

**03.12.2019**

**Low interest rates for longer. Profitability and risk appetite in the Spanish banking sector**

15th Banking Industry Meeting/IESE

Pablo Hernández de Cos  
Governor

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Ladies and gentlemen, good morning:

First I would like to thank the organisers, and, in particular, Professor Juan José Toribio, for their invitation to participate in the 15<sup>th</sup> Banking Industry Meeting.

**THE BALANCE OF RISKS TO THE STABILITY OF THE SPANISH FINANCIAL SYSTEM HAS WORSENEA SOMEWHAT IN THE PAST SIX MONTHS**

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**Risk factors (a)**

|   |   |
|---|---|
| <b>Global economic slowdown and geopolitical uncertainty.</b> The economic slowdown is most notable in Europe and the emerging economies and, combined with high geopolitical uncertainty, could bring about an increase in risk premia which would lower the value of financial assets. In addition, it may also weaken the income of agents and raise their projected levels of indebtedness, thus leading to a revision of consumption and investment plans. | ↑ |
| <b>Low profitability of financial institutions.</b> The profitability of financial institutions will be subject to additional pressure due to the economic slowdown and, therefore, due to the prospect that interest rates will remain at very low, and even negative, levels for a longer time than expected.   | ↑ |
| <b>Legal risk.</b> Spanish deposit institutions face, albeit to differing extents, legal risk derived from the potential consequences of the outcome of court action.   | → |

SOURCE: Banco de España.

a. In this table the level of risk is indicated using three colours: yellow indicates low risk, orange medium risk and red high risk. Therefore, at present the three risks are medium level. The time horizon for which the aforementioned risks are defined is determined by the periodicity of the FSR, i.e. half-yearly. Within a given level of risk, the arrows indicate whether the risk has increased, held steady, or decreased recently. If a risk factor is reclassified to a different level with respect to a previous FSR (change in colour), it is assigned a "held steady" arrow.

In October the Banco de España published its Autumn 2019 *Financial Stability Report*. As usual, this report identifies the main risks to financial stability in Spain and their recent behaviour. The analysis shows that the balance of risks to financial stability has worsened since the publication of the Spring report and identifies three main risks: the global economic slowdown and geopolitical uncertainty, low bank profitability, and the legal risk for banks derived from the potential consequences of the outcome of pending court action.

The worsening of the risks to the stability of the Spanish financial system in the past half year is due in particular to the downward revision of the global economic outlook. Indeed, this year global GDP growth is expected to be the lowest since the international financial crisis; in addition, the balance of risks to this growth is tilted downward, mainly as a result of the continuing high level of geopolitical uncertainty.

The downward revision of economic forecasts in the past year has been across the board, but has especially affected the euro area and emerging market economies, and Spain has not been immune to this trend.

In view of this situation, central banks have responded by further easing monetary conditions. In the case of the European Central Bank (ECB), at our September meeting we resolved to launch a package of measures which included cutting the deposit facility interest rate by 10 basis points (bp) to -0.50%, strengthening forward guidance on interest rates and improving the financing conditions of quarterly targeted longer-term refinancing operations (TLTRO-III). We also decided to resume net purchases under the asset purchase programme at a monthly pace of €20 billion as from 1 November and without a defined time limit.

Our analysis indicates that this package of monetary policy measures provides a substantial monetary stimulus which will help to further ease the conditions of lending to households

and firms and thus assist the economic recovery of the euro area and, consequently, the sustained convergence of inflation towards our medium-term target.

In any event, from the financial stability standpoint, the downward revision of the growth and inflation outlook and the resultant higher expectation that interest rates will remain very low, or will even be negative for a further period pose challenges of at least two types for credit institutions.

First, this macroeconomic context will represent a challenge for deposit institutions to recoup levels of profitability more in line with the cost of capital. Indeed, in the last few months market expectations for growth of bank profits have declined.

Second, this context of “low interest rates for longer” may provide greater incentives for economic agents to take risks, which could heighten the risk to financial stability.

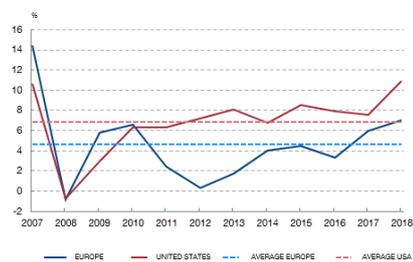
Today I would like to devote my address to the analysis of these two matters, focusing on their impact on the Spanish banking sector. I will also present the results of the latest stress test exercise conducted by the Banco de España.

## 1. Low bank profitability

### EUROPEAN BANKS HAVE NOT MANAGED TO ACHIEVE THE LEVELS OF PROFITABILITY OF US BANKS

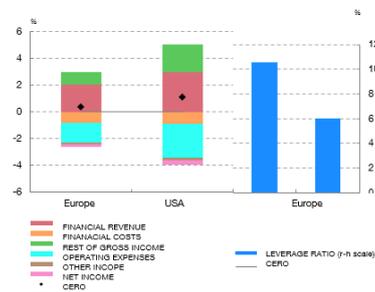
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PROFITABILITY (ROE) OF THE MAIN LISTED EUROPEAN AND US BANKS



SOURCES: Datastream, SNL and Banco de España.

STRUCTURE OF 2018 INCOME STATEMENT AND LEVERAGE RATIO OF MAIN LISTED EUROPEAN AND US BANKS (a)



a. The left-hand side of the chart depicts the income statement breakdown in terms of total assets of the main European and US banks. The right-hand side presents the leverage ratio, defined as equity to total assets.

**Profitability is one of the main variables characterising the financial position of banks and the first line of defence against adverse shocks.**

Indeed, the volume of a bank’s profits determines the return its owners can earn on the capital invested. This, duly adjusted for the risks assumed, will affect the bank’s valuation. Moreover, profit levels determine the margin these agents have to address shocks. Indeed, low profitability reduces the possibility of generating capital internally through retained earnings.

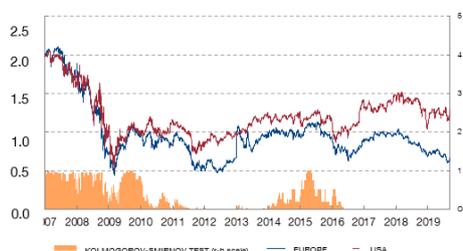
Note that banks’ capital acts as a buffer that allows potential losses to be absorbed in adverse scenarios, so that they can continue to offer financial services to households and

firms, thus contributing to smoothing – rather than amplifying – negative shocks to the economy.<sup>1</sup>

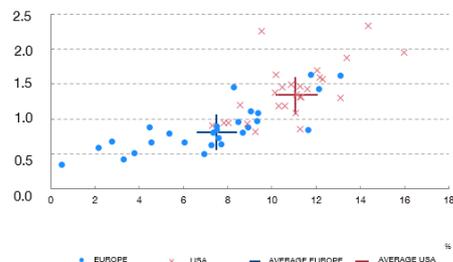
**THE STOCK MARKET VALUATION AND PROFITABILITY OF US BANKS HAS SIGNIFICANTLY EXCEEDED THAT OF EUROPEAN BANKS**

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P/B RATIO OF MAIN LISTED EUROPEAN AND US BANK 2007-2019 (a)



RELATIONSHIP IN 2018 BETWEEN P/B RATIO (VERTICAL AXIS) AND ROE (HORIZONTAL AXIS) OF MAIN LISTED EUROPEAN AND US BANKS (b)



SOURCES: Datastream and Banco de España.

- For each date, the chart shows the simple average of the P/B ratio for the samples of the main listed European and US banks (27 in each case), and the p-value of a non-parametric Kolmogorov-Smirnov test on the equality of the distributions of the P/B ratio in both samples. A p-value below 0.1 denotes rejection of the null hypothesis of equality of distributions.
- The chart depicts the average P/B ratio in 2018 (vertical axis) and ROE in 2018 (horizontal axis) of the 54 banks making up the two samples. The crosses denote the median values of P/B and ROE of the European and US bank.

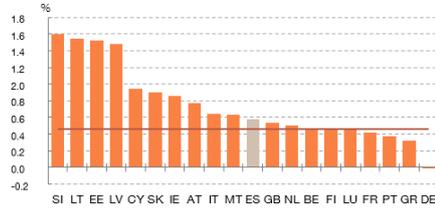
Since the international financial crisis the **profitability of the European banking sector has remained very low and below the cost of capital**. And this, despite a drop in the cost of capital, mainly due to the lower risk-free interest rate of the economy, but also to banks' improved risk profile, manifested, among other variables, in higher solvency ratios.

By contrast, US banks have managed to achieve very high levels of profitability (in 2018, 11% in the USA compared with 6% in Europe) more in line with the cost of capital (between 8% and 10% in 2018). Our analyses indicate that this is one of the reasons why the market value to book value ratio of US banks significantly exceeds that of European banks, which remains at values below one.

<sup>1</sup> Also, a high level of capital entails a stronger link between the personal wealth of the owners and the economic performance of the banks, thus contributing to mitigate the risk profile that the latter are prepared to assume and, therefore, the likelihood that they will overreach themselves and will subsequently require traumatic correction measures.

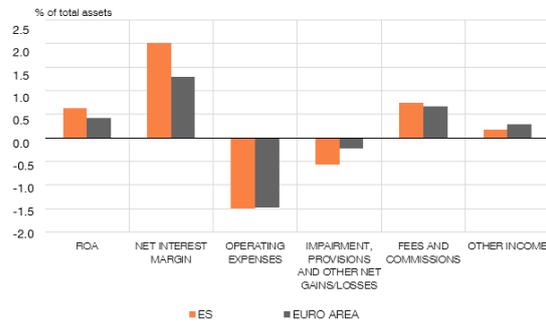
**THE RETURN ON ASSETS OF THE MAIN SPANISH DEPOSIT INSTITUTIONS IS ALSO LOW ALTHOUGH IT STANDS ABOVE THE EUROPEAN AVERAGE DUE MAINLY TO A HIGHER INTEREST MARGIN**

**Return on assets. European comparison SSM countries and United Kingdom. June 2019. Consolidated data**



Source: European Banking Authority (EBA)

**RETURN ON ASSETS (ROA) 2018 Consolidated financial statements**



Sources: Banco de España (ES) and European Central Bank (EURO AREA).

**Spanish banks are no exception to this European pattern, although their profitability at consolidated level remains above the European average.** The breakdown of the return on assets shows that the higher figures of Spanish banks compared with the euro area average are basically due to their higher net interest income. This reflects the fact that Spanish banks have a higher share of their business in less mature markets where margins are higher, such as the Latin American economies. On the downside, Spanish banks have higher expenses from asset impairment and provisions than euro area banks.

**THE PROFITABILITY OF THE BANKING SYSTEM AS RECOVERED IN RECENT YEARS BUT HAS NOT REACHED PRE-CRISIS LEVELS**

**RETURN ON EQUITY (ROE) Consolidated financial statements**



Sources: Banco de España (ES); ECB (EURO AREA); Federal Reserve and FDIC (USA).

**RETURN ON ASSETS (ROA) Consolidated financial statements**



**The profitability of the Spanish banking system has a significant cyclical component.** In the past economic crisis profitability contracted more sharply than in other jurisdictions: in 2012 it entered negative territory, standing at -21% in terms of equity and at -1.2% in terms of assets according to the consolidated financial statements, which include not only business in Spain but also international exposures. The main reason for this was the higher losses on the loan portfolio associated with a significant rise in defaults, particularly in the Spanish construction and real estate activity sectors, where banks had an excessive concentration.

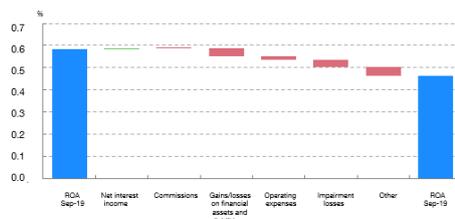
Subsequently, the profitability of the Spanish banking system has tended to recover in recent years, basically because impairment losses have decreased as loan quality has improved. A fundamental factor has been the decrease in non-performing assets, including both non-performing loans (NPLs) and foreclosed assets.

**THE FALL IN NET GAINS ON FINANCIAL ASSETS AND LIABILITIES, THE INCREASE IN OPERATING EXPENSES AND THE INCREASE IN IMPAIRMENT LOSSES EXPLAIN THE MOST RECENT FALL IN PROFIT**

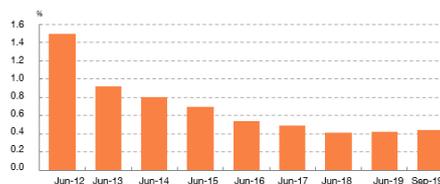
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**Components of profitability. Consolidated data**

1 BREAKDOWN OF THE CHANGE IN PROFIT  
Consolidated profit attributable to the controlling entity as a percentage of ATAs (a)



2 FINANCIAL ASSET IMPAIRMENT LOSSES AS % OF ATA



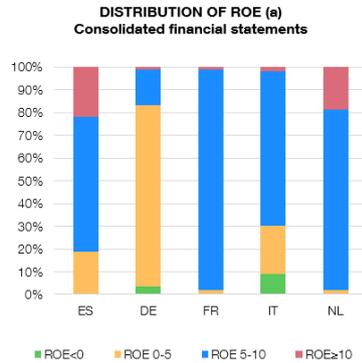
SOURCE: Banco de España.

a. The red (green) colour of the bars indicates a negative (positive) contribution of the corresponding item to the change in consolidated profit in June 2019 with respect to June 201.

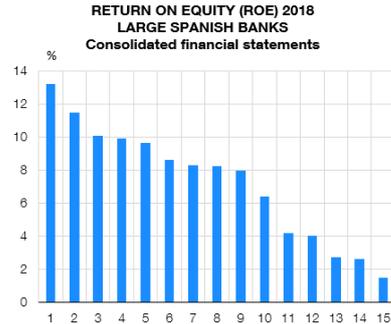
**Turning to the more recent information, in the first three quarters of 2019 the net profit of Spanish credit institutions attributable to the controlling company decreased by 18%.** The decline in profits is due to a significant fall in gains on financial assets and liabilities (-23%), accompanied by an increase of nearly 4% in operating expenses. Thus, the fall in net operating income amounted to 1.1%. The increase in operating expenses in the past year was largely due to staff reduction agreements at some banks.

Additionally, impairment losses, which had been falling uninterruptedly since 2013, increased by 10.6%. Net interest income rose by somewhat more than 3%, while net fees and commissions grew by 2.5%.

The decline in profit was seen at nearly all banks, albeit to differing extents. As a result, **ROE decreased by more than 1.5 percentage points (pp) with respect to the same period a year earlier and stood at 6.2%. This figure is lower than current estimates of the cost of capital**, which, subject to their characteristic uncertainty, are somewhat above 7%.



Source: European Central Bank (ECB).  
(a) Expressed as a proportion of assets.



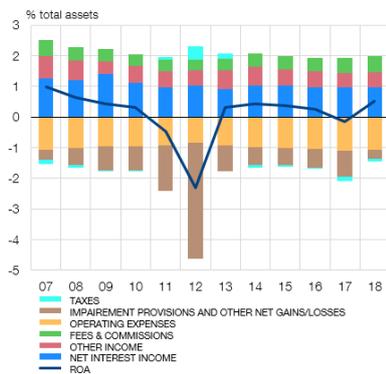
Source: Annual reports of each bank.

In any event it should be borne in mind that **profitability levels vary considerably across banks**, both in Spain and in other European countries. This shows that profitability issues affect the sector unevenly because of the heterogeneity of banks' business models across countries and within each jurisdiction, and also because of the multiplicity of explanatory factors.

### Factors explaining low bank profitability

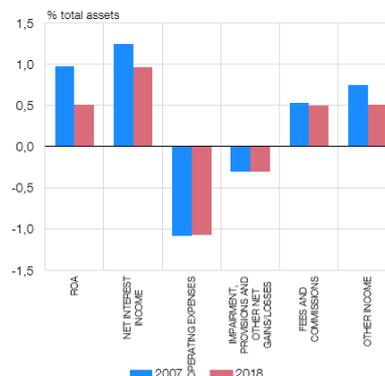
To better understand the factors behind the low profitability of Spanish banks compared with pre-crisis levels, **I intend to focus on their business in Spain**. This is because profitability figures as per the consolidated financial statements are influenced by the growing share of international exposure in recent years, which complicates the interpretation of earnings as they are affected by significant changes in composition. Furthermore, only a small number of banks have significant international exposure, so the performance figures based on consolidated financial statements may not be very representative of the majority of the banking sector.

CONTRIBUTION TO ROA OF ITS COMPONENTS  
Individual financial statements. Business in Spain



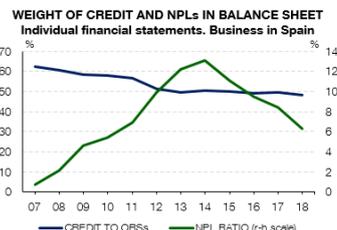
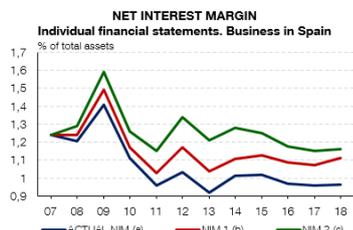
Source: Banco de España.

ROA 2007 vs 2018  
Individual financial statements. Business in Spain



The profitability data based on individual financial statements of business in Spain are also highly cyclical, even more so than those from the consolidated statements. This reflects the greater severity of the crisis in Spain than in other economies in which Spanish banks had exposures and highlights the benefits of diversification. Also apparent is a marked recovery in recent years, despite which in 2018 both ROE and ROA were still lower than before the crisis.

The breakdown of the return on assets shows that the main determinant of the current low profitability of business in Spain compared with the pre-crisis period is a weakening of net interest income expressed as a proportion of assets, or net interest margin. This fall, concentrated between 2009 and 2013, was from 1.4% to 0.9%. The indicator then steadied at around 1% of total assets. The fall was attributable to several factors.



WEIGHT OF FINANCING FROM BANKS OTHER THAN RESIDENT DEPOSIT INSTITUTIONS



Source: Banco de España.  
(a) NI: Net interest income.  
(b) and (c) NI 1 (holding constant lending to other resident sectors as percentage of 2007 assets) and NI 2 (holding constant percentage of lending to other resident sectors and percentage of NPLs.  
(d) Including debt security issues, credit granted by SLIs and financing from the rest of the world.

**One factor is the increase in the relative share of non-performing assets, i.e. those that do not earn interest**, such as NPLs or foreclosed assets. Specifically, between 2007 and 2013 the NPL ratio of business in Spain rose by nearly 13 pp. It then fell gradually, against a background of decreasing loan volume, and at mid-2019 stood at 5.3%, more than 8 pp below the ceiling reached in 2013. However, this ratio is still well above its pre-crisis level. Foreclosed assets have fallen by 50% from the high reached in 2011, but still amounted to nearly €40 billion in June 2019.

**Additionally, in that period there was a strong contraction in the bank credit portfolios**, which resulted from the sharp correction of the excessive debt built up by Spanish households and firms in the pre-crisis years and from banks' loss of market share in the total financing of the economy.

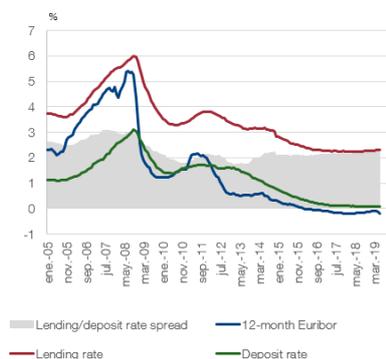
**During those years, banks cushioned the balance sheet effect of this fall in their credit portfolios by increasing their exposure to other assets, especially through government debt purchases.** As these debt securities provide lower returns than lending to households and firms, in the long run this portfolio rebalancing resulted in a fall in the average return on assets. However, when the sovereign debt crisis came to an end, the increase in value of these debt securities provided a positive, albeit short-lived, boost to profitability. This effect fades gradually once interest rates stop falling and, furthermore, in recent years banks have substantially reduced their holdings of these securities in the available-for-sale portfolio, which, since it is measured at market prices, is where these gains are recorded.

On our estimates, **the overall effect of these changes in asset composition – associated with the increase in non-performing loans and the decrease in the relative share of credit on balance sheets – would explain some 70% of the decline in net interest margin in the Spanish banking system between 2007 and 2018.**

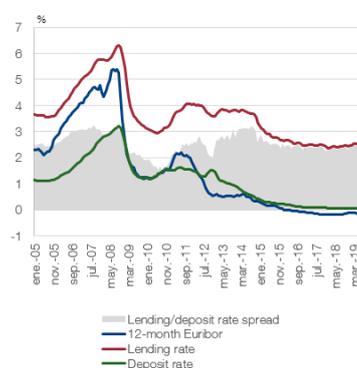
### ...AND ALSO BY THE LOWER INTEREST RATES

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INTEREST RATES ON OUTSTANDING BALANCES  
Individual financial statements. Business in Spain



INTEREST RATES ON NEW LOANS (a)  
Individual financial statements. Business in Spain



Source: Banco de España.  
(a) 3-month moving average calculated for credit interest rate and for deposit interest rate.

**The fall in market interest rates has also played its part in narrowing the net interest margin, since the cost of liabilities, and especially of deposits, which are the main source of funding for Spanish banks, tends to be less sensitive to changes in market returns than the remuneration of assets.**

Indeed, regarding assets, **the remuneration of variable-rate loans**, which make up most of the stock of outstanding credit in Spain, **adjusts to the new market prices as the reference indices are updated** (which generally occurs with a lag of less than one year). **Further, interest rate falls also pass through to new lending**, which likewise gives rise to a cut in the average remuneration of assets.

**Regarding liabilities, the zero level of interest rates has acted as a lower bound for the cost of deposits.** The reason for this downward stickiness in the cost of deposits is that negative interest rates in these instruments could reduce the supply of funds, especially in the case of households, as they may prefer to hold cash, which has zero but not negative remuneration, rather than deposits.

**However, as regards other bank liabilities, such as debt securities, interest rate decreases pass through to their cost without the zero level acting as a lower bound.** Indeed, the average cost of some financing instruments, such as covered bonds, fell to negative values in the summer. The impact on costs is particularly important against a background in which banks have to meet regulatory MREL requirements. Since these instruments can absorb losses in the event of difficulties, their interest rates upon issuance are usually higher than those of ordinary debt instruments, so there is much more room for them to decrease, particularly in comparison with deposits.

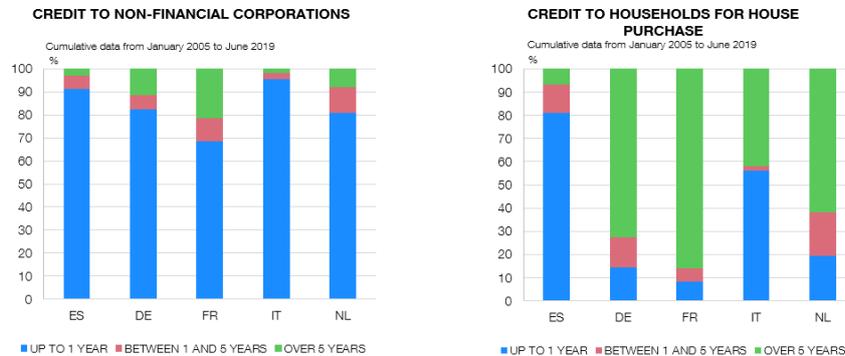
**Analysis of the average loan-deposit spread, in terms of outstanding balances, shows that there is indeed a historically positive relationship between this variable and the level of market interest rates.**

However, **since 12-month EURIBOR turned negative in February 2016, not only has this spread not narrowed, but it has actually widened. There are three reasons for this. First, average loan remuneration has been underpinned in recent years by the decline in non-performing loans**, which has lowered the proportion of loans that do not generate any interest.

**Second, banks have to a certain extent rebuilt their portfolios, focusing more on business such as consumer lending that provides higher net interest income, albeit at the expense of increasing the risk profile of their credit portfolios.**

**Third, in February 2016 there was still some room for a further decline in the cost of deposits** which averaged 0.35% for outstanding balances and 0.20% for new business. Since then deposit rates on new business have fallen by an amount similar to the decline in average loan remuneration. However, the cost of deposits is currently very close to zero, so it will be more difficult to pass through any further falls in loan remuneration.

**VOLUME OF NEW LOANS BY INTEREST RATE FIXATION PERIOD**

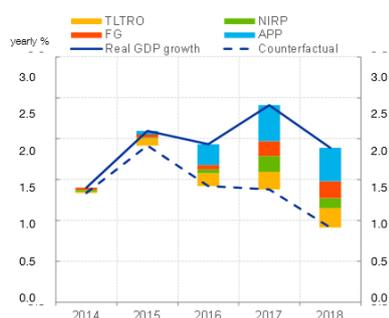


Source: Banco de España

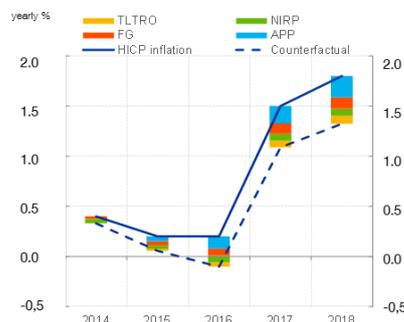
It is often argued that banks' net interest income is being adversely affected not only by the low level of interest rates but also by the flattening of the yield curve observed in recent years. This effect depends, first, on the extent to which there are positive differences between the maturities of banks' assets and liabilities, in other words, what is known as maturity transformation. However, in order for the flattening of the yield curve to have a negative impact on banks' net interest income, in addition to maturity transformation, there also needs to be lending at fixed interest rates. If the loans granted are variable rate, their remuneration will generally be linked to short-term yields, and will therefore not be affected by changes in the yield curve.

In the case of Spain, although banks perform maturity transformation, the bulk of long-term lending is variable rate. In consequence, **the flattening of the yield curve in recent years should have had less impact on Spanish banks' net interest income than on the net interest income of banks in other European jurisdictions where fixed-rate loans predominate**, such as Germany and France. However, in recent years a significant volume of new fixed-rate mortgage lending is starting to be observed, so these effects could become more significant in the future.

**CONTRIBUTION OF ECB NON-STANDARD MEASURES TO REAL GDP GROWTH 2014-2018**



**CONTRIBUTION OF ECB NON-STANDARD MEASURES TO HICP INFLATION 2014-2018**



Source: Rostagno, Altavilla, Carboni, Lemke, Motto, Saint-Guilhem, Yangou (2019), forthcoming.

Note: The chart shows the impact of ECB non-standard measures on GDP and inflation based on a macroeconomic model with financial variables where the estimated impact of the monetary policy measures is conditional upon the yield curve.

**In any event, to assess the overall impact of interest rates on banks' profitability, it is important to note that interest rates affect not only net interest margin but also other income statement items.**

In particular, **lower interest rate levels help reduce losses on credit portfolios**, thanks to the favourable effect they have on borrowers' ability to repay their loans, associated both with lower loan costs and with the higher income and lower unemployment levels linked to the positive macroeconomic impact of lower interest rates.

**These effects have been especially significant in countries such as Spain where the banking system had a high level of non-performing loans and where short-term and variable rate lending predominates**, since this means that changes in market yields are rapidly passed through to the cost of outstanding debt. This effect thus explains part of the decline in the NPL ratio in recent years.

**In addition, lower interest rates help drive up the prices of financial and real assets.** This effect is immediate in the case of debt securities, especially long-term ones, as their prices are more sensitive to yield changes. The prices of equities and real assets, such as housing, are also boosted by lower interest rates, owing to their effect on the discount factor, although these prices are also affected by other factors, such as macroeconomic expectations.

**All this entails capital gains for banks exposed to these financial and real assets. It also increases the value of loan collateral**, which enhances the credit quality of loans and, therefore, reduces losses on the credit portfolio. That said, it is true that these capital gains become exhausted once interest rates cease to decline and remain at low levels.

In addition, **low interest rates and, in general, more accommodative financial conditions naturally have a positive impact on economic activity and employment and help stimulate the flow of credit, thus also driving up banks' profitability.** Indeed, this is the key rationale behind an expansionary monetary policy such as that implemented in the euro area in recent years. As an illustration of these effects, according to various ECB

studies<sup>2</sup> and the Banco de España's own estimates, the set of monetary policy measures adopted since mid-2014 will have an overall impact on real GDP growth in the euro area of around 2 pp in cumulative terms between 2016 and 2020. Moreover, these estimates do not include the measures agreed in September which, according to the Banco de España's estimates, could add up to 0.4 pp in cumulative terms to euro area GDP growth by 2021.

In any event, it is fair to say that there is evidence that, since the ECB's deposit facility rate fell below zero, negative surprises in short-term interest rates have been accompanied by falls in European banks' stock market valuations.

Given the endogenous nature of the monetary policy response to projected economic developments, this response by bank share prices to monetary surprises may reflect, on the one hand, the negative impact of less favourable projections for the future macroeconomic setting and, on the other, the market view on the direct negative effect of further interest rate cuts on banks' future profitability against a backdrop of a prolonged period of negative rates.

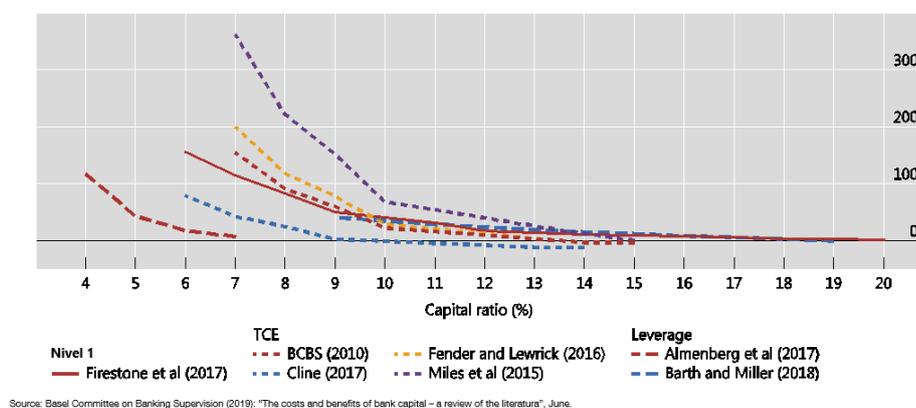
In short, although there is no conclusive evidence that low or even negative rates have adversely affected the supply of bank credit to date, **we cannot rule out the possibility that if rates remain at very low levels for a further – potentially extended – period, there could ultimately be certain negative consequences for the bank-based transmission of monetary policy.**

**For this reason, the decisions adopted by the ECB Governing Council at its meeting of 12 September were accompanied by mitigating measures**, such as the introduction of a two-tiered reserve remuneration system (to ensure that the negative deposit facility rate is not applied to part of the surplus liquidity held by banks). These measures are intended to soften the potential negative impact on banks' profitability of the latest interest rate cut, and thus to ensure the effective transmission of monetary policy through this channel. Similarly, the reduction in the interest rate applicable to the third round of TLTRO operations and the increase in their maturities will cut the cost of banks' liabilities.

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<sup>2</sup> See, for example, Rostagno, Altavilla, Carboni, Lemke, Motto, Saint-Guilhem and Yiangou (2019), forthcoming, or Hammermann et al. (2019), "Taking stock of the Eurosystem's asset purchase programme after the end of net asset purchases", ECB Economic Bulletin, 2/2019.

## Net marginal macroeconomic benefit from capital



Lastly, allow me to refer briefly to the role of regulation. On occasions it has been argued that the higher regulatory pressure on banking activity in recent years, together with the future regulatory requirements pending implementation following finalisation of the Basel III agreements, have negative effects on banks' profitability.

Irrespective of this, it should be recalled that **the Basel III reform package aims to address the shortcomings identified in the regulatory framework in place prior to the global financial crisis** and to strengthen regulation, supervision and banking practice internationally in the interest of financial stability.

In accordance with this aim, **the Basel III reforms have significantly strengthened the resilience of the global banking system**. Specifically, since 2011, internationally active banks' common equity tier 1 (CET1) capital has risen by 91% to over €3.7 trillion. In addition, the average risk-weighted CET1 ratio has risen from 7.2% to 13%, while banks' average tier 1 capital leverage ratio has risen from 3.5% to 6%.

Moreover, these figures will likely continue to rise in coming years, given that some of the Basel III reforms will not be fully in place until 2022. Indeed some, such as the output floor, which limits the difference between risk-weighted assets (RWAs) under the standardised and IRB approaches, have a transition period that may continue up until 2027.

A document published by the Basel Committee<sup>3</sup> in June reviews the recent academic literature on the macroeconomic benefits and costs of higher capital requirements. According to the literature, the Basel III reforms give rise to capital levels within the range of estimates that point to positive net macroeconomic benefits for society as a whole, as a result of the greater financial stability and enhanced shock-absorbing capacity they provide.

<sup>3</sup> Basel Committee on Banking Supervision (2019): "The costs and benefits of bank capital – a review of the literature", June.

In short, **there is no evidence to suggest that we have gone too far in calibrating the Basel III capital requirements.**

**The priority, therefore, should be for jurisdictions now to apply these standards in full, consistently and within the periods agreed.** This is the message reiterated by the G20 leaders, and banks are required to adapt to this new regulatory environment. We must fight against what has come to be known as the “regulatory cycle”, according to which (and there is empirical evidence to confirm this), over time, memories of crises and of their negative effects tend to fade, the pressure of individual interests grows and the temptation to ease regulatory standards increases.

Clearly, a different question altogether is the need to ensure a level playing field. In particular, **it is important to ensure that the risks associated with the non-bank financial intermediation sector, and those stemming from its interconnectedness with the banking sector, are properly regulated and supervised.** This requires, among other things, close monitoring of the regulatory perimeter of the whole financial system, to ensure that market participants operate under the principle of regulatory neutrality.

#### **Responses to the low profitability environment**

**In recent years, Spanish banks have partially cushioned the fall in net interest income by means of various strategies.** To address the current low profitability environment, they should persevere in some of these strategies and embark on others.

**First, as I mentioned earlier, banks have made great efforts to reduce their non-performing and foreclosed assets. But the non-performing loan ratio still stands at 5.3%** for business in Spain and foreclosed assets amount to around €40 billion, **in both cases well above the pre-crisis levels.**

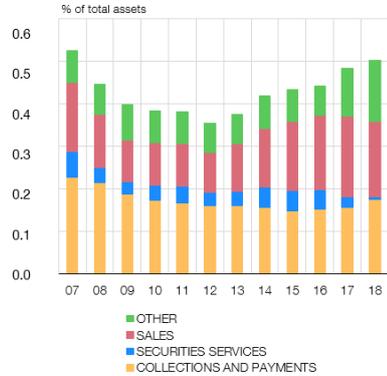
**Banks should therefore persevere with this strategy.** To illustrate the room for improvement that still exists in connection with these non-performing assets, if the level of provisioning of average total assets were as low as in 2005 (which, at 0.26%, was the lowest level recorded since 2000), it is estimated that Spanish deposit institutions’ annual consolidated profit would increase by €1.7 billion. This would raise average ROA by 10 bp and ROE by 1.3 pp.<sup>4</sup>

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<sup>4</sup> In addition, in a hypothetical scenario in which all foreclosed assets were performing assets, earning a return equivalent to average ROA (0.49%), net profit would increase by around €60 million, a modest but far from negligible figure.

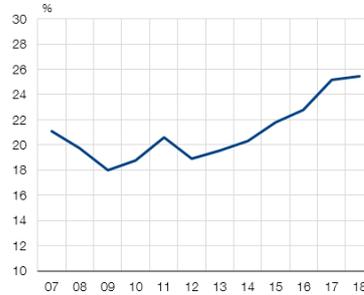
**THE INCREASE IN FEES AND COMMISSIONS CUSHIONED THE FALL IN THE NET INTEREST MARGIN**

**BREAKDOWN OF FEES AND COMMISSIONS**  
Individual financial statements. Business in Spain



Source: Banco de España.

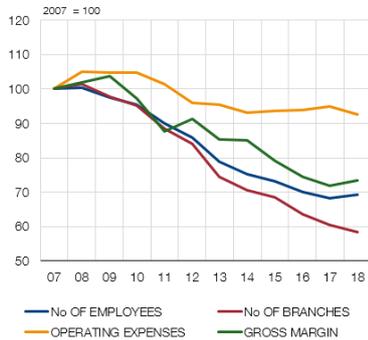
**FEES AND COMMISSIONS AS % OF GROSS INCOME**  
Individual financial statements. Business in Spain



**Second, banks have diversified their revenue generation and in particular there has been an increase in fee income.** Among these fees, the relative increase in those linked to the marketing of products such as investment funds stands out, in a setting in which demand for these products has risen, boosted by households' search for more profitable investments, given the low level of return on deposits. This has meant that gross income, which includes fees and net interest income, has declined by less than the net interest margin. Likewise, as I indicated earlier, banks have tended to increase the share of business in their portfolios that provides higher net interest income (such as consumer lending), albeit at the expense of increasing the risk profile of their credit portfolios.

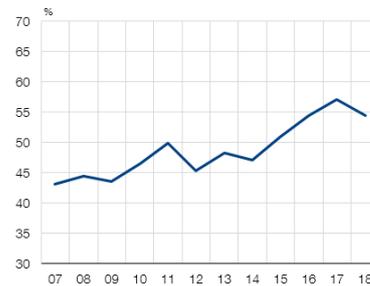
**BANKS HAVE ADJUSTED THEIR CAPACITY, BUT OPERATING EXPENSES HAVE FALLEN BY LESS THAN GROSS INCOME, LEADING TO LOWER EFFICIENCY**

**CAPACITY ADJUSTMENT BY DEPOSIT INSTITUTIONS IN SPAIN**  
Individual financial statements. Business in Spain



Source: Banco de España.  
a. Operating expenses as a proportion of gross income.

**EFFICIENCY RATIO (a)**  
Individual financial statements. Business in Spain



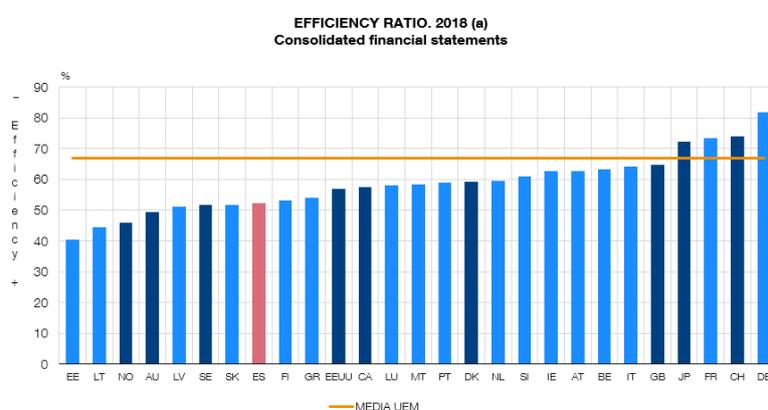
**Third, banks have also made great efforts to cut their operating expenses** through branch closures and staff reductions. Specifically, the number of branches has decreased by more than 40% (by some 20,000), while staffing levels have been cut by more than 30% (some 90,000 fewer employees).

Nevertheless, **to date these cuts in expenses have been more moderate than the decline in gross income**, as reflected in a constant increase, up to 2017, in the ratio between the two (the efficiency ratio), **which reveals the deterioration in efficiency** in this period. Overall, in business in Spain there has been a significant increase (deterioration) in the efficiency ratio at the individual level, of around 9 pp since 2014, which took it to 56.2% in June 2019.

In terms of assets, operating expenses in 2018 were similar to their pre-crisis levels. Yet in a setting where credit accounts for a significantly lower proportion of assets than it did then, these expenses should also be lower given that the costs associated with the management of non-credit assets are lower.

**THE EFFICIENCY RATIOS OF THE SPANISH BANKING SYSTEM CONTINUE TO BE BETTER THAN THOSE OF MOST COUNTRIES**

BANCO DE ESPAÑA  
EuroSistema



Source: ECB (SE, DK); Federal Reserve (USA); Finanstilsynet (NO); SNL (AU, CA, CH, JP); EBA (other countries).  
a. Operating expenses as a proportion of gross income.

The consolidated statements show that, despite the deterioration in efficiency levels, the Spanish banking system's efficiency ratios remain better than those of the main European banking systems and also than those of banks in the United States and Japan, although they are worse than those observed in other jurisdictions such as, for example, the Nordic countries

Once again, to illustrate the potential gains, in terms of rates of return, of an improvement in efficiency, in a scenario in which banks achieved their best (lowest) efficiency ratio since 2000 (43.2% in 2009), it is estimated that the profit attributed to the dominant institution would have been almost €3 billion higher than the figure actually recorded in June 2019. In consequence, ROA would have increased by 17 bp and ROE by 2.2 pp.

If we combine this hypothetical scenario with that of the non-performing loan ratio at record lows, annual profit could have been almost €5 billion higher than the actual figure, with ROA 27 bp higher and ROE 3.5 pp higher. Thus, ROE would be comfortably above the statistically viable upper range for estimation of the cost of equity.

Clearly, these estimates are only illustrative and should be understood as a ceiling for the actual effects, as it is probably difficult to achieve such a low non-performing loan ratio in a setting of lower indebtedness and with significant changes in credit portfolio composition.

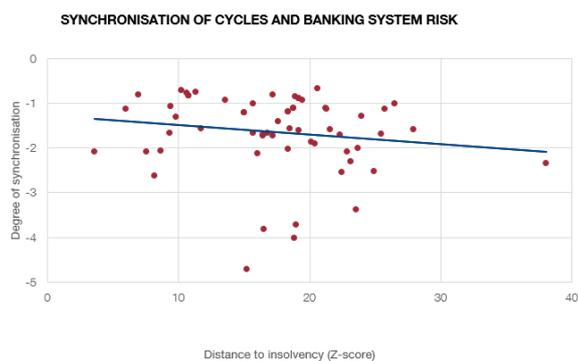
And also because part of the increase in banks' costs are the result of technology investments, which are allowing banks to adapt to the new environment and are therefore essential. They are also indicative of the measures that banks should be prioritising.

Fourth, the role that consolidation can play as a mechanism for harnessing economies of scale and improving efficiency and, therefore, for increasing profitability, is regularly discussed. Added to this is the cost pressure associated with the high IT investments being made to address changes in a competitive environment with new competitors. And also the need for banks to have preferential access to international capital markets to be able to respond efficiently to the implementation of the new post-crisis banking regulations and, especially in Europe, to comply with the MREL requirements.

**In the last decade the Spanish banking sector has already undergone a very significant consolidation process.** Specifically, since 2009 the number of banks has fallen by more than 30%. Looking ahead, **potential future consolidation processes should be led by the market, in other words, by value creation for shareholders, while we supervisors should ensure that these processes do not undermine financial stability.**

#### THE POSITIVE EFFECTS OF GEOGRAPHICAL DIVERSIFICATION BY BANKS

BANCODE ESPAÑA  
Eurosystem



SOURCE: I. Argimón (2017), "Decentralized multinational banks and risk taking: the Spanish experience in the crisis", Working Paper 1749, Banco de España.

Fifth, we cannot overlook **the potential role of international diversification**, as shown by the part it has played in some of the largest Spanish banks in the last decade. Thus, over that period, the Spanish banking sector has increased its international exposure by 45%, while banks in countries such as Germany, France and Italy have reduced their international exposure by 38%, 16% and 15%, respectively.

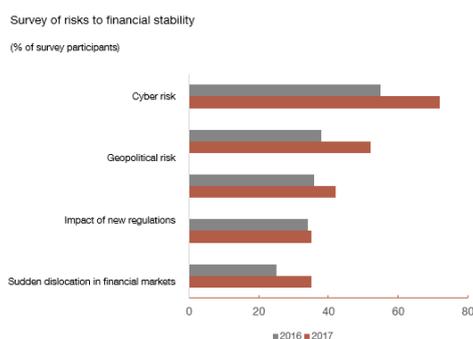
Despite the risks associated with business in emerging market economies, international diversification of banking business, especially when focused on retail business and organised in a decentralised manner, brings important benefits, in terms of greater diversity of business models and revenue sources, as was seen during the last crisis. In addition,

there is evidence that the lower the level of synchrony between the economic and financial cycles of the countries in which banks operate, the greater these benefits.<sup>5</sup>

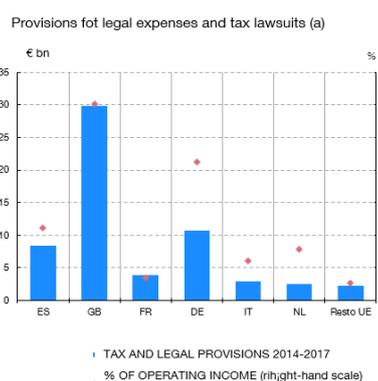
In this respect a **profound reflection at the European and the international level on the regulatory treatment of diversification in the banking business** may be appropriate, so that, in conjunction with the greater complexity it may entail, some of its beneficial effects on banks' risk profiles may be afforded better recognition.

**BANKS WILL HAVE TO MANAGE THE OPERATING RISKS ASSOCIATED WITH LEGAL RISK OR CYBER RISK, AS WELL AS THOSE DERIVED FROM CLIMATE CHANGE**

BANCO DE ESPAÑA  
Eurosistema



Source: IMF working paper WP/18/143



Sources: European Banking Authority (EBA) and Banco de España.

a. Annual data for the period 2014-2017 drawn from EBA transparency exercises. The data for each country refers to a set of significant institutions which may change each year.

Sixth, nor should we overlook **the importance of operational risk being correctly managed by banks.**

Operational risk accounts for 9.3% of the risk-weighted assets of Spanish deposit institutions by volume, slightly below the European average (10.5%). In any event, we know on past experience that the deterioration in solvency associated with an operational risk event can be high. Indeed, for European banks affected by the most serious operational events, this deterioration has remained over 1.25 pp of CET1 in the last five years, rising to 2.1 pp in 2018.

As I mentioned in my introduction, in the case of Spain, **potential costs associated with legal risks continue to contribute to operational risk at deposit institutions.** The processes linked to past litigation, for example over floor clauses, have had an estimated cost for the sector of more than €2.2 billion up to June 2019. Moreover, there are other significant legal processes still pending settlement.

In addition, legal risk and certain other factors relating to banks' conduct have had a significant impact on the reputation of the banking sector, and not only in Spain. In this respect it is important to note that reputation and customer confidence are fundamental to the banking business. In consequence, and also from a purely economic standpoint, given that in the long term litigation costs are far higher than the possible benefits that some banks

<sup>5</sup> See I. Argimón (2017), "Decentralized multinational banks and risk taking: the Spanish experience in the crisis", Banco de España Working Paper No. 1749.

may have obtained in the short term as a result of questionable behaviour, **banks should strive to reverse this trend, providing their customers with financial products and services suited to their needs and capabilities, and also supplying the key information in a clear and transparent manner.**

Similarly, **banks should address the technology risk stemming from the impact of the adoption of new technologies on, for example, the probability of suffering cyberattacks,** with extremely high potential effects on operational risk and banks' own reputation.

Lastly, **climate change and the transition towards a more sustainable economy pose another key challenge.** Although this affects all economic agents, it is particularly important in the financial sector. Banks face two types of risks in this area: "physical" risks linked to the direct effect of climate change on their asset values, and "transition" risks linked to the process of technological and regulatory transition to a more sustainable economy. In coming years, identifying, quantifying and mitigating these risks will require considerable effort, although the notable development of green sustainable financial markets in Spain in recent years should be highlighted.

## 2. Low interest rates and banks' risk appetite

In a low interest rate setting, there are greater incentives for economic agents to take on greater risk. The work of the macro- and microprudential authorities consists in ensuring that this greater risk-taking is not excessive and does not ultimately generate problems for financial stability. The authorities should use the various prudential instruments at their disposal to prevent this from occurring. The longer interest rates remain low, the more likely it is that risk-taking may become excessive. Clearly, deposit institutions are not immune to this, especially when profitability is low. Let us now assess the situation in this respect in the case of the Spanish banking sector.

### SIGNIFICANT DELEVERAGING OF THE NON-FINANCIAL PRIVATE SECTOR AND CHANGES IN ITS SECTORAL COMPOSITION

BANCO DE ESPAÑA  
Eurosistema

#### Lending to the resident private sector

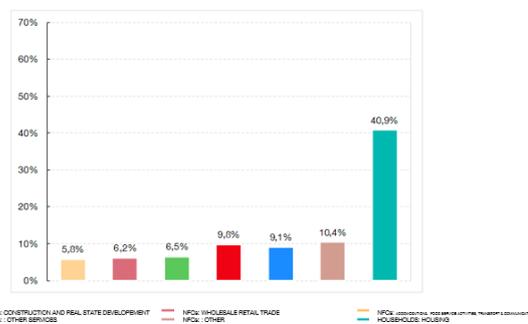
Volume and year-on-year rate of change



Source: FI 100-2.a.E and FI 100-3.E

#### BANK CREDIT BY SECTOR OF ACTIVITY Resident private sector (as % of GDP at market prices)

June 2019



Legend: Construction and real estate development, Other services, Wholesale retail trade, Other, Households other, Households housing.

Source: Comptroller returns F1 13U, M14 and 115, and Banco de España Statistical Bulletin.

[1] Bank lending to the resident private sector as a percentage of GDP at market prices.  
[2] NFCs: Other includes the sectors: Agriculture, forestry and fishing, Mining and quarrying, Manufacturing, Electricity, gas, steam and air conditioning supply, Water supply, and Unclassified. The NFC sectors also include lending to sole proprietors.

First, the private sector debt ratio stood at 130% of GDP in Q2, a drop of around 70 pp from the peak recorded in 2010, and is now below the euro area average. In recent months, external financing to non-financial corporations has continued to expand at year-on-year rates close to 1.1%, with significant – albeit increasingly modest – growth in financing through the issuance of corporate debt securities and a decline in bank lending that is flattening out. Even though the weight of corporate debt securities in bank balance sheets is very low, it has risen gradually in recent years, and it is therefore also something that should be monitored in the future.

In this respect the credit cycle indicator used by the Banco de España (the **credit-to-GDP gap**, which compares the credit-to-GDP ratio with its long-term trend value) **remains in negative territory** (around -8 pp up to June 2019), although it is gradually approaching equilibrium. The forecasts for coming years suggest that this indicator will become positive towards the first half of 2021. Likewise, the indicator that measures credit intensity, which reflects the weight of change in credit relative to GDP, is currently close to equilibrium, on an upward path that is expected to be maintained in the next two years.

By segment, in the case of **non-financial corporations**, there have been two key developments since the global financial crisis. First, **their debt relative to GDP has fallen by around 40 pp**, down to 73%, below the European average. And second, the level of **concentration of bank lending to the non-financial private sector in the construction and real estate sectors, which before the global financial crisis was over 25%, has continued to correct and now stands at 9.6%.**

This has been fundamental in the fall observed, as a proportion of GDP, in real estate sector-related lending (understood in the broadest sense, i.e. including loans for house purchase), which has gone from 101% in 2009 to 50% at present.

**DESPITE THE DELEVERAGING AND THE GREATER WEIGHT OF PRODUCTIVITY IN THE GRANTING OF CREDIT, HIGHLY INDEBTED FIRMS CONTINUE TO HAVE CERTAIN VULNERABILITIES**

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ACCUMULATED IMPACT OF PRODUCTIVITY ON THE CHANGE IN LENDING TO NON-FINANCIAL CORPORATIONS (a)



SOURCE: Banco de España.

a. Total factor productivity is obtained from sectoral regressions of the logarithm of sales relative to the logarithms of total capital, inputs and employment and temporary controls. An estimation of the weights of capital and employment in the firm's production function is obtained. That used here is normalised. The differential impact was estimated for each date with respect to the two years prior to increasing productivity in a standard deviation through a regression of the change in bank financing at firm level on productivity and other firm-level and supply controls. Next, for each year the value estimated previously has been accumulated from 2004, thus obtaining a measurement of the impact of productivity on the lending policy of the banks from the first period analysed.

FINANCIAL COSTS/GROSS PROFIT RATIO BY ROA DECILES (A)



SOURCE: Banco de España.

a. Firms' balance sheet and income statement information is drawn from the Banco de España Central Balance Sheet Data Office. Financial firms and companies from the construction and real estate development sector are excluded.

It also partly explains the fact that the allocation of new lending has improved considerably since the international financial crisis. In particular, the empirical evidence available suggests that banks now discriminate more between firms according to their credit quality and productivity. This should help contain any increase in non-performing loans in the future.

Moreover, the economic recovery, **lower borrowing costs and the intense deleveraging undertaken by firms have prompted a widespread decrease in the financial vulnerability of Spanish firms.** Indeed, since 2013 the debt service-to-profit ratio has fallen very significantly, from 24% to 11% in 2017 in the 50th percentile when firms are ranked by profitability.

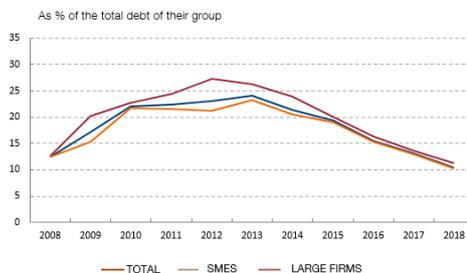
However, this has been **an uneven reduction and there are still firms that show a certain degree of vulnerability to potential shocks that reduce their capacity to generate income or raise the interest rates at which they borrow funds.** Specifically, in the first three deciles, the average of this ratio is around 20%, indicative of a certain degree of fragility.

**FINANCIALLY MORE VULNERABLE FIRMS ARE CONCENTRATED AMONG SMES AND IN THE CONSTRUCTION AND REAL-ESTATE-ACTIVITIES SECTOR**

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THE DEBT OF VULNERABLE FIRMS (a)

THE DEBT OF VULNERABLE FIRMS.  
BREAKDOWN BY SIZE (b)

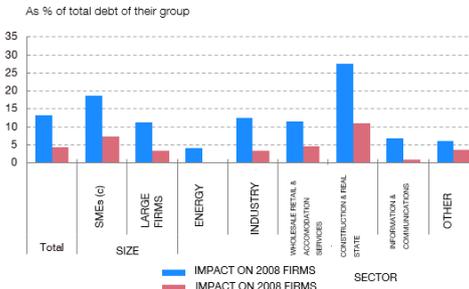


SOURCE: Banco de España.

a. Vulnerable firms are defined as those having an interest coverage ratio of less than one for two consecutive years. The interest coverage ratio is defined as (gross operating profit + financial revenue)/financial costs. Newly created companies and holding companies are excluded from the sample. Firms without any financial costs are not considered vulnerable.  
b. The sizes are defined in line with European Commission Recommendation 2003/361/EC.

FIRMS UNDER HIGH FINANCIAL PRESSURE IN AN ADVERSE SCENARIO (a)

INCREASE IN WEIGHT OF DEBT OF VULNERABLE FIRMS IN THE EVENT OF A FALL IN OPERATING PROFIT (b)



SOURCE: Banco de España.

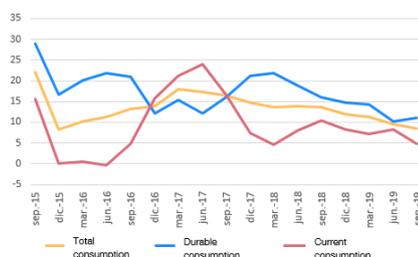
a. Vulnerable firms are defined as those having an interest coverage ratio of less than one for two consecutive years. The interest coverage ratio is defined as (gross operating profit + financial revenue)/financial costs. Newly created companies and holding companies are excluded from the sample. Firms without any financial costs are not considered vulnerable.  
b. An annual fall in the gross operating profit equal to half of the average annual decline observed between 2008 and 2012 is considered, by sector. The cumulative impact in the third year is analysed.  
c. The sizes are defined in line with European Commission Recommendation 2003/361/EC.

In this respect, if financially vulnerable firms are defined as those that are unable to regularly pay the interest on their financial debts out of ordinary and interest income, it is observed that the relative weight of debt associated with vulnerable firms has fallen continuously since 2013, down to levels in 2018 very similar to those recorded in 2008.

At the same time, it is estimated that in a hypothetical adverse scenario in which corporate profits continue to decline (on a scale, for example, equivalent to half of the decline observed in the last crisis, between 2008 and 2012), the consequent increase in vulnerability would be comparatively less intense than that which would have occurred in 2008 in response to the same adverse shock, reflecting today's lower level of corporate indebtedness. That said, some types of firms and sectors may still have a significant degree of vulnerability to the deterioration of the environment, according to the strength of their financial position and the nature of the possible shocks.

YEAR-ON-YEAR RATE OF CHANGE OF CONSUMER CREDIT (%)

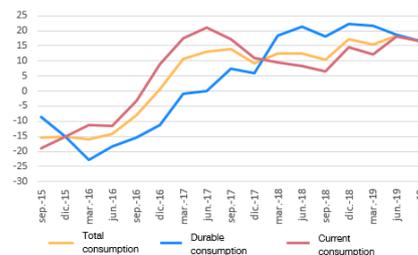
Deposit institutions and specialised lending institutions



SOURCE: Banco de España.

YEAR-ON-YEAR RATE OF CHANGE OF NON-PERFORMING CONSUMER CREDIT (%)

Deposit institutions and specialised lending institutions

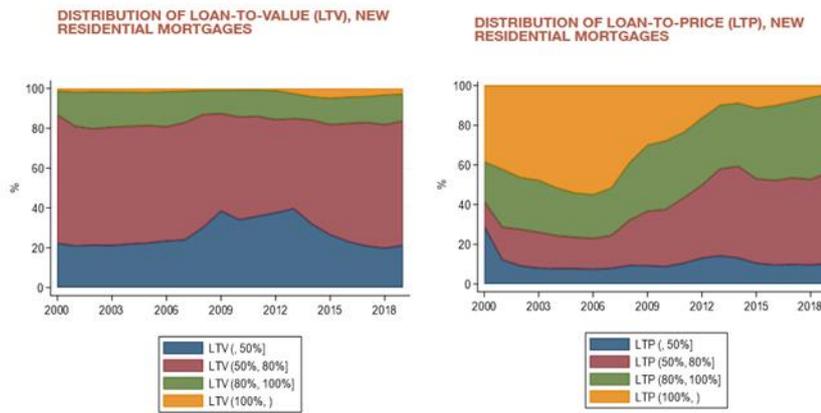


**In the case of households, their indebtedness as a proportion of GDP has also declined very significantly, by 28 pp from the peak recorded in 2010. Accordingly, at 58.3% at present, it has now practically converged with the euro area figure.** The latest data indicate that total household financing was practically steady in September, in year-on-year terms, with a slight deceleration since the start of the year.

By component, **we can see significant divergence between credit for consumer goods purchases and credit for house purchases. The former grew at a rate of 9% in September 2019**, though easing compared with previous months, and the volume of NPLs increased at a rate of 15%. Consequently, while this item accounts for just 6.2% of bank credit to the non-financial private sector, and given that the return on this portfolio is higher than on the rest, even in extremely stressed scenarios, we are also closely monitoring its movements.

**Mortgage lending has fallen to a year-on-year rate of 1.6%. This portfolio accounts for 46% of all loans to the non-financial private sector**, meaning it is systemically important. The conditions under which these loans are granted are a basic element for determining their future degree of non-performance, and they are therefore crucial to financial stability. Several dimensions have to be taken into account.

**SINCE THE GLOBAL CRISIS THERE HAS BEEN A SUBSTANTIAL DECREASE IN THE PROPORTION OF LOANS WITH HIGH-RISK LEVERAGING LEVELS**



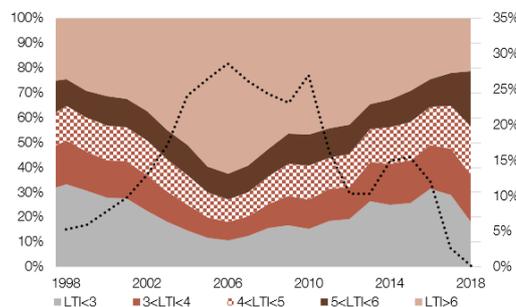
SOURCE: Colegio de Registradores.

First, the degree of leverage, which can be calculated taking the loan-to-value ratio of the property subject to mortgage. Empirical evidence shows that the probability of a mortgage loan defaulting is greater the higher this ratio is. In this respect, **since the global financial crisis we have witnessed a substantial reduction in the share of operations with high-risk leverage levels. And in recent years the average degree of leverage has held stable.**

However, to correctly assess this facet of mortgages, we should bear in mind that house prices in Spain, i.e. the denominator of leverage, have been increasing at a high rate in recent years. To date, this rise in house prices has not translated, on available estimates, into an overvaluation of residential real estate assets. That said, we must continue to monitor this market closely in case this risk materialises, and to analyse other facets of the conditions under which mortgages are granted that are less influenced by the collateral value.

**MORTGAGE LENDING CONDITIONS SEEM TO BE PRUDENT AND THERE IS NO EVIDENCE THAT THEY HAVE EASED RECENTLY**

**Distribution of Loan-to-Income (LTI), new residential mortgages**



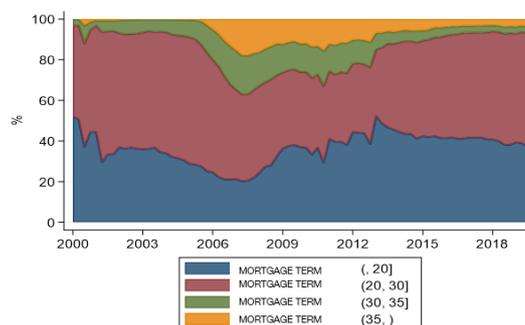
SOURCE: European Data Warehouse.

A second relative facet is the effort that repaying the mortgage entails for agents that have incurred this debt. Once again, empirical evidence shows that **loan-to-income and debt service-to-income ratios** are relevant variables for determining the probability of mortgage default, although the low interest rate environment mitigates the risk.

**PRUDENCE IN MORTGAGE LENDING IS VITAL FOR INCREASING BANKS' CAPACITY TO ABSORB SHOCKS**

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DISTRIBUTION OF THE TERMS OF NEW RESIDENTIAL MORTGAGES

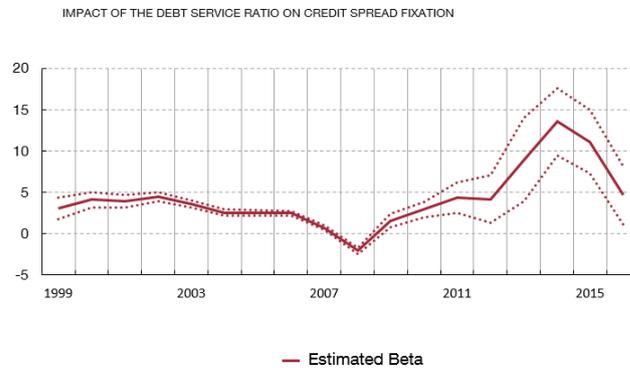


SOURCE: Colegio de Registradores.

In any event, as more than half of new mortgage loans continue to be taken out at a variable rate, high loan-to-income ratios continue to be a source of possible vulnerability for households. However, **in this instance too, mortgage lending standards appear to be prudent, with no evidence that they have recently eased.**

Third, an additional dimension that is also relevant for estimating the probability of default is the **maturity of the mortgage loans granted**. Longer maturities are usually related to more foreclosures. **Likewise in this case, standards have become stricter following the crisis and have not eased in recent months.**

Empirical evidence further shows that it is the combination of some of these dimensions that may prompt disproportionate increases in the probability of loan default. These mortgages with very lax conditions in several dimensions have also become much less significant in recent years.



SOURCE: European DataWarehouse and Banco de España.

The evidence available also reveals that households cease to meet their financial obligations when they have to forgo a portion of the regular income they receive or when they lose their jobs. But lending standards and price-setting policies play a key role in mitigating these impacts. Hence, a key factor in the monitoring of bank mortgage lending standards is the extent to which interest rates charged vary in step with the risk borne. Prudent behaviour would advise charging a higher interest rate the greater the risk assumed.

In this respect **we can see that, set against pre-crisis behaviour, where there was scarcely any relationship between certain risk characteristics of mortgage loans and the interest rate charged, the relationship is now positive and statistically significant. Nonetheless, we should also note that this relationship has gradually diminished in intensity in recent years**, in a trend that banks should strive to reverse so as to have prices properly reflect all the costs and risks assumed.

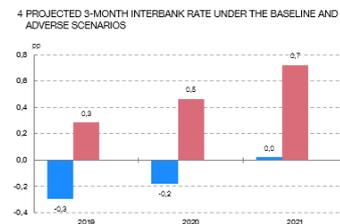
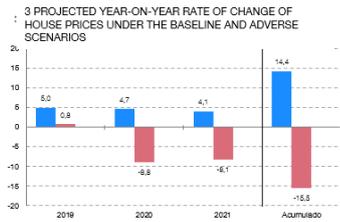
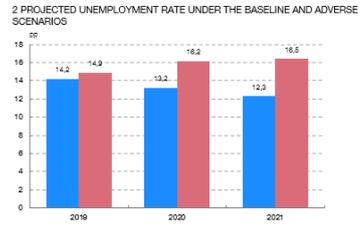
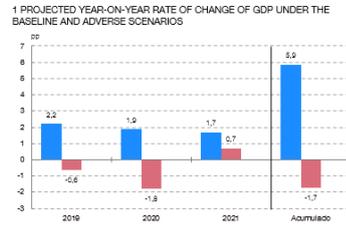
Generally, then, the main conclusion that may be drawn from the foregoing analysis is that Spanish banks do not, for the moment, appear to be significantly increasing their risk profile. That said, some factors do require close monitoring.

### 3. Resilience of banks to shocks

#### BANCO DE ESPAÑA STRESS TESTS. MACROECONOMIC SCENARIOS

BANCODE ESPAÑA  
Eurosistema

The baseline scenario is characterised by a growth path with a slight deceleration and a small rise in interest rates. By contrast, the adverse scenario features a marked contraction of activity accompanied by a significant increase in interest rates.

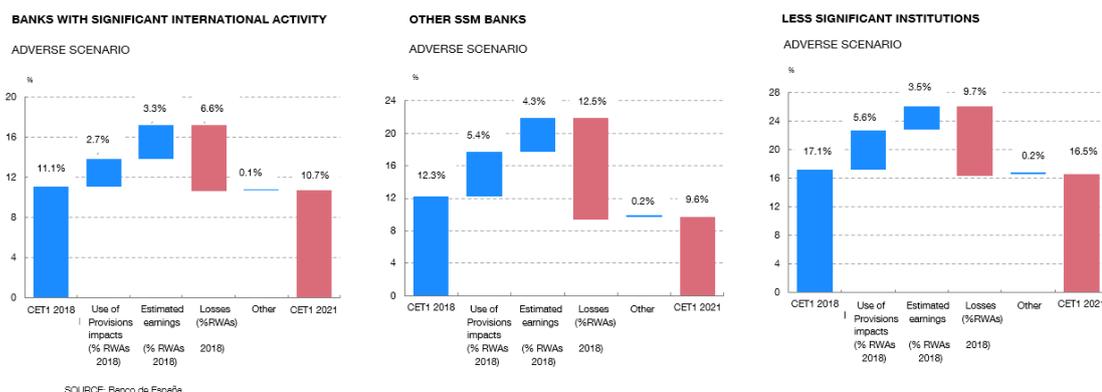


SOURCE: Banco de España.

■ BASELINE ■ ADVERSE

One way of analysing banks' resilience to shocks is to subject them to stress tests. The Banco de España conducts stress test exercises annually for all Spanish banks. To do so it takes as its starting point the banks' end-year balance sheets from the previous year. It defines a baseline macroeconomic scenario, which coincides with the Banco de España projections available at the time the exercise is performed, and another, stressed scenario, which attempts to reflect the effect of the previously identified risks materialising.

The difference between the two scenarios reflects the degree of stress of the exercise, which is slightly greater than last year, in step with the increase in perceived risks.



The results obtained in the latest stress test performed by the Banco de España – published in the Autumn 2019 *Financial Stability Report* – are generally positive. However, earnings-generating capacity under the baseline scenario does not reflect the effect of the downward revision in the macroeconomic projections made in the Banco de España’s September forecasting exercise.

In the baseline scenario, banks generate modest earnings; these do, however, provide for an increase in solvency ratios of almost 1 pp in three years if the dividend distribution pattern observed in the preceding years holds. This would not be enough to abandon the bottom rung of the European solvency ranking, which is why improving profitability and a prudent shareholder remuneration policy are so important.

Under the adverse scenario a portion of capital is consumed, but moderately so at the aggregate level, although there is substantial heterogeneity across banks. Specifically, the reduction in the CET1 capital ratio is 0.4 pp for large banks with a significant international presence, 2.7 pp for the other banks supervised by the Single Supervisory Mechanism (SSM) and 0.6 pp for less significant institutions.

The difference obtained between banks with an international presence and other SSM-supervised banks shows, once again, the importance of geographical diversification for absorbing shocks. The smaller decline in capital at less significant banks is largely on account of their lower credit risk and the lower weight of exposures to the real estate sector, i.e. it may be attributed to better asset quality.

The results obtained are generally more favourable than last year, since banks have used this past year to reduce their exposure to price changes in certain assets, such as sovereign exposures and foreclosures. Specifically, banks have offloaded significant foreclosure packages in 2018 and in 2019 to date.

## Conclusions

Allow me to conclude. From the standpoint of financial stability, the downward revisions in the euro area growth and inflation outlook in the past two years and, as a consequence, the heightening of expectations that interest rates will hold at very low and even negative levels over a longer period, pose a dual challenge.

On one hand, this macroeconomic setting poses a challenge to regaining levels of profitability at banks more in step with the cost of capital. Low bank profitability – which, in the case of many Spanish and European banks, stands below the cost of capital and hampers the shoring-up of solvency – is, without doubt, one of the main risk factors for financial stability.

In this setting, banks should harness the levers for improvement available to them in the current macro-financial environment, including most notably: stepping up the granting of solvent credit; diversifying their fund-generating sources; reducing non-performing assets (NPLs and foreclosures); increasing their efficiency; and enhancing their reputation.

On the other, this context of “low interest rates for longer” may generate greater incentives for risk-taking by economic agents. Spanish banks, it would appear, are not significantly increasing their risk profile, although there are some factors that require close monitoring. Prudence in extending credit should be maintained as a key element for increasing banks’ capacity to absorb aggregate negative GDP or interest rate shocks and for ensuring financial stability.

In this connection, according to the latest stress test conducted by the Banco de España, the resilience of Spanish banks as a whole to potential shocks has improved on last year, though the heterogeneity across banks is high.

In any event, the Banco de España constantly monitors the risks to financial stability associated with the banking sector. Were such risks to emerge, the new macroprudential policy instruments available to the Banco de España are specifically designed to mitigate a potential excessive build-up of risks and to increase banks’ loss-absorbing capacity should these risks materialise.

Thank you for your attention.