credit profile of each creditor could be considered too long or too severe for borrowers with high credit quality but temporary financial problems. Banks may be reluctant to grant forbearance to those borrowers in order to avoid the costs of the corresponding provisioning requirements.

Given the increase in provisioning requirements and the strict cure conditions, the new accounting rules may influence some strategic banking decisions including NPL management. Anecdotal evidence from Spain supports that idea. An abrupt fall in forbearance can be observed in Spanish banks in the second half of 2016, when the Circular 4/2016 entered into force (Figure 1). Given the previous trends and the evolution observed in other countries, it seems that Spanish banks made a great effort to reclassify forborne exposures before the entry into force of the rule to avoid, at least partially, its potential negative impacts. It is difficult to assess how much of this reduction corresponds to unsound forbearance practice and how much went in detriment of viable but stressed borrowers. In any case, it cannot be discarded similar effects to have occurred in other countries with the entry into force of IFRS 9 last January.

Figure 4.1 Performing forborne exposures, € billion



Notes: Exposures include exposures to households and non-financial corporations.
Source: EBA and BBVA Research

Appendix 1: Main indicators for monitoring the Spanish banking system

Table A.1 Summary Balance of the banking system. € bn and % variation

									Growth rate		
Assets	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**Date**	**00-'08**	**08 - latest**	**y-on-y**
Total lending	2,106	1,951	1,716	1,651	1,603	1,556	1,532	Dec-17	217%	-29.6%	-1.5%
Public corporations	*90*	*114*	*87*	*101*	*90*	*88*	*78*	*Dec-17*	*69%*	*47.6%*	*-11.7%*
Domestic resident sector	*1,783*	*1,605*	*1,448*	*1,380*	*1,327*	*1,276*	*1,254*	*Dec-17*	*234%*	*-32.9%*	*-1.7%*
Non residents	*234*	*232*	*180*	*169*	*186*	*191*	*200*	*Dec-17*	*164%*	*-21.2%*	*4.5%*
Fixed income securities and equity stakes	656	766	773	754	662	610	589	Dec-17	132%	18.4%	-3.4%
Fixed income securities	*406*	*509*	*493*	*492*	*415*	*366*	*330*	*Dec-17*	*135%*	*1.2%*	*-9.9%*
Of which: sovereign debt	*198*	*247*	*264*	*288*	*251*	*225*	*206*	*Dec-17*	*6%*	*105%*	*-8.6%*
Equity	*251*	*258*	*280*	*262*	*246*	*244*	*260*	*Dec-17*	*128%*	*51.0%*	*6.5%*
Interbank lending	251	279	211	155	164	163	235	Dec-17	81%	-10.8%	43.9%
Other assets (net of interbank lending/deposits)	387	426	326	354	331	319	297	Dec-17	230%	3.5%	-6.8%
Total assets	**3,400**	**3,423**	**3,026**	**2,913**	**2,760**	**2,647**	**2,653**	**Dec-17**	**184%**	**-17.7%**	**0.2%**
Liabilities and Shareholders' Equity											
Customer deposits	1,934	1,725	1,684	1,686	1,637	1,578	1,540	Dec-17	169%	-23.5%	-2.5%
Public corporations	*70*	*69*	*63*	*76*	*77*	*54*	*62*	*Dec-17*	*263%*	*-18.8%*	*13.5%*
Domestic resident sector	*1,373*	*1,317*	*1,314*	*1,289*	*1,261*	*1,243*	*1,203*	*Dec-17*	*192%*	*-16.0%*	*-3.2%*
Non residents	*492*	*339*	*306*	*320*	*299*	*281*	*275*	*Dec-17*	*113%*	*-45.5%*	*-2.3%*
Interbank deposits	373	573	381	312	303	288	327	Dec-17	95%	4.0%	13.6%
Pro memoria: net interbank position	*122*	*294*	*171*	*157*	*139*	*125*	*93*	*Dec-17*	*215%*	*78.8%*	*-25.9%*
Debt issued	435	394	297	249	225	201	222	Dec-17	625%	-43.7%	10.8%
Other liabilities	439	535	430	436	368	352	331	Dec-17	253%	3.5%	-6.0%
Shareholders' equity	220	195	233	230	227	227	232	Dec-17	134%	28.7%	2.2%
Pro memoria: ECB funding	*132*	*357*	*207*	*142*	*133*	*140*	*171*	*Dec-17*	*566%*	*83.8%*	*21.9%*
Total Liabilities and Shareholders' Equity	**3,400**	**3,423**	**3,026**	**2,913**	**2,760**	**2,647**	**2,653**	**Dec-17**	**184%**	**-17.7%**	**0.2%**

Source: Banco de España Statistical Bulletin

Table A.2 Summarized balance sheet of the banking system. Cumulative annual earnings € mn and % change

	2011	2012	2013	2014	2015	2016	2017	Date	Growth rate 00-'08	Growth rate 08-latest	Growth rate y-on-y
Net interest revenue	29,565	32,739	26,816	27,118	26,410	24,296	17,660	Sep-17	92%	-33.0%	-2.9%
Net fees and commissions	11,750	11,275	10,931	11,257	11,237	11,059	8,868	Sep-17	79%	-9.2%	8.1%
Trading gains and other revenue	15,811	15,493	17,797	17,043	13,885	13,085	7,983	Sep-17	276%	-41.5%	-22.2%
Total revenue	**57,126**	**59,507**	**55,544**	**55,418**	**51,532**	**48,440**	**34,511**	**Sep-17**	**118%**	**-30.7%**	**-5.8%**
Operating expenses	-28,464	-26,951	-26,798	-26,116	-26,261	-26,388	-19,902	Sep-17	54%	-10.1%	1.2%
Personnel expenses	-16,889	-15,587	-15,108	-14,329	-14,182	-13,943	-10,224	Sep-17	54%	-23.8%	-2.0%
Other operating expenses	-11,574	-11,364	-11,690	-11,787	-12,079	-12,445	-9,677	Sep-17	54%	11.2%	4.7%
Pre-provision profit	**28,662**	**32,556**	**28,746**	**29,302**	**25,271**	**22,052**	**14,609**	**Sep-17**	**226%**	**-47.2%**	**-14.0%**
Loan-loss provisions	-22,668	-82,547	-21,800	-14,500	-10,699	-8,342	-7,459	Sep-17	620%	-34.8%	41.8%
Other income, net	-23,430	-37,142	-2,789	-1,739	-3,819	-6,993	-10,285	Sep-17	-299%	1005.5%	304.0%
Profit before taxes	-17,436	-87,133	4,156	13,063	10,753	6,717	-3,134	Sep-17	108%	-120.5%	-134.2%
Net attributable income	**-14,717**	**-73,706**	**8,790**	**11,343**	**9,312**	**6,078**	**-4,970**	**Sep-17**	**122%**	**-136.0%**	**-160.0%**

Source: Statistical Bulletin of the Bank of Spain

Table A.3 Relative size and resources %, number and % variation of the banking system

	2011	2012	2013	2014	2015	2016	2017	Date	Growth rate 00-'08	Growth rate 08-latest	Growth rate y-on-y
Lending to the private sector / GDP	166%	152%	139%	133%	123%	115%	109%	Dec-17	94%	-34.9%	-10.9%
Private sector deposits / GDP	128%	125%	126%	124%	117%	112%	105%	Dec-17	69%	-18.5%	-12.2%
Number of employees	248,093	236,504	217,878	208,291	202,954	194,283	n.a.	Dec-16	14%	-30.2%	-4.3%
Number of branches	40,202	38,237	33,786	32,073	31,155	28,959	27,882	Sep-17	17%	-39.6%	-5.9%

Source: Statistical Bulletin of the Bank of Spain

Table A.4 ORS credit breakdown, defaults and non-performing asset ratios by portfolio. € bn and % variation

									Growth rate		
Lending volume	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**Date**	**00-'08**	**08 - latest**	**y-on-y**
Loans to households	**793**	**756**	**715**	**690**	**663**	**652**	**647**	**Sep-17**	**236%**	**-21.1%**	**-1.3%**
Of which:											
Housing loans	627	605	581	558	531	517	507	Sep-17	270%	-19.1%	-2.7%
Other loans to households	167	151	134	132	132	136	139	Sep-17	159%	-27.7%	4.1%
Lending to corporates and SMEs	**971**	**830**	**719**	**674**	**644**	**605**	**588**	**Sep-17**	**237%**	**-42.2%**	**-2.8%**
Of which:											
Lending to real estate	397	300	237	200	179	161	148	Sep-17	517%	-68.6%	-10.1%
Other lending to corporates and SMEs	574	530	482	474	465	444	440	Sep-17	142%	-19.6%	0.0%
Total lending to domestic private sector *	**1,783**	**1,605**	**1,448**	**1,380**	**1,327**	**1,276**	**1,254**	**Dec-17**	**234%**	**-32.9%**	**-1.7%**
Non-performing loans											
Loans to households	**28.7**	**37.0**	**49.4**	**46.8**	**37.0**	**35.7**	**35.5**	**Sep-17**	**1062%**	**46.0%**	**2.4%**
Of which:											
Housing loans	18.2	24.0	34.6	32.6	25.5	24.1	23.6	Sep-17	1878%	59.3%	-1.7%
Other loans to households	10.5	13.0	14.8	14.1	11.4	11.6	11.9	Sep-17	607%	25.2%	11.5%
Lending to corporates and SMEs	**109.9**	**128.4**	**146.1**	**124.6**	**94.2**	**79.2**	**65.5**	**Sep-17**	**818%**	**75.6%**	**-19.9%**
Of which:											
Lending to real estate	81.9	84.8	87.8	70.7	50.4	42.4	31.3	Sep-17	2790%	16.3%	-28.2%
Other lending to corporates and SMEs	28.0	43.6	58.2	53.9	43.7	36.8	34.2	Sep-17	232%	228.7%	-10.4%
Total lending to domestic private sector *	**139.8**	**167.5**	**197.2**	**172.6**	**134.3**	**116.3**	**97.7**	**Dec-17**	**808%**	**54.9%**	**-16.0%**
NPL ratio											
Loans to households	**3.6%**	**4.9%**	**6.9%**	**6.8%**	**5.6%**	**5.5%**	**5.5%**	**Sep-17**	**246%**	**85.0%**	**3.7%**
Of which:											
Housing loans	2.9%	4.0%	6.0%	5.9%	4.8%	4.7%	4.7%	Sep-17	434%	96.8%	1.0%
Other loans to households	6.3%	8.6%	11.1%	10.7%	8.7%	8.5%	8.5%	Sep-17	173%	73.2%	7.1%
Lending to corporates and SMEs	**11.3%**	**15.5%**	**20.3%**	**18.5%**	**14.6%**	**13.1%**	**11.1%**	**Sep-17**	**173%**	**204.0%**	**-17.6%**
Of which:											
Lending to real estate	20.6%	28.2%	37.1%	35.3%	28.2%	26.4%	21.2%	Sep-17	369%	270.0%	-20.1%
Other lending to corporates and SMEs	4.9%	8.2%	12.1%	11.4%	9.4%	8.3%	7.8%	Sep-17	37%	308.8%	-10.4%
Total lending to domestic private sector *	**7.8%**	**10.4%**	**13.6%**	**12.5%**	**10.1%**	**9.1%**	**7.8%**	**Dec-17**	**172%**	**131.0%**	**-14.5%**

(*) Total ORS credit incorporates total credit to households, total credit for productive activities, non-profit institutions serving households (NPISHs) and unclassified credit. From January 2014 it includes credit to Financial Institutions.
Source: Statistical Bulletin of the Bank of Spain

Table A.5 Details of new lending transactions Cumulative annual earnings € bn and % change

Lending volume	2011	2012	2013	2014	2015	2016	2017	Date	Growth rate 03-'08	08-'16	y-on-y
Loans to households	**74.3**	**63.3**	**51.2**	**60.5**	**75.7**	**80.6**	**87.6**	**dic-17**	**0.7%**	**-56.7%**	**8.7%**
Of which:											
Housing loans	37.5	32.3	21.9	26.8	35.7	37.5	38.9	dic-17	-15.6%	-56.9%	3.6%
Other loans to households	36.8	31.0	29.4	33.7	40.0	43.1	48.8	dic-17	21.3%	-56.4%	13.2%
Lending to corporates and SMEs	**527.5**	**484.8**	**392.6**	**357.2**	**392.6**	**323.6**	**339.0**	**dic-17**	**29.2%**	**-65.2%**	**4.8%**
Of which:											
Less than €250,000	136.4	114.4	106.1	112.3	128.7	133.6	143.4	dic-17	n.d.	-18.7%	7.3%
Between €250,000 and €1million)	37.7	31.6	28.3	34.0	36.8	36.3	40.6	dic-17	n.d.	-21.0%	11.7%
Corporates (loans > €1mill.)	353.4	338.9	258.2	210.3	227.2	152.6	155.1	dic-17	43.5%	-66.4%	1.6%
Total new lending flows	**601.8**	**548.1**	**443.9**	**417.7**	**468.3**	**404.1**	**426.6**	**dic-17**	**23%**	**-58.0%**	**5.6%**

Source: Banco de España

Table A.6 Detail of deposits of residents. € bn and % variation

	2011	2012	2013	2014	2015	2016	2017	Date	Growth rate 00-'08	08 - latest	y-on-y
Sight deposits	482	475	500	563	650	754	857	Dec-17	90%	94.5%	13.7%
Term deposits	706	693	677	597	509	404	286	Dec-17	272%	-61.4%	-29.0%
Total retail deposits	**1,188**	**1,168**	**1,177**	**1,160**	**1,159**	**1,157**	**1,144**	**Dec-17**	**163%**	**-3.4%**	**-1.2%**
Other deposits											
Repurchase agreements	60	60	64	60	42	32	28	Dec-17	-23%	-67.1%	-13.7%
Funds from financial asset transfers	54	43	37	32	25	23	21	Dec-17	14%	-76.8%	-7.6%
Hybrid financial liabilities	27	20	16	22	17	14	10	Dec-17	33%	-64.6%	-32.2%
Subordinated deposits	44	26	20	16	18	16	1	Dec-17	n.m.	-98.9%	-96.7%
Pro-memoria: Deposits in foreign currency	*28*	*30*	*30*	*27*	*29*	*28*	*17*	*Dec-17*	*739%*	*-52.4%*	*-37.5%*
Total deposits of domestic resident sector	**1,373**	**1,317**	**1,314**	**1,289**	**1,261**	**1,243**	**1,203**	**Dec-17**	**159%**	**-16.0%**	**-3.2%**

(*) Total ORS deposits does not match the data of Table 1 because it incorporates liabilities from asset transfer, subordinated deposits, CTAs and hybrid instruments.
Source: Statistical Bulletin of the Bank of Spain

Table A.7 Interest rates on credit operations. Rates in % and variation in pbs

	2011	2012	2013	2014	2015	2016	2017	Date	Growth rate (bps) 03-'08	08 - latest	y-on-y
Loans. Stock (NDER)											
Loans to households											
Housing loans	3.12	2.61	2.11	1.89	1.53	1.30	1.21	dic-17	178	-444	-9
Other loans to households	5.73	5.78	5.80	6.10	5.98	6.17	6.17	dic-17	113	-90	0
Loans to corporates and SMEs	3.90	3.47	3.44	2.84	2.38	2.04	1.89	dic-17	204	-366	-15
Loans. New lending transactions (APRC)											
Loans to households											
Housing loans	3.66	2.93	3.16	2.64	2.31	2.19	2.05	dic-17	238	-378	-13
Consumer loans	9.11	8.32	9.52	8.98	8.43	8.14	8.30	dic-17	237	-270	16
Other	6.29	6.23	5.92	4.91	4.28	4.26	4.02	dic-17	224	-301	-24
Loans to corporates and SMEs (synthetic average)	4.03	3.66	3.57	2.73	2.58	2.30	2.12	dic-17	112	-276	-19
Less than €250,000	5.57	5.67	5.54	4.56	3.61	3.29	2.93	dic-17	n.d.	-162	-36
Between €250,000 and €1million)	4.79	4.27	4.03	2.91	2.20	1.91	1.79	dic-17	n.d.	-210	-12
Corporates (loans > €1mill.)	3.53	3.00	2.83	2.10	2.07	1.63	1.55	dic-17	n.d.	-116	-8

NDER: Narrowly Defined Effective Rate (APR less commissions).
APR: Equivalent Annual Rate. Narrowly Defined Effective Rate (APR less commissions).
Source: Statistical Bulletin of the Bank of Spain

Table A.8 Deposit interest rate* Rates in % and variation in pbs

	2011	2012	2013	2014	2015	2016	2017	Date	Growth rate (bps) 03-'08	08 - latest	y-on-y
Deposits. Stock (NDER)											
Households deposits											
Sight deposits	0.28	0.21	0.22	0.17	0.12	0.06	0.04	dic-17	6.5	-65	-2
Term deposits	2.76	2.72	2.08	1.39	0.75	0.30	0.16	dic-17	232	-424	-14
Corporates and SMEs deposits											
Sight deposits	0.61	0.37	0.35	0.31	0.24	0.15	0.10	dic-17	111	-168	-5
Term deposits	2.68	2.64	1.93	1.40	0.91	0.65	0.76	dic-17	223	-362	11
Deposits. New transactions (NDER)											
Households deposits											
Sight deposits	0.28	0.21	0.22	0.17	0.12	0.06	0.04	dic-17	30	-65	-2
Term deposits	2.79	2.83	1.50	0.66	0.39	0.11	0.08	dic-17	225	-410	-2
Corporates and SMEs deposits											
Sight deposits	0.61	0.37	0.35	0.31	0.24	0.15	0.10	dic-17	111	-168	-5
Term deposits	2.13	2.08	1.31	0.51	0.31	0.13	0.16	dic-17	146	-331	4

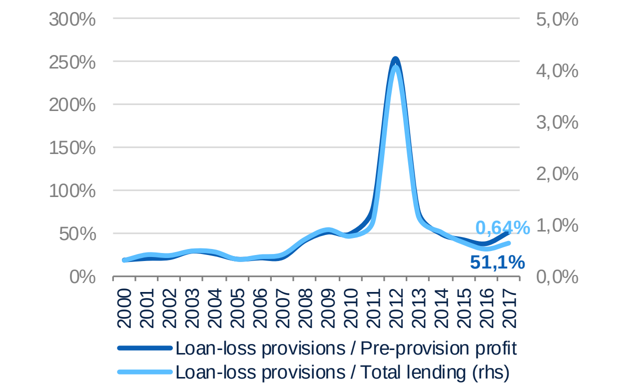
NDER: Narrowly Defined Effective Rate (APR less commissions).
APR: Equivalent Annual Rate. Narrowly Defined Effective Rate (APR less commissions).
Source: Statistical Bulletin of the Bank of Spain

Table A.9 Main ratios

	2011	2012	2013	2014	2015	2016	2017	Date	Growth rate 00-'08	08-latest	y-on-y
Productivity											
Business volume* per branch (€'000)	78,494	76,409	81,761	83,229	83,085	86,975	84,852	Dec-17	168.2%	18.6%	-0.1%
Profit before tax per branch (€'000)	-433.7	-2,279	123.0	407.3	345.2	231.9	-149.9	Sep-17	77.5%	-133.9%	-136.3%
Efficiency											
Cost-to-Income ratio (Oper. expenses / Total revenue)	49.8%	45.3%	48.2%	47.1%	51.0%	54.5%	57.7%	Sep-17	-29.3%	29.7%	7.5%
Operating expenses / ATA	0.86%	0.79%	0.83%	0.88%	0.93%	0.98%	1.00%	Sep-17	-43.4%	4.7%	8.3%
Profitability											
RoE	-7.4%	-35.5%	4.1%	4.9%	4.1%	2.7%	-2.9%	Sep-17	-3.4%	-127.8%	-159.8%
RoA	-0.52%	-2.55%	0.13%	0.44%	0.38%	0.25%	-0.16%	Sep-17	-23.6%	-123.9%	-135.2%
NIM (Net interest rev. / ATA)	0.89%	0.96%	0.83%	0.91%	0.93%	0.90%	0.89%	Sep-17	-29.6%	-22.0%	0.0%
Liquidity											
Loans-to-Deposits (resident sector)	150%	137%	123%	119%	115%	110%	110%	Dec-17	14.8%	-30.6%	-0.5%
Funding gap (Loans - Deposits, EUR bn)	594.4	436.8	270.9	220.1	168.3	118.9	110.8	Dec-17	349%	-83.9%	-6.9%
Funding gap / Total assets	17.5%	12.8%	9.0%	7.6%	6.1%	4.5%	4.2%	Dec-17	57.7%	-80.4%	-7.1%
Solvency and Asset Quality											
Leverage (Shareholders' equity / Total assets)	6.5%	5.7%	7.7%	7.9%	8.2%	8.6%	8.8%	Dec-17	-17.8%	56.4%	2.0%
Shareholders' equity / NPLs	158%	117%	118%	133%	169%	196%	238%	Dec-17	-74.3%	-16.9%	21.7%
Provisioning effort (Loan-loss prov. / Pre-provision profit)	79.1%	253.6%	75.8%	49.5%	42.3%	37.8%	51.1%	Sep-17	121%	23.5%	64.8%
Cost of Risk (Loan-loss provisions / total lending)	1.06%	4.07%	1.19%	0.86%	0.66%	0.53%	0.64%	Sep-17	134%	-26.7%	19.0%
NPL ratio (resident sector)	7.8%	10.4%	13.6%	12.5%	10.1%	9.1%	7.8%	Dec-17	172%	131%	-14.5%
NPL coverage ratio (total)	59.6%	73.8%	58.0%	58.1%	58.9%	58.9%	60.3%	Dec-17	-58.2%	-14.8%	2.4%
NPL coverage ratio (specific provisions)	37.1%	44.7%	46.9%	46.7%	47.0%	46.2%	44.2%	Sep-17	-39.0%	47.8%	-1.0%

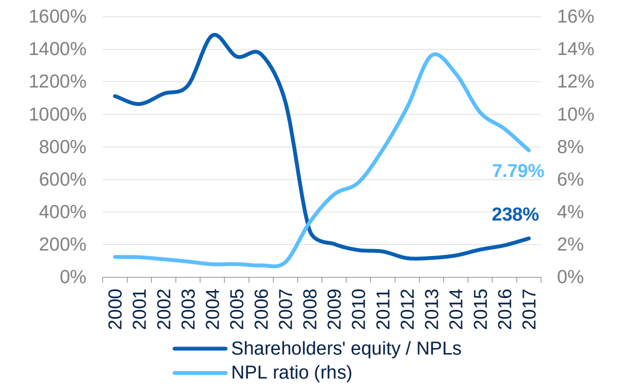
(*) ORS Credit plus ORS Deposits.
Source: Statistical Bulletin of the Bank of Spain

Figure A1.1 "Provisioning effort" (additions to provisions / net margin)



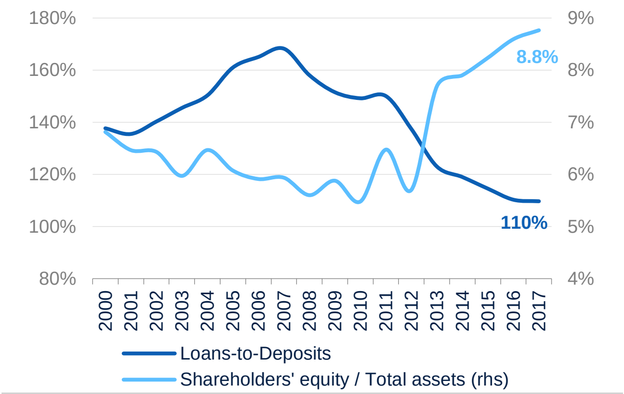
Source: BBVA Research

Figure A1.2 NPLs and Capital as % of NPLs



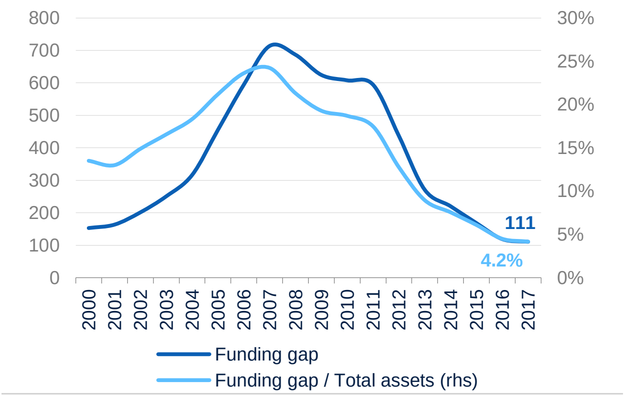
Source: BBVA Research

Figure A1.3 Liquidity and leverage



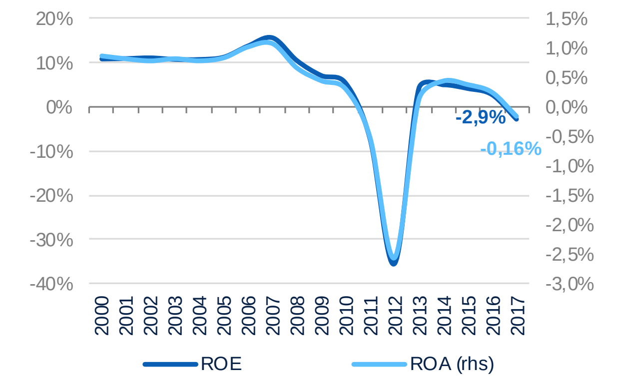
Source: BBVA Research

Figure A1.4 Funding gap (ORS lending – ORS deposits, € billions)



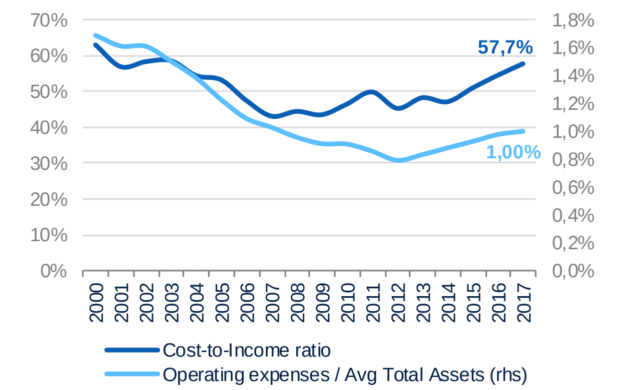
Source: BBVA Research

Figure A1.5 Profitability



Source: BBVA Research

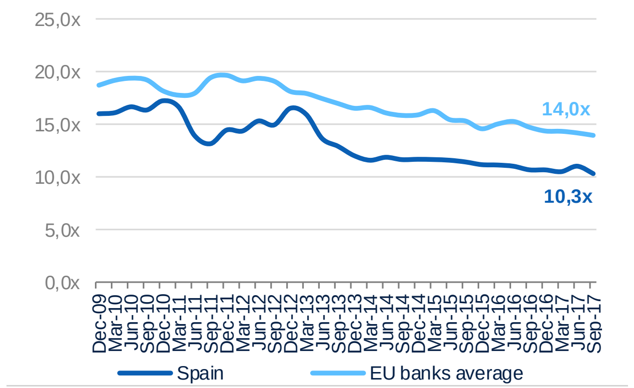
Figure A1.6 Cost/income ratio



Source: BBVA Research

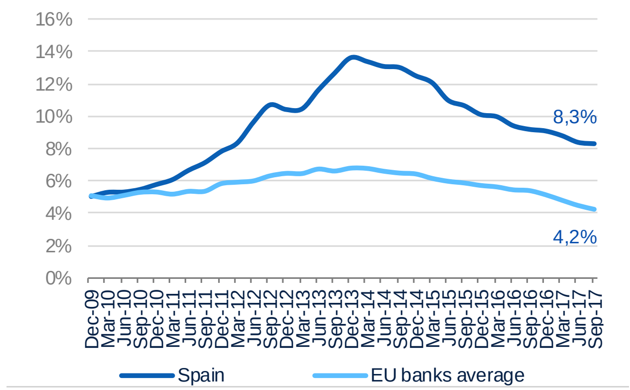
Appendix 2: Evolution of the Spanish banking sector

Figure A2.1 Total liabilities / Capital in balance sheet



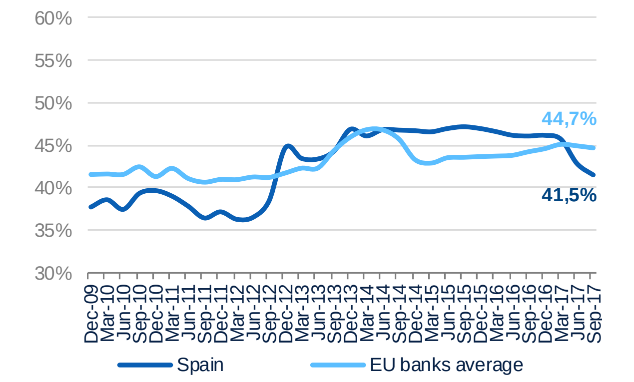
Source: EBA, Banco de España, BBVA Research

Figure A2.2 NPL ratio



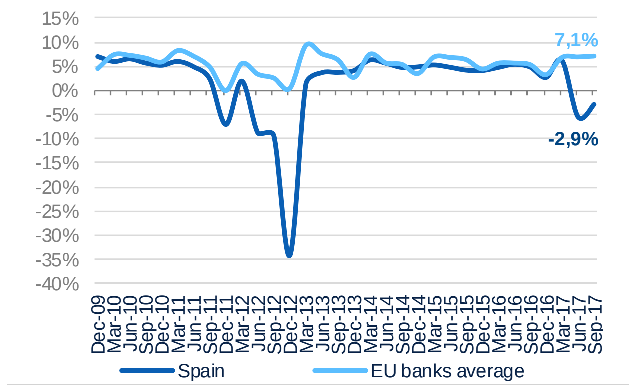
Source: EBA, Banco de España, BBVA Research

Figure A2.3 Coverage ratio (specific provisions only)



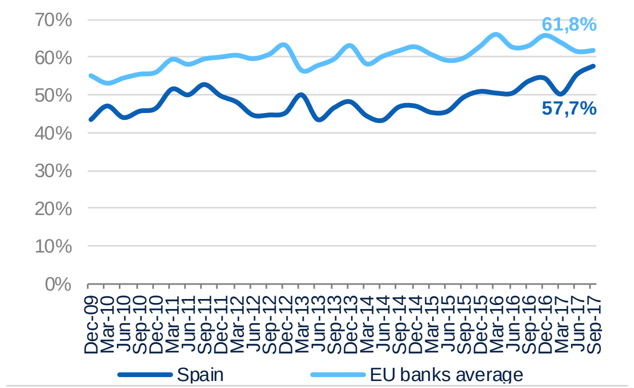
Source: EBA, Banco de España, BBVA Research

Figure A2.4 ROE



Source: EBA, Banco de España, BBVA Research

Figure A2.5 Cost/income ratio



Source: EBA, Banco de España, BBVA Research

Note: the data on averages of European banks come from the EBA's Risk Dashboard, composed of a panel of 158 major EU banks.

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