BBVA Research

Creating Opportunities

Banking Outlook

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1. Developments in the Spanish banking sector

The net profit of the system in the first quarter of 2019 was EUR 3.2 billion, slightly higher than in the same period of the previous year. The key factors affecting the sector's performance were weak revenues (especially upon the most volatile items), cost control, and lower provisions. Deleveraging has continued in the economy's private sector, although since December 2018 there has been a slight upturn in the system's total volume of lending. The NPL ratio continues to fall and profitability indicators have improved from the levels of 1Q'18.

2. European banks: ready for MREL?

In this study, we analyze the costs of two types of subordinated instruments (senior non-preferred and Tier 2) by banking system and by rating, calculating the weighted average yield to maturity (YTM) of issuances in EUR during the period ranging from January 2018 to April 2019. We find that there is high dispersion in the average YTM among countries and ratings. As expected, lower rated issuances have much higher YTM, with differences increasing among subordinated (Tier 2) instruments.

3. Leveraged loans: recent evolution and side effects

The market of leveraged loans has grown rapidly and currently is at all-time highs. Leveraged loans are originated by banks and distributed to either CLO managers, estimated to hold around one third of the outstanding amount in Europe and the United States, or non-bank investors. The rapid growth in recent years of the leveraged loans markets has contributed to the excessive build-up of debt in advanced economies. The relaxation of investors' protection schemes and the deterioration of the borrowers' credit quality could undermine recovery rates in the event of a downturn, making losses bigger than in past crisis.

4. A new TLTRO program begins

This September, a new TLTRO program (the third) will be initiated, in which a more conservative and strategic approach than in the previous program would be expected of the entities, given the limit per auction and the shorter maturities, despite the initial better cost conditions. In addition to these operations, the ECB has launched new measures aimed at mitigating the negative effects of negative rates.

5. Macroprudential policies in Europe

Macroprudential instruments are a key tool for financial stability and the prevention of systemic risks, particularly in periods of expansionary monetary policy as is currently the case. In Europe, the use of these tools has increased in recent years with a wide range of instruments and differences among countries in the calibration and implementation of measures. In Spain, the recent development of the prudential framework with the ability to act if systemic risks are detected is a positive step. However, detailed analysis is needed of the pros and cons of these tools, their impact, and their suitability for the Spanish system, to ensure the costs of their implementation are compensated throughout the cycle.

1. Developments in the Spanish banking sector[1]

Jaime Zurita

Results

- In the first quarter of 2019 (latest available data), the trend observed in 2018 was maintained: weak revenues, cost control and lower provisions (Table A1.2).

- Total revenues in the quarter fell 2.7% YoY. Net interest revenue is essentially the same as in the first quarter of 2018 (-0.4%) in line with the continued reduction in the volume of lending, despite the upturn in interest rates on lending, which have risen slightly in the year, and the additional reduction in NPLs.

- As shown in Table A1.7, the rates applied to new lending operations are on the rise for household and business loans. Additionally, the prices of new operations are higher than the average stock rates in all portfolios. In turn, rates on deposits (Table A1.8) continue to narrow, especially on new term deposits by businesses.

- Commission income dropped by 1.4% in 1Q'19, breaking the upward trend of the previous three years. Finally, trading gains and other income items saw the sharpest decline in the quarter (-8.3%). As a result, total revenues in the first three months of 2019 fell by 2.7% compared to the the same period of 2018.

- Operating expenses remain under control, with zero growth in the first quarter of the year. Staff costs rose by 0.9% YoY, while overheads (including depreciation on fixed assets) fell by 0.9%. Due to the performance of revenue and expenses, the cost-to-income ratio deteriorated by almost 2 percentage points to 56.3% and pre-provision income fell by 6.1%.

- Loan-loss provisions remained at very low levels and the net impairment result for other assets and other extraordinary items improved by 44%. It is worth highlighting that in the first quarter of 2019 the cost of risk (loan-loss provisions / average total lending) and the effort in provisions (loan-loss provisions / pre-provision income) were 0.22% and 17.0%, respectively. These figures are in line with the levels of 2018, very close to pre-crisis levels, and substantially below the levels of recent years.

- In short, the system's net attributable income in 1Q'19 was EUR 3.2 billion, 3.7% higher than in the first quarter of 2018.

1: Tables and data can be found in the appendices to this document. The data used for the analysis of the Spanish banking system is in chapter 4 of the Statistical Bulletin of the Bank of Spain and the data used for international comparison is in the Risk Dashboard of the European Banking Authority (EBA). Analysis of the Spanish banking industry is confined to banking business in Spain. In all documents, "€ bn" are billions of euros.

Activity

- With data as of June 2019, the total volume of the system's balance sheet increased by 0.4% YoY, and by 2.3% since December 2018 (Table A1.1), reaching EUR 2.64 billion, 215% of GDP (324% in 2012). In parallel, the system's staff and number of branches continued to decline, with reductions of 33% (up to December 2018, latest available data) and 44% (March 2019) respectively from the peak seen in 2008.

- Despite this slight upturn in the first half of 2019, deleveraging has continued in the private sector of the economy. The volume of ORS (Other Resident Sectors) loans fell by an additional 1.2% YoY as of June 2019. Fixed-income and equity portfolios were also down YoY, although they have increased slightly since December. In the last twelve months up until June, the only item to have grown is loans to non-residents.

- On the liabilities side, there has been a slight increase in ORS deposits (+3.2%) and a stronger increase in Public Administration deposits (+9.6%) YoY until June, while non-resident deposits contracted slightly. In more detail (Table A1.6), demand deposits continue to increase (+9%), while term deposits fell a further 14% YoY up to June of this year. With data as of July, there was a substantial reduction in the ECB's liquidity (-11.6% YoY) prior to the launch of the new TLTRO program, and the system's debt volume has increased by 3% over the past 12 months. The volume of capital on balance sheet has fallen slightly (-1.8%) due to the initial impact of the entry into force of the IFRS16 international accounting standard.

Spotlight on lending and NPLs

- The volume of private sector credit (Table A1.4) fell by 1.2% YoY up to June 2019, although in the first six months of 2019 there was an upturn in the system's stock of loans, reaching EUR 1.21 billion, 99% of GDP compared to 171% at the end of 2010 (Table A1.3). It is unclear whether this upward trend will continue over the coming months as several institutions have announced the sale of loan portfolios and assets to be completed this year.

- The breakdown of total lending by portfolios (based on data as of March 2019, Table A1.4) shows a reduction in loans to SMEs and large corporates, since lending to households remained at the same volume as the year before. Lending for house purchases fell by 1.0% YoY as of March this year, while lending to households for purposes other than house purchases grew by 3.8%. Total loans to corporates and SMEs fell by 3.6% YoY as of March, especially lending for real estate activities and construction which contracted by 12%, in part due to the sales of assets and loans completed during the final months of 2018 and the first quarter of 2019.

- The system's asset quality indicators continue to improve. The amount of non-performing loans fell again in the first half of 2019 and in year-on-year terms it contracted by 17.3%. The NPL ratio in June 2019 was 5.35%, 16.3% (104 bps) lower than twelve months before despite the continued reduction in lending. From the maximum non-performing loan level in the system (December 2013), the volume of NPLs in the system has fallen by 67% (EUR -132 billion).

- With regard to new lending operations (Table A1.5), the cumulative volume of new production in the first half of 2019 is 3.2% lower than the cumulative volume in the same period of 2018. New operations have had three consecutive years of growth and currently represent around 40% of the annual average of the years immediately prior to the start of the crisis.

Key ratios

- With data as of March 2019 (Table A1.9), the system continues to improve its productivity over the closing levels of 2018, which were already at peak in the historical series. However, efficiency indicators were down slightly in the first quarter of 2019, mainly due to weak revenues. The cost-to-income ratio stands at 56.3% and operating costs remain at 1% of the total assets (Figure A1.6). These levels are a benchmark in the European comparison.
- Profitability (Figure A1.5) has shown a slight improvement over the closing levels of 2018. ROE and ROA stood at 5.8% and 0.58% respectively, and the NIM (net interest revenue / average total assets) continued in line with that seen in previous years. As mentioned above, the reduction in provisions (Figure A1.1) is one of the factors behind the system's profitability, which in any case remains below pre-crisis levels, especially ROE, in part due to the capital accumulation caused by the recent crisis.
- The indicators for the system's solvency remain slack. The volume of capital on the balance sheet (paid up capital and cumulated reserves) reached 8.5% of total assets as of February 2019 (Figure A1.3), which is 3.4 times the system's NPL volume (Figure A1.2). From a regulatory perspective, the system's CET1 ratio stood at 12.2% at the close of 2018 (latest available data), 43 bps below the level in 2017 due, for the most part, to the effects of transitional adjustments.
- Liquidity continues not to be a problem in general terms, and we expect that this will remain the case after the announcement of a new TLTRO from the ECB. The funding gap (difference between ORS loans and ORS deposits, Figure A1.4) fell again in the first half of the year to virtually zero, a new record low and a long way from the peak in 2007 (EUR 714 billion, 24% of the balance sheet), with a decrease of over EUR 710 billion.

International comparison[2]

Once again this quarter, the main conclusions remain the same:

- Spanish banks are more efficient than their European competitors (Figure A2.1).
- The system's NPL ratio continues to be higher (Figure A2.2) despite the decline in the volume of non-performing loans.
- Profitability has improved, but at a domestic level remains below the EU average (Figure A2.4).
- Regarding the stabilization of the balance sheet, the impairment of the 2017 coverage ratio caused by increased recognition of NPLs with Banco Popular was a one-time event (Figure A2.3).

2: The comparison of the Spanish banking system with the average of EU banks (Appendix 2) was carried out with data from the "Risk Dashboard" from the European Banking Authority (EBA), which contains an average of over 150 of the main banking institutions in the EU at consolidated level. The latest data available is from Q1 2019.

2. European banks: ready for MREL?

María Rocamora

On 7th June 2019, BRRD II was published in the Official Journal of the EU. Among the key novelties, the subordination requirement (i.e. the amount of the MREL requirement to be fulfilled with subordinated instruments, (which include AT1, Tier 2 and senior non-preferred debt) is now regulated for European banks .

These subordinated instruments are the most expensive among MREL-eligible types of debt, which also include traditional senior debt. In this study, we analyze the costs of two types of subordinated instruments (senior non-preferred and Tier 2) by banking system and by rating, calculating the weighted average yield to maturity (YTM) of issuances in EUR during the period ranging from January 2018 to April 2019. We find that there is high dispersion in YTM among countries and ratings. Moreover, there is high correlation between rating and YTM, with increasing YTM in worse rating levels.

Senior non-preferred: the cheapest way to comply with subordination requirements

In the period ranging from January 2018 to April 2019, the average YTM was 0.98%. The main issuers in the period were Germany and France, which concentrate more than 70% of issuances in EUR in the period. Regarding ratings, around 50% of the issuances in EUR are rated Baa1 or Baa2, with an average YTM slightly below average. In addition, there is high heterogeneity in YTM depending on the rating (e.g. changing from Baa1/Baa2 to A3 entails a reduction in yield to maturity of more than 50 bps and changes from Baa1/Baa2 to Ba1 increase the YTM by 50bps).

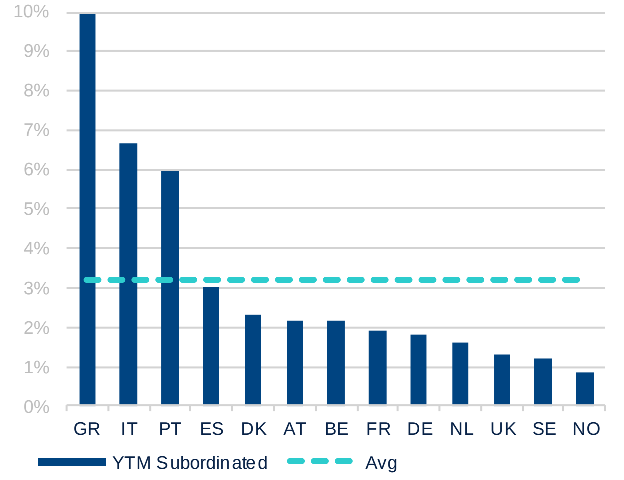
Speculative issuances have a well above average yield to maturity, but they are scarce. However, if the economic environment deteriorates and the conditions tighten, issuances are likely to be rated at lower levels, which would significantly increase issuing costs for European banks, making even more difficult to comply with MREL.

Subordinated debt issuances (mainly eligible for Tier 2)

Subordinated debt issuances are more expensive than senior non-preferred. In the period considered, the average YTM of issuances in EUR was 3.2% (vs 0.98% for senior non-preferred). Spanish, French and Italian banks were the main issuers in this period and concentrated more than half of issuances.

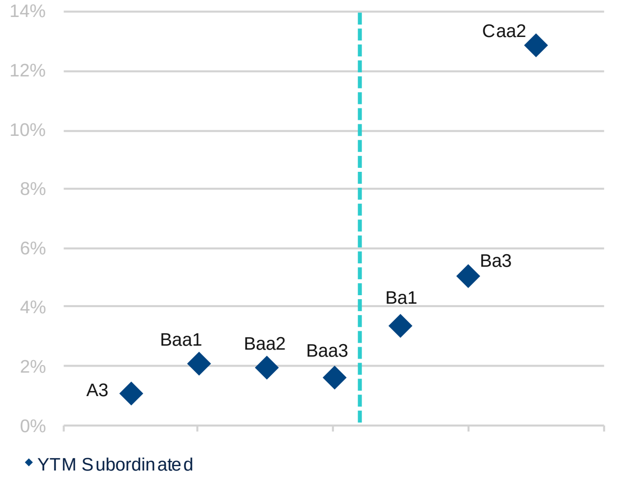
Regarding YTM per rating, 42% of issuances are rated Baa1/Baa2, with an average 2% YTM. In this market, changes from Baa1 to A3 entail a reduction in yield to maturity of 99bps and changes from Baa3 to Ba1 (speculative grade) entail an increase in yield to maturity of 180bps. Therefore, the differences in YTM among rating tranches are more pronounced in this market than in senior non-preferred market.

Figure 1A. **YTM OF SUBORDINATED ISSUANCES IN THE PERIOD JANUARY 2018-APRIL 2019, BREAKDOWN BY COUNTRY**



Source: Bloomberg and BBVA Research calculations. The weighted average YTM per country has been obtained by weighting each bank issuance with each country corresponding issuances. Only issuances in EUR have been considered.

Figure 1B. **YTM OF SUBORDINATED ISSUANCES IN THE PERIOD JANUARY 2018-APRIL 2019, BREAKDOWN BY RATING**



Source: Bloomberg and BBVA Research calculations. The weighted average YTM per rating has been obtained by weighting each bank issuance with each rating corresponding issuances. Only issuances in EUR have been considered. Dotted line divides ratings into investment grade (left side) and speculative (right side)

Conclusions

In conclusion, banks have benefited from good issuance conditions for MREL compliant instruments. We found differences among instruments, among ratings and countries. As expected, lower rated issuances have much higher YTM, with differences increasing among subordinated (Tier 2) instruments.

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3. Leveraged loans: recent evolution and side effects

María Rocamora

According to the ECB[3], leveraged transactions are those where the borrower's leverage exceeds 4 times debt-to-EBIDTA or the borrower is owned by a financial sponsor.

Under the accommodative monetary policy of the last years, the market of leveraged loans has grown rapidly and reached maximum levels. Leveraged loans are originated by banks and distributed to either CLO managers, estimated to hold around one third of the outstanding leveraged loans in Europe and the US[4], or non-bank investors (e.g. pension funds, insurers, mutual funds), which are estimated to hold more than a third of the total global leveraged loan market. The rest is maintained in banks' balance sheet and comprise those leveraged loans originated and not yet distributed, tranches of loans that banks' choose to retain in their balance sheets and CLO holdings (mainly senior tranches).

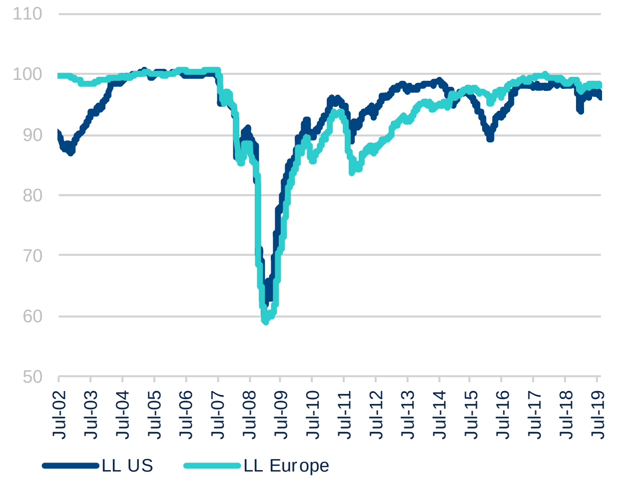
Leveraged loan prices evolved negatively after rate cut by Fed in July

In the first quarter of 2019, leveraged loan prices in Europe increased by 0.7% (-0.2% in the same period of 2018). In the United States, prices increased by 3% in the first quarter (0.4% in the same period of 2018). Thus, markets left behind the threats of price drops occurred in the last quarter of 2018. During the second quarter of 2019, prices continued growing, although at a slower pace. Leveraged loan prices increased by 0.35% in Europe and by 0.39% in the United States.

Finally, in July and August 2019 the upward trend observed in the first half of the year reversed, with prices declining in the United States by 0.5% and by 0.03% in Europe. In particular, price declines have been observed since the 25bps rate cut in the United States in July 2019[5] and the escalation of trade tensions between U.S. and China. Since this decision, prices declined by 0.78% in August in the United States and by 0.10% in Europe.

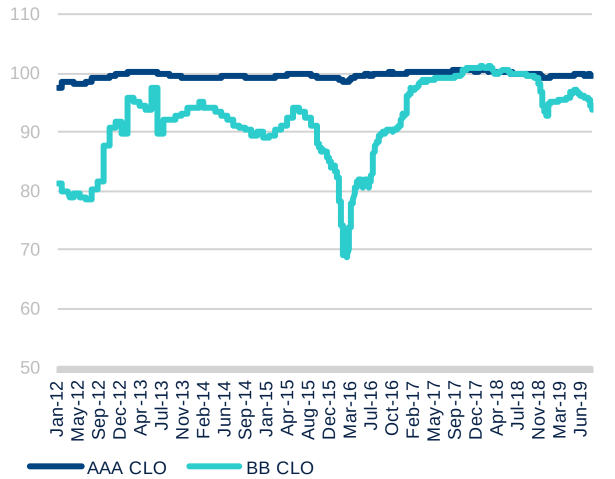
3: See Guidance on leveraged transactions (May 2017).
4: See Financial Stability Review (May 2019), European Central Bank.
5: See FOMC Meeting: July 30th-31th.

Figure 1A. **LEVERAGED LOAN INDEX, PRICES**



Source: Bloomberg and BBVA Research

Figure 1B. **CLO AAA AND CLO BB DEBT INDEX (U.S.)**



Source: Bloomberg and BBVA Research

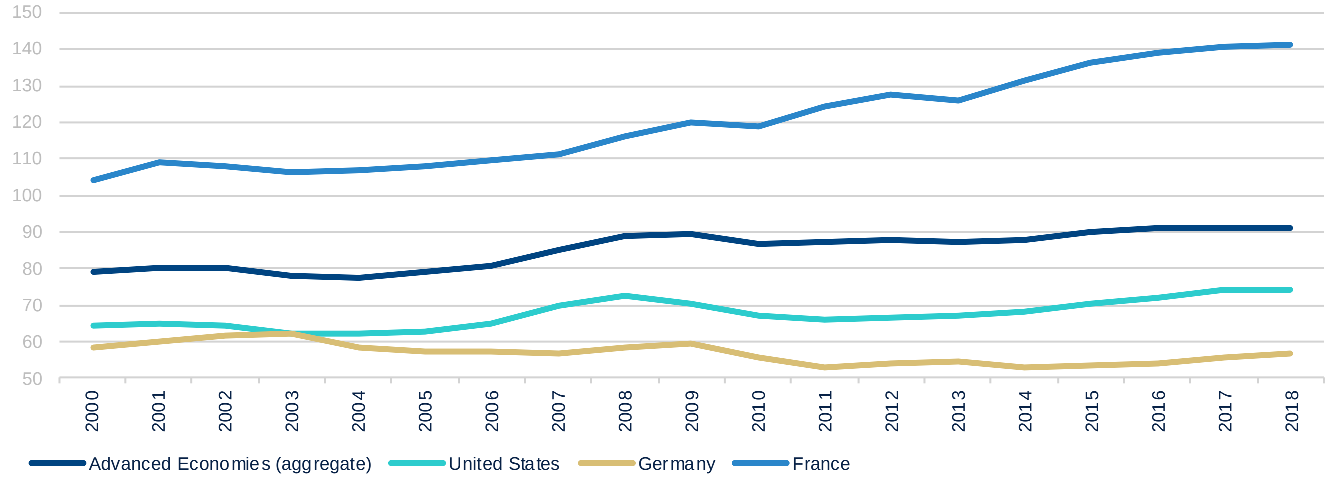
The evolution of CLO prices in the United States was positive during the first quarter of 2019 (AAA and BB prices rebounded 0.30% and 2.96%, respectively). Similarly to leveraged loans, this positive trend slowed down during the second quarter of 2019 (AAA and BB prices increased by 0.32% and 0.58%, respectively). Finally, during the third quarter up to the end of August 2019, prices declined in both cases (declines of 0.1% and 2.4% for AAA and BB, respectively).

The negative path in both leveraged loans and CLO prices observed during August 2019 evidences the fact that investors are reluctant to bear the risks associated to leveraged loans under a lower interest rate environment

Associated risks and side effects

The rapid growth in recent years of the leveraged loans markets has contributed to the excessive build-up of leverage in advanced economies. According to data from the BIS, the ratio of credit to non-financial corporations to GDP has increased from 85% in 2007 to 91% in 2018 for advanced economies. The Euro area registered an even higher growth rate, going from 92% in 2007 to 105% in 2018, with countries like France reaching a ratio of 141% in 2018. Finally, the United States is also above pre-crisis levels. Apart from the ratio of credit-to-GDP, the concession of leveraged loans was concentrated in borrowers with an increasing level of debt (with an average reported debt-to-EBITDA ratio around levels observed in 2007).

Figure 2. **CREDIT TO NON-FINANCIAL CORPORATIONS, PERCENTAGE OF GDP**



Source: BIS and BBVA Research

Apart from growing debt levels, there are other risks related to the deterioration of underwriting standards. Traditional measures of investor protection have been relaxed in recent years, mainly observed in the rising share of new leveraged loans issued with no maintenance covenants, which remains close to record highs globally. The relaxation of investor protection and the deterioration in the borrowers' credit quality (e.g. highly indebted borrowers) may undermine recovery rates in the event of a downturn, making losses greater than in past crises.

In conclusion, this deterioration of underwriting standards is unprecedented and the evolution of leveraged loan markets under a stressed scenario is uncertain.

4. A new TLTRO program begins

Virginia Marcos

Features of the TLTRO III program

In September, European Central Bank is beginning a new liquidity program known as TLTRO III. TLTRO stands for *targeted long-term refinancing operations*, i.e. long-term loans to financial entities with specific targets, conducted by the ECB within its non-conventional monetary policy tools. **The aim of this program is to contribute to the maintenance of favorable bank financing conditions and to support the ECB's policy of accommodation**.

The first draft of this new TLTRO program, designed during the months of April-May amid a more favorable economic background, included several features that were less attractive for banks than those of the previous one (TLTRO II). In this vein, **one of its main goals was to smooth out the repayment of previous TLTRO funds** given that the outstanding amount of TLTRO funds to be repaid by eurozone banks was in excess of EUR 700 billion (half of which correspond to Spanish and Italian entities). The final repayment date of the TLTRO II program was June 2020.

However, in the face of a deterioration of economic conditions in the eurozone, the ECB, in its Monetary Policy Meeting in September, modified the main features of the third round of TLTROs and launched a new package of monetary easing measures such as an additional cut in the deposit facility rate, a new open-ended asset purchase program which will be in place until interest rates pick up, and a scheme of tiered-rates for bank deposits at the ECB.

Overall, **the final design of the TLTRO III is similar to TLTRO II and, ultimately, makes this new program more attractive for eurozone banks**. Compared to the initial draft, the final version includes cost benefits for the entities (no spreads over MRO and the deposit facility rate, vs +10 bps in the initial draft) and extends maturities (from 2 years to 3 years with early repayment option in the final version).

In short, the ECB has decided to carry out a new TLTRO program with the following features:

- **Seven quarterly auctions** between September 2019 and March 2021 **with a maturity of 3 years with the option of early amortization from the second year**, in contrast to the previous program (four years, also with the option of early amortization from the second year).

- The **maximum amount that can be borrowed** per institution is **30% of the volume of business and household loans (excluding mortgage loans)** at the end of February 2019, minus the outstanding amount of funds from the previous TLTRO. **As a new feature, a limit per auction has been established**, which will be the lowest between: a) the previous amount (deducting the amounts borrowed during previous TLTRO III auctions); b) 10% of the stock of eligible loans. This new feature aims to prevent large requests at the final auction, as was the case in TLTRO II.

- **Cost**: the interest rate in TLTRO III will be **the average rate applied to the Eurosystem's main refinancing operations** (MROs) for the term of the operation. At first sight, this rate is initially similar to that of the TLTRO II (no spread over the MRO rate of the date of concession). However, if a benchmark is met the interest rate could be reduced to the average interest of the deposit facility, which may be more favorable than TLTRO II following the expected rate cut that is currently forecast (and it remains open to up and down movements in the future). This benchmark is calculated based on whether the eligible loans exceed by 2.5% the reference value[6] as of 31 March 2021; below this limit the interest rate will be reduced proportionally. **This benchmark calculation is no different compared to TLTRO II**.

The effectiveness of TLTRO programs has been a much debated issue, due to the complexity of isolating the effects of other ECB measures and the economic situation in each individual country. In any event, the ECB recognizes[7] that these programs have proven **effective in improving lending conditions** for the non-financial private sector, both in terms of interest rates and volumes, especially in the most vulnerable countries.

In addition, **studies** such as that of the Bank of Finland[8] **highlight the impact at bank level**, more favorable toward loans to business than loans to households. The Bank of Spain[9] has also shown that the TLTRO programs have reduced the funding costs of participating banks and led to an expansion in their lending supply. As a result, through competition, non-participating banks have also had to relax lending conditions to avoid losing their market share. In turn, **BBVA Research has estimated that implementation of the TLTRO programs has increased the granting of new loans for portfolios incentivized by the program**.

Therefore, we think that in markets with a high level of competition, **although solid institutions may not need to make use of the TLTRO funds, they could benefit from them in order to relax their granting criteria, maintain their market share, and be able to compete on equal terms** (unless they already gain this advantage in price with other financing on the market).

Outlook of the eurozone financial systems in TLTRO III

On aggregate, taking into account the outstanding balance from the previous TLTRO program, **Italy and Spain are the financial systems with the least capacity to apply for additional funds** in TLTRO III (they could apply for 15–20% of their maximum amount[10]), followed by Portugal (33% available capacity). Banks in Ireland, Luxembourg and Germany are at the opposite end of the scale (80–90% of their available capacity). As shown in Table 1, the enhanced capacity to apply for funds among the core countries is of particular note.

Another factor influencing the application for TLTRO funds is the benchmark set up to benefit from a greater reduction in rates. **All systems except the Netherlands, Spain, Italy, Portugal, and Greece, which are starting from negative net lending** (i.e. systems in the process of deleveraging), **should grow their eligible stock of loans by 2.5% in two years**, which seems feasible considering the latest rates of lending growth. However, the uncertainty of the current economic environment will affect this situation. **The Netherlands and Spain need to reverse their current trend in lending performance**, **while Italy, Portugal and Greece need to pull back on deleveraging**.

6: The reference value for institutions with positive computable net lending from February 2018 to March 2019 is set at zero. In contrast, for institutions with negative computable net lending during that period, the reference value will be equal to the net computable funding in that period.
7: ECB Economic Bulletin, Issue 3/2017: The targeted longer-term refinancing operations: an overview of the take-up and their impact on bank intermediation.
8: Laine O. (2019), The effect of TLTRO on bank lending, Bank of Finland Research Discussion Papers.
9: García Posada- Gómez, M. (2019), El impacto de las TLTRO en las políticas de crédito bancario: el papel de la competencia; Artículos analíticos de BdE.
10: The maximum amount that can be borrowed is 30% of the stock of eligible loans, without subtracting the current TLTRO amount. The Spanish institutions have canceled a significant amount (EUR 18 billion) of TLTRO funds in the last month, in line with the data published by the ECB.

Table 1. **STOCK OF ELIGIBLE LOANS AND MAXIMUM AMOUNT TO BE BORROWED** (EUR BILLION)

	Eligible Lending Stock Feb-19	Max. take-up (30% elegible stock)	Currently understanding TLTRO (Jul-19)	Max. new take-up deducting current TLTRO position
GER	1,511	453	85	**368**
NTH	403	121	28	**93**
AT	235	71	18	**53**
FR	1,329	399	110	**289**
FI	122	37	7	**30**
LUX	89	27	5	**22**
BE	168	51	23	**28**
SP	642	193	149	**44**
IT	936	281	238	**43**
PT	93	28	19	**9**
IR	78	23	2	**21**
GR	108	32	8	**25**
Other	95	29	3	**25**
Euro Area	**5,809**	**1,743**	**693**	**1,050**

Source: BBVA Research based on data from the European Central Bank. Data without adjustments for asset sales, which could modify this data

Table 2. **NET FUNDING BY COUNTRY** (EUR BILLION)

	GER	NTH	AT	FR	FI	LUX	BE	SP	IT	PT	IR	GR
Net lending (from Apr-18 to Mar-19)	66.4	-7.9	15.0	66.3	8.1	5.7	9.1	-6.2	-77.5	-3.0	7.9	-14.7
Expected lending variation in 2 years to accomplish maximum rate reduction	2.5%	0.5%	2.5%	2.5%	2.5%	2.5%	2.5%	1.5%	-5.9%	-0.7%	2.5%	-12.1%
June-19 TLTRO Stock Variation (YoY)	6.0%	-2.5%	7.2%	6.1%	6.8%	1.9%	6.5%	-1.5%	-5.4%	-2.8%	14.9%	-12.7%

Source: BBVA Research based on data from the European Central Bank. Data without adjustments for asset sales, which could modify this data

In conclusion, a new round of TLTRO begins this September in which **we expect to see a more conservative and strategic approach from the banks than in the previous program**, given the limit per auction and the shorter maturities, despite its more favorable cost conditions. Besides, banks are now incentivized to early repay their TLTRO II loans given their higher cost. **In addition, the ECB launched new measures aimed at reducing the impact of negative rates**. This package of measures is a clear sign that the ECB is expecting a prolonged period of negative interest rates, with the corresponding consequences on the lending and margins of financial institutions.

5. Macroprudential policies in Europe

Olga Gouveia

The last financial crisis highlighted a number of weaknesses in the mechanisms for financial regulation and supervision. As such, the G-20 has pushed for the development of extensive regulatory reform to strengthen both microprudential regulation (focusing on individual banks) and macroprudential regulation. As a whole, these reforms aim to prevent the buildup of imbalances in the system that could end up affecting the real economy. While macroprudential tools were already in use before the crisis (several emerging countries used them extensively to counter the undesirable effects of sudden fluctuations in capital flows or, for example, the generic provisions in Spain), there was never a specific macroprudential regulatory framework.

Macroprudential framework in Europe

The European macroprudential framework is based on three pillars: **(i) The European Systemic Risk Board (ESRB)**, created in 2010, which is the European body responsible for monitoring risks in the European financial system as a whole; **(ii) the macroprudential tools** provided for in European and national legislation; and **(iii) the national authorities** responsible for implementing these tools.

In contrast to microprudential supervision, which is centralized and requires policies to be transposed at national level, macroprudential policies are largely national and their implementation is more discretionary. This is because the risks to be mitigated or eliminated are typically domestic, such as real estate bubbles. However, to ensure the effectiveness of some of the measures, there is a reciprocity framework in force (which should be improved because its application to all measures is not compulsory), which involves the application of the tools to foreign institutions with exposure to a particular country. The following instruments are covered at European level:

- **Capital buffers**: (i) countercyclical capital buffer (CCyB) which should be activated during strong credit growth and/or economic boom and reduced in times of recession to support the economy; (ii) buffers for systemically important institutions (O-SII/G-SII), which apply to national or global systemically important institutions (these are mandatory although the value applied to each O-SII is decided at national level); and (iii) the systemic risk buffer (SRB), to mitigate general or sectoral risks, or vulnerability to external shocks that are not addressed by other tools (used in countries with macroeconomic imbalances, a large financial sector or very large banks).

- **Measures related to the real estate sector**: increase in risk-weighted assets or increase in severity (LGD) for exposure collateralized with real estate assets.

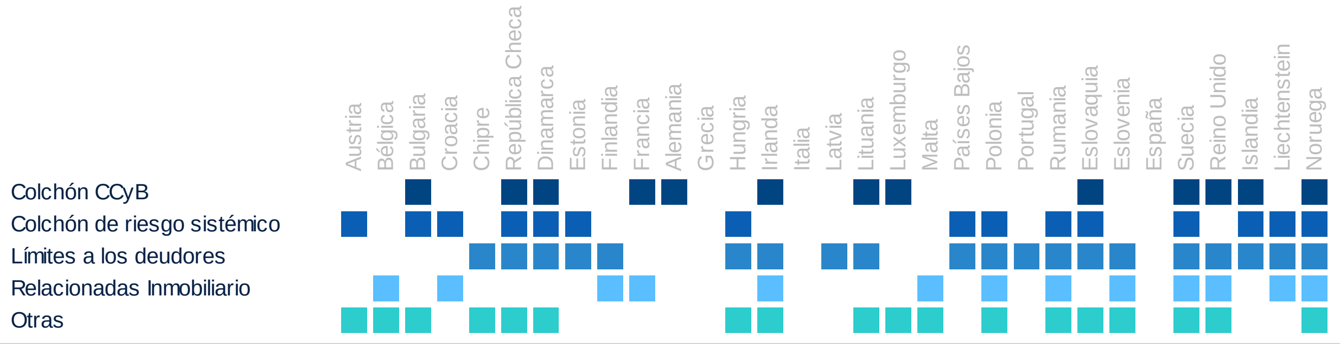
- **Debtor-centered measures**: In most cases, these are related to the real estate sector, imposing limits on indebtedness (loan-to-value, LTV, loan-to-income, LTI, debt-service-to-income, DSTI, loan maturities, stress tests).

- **Other measures**: level of capital, exposures to large risks, liquidity requirements, and information publishing requirements, among others.

The use of macroprudential tools increases, but they are not applied in a uniform manner

Excluding the capital buffers that apply to systemically important institutions, which are compulsory and therefore applied in all European countries, **the use of other macroprudential instruments is highly varied**. However, there is a **general tendency to increase their use**. According to information published by the ESRB, over half of the Member States adopted or changed some macroprudential measure in 2018, and this trend has continued into 2019 (Figure 1). In addition, there is a great deal of disparity in the reasons for implementing these instruments[11] and the response given to risks of a similar intensity[12]. While in some cases this is due to structural and idiosyncratic factors, in others it is due to the decentralized implementation of these measures.

Figure 1. **MACROPRUDENTIAL TOOLS IN EUROPE (IMPLEMENTED AND/OR ANNOUNCED), JUNE 2019**



Source: BBVA Research based on data from the ESRB

Macroprudential framework in Spain

The macroprudential framework in Spain has been strengthened by the introduction of new macroprudential tools in December 2018 and the creation of the Macroprudential Authority Financial Stability Council (AMCESFI) in March 2019. Prudential supervision powers are granted to the three sectoral financial supervisors, and the Bank of Spain is the supervisor for credit institutions.

The new macroprudential framework in Spain grants the Bank of Spain the power to set a sectoral countercyclical capital buffer; to set limits and conditions on the granting of loans, on acquisition of fixed income and derivatives by credit institutions; to limit the assumption of risks at sectoral level; and to increase capital requirements on a specific portfolio of assets, in addition to the application of all measures provided for in article 458 of the European Regulation (which includes, among others, the imposition of limits on large risks, higher requirements for exposure to the real estate sector, liquidity requirements, etc.).

With the exception of the capital buffer for systemically important institutions, the use of macroprudential tools in Spain is non-existent, given the recent restructuring of the Spanish financial system, the correction of past imbalances, and the deleverage seen in the economy in recent years.

11: When activating CCyB, the authorities focus on different vulnerability indicators; in addition to the credit-to-GDP gap, these include other indicators of lending performance, stress test results, asset class prices, cyclical position of the economy, etc.
12: When activating LTVs/DSTIs/LTIs, the authorities select a very different set of limits. For more information, see pp. 32–33 ESRB report

However, the debate around the introduction of macroprudential tools in Spain has gained traction in recent times[13]. By definition, these measures involve a cost at the time of their activation (lower volume of operations if limits are placed on indebtedness, less loan activity and/or at a higher cost if capital requirements are tightened). However, in the case of the CCyB, it is expected that this cost will be compensated in the bad part of the cycle; for example, with lower restrictions on the granting of loans[14].

Therefore, it is essential to consider the aim of the macroprudential measures, to whom they are directed, the desired and undesirable impacts they will have, and the advantages and disadvantages of the implementation schedule. Given that some tools have only recently been introduced, there is still little evidence in the literature about their effectiveness. However, as these measures only apply to part of the system, due to the existence of shadow banking and lack of reciprocity, this may lead to regulatory arbitration, which would compromise the effectiveness of these measures. Therefore, it is important that the tools have a wide coverage that at least guarantees reciprocity with other countries that have financial institutions operating in Spain.

In conclusion, macroprudential instruments are a key tool for financial stability and the prevention of systemic risks, particularly in periods of expansionary monetary policy as is currently the case. They should only be used for their intended purpose and require strong coordination with microprudential supervision, without ever replacing or interfering with it. In Europe, use of these instruments has increased in recent years with a wide range of instruments and discretion in the calibration and implementation of measures. Special attention should be paid to reciprocity, making the use of these instruments as extensive as possible. In Spain, the recent development of the prudential framework and the ability to act if systemic risks are detected is a positive step. However, detailed analysis is needed of the pros and cons of the different tools, their impact, and their suitability for the Spanish system to ensure the costs of their implementation are compensated throughout the cycle.

13: Hernandez de Cos (2019)

14: See for example, "Bank capital, lending booms, and busts. Evidence from Spain in the last 150 years", M. Bedayo, A. Estrada and J. Saurina (2018), "Bank Risk Taking and Capital Requirements". R. Anguren, G. Jiménez and J. L. Peydró (2017), "Macroprudential Policy, Countercyclical Bank Capital Buffers and Credit Supply: Evidence from the Spanish Dynamic Provisioning Experiments, Jimenez et al (2015) or "The bank lending channel: Lessons from the crisis", Gambacorta and Marques-Ibanez (2011).

Appendix 1: main indicators of the Spanish banking system

Table A1.1. **BALANCE SHEET OF THE BANKING SYSTEM**
(BILLIONS OF EUROS AND PERCENTAGE OF VARIATION)

									Growth rate		
Assets	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**Date**	**00-'08**	**08 - latest**	**y-on-y**
Total lending	1,716	1,651	1,603	1,556	1,532	1,514	1,568	Jun-19	217%	-28.0%	2.6%
Public corporations	*87*	*101*	*90*	*88*	*78*	*69*	*75*	*Jun-19*	*69%*	*40.8%*	*-6.0%*
Domestic resident sector	*1,448*	*1,380*	*1,327*	*1,276*	*1,254*	*1,208*	*1,215*	*Jun-19*	*234%*	*-35.0%*	*-1.2%*
Non residents	*180*	*169*	*186*	*191*	*200*	*237*	*278*	*Jun-19*	*164%*	*9.9%*	*27.2%*
Fixed income securities and equity stakes	773	754	662	610	589	562	573	Jun-19	132%	15.2%	-1.2%
Fixed income securities	*493*	*492*	*415*	*366*	*330*	*326*	*332*	*Jun-19*	*135%*	*2.0%*	*-0.7%*
Of which: sovereign debt	*264*	*288*	*251*	*225*	*206*	*200*	*200*	*Jun-19*	*6%*	*99%*	*-4.7%*
Equity	*280*	*262*	*246*	*244*	*259*	*236*	*241*	*Jun-19*	*128%*	*40.0%*	*-1.9%*
Interbank lending	211	155	164	163	235	212	180	Jun-19	81%	-31.5%	-18.1%
Other assets (net of interbank lending/deposits)	326	354	331	319	297	287	314	Jun-19	230%	9.5%	6.0%
Total assets	**3,026**	**2,913**	**2,760**	**2,647**	**2,652**	**2,576**	**2,635**	**Jun-19**	**184%**	**-18.3%**	**0.4%**
Liabilities and Shareholders' Equity											
Customer deposits	1,684	1,686	1,637	1,578	1,539	1,549	1,597	Jun-19	169%	-20.7%	2.7%
Public corporations	*63*	*76*	*77*	*54*	*62*	*72*	*75*	*Jun-19*	*263%*	*-1.6%*	*9.6%*
Domestic resident sector	*1,314*	*1,289*	*1,261*	*1,243*	*1,203*	*1,213*	*1,258*	*Jun-19*	*192%*	*-12.2%*	*3.2%*
Non residents	*306*	*320*	*299*	*281*	*275*	*264*	*264*	*Jun-19*	*113%*	*-47.7%*	*-1.3%*
Interbank deposits	381	312	303	288	327	288	279	Jun-19	95%	-11.4%	-10.5%
Pro memoria: net interbank position	*171*	*157*	*139*	*125*	*93*	*76*	*99*	*Jun-19*	*215%*	*90.3%*	*8.0%*
Debt issued	297	249	225	201	222	225	226	Jun-19	625%	-42.8%	2.9%
Other liabilities	430	436	368	352	330	291	309	Jun-19	253%	-3.4%	-0.2%
Shareholders' equity	233	230	227	227	232	223	224	Jun-19	134%	24.0%	-1.8%
Pro memoria: ECB funding	*207*	*142*	*133*	*140*	*149*	*168*	*149*	*Jul-19*	*566%*	*60.2%*	*-11.6%*
Total Liabilities and Shareholders' Equity	**3,026**	**2,913**	**2,760**	**2,647**	**2,652**	**2,576**	**2,635**	**Jun-19**	**184%**	**-18.3%**	**0.4%**

(*) Includes ORS loans, loans to Public Administrations and loans to non-residents.
(**) Includes ORS deposits, deposits of the Public Administrations and deposits of non-residents.
Source: Bank of Spain Statistical Bulletin

Table A1.2. **INCOME STATEMENT OF THE BANKING SYSTEM**
(ANNUAL ACCUMULATED VOLUME IN BILLIONS OF EUROS AND PERCENTAGE OF VARIATION)

									Growth rate		
	2013	2014	2015	2016	2017	2018	2019	Date	00-'08	08-latest	y-on-y
Net interest revenue	26,816	27,118	26,410	24,297	23,178	23,277	5,705	Mar-19	92%	-35.1%	-0.4%
Net fees and commissions	10,931	11,257	11,237	11,062	11,710	12,169	2,960	Mar-19	79%	-9.1%	-1.4%
Trading gains and other revenue	17,797	17,043	13,885	13,070	11,758	12,331	2,844	Mar-19	276%	-37.5%	-8.3%
Total revenue	**55,544**	**55,418**	**51,532**	**48,429**	**46,646**	**47,777**	**11,509**	**Mar-19**	**118%**	**-30.7%**	**-2.7%**
Operating expenses	-26,798	-26,116	-26,261	-26,388	-26,625	-25,990	-6,482	Mar-19	54%	-12.1%	0.0%
Personnel expenses	-15,108	-14,329	-14,182	-13,943	-13,931	-13,648	-3,467	Mar-19	54%	-22.5%	0.9%
Other operating expenses	-11,690	-11,787	-12,079	-12,445	-12,693	-12,342	-3,014	Mar-19	54%	3.9%	-0.9%
Pre-provision profit	**28,746**	**29,302**	**25,271**	**22,041**	**20,021**	**21,787**	**5,027**	**Mar-19**	**226%**	**-45.5%**	**-6.1%**
Loan-loss provisions	-21,800	-14,500	-10,699	-8,344	-9,105	-3,140	-857	Mar-19	620%	-77.5%	-1.2%
Other income, net	-2,789	-1,739	-3,819	-7,006	-11,590	-4,239	-423	Mar-19	-299%	36.5%	-43.7%
Profit before taxes	4,156	13,063	10,753	6,691	-674	14,408	3,747	Mar-19	108%	-26.5%	0.4%
Net attributable income	**8,790**	**11,343**	**9,312**	**6,003**	**-3,957**	**12,356**	**3,222**	**Mar-19**	**122%**	**-30.0%**	**3.7%**

Source: Bank of Spain Statistical Bulletin

Table A1.3. **RELATIVE SIZE AND RESOURCES OF THE SYSTEM**
(PERCENTAGE OF GDP, NUMBER AND PERCENTAGE OF VARIATION)

									Growth rate		
	2013	2014	2015	2016	2017	2018	2019	Date	00-'08	08-latest	y-on-y
Lending to the private sector / GDP	139%	133%	123%	114%	108%	100%	99%	Jun-19	94%	-40.9%	-9.9%
Private sector deposits / GDP	113%	111%	107%	103%	98%	96%	99%	Jun-19	69%	-6.6%	-5.2%
Number of employees	217,878	208,291	202,961	194,283	192,626	187,182	n.a.	Dec-18	14%	-32.7%	-2.8%
Number of branches	33,786	32,073	31,155	28,959	27,623	26,319	26,049	Mar-19	17%	-43.6%	-4.3%

Source: Bank of Spain Statistical Bulletin

Table A1.4. **BREAKDOWN OF ORS LENDING, NPLS AND NPL RATIOS BY PORTFOLIO**
(BILLIONS OF EUROS AND PERCENTAGE OF VARIATION)

									Growth rate		
Lending volume	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**Date**	**00-'08**	**08 - latest**	**y-on-y**
Loans to households	**756**	**715**	**690**	**663**	**652**	**647**	**647**	**Mar-19**	**236%**	**-21.1%**	**0.1%**
Of which:											
Housing loans	605	581	558	531	517	503	496	Mar-19	270%	-20.9%	-1.0%
Other loans to households	151	134	132	132	136	144	151	Mar-19	159%	-21.5%	3.8%
Lending to corporates and SMEs	**830**	**719**	**674**	**644**	**605**	**592**	**544**	**Mar-19**	**237%**	**-46.5%**	**-3.6%**
Of which:											
Lending to real estate	300	237	200	179	161	145	117	Mar-19	517%	-75.1%	-11.9%
Other lending to corporates and SMEs	530	482	474	465	444	447	427	Mar-19	142%	-22.0%	-1.1%
Total lending to domestic private sector *	**1,605**	**1,448**	**1,380**	**1,327**	**1,276**	**1,254**	**1,215**	**Jun-19**	**234%**	**-35.0%**	**-1.2%**
Non-performing loans											
Loans to households	**37.0**	**49.4**	**46.8**	**37.0**	**35.7**	**35.0**	**31.8**	**Mar-19**	**1062%**	**30.7%**	**-8.4%**
Of which:											
Housing loans	24.0	34.6	32.6	25.5	24.1	23.6	19.8	Mar-19	1878%	33.3%	-12.7%
Other loans to households	13.0	14.8	14.1	11.4	11.6	11.4	12.0	Mar-19	607%	26.7%	-0.3%
Lending to corporates and SMEs	**128.4**	**146.1**	**124.6**	**94.2**	**79.2**	**60.7**	**36.1**	**Mar-19**	**818%**	**-3.1%**	**-23.7%**
Of which:											
Lending to real estate	84.8	87.8	70.7	50.4	42.4	28.2	11.7	Mar-19	2790%	-56.5%	-36.9%
Other lending to corporates and SMEs	43.6	58.2	53.9	43.7	36.8	32.4	24.5	Mar-19	232%	134.9%	-15.2%
Total lending to domestic private sector *	**167.5**	**197.2**	**172.6**	**134.3**	**116.3**	**97.7**	**65.0**	**Jun-19**	**808%**	**3.1%**	**-17.3%**
NPL ratio											
Loans to households	**4.9%**	**6.9%**	**6.8%**	**5.6%**	**5.5%**	**5.4%**	**4.9%**	**Mar-19**	**246%**	**65.6%**	**-8.5%**
Of which:											
Housing loans	4.0%	6.0%	5.9%	4.8%	4.7%	4.7%	4.0%	Mar-19	434%	68.6%	-11.9%
Other loans to households	8.6%	11.1%	10.7%	8.7%	8.5%	7.9%	8.0%	Mar-19	173%	61.5%	-3.9%
Lending to corporates and SMEs	**15.5%**	**20.3%**	**18.5%**	**14.6%**	**13.1%**	**10.3%**	**6.6%**	**Mar-19**	**173%**	**81.3%**	**-20.8%**
Of which:											
Lending to real estate	28.2%	37.1%	35.3%	28.2%	26.4%	19.5%	10.0%	Mar-19	369%	74.7%	-28.4%
Other lending to corporates and SMEs	8.2%	12.1%	11.4%	9.4%	8.3%	7.3%	5.7%	Mar-19	37%	201.1%	-14.3%
Total lending to domestic private sector *	**10.4%**	**13.6%**	**12.5%**	**10.1%**	**9.1%**	**7.8%**	**5.4%**	**Jun-19**	**172%**	**58.7%**	**-16.3%**

(*) The total ORS credit incorporates total credit into homes, total credit for productive activities, non-for-profit institutions at the service of households (ISFLSH, for its acronym in Spanish) and unclassified credit. Since 2014, includes the credit to the banking entities.
Source: Bank of Spain Statistical Bulletin

Table A1.5. **NEW LENDING OPERATIONS. ANNUAL ACCUMULATED VOLUME**
(BILLIONS OF EUROS AND PERCENTAGE OF VARIATION)

Lending volume	2013	2014	2015	2016	2017	2018	2019	Date	Growth rate 03-'08	08-'18	y-on-y
Loans to households	**51.2**	**60.5**	**75.7**	**80.6**	**87.6**	**96.2**	**57.3**	**Jul-19**	**0.7%**	**-48.3%**	**-1.3%**
Of which:											
Housing loans	21.9	26.8	35.7	37.5	38.9	43.1	25.6	Jul-19	-15.6%	-50.6%	-3.0%
Other loans to households	29.4	33.7	40.0	43.1	48.8	53.1	31.8	Jul-19	21.3%	-46.2%	0.1%
Lending to corporates and SMEs	**392.6**	**357.2**	**392.6**	**323.6**	**339.0**	**347.2**	**202.3**	**Jul-19**	**29.2%**	**-62.6%**	**-3.8%**
Of which:											
Less than €250,000	106.1	112.3	128.7	133.6	143.4	137.0	79.4	Jul-19	n.d.	-16.6%	-2.2%
Between €250,000 and €1million)	28.3	34.0	36.8	36.3	40.6	38.2	23.4	Jul-19	n.d.	-16.9%	2.8%
Corporates (loans > €1mill.)	258.2	210.3	227.2	152.6	155.1	171.9	99.5	Jul-19	43.5%	-70.0%	-6.4%
Total new lending flows	**444**	**418**	**468**	**404**	**427**	**443**	**260**	**Jul-19**	**23%**	**-60.2%**	**-3.2%**

Source: Bank of Spain

Table A1.6. **BREAKDOWN OF RESIDENT DEPOSITS**
(BILLIONS OF EUROS AND PERCENTAGE OF VARIATION)

	2013	2014	2015	2016	2017	2018	2019	Date	Growth rate 00-'08	08 - latest	y-on-y
Sight deposits	500	563	650	754	857	931	997	Jun-19	90%	126.3%	8.7%
Term deposits	677	597	509	404	286	231	217	Jun-19	272%	-70.8%	-13.6%
Total retail deposits	**1,177**	**1,160**	**1,159**	**1,157**	**1,143**	**1,163**	**1,214**	**Jun-19**	**163%**	**2.6%**	**3.9%**
Other deposits											
Repurchase agreements	64	60	42	32	28	23	19	Jun-19	-23%	-77.5%	-14.5%
Funds from financial asset transfers	37	32	25	23	21	20	18	Jun-19	14%	-80.3%	-12.2%
Hybrid financial liabilities	16	22	17	14	10	7	7	Jun-19	33%	-75.8%	-17.0%
Subordinated deposits	20	16	18	16	1	0	0	Jun-19	n.m.	-99.1%	-6.1%
Pro-memoria: Deposits in foreign currency	*30*	*27*	*29*	*28*	*17*	*15*	*16*	*Jun-19*	*739%*	*-55.1%*	*5.1%*
Total deposits of domestic resident sector	**1,314**	**1,289**	**1,261**	**1,243**	**1,203**	**1,213**	**1,258**	**Jun-19**	**159%**	**-12.2%**	**3.2%**

Source: Bank of Spain Statistical Bulletin

Table A1.7. **INTEREST RATES ON LOANS** (PERCENTAGE AND VARIATION IN BASIS POINTS)

	2013	2014	2015	2016	2017	2018	2019	Date	Growth rate (bps) 03-'08	08 - latest	y-on-y
Loans. Stock (NDER)											
Loans to households											
Housing loans	2.11	1.89	1.53	1.30	1.21	1.22	1.29	Jul-19	178	-436	10
Other loans to households	5.80	6.10	5.98	6.17	6.24	6.26	6.35	Jul-19	113	-72	13
Loans to corporates and SMEs	3.44	2.84	2.38	2.04	1.89	1.86	1.83	Jul-19	204	-372	-3
Loans. New lending transactions (APRC)											
Loans to households											
Housing loans	3.16	2.64	2.31	2.19	2.05	2.24	2.23	Jul-19	238	-361	9
Consumer loans	9.52	9.10	8.45	8.06	8.27	8.32	8.35	Jul-19	237	-265	-37
Other	5.92	4.93	4.19	4.27	4.01	3.72	4.27	Jul-19	224	-276	1
Loans to corporates and SMEs (synthetic average)	3.57	2.73	2.58	2.29	2.12	1.97	2.29	Jul-19	112	-258	12
Less than €250,000	5.54	4.53	3.59	3.28	2.93	2.67	3.39	Jul-19	n.a.	-116	48
Between €250,000 and €1million)	4.03	2.91	2.20	1.91	1.80	1.70	1.75	Jul-19	n.a.	-214	11
Corporates (loans > €1mill.)	2.83	2.10	2.07	1.63	1.56	1.59	1.66	Jul-19	n.a.	-105	-1

NDER: Narrowly defined effective rate (APR without bank charges).
APR: Annual percentage rate.
Source: Bank of Spain Statistical Bulletin

Table A1.8. **INTEREST RATE ON DEPOSITS** (PERCENTAGE AND VARIATION IN BASIS POINTS)

	2013	2014	2015	2016	2017	2018	2019	Date	Growth rate (bps) 03-'08	08 - latest	y-on-y
Deposits. Stock (NDER)											
Households deposits											
Sight deposits	0.22	0.17	0.12	0.06	0.04	0.04	0.03	Jul-19	6.5	-65	0
Term deposits	2.08	1.39	0.75	0.30	0.16	0.12	0.11	Jul-19	232	-430	-3
Corporates and SMEs deposits											
Sight deposits	0.35	0.31	0.24	0.15	0.10	0.08	0.09	Jul-19	111	-168	1
Term deposits	1.93	1.40	0.91	0.65	0.77	0.63	0.79	Jul-19	223	-359	6
Deposits. New transactions (NDER)											
Households deposits											
Sight deposits	0.22	0.17	0.12	0.06	0.04	0.04	0.03	Jul-19	30	-65	0
Term deposits	1.50	0.66	0.39	0.11	0.08	0.06	0.05	Jul-19	225	-413	-1
Corporates and SMEs deposits											
Sight deposits	0.35	0.31	0.24	0.15	0.10	0.08	0.09	Jul-19	111	-168	1
Term deposits	1.31	0.51	0.31	0.13	0.16	0.37	-0.09	Jul-19	146	-356	-28

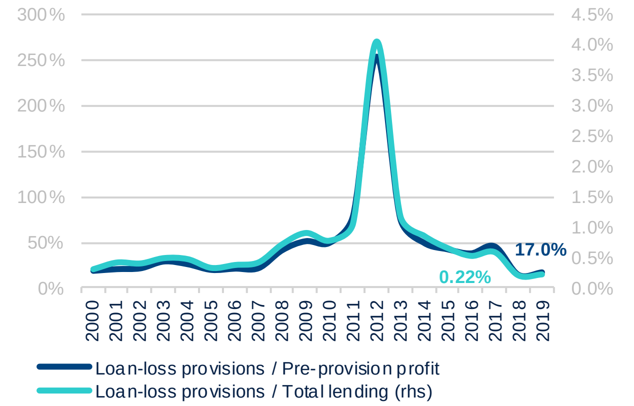
NDER: Narrowly defined effective rate (APR without bank charges).
APR: Annual percentage rate.
Source: Bank of Spain Statistical Bulletin

Table A1.9. **MAIN RATIOS**

	2013	2014	2015	2016	2017	2018	2019	Date	Growth rate 00-'08	08-latest	y-on-y
Productivity											
Business volume* per branch (€'000)	81,761	83,229	83,085	86,975	88,942	91,993	94,939	Jun-19	168.2%	32.7%	5.5%
Profit before tax per branch (€'000)	123	407.3	345.2	231.1	-24	547.4	575.4	Mar-19	77.5%	30.3%	4.9%
Efficiency											
Cost-to-Income ratio (Oper. expenses / Total revenue)	48.2%	47.1%	51.0%	54.5%	57.1%	54.4%	56.3%	Mar-19	-29.3%	26.7%	2.8%
Operating expenses / ATA	0.83%	0.88%	0.93%	0.98%	1.00%	0.99%	1.00%	Mar-19	-43.4%	4.0%	1.0%
Profitability											
RoE	4.1%	4.9%	4.1%	2.6%	-1.7%	5.4%	5.8%	Mar-19	-3.4%	-44.3%	6.1%
RoA	0.13%	0.44%	0.38%	0.25%	-0.03%	0.55%	0.58%	Mar-19	-23.6%	-12.9%	3.7%
NIM (Net interest rev. / ATA)	0.83%	0.91%	0.93%	0.90%	0.87%	0.89%	0.88%	Mar-19	-29.6%	-23.1%	2.9%
Liquidity											
Loans-to-Deposits (resident sector)	123%	119%	115%	110%	110%	104%	100%	Jun-19	14.8%	-36.7%	-4.9%
Funding gap (Loans - Deposits, EUR bn)	270.9	220.1	168.3	118.9	110.4	45.6	0.7	Jun-19	349%	-99.9%	-98.9%
Funding gap / Total assets	9.0%	7.6%	6.1%	4.5%	4.2%	1.8%	0.0%	Jun-19	57.7%	-99.9%	-98.9%
Solvency and Asset Quality											
Leverage (Shareholders' equity / Total assets)	7.7%	7.9%	8.2%	8.6%	8.8%	8.7%	8.5%	Jun-19	-17.8%	51.7%	-2.2%
Shareholders' equity / NPLs	118%	133%	169%	196%	238%	317%	344%	Jun-19	-74.3%	20.3%	18.7%
Provisioning effort (Loan-loss prov. / Pre-provision profit)	75.8%	49.5%	42.3%	37.9%	45.5%	14.4%	17.0%	Mar-19	121%	-58.8%	5.2%
Cost of Risk (Loan-loss provisions / total lending)	1.19%	0.86%	0.66%	0.53%	0.59%	0.21%	0.22%	Mar-19	134%	-69.1%	-0.1%
NPL ratio (resident sector)	13.6%	12.5%	10.1%	9.1%	7.8%	5.8%	5.4%	Jun-19	172%	59%	-16.3%
NPL coverage ratio (total)	58.0%	58.1%	58.9%	58.9%	60.0%	61.0%	61.2%	Jun-19	-58.2%	-13.5%	-2.5%
NPL coverage ratio (specific provisions)	46.9%	46.7%	47.0%	46.2%	42.1%	41.5%	44.4%	Mar-19	-39.0%	48.6%	38.8%

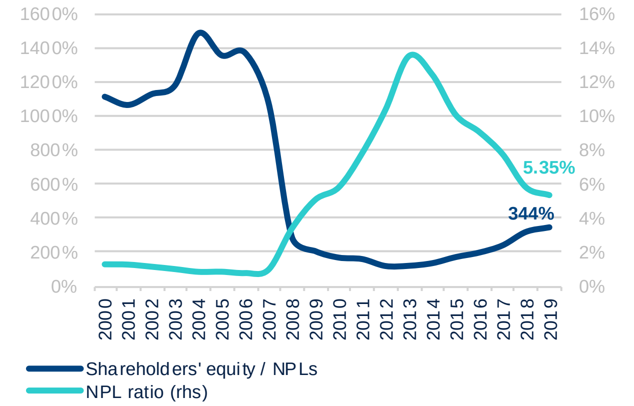
(*) ORS loans plus ORS deposits.
Source: Bank of Spain Statistical Bulletin

Figure A1.1. **PROVISIONING EFFORT**



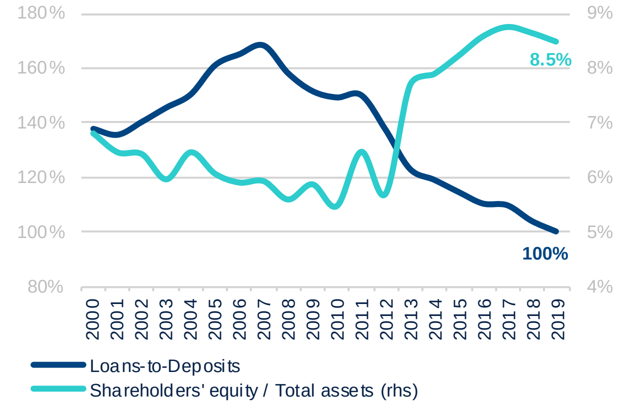
Source: BBVA Research

Figure A1.2. **NPL RATIO AND CAPITAL AS A PERCENTAGE OF NON-PERFORMING LOANS**



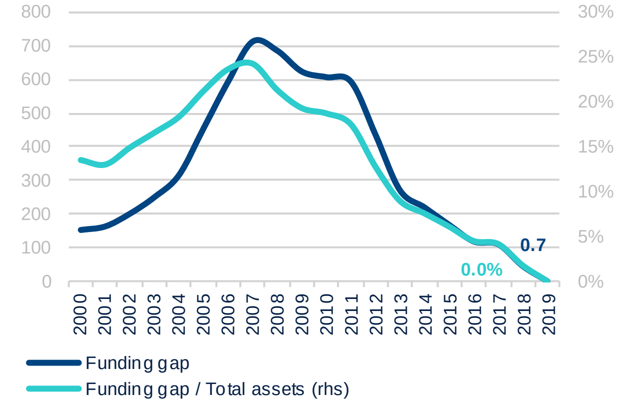
Source: BBVA Research

Figure A1.3. **LIQUIDITY AND LEVERAGE**



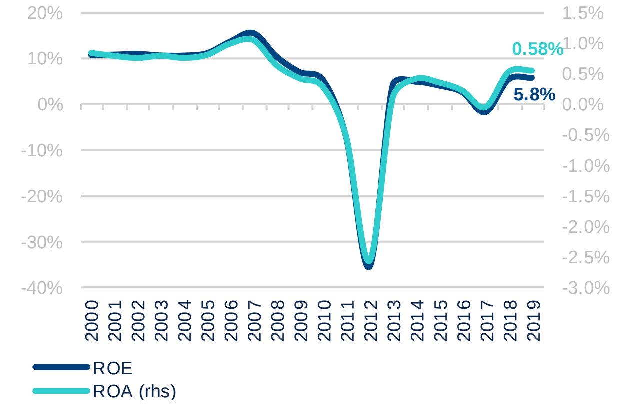
Source: BBVA Research

Figure A1.4. **FUNDING GAP**
(LOANS MINUS DEPOSITS)



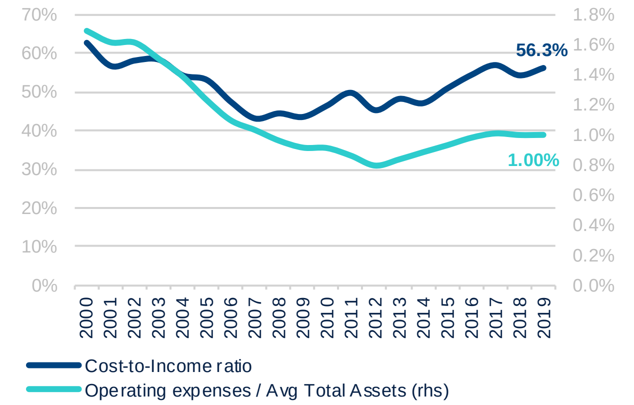
Source: BBVA Research

Figure A1.5. **PROFITABILITY**



Source: BBVA Research

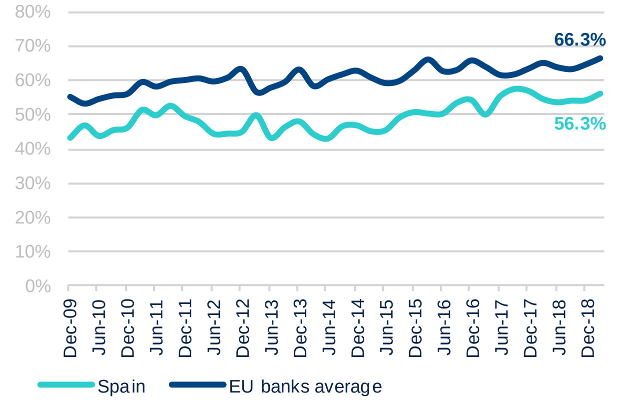
Figure A1.6. **EFFICIENCY**



Source: BBVA Research

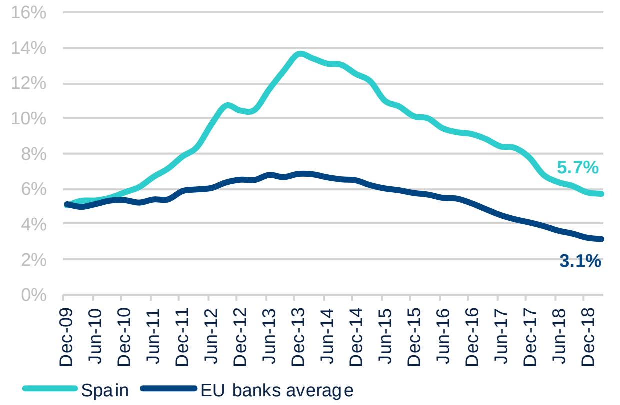
Appendix 2: comparative Analysis with the European Union

Gráfico A2.1. **RATIO DE EFICIENCIA**



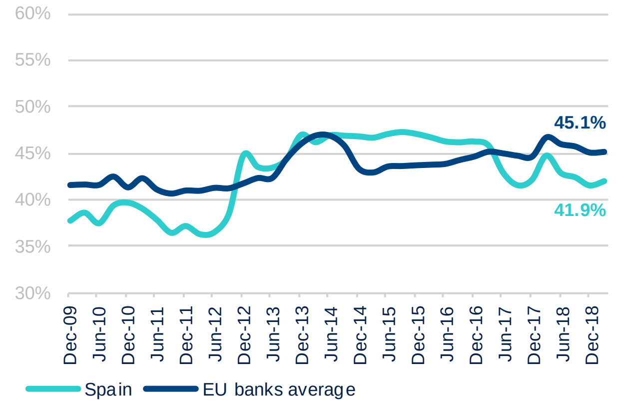
Source: EBA, Bank of Spain, BBVA Research

Gráfico A2.2. **RATIO DE MORA**



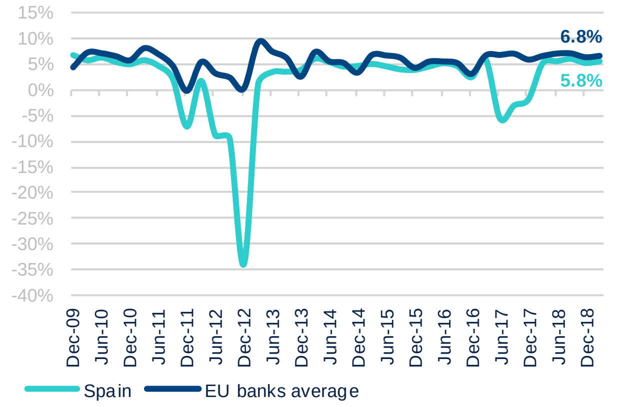
Source: EBA, Bank of Spain, BBVA Research

Gráfico A2.3. **RATIO DE COBERTURA (SÓLO DOTACIONES ESPECÍFICAS)**



Source: EBA, Bank of Spain, BBVA Research

Gráfico A2.4. **ROE**



Source: EBA, Bank of Spain, BBVA Research

Note: the data on averages of European banks comes from the EBA Risk Dashboard, composed of a panel of 150+ major European banks, representing 80% of the system's assets.

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BBVA Research

Creating Opportunities

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