BBVA | RESEARCH

Banking Outlook

DECEMBER 2015 | FINANCIAL SYSTEMS UNIT

Index

Summary

1. Developments in the Spanish banking sector

The stock of credit continues to come down, although the volume of new lending is on the rise. NPLs are still decreasing while on-balance sheet debt and ECB funding dropped 43% and 64%, respectively, since their peaks. Capital adequacy has been reinforced and lenders continue to build up their capital. Profitability was hit by provisioning during the crisis and remains weak to this day. In the first half of 2015, the sector managed a net profit of EUR 5,460 million, which was 17% down on the same period in 2014. Compared to European institutions on average, Spanish banks are more efficient and have more on-balance sheet capital, while on the other hand the NPL ratio is higher. Profitability and NPL coverage match the European average, while the loan-to-deposit ratio is still higher, although currently stands at sustainable levels.

2. Fee and commission income in Europe

Net interest income has been, and will continue to be, under pressure for some years given the on-going very low interest rate environment in developed economies. Understanding fee and commission (F&C) income, which is typically the second source of revenue for banks, its past evolution and breakdown helps to identify determinants of banks' profitability and current and future opportunities and threats for this revenue stream. Throughout Europe, fee and commission income has been more resilient than net interest revenue during the crisis, although there are marked differences among countries when their contribution to net income is considered.

3. The funding of Spanish SMEs: crucial to growth

The struggle to secure funding which SMEs face is one of the barriers they must overcome to increase their size. Although there has been recent improvement in this respect, this has been truer for medium-sized companies than for smaller companies and microenterprises. Various different measures are being implemented to simplify the required processing, support new ventures and openness to the exterior, improve SME information, reduce risk for providers of funding, enhance the efficiency of the financial system and develop non-bank funding.

4. Turkish banks: resilient overall

The Turkish banking sector displays robust fundamentals (strong profitability, high capitalisation and good asset quality) but deterioration in asset quality cannot be ruled out and the change in the funding profile with higher exposure to more volatile market funds, together with foreign currency risks deserve monitoring.

5. The non-bank correspondent business model

Technological advances and more flexible regulations have allowed banks to extend access to the formal financial system through outsourcing agreements with bricks-and-mortar stores. The spread of this non-bank correspondent business model in developing countries has the potential to reach millions of unbanked individuals more rapidly, enhancing financial inclusion.

6. Banks and FinTech: towards a collaborative ecosystem

Disruption in financial services is being led by the FinTech companies, which provide technology-based financial services. The proliferation of free and customer-friendly services is unbundling the packages which banks offer, to the point where a customer could in theory enjoy all the usual banking services (saving, payment, credit, investment), by cherry-picking what the various FinTech companies offer. The banks are aware of this situation and employ various partnership-based strategies to improve their services and evolve their business model towards ecosystems that are comparable with those of the major internet companies.

1 Developments in the Spanish banking sector

Tables and figures can be found in the annexes to this document. Most of the figures come from Chapter 4 of the Bank of Spain's Statistics Bulletin. Examination of the Spanish banking sector is confined to banking business in Spain. The main conclusions regarding the current situation and recent developments in the Spanish banking system are:

- Despite the huge contraction in lending from its peak (-26% since December 2008), deleveraging of the system is continuing (Table 1). The pace of the fall has been easing up since the end of 2013.
- The drop in private sector loans (Other Resident Sectors, ORS) has been across-the-board, with notable falls in all of the portfolios. Overall ORS loans have come down by EUR531bn since 2008, which is 50% of GDP (Table 4). The reduction has been most pronounced in business lending (where there has been a cumulative decrease in the total amount of 35% since 2008), especially in the portfolio of loans to real estate and construction companies (-61%). Household lending has been coming down more moderately, due to the longer life of mortgage loans.
- Total banking sector assets have shrunk by 13% over the crisis (Table 1) and 18% (EUR624bn) since the high of 2012. This decrease is less than that for lending because fixed-income and equity financial assets have been accumulated since 2008 (particularly in the government debt portfolio). The volume of these portfolios has begun to diminish since 1H14.
- The total volume of deposits has been reduced by 18% during the crisis (Table 1). Even so, the fall centres on items such as non-resident deposits, repos, subordinated deposits and hybrid instruments, while private sector deposits show greater stability (Table 6), with a fall of 4.6% since 2008 (-1.1% since September 2014). In the last 12 months to September there has been a notable shift in deposits from the term category (-17%) into the demand (+19%) and savings (14%) varieties, due to the low rates expectations over the coming quarters.
- The volume of on-balance sheet debt issuance continues to come down in line with the deleverage of the system (-43% since 2008 and -13% in the last year to September). Similarly, the interbank net balance (liabilities minus assets) has doubled since the start of the crisis on account of the greater call on ECB liquidity by Spanish institutions after the closing-off of other sources of funding.
- The volume of funding provided by the ECB has shown a clear downward trend since the peak in August 2012 (-64% from the high-point), which is consistent with institutions taking advantage of the liquidity on good terms that has been provided by the ECB in its targeted long-term refinancing operations (TLTROs), on top of the liquidity they manage to come by in the ECB's ordinary open market operations. For some years now, liquidity has not been a problem for the banks.
- Installed capacity in the system is still being reduced (Table 3), in keeping with the contraction in business volumes, sector consolidation and the search for greater operating efficiency and banking profitability.
- On the other hand, the sector's capital adequacy has been notably strengthened. Own funds (common equity and retained earnings) have risen by 25% (+EUR45bn) since December 2008 despite losses after tax of EUR94bn having been posted in 2011 and 2012, while on-balance sheet capital quality has improved.
- Despite the serious contraction in ORS loans, the NPL ratio is still shrinking (Table 4), reaching 10.67% in September 2015. The volume of doubtful loans has managed 21 straight months of falls, and has

dropped by EUR54bn from its peak in December 2013, while some EUR30bn of this took place over the first nine months of the year.

- Since the end of 2013 the volume of new lending transactions (Table 5) has shown a change of trend and is beginning to grow after the continual succession of falls since 2007, while since March 2015 these transactions have included business loans of over EUR1mn, which are associated with larger companies. During the crisis, these companies were able to call on other sources of funding, such as the markets or intra-group loans, but with the climate of friendly lending conditions they are starting to seek funding from the banking sector again. Since the end of 2013, the deleverage of the stock of private sector credit has been compatible with the flow of new lending. Over 2014-15 the annual flow of new lending represented roughly 40% of the volume granted in 2006-09 (on average), levels which the sector is unlikely to approach in the future.
- In recent years sector results have been subjected to considerable pressure (Table 2). The system as a whole has undergone a balance sheet clean-up, with provisioning for loan impairment losses, restructure costs and foreclosed asset losses, mainly) to the value of EUR298bn since 2008. In addition to this, lower business volume, regulatory costs and low interest rates have all had negative impacts. In the first half of 2015, gross income was trimmed by 4.3% despite the upturn in net interest income compared to the first half of 2014.
- Although cost control is still a watchword in the sector, net operating income fell by 8.3% YoY in 1H15 due to the fall in net trading income (NTI). The provision allowance continues to fall in line with the improvement in the NPL ratio and the volume of provisioning already realised. Finally income before tax and net income for the first half of 2015 was down by 6% and 17% YoY respectively.
- Looking at the key management ratios (Table 7):
  - The efficiency ratio stood at an excellent 45.7%, thanks to cost control. Operating expenses as a percentage of average total assets have held at under 1% since 2008 (Figure 6, Annex 1).
  - There was a considerable improvement in the sector's capital adequacy and liquidity situation: regulatory capital (equity and reserves) reached 8.1% of the total balance sheet in September 2015, further reducing the system's leverage to 12.4x, compared to a level of 18x in 2008. In addition to this, the recent treatment of deferred tax assets from temporary differences as tax credits has allowed the regulatory capital ratios to be comfortably fulfilled. On the other hand, the sector was brought down the loan-to-deposit ratio to a more sustainable level, at 116%, which is 42 percentage points (pp) lower than in 2008 (Figure 3, Annex 1).
  - On-balance sheet capital has been maintained over the entire crisis at over 100% of the volume of doubtful loans (Figure 2, Annex 1), and has risen to 158% since 2012 (+25pp in the first nine months of 2015).
  - The sector funding gap (ORS loans minus ORS deposits) remains on its downward trend due to the substantial deleveraging of the system and maintenance of deposits, currently standing at 2001 levels and at a historic low as a percentage of the balance sheet overall.
  - Provision requirements are normalising, which is reflected in the indicators of the provisioning burden (provision allowances/net operating income) and the cost of risk (provisions/total lending), as these are returning to pre-crisis levels (Figure 1, Annex 1), which helps profitability to consolidate in positive territory after the losses in 2011 and 2012 (Figure 5, Annex 1).

Comparing how the Spanish banking system has performed with respect to EU banks on average (Annex 2), the main conclusions are summarised below. The figures used in the analysis are from the Risk Dashboard of the European Banking Authority (EBA), being based on the average for 57 of the EU's foremost banking institutions which took part in the 2014 European stress test. The latest available information is from the first half of 2015.

- The chief strongpoints of the Spanish banking system since the end of 2009 (the date from which EBA data is available) are the greater amount of on-balance sheet capital and a better efficiency level than that of European banks on average (Figures 1 and 5, Annex 2).
- On the other hand, the most negative aspect is the trend in the NPL ratio, which is far higher in Spain and is rising faster (Figure 2, Annex 2). However, as has been mentioned earlier, the NPL ratio in Spain has so far been coming down for 20 months in a row.
- The Spanish banking system's ROE marked very negative levels in 2011 and 2012, owing to the rise in the NPL ratio and the provisioning required to turn the sector round (Figure 4, Annex 2). Since 2013 the system's profitability has been similar to the average for European lenders. These provisions were necessary within Spain's banking system, as Figure 3 illustrates in Annex 2, which shows how the years of streamlining the system led to NPL coverage with specific provisions achieving a level akin to the European average, where it has remained ever since.
- Finally, the Spanish system's loan-to-deposit ratio has traditionally been higher than the EU average (Figure 6, Annex 2), but since the end of 2012 the gap has closed up considerably, largely thanks to the transfer of assets to Sareb.

2 Fee and commission income in Europe

Net interest income has been and will continue to be under pressure for some years given the on-going very low interest rate environment in developed economies. Understanding fee and commission (F&C) income, which is typically the second source of revenue for banks, its past evolution and breakdown helps to identify determinants of banks' profitability and current and future opportunities and threats for this revenue stream.

F&C income represents a larger share of operating income in France and Italy than in Spain or Ireland (consolidated statistics)

Net interest income is the main source of revenue for European banks, but it is more important for Spanish and German banks (65% of operating income) than for Italian (56%), British (54%) or French banks (51%). For Spain this is explained by the banks' intrinsically retail-oriented business model and the traditionally low commission environment with cross-subsidization of services with net interest income. In turn, F&C income ranges from 15% in Ireland, 23% in Spain, 26% in the UK, 27% in Germany to 33% in France and Italy.

When F&C income is measured against operating expenses, Spanish banks display a higher ratio, closer to that of French and Italian banks. This is the result of Spanish banks better than average efficiency.

F&C income has proved to be more resilient throughout the crisis than net interest income

With the exception of Greek and Irish banks, which have experienced a significant downsize of their banking sectors, across the remaining systems analysed, most have recovered their pre-crisis F&C revenue level. For Nordic banks current F&C income is 30-40% higher than that in 2008.

For Spanish banks F&C income accounts for 20% of revenues and 43% of expenses

Before the crisis, F&C income (excluding the international activity of BBVA and Santander) accounted for slightly above 20% of operating income and almost 50% of operating expenses. Throughout the crisis its contribution to revenues decreased and has not recovered yet. Net interest income accounted for almost 60% of operating income (the peak was in 2009) and now is just below 50%. From 2009 to 2014 net interest income fell 37%, F&C income fell 7% and operating income fell 18% (supported by the comparatively better evolution of F&C income).

Collection and payments services used to be the most important F&C income for Spanish banks but it was recently surpassed by fees from sales of non-banking financial products

In 2003 collection and payment fees accounted for almost 60% of total F&C but now only represent around 1/3 (innovation and new competitors are probably behind this downward trend). These include fees from credit and debit cards, current accounts, bills received, transfers and other payment orders, cheques and others. Fees from sales of non-banking financial products (mutual, pension and investment funds, insurance) currently account for the largest share of F&C and they are gaining importance (in part resulting from the unattractiveness of deposits' remuneration). The third major component is related to fees from securities.

On-going regulatory and industry initiatives will likely put downward pressure on F&C

Although in the short run the outlook for F&C income is positive, the on-going regulatory and industry initiatives will put downward pressure on this revenue particularly in F&C related to payments. The Payments and Services Directive 2 fosters standardization, competition and lower prices for customers; which together with the cap on interchange fees is likely to evolve into a world of virtually zero interchange fees, where volume and value-added services will be even more important. Other regulatory reforms such as the MiFID II and the banking structural reform will also reduce F&Cs for certain market-related activities. It will be important to focus on value-added, customer centric solutions to ensure trust and loyalty from customers and be able to benefit from new business opportunities where collaboration with new players will be crucial.

3 Funding Spanish SMEs: crucial to growth

Why is the size of Spanish companies a problem? Spain is a country of SMEs, as is evidenced by the small average number of employees among companies or the considerable percentage of employment which SMEs account for in comparison with most of its neighbouring countries. Given that there is a positive relationship between company size and productivity, a larger weight of big companies would facilitate the Spanish economy's recovery and the achievement of a higher per capita income.

Why do companies not grow? There is no straightforward answer to this question, but among the host of factors that influence company size is the lack of borrowing facilities on suitable terms. According to the BACH database, during the recent crisis, bank funding dropped back from 35% of SMEs' balance sheet to a mere 29%. Added to this is the fact that the SMEs have no other sources of funding, such as from markets or intra-group loans, in the way larger companies do.

How is SME funding performing? It is improving significantly. New SME lending business (approximated by loans of up to EUR1mn) has increased by 13.7% YoY in terms of the cumulative figure from January to October this year. Moreover, according to the European Central Bank's Survey on the Access to Finance of Enterprises (SAFE), access to funding is no longer such a major issue as it was in the past and an increasingly large percentage of SMEs obtain either the full, or nearly the full, amount on more comfortable terms as regards both the cost and guarantees. These improvements are, however, more noticeable among the medium-sized companies (with between 50 and 249 employees) than both the smaller businesses (between 10 and 49 employees) and microenterprises (with nine employees and fewer). Although the outlook for bank loans has improved substantially, there is still some way to go before we can see lending restored to sufficient levels, and in fact cumulative new lending transactions to SMEs between January and October this year only represented 45% of the level for the same period in 2008.

On the other hand, Spanish companies have not only seen the volume of bank loans received over the crisis deteriorate, but this has also become more expensive, especially in the case of the SMEs. Before the crisis, SMEs used to pay 1pp more than larger companies for their loans, but this difference had widened to 2.5pp in 2013. Since then the gap has gradually narrowed, thanks to the improvement in lending terms (due to the expansive monetary policies, a decrease in European financial fragmentation and the restructuring of the financial system) and, in the past few months, thanks to the fall in credit risk. The gap between both costs of borrowing currently stands at under 1pp again.

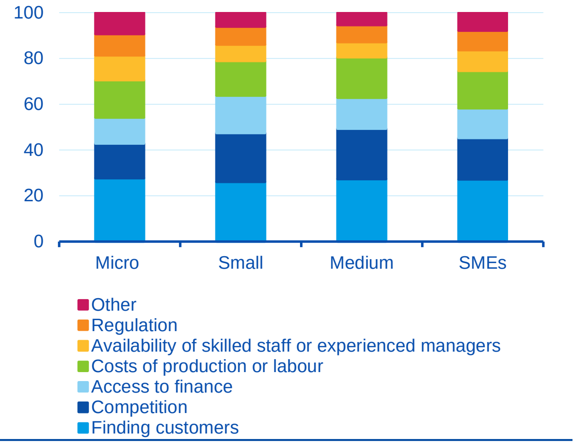
What is being done to improve this situation? Public and private agencies are implementing measures to boost funding for SMEs which are aimed at simplifying administrative procedure, supporting new ventures and internationalisation among SMEs, improving the quality of information on SMEs, reducing the risks for providers of funds (via guarantees, co-financing arrangements, reducing capital consumption), making progress with regard to the financial system's efficiency and developing alternative, non-bank financing methods.

With respect to this last point, in Europe efforts are being made to promote an initiative that focuses on non-bank financing, Capital Markets Union, although this is really a long-term project. It is important to find a better balance between bank and non-bank funding, as alternative financing can complement its banking counterpart for the initial stages of a project or risky venture. To this end, encouraging a financial culture among SMEs is crucial to them being able to access such original sources of funding, as if they have an average of only 2.8 workers, it is unlikely that any of them can take the time to both learn about and take advantage of them. Whatever the case, alternative funding must be regulated and supervised in a similar way to banking so as to foment competition and reduce risks. Given the currently small scale of alternative financing, developing it will take time, so it is important to have a sound banking sector.

These efforts to boost funding for the SMEs are particularly important at a time like now, when the Spanish economy is coming back to life again. It is now when the SMEs, the smallest in the economy's business fabric, must show their potential as the biggest drivers of economic growth. And to do this, it is essential that they have the right tools, such as funding on good terms.

Figure 3.1

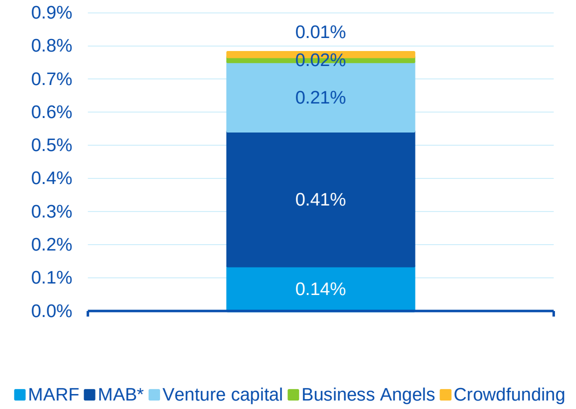
Spanish SMEs: biggest problems by company size, second wave 2014 (weighted percentage of companies that say the problem is the most significant)



Source: BBVA Research based on the European Central Bank

Figure 3.2

Spain: size of alternative funding (funding over the past year/new loan transactions 2014)



Source: Bank of Spain, MARF, MAB, IEE, Asociación Española de Crowdfunding

4 Turkish Banks: overall resilient

Overall, the Turkish banking sector displays robust fundamentals (strong profitability and capitalisation, good asset quality) but deterioration in asset quality cannot be ruled out and the change in the funding profile with higher exposure to more volatile market funds, together with FX risks deserve monitoring.

Low sectorial credit risk concentration and good asset quality despite the slowdown in credit growth

The balance sheet of Turkish banks is mainly composed of loans which have gradually increased their share of total assets, currently accounting for 65%, versus 46% in 2009. The loan book increased by about 10 fold in the last 10 years while total assets increased by about six fold. Credit to GDP stood at around 60% at end-2014. After the introduction of macroprudential measures, credit growth resumed to more sustainable growth rates (20-30%) which have fallen further (15%) in recent months due to tighter financial conditions. Corporate and SME loans account for 70% of the lending portfolio while mortgages account for just 10% and broad consumer loans for the remaining 20%.

The corporate loan book is quite diversified without significant industry concentrations. In terms of asset quality, the non-performing loan (NPL) ratio stood at 2.9% as of September 2015 and has been relatively flat since 2011. The NPL ratio in the mortgage segment is very low at 0.5%, followed by 1.9% in corporates, 3.9% in SMEs and 5.5% in other loans to households. Given the fast credit growth in the past (average growth rate of 29% in the last 5 years), the high interest rates (7.5% - one-week repo rate), the depreciation of the Turkish lira, the economic slowdown (3.2% GDP growth for 2015 but below the potential growth rate) and the rise in unemployment it is likely that NPLs increase and the NPL ratio deteriorates slightly.

Robust profitability and good efficiency

Banks' profitability has decreased in recent years but remains robust with the ROE at 15%, net interest margins at around 3,5%, healthy credit growth (although it has slowed down recently), double-digit growth in both net interest income and non-interest income, reasonable efficiency indicators (cost-to-income ratio at 48%) and manageable loan loss provisions (which despite the recent increase, still represent around 40% of pre-provision income).The Turkish banking sector experienced the steepest decline in terms of ROE from a peer group of emerging countries but departing from considerably higher levels (26% in 2009).

Sound capital levels but on a downward trend

Turkish banks display comfortable regulatory capital ratios. At the end of September 2015 the total capital ratio stood at 14.7%, while the core capital ratio stood at 12.4%, down from 16.3% and 14%, respectively at end-2014. Leverage ratios are also quite elevated (11%) because the RWA density is very high (83%), which is partly due to the fact that their business is retail oriented.

Reliance on wholesale funding leads to deteriorating loan-to-deposit ratios

The rapid expansion of lending led to a significant change in the funding profile of banks. The growth of deposits has not kept pace with lending growth and therefore the loan-to-deposit ratio has increased sharply from 60% in 2005 to around 117% at end-September 2015. Deposits currently represent 52% of total assets while market funds represent almost 30% of the balance sheet. The high reliance on wholesale funding exposes banks to market volatility, investor confidence and potential challenging refinancing conditions, which could be an issue for Turkish banks. In addition, most wholesale funds are in foreign currency as banks have increasingly used funding in foreign currency to expand the loan book in liras. Banks comply comfortably with liquidity ratios defined by the central bank despite a downward trend.

5 The non-bank correspondent business model

The need to extend access to the formal financial system

Financial inclusion is the situation in which all working age adults have effective access to financial products such as payments, savings, credit and insurance from formal service providers. Effective access involves convenient and responsible service delivery, at a cost affordable to the customer and sustainable for the provider, with the result that financially excluded customers use formal financial services rather than existing informal options, which is usually quite expensive. Financial inclusion improves social well-being and alleviates poverty. The usage of formal financial services buffers individuals against liquidity shocks, allows for saving with safe financial tools, obviates the unnecessary liquidation of illiquid investments, and channels savings from unproductive liquid assets toward investments in productive capital.

When defining financial inclusion, access is the most important dimension and represents a necessary but insufficient condition for using formal financial services. Therefore, extending access to the formal financial system is essential to foster financial inclusion. Yet traditional access channels seem to be limited in guaranteeing universal financial access. From the supply side, bank branches and ATMs are not cost-efficient for financial institutions to serve certain segments of the markets. Moreover, from the demand side, there are physical, cultural and social barriers that make access difficult through traditional channels. Given these limitations, technology and regulation have facilitated the emergence of a new branchless channel, i.e. non-bank correspondents, with the potential to reach millions of unbanked individuals more rapidly.

The non-bank correspondent business model

Non-bank correspondents are non-financial commercial establishments that offer basic financial services under the name of a bank, becoming access points to the formal financial system. Those establishments can belong to a broad range of sectors (grocery, gas stations, postal services, pharmacies, etc.), as long as they are bricks-and-mortar stores whose core business involves managing cash. In its most basic version, non-bank correspondents carry out only transactional operations (cash in, cash out and bill payments) but in many cases they have evolved to serve as a distribution channel for the banks' credit, saving and insurance products. This business model makes it sustainable for banks to focus on low-income clients with cost-efficient access channels.

In areas where bank branches are a long way away from households, non-bank correspondents pool the cash requirements of all customers and reduce the number of costly (and sometimes risky) trips to the bank. Moreover, since deposits and withdrawals are offset at the agent's till, the total amount of cash that needs to be transported to the bank branch is also reduced. Thus, the non-bank correspondent business model leads to economic efficiencies.

Outsourcing agreements allow banks to turn fixed costs into variable costs, lowering and making more flexible their cost structure. In particular, banks have two main incentives for outsourcing their most basic customer contact activities to retail agents. First, correspondents allow banks to reach new customer segments (low-income, rural, etc.) that are too costly to serve with bank branches, due to the fixed costs involved. Second, in the case of areas already covered by bank branches, transferring some activities to correspondents (i.e. channel substitution) allows banks to cut costs and concentrate their employees' efforts in more value-added activities while also decongesting bank branches and increasing convenience for customers.

The role of technology

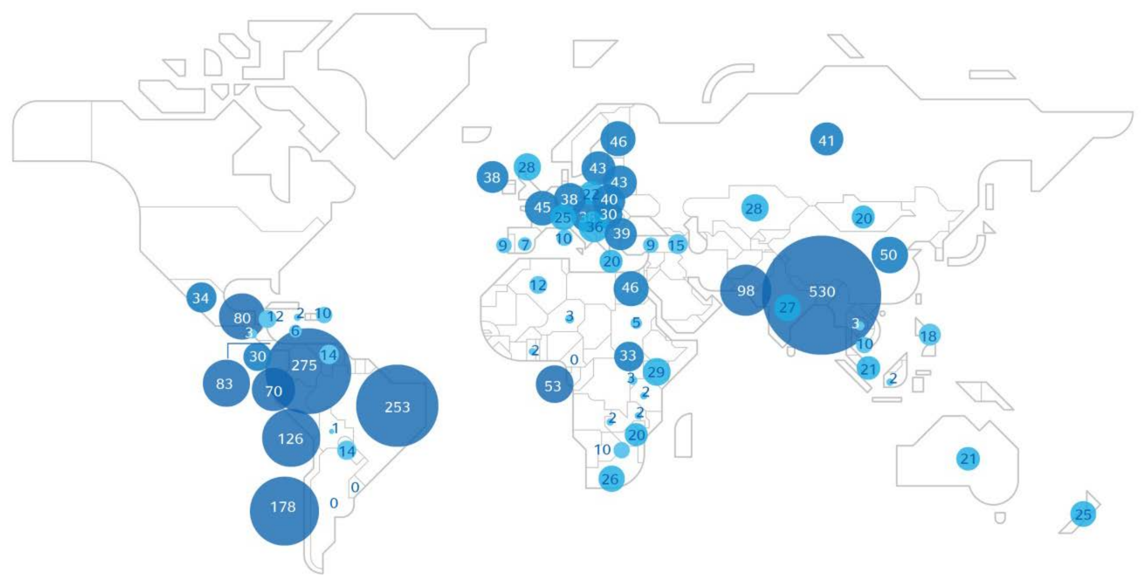
Together with regulation, technology is the essential element that enables the non-bank correspondent business model to function. It facilitates the remote interaction between the financial services provider and its customers at the agent's outlet. In the most traditional system, the interaction takes place using bank cards and point-of-sale (POS) devices connected to the bank through a phone line, wireless or satellite technology. In the case of e-money products, the interaction usually takes place using mobile phones. As well as the appropriate technological connection, non-bank correspondents need to have an active bank account to automatically offset the cash transactions processed at their till.

The procedure works as follows. When a customer makes a cash deposit at a non-bank correspondent, the same amount of money is automatically withdrawn from the agent's account and transferred to the customer's account. As this automatic clearance requires non-bank correspondents to hold enough balance in their accounts, banks sometimes grant them with a credit line or overdraft facility under favourable conditions with the aim of facilitating the non-bank correspondent business model. In the case of cash withdrawals, the remote interaction with the bank allows, first of all, checking that the customer has enough funds in his or her account. Then, the non-bank correspondent provides cash to the customer from its till and the bank transfers the same amount of money from the customer's to the agent's account. The interaction in real time between the three parties (bank, agent and customer), together with the automatic clearance process, creates a safe environment for all parties with no additional settlement risk.

Worldwide distribution of non-bank correspondents

Non-bank correspondents have significantly contributed to extend access to the formal financial system in many developing countries, particularly in Latin America and the Caribbean, which is the world region with the greater number of non-bank correspondents (136 outlets per 100,000 adults). Latin America is followed at a considerable distance by South Asia (83 agents per 100,000 adults) and Middle East and North Africa (72)[1]. The prevalence of the non-bank correspondent business model in Latin America is consistent with the emergence of this business model in Brazil in the year 2000, and with the pioneering specific regulation introduced by many countries in the region. This may be in part promoted by the long-standing banking tradition in this region relative to other emerging markets

Figure 3
Non-bank correspondents per 100,000 adults



Source: BBVA Research

1: For further details, see Cámara, Tuesta & Urbiola (2015). *Extending access to the formal financial system: the banking correspondent business model*. BBVA Research Working Paper, No. 15/10.

6 Banks and FinTech: towards a collaborative ecosystem

The corporate model is changing: from large corporations that used to directly control all the steps along their value chain (even though they could outsource some of their non-critical functions), to the model of the internet majors (such as Google, Amazon, Facebook and Apple), which are organised as collaborative ecosystems that allow them to offer a broad diversity of services around their core business, while they keep tabs on the inter-relationship with the customer (and therefore the data that emerges from such interaction).

In the world of financial services, disruption comes from a whole constellation of new companies that use technology to great effect to offer financial services which address customers' real needs in a straightforward and, almost exclusively, digital way: the so-called FinTech companies. The value they offer is, in most cases, of the niche variety. It focuses on a single segment or product, attaching great importance to the relationship with the customer, and occasionally calling on the services of financial institutions or payment services providers which meet the regulatory requirements to step into the back-office role. FinTech companies received investments worth USD12.1bn in 2014 (0.02% of World GDP), tripling the 2013 figure[2]. Although, generally speaking, the business volume they generate is no match for that of the major banks, such investment figures underscore this particular sector's importance and potential.

Figure 4
Disaggregation of the package of banking services

Source: CB Insights

2: *The future of fintech and banking*, Accenture, 2015. 21 October 2015 <https://www.accenture.com/t20150707T195228__w__/us-en/_acnmedia/Accenture/Conv ersion-Assets/DotCom/Documents/Global/PDF/Dualpub_11/Accenture-Future-Fintech-Banking.pdf#zoom=50>

Both the FinTech companies and the major technology companies often choose not to charge customers when they offer financial services, since their aim is not to make such services profitable, but instead to broaden their consumer base by competing in terms of price and usability. On the other hand, new entrants are taking advantage of not being subject to such strict regulatory control as the banks. These factors facilitate cutting out the middlemen (*disintermediation*) in financial services.

The abundance of free, customer-friendly services on offer is disaggregating the range of services which banks offer and opening up cracks through which financial institutions that do not adapt might lose not just their profits from such business, but also their role as key point of contact with the customer when it comes to their financial affairs. In theory, a customer could enjoy all of the services that a bank offers (saving, payments, loans, investment), by cherry-picking from what all the various start-ups have to offer (Figure 4). Customers of traditional banks are increasingly open to using such alternatives, and 55% of millennials would actually use such services, according to a survey run by Ipsos Media[3].

The major banks are aware of the threat which new competitors of this kind potentially pose to their business model, for which reason they are tailoring their strategies and turning to partnership models. Examples of strategies of increased cooperation by the traditional banks with the FinTech world are[4]:

- Sponsorship of incubator programmes for financial start-ups (such as by Barclays or Wells Fargo), competitions (BBVA Open Talent) or laboratories (for example, the UBS Blockchain Research Lab). In the specific case of the blockchain, an alliance of banks has been set up to look into the potential of this technology in their business (R3).
- Strategic alliances with FinTech companies, such as BBVA's agreements with Dwolla, or those of Citi with Lending Club.
- Investment in or acquisition of such companies. American Express, BBVA, HSBC and Santander have set up venture capital divisions. The major banks such as Citi, Goldman Sachs or JPMorgan are committing to such investments, especially in the payments, big data and interpersonal loan segments, according to CB Insights[5].

Such strategies allow banks to supplement the range of services they offer, as well as to learn how the new competitors work and understand customer needs in the digital world. On top of this, new products could be bolted on more quickly, as the current IT systems of the major banks are highly complex and developing new solutions would be extremely expensive.

This trend opens the doors to the transformation of the organisational models of banks, and moving away from structures that offer a one-stop shop using their own resources towards setting up ecosystems built around their core activity that are more akin to the model used by the larger technology companies. Through this kind of new structure, that features greater proximity to both customers and the areas of expertise of the start-ups in the digital world, the major banks can reinvent themselves as aggregators of the services which the new technology companies have disaggregated before them, so as to continue being the reference point for customers as far as their financial affairs are concerned.

3: Shin, Laura "How Millennials' Money Habits Could Shake Up The Financial Services Industry", *Forbes*. 7 May 2015. 20 Oct. 2015 <http://www.forbes.com/sites/laurashin/2015/05/07/how-millennials-money-habits-could-shake-up-the-financial-services-industry/>
4: Swamy, Avinash, "How are banks reacting to FinTech". *Medium* .21 January 2015. 20 Oct. 2015 <https://medium.com/@avinashswamy/how-are-banks-reacting-to-fintech-891617c69321>
5: "What kind of FinTech start-ups is JP Morgan Chase Investing in?" 16 April 2015, and "Goldman Sachs Investment activity on fintech start-ups intensifies" 10 May 2015, *CB Insights*. 20 October 20<https://www.cbinsights.com/blog/jp-morgan-fin-tech-startups/> <https://www.cbinsights.com/blog/goldman-sachs-fin-tech-startups/ >

Annex 1: principal monitoring indicators for the Spanish banking system

Table 1
Abridged balance sheet for the banking system. (EUR bn and % var.)

									Growth rate		
Assets	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**Date**	**00-'08**	**08-latest**	**y-on-y**
Total lending	2,138	2,153	2,106	1,951	1,716	1,651	1,616	Sep-15	217%	-25.7%	-3.3%
Public corporations	*65*	*79*	*90*	*114*	*87*	*101*	*95*	*Sep-15*	*69%*	*80.0%*	*-1.5%*
Domestic resident sector	*1,837*	*1,844*	*1,783*	*1,605*	*1,448*	*1,380*	*1,339*	*Sep-15*	*234%*	*-28.4%*	*-3.4%*
Non residents	*237*	*230*	*234*	*232*	*180*	*169*	*182*	*Sep-15*	*164%*	*-28.1%*	*-3.0%*
Fixed income securities and equity stakes	599	564	656	766	773	754	685	Sep-15	132%	37.7%	-12.9%
Fixed income securities	*415*	*384*	*406*	*509*	*493*	*492*	*442*	*Sep-15*	*135%*	*35.7%*	*-15.1%*
Of which: sovereign debt	*155*	*165*	*198*	*247*	*264*	*288*	*260*	*Sep-15*	*6%*	*159.3%*	*-13.3%*
Equity	*184*	*180*	*251*	*258*	*280*	*262*	*243*	*Sep-15*	*128%*	*41.6%*	*-8.6%*
Interbank lending	247	234	251	279	211	155	158	Sep-15	81%	-39.8%	6.1%
Other assets											
(net of interbank lending/deposits)	254	301	387	426	326	354	339	Sep-15	230%	18.0%	-3.4%
Total assets	**3,238**	**3,252**	**3,400**	**3,423**	**3,026**	**2,913**	**2,799**	**Sep-15**	**184%**	**-13.2%**	**-5.4%**
Liabilities and Shareholders' Equity											
Customer deposits	2,015	2,031	1,934	1,725	1,684	1,686	1,653	Sep-15	169%	-17.9%	-2.2%
Public corporations	*82*	*79*	*70*	*69*	*63*	*76*	*71*	*Sep-15*	*263%*	*-7.1%*	*-10.1%*
Domestic resident sector	*1,427*	*1,440*	*1,373*	*1,317*	*1,314*	*1,289*	*1,261*	*Sep-15*	*192%*	*-12.0%*	*-1.8%*
Non residents	*507*	*511*	*492*	*339*	*306*	*320*	*321*	*Sep-15*	*113%*	*-36.3%*	*-1.6%*
Interbank deposits	305	270	373	573	381	312	311	Sep-15	95%	-1.1%	-6.3%
Promemoria: net interbank position	*58*	*36*	*122*	*294*	*171*	*157*	*153*	*Sep-15*	*215%*	*194.8%*	*-16.4%*
Debt issued	434	433	435	394	297	249	224	Sep-15	625%	-43.4%	-13.3%
Other liabilities	294	340	439	535	430	436	385	Sep-15	253%	20.6%	-13.2%
Shareholders' equity	190	178	220	195	233	230	226	Sep-15	134%	25.0%	-3.7%
Pro-Memoria: ECB funding	*76*	*67*	*119*	*313*	*202*	*141*	*139*	*Oct-15*	*356%*	*118.4%*	*-10.2%*
Total Liabilities and Shareholders' Equity	**3,238**	**3,252**	**3,400**	**3,423**	**3,026**	**2,913**	**2,799**	**Sep-15**	**184%**	**-13.2%**	**-5.4%**

Source: Bank of Spain statistics bulletin

Table 2

Abridged income statement for the banking system. Cumulative annual results (EUR mn and % var.)

	2009	2010	2011	2012	2013	2014	2015	Date	Growth rate 00-'08	08-latest	y-on-y
Net interest revenue	43,035	34,292	29,565	32,739	26,816	27,118	13,486	Jun-15	92%	-23.3%	3.3%
Net fees and commissions	12,163	11,870	11,750	11,275	10,931	11,257	5,699	Jun-15	79%	-12.5%	0.5%
Trading gaiuns and other revenue	12,354	17,151	15,811	15,493	17,797	17,043	9,357	Jun-15	276%	2.8%	-15.8%
Total revenue	**67,552**	**63,313**	**57,126**	**59,507**	**55,544**	**55,418**	**28,542**	**Jun-15**	**118%**	**-14.0%**	**-4.3%**
Operating expenses	-29,400	-29,431	-28,464	-26,951	-26,798	-26,116	-13,043	Jun-15	54%	-11.6%	0.9%
Personnel expenses	-17,742	-17,643	-16,889	-15,587	-15,108	-14,329	-7,098	Jun-15	54%	-20.7%	-1.4%
Other operating expenses	-11,657	-11,789	-11,574	-11,364	-11,690	-11,787	-5,945	Jun-15	54%	2.4%	3.8%
Pre-provision profit	**38,152**	**33,882**	**28,662**	**32,556**	**28,746**	**29,302**	**15,499**	**Jun-15**	**226%**	**-15.9%**	**-8.3%**
Loan-loss provisions	-19,551	-16,719	-22,668	-82,547	-21,800	-14,500	-6,405	Jun-15	620%	-16.0%	-16.3%
Other income, net	-4,234	-7,326	-23,430	-37,142	-2,789	-1,739	-2,064	Jun-15	-299%	232.9%	15.7%
Profit before taxes	14,367	9,837	-17,436	-87,133	4,156	13,063	7,029	Jun-15	108%	-31.0%	-5.9%
Net attributable income	**12,956**	**9,673**	**-14,717**	**-73,706**	**8,790**	**11,343**	**5,460**	**Jun-15**	**122%**	**-40.7%**	**-17.0%**

Source: Bank of Spain statistics bulletin

Table 3

Relative size, staff and installed capacity in the banking system (%, number and % var.)

	2009	2010	2011	2012	2013	2014	2015	Date	Growth rate 00-'08	08-latest	y-on-y
Lending to the private sector / GDP	170%	171%	166%	152%	138%	130%	125%	Sep-15	94%	-25.3%	-5.9%
Private sector deposits / GDP	112%	114%	111%	111%	112%	110%	108%	Sep-15	69%	2.0%	-3.6%
Number of employees	269,475	263,715	248,093	236,503	217,885	208,291	n.d.	Dec-14	14%	-25.2%	-4.4%
Number of branches	44,532	43,267	40,202	38,237	33,786	32,073	31,665	Jun-15	17%	-31.4%	-3.5%

Source: Bank of Spain statistics bulletin

Table 4

Breakdown of ORS loans, NPLs and NPL ratio by portfolio. (EUR bn, % and % var.)

									Growth rate		
Lending volume	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**Date**	**00-'08**	**08-latest**	**y-on-y**
Loans to households	**814**	**813**	**793**	**756**	**715**	**690**	680	Jun-15	**236%**	-17.0%	-4.7%
Of which:											
Housing loans	625	632	627	605	581	558	542	Jun-15	270%	-13.4%	-5.4%
Other loans to households	189	180	167	151	134	132	137	Jun-15	159%	-28.7%	-2.0%
Lending to corporates and SMEs	**1,000**	**1,013**	**971**	**830**	**719**	**674**	**661**	**Jun-15**	**237%**	**-35.0%**	**-4.6%**
Of which:											
Lending to real estate	453	430	397	300	237	200	184	Jun-15	517%	-60.8%	-14.9%
Other lending to corporates and SMEs	546	583	574	530	482	474	477	Jun-15	142%	-12.8%	0.0%
Total lending to domestic private sector*	**1,837**	**1,844**	**1,783**	**1,605**	**1,448**	**1,380**	**1,339**	**Sep-15**	**234%**	**-28.4%**	**-3.4%**
NPLs											
Loans to households	**29.9**	**26.0**	**28.7**	**37.0**	**49.4**	**46.8**	**40.7**	**Jun-15**	**1062%**	**67.2%**	**-18.2%**
Of which:											
Housing loans	17.9	15.2	18.2	24.0	34.6	32.6	28.2	Jun-15	1878%	90.1%	-18.9%
Other loans to households	12.0	10.8	10.5	13.0	14.8	14.1	12.5	Jun-15	607%	31.4%	-16.5%
Lending to corporates and SMEs	**61.9**	**79.7**	**109.9**	**128.4**	**146.1**	**124.6**	**107.4**	**Jun-15**	**818%**	**187.9%**	**-20.4%**
Of which:											
Lending to real estate	43.6	58.0	81.9	84.8	87.8	70.7	58.2	Jun-15	2790%	116.4%	-26.7%
Other lending to corporates and SMEs	18.3	21.7	28.0	43.6	58.2	53.9	49.2	Jun-15	232%	372.6%	-11.3%
Total lending to domestic private sector*	**93.3**	**107.2**	**139.8**	**167.5**	**197.2**	**172.6**	**142.8**	**Sep-15**	**808%**	**126.5%**	**-20.9%**
NPL ratio											
Loans to households	**3.68%**	**3.20%**	**3.61%**	**4.90%**	**6.91%**	**6.78%**	**5.99%**	**Jun-15**	**246%**	**101.5%**	**-14.1%**
Of which:											
Housing loans	2.87%	2.41%	2.90%	3.97%	5.96%	5.85%	5.20%	Jun-15	434%	120%	-14.3%
Other loans to households	6.34%	5.97%	6.28%	8.63%	11.05%	10.71%	9.09%	Jun-15	173%	84%	-14.8%
Lending to corporates and SMEs	**6.19%**	**7.87%**	**11.32%**	**15.48%**	**20.31%**	**18.49%**	**16.23%**	**Jun-15**	**173%**	**343%**	**-16.5%**
Of which:											
Lending to real estate	9.62%	13.48%	20.63%	28.24%	37.05%	35.32%	31.53%	Jun-15	369%	451%	-13.9%
Other lending to corporates and SMEs	3.35%	3.72%	4.88%	8.24%	12.08%	11.38%	10.32%	Jun-15	37%	442%	-11.4%
Total lending to domestic private sector*	**5.08%**	**5.81%**	**7.84%**	**10.43%**	**13.62%**	**12.51%**	**10.67%**	**Sep-15**	**172%**	**216%**	**-18.1%**

(*)Total ORS loans includes household loans, total loans for productive activities, non-profit agencies serving households (ISFLSH in Spanish) and unclassified lending. Since January 2014 this has included loans to Financial Credit Institutions.

Source: Bank of Spain statistics bulletin

Table 5

Breakdown of new lending volume. Annual cumulative amount (EUR bn and % var.)

	2009	2010	2011	2012	2013	2014	2015	Fecha	Growth rate ‘03-'08	‘08-‘14	y-on-y
Loans to households	150.6	123.4	74.3	63.3	51.2	60.5	61.5	Oct-15	0.7%	-67.4%	26.3%
Of which: Housing loans	73.2	69.5	37.5	32.3	21.9	26.8	28.9	Oct-15	-15.6%	-69.2%	36.8%
Other loans to households	77.5	53.9	36.8	31.0	29.4	33.7	32.6	Oct-15	21.3%	-65.9%	18.2%
Lending to corporates and SMEs	867.7	665.0	527.5	484.8	392.6	357.2	323.6	Oct-15	29.2%	-61.6%	14.6%
Of which: SMEs (loans < €1million	262.8	210.3	174.1	146.0	134.4	146.6	135.7	Oct-15	11.3%	-58.9%	13.7%
Corporates (loans > €1million	605.0	454.7	353.4	338.9	258.2	210.6	187.9	Oct-15	43.5%	-63.2%	15.2%
Total new lending flows	**1,018.3**	**788.4**	**601.8**	**548.1**	**443.9**	**417.7**	**385.1**	**Oct-15**	**23.3%**	**-62.5%**	**16.3%**

Source: Bank of Spain

Table 6

Breakdown of resident deposits (EUR bn and % var.)

	2009	2010	2011	2012	2013	2014	2015	Fecha	Growth rate 00-'08	08-latest	y-on-y
Sight deposits	263	262	270	265	282	329	373	Sep-15	100%	52%	19.2%
Savings deposits	208	211	203	199	206	222	245	Sep-15	73%	18.0%	14.4%
Term deposits	720	744	698	684	668	588	516	Sep-15	270%	-28.3%	-16.8%
Deposits in foreign currency	22	19	18	20	21	22	22	Sep-15	527%	-1.1%	4.4%
Total deposits of domestic resident sector *	**1,213**	**1,236**	**1,188**	**1,168**	**1,177**	**1,160**	**1,157**	**Sep-15**	**163%**	**-4.6%**	**-1.1%**

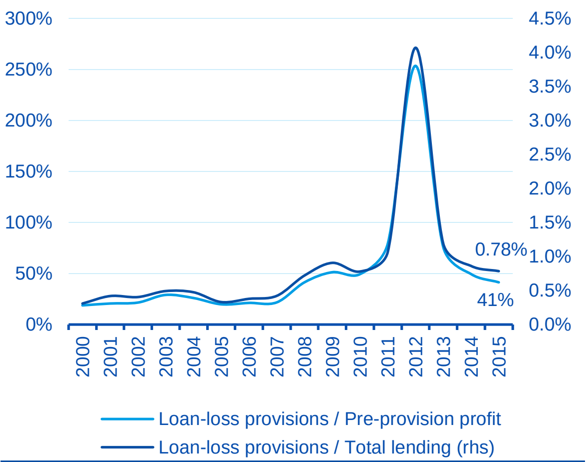
(*)Total ORS deposits does not match up with the data in Table 1 because the latter includes Asset transfer liabilities, Subordinated deposits, Rerpos and Hybrid instruments.
Source: Bank of Spain statistics bulletin

Table 7
Key ratios

	2009	2010	2011	2012	2013	2014	2015	Date	Growth rate 00-'08	Growth rate 08-latest	Growth rate y-on-y
Productivity											
Business volumen* per employee (€'000 per employee)	11,317	11,679	11,974	11,725	12,050	12,195	n.d.	Dec-14	177%	11.2%	1%
Profit before tax per employee (€'000 per employee)	53.3	37.3	-70.3	-368.4	19.1	62.7	n.d.	Dec-14	82%	-14.4%	229%
Efficiency											
Cost-to-Income ratio (Operating expenses / Total revenue)	43.5%	46.5%	49.8%	45.3%	48.2%	47.1%	45.7%	Jun-15	-29%	2.8%	5.5%
Operating expenses / ATA	0.91%	0.91%	0.86%	0.79%	0.83%	0.88%	0.91%	Jun-15	-43%	-4.5%	5.7%
Profitability											
RoE	7.0%	5.2%	-7.4%	-35.5%	4.1%	4.9%	4.8%	Jun-15	-3.4%	-53.8%	-22.1%
RoA	0.44%	0.30%	-0.52%	-2.55%	0.13%	0.44%	0.49%	Jun-15	-24%	-25.5%	5.6%
Liquidity											
Loans-to-Deposits (resident sector)	152%	149%	150%	137%	123%	119%	116%	Sep-15	15%	-26.7%	-2.4%
Funding gap (Loans - Deposits, resident sector, EUR bn)	624	608	594	437	271	220	182	Sep-15	349%	-73.4%	-16.1%
Funding gap / Total assets	19.3%	18.7%	17.5%	12.8%	9.0%	7.6%	6.5%	Sep-15	58%	-69.4%	-11.3%
Solvency and Asset Quality											
Leverage ratio (Shareholders' equity / Total assets)	5.9%	5.5%	6.5%	5.7%	7.7%	7.9%	8.1%	Sep-15	-18%	44.0%	1.8%
Shareholders' equity / NPLs	204%	166%	158%	117%	118%	133%	158%	Sep-15	-74%	-44.8%	21.8%
Provisioning effort (LLP / Pre-provision profit)	51.2%	49.3%	79.1%	253.6%	75.8%	49.5%	41.3%	Jun-15	121%	0.0%	-8.7%
Cost of Risk (Loan-loss provisions / total lending)	0.91%	0.78%	1.06%	4.07%	1.19%	0.86%	0.78%	Jun-15	134%	8.9%	-7.2%
NPL ratio (resident sector)	5.08%	5.81%	7.84%	10.43%	13.62%	12.51%	10.67%	Sep-15	172%	216.3%	-18.1%
NPL coverage ratio (total)	58.6%	66.9%	59.6%	73.8%	58.0%	58.1%	60.6%	Sep-15	-58%	-14.3%	2.6%
NPL coverage ratio (specific provisions)	37.7%	39.6%	37.1%	44.7%	46.9%	46.7%	49.1%	Jun-15	-39%	56.2%	1.6%

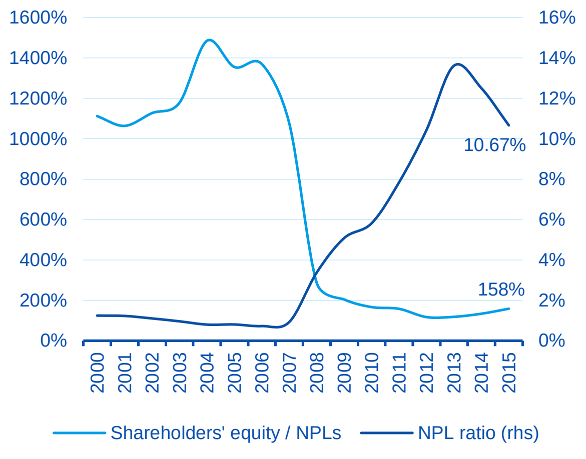
(*) ORS loans plus ORS deposits
Source: Bank of Spain statistics bulletin

Figure A1.1
Provisions



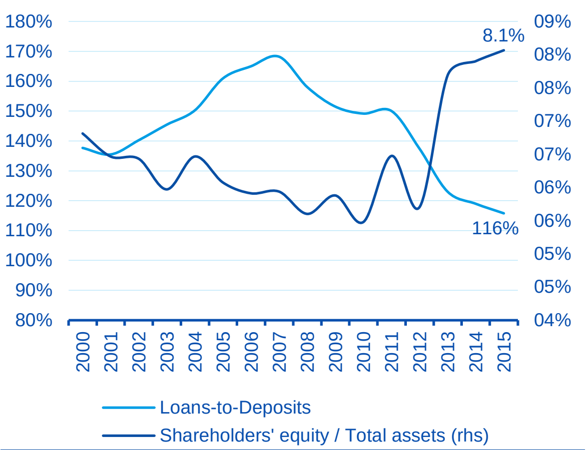
Source: BBVA Research

Figure A1.2
NPLs and Capital to NPLs



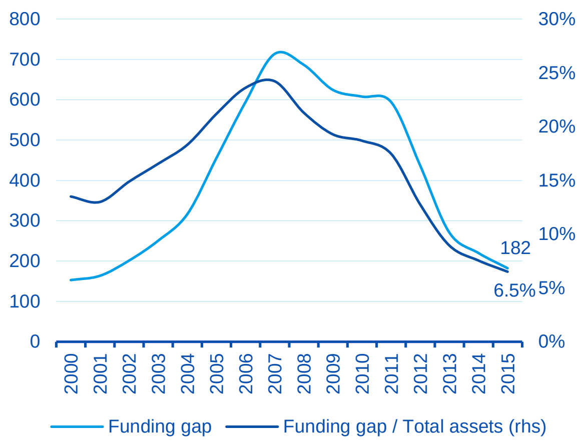
Source: BBVA Research

Figure A1.3
Liquidity and leverage



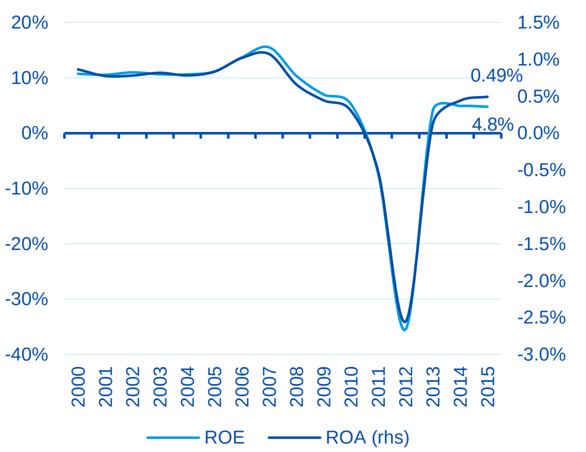
Source: BBVA Research

Figure A1.4
Funding gap (ORS loans – ORS deposits, EUR bn)



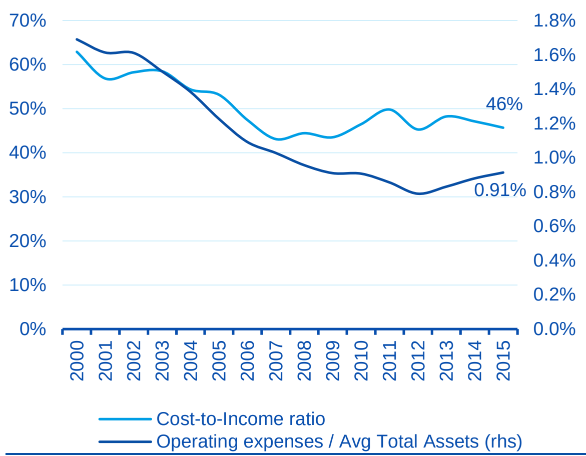
Source: BBVA Research

Figure A1.5
Profitability



Source: BBVA Research

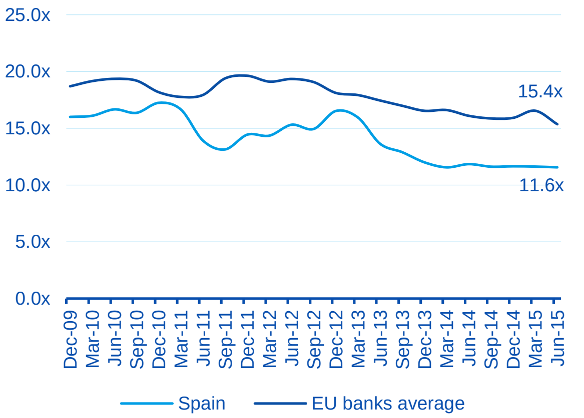
Figure A1.6
Efficiency



Source: BBVA Research

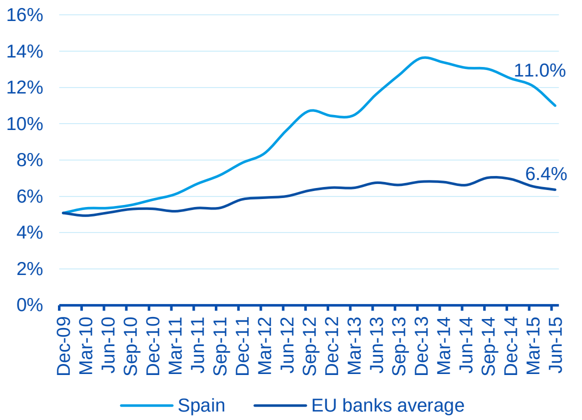
Annex 2: comparative analysis of the Spanish banking sector

Figure A2.1
Debt-to-Equity



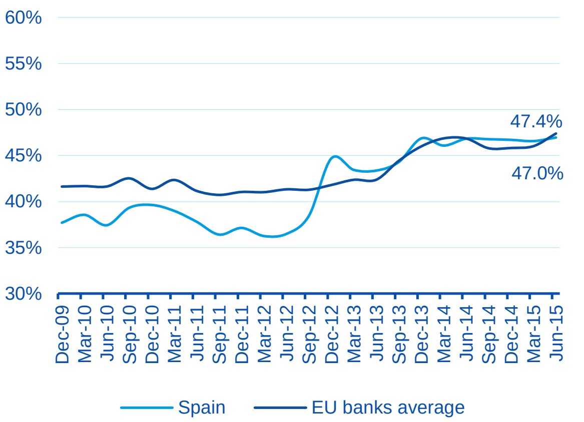
Source: EBA, BBVA Research

Figure A2.2
NPL ratio



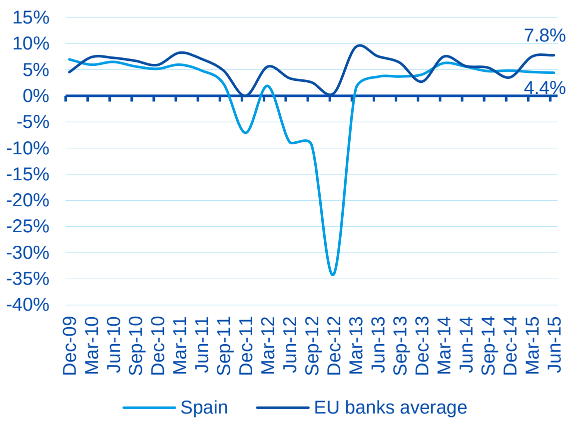
Source: EBA, BBVA Research

Figure A2.3
Coverage ratio



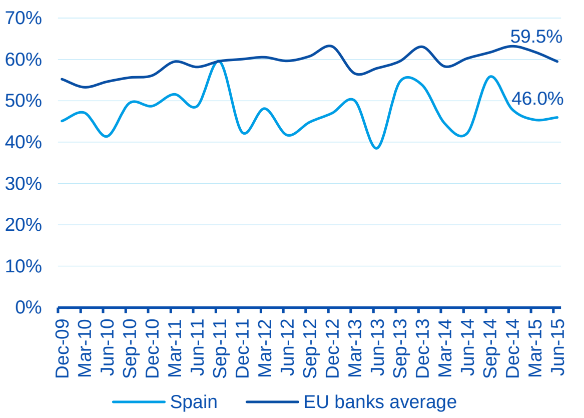
Source: EBA, BBVA Research

Figure A2.4
ROE



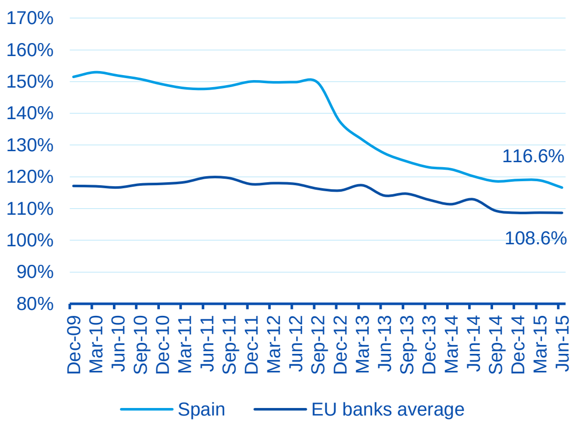
Source: EBA, BBVA Research

Figure A2.5
Cost-to-Income



Source: EBA, BBVA Research

Figure A2.4
Loans-to-Deposits



Source: EBA, BBVA Research

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This report has been produced by the Financial Systems Unit:

Chief Economist for Financial Systems and Regulation
Santiago Fernández de Lis
sfernandezdelis@bbva.com

Financial Systems
Ana Rubio
arubiog@bbva.com

Jaime Zurita
jaime.zurita@bbva.com

Olga Gouveia
olga.gouveia@bbva.com

Macarena Ruesta
esperanza.ruesta@bbva.com

José Félix Izquierdo
jfelix.izquierd@bbva.com

Miriam García
miriam.garcia.martin @bbva.com

With the contribution of:
Pablo Urbiola
pablo.urbiola@bbva.com

Javier Sebastián
jsebastian@bbva.com

BBVA Research

Group Chief Economist
Jorge Sicilia Serrano

Developed Economies Area
Rafael Doménech
r.domenech@bbva.com

Spain
Miguel Cardoso
miguel.cardoso@bbva.com

Europe
Miguel Jiménez
mjimenezg@bbva.com

US
Nathaniel Karp
Nathaniel.Karp@bbva.com

Emerging Markets Area

Cross-Country Emerging Markets Analysis
Alvaro Ortiz
alvaro.ortiz@bbva.com

Asia
Le Xia
le.xia@bbva.com

Mexico
Carlos Serrano
carlos.serranoh@bbva.com

Turkey
Alvaro Ortiz
alvaro.ortiz@bbva.com

LATAM Coordination
Juan Manuel Ruiz
juan.ruiz@bbva.com

Argentina
Gloria Sorensen
gsorensen@bbva.com

Chile
Jorge Selaive
jselaive@bbva.com

Colombia
Juana Téllez
juana.tellez@bbva.com

Peru
Hugo Perea
hperea@bbva.com

Venezuela
Julio Pineda
juliocesar.pineda@bbva.com

Financial Systems and Regulation Area
Santiago Fernández de Lis
sfernandezdelis@bbva.com

Financial Systems
Ana Rubio
arubiog@bbva.com

Financial Inclusion
David Tuesta
david.tuesta@bbva.com

Regulation and Public Policy
María Abascal
maria.abascal@bbva.com

Digital Regulation
Álvaro Martín
alvarojorge.martin@bbva.com

Global Areas

Economic Scenarios
Julián Cubero
juan.cubero@bbva.com

Financial Scenarios
Sonsoles Castillo
s.castillo@bbva.com

Innovation & Processes
Oscar de las Peñas
oscar.delaspenas@bbva.com

Contact details:

Azul Street, 4
La Vela Building - 4 and 5 floor
28050 Madrid (Spain)
Tel.: +34 91 374 60 00 and +34 91 537 70 00
Fax: +34 91 374 30 25
bbvaresearch@bbva.com
www.bbvaresearch.com