

**FINANCIAL STABILITY  
REPORT**

**05/2017**

**BANCO DE ESPAÑA**  
Eurosistema











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## ABBREVIATIONS (\*)

€	Euro
AIAF	Asociación de Intermediarios de Activos Financieros (Association of Securities Dealers)
ABCP	Asset-backed commercial paper
ATA	Average total assets
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BLS	Bank Lending Survey
bn	Billions
bp	Basis points
BRRD	Bank Recovery and Resolution Directive
CBE	Banco de España Circular
CBSO	Banco de España Central Balance Sheet Data Office
CCyB	Countercyclical capital buffer
CCR	Banco de España Central Credit Register
CDO	Collateralised debt obligation
CDS	Credit Default Swap
CEBS	Committee of European Banking Supervisors
CEIOPS	Committee of European Insurance and Occupational Pensions Supervisors
CET1	Common equity Tier 1 capital
CIs	Credit institutions
CNMV	Comisión Nacional del Mercado de Valores (National Securities Market Commission)
CPSS	Basel Committee on Payment and Settlement Systems
DIs	Deposit institutions
EAD	Exposure at default
EBA	European Banking Authority
ECB	European Central Bank
EFSF	European Financial Stability Facility
EMU	Economic and Monetary Union
EONIA	Euro overnight index average
EPA	Official Spanish Labour Force Survey
ESFS	European System of Financial Supervisors
ESM	European Stability Mechanism
ESRB	European Systemic Risk Board
EU	European Union
FASB	Financial Accounting Standards Board
FLESB	Forward-Looking Exercise on Spanish Banks
FROB	Fund for the Orderly Restructuring of the Banking Sector
FSA	Financial Services Authority
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSF	Financial Stability Forum
FSR	Financial Stability Report
FVC	Financial vehicle corporation
GAAP	Generally Accepted Accounting Principles
GDI	Gross disposable income
GDP	Gross domestic product
G-SIIs	Global systemically important institutions
GVA	Gross value added
GVAmP	Gross value added at market prices
IASB	International Accounting Standards Board
ICO	Instituto Oficial de Crédito (Official Credit Institute)
ID	Data obtained from individual financial statements
IFRSs	International Financial Reporting Standards
IMF	International Monetary Fund
INE	National Statistics Institute
IOSCO	International Organization of Securities Commissions
ISDA	International Swaps and Derivatives Association
JST	Joint Supervisory Team
LGD	Loss given default
LTROs	Longer-term refinancing operations
LTV	Loan-to-value ratio (amount lent divided by the appraised value of the real estate used as collateral)

(\*) The latest version of the explanatory notes and of the glossary can be found in the November 2006 edition of the *Financial Stability Report*.

m	Millions
MiFID	Markets in Financial Instruments Directive
MMFs	Money market funds
NPISHs	Non-profit institutions serving households
NPLs	Non-performing loans
OFIs	Other financial intermediaries
OMT	Outright Monetary Transactions
OTC	Over the counter
PD	Probability of default
PER	Price earnings ratio
pp	Percentage points
RDL	Royal Decree-Law
ROA	Return on assets
ROE	Return on equity
RWA	Risk-weighted assets
SCIs	Specialised credit institutions
SMEs	Small and medium-sized enterprises
SIV	Structured investment vehicle
SPV	Special purpose vehicle
SRI	Systemic Risk Indicator
SSM	Single Supervisory Mechanism
TA	Total assets
TARP	Troubled Asset Relief Program
TLTROs	Targeted Longer-term Refinancing Operations
VaR	Value at risk
WTO	World Trade Organisation

## ISO COUNTRY CODES

AT	Austria
BE	Belgium
BG	Bulgaria
BR	Brazil
CH	Switzerland
CL	Chile
CN	China
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
ES	Spain
FI	Finland
FR	France
GB	United Kingdom
GR	Greece
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
JP	Japan
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
MX	Mexico
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
TR	Turkey
US	United States

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## OVERVIEW

### 1 Key developments

After a relatively weak first half of the year in 2016, international economic activity increased in the second half, and this trend has continued into the opening months of 2017. However, the pace of growth remains subdued and much uncertainty surrounds the global macroeconomic outlook, owing mainly to the possible resurgence in protectionist positions in trade and in capital movements, and to a potentially swifter-than-expected normalisation of the US monetary policy stance.

The Spanish economy continued growing at a brisk pace during the second half of 2016, with GDP posting a growth rate of 3.2% for the year as a whole. The information available on 2017 Q1 points to a continuation of this expansionary trend, with a quarter-on-quarter growth rate that might be somewhat higher than that observed during the closing months of last year. The latest Banco de España projections show a continuation of the expansion during 2017 and the two following years, albeit at a more moderate pace than in the past two years. These forecasts are not free from certain downside risks, linked mainly to factors stemming from the external environment.

On domestic and international financial markets, recent months have seen something of a pick-up in long-term interest rates, rises in equity prices, more markedly so in the case of bank shares, and declines in credit risk premia. These developments appear to be in response to brighter investor expectations about the outlook for global growth and less concern over the attendant risks.

Spanish deposit institutions have generally held on the trend shown in previous editions of the Financial Stability Report (FSR), with an annual 1.7% decline in 2016 in their consolidated assets owing principally to their domestic activity. Consolidated results for 2016 fell by 21.2%, with the return on equity standing at 4.3%. Influencing these developments were diminished activity and the low-interest-rate environment, along with certain one-off factors that affected both domestic business (significant losses at the odd institution, regulatory changes in the coverage of foreclosed assets and higher legal costs) and international business (the depreciation of certain currencies). As stated in previous FSRs, fewer losses attributable to the downturn in loans and receivables (down 16.3% on the previous year) have, to some extent, allowed the reduction in results obtained to be offset, although a high volume of non-productive assets continues to bear adversely on profitability.

The solvency of Spanish banks remains above the regulatory minimum levels. Thus, the common equity tier 1 (CET1) capital ratio stood at 12.8% at end-2016, 16 basis points (bp) up on the 2015 figure. The changes over time show that, since 2013, the total regulatory capital ratio of Spanish deposit institutions has increased by almost 150 bp.

### 2 Risk factors

Set out on the next page are the main factors of risk to the stability of the Spanish financial system.

These three risk factors broadly coincide with those highlighted in the previous FSR, although the order of the risks has been altered, with the possible correction in asset prices taking second place in terms of significance. As discussed, these factors affect not only the Spanish financial system but also the other euro area banking systems, at the same time, they are interrelated, and the materialisation of any of them may lead to the activation of either of the other two.

1	Low bank profitability in a very low interest rate environment in which the volume of business is still decreasing, there is a high - albeit continuously declining - level of non-productive assets and there has been an increase in legal costs.
2	Correction in the price of financial assets, both fixed-income and variable-yield securities, associated with a downward revision of growth expectations in corporate results, a faster-than-anticipated normalisation in US monetary policy and/or an increase in risk premia that could be accompanied by increases in long-term interest rates.
3	Downward revision in growth expectations of international economic activity due to the effects associated with the resurgence of protectionist positions, the monetary policy developments in the United States and another set of underlying geopolitical risks.

SOURCE: Banco de España.

a Colours in the table are as follows: green denotes no risk, yellow is low risk, orange is medium risk and red is high risk. The time horizon for which these risks are defined is determined by the FSR frequency, i.e. it is biannual.

2.1 LOW PROFITABILITY OF BANKING BUSINESS

Current low interest rates along with the limited volume of banking business significantly restrict Spanish deposit institutions’ income-generating capacity. Chart A shows the trend in recent years of net interest income on domestic business, and the decline in terms of the course of financial revenues and costs can be clearly seen. As evidenced, the return on asset-side components (revenues) has declined by more than 50% in the past five years, moving on a similar course to overall costs, taking the related margin to a historically low level.

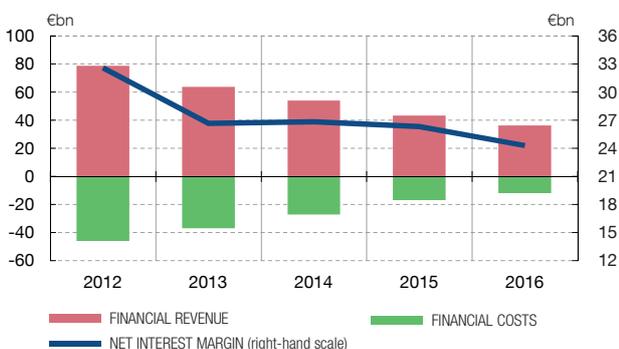
The still-high volume of non-productive assets (NPLs and foreclosures) contributes to increasing the pressure on banks’ income statement (see Chart B for NPLs and Chart 2.12 for foreclosures), although their progressive reduction, admittedly a consequence of the improved macroeconomic conditions and the lower interest burden associated with the low levels of interest rates, lessens the pressure which, via margins, is exerted on Spanish banks’ income statement. Recently, the increase in legal costs, as a result of a series of legal rulings, has prompted a rise in the significance of legal risk for Spanish banks.

Finally, the process of downsizing has continued, enabling the efficiency ratio of Spanish banks to hold at around 50%, placing them in a better relative position than other peer systems, although this has not sufficed to significantly raise the return on equity over the past year.

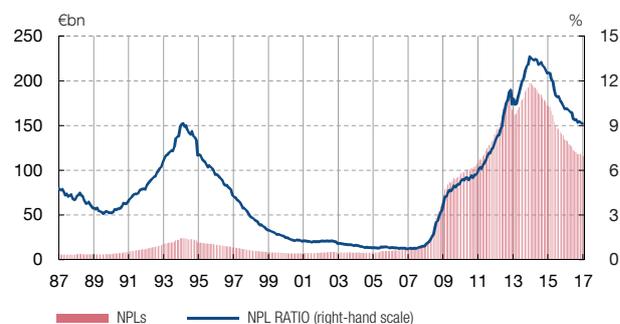
2.2 CORRECTION IN FINANCIAL ASSET PRICES

The recent course of prices on international financial markets appears to respond to agents’ greater optimism about the global macroeconomic outlook. These developments

A FINANCIAL REVENUE AND COSTS AND NET INTEREST MARGIN Business in Spain, ID

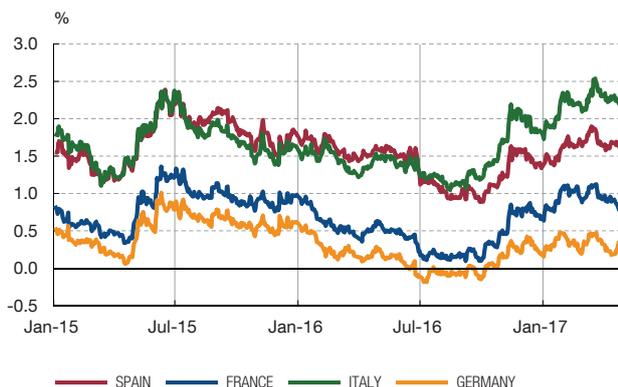


B RESIDENT PRIVATE SECTOR NPLs AND NPL RATIO Business in Spain, ID

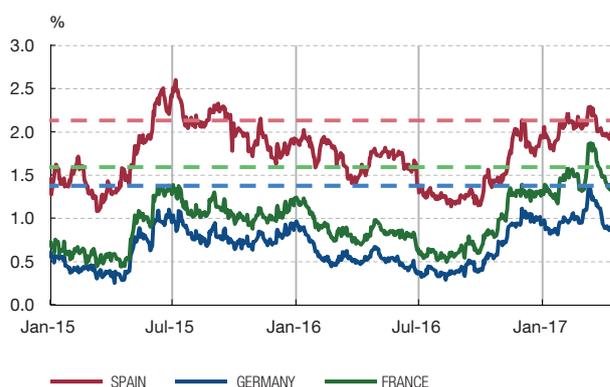


SOURCE: Banco de España.

C SOVEREIGN DEBT 10-YEAR YIELD



D STEEPNESS OF THE YIELD CURVE (a)



SOURCE: Banco de España.

a Difference between the 10-year and the 3-month rate. The dotted lines represent the historical averages of the series from 01.01.2001.

are partly linked to certain reforms announced by the new US administration. The reflection of this has been an increase in long-term interest rates, rises in listed share prices and declines in credit risk premia (see Charts C and D). In this respect, a slower-than-expected implementation, the non-approval of some of the measures announced, or the materialisation of any of the previously discussed risks, might trigger corrections in financial asset prices through the adverse impact on expectations of firms' future earnings or of increases in risk premia. Likewise, long-term interest rates might rise if the pace of normalisation of US monetary policy were swifter than anticipated or if the term premia incorporated into these yields, which are still at historically low levels, were to increase. This potential rise in long-term yields might also trigger corrections in the prices of risk-bearing assets.

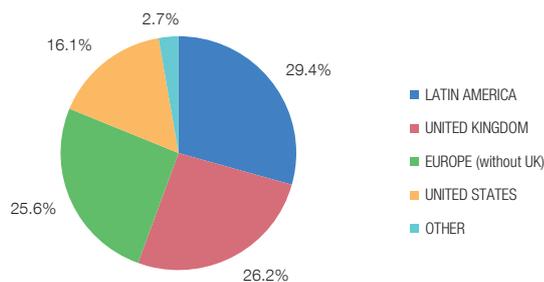
If the correction in financial asset prices and/or the rise in long-term interest rates were abrupt, they might have an adverse effect on financial stability through several channels. First, there might be short-term losses in the value of financial intermediaries' portfolios. Further, the financing conditions of the different productive sectors might worsen, although a steeper yield curve might benefit deposit institutions in the medium term.

### 2.3 DOWNWARD REVISION OF THE GROWTH OUTLOOK FOR THE INTERNATIONAL AND SPANISH ECONOMIES

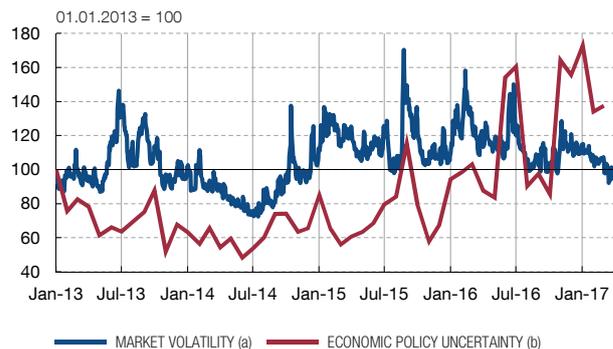
In recent months economic activity has quickened in the advanced and emerging economies alike (albeit not evenly in the latter). However, the risks to the growth outlook are high. These include most notably, on one hand, those associated with the renewed rise in protectionist positions that might have adverse effects on global trade, and, on the other, a swifter-than-expected normalisation of US monetary policy. Such normalisation might lead to a hike in long-term interest rates, which might feed through to other economies and give rise to capital outflows from the emerging economies. In the euro area, uncertainty notably surrounds the Brexit negotiations and the outcome of several elections. The materialisation of any of these risks along with the uncertainty generated might exert negative effects on the Spanish economy or on others in which Spanish banks have significant exposures, potentially affecting the quality of their assets (see Charts E and F).

The foregoing risks are analysed in greater detail throughout this FSR with a view to showing their potential impact on the financial system, especially on the activity pursued by Spanish deposit institutions with particular attention to their profitability and solvency.

**E GEOGRAPHICAL BREAKDOWN OF LOANS IN THE INTERNATIONAL ACTIVITY OF SPANISH DEPOSIT INSTITUTIONS**



**F MARKET VOLATILITY AND ECONOMIC POLICY UNCERTAINTY**



SOURCES: Banco de España and Economic Policy Uncertainty.

- a Average volatility of bond markets (MOVE), stock markets (VIX) and exchange rates for the dollar against the euro, yen and sterling.
- b Index of Global Economic Policy Uncertainty (Global EPU Index).

### 3 Analysis and macroprudential policy

Chapter 3 describes the course of action, in terms of macroprudential policy, followed by the Banco de España recently. Specifically, a description is offered of the decisions relating to the determination of the countercyclical capital buffer level, and the initiatives pursued both with respect to identifying systemic institutions, and those bearing on the level of the capital surcharge (capital buffer) required of these institutions.

# 1 MACROECONOMIC RISKS AND FINANCIAL MARKETS

## 1.1 External environment of the euro area

There are across-the-board signs in the advanced economies that economic activity is strengthening...

After relative sluggishness in the first half of 2016, economic activity rose in the second half of the year, in particular among the advanced economies, while the stability observed in the emerging economies as a whole masked considerably uneven developments from country to country (see Chart 1.1.A). Asia was notably dynamic, assisted by the stimulus measures in China and in certain other countries in the area, in contrast to the weakness still characterising Latin America. The economic indicators earlier this year, relating to both confidence and business activity, confirm this improvement in the world economy. Hence, the year 2017 has, for the first time in recent years, begun against a background of upward revisions in global GDP growth forecasts, especially in the case of the advanced economies. Inflation rates in the advanced economies have increased gradually (see Chart 1.1.B), in line with commodities prices, and a rise has also been observed in inflation expectations, although core inflation is still some distance off central banks' objectives.

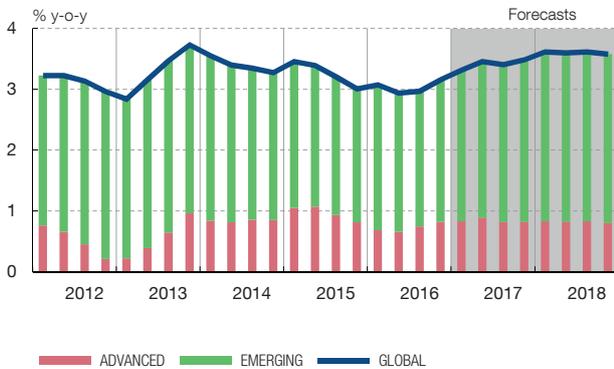
... but in a setting of greater global uncertainty owing to the expected changes in economic policies in certain developed countries...

However, the uncertainty surrounding growth forecasts is very high. This is mainly due to the expected re-gearing of economic policies in the United States, towards a substantially more expansionary fiscal policy, which is expected to entail a swifter normalisation of the monetary policy stance, and with the adoption of protectionist measures that would affect both merchandise trade and movements of people and capital. These constraints on trade, migratory and capital flows, especially if they were replicated in other areas, might deeply affect the global growth outlook in the medium and long term.

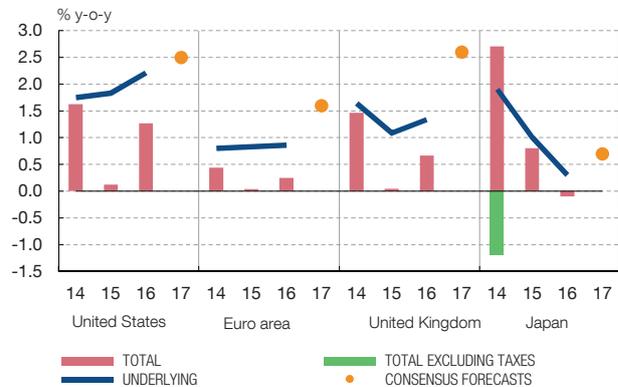
### GROWTH AND INFLATION INDICATORS

CHART 1.1

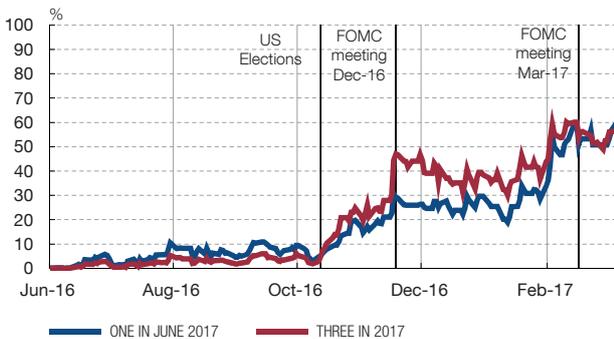
A CONTRIBUTION TO GLOBAL GDP GROWTH



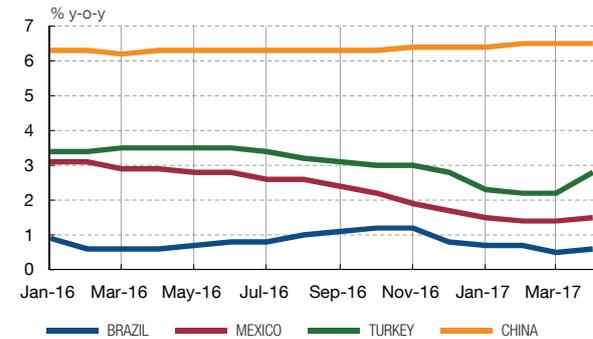
B CONSUMPTION PRICES



C PROBABILITY OF RISES IN THE TARGET RANGE FOR THE FEDERAL FUNDS RATE IN 2017



D 2017 GROWTH FORECASTS FOR EMERGING ECONOMIES



SOURCES: Datastream, Bloomberg, IMF (WEO October 2016), Consensus Forecast and Banco de España.

... in particular in the United States, where rates are expected to continue rising, and which...

The size, composition and timing of the fiscal stimulus package in the United States has admittedly not yet been defined. But the combination of a reduction in direct taxes, depending on who the main beneficiaries are, and an increase in spending on infrastructure would induce an expansionary impulse in the short term, with positive repercussions beyond the United States. Nonetheless, a series of factors might limit the favourable impact on activity. Among these, the high levels of public debt might significantly reduce the effect of a fiscal stimulus if they bear adversely on agents' confidence and raise risk premia. Further, given the improvements in the US economy's cyclical position, there can be no ruling out of crowding out effects on private demand and increases in inflation being countered with a tighter monetary policy. Indeed, market expectations about US policy interest rates have come into line with the projections of the FOMC (Federal Open Market Committee, entrusted with overseeing open market operations in the United States) and they discount three 25 bp increases in the policy interest rate during 2017, including the rise that took place in March (see Chart 1.1.C).

Against this backdrop, the stability of the dollar and of US long-term interest rates over recent months, following the rise witnessed in the final stretch of 2016, has contributed to keeping global funding conditions relatively stable. Yet as the fiscal impulse is rolled out, there is likely to be a more or less gradual tightening, which might have adverse effects particularly on those economies more exposed to dollar financing, but also at the global level, if there is a pass-through to the long-term interest rates of the other countries.

... may affect certain economies, mainly emerging ones, such as Mexico

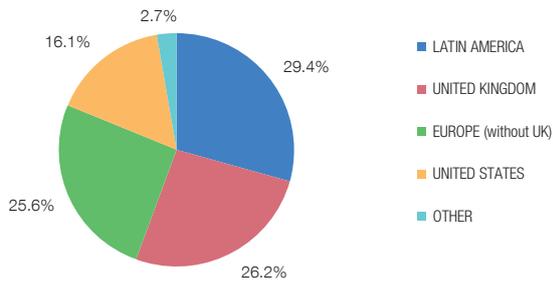
The geographical proximity and the close trade, labour market and financial links between Mexico and the United States mean that the Mexican economy is one of those potentially most affected by the increase in uncertainty associated with the possible changes in US economic policy. Indeed, in the weeks following the US presidential election, the Mexican financial markets underwent a heavy downturn. However, this downturn has partially been reversed thanks to the firmness of the global economy, the stabilisation of the dollar and the prospect of a limited scope to the renegotiation of the North American Free Trade Agreement (NAFTA).

Beyond Mexico, the emerging economies in general are particularly sensitive to a potential tightening of global financial conditions, to bouts of deteriorating investor sentiment and to measures that restrict trade, financial exchanges and migratory flows (in relation to potential revisions in the growth outlook see Chart 1.1.D). In particular, the economies that are highly dependent on external financing and carry foreign currency-denominated debt, without sufficient financial hedges or real coverage, might be affected by interest rate rises abroad and the depreciation of their currencies. Among these economies are some to which the Spanish corporate sector is significantly exposed, and in which, given the distribution of deposit institutions' financial activity abroad (see Chart 1.2), exposure is notable.

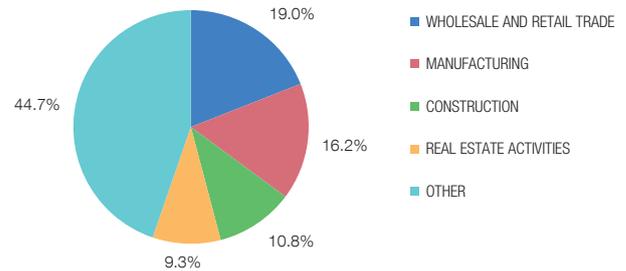
Turkey is tightening its monetary policy in order to prevent the depreciation of the lira and contain inflation

The Turkish economy is one of those most exposed to a tightening of international financial conditions, given its dependence on external financing. Following the failed coup d'état last July, economic activity shrank severely in the second half of 2016, and the year ended with a GDP growth of 2.9% (down from 6.1% in 2015). Economic policy headroom is very constrained and, in fact, the central bank is tightening its monetary policy to avoid the depreciation of its currency, to contain inflation and to sustain capital inflows. The soundness of public finances provides a necessary source of support to ground its economic recovery.

A GEOGRAPHICAL BREAKDOWN OF LOANS



B BREAKDOWN OF LOANS TO NON-FINANCIAL CORPORATIONS



SOURCE: Banco de España.

Brazil, undergoing adjustment, saw its GDP shrink by 3.6% in 2016, against the background of a decline in lending and a reduction in interest rates

Brazil is an economy much less dependent on external financing conditions and its degree of trade openness is limited. However, from a domestic standpoint, the process of adjustment in light of the serious fiscal and institutional crisis beleaguering the country is proving slower than anticipated, and there was a decline in GDP of 3.6% at end-2016 (following the 3.8% decline in 2015). Domestic demand has continued to contract at high rates against the backdrop of a heavy decline in lending and a worsening labour market. On the positive side, the adjustment of expenditure and revenue linked to the tax amnesty have contributed to the attainment of the primary deficit objective and have generated some confidence in the Government's gradual consolidation strategy. Further, the strong reduction in inflation, which stood at around 5% in February, broadens the central bank's margin for manoeuvre to continue reducing the policy interest rate, following the cuts totalling 250 bp implemented since July 2016. In any event, restoring fiscal credibility remains key to anchoring the recovery and, in this respect, following the approval of the constitutional amendment limiting public spending growth to that of inflation, the government has proposed a key reform to a pension system that was causing unsustainable pension expenditure slippage.

The risks emanating from China appear to have eased

Taking a more systemic view, in China's case the risks to growth appear to have eased in the short term as a result of the stimulus policies to support activity and of the administrative measures to check capital outflows and stabilise the currency market. Although certain imbalances in the economy have increased, especially the excessive increase in credit and high corporate debt, the authorities have the tools to manage the situation with some leeway.

In the United Kingdom, following the activation of the procedure to exit the EU, the latest data point to some slowing in the economy

Finally, the UK economy is another source of risk. The activation of Clause 50 of the European Union Treaty marks the formal start of negotiations for the United Kingdom to leave the EU and establish a new framework of relations between both economic parties. The precise configuration of this new framework, in particular regarding the provision of financial services, is a very significant matter for the prospects of the EU and, above all, of the United Kingdom. More generally, although the UK economy has shown notable resilience after the referendum, the latest data point to some slowing in economic activity in this new setting. It cannot be ruled out that, during the negotiations, some episodes of stress on financial markets may arise, mainly in Europe.

Against this background, the financial markets have tended to react positively to the expected re-gearing of economic policies...

Developments on financial markets in this period have come to be chiefly influenced by the aforementioned change in economic policy stance. Following the electoral result in the United States, expectations over the expansionary effects of the economic policies announced by the new administration have tended to be predominant, giving rise to an increase in share prices, a reduction in credit risk premia and a moderate increase in the

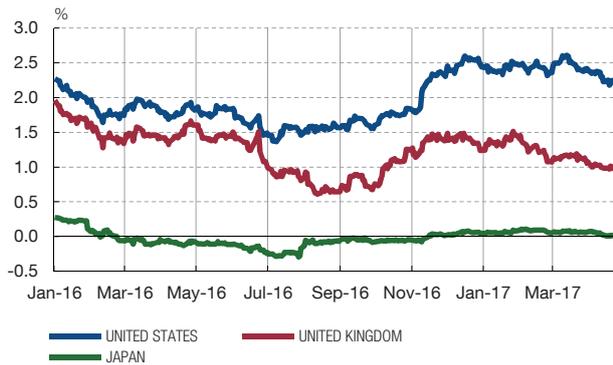
term premium and in interest rates (see Charts 1.3.A and B). Indeed, after something of a rise immediately after the election, the implied volatility indices, which reflect the cost of guarding against an increase in uncertainty, are at very low levels, in contrast to the increase in the indicators proxying the degree of political uncertainty (see Chart 1.3.C).

As to the emerging markets, following a very negative initial reaction to the outcome of the US presidential election, some optimism has also been observed. This has translated into strong capital inflows in the opening months of the year, increases in stock market indices and declines in risk premia in most areas (see Charts 1.3.D and E).

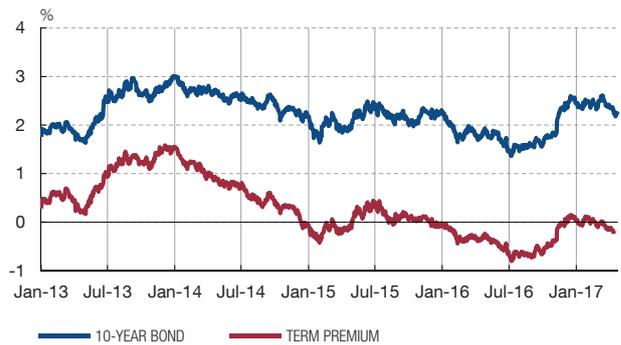
INTERNATIONAL FINANCIAL MARKET INDICATORS

CHART 1.3

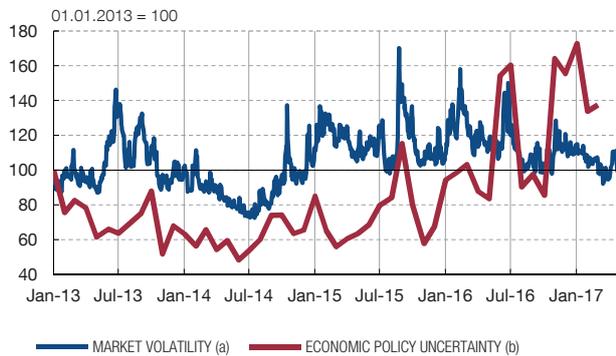
A SOVEREIGN DEBT 10-YEAR YIELD



B UNITED STATES: 10-YEAR BOND INTEREST RATE AND TERM PREMIUM



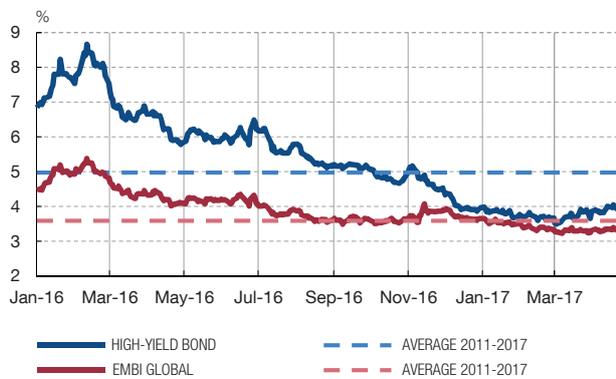
C MARKET VOLATILITY AND ECONOMIC POLICY UNCERTAINTY



D STOCK EXCHANGE INDICES



E CORPORATE SPREADS. UNITED STATES AND EMBI GLOBAL



F UNITED STATES: INFLATION EXPECTATIONS (c)



SOURCES: Datastream, Bloomberg, New York Federal Reserve, Economic Policy Uncertainty, Consensus Forecast and Banco de España.

- a Average volatility of bond markets (MOVE), stock markets (VIX) and exchange rates for the dollar against the euro, yen and sterling.
- b Index of Global Economic Policy Uncertainty (Global EPU Index).
- c Own calculations based on inflation swaps from Bloomberg.

... although the setting is not free from risks

In any event, despite the relative complacency on capital markets, several factors might alter this context and affect the prices of various financial assets.

Thus, an environment of higher economic growth and inflation pressures in the United States (see Chart 1.3.F) might entail a swifter upward adjustment in interest rates than expected by investors; that would not only affect the long-term yields on US debt – which continue to hold at relatively low levels – but might also spread to the credit, equity and foreign exchange markets, as well as to other countries, given the United States’ central position in the international financial system.

Moreover, the high stock market prices in the United States are partly underpinned not only by the improvement in the business earnings posted to date, but also by the expected effect of the ambitious agenda for tax and regulatory changes. In this respect, a slower or less ambitious than expected implementation of certain measures, or indeed their non-approval, might also trigger significant adjustments in these markets.

Finally, the influence of bouts of geopolitical uncertainty cannot be ruled out in an environment in which protectionist trends are increasing in the trade sphere and in which the tensions surrounding migratory flows persist.

## 1.2 Financial markets in the euro area and in Spain

Since the previous FSR, published in November 2016, the trend of prices of financial assets issued by euro area residents has been in line with that on the main international markets. Stock market indices have risen, long-term debt yields have increased and credit risk premia have declined (see Chart 1.4). These developments have been accompanied,

### FINANCIAL MARKETS

CHART 1.4

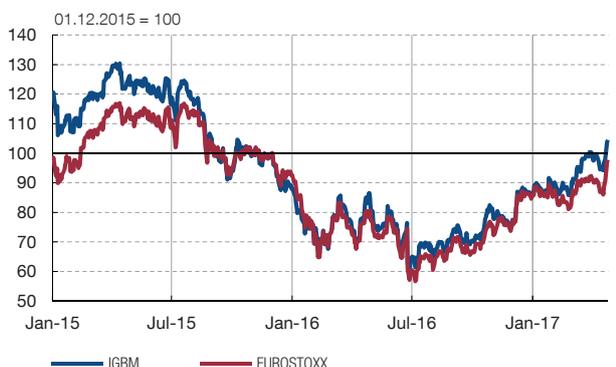
A STOCK EXCHANGE INDICES



B SOVEREIGN DEBT 10-YEAR YIELD



C BANKING SECTOR INDICES



D BANK CREDIT RISK PREMIA. 5-YEAR CDS



SOURCES: Banco de España, Bloomberg and Datastream.

In the euro area financial markets, stock market indices have risen, long-term debt yields have increased and credit risk premia have declined, and this despite the heightened uncertainty over the economic outlook

moreover, by a decline in implied volatilities on equity markets (see Chart 1.5.A), and they appear to respond to a more favourable market view of the international macroeconomic outlook and less concern by the markets about risks. This view is despite greater uncertainty about future economic developments, linked in part to the course of economic policies in some of the main advanced economies, such as the United States, the United Kingdom and the euro area itself. Therefore, in the euro area political risk indices surged to historical highs during the first quarter (see Chart 1.5.B) as a result of the uncertainty regarding the results of the elections held in specific euro area countries. Subsequently, in the aftermath of the first round of the French elections, there was a slight recovery in European financial asset prices, particularly in those which had been hit harder by doubts about the final outcome of those elections.

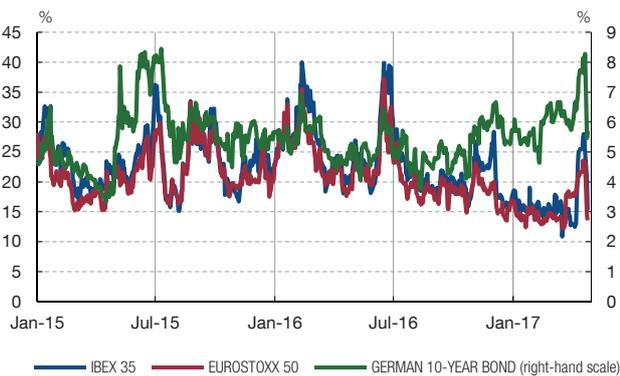
The prices of securities issued by euro area banks have shared these same trends, albeit with greater intensity

Euro area bank share prices have also generally moved on a path of recovery, with rises in the indices for the sector (by around 29% since late October) that have been sharper than those in broad indices (around 18% in the case of the Euro Stoxx 50). Notwithstanding, share prices are still at low levels relative to book values. CDS premia have held on a declining trend and long-term bond issuance costs have risen, in line with the pattern observed on the government debt markets.

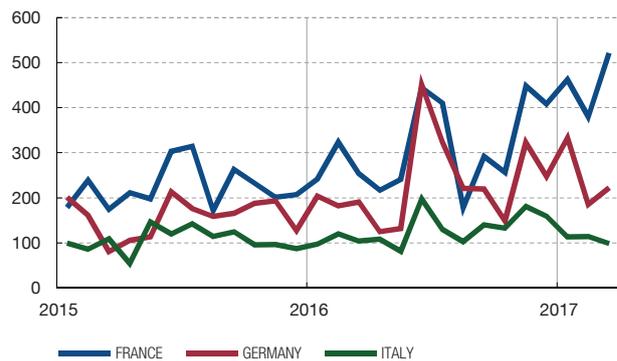
## MARKET RISK INDICATORS

CHART 1.5

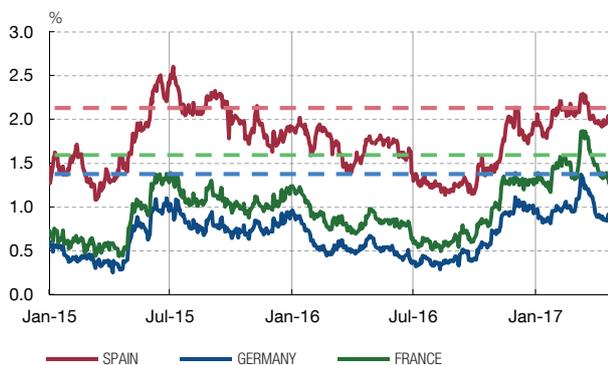
A IMPLIED VOLATILITY



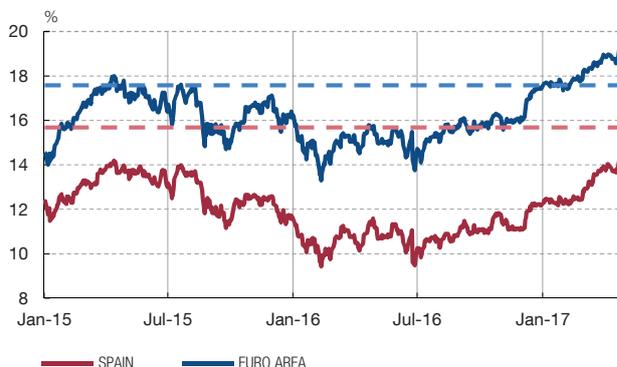
B POLITICAL UNCERTAINTY INDICES (a)



C STEEPNESS OF THE YIELD CURVE (b)



D CYCLICALLY ADJUSTED PER (c)



SOURCES: Banco de España, Bloomberg and Datastream.

a Economic Policy Uncertainty Index. S. Davis, "An Index of Global Economic Policy Uncertainty", [www.PolicyUncertainty.com](http://www.PolicyUncertainty.com).

b Difference between the 10-year and the 3-month rate. The dotted lines represent the historical averages of the series from 01.01.2001.

c The cyclically adjusted PER is calculated as the ratio of share price to 10-year moving average earnings. The dotted lines represent the historical averages of the series from 02 01 2005.

On the Spanish markets, the Spanish government debt yield spread over the German benchmark has widened, and the rise in listed company share prices has been in line with that observed in the euro area

On the Spanish market, the 10-year bond yield has increased from 1.2% at end-October last year to 1.6% at the cut-off date for this FSR. Given that the equivalent German rate has increased to a lesser extent over this period, the spread between both has widened from 100 bp to close to 130 bp. In the private sector, the rise in securities issuance costs is estimated to have eased owing to the reduction in credit risk premia, both in the case of banks and non-financial corporations. On stock markets, the rise in Spanish securities indices has been similar to that observed in the euro area as a whole, both in the case of the overall and specific banking sector indices.

While in the euro area there are no signs that financial asset prices are out of kilter with their fundamentals, the materialisation of certain risks might give rise to price corrections and a tightening of financing conditions

The rise in long-term debt yields has steepened the slope of the yield curve, bringing it closer to its historical averages (see Chart 1.5.C), which may be interpreted as a normalisation movement. On euro area equity markets, the valuation indicators show that prices are not misaligned with their historical relationship to corporate earnings (see Chart 1.5.D). In any event, the recent pick-up in European and international markets appears to be underpinned by brighter market expectations about macroeconomic developments and by less concern about risks. In this respect, the materialisation of any of the risks to world growth discussed in the previous section might translate into financial asset price corrections and/or into additional increases in long-term interest rates which, were they abrupt, might trigger potential negative effects both on the financing conditions for the various agents and on the value of deposit institutions' portfolios.

### 1.3 The macroeconomic environment in the euro area and in Spain

Sustained but moderate GDP growth in the euro area, which is expected to continue over the forecasting horizon

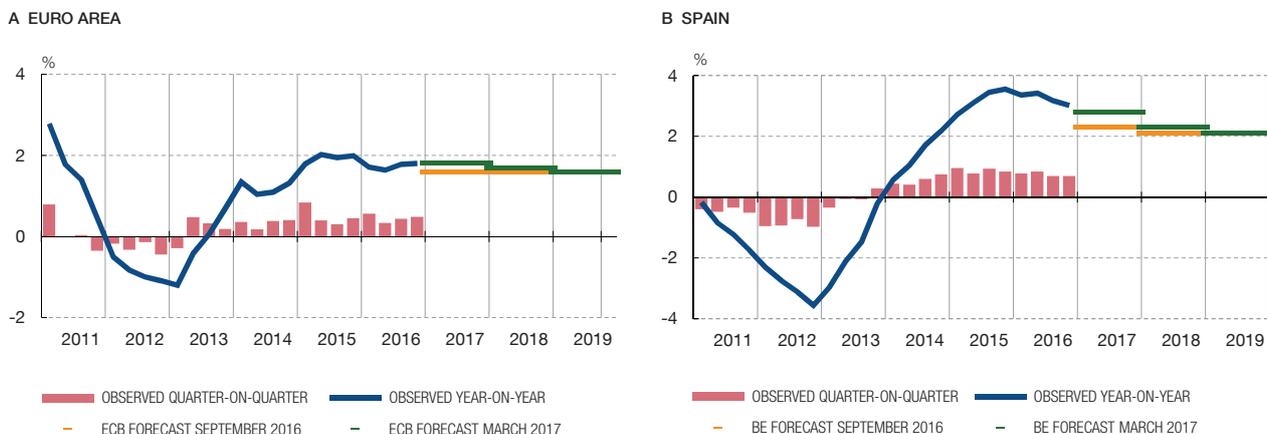
In the second half of 2016, economic activity in the euro area continued to expand at a quarter-on-quarter rate of 0.5%, in line with the average growth observed practically since early 2015, and over last year as a whole, GDP grew by 1.8%. The latest ECB projections, relating to March, point to the maintenance of similar rates of increase between 2017 and 2019 (see Chart 1.6.A). This dynamism is expected to continue to be boosted mainly by the increase in domestic demand, against a background of very favourable financing conditions, further progress in deleveraging in all sectors and the sound performance of the labour market, adding to which would be some recovery in world demand over the forecasting horizon.

A notable and higher-than-expected rise in inflation, but driven by temporary factors

Euro area inflation, measured by the HICP, climbed from 0.4% year-on-year in September 2016 to 1.5% in March this year (the latest figure). But this increase is the outcome of the stripping out of the base effects of previous declines in oil prices and, to a lesser extent, of the unanticipated rise in the price of oil. The more stable components (which exclude

#### GDP AND EMPLOYMENT

CHART 1.6



SOURCES: INE, Eurostat and Banco de España.

energy and unprocessed food) continued to show no clear signs of recovery. In step with this, the ECB projections in March this year included a significant upward revision in the growth of prices in 2017, estimated at around 1.7%, subsequently holding around this figure, although the outlook with respect to the inflation measure that excludes the most volatile components scarcely posted any changes.

The main risks stem from the external sector and from the political uncertainty in some euro area countries

The main risks to the firming of this scenario of sustained recovery and headway towards meeting the euro area inflation objectives stem from the external environment. And adding to these is the uncertainty over future economic policies, arising from the elections that will take place in several countries in the area over the course of 2017, as was previously mentioned in section 1.2.

Against this backdrop, the Eurosystem extended the duration of its asset purchase programme and held interest rates unchanged

Against this backdrop the ECB Governing Council, at its December meeting, decided to extend the duration of its asset purchase programme by nine months, up to the end of the current year, and, at least, until inflation resumes a path consistent with the medium-term price stability objective, albeit at a slightly lower pace than that applied to March this year (€60 billion per month, as opposed to €80 billion previously). It also decided to hold interest rates unchanged, confirming that they will remain at low levels, as at present, for a prolonged period, going beyond the horizon of the financial securities purchases. It further stands ready to apply additional measures, if necessary. Subsequently, in March this year, the Governing Council reiterated its position and the future outlook in respect of monetary policy, although it highlighted the diminished likelihood of having to adopt further expansionary measures as a result of the significant reduction in deflation risks in the euro area.

Spanish GDP remains notably dynamic. And, on the forecasts available, this is expected to continue in the coming years, albeit at more moderate rates

In Spain, economic activity continued to post a high rate of increase, with GDP growth of 0.7% quarter-on-quarter both in the third and fourth quarters of 2016. While these figures are somewhat down on the first half of the year, for the year as a whole the increase in GDP was 3.2%, identical to that recorded in 2015. Behind this expansion was the favourable course of domestic demand (with year-on-year growth of 2.9%) and a marginally positive contribution by the external sector. The information available suggests that, during 2017 Q1, GDP growth is estimated to have been somewhat higher than that three months earlier. The latest projections (corresponding to March 2017) released by the Banco de España for the 2017-2019 period revise upwards the previous projections of December 2016 (from 2.5% to 2.8% for 2017, from 2.1% to 2.3% for 2018 and from 2.0% to 2.1% for 2019) and reveal a continuation of the expansionary path, albeit at more moderate rates as a result of the tailing off of the temporary expansionary impulses attributable to the declining course of oil prices, the improvement in residents' financing conditions and the expansionary fiscal policy stance (see Chart 1.6.B).

The rise in inflation in Spain outpaced that in the euro area owing to the increase in energy prices

The year-on-year rate of change of the CPI rose in Spain from 0.2% in September 2016 to 2.3% in March this year (the latest information available). This increase was clearly higher than that in the euro area and marks a change in the sign of the inflation differential between the two areas (measured by the HICP), which shifted from being 0.4 percentage points (pp) lower in Spain to being 0.6 pp lower in the euro area. However, this development was essentially due to the behaviour of the energy sector, and therefore it will foreseeably be transitory. The measure of core inflation, which excludes the more volatile components of energy and unprocessed food, showed a much smaller increase of 0.2 pp in the period in question. Further to the notable movements in oil prices, the Banco de España forecasts for the current year were revised upwards by 0.7 pp to 2.2% for 2017 as a whole, compared with what was expected six months earlier, but they held relatively unchanged for 2018

and 2019 (when respective increases of 1.5% and 1.7% are expected, similar figures to those projected for the euro area).

The pick-up in prices and volumes in the housing market continues

In the housing market, the pick-up in demand during the second half of 2016 continued, albeit at a slightly declining pace. For the year as a whole, sales climbed over 10% relative to 2015 and the year-on-year rate of increase in prices ended the year at 4.5%, 0.3 pp up on 12 months earlier, marking the third consecutive year of increases. The firmness of the sector was conducive to greater dynamism in housing starts which, however, started from extraordinarily low levels, and where there is still a relatively high overhang of unsold properties, against a background of low growth in the number of households.

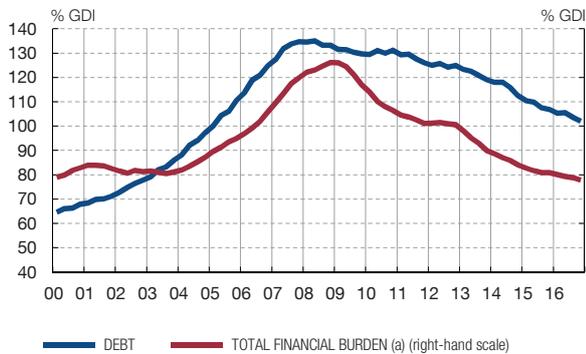
Improvement in the wealth position of households and non-financial corporations

The increases in economic activity, corporate profitability and employment are contributing to improving the aggregate wealth position of Spanish households and non-financial corporations, by raising their income in a setting in which their debt continues to decline. Low interest rates have, moreover, prompted declines in the debt burden which, in both sectors, is currently at its lowest level since 2000 (see Chart 1.7). In the case of households, the recovery in the housing market has helped increase their wealth and is a further factor strengthening their financial position. Lower private debt means that both households and firms are generally less vulnerable to adverse developments in their income or to a rise in interest rates, although the prevalence of short-term financing and/or at variable interest rates means that the transmission of movements in money market yields to average outstanding debt costs is relatively swift.

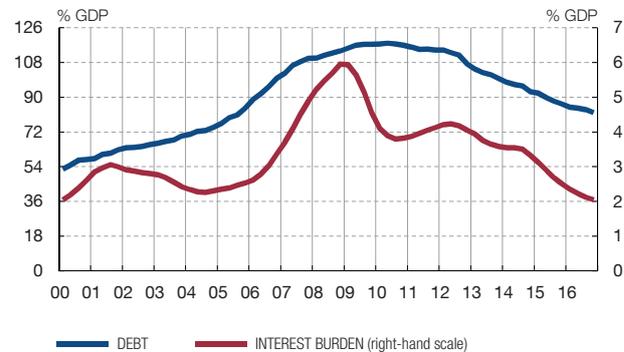
## FINANCIAL BURDEN AND INDEBTEDNESS RATIO

CHART 1.7

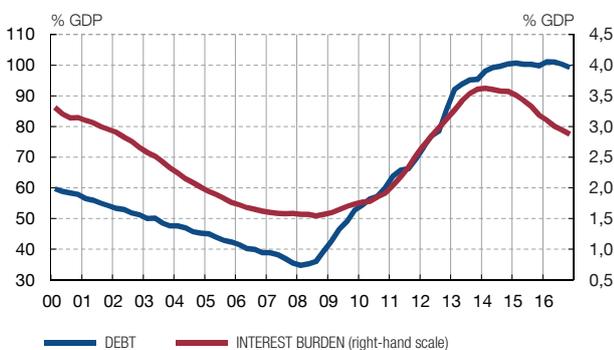
### A HOUSEHOLDS



### B NON-FINANCIAL CORPORATIONS



### C GENERAL GOVERNMENT



### D NET INTERNATIONAL INVESTMENT POSITION



SOURCES: INE and Banco de España.

a Estimated interest payments plus repayments of principal.

The new Government's first adjustment measures raise the likelihood of meeting the new general government deficit targets, although some uncertainty and a high level of debt persist, which is also reflected in our economy's still-swollen external debt

In the public sector, the formation of a new Government at the end of last year and the first adjustment measures implemented since then have enabled the budget deficit target agreed with the European Council for 2016 to be met. That said, public debt is still very high, standing at a level close to 100%, and is a source of vulnerability in the face of adverse economic developments or increases in the cost of financing, although in this latter case the lengthy average maturity of outstanding debt is a significant mitigating factor. Furthermore, the swollen volume of liabilities in this sector is reflected in the nation's net international investment position (IIP) which, though it has fallen by more than 10 pp from its June 2014 peak, was still standing in December 2016 (the latest available date) at 85.7% of GDP. That is a high figure in international comparative terms and is a factor of vulnerability to potential shocks in the funding markets. The foregoing developments therefore advise promptly resuming a fiscal consolidation drive, following two years – 2015 and 2016 – in which budgetary policy has evidenced a slightly expansionary stance.

Overall, despite the headway in correcting imbalances and the recent dynamism of activity, some factors of uncertainty still persist

Overall, the headway made in correcting the imbalances built up during the pre-crisis upturn has provided for a return to a significant pace of activity in recent years and has also prompted a moderation in the degree of vulnerability of the Spanish economy. Nonetheless, some factors of uncertainty persist, relating essentially to the external environment as discussed in the first section of this chapter. Particularly of note is the uncertainty surrounding the United Kingdom's exit from the EU, with potentially adverse effects for the Spanish economy, and that relating to the outcome of certain European elections.

## 2 BANKING RISKS, PROFITABILITY AND SOLVENCY

This chapter analyses the situation of Spanish deposit institutions and the main risks they face in performing their activity. In summarising the behaviour of the key variables of the Spanish banking sector in 2016, it should be noted that consolidated total assets decreased by 1.7%, mainly as a result of the performance of business in Spain, where lending to the resident private sector fell by 4%. Non-performing exposures continued to decline, albeit at a slower rate. As a result, the NPL ratio of the private sector in Spain fell by 1 pp year-on-year, to 9.2% in December 2016. Consolidated income attributed to the parent company of the sector as a whole exceeded €10.8 billion in 2016, 21% less than in 2015. Finally, in terms of the system's solvency, the common equity tier 1 (CET1) ratio rose slightly and stood at 12.8% in December 2016.

### 2.1 Banking risks

#### 2.1.1 CREDIT RISK

In December 2016 financial assets abroad grew by 1.1%, but decreased by 4% in business in Spain

The credit portfolio abroad is concentrated mainly in Europe (United Kingdom), followed by Latin America and the United States

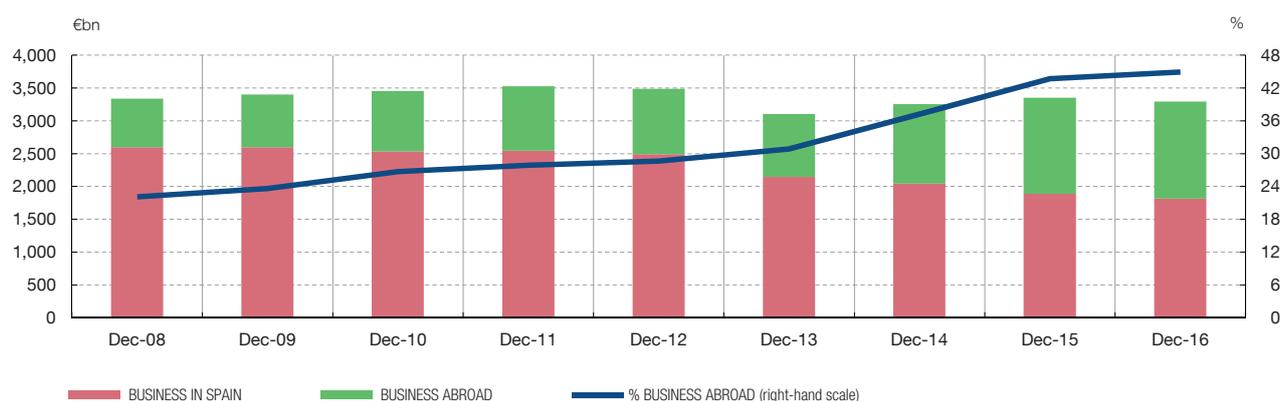
#### International exposure

Consolidated total assets of Spanish deposit institutions, including both their business in Spain and that of their subsidiaries and branches abroad, decreased by 1.7% year-on-year, amounting to €3,603 billion at end-2016 (see Annex 1). This decrease is the result of the performance of activity in Spain, with total financial assets (derivatives, equity instruments, debt securities and loans), which accounted for more than 90% of total assets in December 2016, falling by 4% during the year, compared with December 2015 (see Chart 2.1). Abroad, total financial assets increased slightly by 1.1% year-on-year.

As regards the credit portfolio, the main geographical areas where business abroad is concentrated are: Europe (with more than half of the total exposure and, in particular, the United Kingdom, with 26.2%), Latin America (29.4%) and the United States, with 16.1% (see Charts 1.2.A and 2.2).<sup>1</sup>

INTERNATIONAL EXPOSURE. FINANCIAL ASSETS (a)  
Deposit institutions

CHART 2.1



SOURCE: Banco de España.

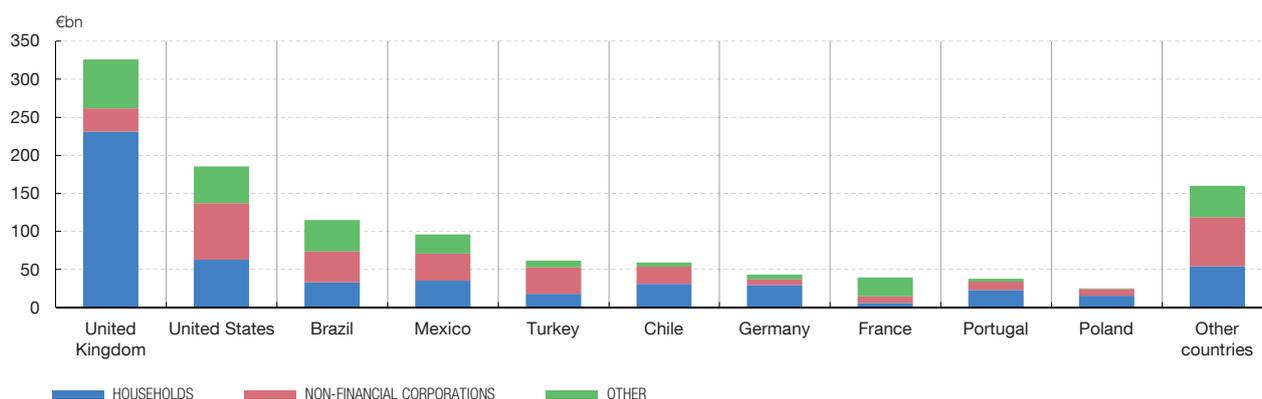
a Total financial assets include loans, debt securities, derivatives and equity instruments, and this amount is used in calculating the distribution between business in Spain and business abroad.

<sup>1</sup> Strategic decisions adopted by the main Spanish deposit institutions in 2017 Q1 in connection with their international expansion have not been taken into consideration.

## INTERNATIONAL EXPOSURE

### Deposit institutions. Geographical distribution of loans by counterparty

CHART 2.2



SOURCE: Banco de España.

By sector, lending to households for house purchase was noteworthy, as was financing of business activities

Lending by Spanish deposit institutions abroad is mainly to households, particularly for house purchase (46.9%), and to non-financial corporations (29.5%). In Europe, credit exposure is substantially concentrated in lending to households (particularly for house purchase), while in Latin America and the United States the percentages of loans to households and to non-financial corporations are similar.

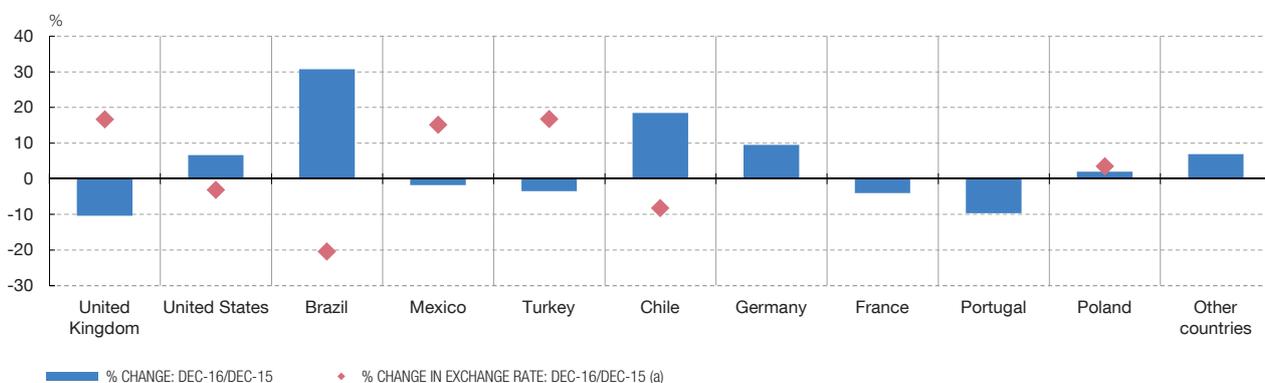
The increase in business abroad was conditioned by the performance of exchange rates, with some exceptions

Chart 2.3 shows the percentage changes in loan portfolios of the major countries where Spanish institutions engage in business abroad and the performance of exchange rates of currencies other than the euro. As the Chart shows, the growth of business abroad in 2016 was largely affected by the performance of exchange rates, although with some exceptions. Specifically, the loan portfolio in the United Kingdom declined by 10.4% year-on-year, in part owing to the appreciation of the euro against the pound sterling (16.7%). Conversely, in the United States the 6.6% increase in the credit portfolio was accompanied by a 3.2% depreciation of the euro against the dollar. Similarly, in Brazil and Chile, the appreciation of the Brazilian real (20.4%) and the Chilean peso (8.3%) gave rise to an increase in the credit portfolio of 30.7% and 18.4%, respectively, year-on-year. However, the loan portfolio in Mexico and Turkey decreased by 1.8% and 3.5%, respectively, in part owing to the depreciation of their respective currencies, the Mexican peso (15.1%) and the Turkish lira (16.7%).

## INTERNATIONAL EXPOSURE. LOANS

### Deposit institutions. Breakdown by residence of counterparty

CHART 2.3



SOURCE: Banco de España.

a A positive (negative) value of the growth rate denotes an appreciation (depreciation) of the euro against foreign currency.

As discussed above, in general terms, the international business of Spanish institutions grew slightly during 2016, in line with the improvement of activity worldwide. However, uncertainty regarding growth projections (particularly in the countries mentioned in Chapter 1) is a risk which, should it materialise, might restrict bank operations abroad.

In any event, it should be noted that the activity of Spanish deposit institutions abroad is conducted through subsidiaries under financial independence criteria and it is generally a local activity in local currency, which substantially mitigates the risks arising therefrom, including, inter alia, interconnectedness and financial contagion risks.

#### *Non-performing loans*

The volume of non-performing loans has continued to decline by more than 10%...

Total non-performing loans at consolidated level decreased during 2016 by 10.3% year-on-year. Thus, in 2016 the volume of non-performing loans continued the downward trend which commenced in 2014, with rates of decline in excess of 10%. The relative weight of non-performing loans in total assets also declined, from 4.5% in December 2015 to 4.1% a year later (see Annex 1).

... leaving the total NPL ratio below 5%

This decline in the volume of non-performing loans led to a total NPL ratio of 4.8% in December 2016 (compared with 5.3% in December 2015) and to a decrease in the NPL ratio (loans excluding fixed income) of 0.6 pp, to 5.6% at December 2016 (6.2% a year earlier), despite the decline in the volume of loans at consolidated level. In addition, the NPL ratio of the private sector also fell by 67 bp, from 7.1% in December 2015 to 6.5% a year later.

In general, the NPL ratio in the main countries where Spanish banks operate does not reach 5%

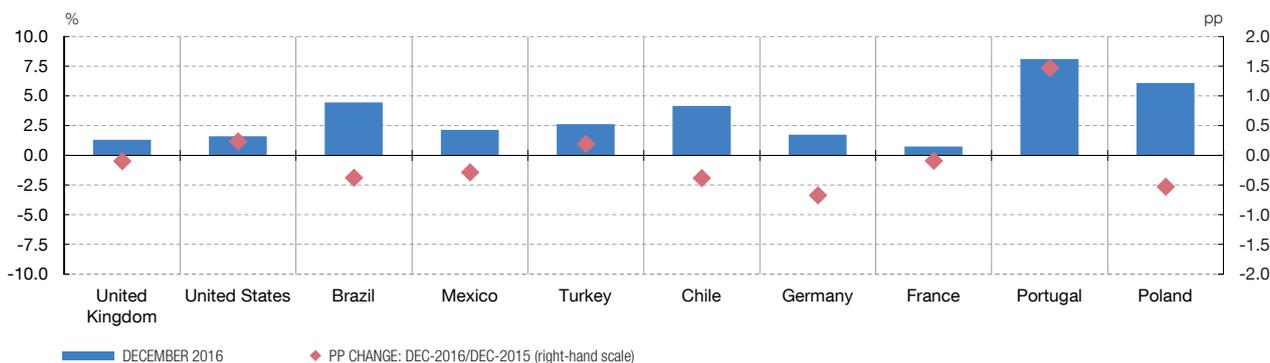
Spanish deposit institutions recorded NPL ratios that were generally lower in their business abroad than in their business in Spain. Specifically, in December 2016 the NPL ratios in countries where Spanish institutions have higher exposure were lower than 5% (even below 2% in the United Kingdom and the United States, where almost half of the international exposure of Spanish banks is concentrated), except in Portugal and Poland (with NPL ratios of 8.1% and 6.1%, respectively). In 2016 NPL ratios in the main countries continued to decline, except in the United States and Turkey (with an increase of less than 0.2 pp) and Portugal (which grew nearly 1.5 pp) (see Chart 2.4.A).

At European level, the data included by the European Banking Authority (EBA) in its quarterly risk dashboard<sup>2</sup> reveal that the EU aggregate NPL ratio declined during 2016, reaching 5.1% in December 2016 (as compared with 5.7% in December 2015). Nonetheless, a high dispersion among countries persisted, with NPL ratios ranging from 1% in Sweden to almost 50% in Greece and Cyprus (see Chart 2.4.B). Spain's position is slightly above the EU average. These NPL levels reflect the size and diversification of Spain's largest banking groups' business abroad.

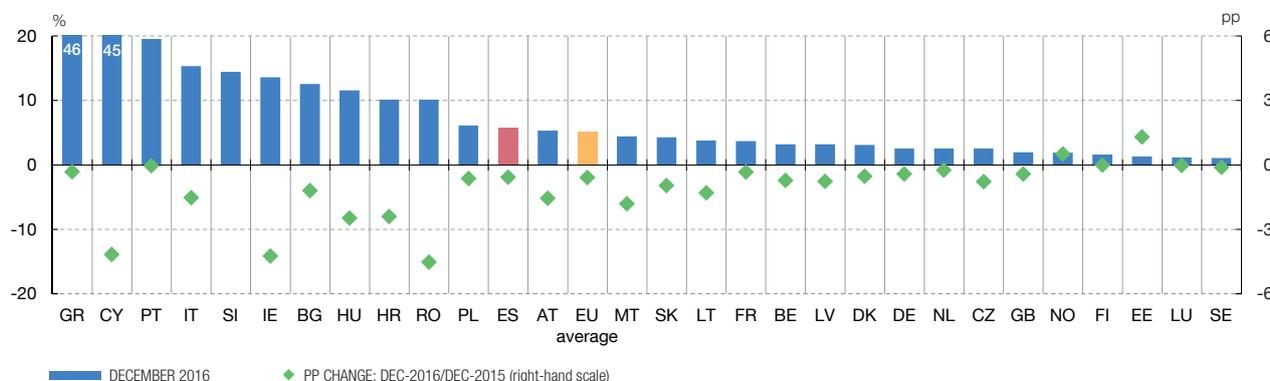
Chart 2.4.C analyses the changes in the NPL ratio in 2016 and determines the contribution of each of its components (non-performing loans vis-à-vis total loans) to the performance of the ratio. Thus, in the case of Spain, the NPL ratio decreased by 59 bp during 2016 to 5.7% (6.3% in December 2015). This contraction is explained by the decline in the volume of non-performing loans, which offsets the incremental effect on the NPL ratio of the fall in the volume of total loans. As in the case of Spain, most European countries experienced

<sup>2</sup> The EBA risk dashboard is based on a sample of risk indicators from 198 European banks and can be found at: <http://www.eba.europa.eu/risk-analysis-and-data/risk-dashboard>.

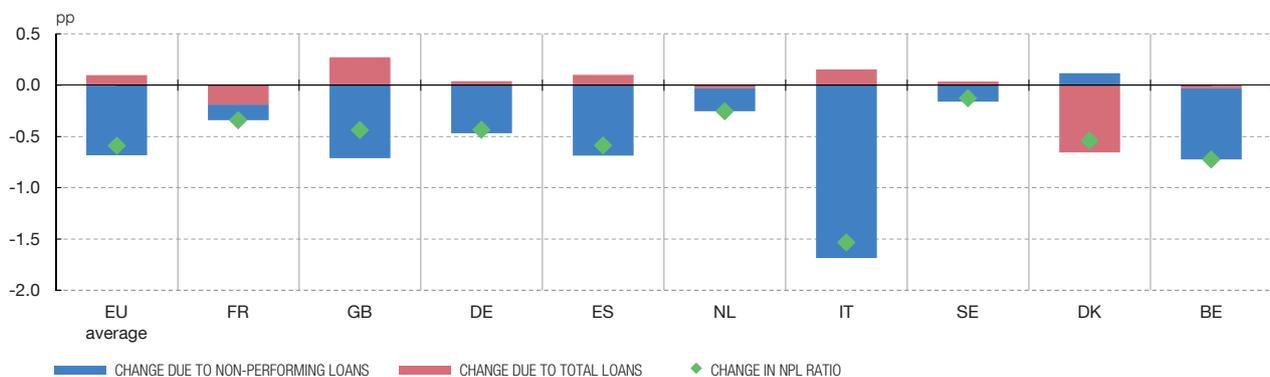
A INTERNATIONAL EXPOSURE



B EU NPL RATIOS (a)  
December 2016



C PERCENTAGE POINT CHANGE IN EU NPL RATIOS BETWEEN DECEMBER 2015 AND DECEMBER 2016 (b)

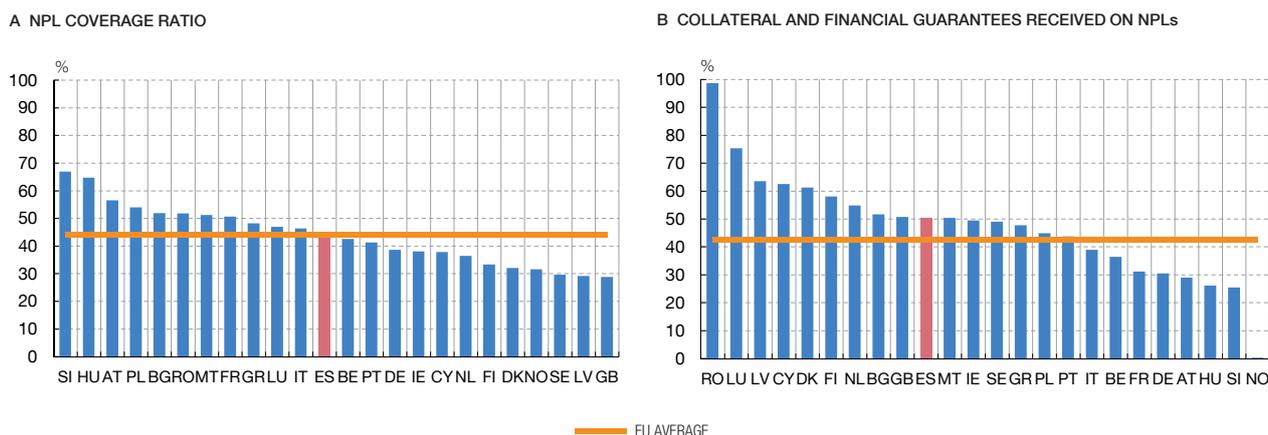


SOURCES: Banco de España and European Banking Authority.

a NPL ratio in Greece and Cyprus is 45.9% and 44.8%, respectively.

b To avoid excessive volatility, the breakdown of change in NPL ratio is shown only for those countries with a loan volume of more than €500 bn. The green diamond shows, for each country, the total change in NPL ratio from December 2015 to December 2016. The blue and dark red bars show the portion of this change attributable to changes in non-performing loans and in total loans, respectively. Negative bars denote an inter-period reduction in non-performing loans and an inter-period increase in total loans, which are changes that would result in a reduction in NPL ratio.

an improvement in the NPL ratio during 2016, largely owing to a decline in non-performing loans. Thus, for the group of institutions considered by the EBA, the NPL ratio decreased by 59 bp, and it can be said that this contraction arose largely from the decrease in the volume of non-performing loans.



SOURCE: European Banking Authority.

The NPL coverage ratio of Spanish institutions was similar to the European average, and the level of security (collateral and financial guarantees provided), was above the European average

Based on the results published by the EBA in the 2016 transparency exercise, with data as at June 2016,<sup>3</sup> a comparison can be made within Europe of the levels of non-performing loan coverage and security (both collateral and financial guarantees) received by the institutions for such loans. As Chart 2.5.A shows, provisions recorded to cover possible losses associated with non-performing loans (coverage of NPLs) at Spanish institutions (44.8%) stood in June 2016 at slightly above the European average (44.1%), with a level of coverage higher than at German and British banks (38.6% and 28.8%, respectively) and slightly lower than at French and Italian banks (50.7% and 46.4%, respectively). In terms of security received from institutions in connection with non-performing loans (see Chart 2.5.B), as at June 2016 non-performing loans at Spanish institutions were secured by guarantees or collateral for a gross amount of 50.4% of the related loan amount. This percentage of collateralisation stood 8 pp above the European average, up to 20 pp higher than the percentage for German banks, 19 pp higher than that for French banks and 11 pp above that for Italian banks.

### Domestic exposure

Lending to the resident private sector in the case of business in Spain continued to fall in 2016, albeit at a lower rate than in 2015 excluding financial corporations

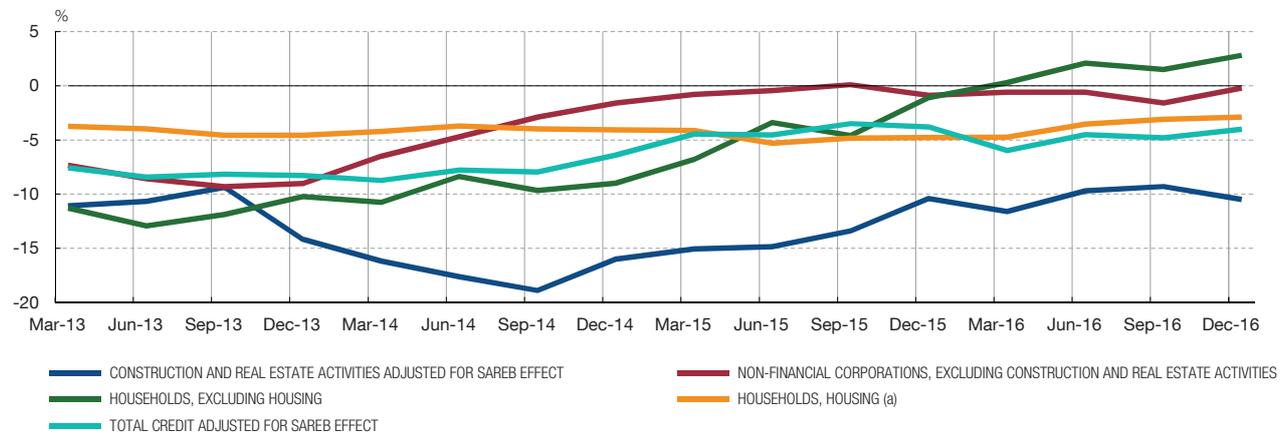
In business in Spain, lending to the resident private sector in 2016, analysed using the individual financial statements of deposit institutions, fell by 4% year-on-year. This contraction of the volume of lending is slightly higher than that seen a year earlier, with a year-on-year change of -3.8% at December 2015 (see Chart 2.6.A). As in prior FSRs, the sharper fall in lending in 2016 was largely due to the decline in lending to financial corporations (investment funds, securitisation funds, insurance companies, pension funds and other financial institutions other than monetary financial institutions), which fell 19.7% year-on-year at end-2016, compared with the 0.5% increase observed a year earlier. If lending to financial corporations is excluded, lending at December 2016 would only have decreased by 2.7%.

The moderation of the rates of decline is shared by the different sectors and types of lending

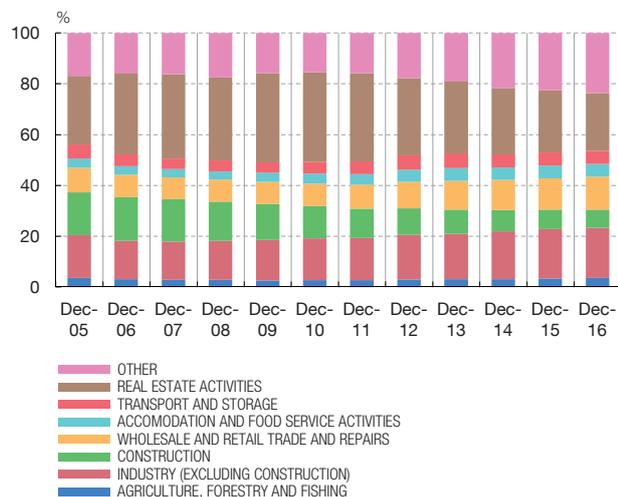
As Chart 2.6.A shows, the moderation of the rates of decline in lending to households and non-financial corporations is shared by the different sectors and types of lending. This is particularly significant in lending to households, with a year-on-year change of -2.1% at

<sup>3</sup> The results of the 2016 transparency exercise conducted by the EBA can be found at: <http://www.eba.europa.eu/risk-analysis-and-data/eu-wide-transparency-exercise/2016>.

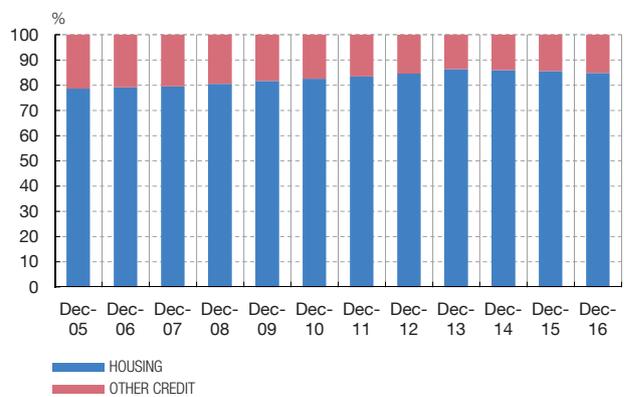
A YEAR-ON-YEAR RATE OF CHANGE IN CREDIT TO THE RESIDENT PRIVATE SECTOR BY SECTOR OF ACTIVITY



B CREDIT TO NON-FINANCIAL CORPORATIONS, BY PURPOSE



C CREDIT TO HOUSEHOLDS, BY PURPOSE



SOURCE: Banco de España.

a Includes securitisations.

end-2016, compared with a fall of 4.3% at December 2015. In the case of lending to non-financial corporations the decline over the course of 2016 was 3.5% year-on-year, against a contraction of 4.1% a year earlier.

The rates of decline in lending to construction and real estate activities were unchanged and the decline in lending to other non-financial activities was contained...

The analysis of lending to non-financial corporations by branch of activity reveals that in lending to activities other than construction and real estate the trend for the related rates of decline to be contained continued. In particular, although lending to these other activities commenced 2016 with higher year-on-year falls than those of the preceding months, it recorded a year-on-year change of -0.2% at end-2016, compared with -0.8% a year earlier. Lending to construction and real estate activities continued to decrease during 2016, with a fall of 10.5% year-on-year as at December 2016, similar to that of 2015 (-10.4%).

... reducing the share of lending to construction and real estate activities in...

Chart 2.6.B includes each sector of activity's share in funding received by non-financial corporations, and the related changes over time. In December 2016, real estate activities continued to be the main type of lending, accounting for 22.7% of total loans received by

... lending to non-financial corporations as a whole

non-financial corporations, although this percentage has declined most notably in recent years, from 35.3% in December 2010. Along the same lines, lending to construction decreased significantly, standing at 7.3% in December 2016 (far removed from 17.2% ten years earlier), underlining the adjustment that took place in these sectors and the reduction of risk in the balance sheet of Spanish banks. Box 2.1 includes a more detailed analysis of changes in lending to construction and real estate activities.

CREDIT FOR CONSTRUCTION AND REAL ESTATE DEVELOPMENT IN RECENT YEARS IN SPAIN

BOX 2.1

One of the factors behind the last Spanish banking crisis was the excessive growth of credit to the construction and real estate development sector. The deleveraging and progressive clean-up of the sector, along with the economic pick-up, account for the improvement in banks' financial position. However, despite this, the stock of credit in the real estate sector is still high and will foreseeably require some time yet before finally normalising. This box analyses in detail the situation of and changes in credit to the construction and real estate development sector in Spain.

In the past five years, the decline in credit earmarked for construction and real estate activities has been significant. In absolute terms, the outstanding balance of credit for this type of

activity has declined by around €220 billion, entailing a reduction of almost 60% from €376 billion at end-2011 to €157 billion as at December 2016 (see Chart A). A portion of this decline (around €75 billion) was due to the transfers of credits to Sareb (by the so-called Group 1 banks in December 2012, and the Group 2 banks in February 2013), but, even without taking into account these transfers, the deleveraging trend in the sector is notable.

In relative terms, the fall – specifically, 9.5 pp – is also significant. Hence, credit for construction and real estate development accounted for 22.5% of total credit to the resident private sector (households and firms) at end-2011, and this percentage stood at 13% at end-2016.

Chart A  
CREDIT FOR CONSTRUCTION AND REAL ESTATE DEVELOPMENT SECTOR. 2011-2016

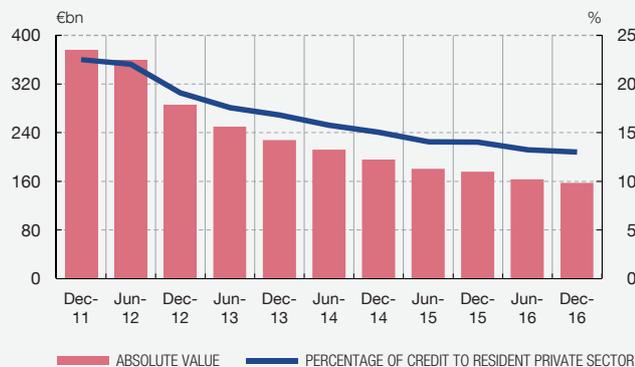


Chart B  
NPLs IN CONSTRUCTION AND REAL ESTATE DEVELOPMENT SECTOR. 2011-2016

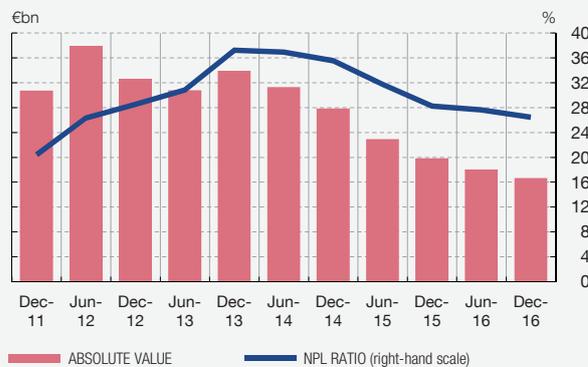


Chart C  
NPL COVERAGE RATIO IN CONSTRUCCION AND REAL ESTATE DEVELOPMENT SECTOR. 2011-2016

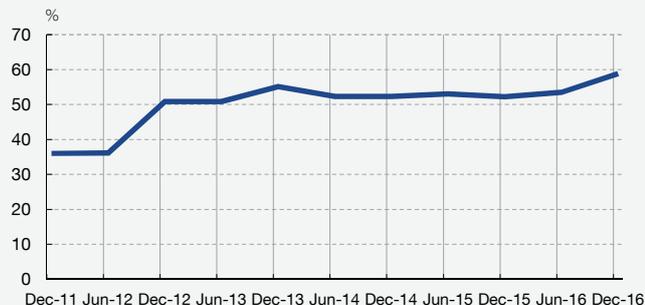
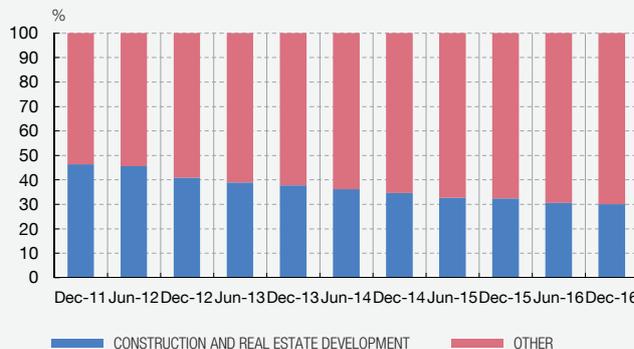


Chart D  
BREAKDOWN OF CREDIT TO NON-FINANCIAL CORPORATIONS. 2011-2016



SOURCE: Banco de España.

The situation in respect of non-performing loans to construction and real estate development activities is a good measure of the crisis and of the progressive recovery of the economy in Spain. The NPL ratio in this sector grew notably to 2013 (to levels of over 37%), and it held there until late 2014, whereafter it began to fall, to 26.5% in December 2016 (see Chart B). In absolute terms the peak was reached in June 2012, given that the transfers to Sareb largely reduced NPLs. In December 2016, the sector's NPLs stood at €41.6 billion.

The growth of non-performing loans was accompanied by an increase in their coverage. From 2011 to 2013, the NPL coverage ratio increased by 19 pp from 36% in 2011 to 55% in December 2013. And, since then, it has held stable at slightly higher than 50%, until last year, when it rose up to close to 60% (see Chart C).

Against the general background of debt reduction in recent years, credit to non-financial corporations other than those

pursuing construction and real estate activities has also declined. However, this reduction has been comparatively much less marked than that in the construction and real estate development sector. Chart D thus shows that the proportion of credit to construction and real estate activities has diminished appreciably in favour of that to other business activities. The percentage of credit to construction and real estate development has fallen from accounting for almost half of the credit to non-financial corporations (46%) in 2011 to representing less than one-third (30%) five years later.

In short, the ongoing deleveraging in the construction and real estate development sector has been significant in recent years in Spain. Nonetheless, the volume of troubled assets remains high, and their progressive reduction will contribute to enhancing the financial position and profitability of Spanish deposit institutions.

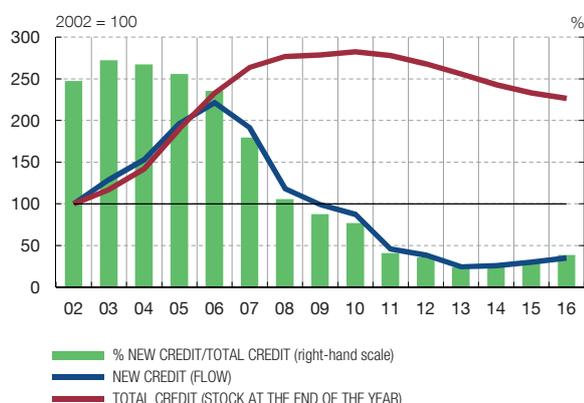
Lending to households other than for house purchase increased by 2.8% and lending for house purchase moderated its rate of contraction to -2.9%

Notable in the case of lending to households is the favourable performance of lending for purposes other than house purchase, with positive year-on-year rates of change since the beginning of 2016, which were consolidated over the course of the year, reaching 2.8% at end-2016, in clear contrast with the contraction of 1.1% observed in December 2015. Lending to households for house purchase also improved with respect to the preceding quarters, since the negative year-on-year rates of change (-2.9% at December 2016) were lower than those observed in 2015 (-4.8%). The improvement of lending to households for purposes other than house purchase explains the increasing importance of this segment in lending to households (see Chart 2.6.C), which accounted for 15.3% at December 2016, up from the minimum reached in 2013 (13.7%). Higher employment and income, together

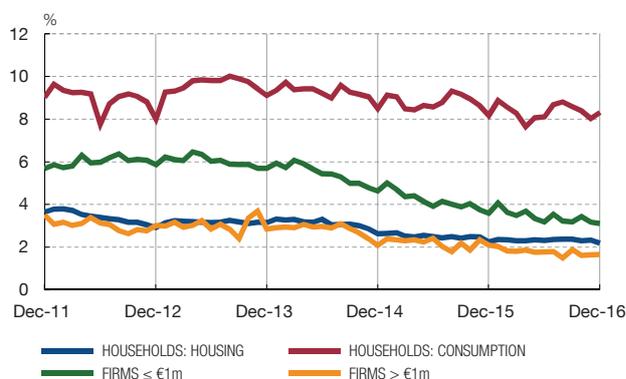
## FUNDING CONDITIONS AND MORTGAGE CREDIT Business in Spain, ID. Deposit institutions

CHART 2.7

A NEW MORTGAGE CREDIT FOR HOUSE PURCHASE (a)



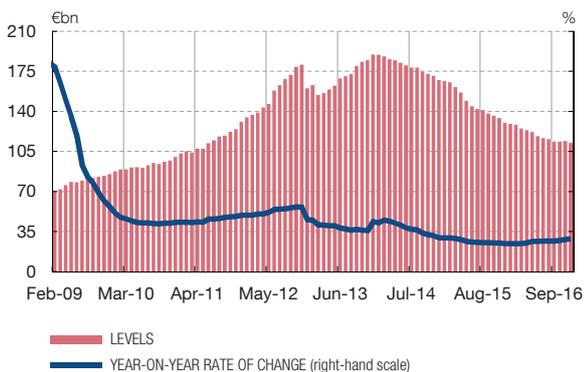
B NEW LOAN INTEREST RATES (APR) (b)



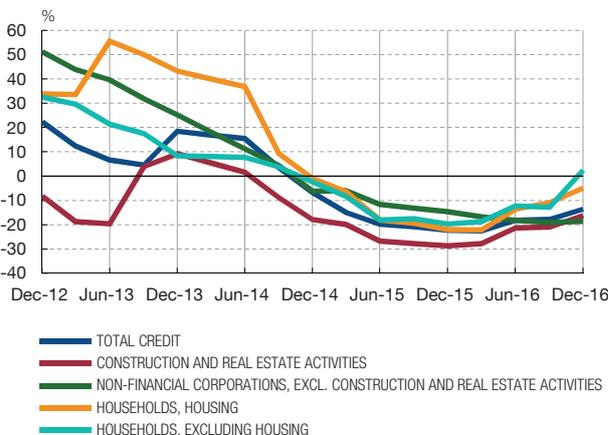
SOURCE: Banco de España.

- a The volume of new transactions in 2014 relates to the twelve-month period from April 2014 to March 2015, since the 2014 data are not available from January. Total credit in 2014 is taken as the March 2015 figure to make it consistent with the new transactions figure.
- b The new loans of the period are defined as all the first-time loans arranged with customers and all the contracts existing in earlier periods whose amount, interest rate, maturity or other significant financial conditions in relation to interest rates have been renegotiated with customers in the month in question.

A NON-PERFORMING LOANS (a)



B YEAR-ON-YEAR RATE OF CHANGE IN NPLs, BY SECTOR OF ACTIVITY (a)



SOURCE: Banco de España.

a The transfers to Sareb by Group 1 and Group 2 banks in December 2012 and February 2013 affect the rates of change in those periods.

with a greater appeal in terms of profitability for banks, explain this change. In any event, despite the change in trend, lending to households for purposes other than house purchase continues to be far removed from its share of more than 20% of lending to households before the onset of the crisis.

New mortgage loans for house purchase is recovering gradually, accounting for an increasing percentage of this credit segment

Chart 2.7.A shows changes in new mortgage loans for house purchase over a longer time frame. The chart shows the annual flow of new loans, the volume of the stock of loans at each year-end and the flow as a percentage of the stock. It can be seen that in recent years new lending is recovering, albeit slowly, and is still at levels far removed from those of the preceding decade. New loans for house purchase extended in 2016 accounted for 4.6% of the stock of mortgage loans for house purchase at December 2016, almost 1 pp higher than the figure of 3.8% recorded in 2015.

Interest rates on new loans to households stabilised in 2016, while interest rates on loans to firms continued to decrease, albeit more moderately

Following the downward trend initiated in 2014, interest rates on new loans to households, both for house purchase and for consumption, stabilised in 2016. Interest rates on new loans to non-financial corporations continued to decrease over the course of 2016, although at a slower rate than that seen in prior months (see Chart 2.7.B).

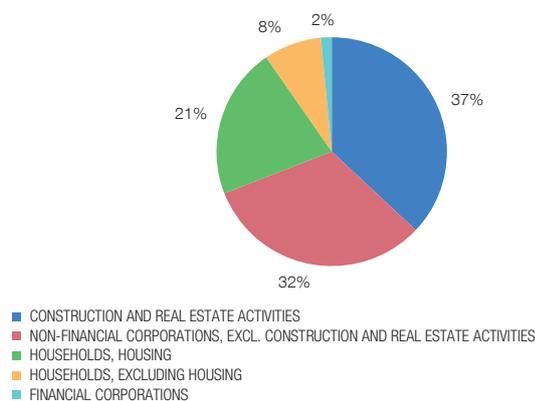
Non-performing loans continued to fall in 2016...

As regards the explicit manifestation of credit risk, non-performing loans to the resident private sector continued to decrease throughout 2016, in line with the positive performance of the economy, which grew above 3%. However, the fall slowed over the course of the year after reaching its sharpest year-on-year decline in March (22.5%). In December 2016 the year-on-year rate of change in these assets was -13.6%. The fall from the all-time high in non-performing loans reached at end-2013 is substantial: more than €77 billion in absolute terms and more than 40% in relative terms (see Chart 2.8.A). The growth of the economy in general, as well as the recovery of employment and low interest rates are largely behind the aforementioned improvement in the levels of NPLs at banks. Insofar as the economy continues on this path it is likely that non-performing loans will continue to decrease.

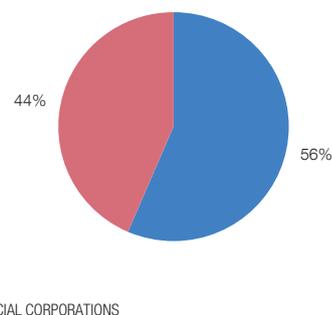
... although their rate of decline eased

By institutional sector and industry, the deceleration in the rate of decline was sharper in the case of households and, especially, in consumer loans, which rose slightly in December

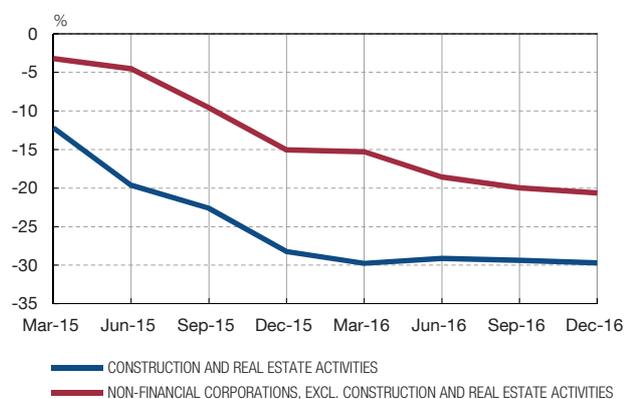
A NPLs BREAKDOWN, BY SECTOR  
December 2016



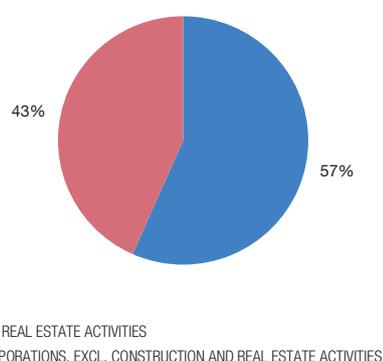
B BREAKDOWN OF NON-FINANCIAL CORPORATIONS' NPLs, BY FIRM SIZE  
December 2016



C YEAR-ON-YEAR RATE OF CHANGE OF SMEs' NPLs,  
BY SECTOR OF ACTIVITY



D BREAKDOWN OF SMEs' NPLs BY SECTOR OF ACTIVITY  
December 2016



SOURCE: Banco de España.

2016<sup>4</sup> (see Chart 2.8.B). Conversely, the drop in non-performing loans at non-financial corporations, albeit smaller than in previous periods, continued to be substantial (-16.2% for construction and real estate activities and -18.6% for other non-financial firms).

Most non-performing loans relate to corporate credit...

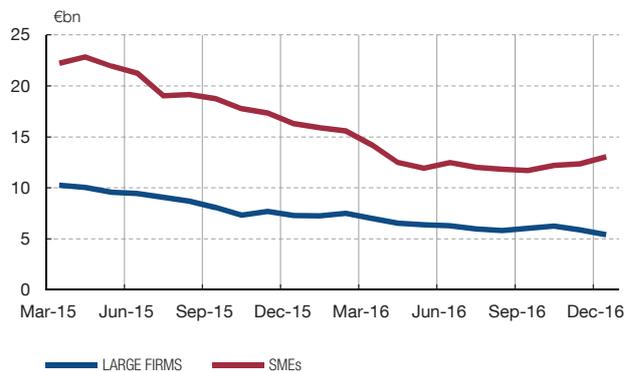
Chart 2.9.A shows the situation in December 2016 of non-performing loans classified by institutional sector. Most non-performing loans are concentrated in corporate credit (69%) and within that category, the largest proportion relates to loans for construction and real estate activities (37% of the total), while the non-performing loans in lending to the other non-financial sectors accounts for 32% of the total. Most non-performing loans to households (accounting for 29% of the total) relate to house purchase (21% of the total), while the proportion of non-performing loans to households for all other purposes is smaller (8% of the total). Finally, the proportion of non-performing loans to financial corporations is very small (2% of the total).

4 As a result of the accounting changes arising from the amendment to Annex IX of Banco de España Circular 4/2004 since the entry into force of Banco de España Circular 4/2016 of 27 April 2016, the volume of non-performing loans in certain sectors may increase with respect to prior periods (an impact which cannot yet be calculated because the data are not available) owing to the inclusion in that category of part of the loans formerly considered substandard. Since the latter have disappeared as such from the new circular, depending on the borrower's situation, they would now be reclassified as non-performing or under special surveillance.

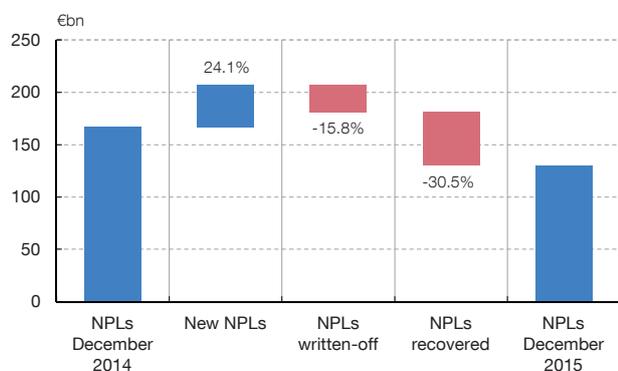
A NEW NPLs (a)



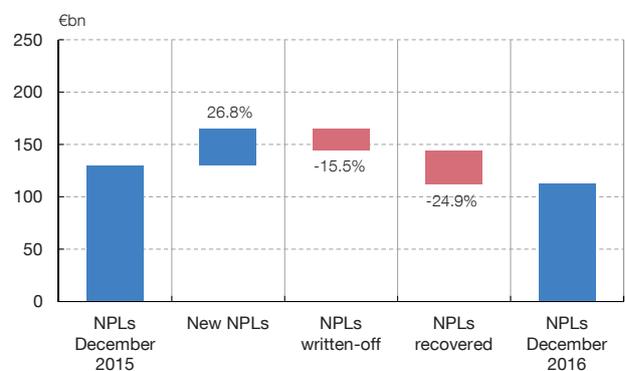
B NEW NPLs, BY SIZE OF FIRM (a)



C NPLs IN 2015 (b)



D NPLs IN 2016 (b)



SOURCE: Banco de España.

a In each month, the cumulative amount of the last 12 months is depicted (12-month moving average).

b Shown beside each bar is the percentage each item represents of the total NPLs at the beginning of the period. NPLs recovered include both non-performing loans that become performing again and foreclosed assets.

... and within that category, to SMEs...

As regards the segmentation of non-performing loans to non-financial corporations by firm size, based on data as at December 2016, 56% relate to loans to SMEs, while the remaining 44% are non-performing loans to all other non-financial corporations (see Chart 2.9.B).

... although they are declining, particularly in construction and real estate activities

Among SMEs, the fall in non-performing loans is sharper in construction and real estate activities, decreasing by close to 30% at December 2016, than in the other sectors, where the decrease was slightly above 20% (see Chart 2.9.C). Despite this greater decline, based on data as at December 2016, the proportion of non-performing loans to SMEs in the construction and real estate activities sector is larger, 57% (see Chart 2.9.D), than that of non-performing loans to SMEs in all other sectors (43%).

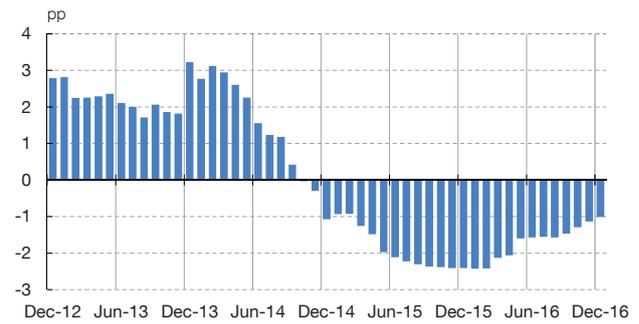
New NPLs in 2016 continued the downward trend of previous quarters...

As regards new non-performing loans, the decline observed in previous quarters continued in 2016 (see Chart 2.10.A). However, in the last quarter there was a rebound in new non-performing loans, mainly in loans to households (see footnote 4 hereto). In the case of non-financial corporations, new non-performing loans of large firms continued to fall, while those of SMEs, which had dropped more sharply in previous quarters, rose in the last quarter (see Chart 2.10.B).

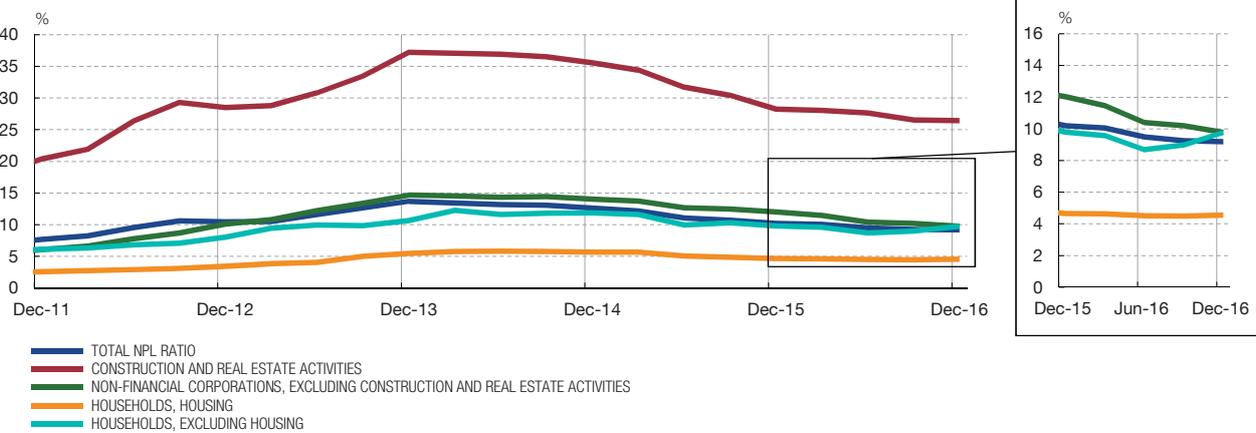
A NPL RATIO



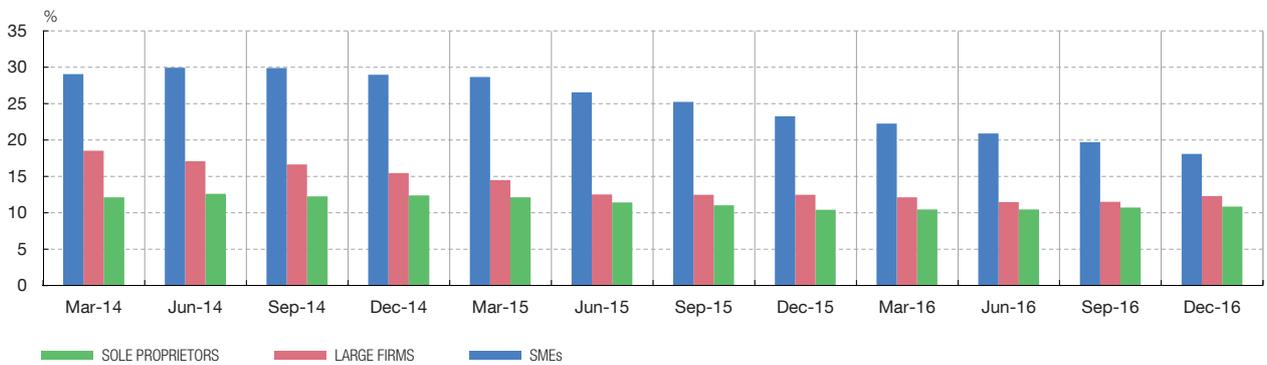
B YEAR-ON-YEAR CHANGE IN NPL RATIO (a)



C NPL RATIO, BY SECTOR OF ACTIVITY



D NPL RATIO, BY SIZE OF FIRM



SOURCE: Banco de España.

a The transfers to Sareb by Group 1 and Group 2 banks in December 2012 and February 2013 affect the rates of change in those periods.

... although the decrease in NPLs was lower in 2016 than in 2015

Charts 2.10.C and D compare the performance of non-performing loans (new NPLs, NPL write-offs and NPLs recovered) over the course of 2016 and 2015. Firstly, it can be seen that, as a result of the aforementioned deceleration in the decline of non-performing loans, the decrease in absolute terms in the volume of non-performing loans in 2016 was lower than in 2015. The weight of new non-performing loans in existing non-performing loans was slightly higher in 2016 than in 2015 (26.8%, compared with 24.1%). The percentage of transfers to write-offs was very similar (-15.5%, compared with -15.8%) and the weight of NPLs recovered declined (-24.9% compared with -30.5%).

The NPL ratio fell by 1 pp in 2016 to 9.2% in December...

In any event, the NPL ratio of the resident private sector in Spain continued to decline in 2016, dropping by 1 pp to 9.2% at December 2016 (see Chart 2.11.A). This decrease in the NPL ratio arose from the decline in the volume of non-performing loans, which was sharper than that in the volume of lending to the resident private sector. However, as a result of the aforementioned deceleration of the fall in non-performing loans, there was a slowdown in the path of decline in the NPL ratio from the maximum year-on-year falls recorded at the beginning of the year (see Chart 2.11.B).

... and the falls in the ratios of non-financial corporations were sharper, both in construction and development and in other activities

The NPL ratio fell in 2016 across all sectors. However, as discussed for non-performing loans, the decline in the ratio was lower for households and, specifically, for purposes other than house purchase, standing at 9.8% in December 2016, after having rebounded in recent quarters despite the growth of lending in this sector. The NPL ratio for lending to households for house purchase declined by 10 bp in 2016, reaching 4.6% at end-2016 (see Chart 2.11.C). The decreases in the ratios in the non-financial corporations segment were more significant. Thus, the NPL ratio for construction and real estate activities decreased by 1.8 pp, to 26.5%, between December 2015 and December 2016. The ratio for other non-financial firms declined by almost 2.3 pp to 9.8% in December 2016.

By firm size, the largest decrease in the NPL ratio in 2016 (by more than 3 pp) related to SMEs, while at large corporations the ratio decreased by 1.4 pp and for sole proprietors it increased slightly. Despite this improved performance in 2016, the NPL ratio of SMEs at end-2016 stood at 18.1%, higher than the ratio for large corporations (12.3%) and that for sole proprietors (10.8%) (see Chart 2.11.D).

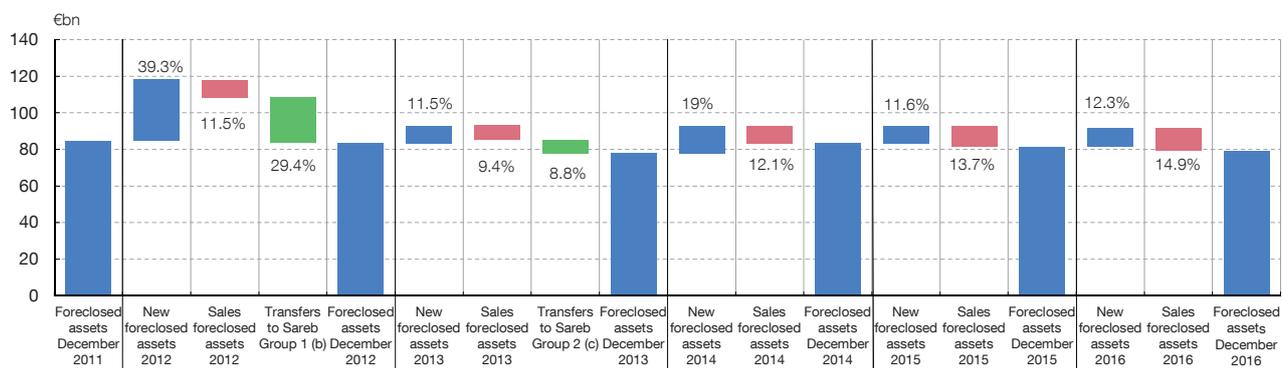
In December 2016 lending to the private sector at consolidated level by Spanish deposit institutions subject to forbearance measures amounted to €147 billion. Based on individual financial statement data, forbore credit amounted to almost €116 billion in December 2016, representing a year-on-year decline of 32.5%.

Foreclosed assets recorded in the balance sheets of institutions continued to...

During 2016 foreclosed assets or assets received in payment of debts arising from business in Spain and recorded in the balance sheets of Spanish deposit institutions, continued to decline, albeit slowly.<sup>5</sup> Changes in their gross book value in recent years are

FORECLOSED ASSETS (a)

CHART 2.12



SOURCE: Banco de España.

- a Shown beside each bar is the percentage each item represents of the total foreclosed assets at the beginning of the year.
- b Group 1 institutions were Banco Financiero y de Ahorros, NCG Banco, Catalunya Banc (currently integrated in BBVA) and Banco de Valencia (currently integrated in La Caixa).
- c Group 2 institutions were BMN, Liberbank, Caja3 (currently integrated in Ibercaja) and CEISS (currently integrated in Unicaja).

<sup>5</sup> Per public financial statement data on foreclosed assets or assets received in payment of debts (business in Spain) reported by deposit institutions.

... decline over the course of 2016...

... so the decline in non-performing loans and foreclosed assets exceeded 9% in 2016

Ex-post credit risk continued to improve but has begun to show the first signs of slowing somewhat

### 2.1.2 SYSTEMIC RISK

shown in Chart 2.12. It can be seen that, as in 2015, sales of foreclosed assets, amounting to more than €12 billion in 2016 (nearly 15% of the stock of foreclosures at end-2015) exceeded additions of new foreclosures (12.3% of the stock).

Owing to the decreases in non-performing loans and foreclosed assets during 2016, the volume of unproductive assets stood slightly above €190 billion in December 2016, a decline of more than 9% in the last year. Despite this reduction, these assets, which do not generate revenues, continue to account for a significant proportion of the balance sheet of institutions in their business in Spain and put downward pressure on the sector's profitability.

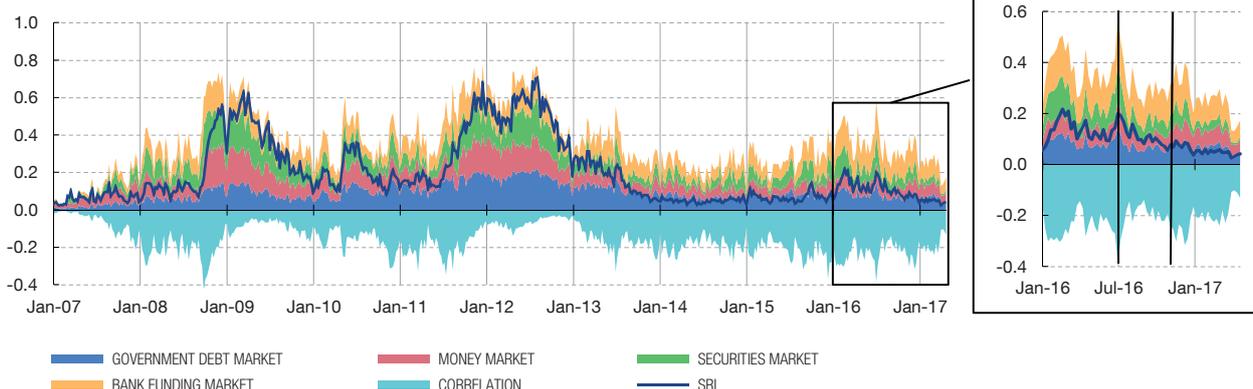
In short, ex-post credit risk (non-performing loans, foreclosed and forborne assets) continued to improve over 2016, underpinned by the strong growth of economic activity, although the first signs of deceleration have been observed. An improvement in credit behaviour, based on ongoing positive developments in GDP and employment, would be significant in continuing to improve ex-post credit risk performance.

The systemic risk indicator (SRI), which has been published in the FSR since 2013,<sup>6</sup> is a composite indicator of financial market tensions. Since the publication of the last FSR,

## SYSTEMIC RISK

CHART 2.13

A SYSTEMIC RISK INDICATOR (SRI) (a)



B CONTRIBUTION OF SPANISH BANKS TO SYSTEMIC RISK MEASURED THROUGH CoVaR (b)



SOURCES: Datastream and Banco de España.

- a For a detailed explanation of this indicator, see Box 1.1 in the May 2013 in FSR.
- b The CoVaR model is used to calculate the impact that a situation of bank stress would have on the financial system. The sample used in the CoVaR calculation comprises a total of 37 listed Spanish and euro area institutions.

<sup>6</sup> See Box 1.1 of the May 2013 FSR for an explanation of its construction and interpretation.

Systemic risk has remained at low levels since the last FSR

systemic risk in Spain has remained at the contained levels recorded since mid-July 2016. In the first few months of 2017, unlike at the beginning of 2016 (when downward stock-market corrections raised the level of the systemic risk indicator), financial market tensions have remained low, falling below the levels observed before the US elections. Despite the odd isolated bout of stress in the sovereign debt market, tensions in securities, government debt, money and bank funding markets, measured jointly by means of the systemic risk indicator, have been limited (see Chart 2.13.A).

The contribution of Spanish banks to the systemic risk of the euro area as a whole is quantified by means of a model known as CoVaR.<sup>7</sup> Following episodes of systemic alert recorded during the crisis, the average CoVaR of Spanish banks has remained relatively low (see Chart 2.13.B). In 2016, however, there were isolated increases relating to turbulence in the first few months of the year and after the British referendum in June. More recently there was an isolated fall in the CoVaR coinciding with the inauguration of the new US president. As regards European banks, volatility remained high, especially in the 5th percentile of the CoVaR. This shows the notable heterogeneity in the contributions of individual euro area banks to systemic risk.

### 2.1.3 FUNDING RISK

Euro area interbank market activity remained very weak...

Since the last FSR, euro area interbank market activity has remained very weak. Chart 2.14.A shows EONIA trading volume, which remained low, with historic low levels recorded at the end of 2016. Developments were similar in the Spanish interbank market, with very small trading volumes both in the secured and unsecured segments, the role of the latter being of little significance, since in 2017 Q1 it only represented 5% of total trading.

... largely as a result of the Eurosystem's liquidity provision policy

This limited activity in the interbank market continues to be largely a consequence of excess liquidity, linked to the Eurosystem's conventional and non-conventional monetary policy measures (see Chart 2.14.B), implemented through various asset purchase programmes and refinancing operations, including a series of four targeted longer-term refinancing operations (TLTRO II) carried out between June 2016 and March 2017.

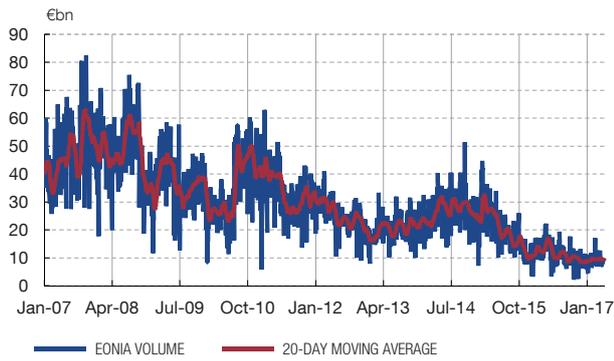
Chart 2.14.C shows the outstanding amount provided through ECB tenders, both for the Eurosystem as a whole and for institutions resident in Spain. It can be seen that European credit institutions, and Spanish ones in particular, have continued to make significant use of the liquidity provided by the Eurosystem, and have in fact notably increased the funding obtained through tenders with their TLTRO II bids. Thus, between the end of April 2016 and the end of April 2017, gross funding increased by 51.7% in the euro area as a whole and by 33.3% in Spain. The share of funding allotted to banks resident in Spain in tenders stood in March 2017 at an average of 24.6%. Nonetheless, this share is becoming less representative as the Eurosystem purchase programme proceeds as the relative importance of refinancing operations is declining. In fact, the liquidity provided by this latter route, around €800 billion in total, amounted in April to around 40% of the amount provided by the Eurosystem through the purchase programme.

Spanish bank issuance in 2016 was lower than in the previous year

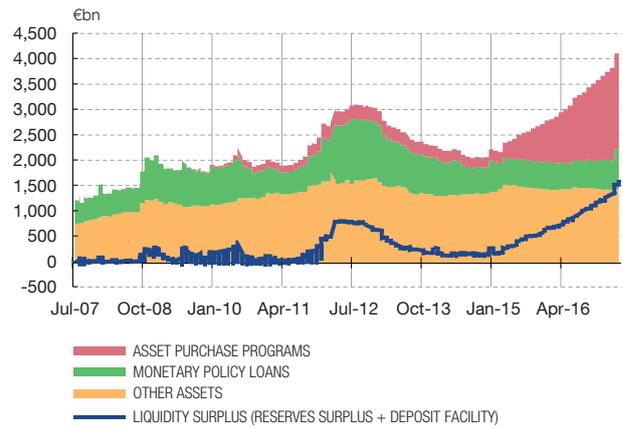
The issuance activity of Spanish deposit institutions was lower in 2016 than in 2015. This decline was similar to the one observed for other euro area institutions and occurred across all categories: senior debt, covered bonds and subordinated debt eligible as Tier 1 capital and Tier 2 capital (see Chart 2.14.D). During 2016, issuance activity was concentrated in Q1 and fell thereafter. Among the various categories of issuance, that of covered bonds was notably high. In the first quarter of 2017 banks have been active in issuance, especially of subordinated debt eligible as Tier 2 capital.

<sup>7</sup> For an explanation of the CoVaR model, see the May 2015 FSR.

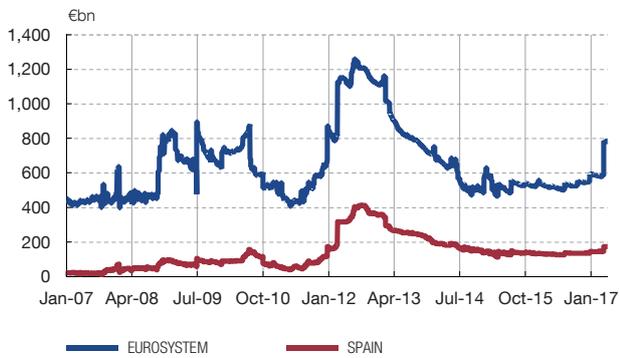
A EONIA TRADING VOLUME



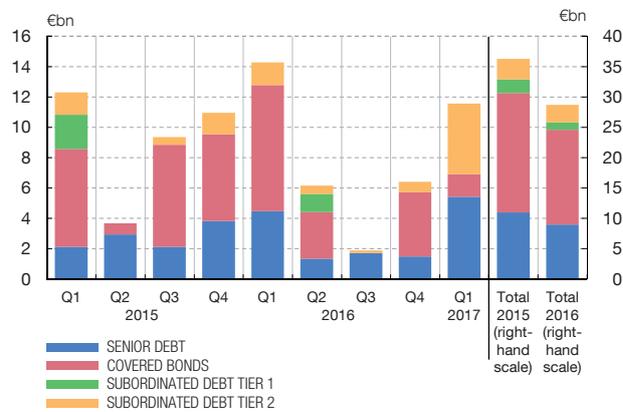
B EUROSISTEM BALANCE SHEET AND LIQUIDITY SURPLUS



C OUTSTANDING AMOUNT PROVIDED THROUGH EUROSISTEM TENDERS



D MAIN ISSUES OF SPANISH DEPOSIT INSTITUTIONS IN MEDIUM- AND LONG-TERM WHOLESALE MARKETS (b)



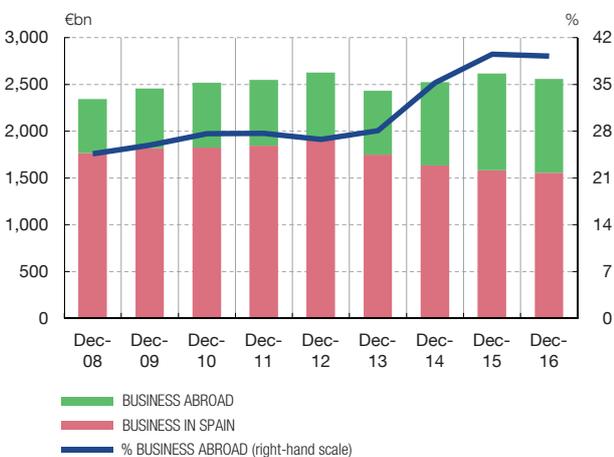
SOURCES: Bloomberg, Dealogic and Banco de España.

a Latest data: 25 April.

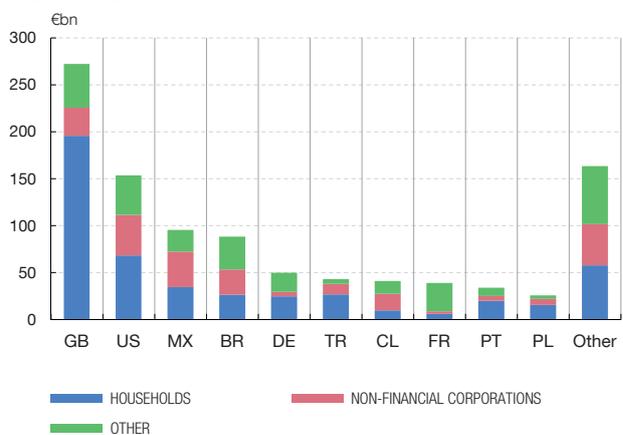
b Senior debt, covered bonds and subordinated debt tier 1 and tier 2 issues. Retained issues are not included.

INTERNATIONAL EXPOSURE. DEPOSITS  
Deposit institutions

A DEPOSITS



B GEOGRAPHICAL DISTRIBUTION OF DEPOSITS BY COUNTERPARTY  
December 2016



SOURCE: Banco de España.

In Europe and the United States deposits mainly come from households, while in Latin America the proportion of deposits from non-financial corporations is similar to that of those from households

As regards retail funding, private sector deposits at consolidated level remained in December 2016 at similar levels to those of the same month a year earlier (with an increase of 0.8% year-on-year, see Annex 1). As for the volume of deposits abroad (see Chart 2.15.A), the main geographical areas in which business abroad is concentrated are: Europe (which accounts for more than half of such deposits and, in particular, the United Kingdom with 27.1%), followed by Latin America (29%) and the United States with 15.3%. Overall, these three geographical areas account for more than 95% of private sector deposits (see Chart 2.15.B). In Europe and the United States private sector deposits mainly come from households (especially in the United Kingdom, where household deposits account for more than 70% of total deposits). By contrast, in Latin America the deposits of non-financial corporations are similar to those of households (37% as against 33%).

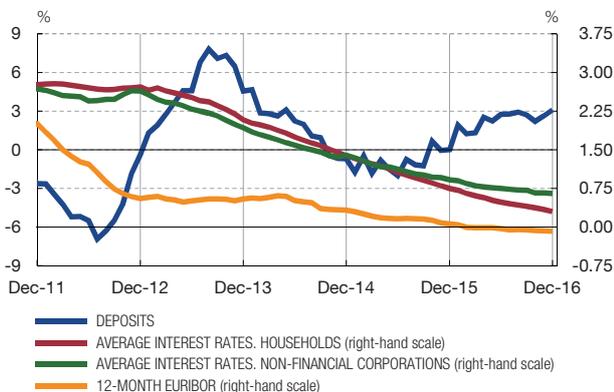
Retail deposits, in business in Spain, recovered slightly in 2016, despite the ongoing trend decline in interest rates

Retail deposits taken by Spanish banks (from households and non-financial corporations) in business in Spain grew by 3.1% in December 2016 relative to the same month a year earlier (see Chart 2.16.A), which meant that the trend initiated at the beginning of 2015 – when the fall in retail deposits began to moderate until positive rising rates of change were eventually achieved – continued. This growth in the deposits of households and non-financial corporations occurred despite the ongoing decline in interest rates that has been observed for several years and which continued in 2016. This may be a consequence of the fact that alternative saving products do not offer savers a better yield-to-risk ratio.

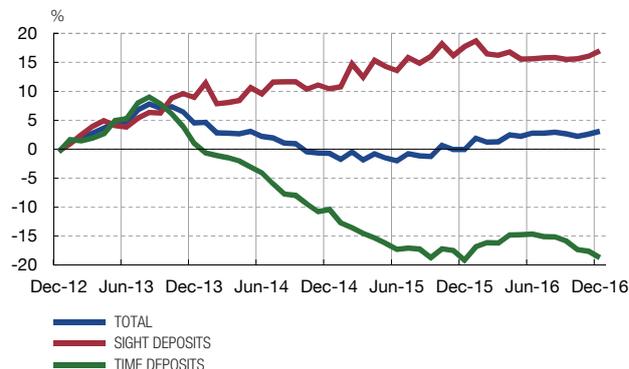
**RETAIL FUNDING**  
Deposit institutions, ID

CHART 2.16

**A DEPOSITS FROM HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS, AND AVERAGE INTEREST RATES**



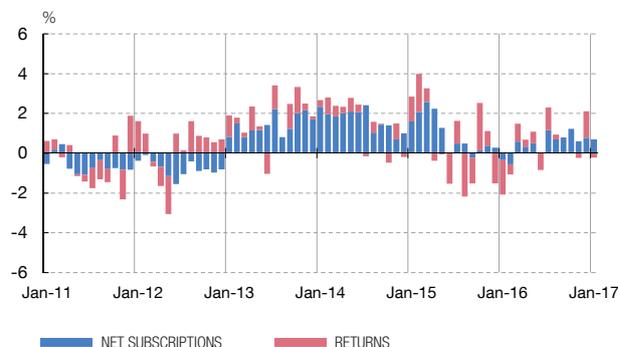
**B DEPOSITS FROM HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS**



**C LOAN-TO-DEPOSIT RATIO IN RELATIVE TERMS (a)**



**D CONTRIBUTION OF RETURNS AND OF NET SUBSCRIPTIONS TO CHANGE IN NET ASSET VALUE OF INVESTMENT FUNDS**



SOURCES: Banco de España and CNMV.

a Loans to households and non-financial corporations net of provisions. Deposits from households and non-financial corporations plus debt securities of deposit institutions held by households and non-financial corporations.

Precisely because of these low yields, it was sight deposits that grew (by 17% year-on-year), while time deposits continued to follow the downward trend of recent years (-18.8% from the previous year). This contrasting behaviour by sight and time deposits was even more evident last year (see Chart 2.16.B).

The loan-to-deposit ratio continued to decline, as in recent years

As in recent years, the recovery of the deposits of households and non-financial corporations, along with the above-mentioned decline in lending, permitted a further reduction in the loan-to-deposit ratio in 2016. The marked downward trend dating back to 2007 (see Chart 2.16.C) was thus extended.

In 2016, the net assets of investment funds increased by 7% (more than €15 billion) to €235 billion in December 2016. However, growth during the year was not smooth (see Chart 2.16.D). At the beginning of 2016, the net assets of investment funds declined owing to negative yields reflecting the instability on financial markets at that time. Thereafter, their net assets began to grow, especially as a result of the increase in net subscriptions during the year. The behaviour of yields was more irregular in 2016, with negative values in various months of the year, especially in June as a consequence of Brexit. In January 2017 this trend continued, with net positive subscriptions that slightly increased the net assets of investment funds, offsetting their negative yields.

## 2.2 Profitability

The consolidated income of the sector in 2016 exceeded €10.8 billion, down 21.2% from the previous year

In 2016, Spanish deposit institutions as a whole earned consolidated income attributed to the parent institution of more than €10.8 billion. This figure represents a reduction of 21.2% with respect to 2015 (see Annex 2), which translates into a decline of 8 bp in the return on assets (ROA), from 0.38% in 2015 to 0.3% in December 2016. The contributions of the various items of the income statement to this decline in ROA between December 2015 and December 2016 are shown in Chart 2.17.A. Every item behaved unfavourably in comparison with the previous year, with the exception of operating expenses and financial asset impairment losses.

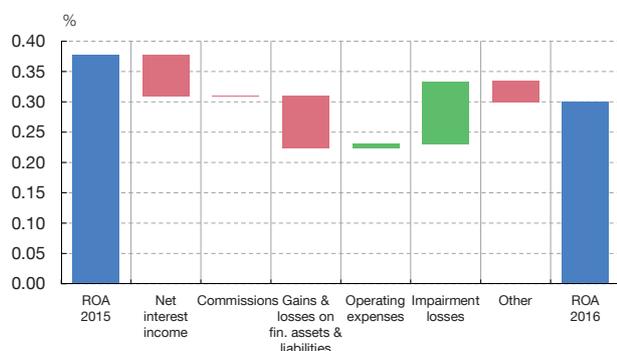
Only impairment losses and, to a lesser extent, operating expenses improved with respect to the previous year,...

With respect to 2015, net interest income fell by 4.1% in December 2016. This was because, in the current low interest rate environment, the decline in financial costs was not sufficient to offset the fall in financial revenue (see Annex 2). Net commissions also declined, albeit to a lesser extent (by 0.6%). The notable fall in gains and losses on financial transactions, of around 30%, was mainly a consequence of the exchange differences,

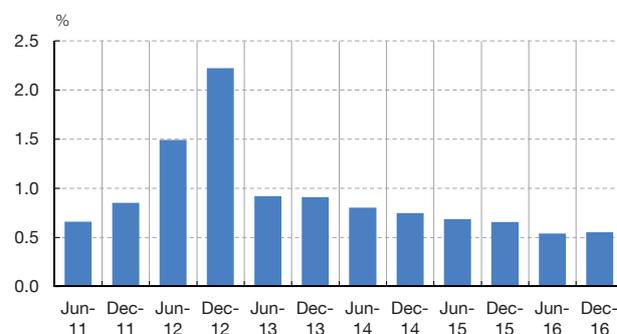
### PROFITABILITY Deposit institutions

CHART 2.17

A BREAKDOWN OF THE CHANGE IN 2016 CONSOLIDATED PROFIT ATTRIBUTED TO THE PARENT INSTITUTION AS A % OF ATA (a)

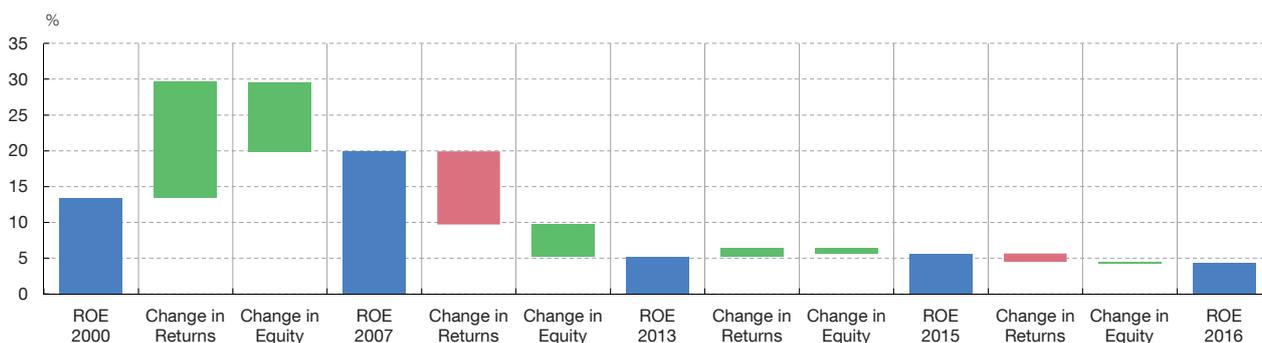


B FINANCIAL ASSET IMPAIRMENT LOSSES AS A % OF ATA



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 2016 with respect to 2015.



SOURCE: Banco de España.

a An increase (decrease) in returns depicted in green (red) causes an increase in ROE, whereas an increase (decrease) of equity depicted in green (red) causes a reduction of ROE.

... while the contributions of the other items to income decreased with respect to 2015

arising from the depreciation by more than 15% of the pound sterling, the Mexican peso and the Turkish lira (see Chart 2.3). The positive contributions to the change in income came from operating expenses, which declined by more than 1%, and from financial asset impairment losses, which declined by 16%.

Even so, impairment losses did not decline as much as in previous periods, despite the continuing broad improvement in the credit quality of balance sheets, since one institution significantly increased its provisions in the final quarter of the year. Thus, as a percentage of average total assets impairment losses increased slightly in December with respect to June 2016, putting an end to the trend decline that dated back to December 2012 (see Chart 2.17.B).<sup>8</sup> In addition, the item “Income from disposals” increased (greater losses) very significantly as a consequence of the higher provisioning requirements for foreclosed assets, partly due to the changes arising from the entry into force in 2016 Q4 of the new accounting circular of the Banco de España (CBE 4/2016).

As a consequence of the decline in profits ROE fell in 2016...

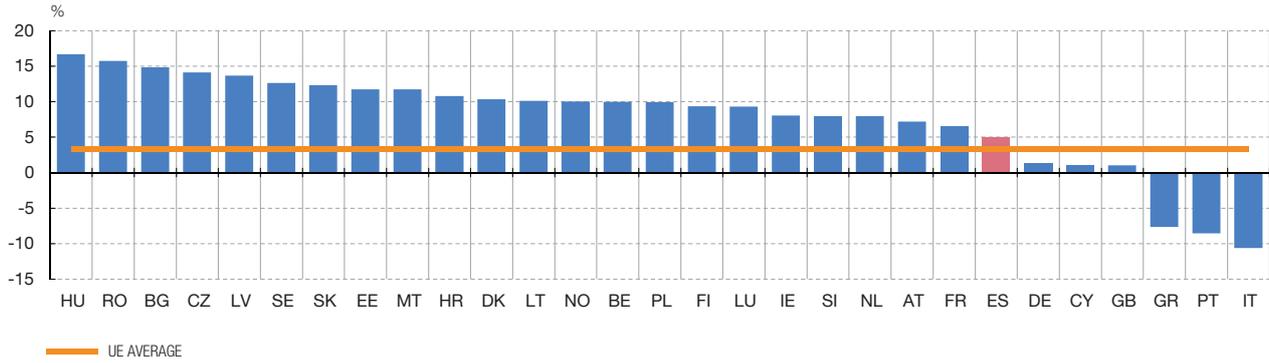
In keeping with ROA, the return on equity (ROE) also fell last year, by 1.3 pp, from 5.6% in 2015 to 4.3% in 2016. Chart 2.18 shows the changes in ROE over a lengthy time period, analysing the contribution of the numerator (consolidated income attributed to the parent institution) and of the denominator (equity) to the change in ROE. In the first few years of the 21st century ROE was high, standing above 12% each year, and peaked in 2007 at almost 20%. Thus, between 2000 and 2007, ROE increased by 6.5 pp, and the increase stemmed from the rise in income, since equity also grew, thereby reducing ROE. Thereafter ROE fell notably, mainly as a consequence of the reduction in income, although the increase in equity also reduced its value. In particular, between 2007 and 2013 ROE fell by almost 15 pp to around 5%. In the next few years the ROE remained relatively steady at around this value. In 2015, as mentioned above, it stood at 5.6%, slightly higher than in 2013, owing to the increase (albeit limited) in income and despite the increase (also limited) in equity. The decline in ROE between 2015 and 2016 was mainly due to the above-mentioned reduction in profits, although the slight increase in equity also contributed to this decline.

... although the sector's ROE is similar to the European average and...

In comparative terms, Spain stands somewhat higher than the European average (on EBA data as at December 2016;<sup>9</sup> see Chart 2.19), which reflects the pressure on profitability of

<sup>8</sup> If the provisions recorded by that institution in 2016 were excluded, impairment losses on financial assets as a percentage of ATA would have fallen to 0.47% and, consequently, the downward trend would have continued.

<sup>9</sup> The data refer to a sample of 198 banks and are available at <http://www.eba.europa.eu/riskanalysis-and-data/risk-dashboard>.



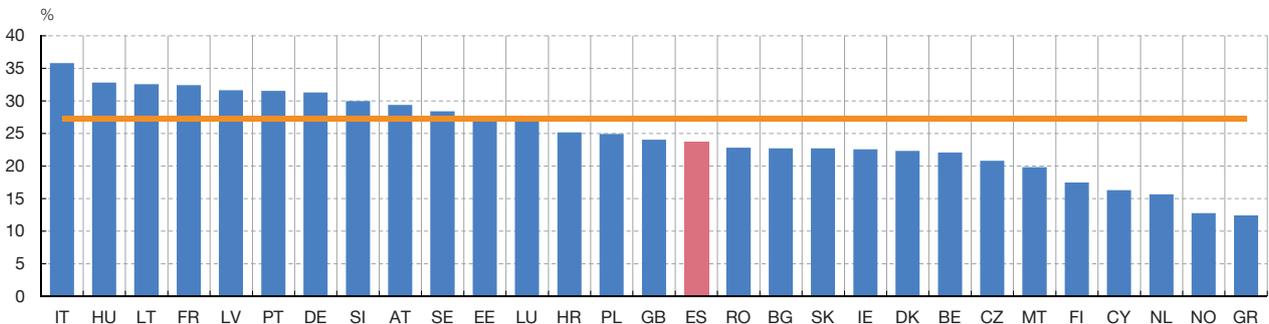
SOURCE: European Banking Authority.

a number of factors, including the current low interest rate environment, as analysed in detail in previous FSRs. Low interest rates put particular pressure on net interest income, making a search for alternative revenues one possibility in the attempt to strengthen the income statement. In this respect, Chart 2.20.A shows that net commissions as a percentage of gross income is lower in the Spanish banking sector than in the main European countries and below the European average.

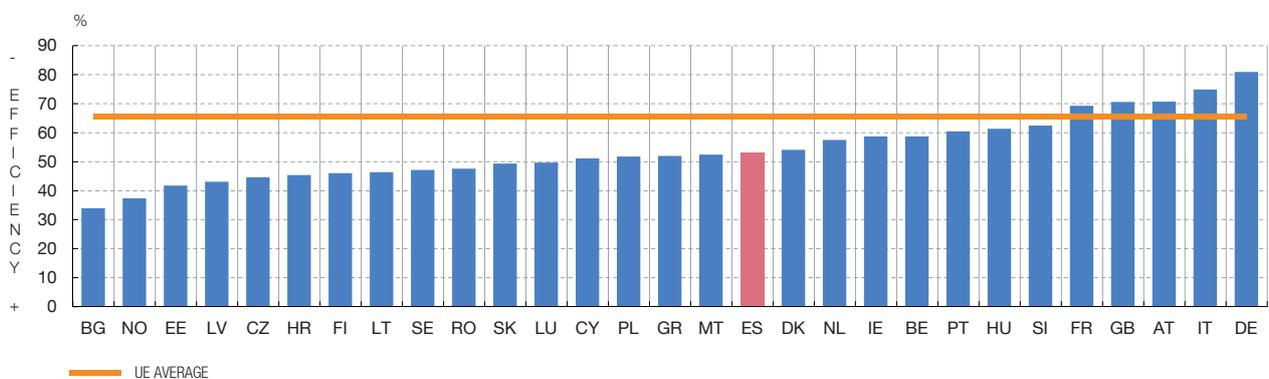
... it has a better cost-to-income ratio than the...

The efficiency of the Spanish banking system, i.e. the management of resources to generate income remains favourable with respect to its European peers. That is to say, the

A NET COMMISSIONS AS % OF GROSS INCOME



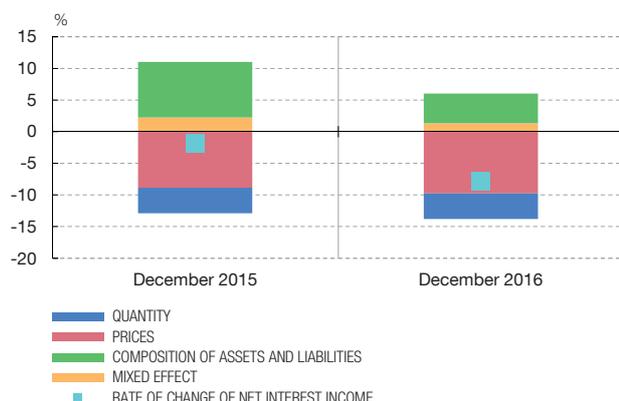
B COST-TO-INCOME RATIO (a)



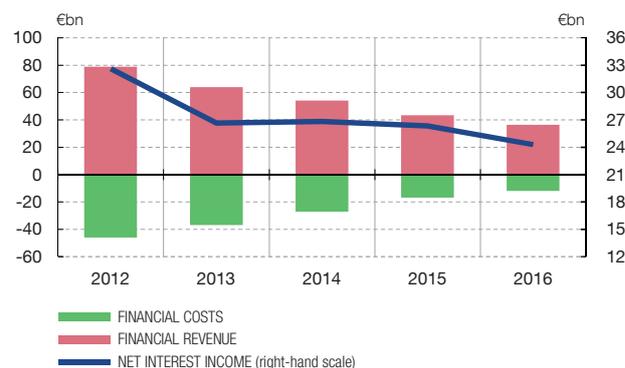
SOURCE: European Banking Authority.

a Cost-to-income ratio is defined as operating expenses divided by gross income.

A PERCENTAGE OF THE CHANGE IN NET INTEREST INCOME EXPLAINED BY EACH FACTOR



B FINANCIAL REVENUE AND COSTS AND NET INTEREST INCOME



SOURCE: Banco de España.

... banking systems of the main European countries

cost-to-income ratio of the sector is below the European average and below those of the main European countries (see Chart 2.20.B). Persisting with efforts to reduce operating expenses to increase operating efficiency is an effective alternative that should be pursued over a lengthy period to address the current narrowing of margins.

The profitability of business in Spain was relatively worse than that of global consolidated activity

The profitability of business in Spain, according to the individual financial statements of institutions, performed relatively worse in 2016 than that of their consolidated activity at global level. As a result net income after tax fell by 34% from 2015, which translated into the reduction in ROE from 4.4% to 2.8%, although the dispersion across institutions was notable and some improved their income in Spain in comparison with 2015. The explanation for this behaviour is very similar to that of the consolidated activity at global level: general falls in margins, which the lower asset impairment losses (which fell less than in previous periods) did not manage to offset, leading to a decline in net income.

Net interest income fell by 8% in 2016 in business in Spain, since the decrease in financial revenue was greater than that in financial costs, which have increasingly limited room for further decline

In particular, net interest income in business in Spain fell in 2016 (by 8%) somewhat more than at the global consolidated level. Chart 2.21.A shows the various components responsible for the change in 2015 and 2016. First, it can be seen that the price effect, determined by the low interest rates applied to interest earning assets and interest-bearing liabilities, is the factor that explained most of the decline in net interest income both in 2015 and in 2016. The quantity effect, i.e. the contribution of activity, was also negative in both periods, reflecting the ongoing decline in banking activity (see Chart 2.6.A, which shows that the volume of total lending continued to fall in 2016). Finally, the composition of assets and liabilities contributed positively to the change in net interest income in both years, although its contribution of 2016 fell notably with respect to 2015, which explains the greater fall in net interest income in December 2016.

Chart 2.21.B shows the changes in net interest income and in its two components, financial revenue and financial costs, over a longer time horizon. The trend is clear: financial revenue and costs and net interest income have been falling over the last five years. The fall in financial revenue is greater in absolute terms than that in financial costs (in relative terms the reverse is true), with the result that net interest income has been declining. The room for further decreases on the side of financial costs is becoming increasingly limited, as has been observed in previous FSRs, so that further falls in financial revenue may reduce net interest income more directly.

Moreover, it should not be forgotten that, if the risk of a revaluation of assets indicated in Chapter 1 materialises through a sudden rise in long-term interest rates, institutions may have losses in their trading book and write-downs on available-for-sale assets. However, an increase in the slope of the yield curve may benefit deposit institutions in the medium term.

Recently, an additional risk for the income statement of institutions is in the form of various court judgments that have translated into an increase in the legal costs incurred by banks, obliging them to make additional provisions, with the consequent negative effect on their income, which demonstrates the importance of legal risk for Spanish deposit institutions (see Box 2.2).

The decline in the one-year EURIBOR from 2008 to date, when it stands at negative values, has activated clauses that limit how far interest rates can fall in mortgage loans granted to consumers (known as “floor clauses”).

As a result of a motion approved in September 2009, the plenary session of the Spanish Senate called for the Government to introduce a raft of measures, including «establishing the effective pass-through of declines in the EURIBOR to mortgage payments»; and, in this regard, on 26 January 2010 the Directorate General of the Treasury and Financial Policy requested the Banco de España to prepare a report. This report was published in the Official Gazette of the Spanish Parliament on 7 May 2010 and was based on information obtained from a sample of 49 credit institutions which were asked to provide quantitative and qualitative data on the characteristics of their mortgage portfolio insofar as floor and/or ceiling clauses (the latter being upper caps on interest rates) were concerned.

This information revealed that there were interest rate floors in 29% of the portfolio analysed and within that percentage of the portfolio, 82% also had interest rate caps. The level of the interest rate floors and ceilings set by the institutions included in the sample, stood, in weighted average terms and considering the outstanding mortgage loans, at 3.12% and 13.56%, respectively.

The underlying principle in Spanish law governing the setting of interest rates in bank transactions is the freedom of contract and, thus, since floor clauses are yet another component of the price of a loan they are subject to the agreement of the contracting parties. While respecting the freedom of contract, Ministerial Order EHA/2899/2011 of 28 October 2011 on transparency and protection of banking services customers (the «Transparency Order») strengthened arrangements for information transparency and mortgagor protection in relation to interest rate variability, in addition to indicating the obligation of the notary public to specifically warn the borrower of any limits set on changes in interest rates – an obligation which already existed in the previous regulations. Noteworthy is the inclusion in the obligatory pre-contractual information provided to customers of several simulations of interest rate scenarios and specific separate additional information on the

existence of limits on the variability of interest rates in the contract, showing the maximum and minimum mortgage payments. This measure had already been proposed in the Banco de España’s 2010 report before it was incorporated into the Ministerial Order.

Additionally, Law 1/2013 of 14 May 2013 on measures to strengthen the protection of mortgagors, debt restructuring and rented social housing, provided that mortgage loan agreements entered into with individual borrowers in relation to dwellings with floor and ceiling clauses, must include in the public deed together with the customer’s signature, a statement in writing, in the terms determined by the Banco de España, whereby the borrower declares to have been adequately warned of the possible risks arising from the agreement.

There have been several legal rulings since 2013 which, to different degrees and with varying effects, have declared floor clauses null and void due to their unfair nature. Noteworthy, firstly is Judgment 241/2013 of the Civil Division of the Supreme Court of 9 May 2013, whereby following the filing of a collective action, the floor clauses used by BBVA, CAJAMAR, S. Coop. de Crédito, and Caja de Ahorros de Galicia, Vigo, Orense y Pontevedra (at present «ABANCA»), were declared null and void (effective as from 9 May 2013) because they did not respect consumer regulations or those on general contractual conditions.

Contrary to several previous court decisions, the judgment states that floor clauses are lawful in mortgage loans where there is sufficient transparency and clarity in the information provided on these clauses for consumers to be able to identify the main purpose of the agreement and the real distribution of risks relating to interest rate variability. In order to assess this point, the Supreme Court has provided for strengthened or dual transparency checks comprising, on one hand, the «incorporation check» and, on the other, the so-called «actual understanding check». The first check is the inclusion of floor clauses in a clear, specific and straightforward manner in the general terms and conditions of agreements, while the second check requires that the consumer understands the real economic consequences (the financial burden) of the clauses in question. In addition to the foregoing, the judgment does not give retroactive validity to the annulment of the floor clauses.

In the wake of this court decision, on 25 June 2013 the Banco de España sent a letter to the professional associations of the banking sector (AEB, CECA and UNACC) requesting they convey to their respective members the need to review whether the floor clauses in their outstanding mortgage loans conformed to the transparency standards laid down by the above-mentioned Judgment 241/2013 of 9 May 2013 delivered by the Civil Division of the Supreme Court. The letter further stated that banks should henceforth take all due care when selling mortgage loans that included this type of clause, adhering in particular to the information requirements of the above-mentioned Transparency Order and of Banco de España Circular 5/2012 of 27 June 2012 implementing this order and to the criteria laid down by the above-mentioned judgment.

Subsequently, the Civil Division of the Supreme Court has ruled again on the unfair nature of floor clauses in several decisions in response to individual and collective actions. Noteworthy among these decisions is Judgment 139/2015 of 25 March 2015 (which, in the case of an individual action brought against BBVA, established the case-law that the declaration of floor clauses to be null and void does not have retroactive effect) and Judgment 705/2015 of 23 December 2015 (in the case of a collective action filed against BBVA and Banco Popular), which inter alia, reaffirmed that the floor clauses included in loan agreements entered into with consumers were null and void. Also worth highlighting due to its importance is the Judgment of Madrid Commercial Court No. 11 of 7 April 2016 which declared that the floor clauses included in the loan agreements of more than forty financial institutions were null and void and ordered the institutions to remove these clauses and refund the amounts wrongfully charged since 9 May 2013 to the consumers affected.

Finally, the Judgment of the Court of Justice of the European Union (CJEU) (Grand Chamber) of 21 December 2016 (relating to questions referred for preliminary rulings during the hearing of various proceedings brought against Cajasur Banco, S.A.U.,

BBVA, S.A., and Banco Popular Español, S.A.), concluded that the non-retroactivity of the nullity declared by the Supreme Court in its above-mentioned Judgment of 9 May 2013 is contrary to European law. Therefore, the courts which had raised the questions referred for a preliminary ruling must, for decisions to be given in the main proceedings, refrain from applying the case-law of the Supreme Court which had limited the retroactivity of the declaration of unfairness in respect of the floor clauses.

As a result of the above-mentioned decision, on 21 January 2017 Royal Decree-Law 1/2017 of 20 January 2017 on urgent measures to protect consumers as regards floor clauses was published in the Official State Gazette. This Royal Decree-Law has set up a channel to make it easier for consumers to reach an agreement with credit institutions and thus settle disputes arising from the CJEU's judgment, without resorting to judicial means. The recognition of the principle of retroactivity in respect of the declaration of nullity of floor clauses has sought to organise the process of refunding amounts wrongfully earned by credit institutions applying the floor clauses in order to avoid the courts from being saturated by possible lawsuits filed by the mortgagors concerned.

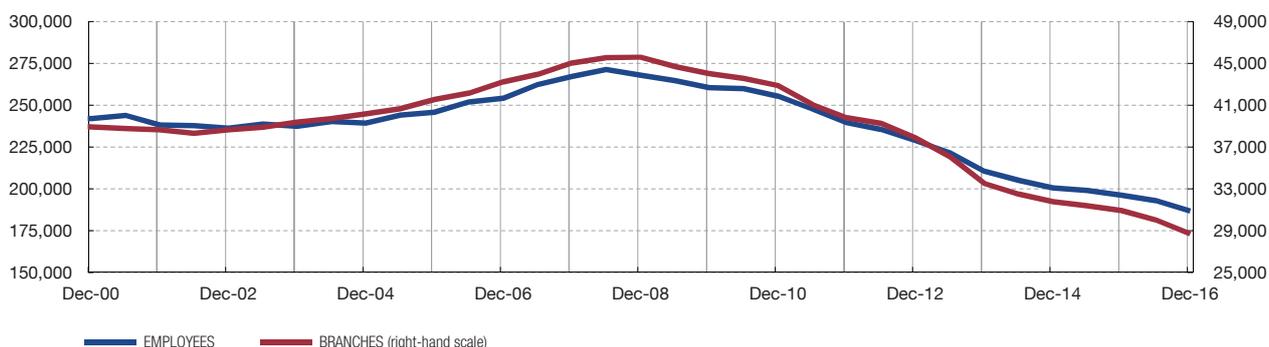
The various judgments handed down on floor clauses have prompted institutions to decide to refrain from applying them or to set aside provisions to cover any contingencies, on a case-by-case basis, which might arise. In particular, the CJEU's judgment annulling the limitation on retroactivity has compelled institutions to record additional provisions of around €1,900 million in their 2016 income statements. This amount, which was calculated by banks based on their experience of customer claims and the degree of transparency of their floor clauses and which has been reviewed by their external auditors, demonstrates the impact of legal risk on banks' profitability and, consequently, on the need for this risk to be properly monitored, managed and provisioned.

Although it is still early to make a quantitative assessment of the future impact that this risk may have, institutions can be expected to adjust their loan approval and pricing criteria, which will possibly have an impact on the supply of credit.

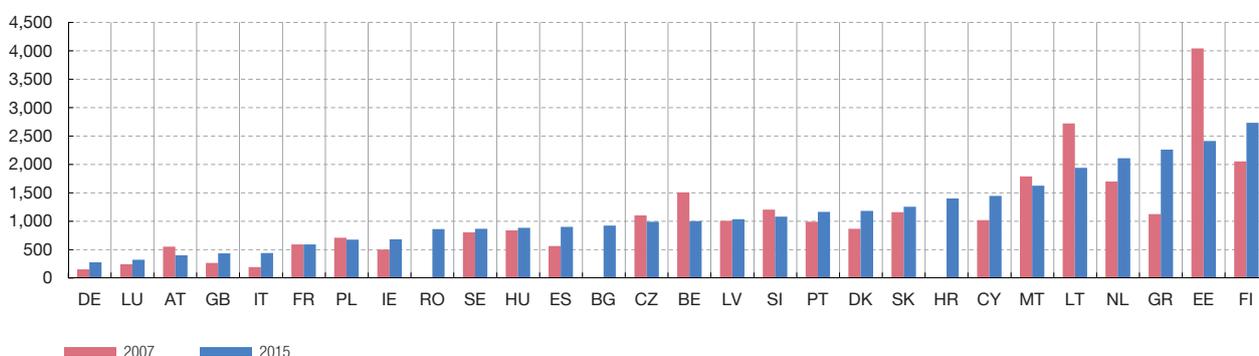
In line with the above remarks on the cost-to-income ratio, capacity adjustment through reductions in employees and offices continues, as seen in Chart 2.22.A. Meanwhile, the level of concentration in the Spanish banking sector has increased, but, as seen in Chart 2.22.B, it remains low relative to other European banking systems. As a result, there is still room for institutions to consider possible corporate operations, with potential attendant efficiency gains, which would contribute to addressing with a greater guarantee of success the pressures on profitability in the Spanish banking sector.

Additionally, traditional banking business is facing the challenge posed by the development of new technologies and by new entrants, called FinTechs. More specifically, it is facing

A NUMBER OF EMPLOYEES AND BRANCHES



B EUROPEAN COMPARISON OF THE HERFINDAHL-HIRSCHMAN INDEX IN TERMS OF ASSETS (a)



SOURCES: Banco de España and European Central Bank.

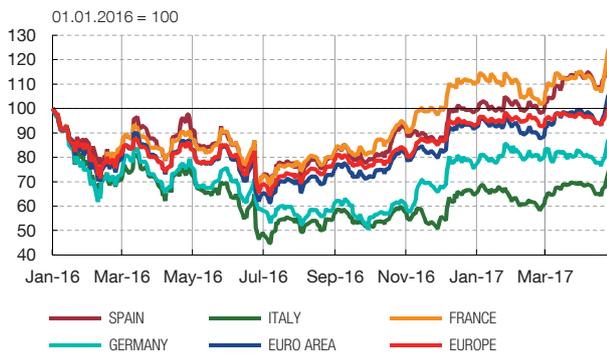
a The Herfindahl-Hirschmann Index is defined as the sum of the squares of all the institutions' market shares.

the challenge of the technological transformation of banking which affects the way in which certain banking services are supplied and used. These innovations (including the use of different mobile devices, the processing of large amounts of information very rapidly -big data- and new technologies for processing information remotely or “in the cloud”) represent an alternative to the possibility of continuing to improve efficiency and offer new or higher quality services to customers. However, it should not be forgotten that the benefits of using new technologies do not come without costs or risks. These costs arise from the investments needed in innovation and risks related to data privacy, fraud and cyber-attacks.

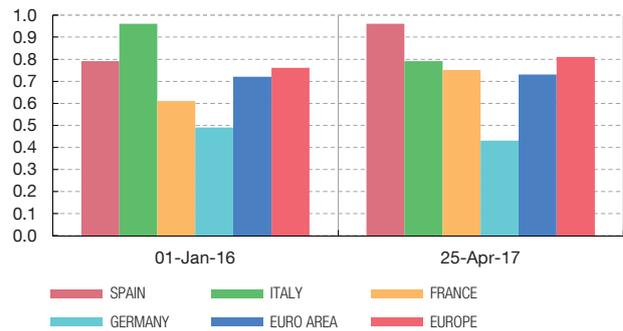
Stock indices for the main European banking sectors recovered from summer 2016

This context of profitability under pressure, as well as the uncertainty of regulatory requirements and the limited growth in European economies, have affected developments in the share prices of banks. Thus, in the first half of the year their stock market performance was unfavourable, although from the summer banking sector stock indices of the main European countries began to recover. That said, differences are observed in behaviour across countries, and the performance of the Spanish banking system was more favourable than that of other banking systems, such as the German one and in particular, the Italian one. In the first two months of 2017 share prices have remained relatively stable and since the beginning of March have been rising, especially in the last few days (see Chart 2.23.A). The net result of this fall, subsequent recovery and rise has been an increase in the price to book value ratio of the Spanish banking system relative to the beginning of 2016, which

A BANKING STOCK MARKET INDICES



B PRICE-TO-BOOK-VALUE RATIO OF THE BANKING SECTOR



SOURCE: Datastream.

currently stands at a notable level among its European peers (see Chart 2.23.B). In any event, the continuing low profitability of the sector relative to the cost of capital employed, certain specific elements of particular banking systems and financial institutions, such as the high level of non-interest earning assets on bank balance sheets, as well as the uncertainty associated with regulatory changes in the sector, remain potential elements of risk with a direct effect of downward correction on stock market prices.

### 2.3 Solvency

The CET1 ratio stood at 12.8% in December 2016, after increasing slightly over the year

Turning to an analysis of the solvency of Spanish deposit institutions as a whole, common equity tier 1, the highest quality capital, stood at a ratio of 12.8% in December 2016. During the year, the ratio rose slightly (16 bp; see Chart 2.24) and stood above the regulatory requirement.<sup>10</sup> Likewise, the total capital and tier 1 capital ratios also increased, by 25 bp and 35 bp respectively during 2016. The total capital ratio stood at 14.7% in December 2016, while the tier 1 capital ratio reached 13% (0.2 pp above CET1).

The increase was due to the decline in risk weighted assets

As seen in Chart 2.25.A, which shows the levels of the various types of capital and the volume of risk exposure (risk weighted assets, RWAs), the increase in the ratios resulted from the decline in RWAs, since capital levels remained relatively stable during 2016.

### SOLVENCY Deposit institutions

CHART 2.24



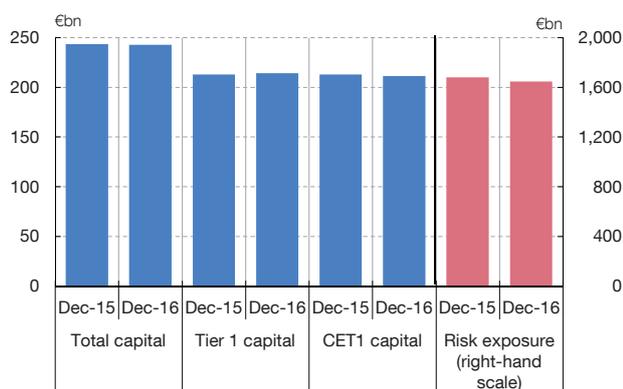
SOURCE: Banco de España.

<sup>10</sup> The phase-in of the capital conservation buffer began in 2016, which raised by 0.625% the minimum CET1 requirement of 4.5%.

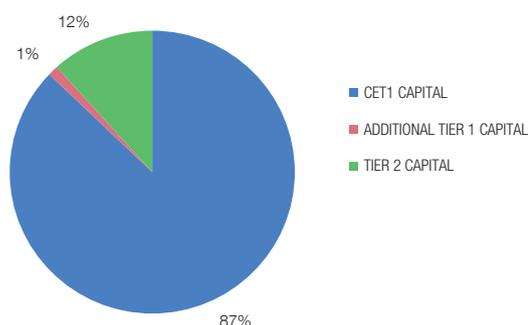
**BREAKDOWN OF OWN FUNDS AND RISK-WEIGHTED ASSETS**  
Deposit institutions. December 2016

CHART 2.25

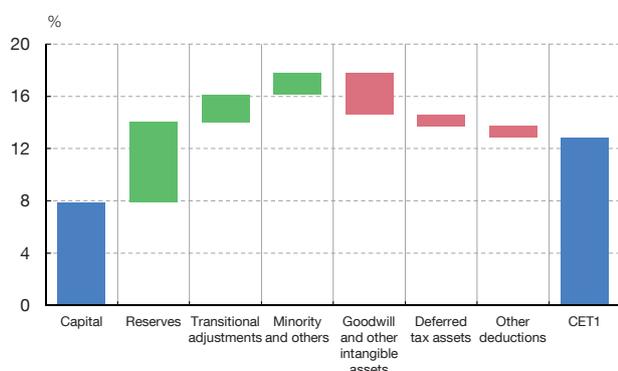
A LEVELS OF CAPITAL AND RISK EXPOSURE



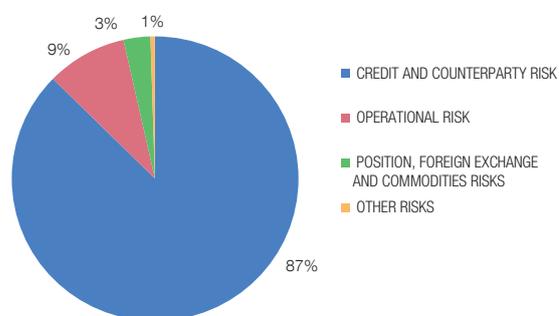
B BREAKDOWN OF OWN FUNDS



C BREAKDOWN OF CET1 RATIO AS % OF RISK-WEIGHTED ASSETS



D BREAKDOWN OF RISK-WEIGHTED ASSETS



SOURCE: Banco de España.

RWAs stood at €1,647 billion at the end of 2016, a decline of 1.9%. Given that the total assets of deposit institutions also fell by a similar magnitude (1.7%) last year, RWAs hardly changed as a percentage of total assets during 2016, standing at 45.7%.

Chart 2.25.B shows the composition of own funds (the numerator of the capital ratios). As usual, CET1 accounts for the vast majority of own funds (87%), additional tier 1 capital (which is included in tier 1 capital but not in CET1) represents 1% of own funds. Finally, tier 2 capital (included in total capital but not eligible as tier 1 capital) has a weight of 12% in own funds.

Most of CET1 is made up of capital and reserves...

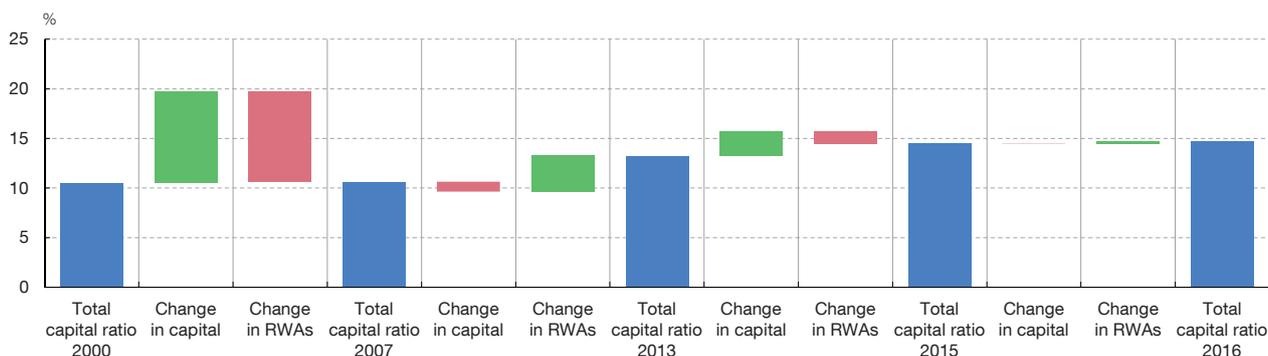
Focusing on CET1, Chart 2.25.C gives a breakdown of its composition in terms of RWAs. As regards eligible capital, equity instruments are the main component (44%), followed by reserves (34%), transitional adjustments (12%), and minority interests and other (9%). As can be seen, capital and reserves account for practically 80% of CET1. As for deductions, most arise from goodwill and other intangible assets (64%), while those arising from deferred tax assets and other deductions account for 18% in each case.

... while most of RWAs is accounted for by credit risk

As regards the composition of risk weighted assets, the denominator of the ratios is made up largely by credit and counterparty risk (87%), followed by operational risk (9%), while position, foreign exchange and commodity and other risks account for the remaining 4% of RWAs (see Chart 2.25.D).

TOTAL CAPITAL RATIO. HISTORICAL EVOLUTION AND BREAKDOWN. 2000-2016 (a)

CHART 2.26



SOURCE: Banco de España.

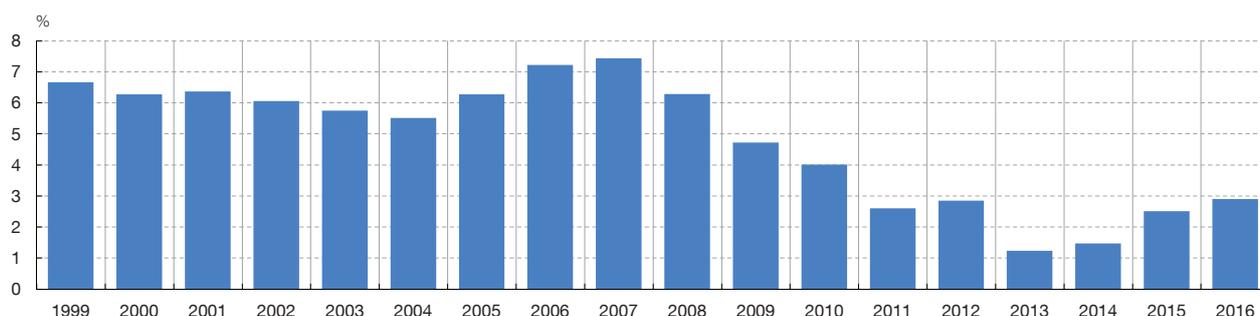
a An increase (decrease) in capital depicted in green (red) causes an increase in the total capital ratio, whereas an increase (decrease) in risk-weighted assets depicted in red (green) causes a reduction of total capital ratio.

In keeping with the analysis in the probability section, Chart 2.26 shows, for the solvency ratio, changes in the total capital ratio over a long time horizon, distinguishing the contribution of the numerator (total capital) from that of the denominator (RWAs). In the early years of the 21st century the total capital ratio remained relatively stable, since the notable increases in capital were offset by similar increases in RWAs, with notable growth in lending to the private sector. Thus, between 2000 and 2007 the total capital ratio increased by barely 0.1 pp, from 10.5% to 10.6%, as a consequence of the sharp increase in capital and exposure. During the next few years there was an increase in the total capital ratio, as a result of the decline in RWAs (due to private sector deleveraging), since the total capital fell (due to the losses of the sector). The total capital ratio increased by 2.6 pp, to 13.2% in 2013. Between 2013 and 2015 the total capital ratio continued to rise, by 1.2 pp to 14.5%, but this increase resulted from a change in the numerator rather than in the denominator. The ratio strengthened as a result of the increase in total capital and despite the increase, albeit to a lesser extent, in RWAs. Finally, in 2016, as mentioned at the beginning of the section, there was a slight increase in the ratio due to the decline in RWAs.

The change in capital over the period 2000-2016 was partly the result of the change in the retained earnings of institutions and, also, of changes in the level of capital itself (increases and reductions resulting from bail-ins). Over this period, at the aggregate level, Spanish institutions have maintained a relatively stable dividend (or transfers to the social welfare fund or payments to cooperative members in the case of savings banks and cooperatives,

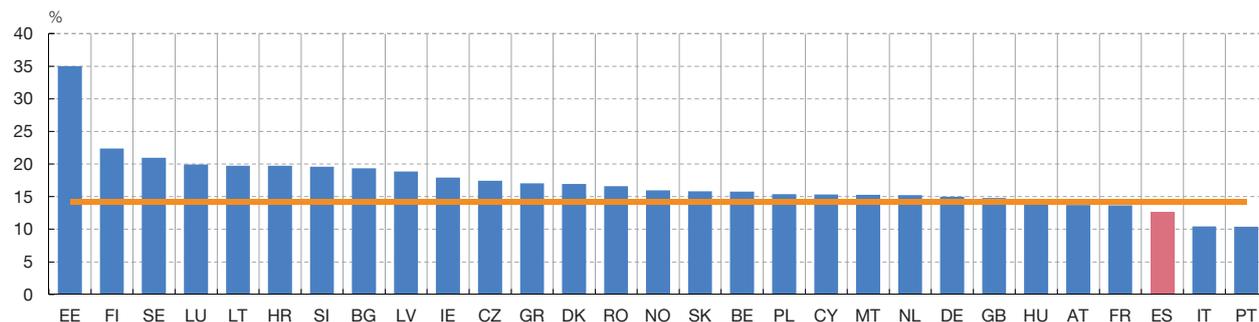
DIVIDENDS, TRANSFERS TO THE SOCIAL WELFARE FUND AND PAYMENTS TO COOPERATIVE MEMBERS AS % OF ELIGIBLE OWN FUNDS

CHART 2.27

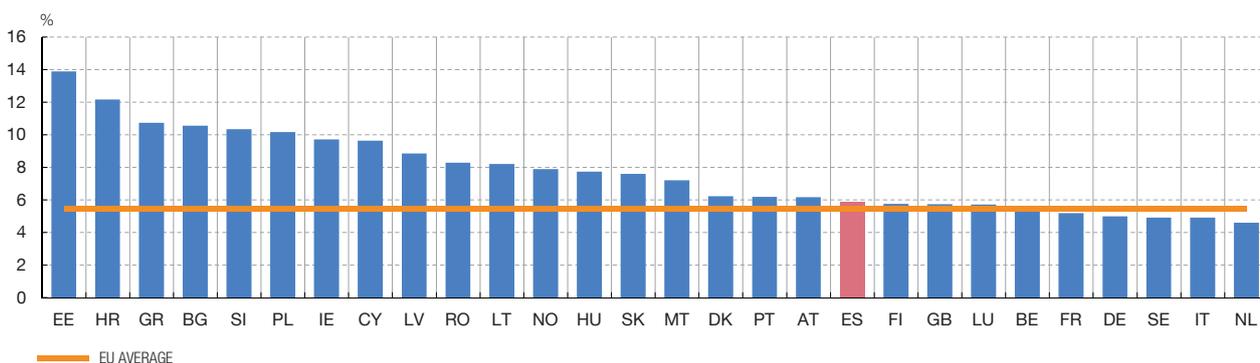


SOURCE: Banco de España.

A CET1 RATIO



B LEVERAGE RATIO (a)



SOURCE: European Banking Authority.

a Leverage ratio is defined as tier 1 capital (transitional definition) divided by total exposure defined for the purpose of calculating this leverage ratio.

respectively) policy, except between 2012 and 2014. Thus, the percentage of distributable income paid in dividends, to the social welfare fund or to cooperative members stood on average somewhat below 50%. Chart 2.27 shows developments at the aggregate level as a percentage of eligible own funds for total deposit institutions.

Spain's CET1 ratio is relatively low with respect to its European peers

A comparative analysis of the CET1 ratio, with respect to the other EU countries, shows (see Chart 2.28.A) that Spain's ratio is relatively low, although not far (1.6 pp) from the European average. In terms of the leverage ratio, i.e. without including risk weightings, the relative position of the Spanish banking sector improves (see Chart 2.28.B).

Box 2.3 seeks to explain the differences in the risk levels included in RWA calculations, presenting a comparative analysis for the main European countries of the extent of use of the standardised approach (SA) and the internal ratings-based (IRB) approach, as well as of RWA density under the IRB approach.

The results of the 2016 EU-wide transparency exercise performed on the banking sector and published by the EBA in December 2016<sup>1</sup> give continuity to the analysis of the main European banks' loan portfolios which was performed in the May 2015 FSR and updated in the May 2016 FSR. The comparison of the information from this exercise with that also published by the EBA in the 2014 stress test exercise provides the opportunity to analyse changes in credit exposures and their risk weightings between December 2013 and June 2016 for a homogeneous sample of 68 institutions located in the main European economies: Germany (18), Spain (14), France (11), Great Britain (4), Italy (15) and the Netherlands (6).

The analyses performed in the 2015 and 2016 FSR showed significant cross-country differences in how intensively the standardised approach (SA) and the internal-ratings based (IRB) approach are used by banks when they determine the RWAs of their loan portfolios. Similarly, these exercises revealed notable differences in the resulting RWA densities – measured as the ratio of the risk assessment of credit exposures to total credit exposure value – both across countries and in terms of the approach used. The analysis presented in this box confirms that the differences observed in previous years persisted as at June 2016.

### 1 Credit risk composition

Chart A shows the relative share of the various portfolios which make up the total credit exposure of the banks analysed: central governments and central banks, institutions, corporates, retail, secured by mortgages on real estate property and other.

As seen in the chart, the highest percentages of exposures for the aggregate of the six countries considered relate to the following portfolios: corporates (30%), central governments and central banks (24%, up 4 pp from 2013) and secured by mortgages on real estate property (21%). For Spanish banks, the secured by mortgages on real estate property portfolio represents 30% of total exposure – putting Spain at the head of the sample countries, behind the Netherlands but notably above average – whereas the corporates portfolio represents 23%, 7 pp below the average of the banks considered.

1 The results of the 2016 transparency exercise are available on the EBA's website <http://www.eba.europa.eu/risk-analysis-and-data/eu-wide-transparency-exercise/2016/results>.

Chart A  
CREDIT RISK COMPOSITION BY COUNTRY AND BY PORTFOLIO. DECEMBER 2013 AND JUNE 2016

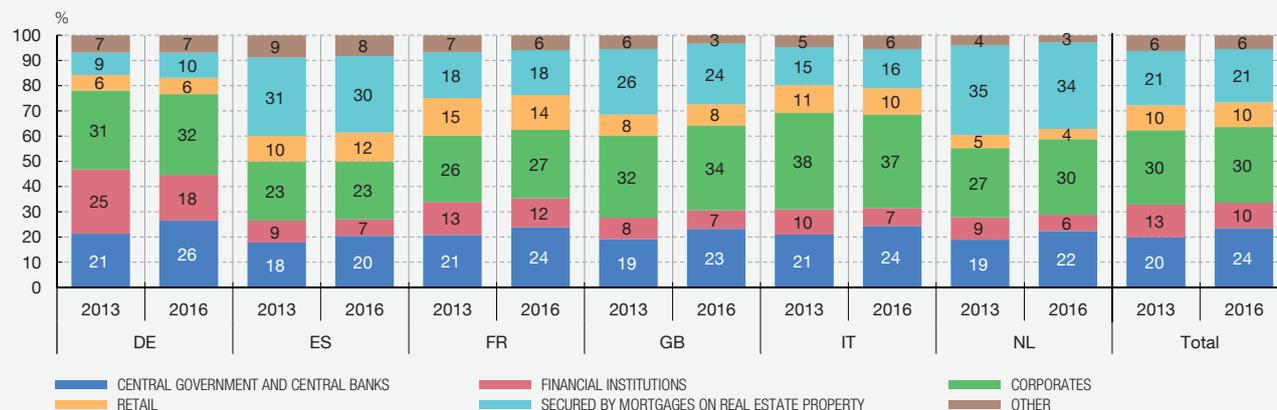
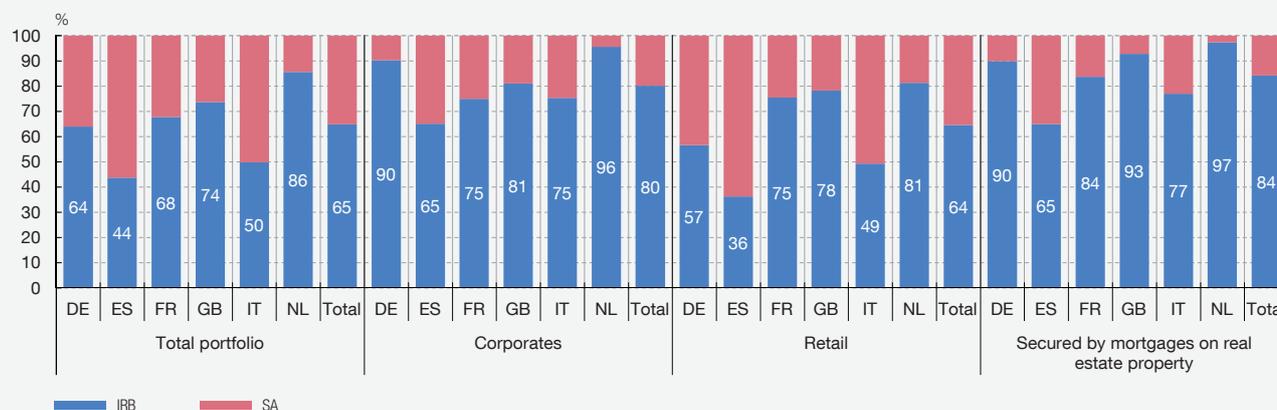


Chart B  
INTENSITY OF USE OF THE STANDARDISED AND THE IRB APPROACHES. JUNE 2016



SOURCE: European Banking Authority.

2 Credit exposures under the standardised and IRB approaches

Chart B includes changes, at aggregate level and by loan portfolio, in the percentage of exposures whose risk is measured using the standardised or IRB approaches. As shown in the chart, the exposure measured by applying the IRB approach as at June 2016 for the aggregate of the six countries constituting the sample represents 65% of total exposure (64% in 2013). For Spain, exposure under the IRB approach as at June 2016 represents 44% of total exposure (the same as in 2013) and it is the country where the IRB approach is used least intensively. At the opposite end of the scale are the Netherlands which should be noted for their high use of the IRB approach that represents 86% of total exposure (85% in 2013).

The analysis of the intensity of use of the standardised and IRB approaches for banks' various loan portfolios underlines the importance of the IRB approach in the risk assessment of private-sector portfolios (corporates, retail and secured by mortgages on real estate property).

3 RWA density under the standardised and IRB approaches for private-sector portfolios

In view of the importance of the IRB approach in assessing the credit risk of private-sector portfolios, it is important to analyse the risk weightings arising from the use of this approach in the various countries.

3.1 Corporates

As shown in Chart B, as at June 2016, 80% of the exposures in the corporates portfolio of all the banks considered are subject to the IRB approach. In Spain, the proportion in which each methodology is used is relatively more balanced with 65% using IRB compared with 35% using the SA.

The RWA density of the corporate portfolio subject to IRB at aggregate level stands at 47% as at June 2016 compared with an average density of 88% for the exposures under the SA (see Chart C). By country (see Chart D), the densities of the IRB

Chart C  
STANDARDISED AND IRB DENSITIES BY COUNTRY. JUNE 2016

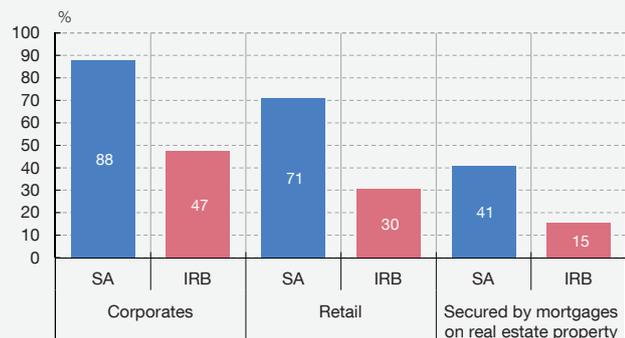


Chart D  
DENSITIES UNDER THE IRB APPROACH. CORPORATES PORTFOLIO



Chart E  
DENSITIES UNDER THE IRB APPROACH. RETAIL PORTFOLIO

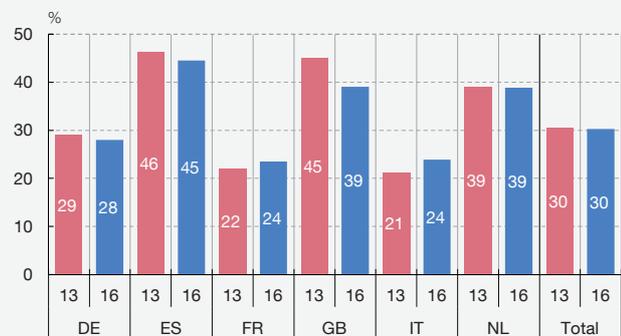
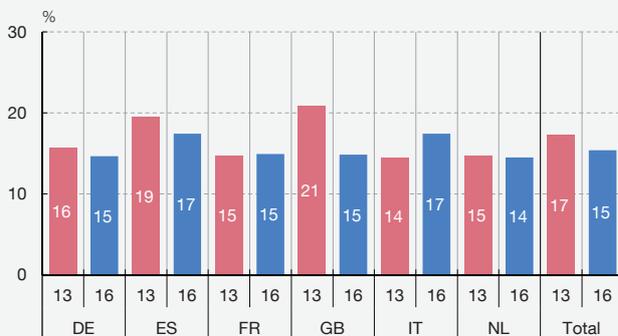


Chart F  
DENSITIES UNDER THE IRB APPROACH. SECURED BY MORTGAGES ON REAL ESTATE PROPERTIES PORTFOLIO



SOURCE: European Banking Authority.

approach range from 41% in Germany to 57% in Spain, a similar range to that as at December 2013 (from 43% in the Netherlands to 56% in Spain) which places Spain in the position of the country with the highest density in terms of IRB for this portfolio.

### 3.2 Retail

As shown in Chart B, as at June 2016 the volume of exposures of the retail portfolio subject to the IRB approach for all sample countries is practically double the volume under the SA. Spain stands out, in particular, among the sample of countries analysed since its proportion of exposures in the retail portfolio subject to the IRB approach (36%) is notably lower than that of the exposures under the SA.

The RWA density resulting from the IRB approach for all the banks analysed stands at 30% as at June 2016 (the same density as in 2013), compared with a density of 71% for the exposures of this portfolio valued using the SA (Chart C).

Chart E includes the RWA density under the IRB approach for the different countries in the sample, among which Spain is once again noteworthy, with a density in IRB of 45% (46% in 2013), 15 pp above the average and more than 20 pp higher than the densities of France and Italy.

### 3.3 Secured by mortgages on real estate property

The importance of the IRB approach is also underlined in the portfolio of loans secured by mortgages on real estate property with an intensity of use of 84% compared with 16% under the SA for the countries analysed, as a whole (see Chart B). Also in this

case Spain's intensity of use of the IRB approach is below the European average, with 65% of total exposures subject to this approach as at June 2016.

In aggregate terms, the density of exposures in IRB as at June 2016 is 15% compared with a density in SA of 41% (see Chart C). The analysis for the different countries considered (see Chart F) reveals that Spain also has a higher density in IRB for this portfolio, which stands at 17% (19% in 2013).

In short, the analysis presented highlights the persistence of significant differences both in relation to the intensity of use of the standardised and IRB approaches across countries and as regards the densities resulting from the two approaches. Furthermore, as at June 2016, there continues to be significant cross-country dispersion in RWAs densities resulting from the IRB approaches used by the banks.

This variability in RWA density under the IRB approach has been noted repeatedly<sup>2</sup> by the Basel Committee on Banking Supervision (BCBS) as one of the main sources of heterogeneous risk assessment by banks in different jurisdictions. The proposals to mitigate this lack of comparability include, most notably, limiting the use of IRB approaches to certain portfolios as well as applying minimum floors to the reduction of capital requirements under the IRB approach as compared with the SA. With regard to the latter point, the BCBS has still not been able to reach a final agreement of the amount of these floors.

<sup>2</sup> See, for example, the consultative document, «Reducing variation in credit risk-weighted assets – constraints on the use of internal model approaches», BIS, 24 June 2016; <https://www.bis.org/bcbs/publ/d362.pdf>.



### 3 ANALYSIS AND MACROPRUDENTIAL POLICY

#### 3.1 Analysis of systemic risks

In the past year there was a moderate reduction in systemic risks

The latest update of the systemic risk map developed by the Banco de España<sup>1</sup> suggests a continuation of the moderate easing in vulnerabilities over recent quarters (see Chart 3.1). Among other reasons, this development is due to the reduction in risks relating to the real economy (change in GDP, unemployment rate), which have improved substantially over the past year.

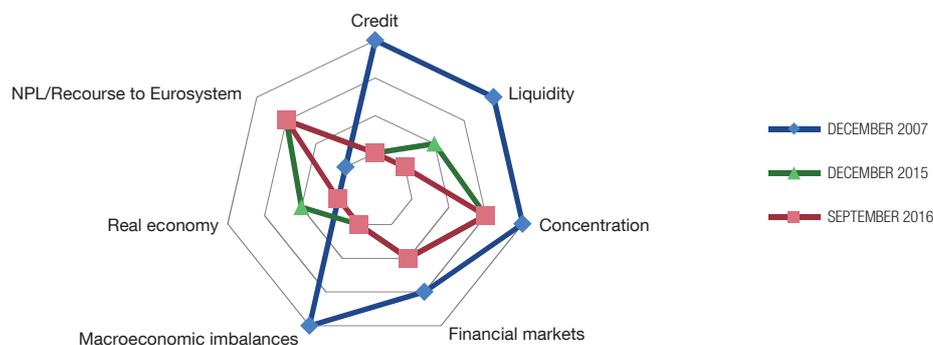
Currently, three indicators stand at levels of some risk. The first refers to the measure reflecting the NPL ratio and recourse to Eurosystem financing. Both these variables are still at higher levels than their respective historical averages, although the situation of recourse to the Eurosystem, within a conventional and non-conventional monetary policy context, has improved on its 2012 levels. Risks also persist in terms of the concentration of credit portfolios, which would be attributable to structural factors that change gradually. In any event, in these two categories, which continue to reflect the effects of the last crisis, there has been a progressive lessening of risk in recent years. Lastly, the vulnerabilities relating to financial markets also remain in place, albeit at low levels. Here, the volatility of bank securities and the changes in corporate debt spreads during the last quarter for which data are available are expected to have prevented any improvement. That said, it should be pointed out that the level of risk detected for each of these three categories is similar to that noted in the previous FSR.

#### 3.2 Cyclical risks and macroprudential decisions

Despite the favourable behaviour of certain real variables, credit continued falling, meaning it is far from posing a situation of risk. For this reason, the Banco de España has decided to keep the rate of the countercyclical capital buffer (CCyB) applicable to domestic credit

HEAT MAP (a)

CHART 3.1



SOURCE: Banco de España.

a The heat map levels are shown graphically in seven categories. The credit risk groups together indicators on the changes in and degree of imbalance of total and bank lending to households, non-financial corporations and the non-financial private sector in its entirety; the levels of debt burdens of these sectors; the rates of interest on new lending and on outstanding balances; and the changes in and imbalances of house prices. The liquidity risk category includes indicators on bank and market liquidity. The concentration category includes indicators on total and bank credit concentration in different sectors and by type of borrower. The financial markets category groups indicators on correlations and interconnection between banks and on systemic stress in different markets. The macroeconomic imbalances category includes indicators on external debt, the public sector and the current account balance. The real economy category includes indicators on economic growth and unemployment. The NPL/Recourse-to-central bank category includes indicators on NPLs and European Central Bank/Banco de España loans to financial institutions, including non-conventional monetary policy operations. A concentric line closer to the centre of the chart refers to a normal situation, while the higher the risk level, the greater the distance to the centre.

<sup>1</sup> This tool transforms the information from over 100 indicators relating to key variables for the financial system into a risk map. Specifically, measures on credit, the housing market, the structure of credit institutions' balance sheets (liquidity risk, concentration of the credit portfolio and NPLs), the situation of financial markets and the real economy.

exposures at 0% since its entry into force in 2016.<sup>2</sup> The CCyB is the main macroprudential instrument for addressing the build-up of cyclical risks. The decision is consistent with the diagnosis of the position of the credit cycle and is underpinned by a framework of “guided discretion” for the CCyB, in which the level of this instrument is determined by means of the analysis of various quantitative indicators, as well as by expert judgement and the analysis of qualitative information.

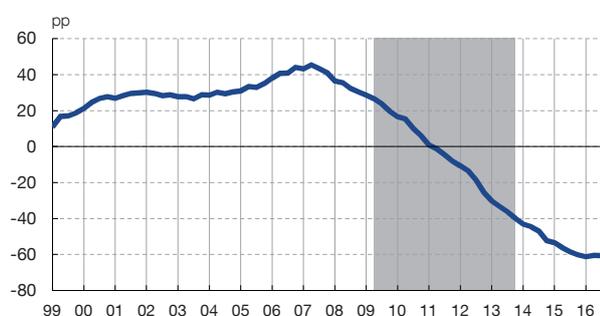
The position of the credit cycle does not advise a tightening of macroprudential policy

Among the quantitative indicators, the credit-to-GDP gap, defined as the difference between the credit-to-GDP ratio and its long-term or equilibrium level, is the main reference,<sup>3</sup> for two reasons. First, because this is the metric proposed by the Basel Committee on Banking Supervision (BCBS) to guide the setting of the CCyB, as well as the fact it is incorporated into current European and Spanish legislation<sup>4</sup>. Second, because it enables the behaviour of trend cycle-adjusted credit to be taken into account, which contributes to identifying periods of low growth or a decline in credit (the gap narrows and may even turn negative), with other periods of moderately or excessively increasing lending activity (the

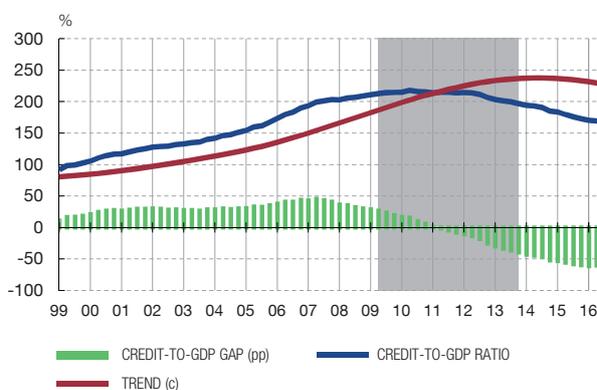
CREDIT-GDP GAP (a)

CHART 3.2

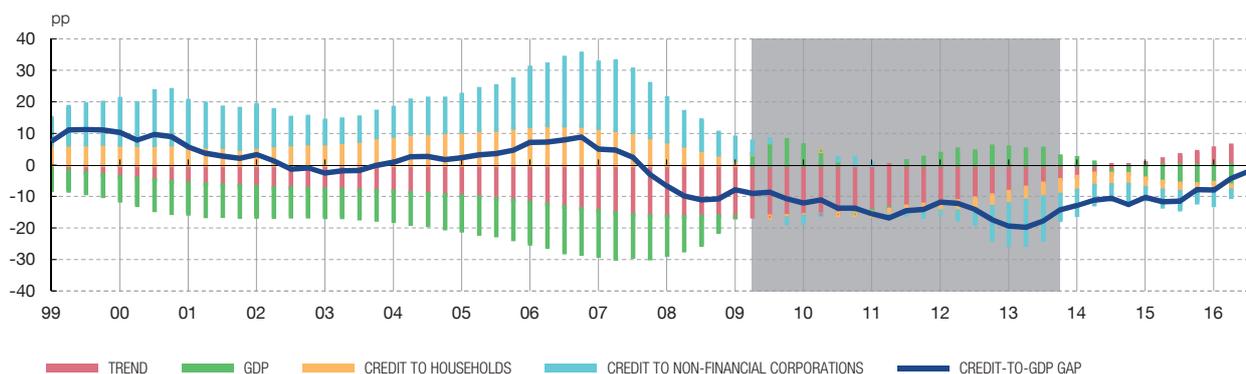
A CREDIT-GDP GAP (b)



B CREDIT-TO-GDP RATIO AND ITS LONG-TERM TREND



C YEAR-ON-YEAR CHANGE IN CREDIT-TO-GDP GAP AND CONTRIBUTION OF ITS COMPONENTS (d)



SOURCE: Banco de España.

- a The shaded area shows the last period of systemic banking crisis (2009 Q2-2013 Q4).
- b The credit-to-GDP gap is the difference between the credit-to-GDP ratio and the trend.
- c The trend in these charts is calculated using a one-tailed Hodrick-Prescott filter (smoothing parameter equal to 400,000).
- d The debt securities issued by the non-financial corporations sector are omitted in the chart (their size is residual), although they are included in the calculation of the credit-to-GDP gap.

<sup>2</sup> See [http://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/NotasInformativas/17/presbe2017\\_19en.pdf](http://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/NotasInformativas/17/presbe2017_19en.pdf).

<sup>3</sup> The Banco de España monitors other indicators as guidance for the CCyB, such as house prices, debt service and the current account balance. All these indicators reinforce the decision to hold the CCyB at 0%.

<sup>4</sup> Directive 2013/36/EU (CRD IV), Law 10/2014, Royal Decree 84/2015 and Banco de España Circular 2/2016.

gap widens) relative to a theoretical long-term equilibrium level. The latest observation of this gap places it at -60.6 pp, far below levels that would advise the activation of the CCyB.<sup>5</sup> Charts 3.2.A and 3.2.B reflect the behaviour of the level of the gap, along with the credit-to-GDP ratio and its trend, for an extensive time horizon.

From the macroprudential standpoint, it is worth addressing not only the level of the gap, but also the changes in it and the determinants of these changes. In this respect, since late 2015 some stabilisation of the gap has been observed for the first time since the start of the crisis. To analyse this novel development and, in general, the dynamics of the gap over different phases of the cycle, the changes in its various components are broken down and its path is studied. The exercise is depicted in Chart 3.2.C, which shows the year-on-year change in the credit-to-GDP gap on the basis of the contributions of the change in GDP, of credit (distinguishing between credit to households and to non-financial corporations) and of the trend.

In the years immediately prior to the financial crisis, credit activity expanded sharply, meaning that it is the components of credit, both to households and to firms, that account for the increase in the gap. GDP and the trend, for their part, contribute to narrowing the gap; in the first instance, owing to the increase in economic activity and, in the case of the trend component, to the very inertia of this variable.

In the early years of the crisis, on the contrary, the roles of GDP and credit in respect of the change in the gap were inverted. Specifically, credit diminishes, which exerts downward pressure on the gap. At the same time, the decline in GDP neutralises, in part, the foregoing effect. The contribution of the trend, however, is scarcely affected, since it continues to reflect the inertia of the expansion years. The latter factor leads the gap to narrow sharply, to the point of attaining very negative levels, in keeping with more restrictive macrofinancial conditions.

The situation starts to change as the recovery begins. The trend, which incorporates to a greater extent the behaviour of credit during the crisis years, begins to fall, and its contribution to the change in the gap turns positive. As to the other variables, GDP contributes negatively once more, in step with the return to economic growth. Finally, the negative contribution of credit diminishes as the contraction in credit activity eases. The combination of these elements gives rise to slight increases in the value of the gap, although its level continues in very negative territory, as indicated.

The correction of the credit-to-GDP gap might be gradual if credit holds on its current contained course

Two conclusions may be drawn from the foregoing. The first is that the adoption of the credit-to-GDP gap as an indicator for monitoring the economy is highly informative in terms of the identification of systemic risks, both in expansionary phases (increasingly positive gap, possible tightening of macroprudential policy) and in crisis episodes (fall in the gap, possible adoption of measures to ease/release macroprudential instruments). In particular, the changes in the level of the gap provide significant information, as does its very level, for macroprudential analysis. The second conclusion is that the recent turning point in the gap may prove durable, essentially owing to the adjustment of the trend component.<sup>6</sup> That said, it will be difficult to witness a strong recovery in the gap should the current contained course of bank credit continue.

<sup>5</sup> The Banco de España, in accordance with BCBS guidelines, considers a level of 2 pp as the reference point for a possible activation of the CCyB.

<sup>6</sup> If the trend is interpreted as a theoretical or equilibrium level of credit in relation to GDP, the current adjustment of this component might reflect structural changes in the Spanish economy's debt after the last crisis.

### 3.3 Systemically important institutions

The identification and designation of systemically important banking institutions are carried out annually following a series of procedures and methodologies coordinated at the global and EU level, in conformity with the national regulations that entrust this task to the Banco de España. In November 2016 the Banco de España approved its latest annual revision, publishing<sup>7</sup> a list of six Spanish banks designated as being of domestic systemic importance for the year 2017. The list includes an indication of the additional capital buffers with which these banks must comply until 2019, at which time the transition period for the implementation of this macroprudential requirement concludes (see Table 3.1).

Six institutions of national systemic importance have been identified for 2017, one of which is also of global systemic importance

One of the banks designated (Santander) will continue to have a dual status of Global Systemically Important Institution (G-SII) and that of Other Systemically Important Institution (O-SII), and it will have to meet, this year, a supplementary CET1 capital requirement of 0.5% of its total risk exposure on a consolidated basis. Another five banks (BBVA, Caixabank, Bankia, Sabadell and Popular) will be considered as O-SIIs and will be required to have capital buffers in the range of 0.125% and 0.375% in 2017.

As regards the O-SIIs identification exercise of the previous year, it should be noted that there have been no significant changes in the level of systemic importance of the banks designated. However, the associated capital surcharges have been partly amended as a result of the application by the Banco de España of a new calibration of these capital buffer-related requirements, consistent with the ECB's new criteria for O-SIIs in the euro area. This revision has given rise to a gradual increase of 0.25 pp in the buffers applicable to three of these banks (BBVA, Sabadell and Popular) up to 2019.

Finally, the Banco de España announced in December 2016 the designation of one institution (Santander) as a G-SII<sup>8</sup> for the year 2018. Hence, and as far as Spanish banks are concerned, the Banco de España has adopted the latest resolution of the Financial Stability Board (FSB) on G-SIIs,<sup>9</sup> in line with the regulatory terms established and with the habitual practices of peer central banks and supervisory authorities. For greater details on this identification of systemic institutions, see Box 3.1.

SYSTEMICALLY IMPORTANT INSTITUTIONS IN 2017

TABLE 3.1

Institution	Designation for 2017	Capital buffer (a)		
		Required in 2017 (%)	Required in 2018 (%)	Required in 2019 (%)
Santander	G-SIIs and O-SIIs	0.50	0.75	1.00
BBVA	O-SIIs	0.375	0.5625	0.75
Caixabank	O-SIIs	0.125	0.1875	0.25
Bankia	O-SIIs	0.125	0.1875	0.25
Sabadell	O-SIIs	0.125	0.1875	0.25
Popular	O-SIIs	0.125	0.1875	0.25

SOURCE: Banco de España.

a The capital buffers finally required in 2018 and 2019 are subject to confirmation in the next two annual revisions.

<sup>7</sup> See [http://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/ComunicadosBCE/NotasInformativasBCE/16/Arc/Fic/presbe2016\\_50en.pdf](http://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/ComunicadosBCE/NotasInformativasBCE/16/Arc/Fic/presbe2016_50en.pdf).

<sup>8</sup> See [http://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/NotasInformativas/16/Arc/Fic/presbe2016\\_58en.pdf](http://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/NotasInformativas/16/Arc/Fic/presbe2016_58en.pdf).

<sup>9</sup> See the FSB's communication dated 21 November 2016: "2016 list of global systemically important banks (G-SIBs)". The identification made by the FSB in 2016 has consequences in terms of capital buffers from 1 January 2018. As is its usual practice, the FSB makes the announcement each year in November, allowing approximately 14 months beforehand to smooth implementation.

At the request of the G20, in November 2011 the Financial Stability Board (FSB) published a set of measures<sup>2</sup> to address specific risks posed by systemically important financial institutions (SIFIs) which, against the backdrop of the 2008 financial crisis, were considered “too big to fail” by the different authorities responsible for their supervision. In addition to this publication, the FSB issued an initial list of global systemically important banks (G-SIBs), using a methodological framework<sup>3</sup> developed by the Basel Committee on Banking Supervision (BCBS) which establishes supplementary capital requirements for institutions identified as systemic. The Banco de España, which is a member of the BCBS and the FSB, has participated actively in G-SIBs identification exercises.

In 2012 the BCBS also published a similar methodological framework under which the treatment applicable to G-SIBs is extended to other banking institutions whose systemic importance is restricted to the domestic domain. These institutions are referred to as domestic systemically important banks (D-SIBs)<sup>4</sup> and their identification is left to the discretion of each national jurisdiction.

In the European Union, Directive 2013/36/EU on capital requirements for credit institutions (CRD IV, transposed into Spanish law through Law 10/2014, Royal Decree 84/2015 and Banco de España Circular 2/2016) endorses the concepts of G-SIB as global systemically important institution (G-SII) and of D-SIB as other systemically important institution (O-SII) and entrusts the European Banking Authority with drafting the technical standards and guidelines in accordance with the frameworks developed by the Basel Committee<sup>5</sup> to identify these institutions.

Conceptually, systemically important institutions are those institutions whose failure or malfunction may trigger a shock causing serious damage to the financial system and the real economy, therefore meriting stricter prudential treatment than that of other institutions. For this reason, specific capital surcharges (buffers) are introduced for these institutions depending on whether they are considered systemically important globally (G-SII) and/or domestically or nationally (O-SII).

G-SIIs are identified by using a methodology of indicators based on the main features of institutions classed under five categories: a) size, b) interconnectedness with the financial system; c) substitutability of the services or the financial infrastructure provided; d) complexity; and e) cross-border activity. Twelve indicators are aggregated to obtain a final score (each of the aforementioned five categories has the same weight in the calculation of this score). The methodology produces a ranking of institutions. Those with a score of more than 130 bp are automatically identified as a G-SII while those with a score that is lower than, although relatively near to, the cut-off point, may be identified as a G-SII at the discretion of the relevant authority (which may resort to using supervisory expert judgment). Institutions scoring above this threshold are assigned, on the basis of their score, to one of the four sub-categories (“buckets”) established by the methodology, each of which has assigned a CET1 surcharge ranging between 1.0% and 2.5 % of their risk exposure.

The implementation of capital surcharges on G-SIIs commenced in 2016 and is phased in over a three-year period, so that 25% of the buffer assigned is covered in 2016, 50% in 2017, 75% in 2018 and the whole of it as from 1 January 2019. At present only one Spanish institution is identified as a G-SII (Santander) and is subject to a surcharge of 1.00% in 2019 (0.50% in 2017).

Likewise, the Banco de España is responsible for identifying O-SIIs using EBA guidelines on this matter.<sup>6</sup> The methodology for identification of O-SIIs is based on generic quantitative criteria, together with a certain degree of discretion for adjustment to the specificities of the local banking system. Every O-SII identified is required to maintain a capital buffer, of up to 2% at most of its risk exposure, to be determined by the Banco de España.

EBA guidelines on the identification of O-SIIs propose a scoring system for the degree of systemic importance of institutions by means of the aggregation of a set of ten indicators that reflect the size, importance, complexity and the degree of interconnectedness of the institutions. Institutions with a score of over 350 bp should be automatically identified as O-SIIs.

O-SIIs have been identified annually since 2015 (for 2016) and the associated capital surcharge schedule (similar to that used for G-SIIs) is phased-in between 2016 and 2019, pursuant to Spanish regulations. Designation as O-SIIs for each year must be announced no later than 1 December of the preceding year.

For 2017, the Banco de España has revised the calibration of buffers for O-SIIs in order to adapt to the new methodology stipulated by the ECB<sup>7</sup> with which it seeks to harmonise the minimum capital buffers applicable to O-SIIs within the scope of the Single Supervisory Mechanism. Specifically, the Banco de España has established four levels of constant capital buffers at

1 The November 2014 FSR (Box 2.4) includes an initial description of the process of identifying global systemically important institutions and of the applicable capital surcharges.

2 FSB, *Policy Measures to Address Systemically Important Financial Institutions*, 4 November 2011.

3 BCBS, *Global systemically important banks: assessment methodology and the higher loss absorbency requirement*, November 2011, (subsequently updated in July 2013).

4 BCBS, *A framework for dealing with domestic systemically important banks*, October 2012.

5 For G-SIIs: Delegated Regulation (EU) 1222/2014, supplementing Directive 2013/36/EU with regard to regulatory technical standards for the specification of the methodology for the identification of G-SIIs and for the definition of subcategories of G-SIIs. Implementing Regulation (EU) 1030/2014, laying down implementing technical standards with regard to the uniform formats and date for the disclosure of the values used to identify G-SIIs according to Regulation (EU) 575/2013. EBA Guidelines on the specification of indicators used to identify G-SIIs and their disclosure (EBA/GL/2014/02, subsequently revised through guidelines EBA/GL/2016/01).

6 EBA guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU in relation to the assessment of O-SIIs (EBA/GL/2014/10).

7 See the Annex *Governing Council Statement on Macroprudential Policies*, ECB press release of 15 December 2016.

**Table A**  
**QUANTIFICATION OF CAPITAL BUFFERS FOR OTHER SYSTEMICALLY IMPORTANT INSTITUTIONS (O-SIIs)**

Bucket	Score (bp)	Capital requirement (%)
4	3,650-5,850	1.00
3	2,000-3,650	0.75
2	900-2,000	0.50
1	350-900	0.25

SOURCE: Banco de España.

pre-established scoring intervals (tranches). Starting with a capital buffer of 0.25% in the first bucket, each successive bucket has a capital requirement which is 0.25 pp higher than the one immediately before, the maximum capital requirement being 1%, as detailed in Table A.

Although there have been no noteworthy changes, with respect to the previous exercise, in the level of systemic importance of the six institutions designated as O-SIIs for 2017, the new calibration has given rise to a gradual increase of 0.25 pp in the buffer

requirements for three institutions: BBVA (from 0.50% to 0.75%), Sabadell and Popular (from 0% to 0.25% in both cases), while there have been no changes for the other institutions (Santander, Caixabank and Bankia).

In the particular case of Santander (classified as both a G-SII and an O-SII), in accordance with the applicable regulations, only the higher of the two capital buffers is applicable. Since the two buffers are of the same level in this case, the surcharge requirement for this institution in 2017 is 0.50% (1.00% in 2019).

## 4 ANNEX

CONSOLIDATED BALANCE SHEET  
DEPOSIT INSTITUTIONS

ANNEX 1

Assets	Dec-16	Change	Relative weight	Relative weight
	€m	Dec-16/Dec-15	Dec-15	Dec-16
		%	%	%
Cash and balances with central banks	180,914	18.3	4.2	5.0
Loans and advances to credit institutions	178,321	-11.5	5.5	4.9
General government	120,848	5.5	3.1	3.4
Other private sectors	2,056,418	-1.1	56.7	57.1
Debt securities	538,912	-6.5	15.7	15.0
Other equity instruments	43,679	-10.0	1.3	1.2
Investments	36,093	-5.8	1.0	1.0
Derivatives	173,464	-1.3	4.8	4.8
Tangible assets	53,043	1.1	1.4	1.5
Other	221,075	-1.6	6.1	6.1
<b>TOTAL ASSETS</b>	<b>3,602,767</b>	<b>-1.7</b>	<b>100.0</b>	<b>100.0</b>
Memorandum items				
Financing to private sector	2,153,670	-1.8	59.8	59.8
Financing to general government	518,402	-0.2	14.2	14.4
Total NPLs	146,753	-10.3	4.5	4.1
Total NPL ratio	4.8	-49 (b)		
Liabilities and equity	Dec-16	Change	Relative weight	Relative weight
	€m	Dec-16/Dec-15	Dec-15	Dec-16
		%	%	%
Balances from central banks	193,692	-5.1	5.6	5.4
Deposits from credit institutions	309,632	-12.0	9.6	8.6
General government	85,877	-19.0	2.9	2.4
Other private sectors	1,967,393	0.8	53.2	54.6
Marketable debt securities	431,380	-4.1	12.3	12.0
Derivatives	167,368	-2.5	4.7	4.6
Provisions for pensions, tax and other	36,380	0.5	1.0	1.0
Other	137,324	8.0	3.5	3.8
<b>TOTAL LIABILITIES</b>	<b>3,329,046</b>	<b>-2.0</b>	<b>92.7</b>	<b>92.4</b>
Memorandum items				
Eurosystem net lending (a)	139,863	5.0	3.6	3.9
Own funds	254,197	2.9	6.7	7.1
Minority interests	37,384	8.2	0.9	1.0
Valuation adjustments relating to total equity	-17,860	27.4	-0.4	-0.5
<b>TOTAL EQUITY</b>	<b>273,721</b>	<b>2.3</b>	<b>7.3</b>	<b>7.6</b>
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>3,602,767</b>	<b>-1.7</b>	<b>100.0</b>	<b>100.0</b>

SOURCE: Banco de España.

- a Difference between funds received in liquidity-providing operations and funds delivered in absorbing operations.  
b Difference calculated in basis points.

**CONSOLIDATED INCOME STATEMENT  
DEPOSIT INSTITUTIONS**

ANNEX 2

	Dec-16		Dec-15	Dec-16
	€m	% Change Dec-16/Dec-15	% ATA	% ATA
Financial revenue	112,625	-5.0	3.27	3.12
Financial costs	44,073	-6.5	1.30	1.22
Net interest income	68,552	-4.1	1.97	1.90
Return from capital instruments	1,684	9.2	0.04	0.05
Net financial income	70,236	-3.8	2.01	1.95
Share of profit or loss of entities using the equity method	4,071	136.9	0.05	0.11
Net commissions	24,353	-0.6	0.68	0.68
Gains and losses on financial assets and liabilities	7,630	-29.5	0.30	0.21
Other operating income (net)	-2,012	-8.2	-0.06	-0.06
Gross income	104,277	-3.3	2.97	2.89
Operating expenses	53,661	-1.1	1.50	1.49
Net operating income	50,617	-5.6	1.48	1.40
Asset impairment losses (specific and general provisions)	20,036	-16.3	0.66	0.56
Provisioning expense (net)	6,580	7.4	0.17	0.18
Income from disposals (net)	-5,041	303.0	-0.03	-0.14
Profit before tax (including discontinued operations)	18,967	-15.0	0.62	0.53
Net income	14,124	-17.9	0.47	0.39
Memorandum item				
Income attributable to the controlling entity	10,875	-21.2	0.38	0.30

SOURCE: Banco de España.

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LUIS A. HERNANDO ARENAS: Tesorería en moneda extranjera.

## EUROPEAN CENTRAL BANK MISCELLANEOUS PUBLICATIONS

Spanish editions of:

- Annual Report
- Monthly Bulletin
- Other publications

- 1 The publications in this section distributed by the Banco de España [all of them, except those marked (\*) and (\*\*), which are distributed by Alianza Editorial and Macmillan (London)] have been removed from the catalogue.
- 2 Moreover, it is updated daily in the Statistics section.
- 3 A quarterly update of the tables of this publication is also disseminated on the Internet.
- 4 Available only on the Banco de España website until it is included in the publication *Circulares del Banco de España. Recopilación*.

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